REMEDIAL INVESTIGATION AND FEASIBILITY STUDY

Mount Baker Properties Site

S. McClellan Street and Martin Luther King Jr. Way S.
Seattle, Washington

PPCD No. 16-2-29584-3 SEA
Facility Site ID #96127971, Cleanup Site ID #13054

Prepared for: Mt. Baker Housing Association

Project No. 160324 • December 31, 2019 • Final

Aspect CONSULTING

earth + water

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Aspect Consulting, LLC

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Adam Griffin, PE
Associate Engineer
agriffin@aspectconsulting.com

Dave Cook, LG, CPG
Principal Geologist
dcook@aspectconsulting.com

Jessica Smith, LG
Associate Geologist
jsmith@aspectconsulting.com

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Acronyms

Amsl	above mean sea level
Aspect	Aspect Consulting, LLC
ARARs	applicable or relevant and appropriate requirements
AS	air sparging
ASTM	ASTM International
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CAP	Cleanup Action Plan
CFR	Code of Federal Regulations
COC	contaminant of concern
COPC	contaminant of potential concern
CSM	conceptual site model
CSSA	Chlorinated Solvent Source Area
DAHP	Department of Archeology and Historic Preservation
DCA	disproportionate cost analysis
DCE	cis-1,2-dichloroethene
DNR	Washington State Department of Natural Resources
DPE	dual-phase extraction
EAB	enhanced anaerobic bioremediation
Ecology	Washington State Department of Ecology
EDC	1,2-dichloroethane
ERH	electrical resistance heating
ERM	Environmental Resources Management
ESA	Environmental Site Assessment
F&B	Friedman and Bruya, Inc.
FS	Feasibility Study
ft/day	feet per day

G-Logics	G-Logics, Inc.
GHD	GHD Services, Inc.
IC	institutional controls
ISCO	*in situ* chemical oxidation
ISCR	*in situ* chemical reduction
ISS	*in situ* soil solidification
JEM	Johnson and Ettinger Model
KEE	KEE, LLC
MBHA	Mt. Baker Housing Association
mg/kg	milligrams/kilograms
ug/L	micrograms per liter
ug/m^3	micrograms per cubic meter
MLK	Martin Luther King
MNA	monitored natural attenuation
MTCA	Model Toxics Control Act
NAVD88	North American Vertical Datum of 1988
NPDES	National Pollutant Discharge Elimination System
O&M	operation and maintenance
PAH	polycyclic aromatic hydrocarbon
PBS	PBS Engineering + Environmental
PCB	polychlorinated biphenyls
PCE	Tetrachloroethene
PCUL	preliminary cleanup level
PHSA	Petroleum Hydrocarbon Source Area
PPCD	Prospective Purchaser Consent Decree
PRB	permeable reactive barrier
RAO	remedial action objective
RCRA	Resource Conservation Recovery Act
RCW	Revised Code of Washington
RI	Remedial Investigation

ROW	rights-of-way
ROZ	Redevelopment Opportunity Zone
SVE	soil vapor extraction
SWPPP	stormwater pollution prevention plan
TCE	trichloroethylene
TCLP	Toxicity Characteristic Leaching Procedure
TEE	Terrestrial Ecological Evaluation
UST	underground storage tank
VC	vinyl chloride
VI	vapor intrusion
VOC	volatile organic compound
VR	vapor recovery
WAC	Washington Administrative Code

Executive Summary

This Remedial Investigation (RI) and Feasibility Study (FS) has been prepared on behalf of the Mt. Baker Housing Association (MBHA) for the Mount Baker Properties Site located along S. McClellan Street and Martin Luther King (MLK) Jr. Way S. in Seattle, Washington. This RI/FS was prepared to comply with requirements in a Prospective Purchaser Consent Decree (PPCD) between the Washington State Department of Ecology (Ecology) and MBHA (PPCD No. 16-2-29584-3 SEA). The Mount Baker Properties Site consists of five parcels (000360-0030, 000360-0032, 00360-008, 000360-0031, and 000360-0055), which are referred to collectively as the Subject Property. The Site, defined here so as to distinguish from the redevelopment area of the Subject Property, is defined as locations where contaminated soil or groundwater has come to be located as a result of release(s) from the former dry cleaner and gas station. The purpose of this RI/FS report is to summarize the results of the RI activities completed at the Site in accordance with Washington Administrative Code (WAC) 173-340-350 and evaluate the feasibility of remedial alternatives to support the selection of a cleanup action under WAC 173-340-360.

Aspect Consulting, LLC (Aspect) completed soil explorations, monitoring well installations, and soil, groundwater, and soil gas sampling at the Site as part of this RI and pursuant to an Ecology-approved RI Workplan. Soil, groundwater, and soil gas contamination has been identified from the following sources of contamination:

- **Former dry cleaner (Mt. Baker Cleaners)** located at 2864 S. McClellan Street (parcel 000360-0031). A dry cleaner operated on this parcel from approximately 1940 to late 2018. Tetrachloroethene (PCE) was used at the dry cleaner from its establishment until February of 2017. Chlorinated solvent-contaminated soil, groundwater, and soil vapor have been confirmed at the source parcel (tax ID ending in -0031) and beyond the parcel boundary. A heating-oil underground storage tank (UST) was also present on this parcel, but diesel-range petroleum hydrocarbons were not detected in soil or groundwater in the vicinity of the UST.
- **Former gas station (Phillips 66 and Chevron) and auto repair facility** located at 2800 MLK Jr. Way S. (parcel 000360-0055). From the mid-1950s until the mid-1990s, parcel -0055 was operated as a gasoline service station. Following closure of the gasoline service station, the parcel was utilized as an automobile detail and service facility from the mid-1990s until its vacancy in 2014, with the exception of an additional period of vacancy between 2004 and 2010. PCE-, gasoline-, diesel-, xylene-, lead-, and, arsenic-contaminated soil and/or groundwater have been confirmed at the parcel and beyond the parcel boundary.

The extent of the Site has been defined as a result of the RI outlined in this report. The Site extends from the former dry cleaner to property south and west of MLK Jr. Way S. The Site is defined by solvent-contaminated soil and groundwater emanating from the

former dry cleaner, as well as remaining gasoline, diesel, and/or oil-range petroleum hydrocarbons originating from the former gas service station. The petroleum plume is encompassed by the solvent-contaminated groundwater plume. Therefore, the petroleum and solvent plumes in groundwater comingle beneath and to the west-southwest of the former gas station parcel.

Cleanup is warranted to remediate the contaminated soil, groundwater, and soil vapor at the Site. Required by the Model Toxics Control Act (MTCA), a FS was completed to evaluate potential remedial alternatives for the Site based on proven remedial technologies. The FS outlines five cleanup alternatives:

1. No Action
2. Chlorinated Solvent Excavation to Elevation 60, Petroleum Hydrocarbon Source Removal, and Monitored Natural Attenuation (MNA)
3. Chlorinated Solvent Excavation to Elevation 60, *In Situ* Soil Solidification, Petroleum Hydrocarbon Source Removal, Contingency *In Situ Chemical Reduction* (ISCR), and MNA
4. *In Situ* Electrical Resistance and Thermal Conductance Heating, Contingency ISCR, and MNA
5. Chlorinated Solvent Excavation to Elevation 44, Petroleum Hydrocarbon Source Removal, Contingency ISCR, and MNA

The FS includes a disproportionate cost analysis to evaluate the ratio of cost to environmental benefit of each of the assembled remedial alternatives. Based on the results of the FS and disproportionate cost analysis, Alternative 3 is the selected remedial alternative and includes the following elements:

- Excavation and permitted disposal of chlorinated solvent-contaminated soil on the Mt. Baker Cleaners parcel to an elevation of 60 feet above mean sea level (amsl)
- Performing *in situ* soil solidification through the use of grouted columns in the remaining portions of the McClellan parcels where chlorinated solvent concentrations in soil exceed the proposed cleanup levels
- Excavation and permitted disposal of all petroleum hydrocarbon contaminated soil on the Former Phillips 66 parcel
- Continued groundwater sampling to monitor natural attenuation of the groundwater plume post source removal
- Contingency ISCR implementation in S. McClellan Street if the groundwater plume requires additional remediation post source removal

This executive summary should be used only in the context of the full report.

1 Introduction

Aspect Consulting, LLC (Aspect) has prepared this Remedial Investigation and Feasibility Study (RI/FS; the Report) on behalf of the Mt. Baker Housing Association (MBHA) for the Mount Baker Properties Site located along S. McClellan Street and Martin Luther King (MLK) Jr. Way S. in Seattle, Washington.

The RI/FS was prepared to comply with requirements in a Prospective Purchaser Consent Decree (PPCD) between the Washington State Department of Ecology (Ecology) and MBHA (PPCD No. 16-2-29584-3 SEA). MBHA is a non-profit affordable housing developer, owner, and operator focused on creating and maintaining affordable housing communities in south Seattle (www.mtbakerhousing.org). The PPCD requires that MBHA conduct an RI/FS to evaluate the nature and extent of the contamination at the Site, and complete a cleanup action meeting the requirements of Washington Administrative Code (WAC) 173-340-360 that serves as a final Site remedy. The PPCD states that the cleanup action shall be "designed to protect human health and the environment from the known release, or threatened release, of hazardous substances or contaminants at, on, or from the Site."

MBHA owns five parcels located within the Mount Baker Properties Site that MBHA will redevelop for affordable housing, creating approximately 150 new transit-oriented affordable housing units near the Mt. Baker Light Rail Station. There will be two developments: Maddux North located on the four parcels north of S. McClellan Street, and Maddux South located on one parcel south of S. McClellan Street. The five MBHA-owned parcels (000360-0030, 000360-0032, 00360-008, 000360-0031, and 000360-0055) will be referred to collectively as the Subject Property, in order to distinguish the redevelopment property from the Site, which is defined as locations where contaminated soil or groundwater has come to be located as a result of release(s) from the former dry cleaner and gas station.

The Site is shown relative to surrounding physical features on Figure 1, Site Location. The Site and Subject Property are shown on Figure 2, Site Plan.

Sources of soil, groundwater, and soil vapor contamination include:

- **Former dry cleaner (Mt. Baker Cleaners) and heating-oil underground storage tank (UST),** located at 2864 S. McClellan Street (parcel 000360-0031). A dry cleaner operated on this parcel from approximately 1940 to late 2018 under various owners.
- **Former gas station (Phillips 66 and Chevron), and auto repair facility,** located at 2800 MLK Jr. Way S. (parcel 000360-0055). From the mid-1950s until the mid-1990s, parcel -0055 was operated as a gasoline service station. Following closure of the gasoline service station, the parcel was utilized as an automobile detail and service facility from the mid-1990s until its vacancy in

2014, with the exception of an additional period of vacancy between 2004 and 2010.

The former dry cleaner parcel and the former gas station parcel are referred to collectively as the Source Parcels.

On behalf of MBHA, Aspect has prepared this RI/FS in accordance with the Model Toxics Control Act (MTCA), associated implementing regulations (WAC 173-340), and the PPCD between Ecology and MBHA. The objective of this Report is to summarize the results of the RI activities conducted at the Site, establish cleanup standards for the Site, and to evaluate cleanup alternatives so that a cleanup action can be selected for the Site.

1.1 Site Use – Current and Future

The Subject Property is five tax parcels totaling approximately 0.66 acres located in a mixed-use commercial and residential area of the Mount Baker neighborhood of Seattle, Washington. The Subject Property is slated for cleanup and redevelopment as affordable housing. There will be two developments: Maddux North located on four parcels north of S. McClellan Street and Maddux South located on one parcel south of S McClellan Street. Current use and parcel characteristics are described in Table A below.

Table A. Subject Property Characteristics and Current Use

Parcel Number (reference ID)	Associated Address(es)	Size (acres)	Current Use and Development
000360-0030	2802 S. McClellan Street	0.08	One multitenant mixed-use retail and residential building with paved patio and landscaped areas. The retail spaces are currently vacant.
000360-0032	2806 S. McClellan Street	0.11	One single-family residence with gravel-paved and landscaped areas.
000360-0008	2810 S. McClellan Street	0.11	One multitenant four-plex residential building with paved and landscaped areas.
000360-0031	2862 and 2864 S. McClellan Street	0.11	Former location of Mt. Baker Cleaners; one two-tenant building has been demolished to the foundation.
000360-0055	2800 MLK Jr. Way S.	0.25	Vacant one-level building with concrete, gravel and vegetated surrounding area, currently used as construction parking for an adjacent property.

The Site encompasses private properties and rights-of-way (ROW) around MLK Jr. Way S. and S. McClellan Street.

On December 8, 2016, a PPCD for the Site was fully executed by MBHA and Ecology. Following execution of the PPCD, the parcels were purchased by MBHA in December 2016. On February 10, 2017, the parcels comprising the Subject Property were designated by the City of Seattle as a Redevelopment Opportunity Zone (ROZ). The

Subject Property will be redeveloped as multilevel apartment buildings with up to one level of underground parking at Maddux North.

1.2 Report Organization

This RI/FS Report is organized as follows, with "RI" and "FS" added to the main-level section headers throughout to aid the reader in distinguishing the focus of each section:

- Section 1 describes the Site and the objective and organization of the RI/FS.
- Section 2 (RI) describes general information, history, current and future property uses, and potential sources of contamination.
- Section 3 (RI) summarizes the results of the Site investigation activities completed between 1989 and 2018.
- Section 4 (RI) summarizes the data gaps identified during review of the historical Site investigation activities in Section 3.
- Section 5 (RI) summarizes the field activities conducted to close the identified data gaps.
- Sections 6 (RI) summarizes the results of the remedial investigation activities performed from 2017 to 2019.
- Section 7 (RI) presents the Conceptual Site Model (CSM), including potential exposure pathways and receptors.
- Section 8 (RI) presents the applicable or relevant and appropriate requirements, media and contaminants of concern, cleanup standards, a terrestrial ecological evaluation, areas for remedial action evaluation, and the remedial action objectives.
- Section 9 (FS) identifies and screens potential remedial technologies.
- Section 10 (FS) uses retained remedial technologies identified in Section 9 to assemble remedial alternatives.
- Section 11 (FS) evaluates the remedial alternatives against the requirements of MTCA, including performing a disproportionate cost analysis.
- Section 12 summarizes and presents the conclusions of the RI/FS.
- Section 13 includes a list of references.

2 RI - Site Description

This section details general Subject Property and Site information, Site setting, and Subject Property history.

2.1 General Subject Property and Site Information

The Subject Property and the Site are shown relative to surrounding physical features on Figure 2. Relevant information and contact information are summarized in Table B below.

Table B. Site Summary

Site Specifics	
Site Extent	The Source Parcels (former locations of the Mt. Baker Cleaners and Phillips 66 gasoline service station), affected adjacent properties, and affected ROW
Property Addresses	2802-2864 S. McClellan Street, Seattle, WA 98144 and 2800 MLK Jr. Way S., Seattle, WA 98144
Name	Mount Baker Properties Site (also referred to as Mt. Baker Housing Association's Maddux North and South Project)
Ecology Site IDs	PPCD No. 16-2-29584-3 SEA Facility Site ID #96127971 Cleanup Site ID #13054
Parcel Numbers	000360-0030, 000360-0032, 000360-0008, 000360-0031 and 000360-0055
Topography Description	The Site slopes to the southwest, from an elevation of approximately 90 feet (NAVD88) at the northeast corner of the former Mt. Baker Cleaners parcel to approximately 70 feet in the southwest corner of the former Phillips 66 gas station parcel.
Sources and Presence of Soil and/or Groundwater Contamination (discussed further in Section 3)	1. **Former dry cleaner (Mt. Baker Cleaners) and heating oil UST**. A dry cleaner operated on this parcel since approximately 1940 to late 2018. Tetrachloroethene (PCE) was used at the dry cleaner from its establishment until February 2017. Chlorinated solvent-contaminated soil and groundwater have been confirmed at parcel -0031 and beyond the parcel boundary. A heating-oil UST located in the northeast corner of the parcel was closed in-place in 1991; however, diesel-range petroleum hydrocarbons were not detected in soil or groundwater in the vicinity of the UST. 2. **Former Phillips 66 and Chevron gas station, auto repair, and heating-oil UST.** From the mid-1950s until the mid-1990s, parcel -0055 operated as a gasoline service station. Following the gasoline

Site Specifics	
	service station's closure, the parcel was utilized as an automobile detail and service facility from the mid-1990s until 2014, with the exception of an additional period of vacancy between 2004 and 2010. PCE-, gasoline-, diesel-, xylene-, lead-, and, arsenic-contaminated soil and/or groundwater have been confirmed at the parcel and beyond the western and southern parcel boundaries.
Contact Information	
Property Owner	Mt. Baker Housing Association Contact: Conor J. Hansen 2916 S. McClellan Street Seattle, WA 98144 206.257.2939
Environmental Consultant	Aspect Consulting, LLC Dave Cook, LG, CPG 710 Second Avenue, Suite 550 Seattle, Washington 98104 206.838.5837
Ecology Site Manager	Sandra Matthews, LG, LHG 3190 160th Avenue SE Bellevue, Washington 98008-5452 425.649.7134

Note: NAVD88 – North American Vertical Datum of 1988

2.2 Site Setting

2.2.1 Topography and Surrounding Features

The Site slopes moderately toward the southwest, from an elevation of approximately 90 feet above mean sea level (amsl [NAVD88][1]) at the northeast corner of the Mt. Baker Cleaners parcel to approximately 70 feet in the southwest corner of the former Phillips 66 gas station parcel. The nearest body of water to the Site is Lake Washington, located approximately 0.57 miles to the east. There are no reported resource protection or public drinking water wells within a 1-mile radius of the Site (Aspect, 2016a; Aspect, 2016b).

A drainage is depicted on historical topographic maps dated 1894 through 1909 in a location similar to the existing MLK Jr. Way S. ROW, oriented in a roughly northeast to south-southwest direction relative to the Subject Property. The historical drainage is supported by the observed groundwater flow direction shown on Figure 3.

2.2.2 Geology and Hydrogeology

According to the Washington Interactive Geologic Map, provided by the Washington State Department of Natural Resources (DNR), the Site is underlain by Quaternary recessional glacial till and outwash deposits of the Pleistocene's Fraser-age glaciation

[1] North American Vertical Datum of 1988

(about 30,000 to 10,000 years ago; DNR, 2016). Based on completed explorations, the Site generally consists of silty and gravelly sand fill soil overlying loose to medium dense sand and silt, interpreted to be glacial recessional deposits.

Fill soil at the Site ranges in thickness from approximately 2 to 15 feet. In most areas across the Site, glacial recessional deposits (loose to medium dense sand and silt with some organic material) underlies the fill soil. Low permeability soil (silt and clay), interpreted as Pre-Fraser deposits, has been encountered in borings completed across the Site between approximately 12 and 18 feet below ground surface (bgs; see Appendix A for Site boring logs).

Groundwater is encountered in monitoring wells across the Site between approximately 6 and 15 feet bgs. Due to the large topographic changes across the Site, these depths to groundwater generally correspond to groundwater elevations between 77 feet amsl in the northeast portion of the Site to 44 feet amsl at the southwest portion of the Site. The distance between the groundwater elevation at the highest point (HC-MW-4) and the lowest point (AMW-18) is approximately 620 feet, representing a Site-wide hydraulic gradient of approximately 0.053. Based on these groundwater measurements, the groundwater flow direction at the Site is generally to the south-southwest, as shown on Figure 3, Groundwater Elevations and Flow Direction – August 2018.

2.3 Subject Property History

Historical uses of the Subject Property slated to undergo redevelopment, including potential sources of contamination, are described below. Parcel numbers and addresses are shown on Figure 2. The four northern parcels are referred to as "the McClellan parcels," and the southern parcel is referred to as "the Former Phillips 66 parcel." Historical and existing features for the McClellan Parcels and the Former Phillips 66 parcel are shown on Figures 4 and 5, respectively.

2.3.1 McClellan Parcels

The earliest identified use of the McClellan parcels was as a portion of greater "vegetable gardens" in 1916 (Aspect, 2016b). The three existing buildings and the former Mt. Baker Cleaners building, each on their own separate parcels, are the first identified development on the McClellan Parcels, beginning with the existing Mt. Baker Cleaners building in 1927., Each building is described on a parcel-by-parcel basis, below.

- ***2864 S. McClellan Street, Mount Baker Cleaners (Parcel -0031).*** The retail building at 2864 S. McClellan Street was constructed in 1927 and demolished to the foundation in November 2018. It was originally occupied by a grocery store, as indicated in city directories. A dry cleaner began utilizing the building as early as 1940, according to tax assessor records and city directories. Beginning in at least 1951, the dry-cleaning business operated under the name Mt. Baker Cleaners and has had several owners since that time. Tax assessor records indicate the building was originally heated by a heating-oil system with the associated UST, located in the northeast corner of the building, which was closed in place in 2011; the most recent heating system was natural gas.

Tetrachloroethene (PCE) was utilized in the dry-cleaning equipment from as early as 1940 until February 2017, when the dry cleaner converted to using supercritical carbon dioxide as the solvent for dry-cleaning equipment as a condition of its lease with MBHA. We understand that during the 1940s through 1990s, dry cleaning and spot cleaning occurred in the northern portion and northeast quadrant of the building. The northern portion of the building had a concrete slab with no drains, with the exception of a floor drain located in the bathroom. In the early 1990s, the concrete slab was extended to the south and a "closed system" dry-cleaning machine (utilizing PCE) was installed on the new, approximately 2-foot-thick slab. The area in the central and south portions of the building had concrete floors with wood partitions at 2- to 3-foot intervals.

- ***2810 S. McClellan Street, Four-plex (Parcel -0008).*** The existing residential four-plex located on Parcel -0008 was constructed in 1959. Tax assessor records indicate that the complex has been heated by an electric system since its construction. The building is currently vacant.
- ***2806 S. McClellan Street, Residence (Parcel -0032).*** The existing residential dwelling located on Parcel -0032 was constructed in 1950. Tax assessor records indicate the dwelling was originally heated by a heating-oil system, potentially sourced from a heating-oil UST; the existing heat system is natural gas. The specific location of a potential or former heating-oil UST on this parcel is unknown. The building is currently vacant.
- ***2802 S. McClellan Street, Multitenant Property (Parcel -0030).*** The existing multitenant retail and residential building on Parcel -0030 was constructed in 1928 and originally occupied by a shoe repair store and barber shop, according to tax assessor records and city directories. The barber shop was replaced by a restaurant in the 1950s. The shoe repair store continued operation until the 1970s, when the space was converted to a grocery and novelty store, which operated (under various brands) until at least 2013. Tax assessor records indicate that the building was originally heated by "stove," and is currently heated by natural gas. The building is currently vacant.

2.3.2 Former Phillips 66 Parcel

The first identified development of the Former Phillips 66 parcel, located at 2800 MLK Jr. Way S., was in 1916 as part of larger "vegetable gardens" (Aspect, 2016a). The gardens appear to have been cleared and the first building constructed on the parcel by 1951, which consisted of a small, unheated real estate office building.

In 1955, the real estate office was replaced by the existing automobile service and gasoline station facility. City directory and tax assessor records indicate the following petroleum companies occupied the existing building on the Subject Property: Tidewater Oil (also listed as Associates Gas Station) from 1954 to 1966; Phillips Petroleum (listed as Phillips Gas Station) from 1966 through 1974; and Rainier Bonanza Self-Serve) in the 1970s to 1990s. We understand Tidewater Oil and Phillips Petroleum were associated with (or predecessors of) ConocoPhillips Petroleum. The following automobile detailing and repair facilities subsequently occupied the Subject Property from the 1990s until its

vacancy in 2014, with the exception of an additional period of vacancy between 2004 and 2010: R&R Auto Repair, CK Auto Repair and Service, and Vu Auto Care Detail.

Tax assessor records indicate that in 1955, the building was heated by an oil-burning furnace sourced from a heating-oil UST in the southeast portion of the parcel. The service station equipment included two fuel islands with a total of four fuel pumps, one 4,000-gallon gasoline UST, one 5,000-gallon gasoline UST, one 280-gallon used-oil UST, a 270-gallon heating-oil UST, an oil-water separator, and two hydraulic hoists.

The gasoline USTs and used-oil UST were removed from the property in 1989 (G-Logics, 2005a). The oil-water separator, hydraulic hoists, and piping associated with the fuel islands were removed in 2005; soil analytical testing around these components have identified the Former Phillips 66 service station as a contributing source of the petroleum hydrocarbons in soil and groundwater at the Site (G-Logics, 2005c).

3 RI - Investigations Completed Between 1989 and 2018

Multiple environmental investigations were completed at the Site, in adjacent ROWs, and on the adjacent property to the north of the former Mt. Baker Cleaners parcel between 2006 and 2017, prior to the initiation of the PPCD-driven RI in 2017. Also, investigations and some interim cleanup actions were completed on the Former Phillips 66 parcel in 1989 and 2018 (see Sections 3.4.1 and 3.4.5).

Previously collected data that has been incorporated into this RI are presented in tables and on figures of this RI and have been utilized to develop the lateral and vertical extent of the Site (defined as "wherever contamination has come to be located" in soil, groundwater, or soil gas.). A summarized consolidation of the previous environmental investigations by parcel, or area, is presented in the sections below and in Tables C (for the McClellan parcels) and D (for the Former Phillips 66 parcel). For detailed descriptions of each previous field investigation and accessible boring logs, see the "Remedial Investigation Work Plan" (2017 RI Work Plan; Aspect, 2017).

Additionally, soil chemical analytical results of soil samples obtained prior and up to 2017 are included in the attached Tables 1 through 3.

The following figures attached to this Report graphically present the data obtained prior to 2017 and the data acquired as the result of the 2017 RI Work Plan (summarized in Section 6):

- Figure 3, Groundwater Elevations and Flow Direction – August 2018, presents the groundwater flow direction based on Site-wide groundwater elevations measured in August 2018.
- Figure 4, McClellan Parcels Explorations and Historical Site Conditions, presents the exploration locations and historical features located on and around the McClellan parcels.
- Figure 5, Former Phillips 66 Parcel Explorations and Historical Site Conditions, presents the exploration locations and historical features located on and around the Former Phillips 66 parcel.
- Figure 6, Mt. Baker Properties Groundwater Monitoring Wells, presents the approximate locations of the groundwater monitoring wells installed at the Site.
- Figure 7, Soil Gas Collection Points, presents the locations where subslab soil gas samples have been obtained.
- Figure 8, Summary of Chlorinated Solvents in Soil – McClellan Parcels, presents a summary of soil chemical analytical results of chlorinated solvents on the McClellan parcels.

- Figure 9, Summary of Chlorinated Solvents in Soil – Phillips 66 Parcel, presents a summary of soil chemical analytical results of chlorinated solvents on the Former Phillips 66 parcel.
- Figure 10, Summary of Gasoline-Range Petroleum Hydrocarbons and BTEX in Soil, presents a summary of soil chemical analytical results of gasoline-range petroleum hydrocarbons, and benzene, toluene, ethylbenzene, and total xylenes (BTEX).
- Figure 11, Summary of Diesel-Range Petroleum Hydrocarbons in Soil, presents a summary of soil chemical analytical results of diesel-range petroleum hydrocarbons.
- Figure 12, Summary of Chlorinated Solvents in Groundwater, presents a summary of the groundwater chemical analytical results of chlorinated solvents during the August 2018 sampling event.
- Figure 13, Chlorinated Solvent Groundwater Plume, presents the areal extents of the groundwater plume based on the chemical analytical results from the August 2018 sampling event.
- Figure 14, Gasoline-Range Petroleum Hydrocarbons in Groundwater, August 2018, presents a summary of the groundwater chemical analytical results of gasoline-range petroleum hydrocarbons during the August 2018 sampling event.
- Figure 15, Diesel-Range Petroleum Hydrocarbons in Groundwater, August 2018, presents a summary of the groundwater chemical analytical results of diesel-range petroleum hydrocarbons during the August 2018 sampling event.
- Figure 16, Summary of Chlorinated Solvents in Soil Gas, presents a summary of the soil gas chemical analytical results for chlorinated solvents.
- Figures 17 through 23, cross-sections, present the generalized subsurface geology and a summary of chemical analytical results in cross-sectional view.

The laboratory analytical reports and exploration logs from the investigations completed between 1989 and 2017 can be found attached to the RI Work Plan (Aspect, 2017).

3.1 Phase I Environmental Site Assessments (ESAs)

Phase I ESAs were conducted in 2009 on parcels -0030 and -0032 (2802 and 2806 S. McClellan Street), and in 2015 and 2016 for all of the McClellan parcels (HORUS, 2009; GeoEngineers 2015b; Aspect, 2016b). Also, a due diligence evaluation was completed in 2015 (GeoEngineers, 2015a). Phase I ESAs were conducted on the Former Phillips 66 parcel (-0055) by multiple firms (G-Logics, 2005a), as well as on the surrounding properties (Kane, 2006).

Based on the results of the Phase I ESAs and historical evaluations, the following environmental conditions were identified on the five Mt. Baker Housing Association parcels:

- A dry cleaner (Mt. Baker Cleaners) operated at 2864 S. McClellan Street from the 1940s until late 2018. Chlorinated solvent-contaminated soil is present beneath the parcel and chlorinated solvent-contaminated groundwater is migrating off of the parcel toward the southwest.
- A former gasoline service station is present at 2800 MLK Jr. Way S. (the former Phillips parcel; -0055). Petroleum hydrocarbon-contaminated soil and groundwater has been identified on the parcel.
- Several drums (both upright and overturned) that "contain or might once have held" petroleum, fuels, and lubricants) were observed throughout the basement of the 2802 S. McClellan Street parcel.
- Petroleum staining was observed in unpaved soils at 2806 S. McClellan Street where cars had been parked.

Additional soil and groundwater testing was recommended by the Phase I ESAs to evaluate the extent of the chlorinated solvent- and petroleum hydrocarbon-contaminated soil and groundwater.

3.2 Subsurface Investigation on the McClellan Parcels, Adjacent ROWs, and Northern-Adjacent Property

Between 2006 and 2017, several environmental investigations, summarized in Table C below, were completed at the McClellan parcels (2802, 2806, 2801 and 2864 S. McClellan Street), in the adjacent ROWs (S. McClellan Street, 29th Avenue S., and MLK Jr. Way S.), and in the neighboring apartment complex to the north and west of the Mt. Baker Cleaners.

As part of Site characterization investigations between 2006 and 2017, 23 explorations were completed on the McClellan parcels or in the adjacent ROWs. Eight of the 23 explorations were completed as permanent groundwater monitoring wells in the adjacent ROWs, and 39 soil samples were submitted for laboratory analytical testing of contaminants of concern (COCs), including gasoline-, diesel-, and heavy oil-range petroleum hydrocarbons; gasoline additives; BTEX; metals; and volatile organic compounds (VOCs), including chlorinated solvents.

Results from these investigations indicated that chlorinated-solvent contamination sourced from the Mt. Baker Cleaners impacted soil and groundwater on the Mt. Baker Cleaners parcel and soil on the adjacent residential parcels, and that chlorinated solvent-contaminated groundwater migrated to the southwest off of the Mt. Baker Cleaners parcel.

Table C. Summary of 2006–2017 Subsurface Investigations

Year	Parcels Included in Investigation	Reference	Investigation Summary	Summary of Investigation Results
2006	Mount Baker Village Apartments (north-adjacent to former dry cleaner parcel)	Kane, 2006	Shallow soil and grab groundwater samples obtained.	PCE detected at the MTCA Method A cleanup level in soil, no chlorinated solvents detected in groundwater.
2009	2806 S. McClellan (single-family residence parcel)	PBS, 2009	Shallow soil and grab groundwater samples obtained.	Chlorinated solvents detected at concentrations greater than the MTCA Method A cleanup levels in soil and groundwater.
2010	2864 S. McClellan (former dry cleaner parcel)	KEE, 2010	Shallow soil and grab groundwater samples obtained.	Chlorinated solvents detected at concentrations greater than the MTCA Method A cleanup levels in soil and groundwater; heating-oil UST in NE corner of the property identified.
2014	2864 S. McClellan (former dry cleaner parcel)	AEG, 2014	UST decommissioned in place, soil samples collected. No groundwater testing completed.	Diesel-range petroleum hydrocarbons not detected in soil samples around UST; chlorinated solvents detected above MTCA Method A cleanup levels in soil.
2016	S. McClellan, MLK Jr. Way S., and 29th Ave. ROWs	Hart Crowser, 2016	Soil and groundwater samples obtained, seven permanent groundwater monitoring wells installed.	Chlorinated solvents and benzene detected in soil above MTCA Method A cleanup levels; chlorinated solvents detected in groundwater above MTCA Method A cleanup levels.
2016	Mount Baker Village Apartments (north-adjacent to former dry cleaner parcel)	ATC, 2016	Shallow soil and grab groundwater samples obtained; soil gas samples collected.	Chlorinated solvents detected in groundwater above the MTCA Method A cleanup levels in the extreme southeast corner only; no detections of chlorinated solvents in soil; no detections of chlorinated solvents in subslab air above MTCA Method B screening levels.
2017	2864 S. McClellan (former dry cleaner parcel)	Aspect, 2017	Soil and groundwater samples obtained, one permanent groundwater monitoring well installed.	Chlorinated solvents detected at concentrations greater than the MTCA Method A cleanup levels in soil and groundwater.

Note: Only environmental investigations that included subsurface sampling are included in Table C. Phase I ESAs are not included in the table.

3.2.1 Soil Sampling (2006–2017)

Soil sampling on the McClellan parcels, adjacent properties, and adjacent ROWs was completed to evaluate the lateral extent of chlorinated-solvent contamination from the Mt. Baker Cleaners, potential contamination from the heating-oil UST at the Mt. Baker Cleaners parcel, and potential contamination from a reported heating-oil UST at 2806 S. McClellan Street (single-family residence parcel). In explorations completed in 2006 by Kane Environmental (Kane) on the Mount Baker Village Apartments property boundary, just north of the Mt. Baker Cleaners parcel, PCE was detected in sample K-SB-3 obtained at approximately 7 feet bgs at a concentration of 0.05 milligrams per kilogram (mg/kg), which is equal to the MTCA Method A cleanup level, but was not detected in two other borings located along the property boundary. In 2016, six additional borings (ATC-B-1 through ATC-B-6) were completed on the Mount Baker Village Apartments property immediately north of the Mt. Baker Cleaners parcel; chlorinated solvents were also not detected in soil in these borings (Figure 8).

Two parcels to the west of the Mt. Baker Cleaners parcel (2806 S. McClellan Street), soil samples from three explorations completed in 2009 by PBS Engineering + Environmental (PBS) were analyzed for gasoline-, diesel-, or heavy oil-range petroleum hydrocarbons. These three borings were completed downgradient from a reported UST on this parcel, but petroleum hydrocarbons were not detected in soil.

In explorations completed in 2016 by Hart Crowser in the S. McClellan Street ROW, benzene was detected in soil at a concentration of 0.3 mg/kg in HC-MW-1 at 10 feet bgs, which is greater than the MTCA Method A cleanup level of 0.03 mg/kg (Hart Crowser, 2016). However, benzene was not detected in any other borings along the ROW or in soil at the upgradient property, and so it is not considered a COC in this area. PCE was detected in soil at concentrations of 1.2 and 2.7 mg/kg in HC-MW-5 at 10 and 12.5 feet bgs, respectively, which are greater than the MTCA Method A cleanup level of 0.05 mg/kg (Hart Crowser, 2016). This well is located directly downgradient of the Mt. Baker Cleaners, and these soil samples lie at or near the chlorinated solvent-contaminated water table.

Soil sampling within the footprint of the former Mt. Baker Cleaners building indicated that there is a source of chlorinated solvents to soil and groundwater originating at the former dry cleaner. In explorations completed in 2010 by KEE, LLC (KEE), PCE was detected in boring KEE-B2 at a depth of approximately 3 feet bgs at a concentration of 0.09 mg/kg, which exceeds the MTCA Method A cleanup level of 0.05 mg/kg (Figure 8; KEE, 2010). In explorations completed in 2017 by Aspect, PCE was detected in soil in borings located inside the Mt. Baker Cleaners building at concentrations as high as 15 mg/kg at depths ranging from 2 feet to 15 feet bgs. In addition, trichloroethene (TCE) was detected at concentrations greater than the MTCA Method A cleanup levels in borings AB-1 and AB-3 at depths of 11 and 9.5 feet bgs, respectively (Figure 8; Aspect, 2017).

The UST located in the northeast corner of the Mt. Baker Cleaners parcel was decommissioned in-place on December 20, 2011, by Associated Environmental Group (AEG, 2014). Two soil samples (SE-B-6 and SW-B-7) were obtained from the area beneath the UST at depths of approximately 6 and 7 feet bgs. Diesel-range petroleum

hydrocarbons were not detected in either sample, but PCE was detected in both samples at concentrations greater than the MTCA Method A cleanup level (1.43 and 0.322 mg/kg, respectively; see Figures 8 and 11).

3.2.2 Groundwater Sampling (2006–2017)

Groundwater samples were collected from temporary wells installed in borings on the McClellan parcels; from permanent groundwater monitoring wells installed in the MLK Jr. Way S., S. McClellan Street, and 29th Avenue S. ROWs; and inside the former Mt. Baker Cleaners building. In 2006, grab groundwater samples collected by PBS in the second adjacent property west of the Mt. Baker Cleaners parcel (at 2806 S. McClellan Street) detected PCE, TCE, cis-1,2-dichloroethene (DCE), and vinyl chloride (VC) in boring PBS-SB-1 (located on the eastern edge of the parcel, closest to the dry cleaner; see Figure 12) at concentrations significantly greater than the corresponding MTCA Method A cleanup levels (PBS, 2009). PCE and TCE were also detected at concentrations greater than MTCA Method A cleanup levels in the grab groundwater sample obtained from boring PBS-SB-3 (located on the eastern portion of the parcel, farther away from the dry cleaner; see Figure 3; PBS, 2009), indicating that the chlorinated solvent-contaminated groundwater plume extends at least across the three easternmost McClellan parcels.

North of the Mt. Baker Cleaners, PCE was detected in grab groundwater samples at concentrations greater than the MTCA Method A cleanup level in borings ATC-B-1 and ATC-B-2, on the center property boundary closest to the dry cleaner. TCE was detected at a concentration less than the MTCA Method A cleanup level in ATC-B-1. Chlorinated solvents were not detected in borings along the property boundary to the east and west (in ATC-B-3, K-SB-3, and ATC-B-5) or across 29th Avenue S. to the east (ATC-B-6 and K-SB-1).

Within the footprint of the former Mt. Baker Cleaners building, PCE and TCE were detected in temporary grab groundwater samples KEE-B3 and KEE-B2 in 2010 at concentrations significantly greater than the MTCA Method A cleanup level of 5 micrograms per liter (ug/L). PCE was detected at concentrations of 2,100 ug/L and 3,700 ug/L, respectively, and TCE concentrations of 57 ug/L and 22 ug/L, respectively (KEE, 2010). In a permanent well installed near KEE-B2 by Aspect in 2017 (AMW-1), concentrations of PCE in groundwater were detected at 1,100 and 1,500 ug/L during the two sampling events (Figure 12).

Chlorinated solvents were detected in groundwater at concentrations exceeding the respective MTCA Method A cleanup levels in five of the seven wells installed in the S. McClellan Street, MLK Jr. Way S., and 29th Avenue S. ROWs, all located downgradient of the Mt. Baker Cleaners. Arsenic above the MTCA Method A cleanup level was detected in four of the seven ROW wells (Hart Crowser, 2016), but was not detected in soil above the MTCA Method A cleanup level. The detections in groundwater do not follow a discernable pattern; lacking a clear source of arsenic, this analyte was not carried forward as a COC in the 2017 RI Work Plan.

3.2.3 Soil Gas Sampling (2016)

In 2016, five subslab soil vapor samples were obtained from beneath the Mount Baker Village Apartments building immediately north of the Mt. Baker Cleaners. There were no detections of chlorinated solvents in soil gas above the applicable MTCA Method B

subslab screening levels. Based on the highest chemical analytical results and follow-up Johnson-Ettinger Model (JEM) calculations, the presence of chlorinated solvents in groundwater beneath the Mt. Baker Cleaners parcel does not represent a threat to indoor air quality at the Mount Baker Village Apartments (ATC, 2016).

3.3 Subsurface Investigation on the Former Phillips 66 Parcel

As summarized in Table D below, environmental investigations were completed at the Former Phillips 66 parcel beginning in 1989, when the USTs were removed, until 2018. As part of Site characterization investigations, 61 explorations were completed on the Former Phillips 66 parcel and in the adjacent ROW. A total of 13 of the 61 explorations were completed as permanent groundwater monitoring wells and soil samples were submitted for laboratory analytical testing of COCs, including gasoline-, diesel-, and heavy oil-range petroleum hydrocarbons; gasoline additives; BTEX; metals; and VOCs, including chlorinated solvents.

Results from these investigations indicated that chlorinated-solvent contamination sourced from the Mt. Baker Cleaners parcel had impacted groundwater on the Former Phillips 66 parcel and migrated to the southwest off of the parcel. Results also indicated that petroleum-hydrocarbon subsurface contamination from the former service station USTs and fuel islands remains in several locations around the parcel. Results from each of these studies are summarized in Sections 3.4.1 through 3.4.4.

Table D. Summary of Phillips 66 Subsurface Investigations

Year	Parcels Included in Investigation	Reference	Investigation Summary	Summary of Investigation Results
1989	2800 MLK Jr. Way S. (Former Phillips 66 Parcel)	G-Logics, 2005b	Removal of USTs.	No documentation on possible soil contamination around USTs.
2005	2800 MLK Jr. Way S. (Former Phillips 66 Parcel)	G-Logics, 2005c	Removal of remaining service station subsurface equipment.	Gasoline-, diesel- and heavy oil-range petroleum hydrocarbons detected above cleanup levels in soil; excavated contaminated or impacted soil was stockpiled and used to fill excavations.
2005–2007	2800 MLK Jr. Way S. (Former Phillips 66 Parcel)	G-Logics, 2008	Installation and implementation of an ozone treatment system and groundwater sampling. No soil sampling conducted.	Gasoline- and BTEX-contaminated groundwater identified at concentrations above MTCA Method A cleanup levels; ozone treatment system not successful at reducing concentrations below MTCA Method A cleanup levels in groundwater.
2008	2800 MLK Jr. Way S. (Former Phillips 66 Parcel)	ERM, 2009	Shallow grab groundwater samples obtained. No soil sampling conducted.	Chlorinated solvents detected in groundwater at concentrations exceeding the MTCA Method A cleanup levels.
2011	2800 MLK Jr. Way S. (Former Phillips 66 Parcel)	Stantec, 2012	Shallow soil and grab groundwater samples obtained.	Gasoline-, heavy oil-, diesel-range petroleum hydrocarbons and xylenes were detected at concentrations greater than the MTCA Method A cleanup levels in soil and groundwater.
2015	2800 MLK Jr. Way S. (Former Phillips 66 Parcel)	GeoEngineers, 2015a, 2015b, and 2015c	Shallow soil samples obtained.	Chlorinated solvents detected in shallow soil (less than 6 feet bgs) below the MTCA Method A cleanup levels.
2018	2800 MLK Jr. Way S. (Former Phillips 66 Parcel)	Landau, 2019	Soil, groundwater, and soil gas samples obtained.	PCE detected in soil, groundwater, and soil gas samples above the MTCA Method A cleanup levels. Petroleum hydrocarbons detected above the MTCA Method A cleanup levels on the western property boundary and southeast corner of the parcel.

3.3.1 Interim Actions

3.3.1.1 Gas Station Equipment Removal (1989, 2005)

The first reported removal action at the Former Phillips 66 parcel occurred in 1989 and included removal of three USTs (one 4,000-gallon UST and one 5,000-gallon UST, each used for storage of gasoline, and one 500-gallon UST used for storage of used oil) from the northwest corner of the Phillips 66 property (shown on Figure 5). According to the 2005 Phase I ESA (G-Logics, 2005a), eight soil samples were obtained from the limits of the UST removal excavation and gasoline-range petroleum hydrocarbons were detected in one soil sample at 90 mg/kg, which is greater than the MTCA Method A cleanup level of 30 mg/kg when benzene is present. However, the specific location of the soil sample is unknown so is not shown on the Site plans included in this Report. No other documentation regarding the 1989 UST removals has been identified, and it is unknown whether benzene was analyzed. It is also unknown whether the soil excavated during the UST removal was transported off-site or reused as backfill in the excavation. Based on these data, gasoline was likely released from one or more USTs in the northwest corner of the property and gasoline-contaminated soil likely remains in place.

Additional gas station equipment was removed in 2005 by G-Logics and consisted of two underground vehicle hoists, a 270-gallon heating-oil UST, an oil-water separator, a floor-drain sump, and approximately 200 feet of abandoned product lines (shown on Figure 5; G-Logics, 2005c). Chemical analytical results of soil samples obtained at the limits of the excavations are summarized below:

- The heating-oil UST was reportedly located approximately 4 feet bgs, was rusted, and contained a 2-inch-diameter hole in the bottom at a depth of approximately 7.5 feet bgs. Following removal of the heating-oil UST, one soil sample was obtained from the limits of the heating-oil UST excavation, and diesel- and heavy oil-range petroleum hydrocarbons were detected in the sample at concentrations less than the MTCA Method A cleanup levels. However, due to excessive caving of soils during the excavation, soil samples could not be obtained where stained soil was observed on the southern end of the excavation at an approximate depth of 7.5 feet bgs, and the UST excavation was backfilled with the soil excavated during the UST removal.
- Oil-range petroleum hydrocarbons were detected at the northern hoist excavation at a concentration of 1,000 mg/kg (MTCA Method A cleanup level is 2,000 mg/kg) and were not detected in the soil sample obtained from the limits of the southern hoist excavation. However, diesel-range petroleum hydrocarbons were detected at a concentration of 2,200 mg/kg in the sample obtained from the stockpile generated during the southern hoist removal. Stockpiled soil was reportedly placed in the upper 2 feet of the hoist excavation along with concrete rubble from the floor slab demolition (G-Logics, 2005c).
- The oil-water separator was located on the west garage exterior. Diesel-range petroleum hydrocarbons were not detected in one soil sample obtained from the base of the oil-water separator removal at a depth of approximately 4.5

feet bgs. Soil excavated during the removal was combined with broken asphalt and used as backfill.

- The floor-drain sump was located in the interior of the garage. Staining was observed in soil at the limits of the sump removal, but oil-range hydrocarbons were not detected in the sample obtained from the base of the excavation at approximately 4.0 feet bgs. However, an additional soil sample was obtained from the stockpile generated during the excavation of the floor drain sump and oil-range hydrocarbons were detected at a concentration of 230 mg/kg in the stockpile sample. Soil removed during the excavation (including the soil stockpile) of the sump was used as backfill.
- Approximately 200 feet of abandoned product piping was removed from the western portion of the Former Phillips 66 parcel in 2005 from depths less than 3 feet bgs (G-Logics, 2005c). Gasoline-range petroleum hydrocarbons and BTEX either were not detected or were detected at concentrations below the MTCA Method A cleanup levels in four soil samples obtained at the limits of the pipe excavation. During the removal of the piping, approximately 15 tons of soil was stockpiled and sampled (G-Logics, 2005c). Gasoline-range petroleum hydrocarbons and xylenes were detected at concentrations less than the MTCA Method A cleanup level in the stockpile sample. The end use of the stockpiled soil is unknown. However, evidence of off-site disposal does not exist, and the soil was likely used as backfill for the excavation, similar to the other excavations completed during this time period at the Former Phillips 66 parcel.

3.3.1.2 *In Situ* Remediation (2005)

In situ remediation consisting of an ozone treatment system was implemented at the Former Phillips 66 parcel in August 2005, in the vicinity of the former pump islands along the western property boundary, to treat gasoline- and benzene-contaminated soil present between approximately 15 and 20 feet bgs, as well as the contaminated groundwater in this area (detailed below in Sections 3.3.2 and 3.3.3). These remediation efforts were conducted as an independent cleanup. Ozone treatments were also supplemented with several applications of Fenton's Reagent (hydrogen peroxide with an iron catalyst) into monitoring wells and a horizontal application pipe in the vicinity of the former pump islands. However, after almost 2 years of *in -situ* treatment, contaminants remained at concentrations greater than the MTCA Method A cleanup levels in groundwater. G-Logics concluded that the geologic and hydrogeologic conditions at the property (primarily consisting of dense silts and clays) were limiting adequate dispersion of product through the strata and continued *in situ* remediation was not practical or cost-effective (G-Logics, 2008).

3.3.2 Soil Sampling (2005, 2011, and 2015)

Soil sampling on the Former Phillips 66 parcel was concentrated on the vicinity of the former fuel island, the former UST nest, and in the southeast corner of the parcel near the former heating-oil UST (Figure 5).

Initial characterization of soil quality around the former fuel islands was completed by G-Logics prior to the installation of the *in situ* remediation system in 2005. Monitoring

wells were installed near the former fuel islands and along the western property boundary (MW-1 through MW-5), and 22 borings were completed across the property, concentrated around the location of the former fuel islands. The borings closest to the north and south pumps contained the highest concentrations of BTEX and gasoline-range petroleum hydrocarbons in soil above the MTCA Method A cleanup level, between 15 and 20 feet bgs.

The highest concentrations of BTEX and gasoline-range petroleum hydrocarbons around the former fuel islands were detected in P-7 at 18 feet bgs, where benzene was detected at 25 mg/kg (exceeding the MTCA Method A cleanup level of 0.03 mg/kg) and gasoline-range hydrocarbons were detected at 6,000 mg/kg (exceeding the MTCA Method A cleanup level of 30 mg/kg). *In situ* remediation was focused around this area, and G-Logics predicted that the areal extent of gasoline- and benzene-contaminated soil was being reduced but did not complete additional borings to confirm whether soil concentrations were in fact reduced. A total of six additional borings and one additional monitoring well completed around the pump islands by Stantec in 2011 determined that significant contaminant mass remained in this area (B-1 and B-2), and that gasoline-contaminated soil extends into the MLK Jr. Way S. ROW (B-6; Figure 10).

The lateral extent of gasoline- and BTEX-contaminated soil located along the western property boundary in the location of the former pump islands was bounded to the north by P-12, to the east by P-2, and to the south by B-4 (Figure 10).

Explorations in the southeast corner of the property near the former heating-oil UST identified diesel- and heavy oil-range petroleum hydrocarbons exceeding MTCA Method A cleanup levels at depths ranging from 10 to 15 feet bgs (MW-9 and B-3). Both explorations determined a vertical extent of contamination (neither contained detectable concentrations of diesel-range or heavy-oil range petroleum hydrocarbons in samples obtained at 20 feet bgs) but did not determine a lateral extent of contamination in the vicinity of the former heating-oil UST.

GeoEngineers completed explorations in 2015 to evaluate the presence of chlorinated solvents in the shallow (ground surface to 6 feet bgs), unsaturated soil across the Former Phillips 66 parcel (GeoEngineers, 2015c; Figure 9). PCE was detected in each of the samples submitted for analysis from borings DP-1 through DP-3 and DP-5 through DP-7 at concentrations less than the MTCA Method A cleanup level of 0.05 mg/kg. It was concluded that the source of the shallow PCE-impacted soil could either be from "off-gassing" of PCE from the groundwater plume beneath the parcel or from historical use and releases at the gas station or auto repair facility.

3.3.3 Groundwater Sampling (2005–2016)

Five permanent groundwater monitoring wells (MW-1 through MW-5) were installed by G-Logics in 2005. Additional permanent groundwater monitoring wells (MW-6 through MW-10) were installed in 2011 by Stantec, and three more (MW-11 through MW-13) were installed by GHD Services, Inc. (GHD) in 2014. An additional 11 groundwater samples were collected from temporary wells on the Former Phillips 66 parcel (B-1 through B-7, ERM-B-1 through ERM-B-4). Groundwater was monitored for gasoline-range petroleum hydrocarbons and BTEX during *in situ* treatments from 2005 to 2007,

and for petroleum hydrocarbons, BTEX, and chlorinated solvents in 2008, 2009, quarterly in 2014, in 2015, and quarterly in 2016. During *in situ* treatment, gasoline-range petroleum hydrocarbons were detected at concentrations exceeding the MTCA Method A cleanup level in MW-2, MW-3, and MW-5, each located along the western parcel boundary in the vicinity of the former pump islands (Figure 3; Table 6).

Following the conclusion of *in situ* treatment and prior to the initiation of the 2017 RI Work Plan (Aspect, 2017), gasoline- and BTEX-contaminated groundwater was detected in monitoring wells MW-3 MW-5, and MW-8 at concentrations exceeding the MTCA Method A cleanup level, all of which are located west of the former pump islands on the western property boundary. Concentrations of gasoline-range petroleum hydrocarbons in MW-8, which lies between the north and south pump islands, was detected as high as 14,000 ug/L (in August 2016; Table 6), relative to a MTCA Method A cleanup level of 800 ug/L.

Petroleum hydrocarbons or BTEX were detected in MW-2 in all nine sampling events between 2008 and 2016, but at a concentration exceeding the MTCA Method A cleanup level only one time (March 2014). Petroleum hydrocarbons or BTEX were not detected in MW-1, located on the eastern edge of the former pump islands, or in MW-4, located north of the former pump islands and south for the former gasoline and waste-oil USTs (both sampled nine times between 2008 and 2016).

Groundwater samples from permanent and temporary wells on the parcel were also analyzed for chlorinated solvents between 2008 and 2016. In October and November 2008, Environmental Resources Management (ERM) completed four borings (ERM-B-1 through ERM-B-4) and obtained groundwater samples from temporary wells. PCE was detected at concentrations of 15.3 ug/L and 57.6 ug/L in groundwater samples obtained ERM-B-2 and ERM-B-3, respectively, which are greater than the MTCA Method A cleanup level of 5 ug/L. TCE and VC were also detected at concentrations greater than MTCA Method A cleanup levels in ERM-B-1 and ERM-B-2. Boring ERM-B-2 is located on the northeast property boundary, upgradient of the gas station, and ERM-B-3 is located near the former heating-oil UST in the southeast of the parcel. Based on these findings, ERM concluded that the source of the chlorinated solvents is the Mt. Baker Cleaners property located to the northeast (ERM, 2009). However, ERM did not address why concentrations of PCE, TCE, and VC were higher in groundwater in the southeast corner of the parcel, near the location of the UST, than they were upgradient at ERM-B-2, nearer to the Mt. Baker Cleaners.

Generally, groundwater sampling completed at permanent groundwater monitoring wells between 2008 and 2016 detected concentrations of PCE and associated degradation products (TCE, DCE, and VC) in wells in the northeast corner of the property (MW-11) and in decreasing concentrations to the southwest. Samples from wells on the western portion of the parcel (MW-2, MW-3, MW-4, MW-5, and MW-8) did not contain PCE at concentrations exceeding the MTCA Method A cleanup level. Studies that assessed chlorinated solvents in groundwater on the Former Phillips 66 parcel (ERM, 2009; Stantec, 2010; and Stantec, 2012) attributed chlorinated solvents in groundwater to the upgradient Mt. Baker Cleaners.

3.3.4 Ecology Opinion Letters (2010, 2012, 2014)

Consultants retained by Phillips 66 conducted remedial actions at the Former Phillips 66 parcel through Ecology's Voluntary Cleanup Program (VCP) between 2010 and 2017. Ecology issued opinion letters regarding the Former Phillips 66 parcel in 2010, 2012, and 2014 (Ecology, 2010; Ecology, 2012; and, Ecology, 2014). In these opinion letters, Ecology stated that subsurface soil and groundwater contamination had been confirmed on the parcel as a result of the former gasoline service station operations, that PCE contamination at the parcel could be a result of parts washing in the former service garage, and that additional characterization was needed at the parcel to understand the nature and extent of subsurface contamination. Ecology also recommended that soil vapor sampling be conducted at the parcel. Ecology declined to issue a No Further Action determination for the Former Phillips 66 parcel.

3.3.5 Phillips 66 Soil Gas Study (2018)

Additional soil, groundwater, and soil gas data was collected by GHD and Landau on behalf of Phillips 66 in 2018, outside the scope of the 2017 RI Work Plan. Soil samples collected in the vicinity of the fuel islands detected gasoline-range petroleum hydrocarbons above the MTCA Method A cleanup level at a depth of 12 feet bgs (VP-8). Groundwater samples from this area (MW-8) contained concentrations of gasoline- and diesel-range petroleum hydrocarbons exceeding MTCA Method A cleanup levels. Soil gas in the vicinity of the fuel islands did not contain detectable concentrations of chlorinated solvents, BTEX, or petroleum hydrocarbons. However, soil gas samples from the depth most heavily impacted by gasoline-range petroleum hydrocarbons (12 feet bgs) were not analyzed (VP-8).

Near the former heating-oil UST, heavy oil-range petroleum hydrocarbons were detected above the MTCA Method A cleanup level in soil at 1.3, 6, and 12 feet bgs, with a maximum concentration at 6 feet bgs (VP-9). Gasoline-range petroleum hydrocarbons were detected above the MTCA Method A cleanup level in the shallow soil sample (1.3 feet bgs). PCE was also detected in soil in this location at all three sampling depths, with a maximum concentration in the shallow sample and decreasing in concentration with depth. Groundwater from well MW-9, near the former heating-oil UST, contained concentrations of PCE, TCE, and VC above MTCA Method A cleanup levels. Soil gas in the vicinity of the former heating-oil UST contained PCE and TCE above the MTCA Method B screening levels (VP-9). Landau attributed PCE in shallow soil in this location to a possible surface spill (Landau, 2019).

PCE was also detected above the MTCA Method A cleanup level in soil samples taken from beneath the building at 6 feet bgs (in the north and center of the building; VP-4 and VP-6) and at 12 feet bgs (in the south; VP-7). Groundwater results confirmed the presence of PCE, TCE, and VC above MTCA Method A cleanup levels in AMW-4 (located in the south portion of the building), MW-11 (in the northeast corner of the parcel), and MW-9 (in the vicinity of the former heating-oil UST). VC was also detected above the MTCA Method A cleanup level in MW-1 (in the center of the parcel), MW-8 (located in the vicinity of the former fuel islands), and MW-13 (located in the northeast corner of the parcel).

PCE was detected at concentrations exceeding the MTCA Method B screening level in soil gas across the property, including beneath the building (VP-4, VP-6, and VP-7), in the northeast corner of the property nearest to the Mt. Baker Cleaners (VP-2 and VP-3), and in the center of the property (VP-5). Landau attributed the parcel-wide elevated concentrations of PCE in soil gas to the partitioning of PCE into soil gas from the Mt. Baker Cleaners chlorinated-solvent plume present in groundwater beneath this property (Landau, 2019).

4 RI - Data Gaps from 1989–2017 Studies (Pre-RI Work Plan)

Based on the data and information reported by others during the previous investigations that predate the 2017 RI Work Plan (Aspect, 2017), data gaps included:

1. **Soil.** The nature and extent of soil contamination in the following areas had not yet been adequately characterized:
    a. Chlorinated solvent-contaminated soil beneath the Mt. Baker Cleaners parcel and surrounding parcels, including the location of the heaviest impacted soil (source to the chlorinated solvent-groundwater plume) on the Mt. Baker Cleaners parcel.
    b. The closed in-place heating-oil UST located in the northeast corner of the Mt. Baker Cleaners parcel.
    c. Petroleum hydrocarbon-contaminated soil at the Former Phillips 66 parcel, including the eastern and northern extent of heating-oil contamination near the former heating-oil UST, and the western lateral extent of gasoline-contaminated soil along the western parcel boundary.
2. **Groundwater.** The vertical and lateral extent of the chlorinated solvent- and petroleum hydrocarbon-contaminated groundwater plumes originating from the former Mt. Baker Cleaners parcel and the Former Phillips 66 parcel, respectively, had not been evaluated. Additional subsurface investigation was warranted to:
    a. Evaluate the lateral extent of chlorinated solvent-contaminated groundwater to the south-southeast (groundwater flow direction).
    b. Evaluate whether utility corridors impacted contaminant migration in the S. McClellan Street and MLK Jr. Way S. ROWs.
    c. Confirm that the dense native soils beneath the Site act as a barrier for downward migration of chlorinated solvents in groundwater.
    d. Evaluate the lateral extent of gasoline- and diesel-range petroleum hydrocarbon-contaminated groundwater on and adjacent to the Former Phillips 66 parcel.
3. **Soil Vapor.** Although soil gas testing had been completed on the property north-adjacent to the former Mt. Baker Cleaners parcel, soil gas testing was warranted at the Site to evaluate the potential for vapor intrusion (VI) of COCs. This included soil gas testing south of the former Mt Baker Cleaners parcel, at the private residence parcels located east and southeast of the Former Phillips 66 parcel along 29th Avenue S (King County tax parcels 67257-00052, -00051, -00060, -00065, -00070, and -00075).

5 RI Work Plan Data Acquired between 2017 and 2019

This section summarizes the 2017 RI Work Plan field investigations between November 2017 and 2019 and identifies the COCs for soil, groundwater, and soil gas at the Site.

5.1 Summary of 2017 RI Work Plan Field Investigations (2017–2019)

To evaluate the data gaps remaining from previous studies (Section 4), remedial investigations were completed by Aspect between November 2017 and 2019. As part of the PPCD, an RI Work Plan was prepared and approved by Ecology. The RI included 65 borings, 22 groundwater monitoring wells, and 11 subslab soil vapor samples, broken down as follows:

- A total of 31 borings were completed on the former Mt. Baker Cleaners parcel to evaluate the vertical and lateral extent of chlorinated solvents in soil and to evaluate the presence of dangerous waste soil (Figure 4). Of the 31 borings, one (AMW-21) was completed as a permanent groundwater monitoring well to evaluate groundwater conditions (Figure 6).
- A total of nine borings were completed on the three McClellan parcels adjacent to the former Mt. Baker Cleaners parcel to evaluate the vertical and lateral extent of the chlorinated solvents in soil (Figure 4). Of these nine borings, two (AMW-2 and AMW-10) were completed as permanent groundwater monitoring wells to evaluate groundwater conditions (Figure 6).
- A total of 18 borings were completed in the ROWs or on private properties near the Site (within S. McClellan Street, MLK Jr. Way S., 29th Avenue S., and on properties located at 2814 MLK Jr. Way S., 2813 29th Avenue S., and 2811 29th Avenue S.; Figures 4 and 5). Of these 18 borings, 16 (AMW-3, AMW-6 through AMW-9, AMW-11, AMW-14 through AMW-20, and AMW-22 through AMW-24) were completed as monitoring wells, and groundwater samples were obtained to evaluate the lateral extent of the chlorinated solvent- and petroleum hydrocarbon-contaminated groundwater plumes (Figure 6).
- A total of seven borings were completed on the Former Phillips 66 parcel to evaluate the vertical and lateral extent of petroleum hydrocarbons, BTEX, and chlorinated solvents (Figure 5). Of these borings, four (AMW-4, AMW-5, AMW-12, and AMW-13) were completed as permanent groundwater monitoring wells to evaluate groundwater conditions (Figure 6).
- A total of 11 subslab soil gas samples, 4 indoor air samples, and 4 ambient air samples were obtained from the McClellan parcels, the Former Phillips 66 parcel, and private properties near the Site (located at 2811 S. McClellan Street, 2817 S. McClellan Street, 2813 29th Avenue S., and 2825 29th Avenue S.) to evaluate the VI pathway (Figure 7).

The drilling and monitoring well construction was completed by Cascade Environmental out of Woodinville, Washington, using limited-access and truck-mounted direct-push and hollow-stem auger rigs. Prior to drilling, each location was cleared of subsurface utilities by a private utility locator with Applied Professional Services, Inc. Soil cores were observed and classified by an Aspect field scientist per the Unified Soil Classification System and field-screened using a photoionization detector to measure volatile organic vapors in soil. Field screening also included observation of soil cores for staining, odors, or sheen. Samples were collected at each interval in hollow-stem borings (typically 2.5-foot intervals) or at each 2- to3-foot interval in direct-push borings. Soil borings were backfilled with bentonite and patched with concrete.

The monitoring wells were completed with 8-inch-diameter steel monuments set in concrete. The length of the well screen varied by location, depending on the geology and depth to the water table. Each well was developed following installation, and the top of each well casing was surveyed into the existing well network to the nearest 0.01 feet. Monitoring well construction details are presented in Table 8.

Soil gas was collected through temporary vapor extraction points that were installed, using a rotary hammer drill, through the slab or in the concrete adjacent to the building in each location. Soil gas at the residence located at 2918 29th Avenue S. was collected using a temporary screen installed using a direct-push drill rig. Soil gas samples were collected using laboratory-supplied and individually certified evacuated 1-liter SUMMA canisters fitted with 150-milliliters-per-minute (ml/min) flow controllers and dedicated sampling trains. The sampling methodology included a shut-in test to ensure that the sampling train was secure and a helium tracer gas shroud for laboratory detection of leaks. Indoor air samples were collected in the basement or bottom floor of the residences along 29th Avenue S., south of S. McClellan St., and were left in place, undisturbed, for up to 24 hours. Ambient air samples were collected on the exteriors of the buildings in question and placed upwind of the building, where possible.

5.2 Potential Contaminants of Concern (COCs)

Sources of contamination at the Site include dry-cleaning operations, gasoline service station and auto repair operations (gasoline UST systems, hydraulic hoists, parts washing [likely with solvents], a waste-oil UST), and heating-oil USTs (both on the Mt. Baker Cleaners parcel and the Former Phillips 66 parcel).

Based on chemical analytical testing conducted during the previous investigations and during the RI, COCs for soil, groundwater, and soil gas at the Site include:

- Chlorinated solvents (PCE, TCE, DCE, and VC)
- Gasoline-, diesel- and oil-range petroleum hydrocarbons, and BTEX

Polycyclic aromatic hydrocarbons (PAHs; benzo(a)pyrene, naphthalene, 1-methylnaphthalene, and dibenzo(a,h)anthracene), arsenic, and lead were also detected in isolated locations, and were colocated in samples with high concentrations of other potential COCs within the chlorinated solvent- and/or petroleum hydrocarbon-contaminated plumes at concentrations greater than MTCA Method A cleanup levels. These contaminants will be removed during the course of the remediation for solvents

and petroleum hydrocarbons and are not considered primary COCs for the Site (Tables 2, 3, and 5). Therefore, these contaminants will not be carried forward as COCs in order to develop the Conceptual Site Model (CSM) or remedial alternatives.

Also, testing of additional potential COCs in soil based on MTCA 173-340-900, Table 830-1 (including metals, PAHs, polychlorinated biphenyls [PCBs], and other VOCs) has been completed. MTCA Method A cleanup levels are available for the majority of the COCs at the Site, and results were compared relative to these cleanup levels in this report. Where a Method A cleanup level did not exist, detections were compared to the MTCA Method B cleanup level (Tables 4 through 7).

Constituents chosen for analysis at each exploration location were based on proximity to historical features and to fill data gaps identified from previous sampling events.

6 RI - 2017 RI Work Plan Results (2017–2019)

The chemical analytical results obtained following the exploration and testing program outlined in the 2017 RI Work Plan are presented in this section by media. These results, and the results of the previous studies (prior to 2017), have been relied upon to complete the CSM (Section 7).

Soil chemical analytical results from the 2017 to 2019 RI are included in Tables 4 and 5. Groundwater chemical analytical results and groundwater elevations are summarized in Tables 6 and 7. Monitoring well construction information is summarized in Table 8. Subslab soil gas results are summarized in Table 9. Graphical representations of the data obtained prior to 2017 and the data acquired as the result of the 2017 RI Work Plan are included on Figures 3 through 23, as described in Section 3. The boring logs for the remedial investigation explorations are presented in Appendix A. The laboratory analytical reports and exploration logs from previous investigations can be found attached to the 2017 RI Work Plan (Aspect, 2017).

The RI soil and groundwater samples were submitted to Friedman and Bruya, Inc (F&B) for chemical analysis. The laboratory analytical results from F&B is presented as Appendix B.

6.1 Soil Results

A total of 211 soil samples were submitted for chemical analysis of the contaminants of potential concern between August 2017 and January 2019 (Tables 4 and 5). Of those, a total of 202 soil samples were submitted for chemical analysis of chlorinated solvents on both the McClellan parcels and the Former Phillips 66 parcel. PCE was detected in 119 of the 202 samples, and at concentrations exceeding the MTCA Method A cleanup level in 104 of the 202 samples at depths between 2 and 30 feet bgs. TCE was detected in 23 of the 202 soil samples submitted and exceeded the MTCA Method A cleanup level in 17 of the 202 samples. VC was not detected in soil.

A total of 14 soil samples were submitted for gasoline-range petroleum hydrocarbons and BTEX on the Former Phillips 66 parcel, and there were detections at concentrations exceeding the MTCA Method A cleanup level in 2 samples. A total of 31 samples were submitted for diesel- and heavy oil-range petroleum hydrocarbons, primarily on the Former Phillips 66 parcel, and directly adjacent to the UST at the Mt. Baker Cleaners parcel. Heavy oil-range petroleum hydrocarbons were detected at concentrations exceeding the MTCA Method A cleanup level in 3 of the 31 samples, all taken in the southeast corner of the Former Phillips 66 parcel.

6.1.1 McClellan Parcels and Adjacent ROW

RI activities on and around the McClellan parcels were completed to:

- Identify and delineate the nature and extent of chlorinated-solvent contamination sourced from the Mt. Baker Cleaners.
- Evaluate whether there had been releases of heating oil from the UST located in the northeast portion of the former Mt. Baker Cleaners parcel.

A total of 31 borings were advanced within the footprint of the Mt. Baker Cleaners building to determine the lateral and vertical extents of chlorinated-solvent contamination, and to refine likely source locations within the former dry cleaner. A total of nine additional borings and well installations were completed in the three western-adjacent parcels and in the ROW to the east to determine the lateral extent of the chlorinated-solvent groundwater plume. In addition to testing for chlorinated solvent COCs, the area near the former UST was tested for petroleum hydrocarbons. Based on the chemical analytical results obtained from the McClellan parcels and adjacent ROW, no indication of a petroleum release from the UST was identified (Figures 10 and 11). The extent of PCE and TCE exceeding MTCA Method A cleanup levels in soil on the McClellan parcels is shown in plan view on Figure 8 and in cross-section view on Figures 20 and 23.

PCE was detected at concentrations greater than the MTCA Method A cleanup level in soil on the Mt. Baker Cleaners parcel, to the southwest of the source area, and in the direction of groundwater flow (southwest). PCE was also detected in soil above the MTCA Method A cleanup level on the 2810 and 2806 S. McClellan Street parcels (the two nearest adjacent properties to the west of the former Mt. Baker Cleaners), but only within the zone of water table fluctuation, generally at the groundwater table (10 to16 feet bgs). This is also known as the groundwater smear zone (AMW-10, ADP-26, and ADP-31; Figure 8).

PCE Toxicity Characteristic Leaching Procedure (TCLP) testing was completed for waste characterization on samples with concentrations of PCE above 15 mg/kg, and on select samples with concentrations below 15 mg/kg, depending on proximity to suspected source areas and field screening results. Of the 36 samples tested for PCE TCLP on the Mt. Baker Cleaners parcel, 5 samples exceeded the PCE TCLP toxicity characteristic limit of 0.7 milligrams per liter for Resource Conservation and Recovery Act (RCRA) hazardous waste and Washington State dangerous waste (WAC 173-303-090). These samples were all located in the northern portion of the former Mt. Baker Cleaners parcel and ranged in depth from 5 to 15 feet below the slab of the former Mt. Baker Dry Cleaners building (plan view on Figure 8 and cross-section view on Figure 23).

6.1.2 Former Phillips 66 Parcel

RI explorations on and surrounding the Former Phillips 66 parcel focused on:

- Confirming the presence and concentrations of gasoline-range petroleum hydrocarbons in soil that were encountered in pre-2017 investigations on the western property boundary (AB-25).
- Evaluating the extent of the gasoline-range petroleum hydrocarbon contamination beneath the MLK Jr. Way S. ROW (AB-23).
- Evaluating the extent of diesel-range petroleum hydrocarbon contamination in the southeast corner of the property.
- Evaluating whether there is a secondary source of chlorinated solvents contributing to the groundwater plume.

A total of seven borings were completed on the Former Phillips 66 parcel (AMW-4, AMW-5, AMW-12, AMW-13, AB-25, AB-33 and ADP-24). Gasoline-range petroleum

hydrocarbons and BTEX were detected in soil at concentrations exceeding the respective MTCA Method A cleanup levels between 10 and 20 feet bgs (AB-25; Figure 10). Thus, this confirms that gasoline-contaminated soil is still present in the locations of the former fuel islands along the western parcel boundary and represents a significant remaining contaminant mass at this location. The gasoline results at boring AB-23 confirmed that the gasoline-contaminated soil has not extended further than previously documented into the MLK Jr. Way S. ROW (Figure 10).

Diesel- and heavy oil-range petroleum hydrocarbons were detected at concentrations exceeding MTCA Method A cleanup levels in the vicinity of the former heating-oil UST in the southeast corner of the Former Phillips 66 parcel (AMW-13and ADP-24). These results verified that the extent of soil contamination in this area is larger than was previously known (Figure 11).

Chlorinated solvents were detected in soil at concentrations greater than MTCA Method A cleanup levels on the Former Phillips 66 parcel in five of the seven borings completed and were not detected in the other two borings (Figure 9). Exceedances of PCE in soil were generally between depths of 12.5 and 20 feet bgs, within the chlorinated solvent-contaminated groundwater plume originating from the former Mt. Baker Cleaners parcel. However, PCE concentrations in soil were highest in the southeast corner of the property (AMW-13 and ADP-24), where PCE was detected above the MTCA Method A cleanup level between 2.5 feet and 12.5 feet bgs. These concentrations may be representative of a surface spill or release of solvents that may have been placed in the UST.

6.2 Groundwater Results

As part the RI, 24 additional groundwater monitoring wells were installed to supplement the 19 existing wells previously installed at the Site. Wells were installed on the McClellan parcels, the Former Phillips 66 parcel, and on nearby private properties and ROWs, for a total of 43 wells on the Site. Groundwater sampling was completed at each of the wells on the Site in November 2017, August 2018, and July 2019 to evaluate the extent of chlorinated-solvent and petroleum-hydrocarbon impacts to groundwater. The RI monitoring wells, their purposes, and chemical analyses are listed in Table E below. Groundwater chemical analytical results are presented in Tables 6 and 7. Well construction details are outlined in Table 8.

Table E. RI Monitoring Wells

Well Location on Site	Monitoring Well ID	Purpose	Chemical Analyses
McClellan Parcels	AMW-21	Evaluate vertical extent of chlorinated solvent- and diesel-range petroleum hydrocarbon-contaminated groundwater within the footprint of Mt. Baker Cleaners and downgradient of the UST.	Chlorinated solvents and diesel-range petroleum hydrocarbons.
	AMW-2	Evaluate extent of chlorinated solvent-contaminated groundwater to the southwest of the dry-cleaning operations.	Chlorinated solvents
MLK, McClellan, and 29th ROWs	AMW-6	Evaluate lateral extent of chlorinated solvent-contaminated groundwater to the south and southwest of the former dry cleaner. Evaluate whether the utilities present in the S. McClellan Street and MLK Jr. Way S. ROWs are impacting the lateral migration of chlorinated solvents in groundwater.	Chlorinated solvents
	AMW-7		
	AMW-8		
	AMW-9		
	AMW-10		
	AMW-11		
	AMW-14		
	AMW-15		
	AMW-16		
	AMW-17		
	AMW-18		
	AMW-19		
Former Phillips 66 Parcel	AMW-4	Evaluate lateral extent of chlorinated solvent-contaminated groundwater to the south and southwest of the former dry cleaner. Evaluate the extent of petroleum-contaminated groundwater present in and around the Former Phillips 66 parcel.	Chlorinated solvents, gasoline- and diesel-range petroleum hydrocarbons, BTEX
	AMW-5		
	AMW-12		
	AMW-13		
	AMW-20		
Private Residences	AMW-3	Evaluate lateral extent of chlorinated solvents to the southeast of Mt. Baker Cleaners (Mt. Baker Village).	Chlorinated solvents
	AMW-22	Evaluate lateral extent of chlorinated solvents to the south of Mt. Baker Cleaners (2813 29th Avenue S.).	

Well Location on Site	Monitoring Well ID	Purpose	Chemical Analyses
	AMW-23	Evaluate lateral extent of chlorinated solvents to the south of Mt. Baker Cleaners (Sound Transit Mt. Baker Transit Center)	
	AMW-24	Evaluate lateral extent of chlorinated solvents to the south of Mt. Baker Cleaners (2815 and 2817 S. McClellan Street).	

6.2.1 Chlorinated Solvents in Groundwater

Chlorinated solvents, sourced from the former Mt. Baker Cleaners parcel, are present in groundwater throughout the Site. Figure 12 shows the concentrations of PCE and its associated degradation products detected during the August 2018 Site-wide groundwater sampling event, and Figure 13 shows the lateral extent of the PCE and VC groundwater plumes. PCE concentrations are highest in groundwater at and just downgradient of the Mt. Baker Cleaners, and on the eastern side of the Former Phillips 66 parcel. The PCE concentration at AMW-21 was detected at 97,000 ug/L, which is nearly half the MTCA default aqueous solubility of 200,000 ug/L.

PCE and TCE were not detected in wells located southwest of the Former Phillips 66 parcel line. However, DCE and VC were detected in wells to the southwest of the Former Phillips 66 parcel, and VC is present to the southwest and southeast of the Former Phillips 66 parcel at concentrations exceeding the MTCA Method A cleanup level.

The extent of the chlorinated-solvent plume has been defined to the north-northeast (HC-MW-4), northwest (HC-MW-6, HC-MW-7, and AMW-9), east (AMW-3 and AMW-7), south (AMW-14 and AMW-18), southeast (AMW-22 and AMW-8), and the southwest (AMW-23).

Chlorinated solvents were not detected above laboratory reporting limits in wells on the Former Phillips 66 parcel where gasoline- and diesel-range petroleum hydrocarbons are detected at concentrations exceeding MTCA Method A cleanup levels (MW-3, MW-5, MW-12, and MW-8), with the exception of a VC detection in MW-3. It is likely that high concentrations of petroleum hydrocarbons in soil and groundwater are creating anaerobic biogeochemical conditions favorable for microbially mediated reductive dechlorination of chlorinated solvents.

6.2.2 Petroleum Hydrocarbons in Groundwater

Petroleum hydrocarbons are present in groundwater in wells located around and downgradient of the former fuel islands (Figures 14 and 15) that were located on the west side of the Former Phillips 66 parcel. Gasoline- and diesel-range petroleum hydrocarbons have continually been detected in groundwater at concentrations exceeding MTCA Method A cleanup levels in four wells (MW-3, MW-5, MW-8, and MW-12), including

the most recent sampling event during the August 2018 Site-wide groundwater monitoring round.

6.3 Soil Gas Results

The soil gas conditions beneath the buildings at the Site were investigated as part of the RI to evaluate the potential for VI of volatile compounds, such as chlorinated solvents, gasoline, and gasoline additives. A total of 11 soil gas samples were collected in and around buildings on and nearby the Site, as shown on Figure 7. The purpose of each soil gas exploration is outlined in Table F below. A summary of chlorinated solvents in soil gas, ambient, and indoor air is shown on Figure 16.

Table F: Soil Gas Sampling Locations

Sample Location on Site	Soil Gas Sample ID	Location	Purpose	Chemical Analyses
McClellan Parcels	ASV-1	Mt. Baker Cleaners, below dry-cleaning machine	Evaluate soil gas quality in footprint of Mt. Baker Cleaners	Chlorinated solvents, targeted VOCs, including BTEX, helium tracer gas
	ASV-2	Mt. Baker Cleaners, south of back hallway (near ADP-19)		
	ASV-3	2810 S. McClellan St., south front of apartment building	Evaluate possibility for VI at residences adjacent to Mt. Baker Cleaners	
	ASV-4	2806 S. McClellan St., south front of residence		
	ASV-5	2802 S. McClellan St., base of basement stairs		
Former Phillips 66 Parcel	ASV-6	2800 MLK Jr. Way S., north end of building	Evaluate soil gas quality at former gas station building	
	ASV-7	2800 MLK Jr. Way S., south end of building		
Private Properties	ASV-8*	2817 S. McClellan St., basement	Evaluate possibility for VI at residences and commercial properties near the Site	Chlorinated solvents, helium tracer gas
	ASV-9*	2811 S. McClellan St., basement		
	ASV-10*	2813 29th Ave. S., directly beside slab		
	ASV-11*	2825 29th Ave. S., in slab directly outside basement		

*Indoor and ambient samples collected concurrently to evaluate risk of VI.

Chemical analytical results for each of the soil gas samples are summarized per area in the bullets below.

- **Mt. Bakers Cleaners and McClellan Parcels.** PCE and TCE were detected at concentrations exceeding MTCA Method B screening levels for soil gas at the two sampling points (ASV-1 and ASV-2) installed in the slab of the Mt. Baker Cleaners, and at the vacant building located at 2802 S. McClellan Street (ASV-5). Soil gas concentrations below the Mt. Baker Cleaners exceeded the MTCA Method B cleanup level for PCE and TCE in indoor air estimated from the JEM completed following sampling. A letter outlining the potential health risk for persons occupying the building was sent to the Mt. Baker Cleaners on January 24, 2018. Since the sampling event was completed, the Mt. Baker Cleaners building was vacated and demolished to the foundation.
- **Former Phillips 66 Parcel**. PCE was detected at concentrations exceeding the MTCA Method B screening level for soil gas at the two sampling points installed in the slab of the former Phillips 66 building (ASV-6 and ASV-7). The building is unoccupied, so follow-up analyses were not completed.

  Additional soil gas sampling was completed in November 2018 by GHD (Phillips 66's consultant) at nine locations around the Former Phillips 66 parcel from shallow (~5 feet bgs) and deep (~9 feet bgs) permanent soil gas probes (as summarized in Section 3.4.5). While not directly comparable due to differences in sample collection methodology (subslab sampling versus permanent soil gas probe), the analytical data collected from below the former Phillips 66 building is inconsistent with subslab soil gas sampling completed by Aspect on two occasions (November 2017 and March 2019). The soil gas samples collected by GHD, while useful for screening purposes, are from greater than 5 feet bgs in all cases, and so are not directly comparable to the data collected by Aspect from directly beneath the building slab. The subslab samples collected by Aspect are more representative of potential soil vapor intrusion risk. GHD's results were generally an order of magnitude higher than the subslab soil gas sampling results, suggesting that natural attenuation in the vadose zone plays a large role in potential vapor intrusion. For this reason, the data collected by GHD has been included in Appendix C and is relied upon only as a guide for completion of the CSM for this RI/FS.
- **Residential-Commercial Parcels – South of Mt. Baker Cleaners.** Subslab and soil gas sampling was completed concurrently with indoor and ambient air sampling at three private residences and commercial properties located directly south of the Mt. Baker Cleaners parcel to evaluate the risk of VI (ASV-8 through ASV-10). The owners of these properties all consented to this sampling pursuant to access agreements with MBHA. PCE was detected in soil gas at a concentration greater than the MTCA Method B subslab screening level in one location: below the slab at 2811 S. McClellan Street (950 micrograms per cubic meter [ug/m^3]). However, PCE, TCE, DCE, and

VC were not detected in indoor air in any of the buildings sampled, indicating that there is no VI occurring. 1,2-dichloroethane (EDC) was detected in ambient and indoor samples in all four locations (Figure 15), at relatively similar concentrations, suggesting that EDC is a background contaminant. EDC was detected in soil gas at one location (ASV-10), but at a similar concentration to that found in ambient air.

7 RI - Conceptual Site Model (CSM)

Although the chlorinated solvent and petroleum-contaminated groundwater plumes are comingled and are together considered one Site, the CSM has been broken into two parts to account for the two sources of contamination at the Site: a CSM for the chlorinated-solvent release at the McClellan parcels, and a CSM for the petroleum releases at the Former Phillips 66 parcel.

7.1 Former Dry Cleaner Chlorinated-Solvent CSM

7.1.1 Sources of Contamination

Soil data collected from beneath the former building footprint of the Mt. Baker Cleaners parcel suggest the following related to PCE sources and releases:

- Historical dry-cleaner operations and use and storage of PCE in the northern portion and back hallway of the former dry cleaner is likely the primary source area of the PCE release, based on the highest concentrations of PCE in soil in this area. Based on our interviews with former property owners, the dry-cleaning operations (including use and storage of PCE) historically occurred on this northern portion of the property since the dry cleaner was established in the 1940s.
- Surface spill(s) of PCE in the north, central, and south portions of the building. The area in the central and south portions of the former dry-cleaner building has sectioned concrete slabs separated by wood partitions. Surface spills in this area of the former dry cleaner could have flowed between the floor sections/wood partitions and discharged to soil beneath the building. Although it appears that the main source PCE was from discharges in the north portion of the building, several soil samples obtained throughout the Mt. Baker Cleaners parcel contain PCE concentrations in soil exceeding the MTCA Method A cleanup level as shallow as 2 feet bgs, which indicate that limited releases may have occurred from spills within the dry cleaner that made its way to the soil through the wood-slat flooring.
- Long-term release(s) of PCE could have occurred from PCE that allegedly was stored in the heating-oil UST (now decommissioned), located in the northeast corner of the former building (near the location of ADP-18, AMW-21, ADP-42, and ADP-44). PCE concentrations exceeding the MTCA Method A cleanup level are detected to depths of approximately 30 feet bgs in AMW-21, indicating a more sustained source of PCE to the subsurface.

These sources of contamination comprise the Chlorinated Solvent Source Area (CSSA; see Section 8.4).

7.1.2 Vertical and Lateral Extent of Soil Contamination

On the former Mt. Baker Cleaners parcel, the PCE releases migrated vertically through the fill soil into the glacial recessional deposits (consisting of loose to medium dense sand and silt with some organic material), which is where the bulk of the PCE-contaminated

soil is located (Figure 23). The highest concentrations of PCE encountered within the source area (boring locations ADP-51, ADP-49, AB-40, ADP-42, ADP-55) are located within a few feet of the contact between the glacial recessional deposits and the underlying glacially consolidated Pre-Fraser deposits (consisting of lower permeability, hard, nonplastic silt and clay). This distribution of PCE-contaminated soil suggests that the vertical migration of PCE in soil has been arrested by the glacially consolidated Pre-Fraser deposits, which is an aquitard.

Soil with concentrations of chlorinated solvents exceeding MTCA Method A cleanup levels is present between 5 and 16 feet bgs in five explorations completed on the three McClellan parcels adjacent to Mt. Baker Cleaners parcel (AMW-2, AMW-10, ADP-26, ADP-31, and ADP-54) and in soil on the Former Phillips 66 parcel between depths of approximately 5 and 20 feet bgs in nine locations. The depth of groundwater (approximately 7 to 15 feet bgs), the location of these explorations directly downgradient of the Mt. Baker Cleaners source area, and lack of a local source of chlorinated solvents on these adjacent properties indicates the exceedances in soil are a result of PCE-contaminated groundwater migrating from the source area. The exception is in the southeast corner of the Former Phillips 66 parcel, where PCE was found in shallow soil (approximately 1 to 5 feet bgs).

7.1.3 Vertical and Lateral Extent of Groundwater Contamination

Groundwater monitoring and testing results indicate that PCE has migrated downward about 10 to 20 feet bgs to the unconfined shallow groundwater on top of the glacially consolidated Pre-Fraser low-permeability silt deposits. Groundwater is in year-round contact with the chlorinated solvent-contaminated soil at the former Mt. Baker Cleaners parcel and has migrated from there to the south/southwest where it is comingled with the petroleum plume on the Former Phillips 66 parcel.

PCE was detected at a concentration of 97,000 ug/L at AMW-21, which is nearly half the MTCA default aqueous solubility of 200,000 ug/L, indicating the likely presence of free-phase PCE in the vicinity of AMW-21. Dense nonaqueous-phase liquid (DNAPL) is suspected if groundwater concentrations are greater than 1 percent of the aqueous solubility for a chlorinated solvent (EPA, 1992). The concentration of PCE at AMW-21 indicates there is likely free-phase PCE in the vicinity of this monitoring well.

Borings and wells completed in the utility corridors show that the PCE contamination sourced from the Mt. Baker Cleaners parcel is **not** traveling preferentially through the coarser fill placed around utilities. Rather, PCE in groundwater appears to be traveling downgradient through natural pathways, where natural attenuation has degraded it into its degradation products (TCE, DCE, and VC; Figure 12). The downgradient extent of the dissolved-phase plume is defined by VC concentrations.

The distal end of the solvent plume is defined by the extent of VC in groundwater and has been delineated to the west (AMW-9, MW-6, AMW-17, and AMW-23), to the south (AMW-14 and AMW-18), and to the east (AMW-6, AMW-7, and AMW-8). Therefore, the extents of the groundwater plume have been fully bounded by wells installed during the RI, as shown on Figure 13.

7.1.4 Soil Gas Contamination

Soil gas sampling on the McClellan parcels (ASV-1 through ASV-5) indicates that volatilization of chlorinated solvents in soil and groundwater is occurring on all four parcels. Modeling of indoor air concentrations using the JEM indicated a risk to human health in the former Mt. Baker Cleaners building prior to demolition. However, soil gas and indoor air sampling completed on private properties located on S. McClellan Street and 29th Avenue S. confirm there is no current completed VI exposure pathway into downgradient occupied properties (Figure 16).

7.2 Former Phillips 66 Gas Station Parcel CSM

7.2.1 Source of Contamination

Gasoline- and diesel-range petroleum hydrocarbons were released into soil at the Former Phillips 66 parcel after the installation of UST systems in 1955 and prior to closure of the gas and auto service station in 1989. In addition, in Ecology's 2014 opinion letter, the former service garage was described as a potential source of PCE at the parcel. PCE was detected in shallow, unsaturated soil in borings completed in 2014 (GeoEngineers, 2015c) and in explorations completed during the RI (Figure 9). However, based on concentrations and dissolved-phase chlorinated solvents in groundwater, calculations indicate that the detections of PCE in soil at the Former Phillips 66 parcel are likely due to phase partioning from the groundwater plume originating from the source area on the former Mt. Baker Cleaners parcel (Appendix E). However, one exception is the shallow (approximately 1 to 5 feet bgs) PCE-contaminated soil in the southwest corner of the property, which may have resulted from a surface spill.

Based on the location of the impacted soil and groundwater, the petroleum release(s) were sourced from the following locations where areas of soil contamination are present:

- Gasoline- and diesel-range petroleum hydrocarbon and BTEX release(s) from former pump islands in the western portion of the parcel.
- Diesel- and heavy oil-range petroleum hydrocarbon release(s) from the former heating-oil UST located in the southeastern portion of the parcel.

These historical features are shown on Figure 4. The two releases comprise the Petroleum Hydrocarbon Source Areas (PHSA; see Section 8.4).

7.2.2 Vertical and Lateral Extent of Soil Contamination

Based on the chemical analytical results of the soil samples obtained prior to and during the RI, petroleum hydrocarbon-contaminated soil is present on the Former Phillips 66 parcel in two separate areas (Figures 10 and 11):

1. Gasoline-range petroleum hydrocarbons- and BTEX-contaminated soil near the former pump islands is present between approximately 12.5 and 20 feet bgs, and the lateral extent of the soil contamination is bounded by B-4 to the south, P-11, P-2, and P-4 to the east, P-12 to the north, and MW-5 to the west.

2. Gasoline- and diesel-range petroleum hydrocarbon-contaminated soil located near the heating-oil UST is present between approximately 8.5 and 15 feet bgs, and the lateral extent is bounded by GL-6 to the west and AMW-4 to the north.

The contaminated soil in both locations is likely in contact with (and in some cases deeper than) groundwater throughout the majority of the year.

7.2.3 Vertical and Lateral Extent of Groundwater Contamination

The groundwater beneath the Former Phillips 66 parcel occurs at depths of approximately 8 to 15 feet (Elevations 53 to 47). Gasoline- and diesel-range petroleum hydrocarbon-contaminated groundwater was identified in the immediate vicinity of the pump islands (MW-3, MW-5, MW-8, and MW-12). The gasoline-range petroleum hydrocarbon-contaminated groundwater appears to have migrated off the parcel to the west but is bounded in the downgradient direction by MW-2 and MW-6 (Figure 14). The diesel-range petroleum hydrocarbon-contaminated groundwater appears to have also migrated off the parcel to the west but is likewise bounded in the downgradient direction by MW-2 and MW-6 (Figure 15). It appears that gasoline- and diesel-range petroleum hydrocarbon-contaminated groundwater is moving downgradient from the location of the former fuel islands to the southwest.

The chlorinated-solvent plume from the PCE sources on the Mt. Baker Cleaners parcel is discontinuous through the Former Phillips 66 parcel, specifically at wells where concentrations of gasoline- and diesel-range petroleum hydrocarbons are present at concentrations exceeding MTCA Method A cleanup levels (Figure 12). In these areas where the PCE and petroleum hydrocarbon plumes are commingled, it is likely that high concentrations of petroleum hydrocarbons in soil and groundwater are creating anaerobic biogeochemical conditions favorable for microbially mediated reductive dechlorination of chlorinated solvents. However, chlorinated solvents in groundwater to the northeast and southwest of the petroleum hydrocarbon-contaminated wells are still present at concentrations exceeding MTCA Method A cleanup levels.

7.2.4 Soil Gas Contamination

Soil gas sampling on the Former Phillips 66 parcel indicates that volatilization of chlorinated solvents and benzene in soil and groundwater is occurring beneath the parcel (Figure 16). Also, the soil gas to indoor air pathway is complete at the former Mt. Baker Cleaners and Former Phillips 66 parcels but is not complete at the private residences and commercial properties downgradient of the Mt. Baker Cleaners parcel that were tested.

7.3 Site Exposure Pathways and Receptors

7.3.1 Groundwater to Surface Water

Surface water or groundwater discharge to surface water is not present on or in the vicinity of the Site. Generally, groundwater flows in the opposite direction (southwest) of the nearest surface water body (Lake Washington, to the east-northeast). With no evidence of a completed groundwater to surface water pathway at or near the Site, this pathway will not be considered for the Site.

7.3.2 Soil to Groundwater

Chlorinated-solvent soil contamination at the former Mt. Baker Cleaners parcel is present at depths ranging from approximately 2 to 30 feet bgs (Elevations 81 to 43) and extends to within a few feet of the top of the low permeability Pre-Fraser deposits. The contaminated soil is in contact with the entire thickness of groundwater, which is located at approximately 5 to 12 feet bgs (Elevations 75 to 67), where the groundwater contamination is also bounded by the low permeability Pre-Fraser deposits. In areas downgradient of the dry-cleaner source, solvents are present in soil and groundwater in the fluctuating zone of the water at depths of approximately 5 to 15 feet bgs (Elevations 56 to 46) on the Mt. Baker Cleaners parcel and approximately 12 to 15 feet bgs (Elevations 50 to 48) on the Former Phillips 66 parcel.

In addition, gasoline- and diesel-range petroleum hydrocarbon soil contamination is present at the Former Phillips 66 parcel at depths ranging from approximately 10 to 20 feet bgs, which intersects the groundwater table at approximately 9 to 12 feet bgs.

Dissolved-phase chlorinated solvent- and petroleum hydrocarbon-related contaminants have been detected in groundwater at the Site. Based on these data, the soil-to-groundwater pathway is complete.

7.3.3 Soil and Groundwater Direct Contact

Chlorinated solvent- and petroleum hydrocarbon-contaminated soil and groundwater contamination is present at the Site at depths ranging from approximately 2 to 30 feet bgs. 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. Because activities (including property redevelopment) will occur that will expose the contaminated soil and groundwater, there is a construction exposure risk. The soil and groundwater direct contact pathway is considered a complete pathway for the Site.

7.3.4 Soil and/or Groundwater to Vapor Inhalation

Based on the results of soil gas sampling conducted at the Site and nearby private properties, soil gas containing chlorinated solvents and BTEX is present at the Site. Contaminants present in soil gas originate from volatilization of soil and groundwater concentrations. The soil- and/or groundwater-to-vapor inhalation is a complete pathway in areas of the McClellan parcels and Former Phillips 66 parcel, where future redevelopment is planned. Soil gas testing in areas of the private properties and residences along 29th Avenue S. demonstrated that the soil gas present beneath these properties is low but does represent a complete pathway. Therefore, while the soil- and/or groundwater-to-vapor inhalation pathway is complete, and mitigation is warranted on the future Maddux North and South redevelopment projects (the McClellan parcels and the Former Phillips 66 parcel), the vapor intrusion risk is low, and mitigation does not appear to be warranted for the properties along 29th Avenue S. (south of S. McClellan Street). The most recent groundwater data collected (Table 6) shows that concentrations of benzene, xylenes, and naphthalene in groundwater exceed the screening levels at locations MW-5, MW-8, MW-12, and B-3 (in 2011).

8 FS - Cleanup Requirements

This section identifies the applicable or relevant and appropriate requirements (ARARs), remedial action objectives (RAOs), and preliminary cleanup levels (PCULs) used as the basis for developing and evaluating remedial alternatives, as follows:

- Section 8.1 identifies the ARARs that are most likely to have a significant influence on the identification and assembly of remedial alternatives to be evaluated in this FS.
- Section 8.2 presents the contaminated media and COCs by media.
- Section 8.3 describes the cleanup standards of PCULs and points of compliance.
- Section 8.4 identifies the areas requiring remedial action evaluation in the FS.
- Section 8.5 presents the RAOs.
- Section 8.6 presents the future use and planned redevelopment of the Site.

8.1 Applicable or Relevant and Appropriate Requirements (ARARs)

The MTCA (Chapter 70.105D Revised Code of Washington [RCW]) requires that cleanup actions comply with applicable state and federal laws (WAC 173-340-360(2)a(iii)), which include legally applicable requirements, as well as requirements that the department 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 are 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 (Sections 8.2 and 8.3).
- Action-specific ARARs are performance, design, or other requirements that may place controls or restrictions on a particular remedial action.
- Location-specific ARARs are requirements that are triggered based on the location of the remedial action to be undertaken.

The following ARARs are identified for the Site:

- Washington Dangerous Waste Regulations (Chapter 173-303 WAC) would apply if dangerous wastes are generated, and United State Department of Transportation and Washington State Department of Transportation regulations regarding transport of hazardous materials (49 Code of Federal

Regulations [CFR] Parts 171-180) would apply if regulated material is transported off-site as part of the cleanup action.

- If construction-generated dewatering water or stormwater from the cleanup action is discharged to surface waters of the State of Washington, such discharge would need to comply with requirements of a National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit (CSGP). Infiltration of stormwater is not subject to the CSGP, but there are no plans to infiltrate stormwater at this Site. Ecology administers the federal NPDES program in Washington State. Operators of regulated construction sites discharging to surface waters of the state are required to:
    - Submit a Notice of Intent and obtain coverage under the Construction stormwater General Permit.
    - Develop a stormwater pollution prevention plan (SWPPP).
    - Implement sediment, erosion, and pollution prevention control measures, including water quality treatment, as needed, to comply with the SWPPP.
    - The permit also requires that site inspections be conducted by a Certified Erosion and Sediment Control Lead.
- There are no plans to discharge stormwater directly to a surface water body. It is possible that stormwater may be collected, tested and treated (if warranted) prior to discharge to a nearby sanitary sewer system. The applicable authorities for permitting such discharges are City of Seattle and King County who maintain the piping and treatment facilities, respectively.
- Occupational Safety and Health Administration and Washington Industrial Safety and Health Act regulations (29 CFR 1910.120; Chapter 296-62 WAC) governing worker safety during cleanup action execution.
- Washington State Water Well Construction Regulations (Chapter 173-160 WAC) regulating groundwater well installation and decommissioning as part of the cleanup action.
- The Archeological and Historical Preservation Act (16 USCA 496a-1) would be applicable if any subject materials are discovered during grading and excavation activities. Interactions have already occurred with Department of Archaeology and Historic Preservation (DAHP) related to this Site. In a July 30, 2018, letter to MBHA, DAHP indicated the following: “We concur with a Determination of No Cultural Resource impacts with the stipulation for an Unanticipated Discovery Plan.” An Unanticipated Discovery Plan will be part of the Cleanup Action Plan (CAP).

Additional ARARs that may be relevant to a remedial action include:

- General Occupational Health Standards (Chapter 296-62 WAC)
- Safety Standards for Construction Work (Chapter 296-155 WAC)

- Underground Injection Control Program (Chapter 173-218 WAC)
- Permits from local municipalities as required for activities at the Site. Examples include King County and City of Seattle permits for sewer discharges, and City of Seattle grading permits, street-use permits, or shoreline permits.

Many ARARs are commonly addressed through standard industry practices. For instance, construction of monitoring or remediation wells will be conducted by a Washington State-licensed driller, and construction work is conducted under site-specific health and safety plans in compliance with applicable safety regulations.

8.2 Media and Contaminants of Concern

Based on the data collected prior to and during the RI, the impacted media at the Site are soil, groundwater, and soil gas. Contaminants of potential concern (COPCs) and their affected media are summarized in Table G.

Table G: Contaminants of Concern and Affected Media

Media	Contaminants of Concern
Soil	• PCE • TCE • Gasoline-range petroleum hydrocarbons • Diesel-range petroleum hydrocarbons • Oil-range petroleum hydrocarbons • BTEX
Groundwater	• PCE • TCE • DCE • VC • Gasoline-range petroleum hydrocarbons • Diesel-range petroleum hydrocarbons • BEX
Soil Gas	• PCE • TCE • Benzene

Other COPCs were either not detected or were detected at concentrations less than their respective MTCA Method A cleanup levels or are components of the COCs listed above that will be part of the solvents and hydrocarbons remediation (such as arsenic, lead, and benz(a)pyrene) for soil and groundwater, or the MTCA Method B subslab screening levels for soil gas.

8.3 Cleanup Standards

Cleanup standards consist of:

- Cleanup levels that are protective of human health and the environment;
- The point of compliance at which the cleanup levels must be met.

Cleanup standards applicable to the Site are summarized below.

8.3.1 Preliminary Cleanup Levels

The MTCA Method A cleanup levels for soil and groundwater have been selected as the PCULs for the COCs at the Site. The MTCA Method B screening levels for subslab soil gas were chosen as the cleanup standards for soil gas. These PCULs are shown in Table H.

Table H: Overview of Proposed Site Cleanup Standards

Contaminant of Concern	Cleanup Level and Media		
	Soil (mg/kg)	Groundwater (µg/l)	Soil Gas (µg/m^3)
PCE	0.05	5	321
TCE	0.03	5	12.3
DCE	N/A	16	N/A
VC	N/A	0.2	N/A
Gasoline-range petroleum hydrocarbons	30	800	N/A
Diesel- and heavy-oil range petroleum hydrocarbons	2,000	500	N/A
Benzene	0.03	5	10.7
Toluene	7	1,000	N/A
Ethylbenzene	6	700	N/A
Xylenes, Total	9	1,000	N/A
MTCA Point of Compliance	Throughout the Soil Column	Throughout the Site	Throughout the Site

Notes: mg/kg – milligrams per kilogram, ug/L – micrograms per liter, ug/m^3 – micrograms per cubic meter

8.3.2 Points of Compliance

Under MTCA, the point of compliance is the point or location on a site where the cleanup levels must be attained. In accordance with WAC 173-340-740(6)(d), the standard point of compliance for protection of soil is throughout the soil column. The standard point of compliance for groundwater is throughout the Site. The standard point of compliance for soil gas is throughout the Site.

8.3.3 Terrestrial Ecological Protection

Under MTCA, a Terrestrial Ecological Evaluation (TEE) is required for sites with releases of hazardous substances to soil, unless the site meets one or more exclusions. Aspect completed Ecology's TEE Form, included in Appendix D. TEE exclusion is based on the

following criteria in WAC 173-340-7491(c)(i) and WAC 173-340-7491(c)(ii)under MTCA:

- There is less than 1.5 acres of contiguous undeveloped land on the site, or within 500 feet of any area of the site affected by the hazardous substances.

The Site is not located within 500 feet of 1.5 acres of undeveloped land. Therefore, the Site is excluded from complying with the TEE requirements.

8.4 Areas for Remedial Action Evaluation

The nature and extent of contamination for the Site is provided in Section 7, the CSM. For the purposes of this FS, three areas have been defined for remedial action evaluation (Figure 24). These areas and their drivers for cleanup are as follows:

- **Chlorinated Solvent Source Area (CSSA):** Soil and groundwater in the CSSA are impacted by PCE released from the Mt. Baker Cleaners. The high concentrations of PCE observed in soil beneath the Mt. Baker Cleaners leach to groundwater, creating the groundwater plume, and volatilize, creating a pathway for potential VI. Based on the results of groundwater sampling conducted at AMW-21, free-phase PCE is expected to be present in the CSSA in the north end of the Mt. Baker Cleaners parcel.

  Towards the south end of the McClellan parcels (i.e., near AMW-1 and AMW-2), PCE concentrations in saturated soil are in soil-groundwater equilibrium with the dissolved-phase PCE concentrations (Appendix E).

- **Petroleum Hydrocarbon Source Area (PHSA):** The PHSA includes two distinct areas of soil contamination on the Former Phillips 66 parcel:

  a. Near the former pump islands in the western portion of the parcel

  b. Near the heating-oil UST in the southeastern portion of the parcel

  The high concentrations of petroleum observed in soil beneath the Former Phillips 66 parcel and surrounding ROW leach to groundwater, creating the groundwater plume (the gasoline contamination also volatilizes, creating a pathway for potential VI). Based on partitioning calculations, with the exception of the shallow PCE-contaminated soil located in the southeast corner of the parcel where a surface spill likely occurred, chlorinated solvents detected in saturated soil in the PHSA are in soil-groundwater equilibrium with the dissolved-phase PCE concentrations. This indicates that PCE-contaminated soil on the Former Phillips 66 parcel is sourced from groundwater flowing onto the property and not a release to soil (Appendix E).

- **Groundwater Plume:** The areal extent of the groundwater plume originates at the CSSA and extends southwest through the S. McClellan Street ROW, underneath the Former Phillips 66 parcel, and into the MLK Jr. Way S. ROW. The extents of the groundwater plume are primarily driven by PCE in the CSSA; PCE, TCE, and VC under S. McClellan Street; the PHSA; and VC at the distal end as it extends under MLK Jr. Way S. The groundwater plume

includes the dissolved phase gasoline- and diesel-range petroleum hydrocarbons, benzene, toluene, and ethylbenzene associated with the PHSA.

8.5 Remedial Action Objectives (RAOs)

RAOs consist of chemical- and media-specific goals for protecting human health and the environment. The RAOs specify the media and contaminants of interest, potential exposure routes and receptors, and proposed cleanup goals. In accordance with MTCA and other applicable regulatory requirements, the objective of the proposed cleanup action is to eliminate, reduce, or otherwise control to the extent feasible and practicable, risks to human health and the environment posed by hazardous substances in soil, groundwater, and soil gas.

The following RAOs are established for the evaluation of remedial alternatives in the FS:

- RAO 1: Reduce concentrations of COCs in soil to meet PCULs at the standard point of compliance.
- RAO 2: Reduce concentrations of COCs in groundwater to meet PCULs at the standard point of compliance within a reasonable time frame.
- RAO 3: Reduce concentrations of COCs in soil and groundwater to achieve VI-based PCULs for protection of indoor air. Apply engineering controls to protect receptors until VI-based PCULs are obtained.

8.6 Future Property Use, Redevelopment, and Cleanup

MBHA plans to redevelop both the McClellan parcels and Former Phillips 66 parcel into affordable housing apartment buildings (known as Maddux North and Maddux South, respectively). Redevelopment is expected to commence in January 2020.

Once the buildings are constructed, remedial technologies, which rely on repeated treatments and/or direct access to the CSSA and PHSA, will be impractical to implement beneath the future buildings.

The McClellan parcels will be redeveloped as a multilevel residential building (known as Maddux North) with ground-level commercial space and some subsurface infrastructure, including a parking garage. The current concentrations of chlorinated solvents beneath the McClellan parcels represent a risk to human health and the environment, and, even with engineered controls on the new structures, will require long-term monitoring. Therefore, the CSSA will be treated or removed prior to redevelopment.

The Former Phillips 66 parcel will be redeveloped as a multilevel residential building (known as Maddux South) with ground-level commercial space and some subsurface infrastructure, but no underground parking. The current concentrations of chlorinated solvents beneath the Former Phillips 66 parcel represent a risk to human health and the environment, and, even with engineered controls on the new structures, will require long-term monitoring. Therefore, treatment or removal of the CSSA will improve downgradient groundwater quality and facilitate Monitored Natural Attenuation (MNA). However, the PHSA will also be treated or removed prior to redevelopment because once the at-grade development occurs, there will be no opportunity to access the PHSA for cleanup.

9 FS - Identification and Screening of Remedial Technologies

9.1 Potential Remedial Technologies

Potentially applicable remedial technologies for addressing the COCs at the Site include:

- **Institutional Controls (IC).** Administrative or engineering controls to prevent exposure to contaminants in place, such as capping, vapor barriers, subslab depressurization systems, and/or deed restrictions.
- **Monitored Natural Attenuation (MNA).** The active monitoring of contaminant removal by naturally occurring processes, such as biodegradation, sorption, dilution, and dispersion.
- ***In Situ* Permeable Reactive Barrier (PRB).** Direct emplacement of a continuous, permeable, reactive material in the aquifer perpendicular to groundwater flow that treats groundwater as it flows through the barrier; PRB media can promote chemical and/or biological treatment processes of contaminated groundwater.
- ***In Situ* Chemical Reduction (ISCR).** Injection or direct emplacement through *in situ* soil mixing of a chemical (such as zero valent iron) into the groundwater that treats contaminants through abiotic, chemical reduction.
- **Enhanced Anaerobic Bioremediation (EAB).** Injection of a carbon source and, if necessary, bioaugmentation to enhance microbial-mediated reductive dechlorination of chlorinated solvents.
- **Soil Vapor Extraction (SVE).** Extraction and treatment of contaminated soil vapor.
- **Air Sparging (AS).** Injection of air into contaminated soil and groundwater to volatilize contaminants (typically paired with SVE technology).
- ***In Situ* Chemical Oxidation (ISCO).** Injection of a chemical oxidant into groundwater, such as potassium permanganate or sodium persulfate, that reacts with and destroys contaminants.
- ***In Situ* Soil Solidification (ISS).** Reducing the permeability of contaminated soils through *in situ* soil mixing and the addition of cementing reagent to physically solidify soils and prevent leaching of soil contaminants to groundwater.
- **Dual-Phase Extraction (DPE).** Extracting and treating contaminated groundwater and vapor.
- ***In Situ* Thermal Treatment (ERH/TCH).** The treatment of contaminants *in situ* using heat applied through various technologies, that typically require the collection of vapors. Electrical Resistance Heating (ERH) and Thermal

Conductance Heating (TCH) are the two common thermal technologies that are applicable and evaluated in this FS.

- Soil Excavation. Removal of contaminated soil followed by off-Site disposal.

9.2 Screening of Remedial Technologies

Any potential remedial technologies must meet the RAOs and be compatible with the future use (redevelopment) of the Subject Property. Preliminary screening based on effectiveness, implementability, and comparative costs are presented below for the identified remedial technologies. (Note: underlined text indicates the remedial technology was retained for further evaluation in the FS).

- ICs: ICs would be used to minimize the potential for human exposure to contamination in the CSSA, the PHSA, and the groundwater plume. ICs may be implemented both during active remediation and postremediation. ICs are retained for assembly of remedial alternatives and applicable to all three areas evaluated for remedial action.
- MNA: MNA is relevant to the dissolved-phase chlorinated solvents and petroleum hydrocarbons that comprise the groundwater plume. It is not considered applicable to the CSSA and PHSA, due to the high concentrations in soil leaching to groundwater. However, MNA is an appropriate remedy when combined with another remedial alternative. MNA is retained for assembly of remedial alternatives applicable to the groundwater plume.
- PRBs: Similarly, PRBs are not appropriate as a sole remedy. PRBs would only be effective as dissolved-phase groundwater plume treatment and cannot treat the soil contamination associated with both the CSSA and PHSA. With the planned source treatment/removal and redevelopment, the only location available for construction of a PRB is the McClellan and MLK ROWs, which is infeasible and, therefore, PRBs are not retained
- ISCR: Injection-based ISCR is a viable remedial technology and is retained for use in the assembly of remedial alternatives for the groundwater plume and the CSSA. The ISCR technology can achieve treatment of PCE and degradation products, via direct chemical reduction, and could be applied through injection-based or *in situ* soil mixing methods. ISCR is not an applicable treatment technology for petroleum hydrocarbons, and therefore not retained for the PHSA.
- EAB: Injection-based EAB would primarily be effective for groundwater, where conditions are favorable for creation of anerobic conditions. EAB is a viable remedial technology. Because such high concentrations of PCE remain in groundwater underneath S. McClellan Street, the reductive dechlorination of PCE would produce DCE isomers and VC, creating exceedances of additional COCs in this area of the groundwater plume. In addition, for complete reductive dechlorination to ethene/ethane, repeated injections would be required. Also, the creation of anaerobic conditions necessary for reductive dechlorination produces methane that can accumulate in the vadose zone in

the vicinity of residential structures. For these reasons, EAB is not retained for use in the assembly of remedial alternatives for the groundwater plume. Given the high soil concentrations associated with both the CSSA and PHSA, EAB was eliminated as a remedial technology for these areas.

- SVE: SVE would not be effective for volatile contaminants in the saturated zone; therefore, it is eliminated as a stand-alone remedial technology for the groundwater plume. Based on the concentrations observed in the source zones, SVE performance would be constrained by mass transfer from the soil and dissolved phase to soil vapor, and given the soil and groundwater concentrations, SVE alone is not expected to achieve cleanup standards in a reasonable restoration time frame. Likewise, based on the planned redevelopment, access to the CSSA and PHSA prior to new construction will not be available for a long-enough time frame for SVE to meet the RAOs. Therefore, SVE is not retained as a potential remedial technology for the CSSA, PHSA, or groundwater plume.
- AS: AS is effective at volatilization of dissolved-phase contaminants from the vadose and saturated zones. The technology would be implemented through an array of AS points into which the injected air would physically volatilize the contaminants into the vapor phase. In order for AS to effectively remediate the groundwater plume, the AS points would need to be spaced with overlapping radii of influence, perpendicular to groundwater flow to create a sparge curtain. The sparge curtain would strip chlorinated solvents from the groundwater, and the clean water would migrate downgradient through advection. However, given the flow direction of the groundwater plume and its location, an AS curtain would potentially include the installation of AS points, SVE points, and the associated infrastructure into S. McClellan Street, MLK Jr. Way S., and their ROWs, including the need for aboveground equipment that would be incompatible with the public land use. Based on the anticipated cost, complexity, and operation of this infrastructure and access constraints in the streets and ROWs, AS is not retained as a potential remedial technology for any of the three areas targeted for remedial action.
- ISCO: ISCO requires direct contact between a chemical oxidant and the contaminant; therefore, it is not effective for the treatment of the large footprint of contaminated soils in the CSSA and PHSA. Similarly, the application of ISCO is most effective at treatment of higher concentrations in a well-defined area, so would not be readily implementable for addressing the broad aerial footprint of the groundwater plume. Therefore, ISCO is not retained as a potential remedial technology for any of the three areas targeted for remedial action.
- ISS: ISS is technically applicable for treatment of both the CSSA and PHSA as well as being compatible with future redevelopment and use of the property. ISS is effective for treatment of soil contamination, physically solidifying the aquifer matrix and preventing leaching to groundwater. ISS is not applicable for treatment of the dissolved-phase groundwater plume.

Therefore, ISS was retained as a potential remedial technology for the CSSA and PHSA.

- DPE: Dual-phase extraction is less implementable than other *in situ* technologies, based on the anticipated amount of groundwater that would need to be extracted. Treatment and discharge of groundwater, combined with more intensive operation and maintenance needs associated with this technology, contribute to a higher overall cost. In addition, this technology is not expected to be significantly more effective at remediating the Site than the other technologies under consideration. Therefore, DPE is not retained as a potential remedial technology for any of the three areas targeted for remedial action.
- ERH/TCH: ERH and/or TCH are not implementable over the areal extent of the groundwater plume. The heat generated during ERH and TCH is incompatible with many of the utilities that would be present in S. McClellan Street and MLK Jr. Way S. and their respective ROWs. Likewise, vapor capture in those areas is infeasible. ERH and TCH also take a long time to permit and implement and are disruptive to future use of the property. ERH and TCH are cost-effective when used to treat contamination that has come to be located at deep depths, which prevent successful implementation of other remedial technologies. Because ERH and TCH are technically applicable for treatment of both chlorinated solvents and petroleum hydrocarbons in the CSSA and PHSA (albeit, not the most cost-effective due to the shallowness of this Site contamination) they are retained for remedial alternative development. Therefore, ERH and TCH were eliminated as a potential remedial technology for the groundwater plume.
- Excavation: Excavation is implementable in both the CSSA and PHSA. Complete removal of contaminated soil, including disposal at an appropriate facility, would result in the elimination of the soil leaching to groundwater pathway. Excavation would provide the quickest restoration time frame for the two source areas and would allow the planned redevelopment of the two properties. Excavation is retained as an applicable remedial technology for the CSSA and PHSA. Excavation of the CSSA and PHSA would remove the sources to the groundwater plume, but excavation is not retained as a technology applicable to the groundwater plume.

The following table summarizes the screening of remedial technologies for each of the areas for remedial action evaluation.

Table I: Remedial Technology Screening Summary

Remedial Technology	CSSA	PHSA	Groundwater Plume
ICs	Retained	Retained	Retained
MNA	Not Retained	Not Retained	Retained
PRB	Not Retained	Not Retained	Not Retained
ISCR	Not Retained	Not Retained	Retained
EAB	Not Retained	Not Retained	Not Retained
SVE	Not Retained	Not Retained	Not Retained
AS	Not Retained	Not Retained	Not Retained
ISCO	Not Retained	Not Retained	Not Retained
ISS	Retained	Retained	Not Retained
DPE	Not Retained	Not Retained	Not Retained
ERH/TCH	Retained	Retained	Not Retained
Excavation	Retained	Retained	Not Retained

10 FS - Remedial Alternative Development

The retained remedial alternatives were used develop remedial alternatives for the FS per WAC 173-340-350(8). The evaluation of remedial alternatives includes a disproportionate cost analysis and evaluation of whether a cleanup action uses permanent solutions to the maximum extent practicable, in accordance with MTCA (WAC 173-340-360(3)). This section presents the remedial alternatives using retained technologies. These remedial alternatives include conceptual designs necessary for FS evaluation and selection of a preferred alternative. For evaluation of remedial alternatives, a cost estimate to comparatively evaluate them is presented in Appendix F.

Remedial alternatives were assembled using the retained technologies from Section 9.2. Five remedial alternatives were developed for evaluation in this FS:

- Alternative 1 – No Action
- Alternative 2 – CSSA Excavation to Elevation 60, PHSA Excavation, and MNA: The CSSA will be excavated to Elevation 60 and disposed off-Site. The PHSA will be excavated and disposed of off-Site. Groundwater cleanup standards will be achieved through MNA alone.
- Alternative 3 – CSSA Excavation to Elevation 60, PHSA Excavation, ISS, Contingency ISCR, and MNA: The CSSA will be excavated to Elevation 60 and disposed off-Site; ISS will target soil exceedances caused by groundwater partitioning. The PHSA will be excavated and disposed off-Site. After 5 years of MNA of groundwater, ISCR would be implemented as a contingency to enhance MNA of the groundwater plume and reduce the restoration time frame.
- Alternative 4 – Thermal, ISCR, and MNA: The CSSA will be treated using ERH technology, and the PHSA will be treated using ERH and TCH technologies. After 5 years of MNA of groundwater, ISCR would be implemented as a contingency to enhance MNA of the groundwater plume and reduce the restoration time frame.
- Alternative 5 – CSSA Excavation to Elevation 44, PHSA Excavation, ISCR, and MNA: The CSSA will be excavated to an Elevation of 44 in the northeast portion of the Mt. Baker Cleaners parcel, and the PHSA will be excavated and disposed off-Site. After 5 years of MNA, ISCR would be implemented as a contingency to enhance MNA of the groundwater plume and reduce the restoration time frame.

The details of each alternative are summarized in Table 10 and described in detail in the following sections. A summary of the remedial alternative costs is presented in Table 11.

10.2 Alternative 1 – No Action – Monitoring and VI Mitigation Only

The no action alternative consists of groundwater monitoring and vapor mitigation. While this alternative has no active remediation because contamination would remain in soil and groundwater, thus representing a known vapor intrusion exposure pathway at the McClellan and Former Phillips 66 parcels (Table 9), both redevelopments would require chemical vapor barriers. It is a remedial alternative to evaluate with respect to MTCA threshold requirements in Section 11.

10.3 Alternative 2 – Chlorinated Solvent Excavation to Elevation 60, Petroleum Hydrocarbon Source Removal, and MNA

Once the McClellan and Former Phillips 66 parcels are redeveloped, direct access to the CSSA and PHSA will be infeasible. Based on the screening of technologies discussed in Section 9.2, soil excavation and off-Site disposal is the most compatible remedial technology for the planned redevelopment and future use of the Subject Property. It is also the most permanent and protective for addressing the source areas.

Alternative 2 includes the removal of soil containing Site COCs in the CSSA above the PCULs to an elevation of 60 feet amsl on the Mt. Baker Cleaners parcel. This elevation is below the contact of the recessional deposits and the Pre-Fraser aquitard. Alternative 2 also includes removal of the soil above PCULs in the PHSA, to the extent practical. Shoring of the remedial excavations will be required, and the limits of soil containing COCs above the PCULs will be removed from within the excavation boundaries (and estimated excavation depths) from both the McClellan and Former Phillips 66 parcels (Figure 25).

The remedial excavation will extend to an elevation of 60 feet amsl at the source of the PCE release on the Mt. Baker Cleaners parcel and will be sloped to the redevelopment grade of 75 feet amsl on the west side of the excavation (Figure 25). Some additional overexcavation below Elevation 60 will be required in the areas surrounding locations ADP-49, ADP-51, ADP-56, and AB-1 to remove COCs above the PCULs (Figure 26). The limits of each overexcavation area (below elevation 60 ft amsl) will be determined by field screening and laboratory analysis. For the purposes of the FS, the following was assumed:

- ADP-49 and ADP-51 will be overexcavated in an approximately 13-foot by 10-foot area to an elevation of 55 feet amsl.
- ADP-56 will be overexcavated in an approximately 10-foot by 10-foot area to an elevation of 57 feet amsl.
- AB-41 will be overexcavated in an approximately 15-foot by 10-foot area to an elevation of 56 feet amsl.

In addition, AMW-21 will be overexcavated to an approximate elevation of 55 feet amsl. However, PCE was detected above the MTCA Method A cleanup level at Elevation 48 in one soil sample obtained at this location. The concentration at Elevation 48 is anomalous

and compliance with the MTCA will be established by performing confirmation sampling in accordance with WAC 340-740 (7)e(ii), and it will be left in place.

Based on current data, the CSSA remedial excavation is expected to remove approximately 6,500 tons of soil contaminated with chlorinated solvents, including any potential free-phase PCE. Confirmation soil sampling will be performed to ensure the removal of soil containing chlorinated solvents at concentrations exceeding the PCULs, to the extent practical. Dewatering will be necessary to perform the remedial excavation for the CSSA. Groundwater in the area of the CSSA contains the highest concentrations of PCE and TCE. Groundwater generated from dewatering will be treated prior to permitted discharge, which represents mass removal from the groundwater plume. The removal of the CSSA will provide immediate environmental benefit and remove the source of chlorinated solvents to the groundwater plume.

Some soil exceedances of PCE above the PCULs will remain on the western McClellan parcels. These soil exceedances coincide with seasonal groundwater fluctuations and, based on data from AMW-1 and AMW-2, are due to phase partioning from groundwater (Appendix E). Removing the PCE source on the Mt. Baker Cleaners parcel will improve PCE concentrations downgradient through the other McClellan parcels.

For the PHSA, the remedial excavation will extend to 20 feet bgs in the western excavation area and 15 feet bgs in the southeastern excavation area of the Former Phillips 66 parcel, where the assumed source of the gasoline-range petroleum hydrocarbon and heavy oil-range petroleum hydrocarbon releases occurred, respectively. The remedial excavations will extend to depths where COC concentrations exceeded the PCULs. For the western excavation, gasoline-range petroleum hydrocarbons have historically been detected at concentrations up to 6,000 mg/kg (P-8). For the southeastern excavation area, heavy oil-range petroleum hydrocarbons have been detected at concentrations up to 18,000 mg/kg (AMW-13). Based on existing data, the PHSA remedial excavations are expected to remove approximately 5,000 tons of soil contaminated with petroleum hydrocarbons. Confirmation soil sampling will be performed in conjunction with the remedial excavation to verify removal of soil containing petroleum hydrocarbons at concentrations exceeding the PCULs.

Post-excavation of the CSSA and PHSA, the concentrations of dissolved-phase chlorinated solvents and petroleum hydrocarbons comprising the groundwater plume will begin to naturally attenuate. This alternative assumes that MNA alone will achieve cleanup standards and RAOs.

In addition to the CSSA and PHSA source removal, this alternative includes:

- Implementation of soil vapor controls (a chemical vapor barrier and a passive underslab venting system) below any future buildings on the McClellan and Former Phillips 66 parcels to mitigate potential VI from chlorinated-solvent soil and groundwater contamination remaining in the S. McClellan Street ROW.
- Installation of groundwater monitoring wells at select locations to verify the effectiveness of the removal action and improvement of groundwater quality.

For the purposes of this FS, it is assumed that the existing wells outside building footprints at the Site will be utilized, and up to five new monitoring wells will be installed for confirmation monitoring.

- Semiannual groundwater monitoring follows the source removal for a period of 5 years (years 1 to 5 after source removal).
- For the purposes of the FS, it is assumed that groundwater monitoring will be conducted annually for years 6 to 30 after source removal. The estimated restoration time frame is discussed in the evaluation of remedial alternatives in Section 11.
- Targeted soil confirmation sampling in areas where COCs remained in soil above the PCULs postexcavation, groundwater confirmation monitoring, and closure reporting in year 30.

The conceptual layout of Alternative 2 is depicted on Figure 25. For evaluation of remedial alternatives, a cost estimate to comparatively evaluate them is presented in Appendix F.

10.4 Alternative 3 – Chlorinated Solvent Excavation to Elevation 60, *In Situ* Soil Solidification, Petroleum Hydrocarbon Source Removal, Contingency *In Situ* Chemical Reduction, and Monitored Natural Attenuation

Alternative 3 includes all components of Alternative 2 with ISS for deeper soil exceedances and contingency ISCR treatment. ISS would be implemented on the McClellan parcels for soils exceedances in the area west of the excavation (Figure 27). Due to the detections of PCE sorbed to soil in the ranging from Elevations 52 to 53 feet amsl at AMW-10 and ADP-26, ISS would be performed to Elevation 50, ensuring that any chlorinated solvent contaminant mass that is sorbed to soil is physically immobilized and will not leach to groundwater.

ISS would be accomplished by densifying the soil using a displacement auger, which penetrates the ground and displaces soils laterally. In addition to the densification accomplished during advancement of the displacement auger, the borehole is pressure grouted as the auger is withdrawn. The combination of grout emplacement and densification results in the reduction of soil permeability and prevents leaching of contaminant mass in soil to groundwater.

The following summarizes discrete components of Alternative 3 not included in Alternative 2, and any differences in assumptions for cost estimating purposes.

At year 5, ISCR will be implemented through injections of a chemical reductant (zero valent metal, such as iron) to chemically reduce PCE and degradation products. The final design would be based on the 5 years of MNA monitoring results. For purposes of the FS, the following conceptual design is assumed:

- Injections will be performed using direct-push drilling equipment and target:

1. Groundwater in the glacial recessional unit, where contaminated groundwater transport occurs.
2. Contaminated groundwater on the north side of S. McClellan Street where the current highest concentrations exist, outside of the source removal footprint. It is assumed that three transects would be spaced evenly across S. McClellan Street to reduce downgradient clean-water travel distance and therefore overall restoration time frame of the groundwater plume (Figure 27). The actual location of the contingency ISCR transects will be determined after 5 years of MNA monitoring and implemented where it will be expected to have the greatest reduction in the overall restoration time frame.

- Injections will be implemented as transects of injection points oriented orthogonal to groundwater flow to create a reactive zone. Degradation rates downgradient of this reactive zone will be through clean-water flushing at rates controlled by groundwater seepage velocities.
- The transect will be approximately 100 feet long, and the injection points would be centered on a 4-foot spacing.
- With the treatment longevity associated with the emplaced reactive minerals, one ISCR injection event is assumed.
- With the enhancement of MNA through contingency ISCR, it assumed that annual MNA monitoring would be required for an additional 15 years to achieve groundwater PCULs.
- Targeted soil confirmation sampling in areas where COCs remained in soil above the PCULs postexcavation, groundwater confirmation monitoring, and closure reporting in year 20.

The conceptual layout of Alternative 3 is depicted on Figure 27. For evaluation of remedial alternatives, a cost estimate to compare remedial alternatives is presented in Appendix F.

10.5 Alternative 4 – Electrical Resistance Heating, Thermal Conductance Heating, *In Situ* Chemical Reduction, and Monitored Natural Attenuation

Unlike Alternatives 2and 3, CSSA and PHSA source treatment would be achieved through ERH and TCH treatment prior to redevelopment. In this alternative, ERH would be implemented where chlorinated solvent and gasoline-range petroleum hydrocarbons concentrations exceeds PCULs (Figure 28). TCH would be implemented where heavy-oil range petroleum hydrocarbon concentrations exceed the PCUL. *In situ* thermal treatment would be implemented after demolishing the existing buildings. Conceptual design criteria for this alternative were provided by TRS Group, Inc., a vendor for the technology. ERH would be implemented in both the CSSA and the gasoline-range petroleum hydrocarbon-contaminated portion PHSA (the western side of the Former Phillips 66 parcel). ERH is not effective in remediating the petroleum hydrocarbons with

higher molecular weights and vapor pressures associated with the heating-oil release in the southeast portion of the Former Phillips 66 parcel. Therefore, that portion of the PHSA will be treated via TCH.

Alternative 4 involves the following elements:

- Rerouting heat-sensitive subsurface utilities in the treatment area (such as power lines in plastic conduit).
- For the CSSA, installing a network of colocated electrodes and vapor recovery (VR) wells, using a hollow-stem auger drill rig. Approximately 40 electrodes/wells would be installed, spaced an average of 13 feet apart.
- For the PHSA, installing a network of collocated electrodes and VR wells using a hollow-stem auger drill rig. In the gasoline-contaminated area, approximately 13 electrodes/VR wells would be installed, spaced an average of 12 feet apart. In the heating-oil contaminated area, approximately 36 heater wells and 10 VR wells would be installed, spaced an average of 10 feet apart.
- Applying power to heat the subsurface while recovering vapors from the VR wells. Vapors would be treated with activated carbon prior to discharging to the atmosphere.
- Operating the thermal treatment system for approximately 6 months. Once mass removal drops to a point suggesting cleanup is nearing completion, the ground will be allowed to cool, so representative soil and groundwater samples can be obtained in the treatment area to evaluate performance. Operation would continue in areas on the property exceeding soil and groundwater PCULs until additional confirmation sampling indicates cleanup goals are met. The uncertainty that the ERH and TCH systems may need to be turned back on to continue remediation makes this remedial technique questionable from a future property-use perspective. For the purposes of this FS, it has been assumed that treatment of the CSSA and PHSA will need to occur in two 6-month treatment periods, with confirmation sampling conducted in between.

Alternative 4 also includes contingency ISCR implemented at year 5 in S. McClellan Street, with the same conceptual design as described in Alternative 3. In addition to the ERH and contingency ISCR, the following are the discrete assumptions associated with Alternative 4:

- With the enhancement of MNA through contingency ISCR, it assumed that MNA monitoring will be required for an additional 15 years to achieve groundwater PCULs.
- Targeted soil confirmation sampling in areas where COCs remained in soil above the PCULs post-remediation, groundwater confirmation monitoring, and closure reporting in year 15.

The conceptual layout of Alternative 4 is depicted on Figure 28. For evaluation of remedial alternatives, a cost estimate to comparatively evaluate them is presented in Appendix F.

10.6 Alternative 5 – Chlorinated Solvent Excavation to Elevation 44, Petroleum Hydrocarbon Source Removal, Contingency *In Situ* Chemical Reduction, and Monitored Natural Attenuation

Alternative 5 includes all components of Alternative 2, with the contingency ISCR implementation in Alternative 3, as well as a more extensive remedial excavation in the CSSA. Under Alternative 5, shoring and the remedial excavation in the CSSA would be extended to an elevation of 44 feet amsl to remove all soil containing PCE concentrations above the PCULs in the CSSA. The estimated volume of chlorinated solvent-contaminated soil to be removed from the excavation extents is 14,000 tons. The conceptual layout of the remedial excavations in Alternative 5 is depicted on Figure 29.

10.7 Contingency Actions

Remedial Alternatives 2 through 5 include contingency actions that would be implemented if performance monitoring indicates the cleanup action is insufficiently protective or will not achieve RAOs. In areas where restoration relies on natural attenuation, monitoring will be used to assess compliance with RAOs. If monitoring indicates a significantly longer time frame than estimated, the need for additional actions will be assessed based on evaluation of potential risks from a longer restoration time frame, the ability to achieve a significantly shorter time frame using active methods, and the cost of doing so. All alternatives include monitoring to evaluate remedy protectiveness. Potential contingency technologies are described briefly below.

10.7.1 Contingency Actions in the CSSA and PHSA

If it proves impractical or infeasible to remove Site COCs in soil at concentrations greater than the PCULs, potential contingency actions would be evaluated. Any soil containing Site COCs that cannot be removed via excavation would likely occur beneath the water table and in the sidewalls of each excavation.

For any soil exceedances that remain following source removal/treatment, achieving soil to groundwater-based PCULs in soil would be demonstrated empirically by achieving groundwater PCULs. In areas where an empirical demonstration may not apply, an institutional control would be applied for protectiveness of direct contact or soil to indoor air exposure pathways (such as a chemical vapor barrier). In addition, if source removal/treatment performance monitoring indicates soil concentrations that exceed PCULs but are not practical to remove, a reactive backfill amendment could be applied. This reactive backfill amendment would likely be a chemical reductant. Excavation backfill amendments are also an opportunity to cost-effectively emplace media and enhance MNA of the groundwater plume.

10.7.2 Contingency Actions in the Groundwater Plume

Alternatives 3 through 5 include a presumed contingency action of ISCR to enhance MNA of the groundwater plume. The source removal/treatment of the two source areas will have a significant positive impact on groundwater concentration. This is the basis of assuming the contingency ISCR implementation after 5 years of MNA monitoring. The

ISCR technology is suitable as contingency action due to the flexible implementation. Where Site logistics and access allow, they can be implemented through an injection point.

The conceptual layouts of these contingency ISCR actions are for FS purposes only. The actual implementation may vary significantly and will be appropriately designed to achieve groundwater cleanup standards based on the results of 5 years of MNA monitoring.

11 FS - Evaluation of Cleanup Alternatives

This section discusses the evaluation of cleanup alternatives to inform the selection of the preferred alternative.

11.1 Requirements for Cleanup Actions

WAC 173-340-350(8)(c)(i)(g) and -360 establish the minimum requirements for evaluating cleanup alternatives under MTCA. The minimum requirements include threshold and other requirements (such as use of permanent solutions to the maximum extent practicable and provide for a reasonable restoration time frame), as well as a disproportionate cost analysis to determine the appropriate remedial action.

11.1.1 Threshold Requirements

Cleanup actions selected under MTCA must meet four threshold requirements identified in WAC 173-340-360(2)(a) to be accepted by Ecology. All cleanup actions must:

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

When selecting from cleanup alternatives that meet the threshold requirements, the following other requirements, identified in WAC 173-340-360(2)(b), must be evaluated:

- Use permanent solutions to the maximum extent practicable. Cleanup actions that achieve cleanup standards without requiring further action are preferred. A disproportionate cost analysis (DCA) is conducted to assess the extent to which the cleanup alternatives address this criterion. The procedures and standards for conducting a DCA are described below.
- Provide a reasonable restoration time frame. Cleanup actions that can be implemented in a shorter period of time are preferred. WAC 173-340-360(4) sets forth the requirements and procedures for determining whether a cleanup alternative provides for a reasonable restoration time frame.
- Consider public concerns. Cleanup actions that consider public concerns are preferred. The extent to which a cleanup alternative considers public concerns is evaluated in the DCA.

11.1.2 Disproportionate Cost Analysis Requirements

The purpose of a DCA is to compare the costs and benefits of the cleanup alternatives developed in the FS. According to MTCA, “Costs are disproportionate to benefits if the incremental costs of the alternative over that of a lower cost alternative exceed the incremental degree of benefits achieved by the alternative over that of the lower cost alternative” (WAC 173-340-360(3)(e)). The following seven criteria (described in WAC 173-340-360(3)(f)) must be used to evaluate and compare each cleanup alternative when conducting a DCA:

- **Protectiveness:** The overall protectiveness of human health and the environment, including the degree to which existing risks are reduced, time required to reduce the risks and attain cleanup standards, on-site and off-site risks during implementation, and improvement in overall environmental quality.
- **Permanence:** The degree to which the alternative reduces the toxicity, mobility, or volume of hazardous substances, including the adequacy of destroying hazardous substances, the reduction or elimination of hazardous substance releases and sources of releases, the degree of irreversibility of treatment, and the characteristics and quantity of the treatment residuals.
- **Cost:** The cost to design, construct, and implement the alternative, plus the cost of long-term operation and maintenance (O&M) required for the alternative.
- **Long-term effectiveness:** The degree of certainty that the alternative will successfully and reliably address contamination that exceeds applicable cleanup levels until cleanup levels are attained, the magnitude of the residual risk with the alternative in place, and the effectiveness of controls to manage treatment residue and remaining wastes.
- **Short-term risk management:** The risks to human health and the environment during construction and implementation of the alternative, and the effectiveness of measures that will be taken to manage such risks.
- **Implementability:** This includes consideration of whether the alternative is technically possible; the availability of necessary off-site facilities, services, and materials; administrative and regulatory requirements; scheduling, size, and complexity of the alternative; monitoring requirements; access for construction, operations, and monitoring; and integration with existing facility operations and other current or potential remedial actions.
- **Consideration of public concerns:** The concerns of individuals, community groups, local governments, Tribes, federal and state agencies, and other interested organizations will be considered.

11.2 Evaluation of Threshold Requirements

The elements of the cleanup alternatives and the evaluation of the alternatives relative to the MTCA minimum requirements are summarized in Sections 11.2.1 through 11.2.6. If a cleanup alternative does not meet the threshold requirements, it is not evaluated.

11.2.1 Protection of Human Health and the Environment

Alternatives 2 through 5 would protect human health and the environment through a combination of: (1) removal or thermal treatment of contaminated soil and groundwater in the CSSA and PHSA; (2) MNA of groundwater plume following source removal, with groundwater compliance monitoring and contingency actions included, if needed, to be protective; and (3) institutional controls. Alternative 1 would not be protective.

11.2.2 Compliance with Cleanup Standards

Alternatives 2 through 5 would comply with cleanup standards through removal, natural attenuation, and implementation of contingency actions to achieve groundwater cleanup standards. All alternatives include the potential for groundwater PCULs to be exceeded for an extended period of time. These exceedances will require containment measures (including engineering and/or institutional controls) during the restoration time frame.

Compliance with groundwater PCULs would be ultimately achieved by attaining PCULs at the standard point of compliance. All Site COCs are amenable to natural attenuation in groundwater, which will occur after source area thermal treatment or removal. The rate of natural attenuation and associated time to achieve groundwater PCULs is the primary difference between remedial alternatives.

Compliance with soil cleanup standards would be obtained through a combination of treatment/removal, attenuation, and implementation of engineering and institutional controls (containment). Per WAC 173-340-355(2), a cleanup action involving containment of soils exceeding PCULs at the point of compliance may be determined to comply with cleanup standards, provided the requirements of WAC 173-340-740(6)(f) are met. Those requirements are:[2]

- The selected remedy is permanent to the maximum extent practicable.
- The cleanup action is protective of human health and terrestrial ecological receptors.
- Institutional controls are put in place that prohibit or limit activities that could interfere with the long-term integrity of the containment system.
- Compliance monitoring and periodic reviews are designed to ensure the long-term integrity of the containment system.
- The types, levels, and amount of hazardous substances remaining on-site and the measures that will be used to prevent migration and contact with those substances are specified in the Draft Cleanup Action Plan.

Alternatives 2 through 5 would be designed and implemented in conformance with the above requirements; therefore, they would comply with soil cleanup standards. Alternative 1 would not comply with cleanup standards.

11.2.3 Compliance with Applicable State and Federal Laws

The ARARs identified for the cleanup action are presented in Section 8.1. Alternatives 2 through 5 would comply with ARARs. Compliance with the chemical-specific ARARs will be achieved through Ecology approval of this RI/FS and selection of a cleanup action. Compliance with the location and actions-specific ARARs will occur through standard industry practices, design, permitting, or construction management. Alternative 1 would not comply with ARARs.

[2] The requirements of WAC 173-340-740(6)(f) are paraphrased here; refer to the MTCA regulation for the complete language.

11.2.4 Compliance Monitoring

Under MTCA, compliance monitoring encompasses the following types of monitoring:

- Protection monitoring confirms that human health and the environment are adequately protected during construction and the O&M period of a cleanup action.
- Performance monitoring confirms that the cleanup action has attained cleanup levels and/or other performance standards, such as construction quality control measurements or monitoring necessary to demonstrate compliance with a permit.
- Confirmation monitoring confirms the long-term effectiveness of the cleanup action once cleanup levels and/or other performance standards have been attained.

Alternatives 2 through 5 would each provide for compliance monitoring. In each of the Alternatives, protection monitoring will include a Site-specific cleanup action health and safety plan that outlines protective measures and monitoring to ensure protection of human health and the environment during remedy construction. In each of the Alternatives, performance monitoring includes sampling of soils once the source areas have been treated or removed. In Alternatives 2, 3, and 5, confirmation soil samples will be obtained from the sidewalls and bottom of the remedial excavations in the CSSA and PHSA, and confirmation groundwater samples will be collected once performance monitoring of the groundwater plume indicates that the PCULs have been achieved.

11.2.5 Conclusion Regarding Threshold Requirements

Based on the above evaluation, Alternatives 2 through 5 are all expected to comply with the MTCA threshold criteria. Therefore, these four alternatives are carried forward to the DCA. Alternative 1 would not comply with threshold requirements and is not carried forward.

11.3 Disproportionate Cost Analysis (DCA)

A DCA quantifies the environmental benefits of each cleanup alternative, and then compares the cost of the alternative to its environmental benefits. Environmental benefits are quantified by first rating each cleanup alternative with respect to each of the six DCA criteria discussed in Section 11.1.2. Rating values are assigned on a scale of 1 to 7, where 1 indicates the criterion is satisfied to a very low degree, and 7 indicates the criterion is satisfied to a very high degree. Because Ecology does not consider all criteria to be of equal importance, each criterion is assigned a weighting factor. Based on Ecology input for feasibility studies conducted at other sites, weighting factors are assigned as follows:

- Overall protectiveness: 30 percent
- Permanence: 20 percent
- Long-term effectiveness: 20 percent
- Short-term risk: 10 percent
- Implementability: 10 percent

- Consideration of public concerns: 10 percent

An environmental benefits ranking is calculated for each cleanup alternative by multiplying the six rating values by their corresponding weighting factors and summing the weighted values. The environmental benefits ranking of each alternative is then divided by the alternative's estimated cost (in tens of millions of dollars) to obtain a benefit/cost ratio, which is a relative measure of the cost-effectiveness of the alternative.

The following sections evaluate the five cleanup alternatives against the DCA criteria. Table 12 contains the benefits rankings, estimated costs, and benefit/cost ratio for each cleanup alternative. Figure 30 shows the DCA summary.

11.3.1 Overall Protectiveness

Alternatives 4 and 5 rank the highest (rating: 6) in overall protectiveness, because both of these Alternatives address all known soil exceedances in the CSSA. The primary remedial component, removal or treatment of both source areas, is included in all Alternatives, except Alternative 1. Also, institutional controls would be applied to protect the indoor air and direct contact exposure pathways. Likewise, all Alternatives include long-term monitoring of the groundwater plume to ensure that human health and the environment are protected, and trigger the implementation of contingency actions, if necessary.

As discussed in Section 10.1.6, Alternatives 3 through 5 include active remediation as a contingency action for the groundwater plume to enhance MNA. While it is not expected that Alternative 2 would not be protective, the reliance on MNA alone warranted a lower ranking of 3 for overall protectiveness. Similarly, the ISS used in Alternative 3 is less protective than complete source removal and therefore warranted a lower ranking of 5 for overall protectiveness.

11.3.2 Permanence

Alternative 3 provides a high degree of permanence (rating: 5) given the removal of the PCE source in the CSSA. The larger removal in the CSSA in Alternative 5 is the most permanent, so Alternative 5 was given the highest ranking (7). MNA results in a high degree of permanence as the attenuation mechanisms are irreversible.

Alternative 4, where the CSSA and PHSA are treated *in situ* using ERH technology is estimated to provide a slightly greater degree of permanence (rating: 6) than Alternatives 2, 3, and 4. The mechanisms of ERH treatment (volatilization and vapor recovery) are inherently permanent processes and result in a permanent source treatment.

11.3.3 Long-Term Effectiveness

Alternative 2 ranks lowest in long-term effectiveness (rating: 2) due to the restoration time frame associated with reliance on MNA alone. With the addition of contingency ISCR in Alternative 3 to enhance MNA and accelerate the restoration time frame, a rating of 4 is warranted for Alternative 3. The use of thermal for CSSA and PHSA treatment is capable of achieving the same endpoint as removal (and therefore equivalent long-term effectiveness); however, the time frame and design may not allow achieving this endpoint, so it is assumed to have a slightly less long-term effectiveness compared to Alternatives 3 and 5).

11.3.4 Short-Term Risk

Alternatives 2 and 3 are both given rankings of 3, as there are short-term risks associated with source removal. With the deeper and more complex excavation in Alternative 5, it is assigned a ranking of 2 because these short-term risks would be more acute. The risks associated with removal include exposure to construction workers and the neighboring community due to volatile COCs, transport of contaminated soils through residential neighborhoods, and shoring and dewatering activities in an excavation of contaminated soils. All of these risks can be managed through design, construction practices, and/or engineering or administrative controls.

The risks associated with thermal treatment in Alternative 4 are very different than removal and overall considered to be slightly less, thus Alternative 4 was given a ranking of 4. The contingent ISCR does not have enough short-term risk to influence the rankings, relative to CSSA and PHSA removal or ERH treatment.

11.3.5 Implementability

The removal of the CSSA and PHSA is implementable and through careful planning and engineering design can be implemented safely and effectively. MNA is readily implementable. Alternative 2 is assigned a ranking of 6.

The ISS in Alternative 3 presents an implementability challenge, as the equipment will need to be placed in the excavation after soil removal has been accomplished, and the ISS performance monitoring may require treatability testing and/or post-construction verification sampling. Alternative 3 is assigned a ranking of 3.

The design, construction, and operation of an ERH system is not readily implementable; the technology requires significant design and system mobilization/construction effort at the front-end. The technology also requires coordination with power utilities for the large power demand, often requiring a new power drop, which can require significant lead times. Also, the implementation of ERH and the estimated schedule would prohibit the current redevelopment time frame. Thus, Alternative 4 is given the lowest ranking of 1 and is marginally implementable.

The additional shoring, dewatering, and excavation necessary to reach an elevation of 44 amsl in Alternative 5 presents some implementability challenges, and Alternative 5 was assigned a ranking of 3.

11.3.6 Consideration of Public Concerns

Public comments to date regarding the cleanup and redevelopment of the Site and associated media coverage have been very favorable towards the cleanup and redevelopment of the Site. Ecology oversees the public review and comment process and incorporates the public input into the cleanup process. Alternatives 2 through 5 are given a ranking of 7 for this category as they all will result in complete cleanup and Subject Property redevelopment for affordable housing.

11.3.7 Conclusion Regarding Disproportionate Cost Analysis

Based on the results of the DCA, Alternative 3 has the highest environmental benefits ranking and the highest benefit/cost ratio ranking. The results contained in Table 12 are summarized below in Table J.

Table J: Summary of the Disproportionate Cost Analysis

Alternative	Total Estimated Cost (Net Present Value)	Environmental Benefits Ranking	Benefit/Cost Ratio Ranking
Alternative 2 – CSSA Excavation to Elev. 60, PHSA Source Removal, and MNA	$5,620,000	3.7	7.0
Alternative 3 – CSSA Excavation to Elev. 60, ISS, PHSA Source Removal, Contingency ISCR, and MNA	$6,260,000	4.6	7.5
Alternative 4 Thermal, Contingency ISCR, and MNA	$9,610,000	4.8	5.0
Alternative 5 – CSSA Excavation to Elev. 44, PHSA Source Removal, Contingency ISCR, and MNA	$8,560,000	5.4	6.3

11.3.8 Evaluation of Restoration Time Frame

WAC 173-340-360 (4) sets forth the requirements and procedures for determining whether a cleanup alternative provides for a reasonable restoration time frame. This section estimates restoration time frame for each of the remedial alternatives and evaluates these estimates relative to the MTCA requirements and procedures (restoration time frame estimates also summarized in Appendix G).

All remedial alternatives include addressing the CSSA and PHSA through either removal, or *in situ* thermal treatment followed by MNA of groundwater. PCE-contaminated soil exceedances in the Pre-Fraser geologic unit are only present in the upper few feet of this geologic unit that appears to have been weathered. Otherwise, based on the numerous borings in this unit, it is very low permeability silt and clay (representative of an aquitard). As a result, the soil concentrations in the Pre-Fraser unit do not contribute to groundwater transport and the solvent-contaminated groundwater plume; instead, groundwater flow and contaminant transport occurs in the more permeable, overlying recessional outwash units.

The overall restoration time frame will be driven by achieving groundwater PCULs in the ROWs and outside the source remediation. Due to the complexity of the geology, hydrogeology, and contaminant concentrations of the comingled solvent and hydrocarbon plumes, the data show that the solvent plume is bifurcated geochemically by the petroleum hydrocarbons present in soil and groundwater in the PHSA. Upgradient of the petroleum hydrocarbons (to the north and northeast), the groundwater plume is

predominantly PCE with significantly lower concentrations of TCE, cis-1,2 DCE observed; while downgradient (south and southwest) of the petroleum hydrocarbons, VC concentrations define the extent of the groundwater plume. The presence of the petroleum hydrocarbons in soil and groundwater have created anaerobic, reducing geochemical conditions necessary for reductive dechlorination of the PCE in groundwater. This is explained by the presence of VC downgradient of the hydrocarbons but not upgradient (or closer to the former dry cleaner source where PCE is present).

The dissolved-phase solvent plume will drive the overall restoration time frame, and it is appropriate, and necessary, to break the groundwater plume into two different restoration time frames:

1. **Longer Time Frame – the area upgradient of the PHSA** (the PCE/TCE/DCE that will remain in S. McClellan Street after source removal at the former dry cleaner). Based on current groundwater concentrations (three orders magnitude greater than PCUL) in the S. McClellan Street ROW, achieving the PCUL of 5 ug/L in the ROW will drive the overall restoration time frame for the Site.
2. **Shorter Time Frames**
    a. **The VC area downgradient of the PHSA.** The downgradient extent of the groundwater plume south and southwest of the PHSA is degraded to primarily VC at concentrations within one order of magnitude of the PCUL. As a result, this portion of the solvent-contaminated groundwater plume is expected to naturally attenuate through aerobic biodegradation and volatilization to the PCUL sooner than the PCE in the S. McClellan Street ROW.
    b. **The petroleum hydrocarbons in groundwater** contained within the larger solvent plume is limited in extent due to lower mobility in groundwater (relative to chlorinated solvents). The petroleum hydrocarbons in groundwater are expected to reach PCULs much sooner than the PCE in S. McClellan Street ROW under natural attenuation.

The restoration time frame estimates outlined below are based on analysis of hydrogeologic properties and groundwater quality in developing a simplistic fate and transport model. The model assumes that each Alternative effectively removes the solvent (and hydrocarbon) source (within the bounds of their respective source properties). Therefore, the remainder of this section outlines the mechanisms, calculations, and degradation of solvent-contaminated groundwater that remains in the S. McClellan Street ROW (while the residual hydrocarbons and VC downgradient of the PHSA naturally degrade).

11.3.8.1 Evaluation for Restoration Time Frame of Solvent Contaminated Groundwater at S. McClellan Street ROW

Groundwater Seepage Velocity. An estimated groundwater seepage velocity of 51 feet/year is estimated for the recessional (silty sand with gravel) unit, where the solvent-contaminated groundwater plume exists. The recessional deposits are low permeability

(0.18 ft/day assumed for calculations) but have a very steep horizontal hydraulic gradient of nearly 0.1 feet/feet (10 percent). This horizontal hydraulic gradient is the driving force of what little groundwater flow occurs through these low permeability sediments.

Groundwater Flushing. In this "post-source-removal" scenario, groundwater below PCULs will migrate downgradient from the now-cleaned and backfilled former Mt. Baker Cleaners parcel, creating a "clean-water" front migrating downgradient to the south, southwest. This clean-water front will flush pore spaces through advection, and the model applies a mixed linear reservoir model that estimates the number of pore flushes required to achieve the desired concentration (Zheng et al, 1991). This approach is applied to estimated restoration time frames for the four remedial alternatives and calculations (presented in Appendix G).

A pore volume length of 113 feet is applied for the model – the estimated groundwater travel distance across the S. McClellan Street ROW. The initial groundwater concentration after CSSA/PHSA remediation at the upgradient edge of the S. McClellan Street ROW is assumed to be 1,000 ug/L of PCE (a rough average of current groundwater concentrations, and conservative given the potential benefit of remedial excavation, and excavation dewatering). Based on the assumptions, using default MTCA values for PCE soil organic carbon-water partitioning coefficient (265 liters per kilogram) and fraction organic carbon (0.001), the following restoration time frames were calculated for each Alternative (Alternative 1 is a no action alternative):

Alternative 2. The estimated restoration time frame of Alternative 2 (Remedial Excavation and then MNA) is 51 years. This is not considered to be a reasonable restoration time frame and thus would require the inclusion of contingency active groundwater treatment to reduce this restoration time frame in the S. McClellan Street ROW.

Alternative 3 (4 and 5) - (these alternatives include excavation or ERC/TCH and *In Situ* Solidification and then MNA). After 5 years of MNA monitoring, our model assumes that PCE degrades to 500 ug/L. If this scenario occurs, then the contingency ISCR could be implemented. As shown in Figures 27, 28, and 29, the conceptual design assumes that ISCR would be implemented as three transects of injection points across S. McClellan Street. This design shortens the groundwater travel time, and thus reduces the modeled pore volume length to 42 feet. Applying the same MTCA default values as shown in Appendix G, the estimated time to achieve groundwater PCULs after ISCR implementation is 15 years. Adding the first 5 years of MNA, the total estimated restoration time frame for Alternatives 3, 4, and5 is 20 years.

This simple modeling analysis suggests that MNA alone is not capable of achieving groundwater PCULs in a reasonable time frame because of remaining PCE contaminant mass in the S. McClellan Street ROW and the slow groundwater flow rate (even if "clean" groundwater is introduced after removal of contamination from the dry cleaner source parcel). The contingency ISCR presented in Alternatives 3, 4, and 5 was added to account for this possibility (that restoration time frame of the dissolved-phase groundwater plume is controlled by the hydrogeologic conditions).

As highlighted by the calculations above, groundwater compliance is most dependent on the rate of groundwater flow. The contingency ISCR establishes treatment zones that create shorter clean-water flushing zones and reduces the overall restoration time frame.

Alternatives 3, 4, and 5 would provide a reasonable restoration time frame, based on the relevant factors identified in WAC 173-340-360 (4) (b).

11.4 Selection of Preferred Cleanup Alternative

Based on the evaluation in the FS and the conclusion of the DCA, **Alternative 3 is the preferred cleanup alternative**. The CSSA presents an ongoing source to the groundwater plume, and Alternative 3 (CSSA excavation to Elevation 60, ISS, PHSA source removal, contingency ISCR, and MNA) includes the removal of approximately 6,500 tons of chlorinated solvent-contaminated soil in the PCE source area. This 6,500 tons removes all soil exceedances contributing to the groundwater plume, including any potential free-phase PCE that may exist in the source zone. The deeper, lower-concentrations of soil exceedances in the Pre-Fraser unit will be addressed via ISS. In addition, Alternative 3 also includes the removal of the petroleum hydrocarbon source to groundwater.

The 5 years of MNA monitoring following source removal will demonstrate the onset of natural attenuation process in groundwater and allow an estimate of post-source removal attenuation rates and an updated estimate of the restoration time frame. Alternative 3 assumes that, based on current concentrations of PCE in S. McClellan Street and its ROWs, that ISCR will be implemented in this area as a contingency to treat residual PCE concentration, enhance MNA processes downgradient, and reduce the restoration time frame.

12 Summary and Conclusions

12.1 Summary of Site Conditions

The Site is in the Mt. Baker neighborhood of Seattle, Washington, and is comprised of five parcels and the surrounding rights-of-way on S. McClellan Street and MLK Jr. Way S. Sources of soil and groundwater contamination are present at: (1) the Mt. Baker Cleaners parcel (2864 S. McClellan Street), (2) the Former Phillips 66 parcel (2800 MLK Jr. Way S.), and (3) home heating-oil USTs associated with residential or commercial uses on the Mt. Baker Cleaners parcel, the single-family residence at 2806 S. McClellan Street, and the former Phillips 66 gas station.

Previous remediation activities have included the excavation and removal of the gasoline and waste-oil USTs, the fuel islands and associated piping, and hydraulic hoists at the Former Phillips 66 parcel, and some *in situ* treatment of remaining petroleum hydrocarbon-contaminated soil.

The objective of this RI/FS was to evaluate the nature and extent of subsurface environmental impacts from historical activities on the Subject Property and develop plan for remediation. Based on the results of this RI/FS, the COCs and media of concern consist of the following:

- Chlorinated solvents in soil, groundwater, and soil gas
- Gasoline-range petroleum hydrocarbons in soil, groundwater, and soil gas
- Diesel- and oil-range petroleum hydrocarbons in soil and groundwater

Results from soil gas sampling, soil borings, and two rounds of groundwater monitoring indicate that soil, groundwater, and soil gas contain concentrations of chlorinated solvents, PCE in particular, above the MTCA Method A cleanup levels, and are above the PCE TCLP threshold for dangerous waste in one area on the Mt. Baker Cleaners parcel. Solvents in groundwater have been found to migrate south and southwest of the source property (the former dry cleaner), beneath the Former Phillips 66 parcel, and beneath the MLK Jr. Way S. ROW. Results also indicate that soil and groundwater with concentrations of petroleum hydrocarbons above the respective MTCA Method A cleanup levels is present on the Site—at the Former Phillips 66 parcel and in the MLK Way Jr. S. ROW. Chlorinated solvents and gasoline-range petroleum hydrocarbons also are present in areas above each of those soil- and groundwater-contaminant plumes.

12.2 Conclusions

The results of the RI indicate that there have been releases of PCE and petroleum hydrocarbons to soil and groundwater on the Site. The analytical results of the RI indicate that the source of the PCE is the former Mt. Baker Cleaners, where PCE has entered soil, likely through a variety of mechanisms centered in the north of the building, then migrated downward to the shallow, unconfined water table. The PCE continued to migrate downward until being arrested by the lower permeability Pre-Fraser aquitard where free-phase PCE may still be present in the source area. Petroleum hydrocarbon

contamination on the Site is sourced at the Former Phillips 66 parcel, from service station USTs, fuel islands, and associated subsurface piping. Petroleum hydrocarbon-contaminated soil remains in place around the former locations of the service station hardware.

Chlorinated solvent-contaminated groundwater is present across the Site downgradient from the source area (the former dry cleaner). In the area of heaviest petroleum hydrocarbon impact on the west side of the Former Phillips 66 parcel, chlorinated-solvent contamination has undergone reductive dechlorination, but concentrations of PCE degradation products, in particular VC, continue to exceed MTCA Method A cleanup levels downgradient of this area.

The extent of chlorinated solvent-impacted groundwater has been defined in all directions. Soil gas testing in the residences near the Site has determined that volatilization of chlorinated solvents from the groundwater plume is occurring, but that the concentrations below the residences to the south of the Mt. Baker Cleaners parcel do not pose a risk to indoor air.

Source removal through remedial excavations are the most applicable, permanent, cost-effective, and time-efficient method of remediating the CSSA (and contaminant mass) on the Mt. Baker Cleaners parcel, as well as the PHSA on the Former Phillips 66 parcel. Long-term monitoring of the chlorinated-solvent groundwater plume that extends past the boundaries of the Subject Property will be necessary. Future development on the Subject Property will require building construction controls, such as chemical vapor barriers and/or underslab venting to protect occupants from potential VI and to restrict exposure to potentially contaminated groundwater.

The CSSA requires immediate remedial action in order to stop the continued leaching of chlorinated solvents to groundwater. Based on the planned redevelopment, a remedial excavation is the most viable remedial alternative. The remedial excavation completed at the CSSA is expected to result in immediate improvements to the groundwater plume and reduction of solvent vapor migration and potential indoor air intrusion. The PHSA will be remediated via excavation prior to the planned redevelopment. Removal of the CSSA and PHSA facilitate redevelopment but also represent the most permanent remedial alternative of these two source areas.

The FS has resulted in selection of an appropriate remedial alternative that meets the requirements of MTCA—Alternative 3. The elements of the selected remedial alternative include excavating the majority of the PCE source mass on the Mt. Baker Cleaners parcel, ISS of any groundwater-contaminated soil remaining on the McClellan parcels, source removal of the petroleum hydrocarbons on the Former Phillips 66 parcel, MNA, and a possible contingency action of ISCR implementation. The MNA monitoring will be begin with a period of 5 years post-remedial excavation to update the estimate of MNA restoration time frame during the Ecology 5-year review process. Ecology will use the 5-year review process to evaluate if contingency actions are warranted. A detailed description of the selected remedial alternative will be presented in the CAP.

13 References

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Limitations

Work for this project was performed for the Mt. Baker Housing Association (Client), and this report was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This report does not represent a legal opinion. No other warranty, expressed or implied, is made.

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Please refer to Appendix H titled "Report Limitations and Guidelines for Use" for additional information governing the use of this report.

TABLES

Table 1. Summary of Historical Soil Results: Chlorinated Solvents

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs					
				Analyte	2-Butanone	Acetone	cis-1,2-Dichloroethene (DCE)	Tetrachloroethene (PCE)	Trichloroethene (TCE)	PCE TCLP
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L
				TCLP Dangerous Waste Threshold						700
				MTCA Method A Cleanup Level				0.05	0.03	
				MTCA Method B Cleanup Level	48,000	72,000	160			
Location	**Date**	**Sample Name**	**Depth**	**Approximate Elevation**						
AB-01	02/18/2017	AB-1-6.0	6 ft	72 ft	< 0.5 U	< 0.5 U	< 0.05 U	**1.7**	< 0.02 U	--
		AB-1-11.0	11 ft	67 ft	< 0.5 U	< 0.5 U	< 0.05 U	**11**	**0.22**	**280**
AB-02	02/18/2017	AB-2-8.0	8 ft	70 ft	< 0.5 U	< 0.5 U	< 0.05 U	**4.8**	< 0.02 U	**200**
		AB-2-13.6	13.6 ft	64 ft	< 0.5 U	< 0.5 U	< 0.05 U	**4.2**	< 0.02 U	--
AB-03	02/18/2017	AB-3-2.0	2 ft	76 ft	< 0.5 U	< 0.5 U	< 0.05 U	**0.42**	< 0.02 U	--
		AB-3-9.5	9.5 ft	68.5 ft	< 0.5 U	< 0.5 U	< 0.05 U	**15**	**0.13**	**260**
ATC-B-01	01/08/2016	B-1-9.5-10	9.5 - 10 ft	76 - 76.5 ft	--	--	< 0.00269 U	< 0.00269 U	< 0.00269 U	--
ATC-B-02	01/08/2016	B-2-4.5-5	4.5 - 5 ft	79 - 79.5 ft	--	--	< 0.0332 U	< 0.0332 U	< 0.0332 U	--
		B-2-9.5-10	9.5 - 10 ft	74 - 74.5 ft	--	--	< 0.0455 U	< 0.0455 U	< 0.0455 U	--
ATC-B-03	01/08/2016	B-3-7.5-8	7.5 - 8 ft	73 - 73.5 ft	--	--	< 0.0278 U	< 0.0278 U	< 0.0278 U	--
ATC-B-04	01/08/2016	B-4-4.5-5	4.5 - 5 ft	84 - 84.5 ft	--	--	< 0.0289 U	< 0.0289 U	< 0.0289 U	--
ATC-B-05	01/08/2016	B-5-4.5-5	4.5 - 5 ft	83 - 83.5 ft	--	--	< 0.0289 U	< 0.0289 U	< 0.0289 U	--
ATC-B-06	01/08/2016	B-6-4.5-5	4.5 - 5 ft	81 - 81.5 ft	--	--	< 0.0500 U	< 0.0500 U	< 0.0500 U	--
B-05	04/18/2011	B-5-5	5 ft	57 ft	--	--	< 0.001 U	< 0.001 U	< 0.001 U	--
		B-5-10	10 ft	52 ft	--	--	< 0.001 U	< 0.001 U	< 0.001 U	--
		B-5-15	15 ft	47 ft	--	--	< 0.001 U	< 0.001 U	< 0.001 U	--
		B-5-18	18 ft	44 ft	--	--	< 0.001 U	< 0.001 U	< 0.001 U	--
DP-01	09/02/2015	DP-1-2.0	2 ft	62.5 ft	--	--	< 0.00085 U	**0.0012**	< 0.00085 U	--
		DP-1-6.0	6 ft	58.5 ft	--	--	< 0.00081 U	**0.0030**	< 0.00081 U	--
DP-02	09/02/2015	DP-2-2.0	2 ft	62 ft	--	--	< 0.00080 U	**0.016**	< 0.00080 U	--
		DP-2-6.0	6 ft	58 ft	--	--	< 0.00097 U	**0.010**	< 0.00097 U	--
DP-03	09/02/2015	DP-3-2.0	2 ft	63.5 ft	--	--	< 0.00085 U	**0.0020**	< 0.00085 U	--
		DP-3-4.0	4 ft	61.5 ft	--	--	< 0.0011 U	**0.0075**	< 0.0011 U	--
DP-04	09/02/2015	DP-4-2.0	2 ft	64.5 ft	--	--	< 0.00083 U	< 0.00083 U	< 0.00083 U	--
		DP-4-6.0	6 ft	60.5 ft	--	--	< 0.00079 U	< 0.00079 U	< 0.00079 U	--
DP-05	09/02/2015	DP-5-2.0	2 ft	64 ft	--	--	< 0.00073 U	**0.00082**	< 0.00073 U	--
		DP-5-4.0	4 ft	62 ft	--	--	< 0.00078 U	**0.00081**	< 0.00078 U	--
DP-06	09/02/2015	DP-6-2.0	2 ft	61.5 ft	--	--	< 0.00074 U	**0.0026**	< 0.00074 U	--
		DP-6-6.0	6 ft	57.5 ft	--	--	< 0.00080 U	**0.0058**	< 0.00080 U	--
DP-07	09/02/2015	DP-7-2.0	2 ft	60.5 ft	--	--	< 0.00081 U	**0.0046**	< 0.00081 U	--
		DP-7-6.0	6 ft	56.5 ft	--	--	< 0.00085 U	**0.0020**	< 0.00085 U	--
HC-MW-01	05/16/2016	HC-MW-1-10	10 ft	57 ft	--	--	< 0.0010 U	< 0.0010 U	< 0.0010 U	--
		HC-MW-1-15	15 ft	52 ft	--	--	**0.0043**	**0.044**	**0.0032**	--
HC-MW-02	05/17/2016	HC-MW-2-8.5	8.5 ft	66.5 ft	--	--	**0.0027**	**0.0053**	**0.0036**	--
		HC-MW-2-20	20 ft	55 ft	--	--	< 0.0012 U	< 0.0012 U	< 0.0012 U	--
HC-MW-03	09/26/2016	HC-MW-3-5	5 ft	73.5 ft	< 0.0046 U	< 0.0071 U	< 0.00092 U	**0.0078**	< 0.00092 U	--
		HC-MW-3-7.5	7.5 ft	71 ft	< 0.0038 U	< 0.0058 U	< 0.00075 U	**0.0047**	< 0.00075 U	--
HC-MW-04	09/28/2016	HC-MW-4-12	12 ft	76.5 ft	< 0.0050 U	< 0.0082 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	--
		HC-MW-4-25	25 ft	63.5 ft	< 0.0053 U	**0.0064 J**	< 0.0011 U	< 0.0011 U	< 0.0011 U	--
HC-MW-05	09/29/2016	HC-MW-5-10	10 ft	62.5 ft	< 0.0050 U	< 0.0081 U	**0.0016**	**1.2**	**0.0062**	--
		HC-MW-5-12.5	12.5 ft	60 ft	< 0.29 U	< 0.43 U	< 0.057 U	**2.7**	< 0.057 U	--
HC-MW-06	09/29/2016	HC-MW-6-10	10 ft	53 ft	**0.0096**	**0.033 J**	< 0.0011 U	< 0.0011 U	< 0.0011 U	--
		HC-MW-6-15	15 ft	48 ft	**0.0057**	**0.022 J**	< 0.00098 U	< 0.00098 U	< 0.00098 U	--
HC-MW-07	09/30/2016	HC-MW-7-7.5	7.5 ft	56.5 ft	**0.011**	**0.028 J**	< 0.0011 U	< 0.0011 U	< 0.0011 U	--
		HC-MW-7-10	10 ft	54 ft	**0.022**	**0.053 J**	< 0.0010 U	< 0.0010 U	< 0.0010 U	--
HC-SB-01	09/26/2016	HC-SB-1-10	10 ft	72 ft	< 0.0051 U	< 0.0079 U	**0.0022**	< 0.0051 U	< 0.0010 U	--
		HC-SB-1-15	15 ft	67 ft	< 0.0047 U	< 0.0072 U	< 0.00094 U	**0.0076**	< 0.00094 U	--
HC-SB-02	09/28/2016	HC-SB-2-10	10 ft	58.5 ft	< 0.0056 U	< 0.0056 U	**0.0079**	**0.027**	**0.0065**	--
		HC-SB-2-12.5	12.5 ft	56 ft	< 0.0041 U	< 0.0066 U	**0.0019**	**0.03**	**0.0019**	--
KEE-B-01	05/24/2010	B1-3	-	-	--	--	< 0.0011 U	**0.0036**	< 0.0011 U	--
KEE-B-02	05/24/2010	B2-3	-	-	--	--	< 0.0011 U	**0.09**	< 0.0011 U	--
KEE-B-03	05/24/2010	B3-4	-	-	--	--	< 0.0012 U	**0.0027**	< 0.0012 U	--
K-SB-01	01/25/2006	K-SB-1-3	3 ft	76.5 ft	--	--	< 0.05 U	< 0.02 U	< 0.02 U	--
K-SB-02	01/25/2006	K-SB-2-4	4 ft	84 ft	--	--	< 0.05 U	**0.04**	< 0.02 U	--
		K-SB-2-6	6 ft	82 ft	--	--	< 0.05 U	**0.05**	< 0.02 U	--
K-SB-03	01/25/2006	K-SB-3-7	7 ft	76.5 ft	--	--	< 0.05 U	< 0.02 U	< 0.02 U	--
SE-B-06	12/20/2011	SE-B-6	-	-	--	--	< 0.02 U	**1.43**	< 0.03 U	--
SW-B-07	12/20/2011	SW-B-7	-	-	--	--	< 0.02 U	**0.31**	< 0.03 U	--

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeds Model Toxics Control Act (MTCA) Method A or B Cleanup Levels

U - Analyte not detected above laboratory reporting limit.

J - Analyte estimated

UJ - Estimated, nondetect

X - Chromatographic pattern did not match fuel standard.

ft - feet, mg/kg - milligrams per kilogram

VOCs - Volatile organic compounds

"--" - Not analyzed

Table 2. Summary of Historical Soil Results: BTEX, TPH, Metals, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					BTEX				TPHs			Metals								PAHs
				Analyte	Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	Acenaphthene
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level	**0.03**	**7**	**6**	**9**	**30**	**2,000**	**2,000**	**20**		2		**250**	2			
				MTCA Method B Cleanup Level									**16,000**					400	400	4,800
Location	**Date**	**Sample Name**	**Depth**	**Approximate Elevation**																
AB-01	02/18/2017	AB-1-6.0	6 ft	72 ft	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 2 U	< 50 U	< 250 U	**13.6**	--	< 1 U	**27.3**	**2.89**	< 1 U	--	--	< 0.01 U
		AB-1-11.0	11 ft	67 ft	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	--	--	--	--	--	--	--	--	--	--	--	--
AB-02	02/18/2017	AB-2-8.0	8 ft	70 ft	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	--	--	--	--	--	--	--	--	--	--	--	--
		AB-2-13.6	13.6 ft	64 ft	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	--	--	--	--	--	--	--	--	--	--	--	--
AB-03	02/18/2017	AB-3-2.0	2 ft	76 ft	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 2 U	< 50 U	< 250 U	**4.27**	--	< 1 U	**26.4**	**2.69**	< 1 U	--	--	< 0.01 U
		AB-3-9.5	9.5 ft	68.5 ft	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	--	--	--	--	--	--	--	--	--	--	--	--
ATC-B-01	01/08/2016	B-1-9.5-10	9.5 - 10 ft	76 - 76.5 ft	< 0.00269 U	< 0.00269 U	< 0.00404 U	< 0.00269 U	< 22.3 U	< 55.8 U	< 112 U	--	--	--	--	--	--	--	--	--
ATC-B-02	01/08/2016	B-2-4.5-5	4.5 - 5 ft	79 - 79.5 ft	< 0.0332 U	< 0.0332 U	< 0.0498 U	< 0.0332 U	--	--	--	--	--	--	--	--	--	--	--	--
		B-2-9.5-10	9.5 - 10 ft	74 - 74.5 ft	< 0.0455 U	< 0.0455 U	< 0.0682 U	< 0.0455 U	< 21.3 U	< 53.3 U	< 107 U	--	--	--	--	--	--	--	--	--
ATC-B-03	01/08/2016	B-3-7.5-8	7.5 - 8 ft	73 - 73.5 ft	< 0.0278 U	< 0.0278 U	< 0.0417 U	< 0.0278 U	--	--	--	--	--	--	--	--	--	--	--	--
ATC-B-04	01/08/2016	B-4-4.5-5	4.5 - 5 ft	84 - 84.5 ft	< 0.0289 U	< 0.0289 U	< 0.0433 U	< 0.0289 U	--	--	--	--	--	--	--	--	--	--	--	--
ATC-B-05	01/08/2016	B-5-4.5-5	4.5 - 5 ft	83 - 83.5 ft	< 0.0289 U	< 0.0289 U	< 0.0433 U	< 0.0289 U	--	--	--	--	--	--	--	--	--	--	--	--
ATC-B-06	01/08/2016	B-6-4.5-5	4.5 - 5 ft	81 - 81.5 ft	< 0.0500 U	< 0.0500 U	< 0.0750 U	< 0.0500 U	--	--	--	--	--	--	--	--	--	--	--	--
B-01	04/18/2011	B-1-5	5 ft	57.5 ft	< 0.0005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 1.1 U	--	--	--	--	--	--	**2.17**	--	--	--	--
		B-1-10	10 ft	52.5 ft	< 0.0005 U	< 0.001 U	< 0.001 U	< 0.001 U	**2**	--	--	--	--	--	--	**2.32**	--	--	--	--
		B-1-15	15 ft	47.5 ft	< 0.02 U	< 0.04 U	< 0.04 U	< 0.04 U	**40**	--	--	--	--	--	--	**2.17**	--	--	--	--
	04/19/2011	B-1-18	18 ft	44.5 ft	< 0.0005 U	< 0.0009 U	< 0.0009 U	< 0.0009 U	< 1.4 U	--	--	--	--	--	--	**1.76**	--	--	--	--
B-02	04/18/2011	B-2-5	5 ft	57.5 ft	**0.002**	**0.001**	< 0.001 U	**0.002**	**1.4**	--	--	--	--	--	--	**11.6**	--	--	--	--
		B-2-11	11 ft	51.5 ft	**0.001**	**0.002**	< 0.001 U	**0.005**	**12**	--	--	--	--	--	--	**11.4**	--	--	--	--
		B-2-15	15 ft	47.5 ft	< 0.045 U	< 0.089 U	**1.2**	**26**	**820**	--	--	--	--	--	--	**6.27**	--	--	--	--
	04/19/2011	B-2-18	18 ft	44.5 ft	**0.003**	< 0.001 U	**0.007**	**0.15**	**4.5**	--	--	--	--	--	--	**5.62**	--	--	--	--
B-03	04/18/2011	B-3-5	5 ft	59 ft	**0.0008**	< 0.001 U	< 0.001 U	< 0.001 U	< 13 U	**150**	**1,000**	--	--	--	--	**33.8**	--	--	--	--
		B-3-10	10 ft	54 ft	< 0.022 U	< 0.043 U	< 0.043 U	< 0.043 U	**450**	**10,000**	< 570 U	--	--	--	--	**2.21**	--	--	--	--
		B-3-15	15 ft	49 ft	< 0.024 U	< 0.048 U	< 0.048 U	< 0.048 U	**720**	**3,200**	< 620 U	--	--	--	--	**6.97**	--	--	--	--
	04/19/2011	B-3-20	20 ft	44 ft	< 0.0005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 1.2 U	< 3.6 U	< 12 U	--	--	--	--	**4.18**	--	--	--	--
B-04	04/18/2011	B-4-5	5 ft	56 ft	**0.001**	< 0.001 U	< 0.001 U	< 0.001 U	< 1.2 U	--	--	--	--	--	--	**6.13**	--	--	--	--
		B-4-10	10 ft	51 ft	< 0.0009 U	< 0.002 U	< 0.002 U	< 0.002 U	< 200 U	--	--	--	--	--	--	**5.21**	--	--	--	--
		B-4-15	15 ft	46 ft	< 0.0005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 18 U	--	--	--	--	--	--	**9.13**	--	--	--	--
	04/19/2011	B-4-17	17 ft	44 ft	**0.005**	< 0.001 U	< 0.001 U	**0.004**	**1.9**	--	--	--	--	--	--	**5.52**	--	--	--	--
B-05	04/18/2011	B-5-5	5 ft	57 ft	< 0.0005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 1.4 U	**11**	< 11 U	--	--	--	--	**0.928**	--	--	--	--
		B-5-10	10 ft	52 ft	< 0.0006 U	< 0.001 U	< 0.001 U	< 0.001 U	< 1.2 U	< 3.4 U	< 11 U	--	--	--	--	**2.13**	--	--	--	--
		B-5-15	15 ft	47 ft	< 0.0006 U	< 0.001 U	< 0.001 U	< 0.001 U	< 1.4 U	**12**	< 12 U	--	--	--	--	**1.81**	--	--	--	--
	04/19/2011	B-5-18	18 ft	44 ft	**0.002**	< 0.001 U	< 0.001 U	< 0.001 U	< 1.3 U	< 3.8 U	< 13 U	--	--	--	--	**4.53**	--	--	--	--
B-06	04/18/2011	B-6-5	5 ft	57 ft	< 0.0004 U	< 0.0009 U	< 0.0009 U	< 0.0009 U	< 1.1 U	--	--	--	--	--	--	**1.96**	--	--	--	--
		B-6-10	10 ft	52 ft	< 0.0005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 1.3 U	--	--	--	--	--	--	**2.38**	--	--	--	--
		B-6-15	15 ft	47 ft	< 0.29 U	< 0.58 U	**1.9**	**8.4**	**1,300**	--	--	--	--	--	--	**5.21**	--	--	--	--
	04/19/2011	B-6-17	17 ft	45 ft	< 0.0008 U	< 0.002 U	< 0.002 U	**0.025**	< 24 U	--	--	--	--	--	--	**19.3**	--	--	--	--

Table 2. Summary of Historical Soil Results: BTEX, TPH, Metals, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					BTEX				TPHs			Metals								PAHs
				Analyte	Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	Acenaphthene
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level	0.03	7	6	9	30	2,000	2,000	20		2		250	2			
				MTCA Method B Cleanup Level									16,000					400	400	4,800
Location	Date	Sample Name	Depth	Approximate Elevation																
B-07	04/18/2011	B-7-5	5 ft	59 ft	< 0.0005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 1.1 U	--	--	--	--	--	--	**2.66**	--	--	--	--
		B-7-10	10 ft	54 ft	< 0.0004 U	< 0.0008 U	< 0.0008 U	< 0.0008 U	< 1.1 U	--	--	--	--	--	--	**2.14**	--	--	--	--
		B-7-15	15 ft	49 ft	**0.0006**	**0.001**	**0.001**	**0.006**	**1.1**	--	--	--	--	--	--	**6.36**	--	--	--	--
	04/19/2011	B-7-17	17 ft	47 ft	**0.003**	**0.002**	**0.006**	**0.015**	**35**	--	--	--	--	--	--	**4.47**	--	--	--	--
GL-01	02/09/2005	GL1-5	5 ft	61.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
GL-02		GL2-4	4 ft	61 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
	02/09/2005	GL2-9	9 ft	56 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
GL-03	02/09/2005	GL3-6	6 ft	58 ft	--	--	--	--	--	< 0 U	**280**	--	--	--	--	--	--	--	--	--
GL-04		GL4-9	9 ft	53.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
		GL4-14	14 ft	48.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--
	02/09/2005	GL4-18	18 ft	44.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
GL-05		GL5-10	10 ft	53.5 ft	--	--	--	--	--	**1,400**	**120**	--	--	--	--	--	--	--	--	--
		GL5-15	15 ft	48.5 ft	--	--	--	--	--	**550**	< 0 U	--	--	--	--	--	--	--	--	--
	02/09/2005	GL5-20	20 ft	43.5 ft	--	--	--	--	--	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--
GL-06		GL6-15	15 ft	48 ft	--	--	--	--	--	< 0 U	**530**	--	--	--	--	--	--	--	--	--
	02/09/2005	GL6-20	20 ft	43 ft	--	--	--	--	--	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--
HC-MW-01		HC-MW-1-10	10 ft	57 ft	**0.30**	< 0.062 U	< 0.062 U	< 0.062 U	< 6.2 U	< 30 U	**87**	--	--	--	--	--	--	--	--	--
	05/16/2016	HC-MW-1-15	15 ft	52 ft	< 0.020 U	< 0.057 U	< 0.057 U	< 0.057 U	< 5.7 U	< 30 U	< 59 U	--	--	--	--	--	--	--	--	--
HC-MW-02		HC-MW-2-8.5	8.5 ft	66.5 ft	< 0.020 U	< 0.048 U	< 0.048 U	< 0.048 U	< 4.8 U	< 28 U	< 57 U	--	--	--	--	--	--	--	--	--
	05/17/2016	HC-MW-2-20	20 ft	55 ft	< 0.020 U	< 0.059 U	< 0.059 U	< 0.059 U	< 5.9 U	< 30 U	< 59 U	--	--	--	--	--	--	--	--	--
HC-MW-03		HC-MW-3-5	5 ft	73.5 ft	< 0.00092 U	< 0.0046 U	< 0.00092 U	< 0.0018 U	< 5.5 U	< 28 U	< 56 U	< 11 U	**58**	< 0.56 U	**48**	< 5.6 U	< 0.28 U	< 11 U	< 1.1 U	--
	09/26/2016	HC-MW-3-7.5	7.5 ft	71 ft	< 0.00075 U	< 0.0038 U	< 0.00075 U	< 0.0015 U	< 5.1 U	< 28 U	< 56 U	< 11 U	**36**	< 0.56 U	**16**	< 5.6 U	< 0.28 U	< 11 U	< 1.1 U	--
HC-MW-04		HC-MW-4-12	12 ft	76.5 ft	< 0.0010 U	< 0.0050 U	< 0.0010 U	< 0.0020 U	< 6.0 U	< 30 U	< 59 U	< 12 U	**85**	< 0.59 U	**63**	< 5.9 U	< 0.30 U	< 12 U	< 1.2 U	--
	09/28/2016	HC-MW-4-25	25 ft	63.5 ft	< 0.0011 U	< 0.0053 U	< 0.0011 U	< 0.0021 U	< 6.5 U	< 30 U	< 60 U	< 12 U	**86**	< 0.60 U	**63**	< 6.0 U	< 0.30 U	< 12 U	< 1.2 U	--
HC-MW-05		HC-MW-5-10	10 ft	62.5 ft	< 0.0010 U	< 0.0050 U	< 0.0010 U	< 0.0020 U	< 6.2 U	< 31 U	< 62 U	< 12 U	**85**	< 0.62 U	**61**	< 6.2 U	< 0.31 U	< 12 U	< 1.2 U	--
	09/29/2016	HC-MW-5-12.5	12.5 ft	60 ft	< 0.057 U	< 0.29 U	< 0.057 U	< 0.11 U	< 6.3 U	< 29 U	< 59 U	< 12 U	**67**	< 0.59 U	**53**	< 5.9 U	< 0.29 U	< 12 U	< 1.2 U	--
HC-MW-06		HC-MW-6-10	10 ft	53 ft	< 0.0011 U	< 0.0056 U	< 0.0011 U	< 0.0023 U	< 7.1 U	< 32 U	**120**	< 13 U	**110**	< 0.64 U	**48**	**9.3**	< 0.32 U	< 13 U	< 1.3 U	--
	09/29/2016	HC-MW-6-15	15 ft	48 ft	< 0.00098 U	< 0.0049 U	< 0.00098 U	< 0.0020 U	< 5.6 U	< 30 U	< 59 U	< 12 U	**41**	< 0.59 U	**47**	< 5.9 U	< 0.30 U	< 12 U	< 1.2 U	--
HC-MW-07		HC-MW-7-7.5	7.5 ft	56.5 ft	< 0.0011 U	< 0.0055 U	< 0.0011 U	< 0.0022 U	< 6.1 U	< 30 U	< 59 U	< 12 U	**66**	< 0.59 U	**45**	< 5.9 U	< 0.30 U	< 12 U	< 1.2 U	--
	09/30/2016	HC-MW-7-10	10 ft	54 ft	< 0.0010 U	< 0.0051 U	< 0.0010 U	< 0.0021 U	< 7.0 U	< 32 U	< 64 U	< 13 U	**98**	< 0.64 U	**49**	**7.1**	< 0.32 U	< 13 U	< 1.3 U	--
HC-SB-01		HC-SB-1-10	10 ft	72 ft	< 0.0010 U	< 0.0051 U	< 0.0010 U	< 0.0020 U	< 5.6 U	< 29 U	< 58 U	< 12 U	**61**	< 0.58 U	**49**	< 5.8 U	< 0.29 U	< 12 U	< 1.2 U	--
	09/26/2016	HC-SB-1-15	15 ft	67 ft	< 0.00094 U	< 0.0047 U	< 0.00094 U	< 0.0019 U	< 5.9 U	< 28 U	< 57 U	< 11 U	**82**	< 0.57 U	**59**	< 5.7 U	< 0.28 U	< 11 U	< 1.1 U	--
HC-SB-02		HC-SB-2-10	10 ft	58.5 ft	< 0.0011 U	< 0.0056 U	< 0.0011 U	< 0.0022 U	< 6.2 U	< 31 U	< 61 U	< 12 U	**84**	< 0.61 U	**63**	< 6.1 U	< 0.31 U	< 12 U	< 1.2 U	--
	09/28/2016	HC-SB-2-12.5	12.5 ft	56 ft	< 0.00081 U	< 0.0041 U	< 0.00081 U	< 0.0016 U	< 4.8 U	< 28 U	< 57 U	< 11 U	**54**	< 0.57 U	**42**	< 5.7 U	< 0.28 U	< 11 U	< 1.1 U	--
K-SB-01	01/25/2006	K-SB-1-3	3 ft	76.5 ft	< 0.02 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	--	--	--	--	--	--	--	--	--	--
K-SB-02		K-SB-2-4	4 ft	84 ft	< 0.02 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	--	--	--	--	--	--	--	--	--	--
	01/25/2006	K-SB-2-6	6 ft	82 ft	< 0.02 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	--	--	--	--	--	--	--	--	--	--
K-SB-03	01/25/2006	K-SB-3-7	7 ft	76.5 ft	< 0.02 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-04	06/22/2006	MW4-20	20 ft	43.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--

Table 2. Summary of Historical Soil Results: BTEX, TPH, Metals, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					BTEX				TPHs			Metals								PAHs
				Analyte	Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	Acenaphthene
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level	0.03	7	6	9	30	2,000	2,000	20		2		250	2			
				MTCA Method B Cleanup Level									16,000					400	400	4,800
Location	**Date**	**Sample Name**	**Depth**	**Approximate Elevation**																
MW-05	06/22/2006	MW5-12	12 ft	50 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
		MW5-16	16 ft	46 ft	< 0 U	< 0 U	< 0 U	**0.16**	< 0 U	--	--	--	--	--	--	--	--	--	--	--
		MW5-20	20 ft	42 ft	**0.03**	< 0 U	**0.06**	**0.36**	**22**	--	--	--	--	--	--	--	--	--	--	--
MW-06	12/11/2007	MW-6-10	10 ft	48.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	**43**	--	--	--	--	--	--	--	--	--
		MW-6-15	15 ft	43.5 ft	**0.002**	**0.002**	< 0 U	< 0 U	**1.7**	**14**	**50**	--	--	--	--	--	--	--	--	--
MW-07	12/11/2007	MW-7-5	5 ft	52.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--
	07/13/2011	MW-7-15	15 ft	42.5 ft	**0.002**	< 0 U	< 0 U	< 0 U	< 0 U	**11**	**25**	--	--	--	--	--	--	--	--	--
MW-08	12/11/2007	MW-8-10	10 ft	52 ft	< 0 U	**0.001**	< 0 U	**0.012**	**1**	< 0 U	**29**	--	--	--	--	--	--	--	--	--
		MW-8-15	15 ft	47 ft	< 0 UJ	< 0 UJ	< 0 UJ	**0.077 J**	**110**	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--
MW-09	12/11/2007	MW-9-10	10 ft	53 ft	**0.002**	**0.002**	< 0 U	< 0 U	< 0 UJ	**860**	**13,000**	--	--	--	--	--	--	--	--	< 0.073 U
		MW-9-15	15 ft	48 ft	**0.002**	**0.001**	< 0 U	< 0 U	< 0 UJ	**200**	**3,600**	--	--	--	--	--	--	--	--	< 0.078 U
		MW-9-20	20 ft	43 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--
MW-10	07/13/2011	MW-10-10	10 ft	49.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--
		MW-10-15	15 ft	44.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	**35**	--	--	--	--	--	--	--	--	--
N HOIST BOTTOM	02/04/2005	N HOIST BOTTOM-9.5	9.5 ft	55 ft	--	--	--	--	--	< 20 U	**1,000**	--	--	--	--	--	--	--	--	--
NORTH PUMP-2	02/04/2005	NORTH PUMP-2	2 ft	60.5 ft	< 0.02 U	< 0.05 U	< 0.05 U	< 0.05 U	< 5 U	< 20 U	< 50 U	--	--	--	--	--	--	--	--	--
P-01	06/06/2005	P1-12	12 ft	51 ft	< 0 U	< 0 U	< 0 U	**0.16**	< 0 U	--	--	--	--	--	--	--	--	--	--	--
		P1-16	16 ft	47 ft	**0.37**	**0.082**	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
P-02	06/06/2005	P2-16	16 ft	47.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
P-03	06/06/2005	P3-12	12 ft	50.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
		P3-16	16 ft	46.5 ft	**0.075**	< 0 U	**0.60**	**1.90**	**52.0**	--	--	--	--	--	--	--	--	--	--	--
		P3-20	20 ft	42.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
P-04	06/06/2005	P4-14	14 ft	49.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
P-05	06/06/2005	P5-15	15 ft	50 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
P-06	06/06/2005	P6-12	12 ft	51 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
		P6-16	16 ft	47 ft	**0.26**	**0.05**	< 0 U	**0.03**	**16.0**	--	--	--	--	--	--	--	--	--	--	--
		P6-18	18 ft	45 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
P-07	06/06/2005	P7-12	12 ft	50.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
		P7-18	18 ft	44.5 ft	**25 J**	**18 J**	**120 J**	**390 J**	**6,000 J**	--	--	--	--	--	--	--	--	--	--	--
P-08	06/06/2005	P8-12	12 ft	50.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
		P8-16	16 ft	46.5 ft	**7.0**	**10.0**	**45.0**	**310**	**4,000**	--	--	--	--	--	--	--	--	--	--	--
		P8-20	20 ft	42.5 ft	**0.16**	**0.04**	**0.63**	**4.0**	**80.0**	--	--	--	--	--	--	--	--	--	--	--
P-09	06/06/2005	P9-12	12 ft	50.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
		P9-15	15 ft	47.5 ft	**14.0**	**2.20**	< 0 U	**4.10**	**1,300**	--	--	--	--	--	--	--	--	--	--	--
		P9-20	20 ft	42.5 ft	< 0 U	< 0 U	< 0 U	**0.30**	**53.0**	--	--	--	--	--	--	--	--	--	--	--
P-10	06/06/2005	P10-16	16 ft	45.5 ft	**0.034**	**0.05**	**0.35**	**1.60**	**40.0**	--	--	--	--	--	--	--	--	--	--	--
P-11	06/06/2005	P11-12	12 ft	51 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
P-12	06/22/2006	P12-4	4 ft	60.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
		P12-15	15 ft	49.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
P-13	06/22/2006	P13-20	20 ft	44 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--

Table 2. Summary of Historical Soil Results: BTEX, TPH, Metals, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					BTEX				TPHs			Metals								PAHs
				Analyte	Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	Acenaphthene
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level	**0.03**	**7**	**6**	**9**	**30**	**2,000**	**2,000**	**20**		2		**250**	2			
				MTCA Method B Cleanup Level									**16,000**					400	400	4,800
Location	**Date**	**Sample Name**	**Depth**	**Approximate Elevation**																
P-14	06/22/2006	P14-16	16 ft	47.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
P-15	06/22/2006	P15-20	20 ft	43 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
P-16	06/22/2006	P16-16	16 ft	46.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
		P16-20	20 ft	42.5 ft	< 0 U	< 0 U	< 0 U	< 0 U	< 0 U	--	--	--	--	--	--	--	--	--	--	--
PBS-SB-01	06/25/2009	SB-1-SO	9 - 12 ft	59.5 - 62.5 ft	--	--	--	--	< 20 U	< 50 U	< 100 U	--	--	--	--	--	--	--	--	--
PBS-SB-02	06/25/2009	SB-2-SO	8 - 11 ft	60.5 - 63.5 ft	--	--	--	--	< 20 U	< 50 U	< 100 U	--	--	--	--	--	--	--	--	--
PBS-SB-03	06/25/2009	SB-3-SO	9 - 12 ft	57 - 60 ft	--	--	--	--	< 20 U	< 50 U	< 100 U	--	--	--	--	--	--	--	--	--
S HOIST BOTTOM	02/04/2005	S HOIST BOTTOM-8	8 ft	56.5 ft	--	--	--	--	--	< 20 U	< 50 U	--	--	--	--	--	--	--	--	--
SE-B-06	12/20/2011	SE-B-6	-	-	--	--	--	--	--	< 25 U	--	--	--	--	--	--	--	--	--	--
SOUTH PUMP-2	02/04/2005	SOUTH PUMP-2	2 ft	60.5 ft	< 0.02 U	< 0.05 U	< 0.05 U	< 0.05 U	< 5 U	**23**	< 50 U	--	--	--	--	--	--	--	--	--
SUMP-B-4	02/04/2005	SUMP BOTTOM-4	4 ft	61.5 ft	--	--	--	--	--	< 20 U	< 50 U	--	--	--	--	--	--	--	--	--
SW-B-07	12/20/2011	SW-B-7	-	-	--	--	--	--	--	< 25 U	--	--	--	--	--	--	--	--	--	--

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeds Model Toxics Control Act (MTCA) Method A or B Cleanup Levels.

U - Analyte not detected above laboratory reporting limit.

J - Analyte estimated

UJ - Estimated, nondetect

X - Chromatographic pattern did not match fuel standard.

BTEX - benzene, toluene, ethylbenzene, and xylenes

TPH - Total petroleum hydrocarbons

PAHs - Polycyclic aromatic hydrocarbons

ft - feet, mg/kg - milligrams per kilogram

"--" - Not analyzed

Table 2. Summary of Historical Soil Results: BTEX, TPH, Metals, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					PAHs														
				Analyte	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total cPAHs TEQ (ND = 1/2 RDL)
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level				**0.1**									**5**			**0.1**
				MTCA Method B Cleanup Level		24,000	**1.4**		**1.4**		**14**	**140**	0.14	**3,200**	3,200	**1.4**			**2,400**	
Location	**Date**	**Sample Name**	**Depth**	**Approximate Elevation**																
AB-01	02/18/2017	AB-1-6.0	6 ft	72 ft	< 0.01 U	< 0.01 U	**0.045**	**0.067**	**0.079**	**0.07**	**0.029**	**0.058**	< 0.01 U	**0.1**	< 0.01 U	**0.063**	< 0.01 U	**0.032**	**0.13**	**0.08968**
		AB-1-11.0	11 ft	67 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--
AB-02	02/18/2017	AB-2-8.0	8 ft	70 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--
		AB-2-13.6	13.6 ft	64 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--
AB-03	02/18/2017	AB-3-2.0	2 ft	76 ft	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.05 U	< 0.01 U	< 0.01 U	< 0.00755 U
		AB-3-9.5	9.5 ft	68.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--
ATC-B-01	01/08/2016	B-1-9.5-10	9.5 - 10 ft	76 - 76.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.00404 U	--	--	--
ATC-B-02	01/08/2016	B-2-4.5-5	4.5 - 5 ft	79 - 79.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0498 U	--	--	--
		B-2-9.5-10	9.5 - 10 ft	74 - 74.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0682 U	--	--	--
ATC-B-03	01/08/2016	B-3-7.5-8	7.5 - 8 ft	73 - 73.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0417 U	--	--	--
ATC-B-04	01/08/2016	B-4-4.5-5	4.5 - 5 ft	84 - 84.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0433 U	--	--	--
ATC-B-05	01/08/2016	B-5-4.5-5	4.5 - 5 ft	83 - 83.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0433 U	--	--	--
ATC-B-06	01/08/2016	B-6-4.5-5	4.5 - 5 ft	81 - 81.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0750 U	--	--	--
B-01	04/18/2011	B-1-5	5 ft	57.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		B-1-10	10 ft	52.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		B-1-15	15 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	04/19/2011	B-1-18	18 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-02	04/18/2011	B-2-5	5 ft	57.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		B-2-11	11 ft	51.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		B-2-15	15 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	04/19/2011	B-2-18	18 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-03	04/18/2011	B-3-5	5 ft	59 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.037 U	--	--	--
		B-3-10	10 ft	54 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.038 U	--	--	--
		B-3-15	15 ft	49 ft	--	--	--	--	--	--	--	--	--	--	--	--	**2.7**	--	--	--
	04/19/2011	B-3-20	20 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.00079 U	--	--	--
B-04	04/18/2011	B-4-5	5 ft	56 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		B-4-10	10 ft	51 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		B-4-15	15 ft	46 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	04/19/2011	B-4-17	17 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-05	04/18/2011	B-5-5	5 ft	57 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.001 U	--	--	--
		B-5-10	10 ft	52 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.00075 U	--	--	--
		B-5-15	15 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.00077 U	--	--	--
	04/19/2011	B-5-18	18 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--	--	**0.0017**	--	--	--
B-06	04/18/2011	B-6-5	5 ft	57 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		B-6-10	10 ft	52 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		B-6-15	15 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	04/19/2011	B-6-17	17 ft	45 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 2. Summary of Historical Soil Results: BTEX, TPH, Metals, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					PAHs														
				Analyte	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total cPAHs TEQ (ND = 1/2 RDL)
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level				0.1									5			0.1
				MTCA Method B Cleanup Level		24,000	1.4		1.4		14	140	0.14	3,200	3,200	1.4			2,400	
Location	Date	Sample Name	Depth	Approximate Elevation																
B-07	04/18/2011	B-7-5	5 ft	59 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		B-7-10	10 ft	54 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		B-7-15	15 ft	49 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	04/19/2011	B-7-17	17 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GL-01	02/09/2005	GL1-5	5 ft	61.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GL-02		GL2-4	4 ft	61 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/09/2005	GL2-9	9 ft	56 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GL-03	02/09/2005	GL3-6	6 ft	58 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GL-04		GL4-9	9 ft	53.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		GL4-14	14 ft	48.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/09/2005	GL4-18	18 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GL-05		GL5-10	10 ft	53.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		GL5-15	15 ft	48.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/09/2005	GL5-20	20 ft	43.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GL-06		GL6-15	15 ft	48 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/09/2005	GL6-20	20 ft	43 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-01		HC-MW-1-10	10 ft	57 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/16/2016	HC-MW-1-15	15 ft	52 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-02		HC-MW-2-8.5	8.5 ft	66.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/17/2016	HC-MW-2-20	20 ft	55 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-03		HC-MW-3-5	5 ft	73.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.00092 U	--	--	--
	09/26/2016	HC-MW-3-7.5	7.5 ft	71 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.00075 U	--	--	--
HC-MW-04		HC-MW-4-12	12 ft	76.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0010 U	--	--	--
	09/28/2016	HC-MW-4-25	25 ft	63.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0011 U	--	--	--
HC-MW-05		HC-MW-5-10	10 ft	62.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0010 U	--	--	--
	09/29/2016	HC-MW-5-12.5	12.5 ft	60 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.057 U	--	--	--
HC-MW-06		HC-MW-6-10	10 ft	53 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0011 U	--	--	--
	09/29/2016	HC-MW-6-15	15 ft	48 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.00098 U	--	--	--
HC-MW-07		HC-MW-7-7.5	7.5 ft	56.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0011 U	--	--	--
	09/30/2016	HC-MW-7-10	10 ft	54 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0010 U	--	--	--
HC-SB-01		HC-SB-1-10	10 ft	72 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0010 U	--	--	--
	09/26/2016	HC-SB-1-15	15 ft	67 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.00094 U	--	--	--
HC-SB-02		HC-SB-2-10	10 ft	58.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0011 U	--	--	--
	09/28/2016	HC-SB-2-12.5	12.5 ft	56 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.00081 U	--	--	--
K-SB-01	01/25/2006	K-SB-1-3	3 ft	76.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--
K-SB-02		K-SB-2-4	4 ft	84 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--
	01/25/2006	K-SB-2-6	6 ft	82 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--
K-SB-03	01/25/2006	K-SB-3-7	7 ft	76.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--
MW-04	06/22/2006	MW4-20	20 ft	43.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 2. Summary of Historical Soil Results: BTEX, TPH, Metals, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					PAHs														
				Analyte	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total cPAHs TEQ (ND = 1/2 RDL)
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level				0.1									5			0.1
				MTCA Method B Cleanup Level		24,000	1.4		1.4		14	140	0.14	3,200	3,200	1.4			2,400	
Location	Date	Sample Name	Depth	Approximate Elevation																
MW-05	06/22/2006	MW5-12	12 ft	50 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		MW5-16	16 ft	46 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		MW5-20	20 ft	42 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-06	12/11/2007	MW-6-10	10 ft	48.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		MW-6-15	15 ft	43.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	12/11/2007	MW-7-5	5 ft	52.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	07/13/2011	MW-7-15	15 ft	42.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	12/11/2007	MW-8-10	10 ft	52 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		MW-8-15	15 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-09	12/11/2007	MW-9-10	10 ft	53 ft	< 0.037 U	< 0.037 U	**0.16**	**0.21**	**0.16**	**0.17**	< 0.073 U	**0.37**	< 0.073 U	**0.087**	< 0.073 U	< 0.073 U	< 0.073 U	< 0.073 U	**0.16**	**0.25665**
		MW-9-15	15 ft	48 ft	< 0.039 U	< 0.039 U	**0.21**	**0.22**	**0.16**	**0.094**	< 0.078 U	**0.48**	< 0.078 U	**0.084**	< 0.078 U	< 0.078 U	< 0.078 U	**0.099**	**0.17**	**0.2735**
		MW-9-20	20 ft	43 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	07/13/2011	MW-10-10	10 ft	49.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		MW-10-15	15 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N HOIST BOTTOM	02/04/2005	N HOIST BOTTOM-9.5	9.5 ft	55 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NORTH PUMP-2	02/04/2005	NORTH PUMP-2	2 ft	60.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-01	06/06/2005	P1-12	12 ft	51 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P1-16	16 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-02	06/06/2005	P2-16	16 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-03	06/06/2005	P3-12	12 ft	50.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P3-16	16 ft	46.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P3-20	20 ft	42.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-04	06/06/2005	P4-14	14 ft	49.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-05	06/06/2005	P5-15	15 ft	50 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-06	06/06/2005	P6-12	12 ft	51 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P6-16	16 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P6-18	18 ft	45 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-07	06/06/2005	P7-12	12 ft	50.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P7-18	18 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-08	06/06/2005	P8-12	12 ft	50.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P8-16	16 ft	46.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P8-20	20 ft	42.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-09	06/06/2005	P9-12	12 ft	50.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P9-15	15 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P9-20	20 ft	42.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-10	06/06/2005	P10-16	16 ft	45.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-11	06/06/2005	P11-12	12 ft	51 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-12	06/22/2006	P12-4	4 ft	60.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P12-15	15 ft	49.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-13	06/22/2006	P13-20	20 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 2. Summary of Historical Soil Results: BTEX, TPH, Metals, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					PAHs														
				Analyte	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total cPAHs TEQ (ND = 1/2 RDL)
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level				0.1									5			0.1
				MTCA Method B Cleanup Level		24,000	1.4		1.4		14	140	0.14	3,200	3,200	1.4			2,400	
Location	Date	Sample Name	Depth	Approximate Elevation																
P-14	06/22/2006	P14-16	16 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-15	06/22/2006	P15-20	20 ft	43 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-16	06/22/2006	P16-16	16 ft	46.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		P16-20	20 ft	42.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PBS-SB-01	06/25/2009	SB-1-SO	9 - 12 ft	59.5 - 62.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PBS-SB-02	06/25/2009	SB-2-SO	8 - 11 ft	60.5 - 63.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PBS-SB-03	06/25/2009	SB-3-SO	9 - 12 ft	57 - 60 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
S HOIST BOTTOM	02/04/2005	S HOIST BOTTOM-8	8 ft	56.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SE-B-06	12/20/2011	SE-B-6	-	-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SOUTH PUMP-2	02/04/2005	SOUTH PUMP-2	2 ft	60.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SUMP-B-4	02/04/2005	SUMP BOTTOM-4	4 ft	61.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SW-B-07	12/20/2011	SW-B-7	-	-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeds Model Toxics Control Act (MTCA) Method A or B Cleanup Levels.

U - Analyte not detected above laboratory reporting limit.

J - Analyte estimated

UJ - Estimated, nondetect

X - Chromatographic pattern did not match fuel standard.

BTEX - benzene, toluene, ethylbenzene, and xylenes

TPH - Total petroleum hydrocarbons

PAHs - Polycyclic aromatic hydrocarbons

ft - feet, mg/kg - milligrams per kilogram

"--" - Not analyzed

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					SVOCs	VOCs									
				Analyte	Hexachlorobutadiene	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level			2								
				MTCA Method B Cleanup Level	13	38		5	18	16,000	4,000			0.033	35
Location	Date	Sample Name	Depth	Approximate Elevation											
AB-01	02/18/2017	AB-1-6.0	6 ft	72 ft	< 0.25 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.25 U	< 0.05 U	< 0.25 U
		AB-1-11.0	11 ft	67 ft	< 0.25 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.25 U	< 0.05 U	< 0.25 U
AB-02	02/18/2017	AB-2-8.0	8 ft	70 ft	< 0.25 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.25 U	< 0.05 U	< 0.25 U
		AB-2-13.6	13.6 ft	64 ft	< 0.25 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.25 U	< 0.05 U	< 0.25 U
AB-03	02/18/2017	AB-3-2.0	2 ft	76 ft	< 0.25 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.25 U	< 0.05 U	< 0.25 U
		AB-3-9.5	9.5 ft	68.5 ft	< 0.25 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.25 U	< 0.05 U	< 0.25 U
ATC-B-01	01/08/2016	B-1-9.5-10	9.5 - 10 ft	76 - 76.5 ft	< 0.0135 U	< 0.00404 U	< 0.00269 U	< 0.00269 U	< 0.00404 U	< 0.00269 U	< 0.00674 U	< 0.00269 U	< 0.00269 U	< 0.00269 U	< 0.00674 U
ATC-B-02	01/08/2016	B-2-4.5-5	4.5 - 5 ft	79 - 79.5 ft	< 0.166 U	< 0.0498 U	< 0.0332 U	< 0.0332 U	< 0.0498 U	< 0.0332 U	< 0.0831 U	< 0.0332 U	< 0.0332 U	< 0.0332 U	< 0.0831 U
		B-2-9.5-10	9.5 - 10 ft	74 - 74.5 ft	< 0.227 U	< 0.0682 U	< 0.0455 U	< 0.0455 U	< 0.0682 U	< 0.0455 U	< 0.114 U	< 0.0455 U	< 0.0455 U	< 0.0455 U	< 0.114 U
ATC-B-03	01/08/2016	B-3-7.5-8	7.5 - 8 ft	73 - 73.5 ft	< 0.139 U	< 0.0417 U	< 0.0278 U	< 0.0278 U	< 0.0417 U	< 0.0278 U	< 0.0695 U	< 0.0278 U	< 0.0278 U	< 0.0278 U	< 0.0695 U
ATC-B-04	01/08/2016	B-4-4.5-5	4.5 - 5 ft	84 - 84.5 ft	< 0.144 U	< 0.0433 U	< 0.0289 U	< 0.0289 U	< 0.0433 U	< 0.0289 U	< 0.0722 U	< 0.0289 U	< 0.0289 U	< 0.0289 U	< 0.0722 U
ATC-B-05	01/08/2016	B-5-4.5-5	4.5 - 5 ft	83 - 83.5 ft	< 0.144 U	< 0.0433 U	< 0.0289 U	< 0.0289 U	< 0.0433 U	< 0.0289 U	< 0.0722 U	< 0.0289 U	< 0.0289 U	< 0.0289 U	< 0.0722 U
ATC-B-06	01/08/2016	B-6-4.5-5	4.5 - 5 ft	81 - 81.5 ft	< 0.250 U	< 0.0750 U	< 0.0500 U	< 0.0500 U	< 0.0750 U	< 0.0500 U	< 0.125 U	< 0.0500 U	< 0.0500 U	< 0.0500 U	< 0.125 U
B-01	04/18/2011	B-1-5	5 ft	57.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-1-10	10 ft	52.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-1-15	15 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-1-18	18 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--
B-02	04/18/2011	B-2-5	5 ft	57.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-2-11	11 ft	51.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-2-15	15 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-2-18	18 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--
B-03	04/18/2011	B-3-5	5 ft	59 ft	--	--	--	--	--	--	--	--	--	--	--
		B-3-10	10 ft	54 ft	--	--	--	--	--	--	--	--	--	--	--
		B-3-15	15 ft	49 ft	--	--	--	--	--	--	--	--	--	--	--
		B-3-20	20 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--
B-04	04/18/2011	B-4-5	5 ft	56 ft	--	--	--	--	--	--	--	--	--	--	--
		B-4-10	10 ft	51 ft	--	--	--	--	--	--	--	--	--	--	--
		B-4-15	15 ft	46 ft	--	--	--	--	--	--	--	--	--	--	--
		B-4-17	17 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--
B-05	04/18/2011	B-5-5	5 ft	57 ft	--	--	--	--	--	--	--	--	--	--	--
		B-5-10	10 ft	52 ft	--	--	--	--	--	--	--	--	--	--	--
		B-5-15	15 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--
		B-5-18	18 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					SVOCs	VOCs									
				Analyte	Hexachlorobutadiene	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level			2								
				MTCA Method B Cleanup Level	13	38		5	18	16,000	4,000			0.033	35
Location	**Date**	**Sample Name**	**Depth**	**Approximate Elevation**											
B-06	04/18/2011	B-6-5	5 ft	57 ft	--	--	--	--	--	--	--	--	--	--	--
		B-6-10	10 ft	52 ft	--	--	--	--	--	--	--	--	--	--	--
		B-6-15	15 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--
		B-6-17	17 ft	45 ft	--	--	--	--	--	--	--	--	--	--	--
B-07	04/18/2011	B-7-5	5 ft	59 ft	--	--	--	--	--	--	--	--	--	--	--
		B-7-10	10 ft	54 ft	--	--	--	--	--	--	--	--	--	--	--
		B-7-15	15 ft	49 ft	--	--	--	--	--	--	--	--	--	--	--
		B-7-17	17 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--
DP-01	09/02/2015	DP-1-2.0	2 ft	62.5 ft	< 0.0043 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U
		DP-1-6.0	6 ft	58.5 ft	< 0.0041 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U
DP-02	09/02/2015	DP-2-2.0	2 ft	62 ft	< 0.0040 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U
		DP-2-6.0	6 ft	58 ft	< 0.0049 U	< 0.00097 U	< 0.00097 U	< 0.00097 U	< 0.00097 U	< 0.00097 U	< 0.00097 U	< 0.00097 U	< 0.00097 U	< 0.00097 U	< 0.00097 U
DP-03	09/02/2015	DP-3-2.0	2 ft	63.5 ft	< 0.0042 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U
		DP-3-4.0	4 ft	61.5 ft	< 0.0055 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
DP-04	09/02/2015	DP-4-2.0	2 ft	64.5 ft	< 0.0041 U	< 0.00083 U	< 0.00083 U	< 0.00083 U	< 0.00083 U	< 0.00083 U	< 0.00083 U	< 0.00083 U	< 0.00083 U	< 0.00083 U	< 0.00083 U
		DP-4-6.0	6 ft	60.5 ft	< 0.0039 U	< 0.00079 U	< 0.00079 U	< 0.00079 U	< 0.00079 U	< 0.00079 U	< 0.00079 U	< 0.00079 U	< 0.00079 U	< 0.00079 U	< 0.00079 U
DP-05	09/02/2015	DP-5-2.0	2 ft	64 ft	< 0.0037 U	< 0.00073 U	< 0.00073 U	< 0.00073 U	< 0.00073 U	< 0.00073 U	< 0.00073 U	< 0.00073 U	< 0.00073 U	< 0.00073 U	< 0.00073 U
		DP-5-4.0	4 ft	62 ft	< 0.0039 U	< 0.00078 U	< 0.00078 U	< 0.00078 U	< 0.00078 U	< 0.00078 U	< 0.00078 U	< 0.00078 U	< 0.00078 U	< 0.00078 U	< 0.00078 U
DP-06	09/02/2015	DP-6-2.0	2 ft	61.5 ft	< 0.0037 U	< 0.00074 U	< 0.00074 U	< 0.00074 U	< 0.00074 U	< 0.00074 U	< 0.00074 U	< 0.00074 U	< 0.00074 U	< 0.00074 U	< 0.00074 U
		DP-6-6.0	6 ft	57.5 ft	< 0.0040 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U
DP-07	09/02/2015	DP-7-2.0	2 ft	60.5 ft	< 0.0041 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U
		DP-7-6.0	6 ft	56.5 ft	< 0.0042 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U
HC-MW-01	05/16/2016	HC-MW-1-10	10 ft	57 ft	< 0.0050 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
		HC-MW-1-15	15 ft	52 ft	< 0.0053 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
HC-MW-02	05/17/2016	HC-MW-2-8.5	8.5 ft	66.5 ft	< 0.0050 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
		HC-MW-2-20	20 ft	55 ft	< 0.0058 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U
HC-MW-03	09/26/2016	HC-MW-3-5	5 ft	73.5 ft	< 0.0046 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U
		HC-MW-3-7.5	7.5 ft	71 ft	< 0.0038 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U
HC-MW-04	09/28/2016	HC-MW-4-12	12 ft	76.5 ft	< 0.0050 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
		HC-MW-4-25	25 ft	63.5 ft	< 0.0053 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
HC-MW-05	09/29/2016	HC-MW-5-10	10 ft	62.5 ft	< 0.0050 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
		HC-MW-5-12.5	12.5 ft	60 ft	< 0.29 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U
HC-MW-06	09/29/2016	HC-MW-6-10	10 ft	53 ft	< 0.0056 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
		HC-MW-6-15	15 ft	48 ft	< 0.0049 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U
HC-MW-07	09/30/2016	HC-MW-7-7.5	7.5 ft	56.5 ft	< 0.0055 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
		HC-MW-7-10	10 ft	54 ft	< 0.0051 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					SVOCs	VOCs									
				Analyte	Hexachlorobutadiene	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level			2								
				MTCA Method B Cleanup Level	13	38		5	18	16,000	4,000			0.033	35
Location	**Date**	**Sample Name**	**Depth**	**Approximate Elevation**											
HC-SB-01	09/26/2016	HC-SB-1-10	10 ft	72 ft	< 0.0051 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
		HC-SB-1-15	15 ft	67 ft	< 0.0047 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U
HC-SB-02	09/28/2016	HC-SB-2-10	10 ft	58.5 ft	< 0.0056 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
		HC-SB-2-12.5	12.5 ft	56 ft	< 0.0041 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U
KEE-B-01	05/24/2010	B1-3	-	-	< 0.0056 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
KEE-B-02	05/24/2010	B2-3	-	-	< 0.0053 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
KEE-B-03	05/24/2010	B3-4	-	-	< 0.0062 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U
K-SB-01	01/25/2006	K-SB-1-3	3 ft	76.5 ft	--	--	--	--	--	--	--	--	--	--	--
K-SB-02	01/25/2006	K-SB-2-4	4 ft	84 ft	--	--	--	--	--	--	--	--	--	--	--
		K-SB-2-6	6 ft	82 ft	--	--	--	--	--	--	--	--	--	--	--
K-SB-03	01/25/2006	K-SB-3-7	7 ft	76.5 ft	--	--	--	--	--	--	--	--	--	--	--
SE-B-06	12/20/2011	SE-B-6	-	-	--	--	< 0.02 U	--	< 0.03 U	< 0.02 U	< 0.05 U	< 0.02 U	--	--	--
SW-B-07	12/20/2011	SW-B-7	-	-	--	--	< 0.02 U	--	< 0.03 U	< 0.02 U	< 0.05 U	< 0.02 U	--	--	--

Notes:
U - Analyte not detected above laboratory reporting limit.
J - Analyte estimated
UJ - Estimated, nondetect
SVOCs - Semivolatile organic compounds
VOCs - Volatile organic compounds
ft - feet, mg/kg - milligrams per kilogram
"--" - Not analyzed

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs										
				Analyte	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level			0.005								
				MTCA Method B Cleanup Level		1.3		7,200	11		800				
Location	**Date**	**Sample Name**	**Depth**	**Approximate Elevation**											
AB-01	02/18/2017	AB-1-6.0	6 ft	72 ft	< 0.05 U	< 0.5 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
		AB-1-11.0	11 ft	67 ft	< 0.05 U	< 0.5 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
AB-02	02/18/2017	AB-2-8.0	8 ft	70 ft	< 0.05 U	< 0.5 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
		AB-2-13.6	13.6 ft	64 ft	< 0.05 U	< 0.5 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
AB-03	02/18/2017	AB-3-2.0	2 ft	76 ft	< 0.05 U	< 0.5 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
		AB-3-9.5	9.5 ft	68.5 ft	< 0.05 U	< 0.5 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
ATC-B-01	01/08/2016	B-1-9.5-10	9.5 - 10 ft	76 - 76.5 ft	< 0.00269 U	< 0.0674 U	< 0.000674 U	< 0.00269 U	< 0.00404 U	< 0.00269 U	< 0.00269 U	< 0.00269 U	< 0.00674 U	< 0.00269 U	< 0.00674 U
ATC-B-02	01/08/2016	B-2-4.5-5	4.5 - 5 ft	79 - 79.5 ft	< 0.0332 U	< 0.831 U	< 0.00831 U	< 0.0332 U	< 0.0498 U	< 0.0332 U	< 0.0332 U	< 0.0332 U	< 0.0831 U	< 0.0332 U	< 0.0831 U
		B-2-9.5-10	9.5 - 10 ft	74 - 74.5 ft	< 0.0455 U	< 1.14 U	< 0.0114 U	< 0.0455 U	< 0.0682 U	< 0.0455 U	< 0.0455 U	< 0.0455 U	< 0.114 U	< 0.0455 U	< 0.114 U
ATC-B-03	01/08/2016	B-3-7.5-8	7.5 - 8 ft	73 - 73.5 ft	< 0.0278 U	< 0.695 U	< 0.00695 U	< 0.0278 U	< 0.0417 U	< 0.0278 U	< 0.0278 U	< 0.0278 U	< 0.0695 U	< 0.0278 U	< 0.0695 U
ATC-B-04	01/08/2016	B-4-4.5-5	4.5 - 5 ft	84 - 84.5 ft	< 0.0289 U	< 0.722 U	< 0.00722 U	< 0.0289 U	< 0.0433 U	< 0.0289 U	< 0.0289 U	< 0.0289 U	< 0.0722 U	< 0.0289 U	< 0.0722 U
ATC-B-05	01/08/2016	B-5-4.5-5	4.5 - 5 ft	83 - 83.5 ft	< 0.0289 U	< 0.722 U	< 0.00722 U	< 0.0289 U	< 0.0433 U	< 0.0289 U	< 0.0289 U	< 0.0289 U	< 0.0722 U	< 0.0289 U	< 0.0722 U
ATC-B-06	01/08/2016	B-6-4.5-5	4.5 - 5 ft	81 - 81.5 ft	< 0.0500 U	< 1.25 U	< 0.0125 U	< 0.0500 U	< 0.0750 U	< 0.0500 U	< 0.0500 U	< 0.0500 U	< 0.125 U	< 0.0500 U	< 0.125 U
B-01	04/18/2011	B-1-5	5 ft	57.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-1-10	10 ft	52.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-1-15	15 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-1-18	18 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--
B-02	04/18/2011	B-2-5	5 ft	57.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-2-11	11 ft	51.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-2-15	15 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-2-18	18 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--
B-03	04/18/2011	B-3-5	5 ft	59 ft	--	--	--	--	--	--	--	--	--	--	--
		B-3-10	10 ft	54 ft	--	--	--	--	--	--	--	--	--	--	--
		B-3-15	15 ft	49 ft	--	--	--	--	--	--	--	--	--	--	--
		B-3-20	20 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--
B-04	04/18/2011	B-4-5	5 ft	56 ft	--	--	--	--	--	--	--	--	--	--	--
		B-4-10	10 ft	51 ft	--	--	--	--	--	--	--	--	--	--	--
		B-4-15	15 ft	46 ft	--	--	--	--	--	--	--	--	--	--	--
		B-4-17	17 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--
B-05	04/18/2011	B-5-5	5 ft	57 ft	--	--	--	--	--	--	--	--	--	--	--
		B-5-10	10 ft	52 ft	--	--	--	--	--	--	--	--	--	--	--
		B-5-15	15 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--
		B-5-18	18 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs										
				Analyte	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level			0.005								
				MTCA Method B Cleanup Level		1.3		7,200	11		800				
Location	Date	Sample Name	Depth	Approximate Elevation											
B-06	04/18/2011	B-6-5	5 ft	57 ft	--	--	--	--	--	--	--	--	--	--	--
		B-6-10	10 ft	52 ft	--	--	--	--	--	--	--	--	--	--	--
		B-6-15	15 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--
		B-6-17	17 ft	45 ft	--	--	--	--	--	--	--	--	--	--	--
B-07	04/18/2011	B-7-5	5 ft	59 ft	--	--	--	--	--	--	--	--	--	--	--
		B-7-10	10 ft	54 ft	--	--	--	--	--	--	--	--	--	--	--
		B-7-15	15 ft	49 ft	--	--	--	--	--	--	--	--	--	--	--
		B-7-17	17 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--
DP-01	09/02/2015	DP-1-2.0	2 ft	62.5 ft	--	< 0.0043 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	--	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U
		DP-1-6.0	6 ft	58.5 ft	--	< 0.0041 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	--	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U
DP-02	09/02/2015	DP-2-2.0	2 ft	62 ft	--	< 0.0040 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	--	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U
		DP-2-6.0	6 ft	58 ft	--	< 0.0049 U	< 0.00097 U	< 0.00097 U	< 0.00097 U	< 0.00097 U	--	< 0.00097 U	< 0.00097 U	< 0.00097 U	< 0.00097 U
DP-03	09/02/2015	DP-3-2.0	2 ft	63.5 ft	--	< 0.0042 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	--	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U
		DP-3-4.0	4 ft	61.5 ft	--	< 0.0055 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	--	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
DP-04	09/02/2015	DP-4-2.0	2 ft	64.5 ft	--	< 0.0041 U	< 0.00083 U	< 0.00083 U	< 0.00083 U	< 0.00083 U	--	< 0.00083 U	< 0.00083 U	< 0.00083 U	< 0.00083 U
		DP-4-6.0	6 ft	60.5 ft	--	< 0.0039 U	< 0.00079 U	< 0.00079 U	< 0.00079 U	< 0.00079 U	--	< 0.00079 U	< 0.00079 U	< 0.00079 U	< 0.00079 U
DP-05	09/02/2015	DP-5-2.0	2 ft	64 ft	--	< 0.0037 U	< 0.00073 U	< 0.00073 U	< 0.00073 U	< 0.00073 U	--	< 0.00073 U	< 0.00073 U	< 0.00073 U	< 0.00073 U
		DP-5-4.0	4 ft	62 ft	--	< 0.0039 U	< 0.00078 U	< 0.00078 U	< 0.00078 U	< 0.00078 U	--	< 0.00078 U	< 0.00078 U	< 0.00078 U	< 0.00078 U
DP-06	09/02/2015	DP-6-2.0	2 ft	61.5 ft	--	< 0.0037 U	< 0.00074 U	< 0.00074 U	< 0.00074 U	< 0.00074 U	--	< 0.00074 U	< 0.00074 U	< 0.00074 U	< 0.00074 U
		DP-6-6.0	6 ft	57.5 ft	--	< 0.0040 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	--	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U
DP-07	09/02/2015	DP-7-2.0	2 ft	60.5 ft	--	< 0.0041 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	--	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U
		DP-7-6.0	6 ft	56.5 ft	--	< 0.0042 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	--	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U
HC-MW-01	05/16/2016	HC-MW-1-10	10 ft	57 ft	--	< 0.0050 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	--	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
		HC-MW-1-15	15 ft	52 ft	--	< 0.0053 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	--	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
HC-MW-02	05/17/2016	HC-MW-2-8.5	8.5 ft	66.5 ft	--	< 0.0050 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	--	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
		HC-MW-2-20	20 ft	55 ft	--	< 0.0058 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	--	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U
HC-MW-03	09/26/2016	HC-MW-3-5	5 ft	73.5 ft	< 0.00092 U	< 0.0046 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U
		HC-MW-3-7.5	7.5 ft	71 ft	< 0.00075 U	< 0.0038 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U
HC-MW-04	09/28/2016	HC-MW-4-12	12 ft	76.5 ft	< 0.0010 U	< 0.0050 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
		HC-MW-4-25	25 ft	63.5 ft	< 0.0011 U	< 0.0053 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
HC-MW-05	09/29/2016	HC-MW-5-10	10 ft	62.5 ft	< 0.0010 U	< 0.0050 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
		HC-MW-5-12.5	12.5 ft	60 ft	< 0.057 U	< 0.29 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U
HC-MW-06	09/29/2016	HC-MW-6-10	10 ft	53 ft	< 0.0011 U	< 0.0056 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
		HC-MW-6-15	15 ft	48 ft	< 0.00098 U	< 0.0049 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U
HC-MW-07	09/30/2016	HC-MW-7-7.5	7.5 ft	56.5 ft	< 0.0011 U	< 0.0055 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
		HC-MW-7-10	10 ft	54 ft	< 0.0010 U	< 0.0051 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs										
				Analyte	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level			0.005								
				MTCA Method B Cleanup Level		1.3		7,200	11		800				
Location	**Date**	**Sample Name**	**Depth**	**Approximate Elevation**											
HC-SB-01	09/26/2016	HC-SB-1-10	10 ft	72 ft	< 0.0010 U	< 0.0051 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
		HC-SB-1-15	15 ft	67 ft	< 0.00094 U	< 0.0047 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U
HC-SB-02	09/28/2016	HC-SB-2-10	10 ft	58.5 ft	< 0.0011 U	< 0.0056 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
		HC-SB-2-12.5	12.5 ft	56 ft	< 0.00081 U	< 0.0041 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U
KEE-B-01	05/24/2010	B1-3	-	-	--	< 0.0056 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	--	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
KEE-B-02	05/24/2010	B2-3	-	-	--	< 0.0053 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	--	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
KEE-B-03	05/24/2010	B3-4	-	-	--	< 0.0062 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	--	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U
K-SB-01	01/25/2006	K-SB-1-3	3 ft	76.5 ft	--	--	--	--	--	--	--	--	--	--	--
K-SB-02	01/25/2006	K-SB-2-4	4 ft	84 ft	--	--	--	--	--	--	--	--	--	--	--
		K-SB-2-6	6 ft	82 ft	--	--	--	--	--	--	--	--	--	--	--
K-SB-03	01/25/2006	K-SB-3-7	7 ft	76.5 ft	--	--	--	--	--	--	--	--	--	--	--
SE-B-06	12/20/2011	SE-B-6	-	-	--	--	--	< 0.02 U	< 0.03 U	< 0.02 U	--	< 0.02 U	--	< 0.02 U	< 0.05 U
SW-B-07	12/20/2011	SW-B-7	-	-	--	--	--	< 0.02 U	< 0.03 U	< 0.02 U	--	< 0.02 U	--	< 0.02 U	< 0.05 U

Notes:
U - Analyte not detected above laboratory reporting limit.
J - Analyte estimated
UJ - Estimated, nondetect
SVOCs - Semivolatile organic compounds
VOCs - Volatile organic compounds
ft - feet, mg/kg - milligrams per kilogram
"--" - Not analyzed

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs										
				Analyte	2-Chloroethyl Vinyl Ether	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Disulfide
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level											
				MTCA Method B Cleanup Level		1,600			6,400			16	130	110	8,000
Location	Date	Sample Name	Depth	Approximate Elevation											
AB-01	02/18/2017	AB-1-6.0	6 ft	72 ft	--	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.05 U	--	< 0.05 U	< 0.05 U	< 0.5 U	--
		AB-1-11.0	11 ft	67 ft	--	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.05 U	--	< 0.05 U	< 0.05 U	< 0.5 U	--
AB-02	02/18/2017	AB-2-8.0	8 ft	70 ft	--	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.05 U	--	< 0.05 U	< 0.05 U	< 0.5 U	--
		AB-2-13.6	13.6 ft	64 ft	--	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.05 U	--	< 0.05 U	< 0.05 U	< 0.5 U	--
AB-03	02/18/2017	AB-3-2.0	2 ft	76 ft	--	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.05 U	--	< 0.05 U	< 0.05 U	< 0.5 U	--
		AB-3-9.5	9.5 ft	68.5 ft	--	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.05 U	--	< 0.05 U	< 0.05 U	< 0.5 U	--
ATC-B-01	01/08/2016	B-1-9.5-10	9.5 - 10 ft	76 - 76.5 ft	--	< 0.00269 U	--	< 0.00269 U	--	< 0.00404 U	--	< 0.00269 U	< 0.00269 U	< 0.0121 U	--
ATC-B-02	01/08/2016	B-2-4.5-5	4.5 - 5 ft	79 - 79.5 ft	--	< 0.0332 U	--	< 0.0332 U	--	< 0.0498 U	--	< 0.0332 U	< 0.0332 U	< 0.150 U	--
		B-2-9.5-10	9.5 - 10 ft	74 - 74.5 ft	--	< 0.0455 U	--	< 0.0455 U	--	< 0.0682 U	--	< 0.0455 U	< 0.0455 U	< 0.205 U	--
ATC-B-03	01/08/2016	B-3-7.5-8	7.5 - 8 ft	73 - 73.5 ft	--	< 0.0278 U	--	< 0.0278 U	--	< 0.0417 U	--	< 0.0278 U	< 0.0278 U	< 0.125 U	--
ATC-B-04	01/08/2016	B-4-4.5-5	4.5 - 5 ft	84 - 84.5 ft	--	< 0.0289 U	--	< 0.0289 U	--	< 0.0433 U	--	< 0.0289 U	< 0.0289 U	< 0.130 U	--
ATC-B-05	01/08/2016	B-5-4.5-5	4.5 - 5 ft	83 - 83.5 ft	--	< 0.0289 U	--	< 0.0289 U	--	< 0.0433 U	--	< 0.0289 U	< 0.0289 U	< 0.130 U	--
ATC-B-06	01/08/2016	B-6-4.5-5	4.5 - 5 ft	81 - 81.5 ft	--	< 0.0500 U	--	< 0.0500 U	--	< 0.0750 U	--	< 0.0500 U	< 0.0500 U	< 0.225 U	--
B-01	04/18/2011	B-1-5	5 ft	57.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-1-10	10 ft	52.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-1-15	15 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-1-18	18 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--
B-02	04/18/2011	B-2-5	5 ft	57.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-2-11	11 ft	51.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-2-15	15 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-2-18	18 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--
B-03	04/18/2011	B-3-5	5 ft	59 ft	--	--	--	--	--	--	--	--	--	--	--
		B-3-10	10 ft	54 ft	--	--	--	--	--	--	--	--	--	--	--
		B-3-15	15 ft	49 ft	--	--	--	--	--	--	--	--	--	--	--
		B-3-20	20 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--
B-04	04/18/2011	B-4-5	5 ft	56 ft	--	--	--	--	--	--	--	--	--	--	--
		B-4-10	10 ft	51 ft	--	--	--	--	--	--	--	--	--	--	--
		B-4-15	15 ft	46 ft	--	--	--	--	--	--	--	--	--	--	--
		B-4-17	17 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--
B-05	04/18/2011	B-5-5	5 ft	57 ft	--	--	--	--	--	--	--	--	--	--	--
		B-5-10	10 ft	52 ft	--	--	--	--	--	--	--	--	--	--	--
		B-5-15	15 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--
		B-5-18	18 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs										
				Analyte	2-Chloroethyl Vinyl Ether	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Disulfide
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level											
				MTCA Method B Cleanup Level		1,600			6,400			16	130	110	8,000
Location	Date	Sample Name	Depth	Approximate Elevation											
B-06	04/18/2011	B-6-5	5 ft	57 ft	--	--	--	--	--	--	--	--	--	--	--
		B-6-10	10 ft	52 ft	--	--	--	--	--	--	--	--	--	--	--
		B-6-15	15 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--
		B-6-17	17 ft	45 ft	--	--	--	--	--	--	--	--	--	--	--
B-07	04/18/2011	B-7-5	5 ft	59 ft	--	--	--	--	--	--	--	--	--	--	--
		B-7-10	10 ft	54 ft	--	--	--	--	--	--	--	--	--	--	--
		B-7-15	15 ft	49 ft	--	--	--	--	--	--	--	--	--	--	--
		B-7-17	17 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--
DP-01	09/02/2015	DP-1-2.0	2 ft	62.5 ft	< 0.0043 U	< 0.00085 U	--	< 0.00085 U	--	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	--
		DP-1-6.0	6 ft	58.5 ft	< 0.0041 U	< 0.00081 U	--	< 0.00081 U	--	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	--
DP-02	09/02/2015	DP-2-2.0	2 ft	62 ft	< 0.0040 U	< 0.00080 U	--	< 0.00080 U	--	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	--
		DP-2-6.0	6 ft	58 ft	< 0.0049 U	< 0.00097 U	--	< 0.00097 U	--	< 0.00097 U	< 0.00097 U	< 0.00097 U	< 0.00097 U	< 0.00097 U	--
DP-03	09/02/2015	DP-3-2.0	2 ft	63.5 ft	< 0.0042 U	< 0.00085 U	--	< 0.00085 U	--	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	--
		DP-3-4.0	4 ft	61.5 ft	< 0.0055 U	< 0.0011 U	--	< 0.0011 U	--	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	--
DP-04	09/02/2015	DP-4-2.0	2 ft	64.5 ft	< 0.0041 U	< 0.00083 U	--	< 0.00083 U	--	< 0.00083 U	< 0.00083 U	< 0.00083 U	< 0.00083 U	< 0.00083 U	--
		DP-4-6.0	6 ft	60.5 ft	< 0.0039 U	< 0.00079 U	--	< 0.00079 U	--	< 0.00079 U	< 0.00079 U	< 0.00079 U	< 0.00079 U	< 0.00079 U	--
DP-05	09/02/2015	DP-5-2.0	2 ft	64 ft	< 0.0037 U	< 0.00073 U	--	< 0.00073 U	--	< 0.00073 U	< 0.00073 U	< 0.00073 U	< 0.00073 U	< 0.00073 U	--
		DP-5-4.0	4 ft	62 ft	< 0.0039 U	< 0.00078 U	--	< 0.00078 U	--	< 0.00078 U	< 0.00078 U	< 0.00078 U	< 0.00078 U	< 0.00078 U	--
DP-06	09/02/2015	DP-6-2.0	2 ft	61.5 ft	< 0.0037 U	< 0.00074 U	--	< 0.00074 U	--	< 0.00074 U	< 0.00074 U	< 0.00074 U	< 0.00074 U	< 0.00074 U	--
		DP-6-6.0	6 ft	57.5 ft	< 0.0040 U	< 0.00080 U	--	< 0.00080 U	--	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	--
DP-07	09/02/2015	DP-7-2.0	2 ft	60.5 ft	< 0.0041 U	< 0.00081 U	--	< 0.00081 U	--	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	--
		DP-7-6.0	6 ft	56.5 ft	< 0.0042 U	< 0.00085 U	--	< 0.00085 U	--	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	--
HC-MW-01	05/16/2016	HC-MW-1-10	10 ft	57 ft	< 0.0050 U	< 0.0010 U	--	< 0.0010 U	--	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	--
		HC-MW-1-15	15 ft	52 ft	< 0.0053 U	< 0.0011 U	--	< 0.0011 U	--	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	--
HC-MW-02	05/17/2016	HC-MW-2-8.5	8.5 ft	66.5 ft	< 0.0050 U	< 0.0010 U	--	< 0.0010 U	--	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	--
		HC-MW-2-20	20 ft	55 ft	< 0.0058 U	< 0.0012 U	--	< 0.0012 U	--	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	--
HC-MW-03	09/26/2016	HC-MW-3-5	5 ft	73.5 ft	< 0.0046 U	< 0.00092 U	< 0.0046 U	< 0.00092 U	< 0.0046 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.0012 U	< 0.00092 U
		HC-MW-3-7.5	7.5 ft	71 ft	< 0.0038 U	< 0.00075 U	< 0.0038 U	< 0.00075 U	< 0.0038 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00098 U	< 0.00075 U
HC-MW-04	09/28/2016	HC-MW-4-12	12 ft	76.5 ft	< 0.0050 U	< 0.0010 U	< 0.0050 U	< 0.0010 U	< 0.0050 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0013 U	< 0.0010 U
		HC-MW-4-25	25 ft	63.5 ft	< 0.0053 U	< 0.0011 U	< 0.0053 U	< 0.0011 U	< 0.0053 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
HC-MW-05	09/29/2016	HC-MW-5-10	10 ft	62.5 ft	< 0.0050 U	< 0.0010 U	< 0.0050 U	< 0.0010 U	< 0.0050 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0013 U	< 0.0010 U
		HC-MW-5-12.5	12.5 ft	60 ft	< 0.29 U	< 0.057 U	< 0.29 U	< 0.057 U	< 0.29 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.075 U	< 0.057 U
HC-MW-06	09/29/2016	HC-MW-6-10	10 ft	53 ft	< 0.0056 U	< 0.0011 U	< 0.0056 U	< 0.0011 U	< 0.0056 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0015 U	< 0.0011 U
		HC-MW-6-15	15 ft	48 ft	< 0.0049 U	< 0.00098 U	< 0.0049 U	< 0.00098 U	< 0.0049 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.0013 U	< 0.00098 U
HC-MW-07	09/30/2016	HC-MW-7-7.5	7.5 ft	56.5 ft	< 0.0055 U	< 0.0011 U	< 0.0055 U	< 0.0011 U	< 0.0055 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0014 U	< 0.0011 U
		HC-MW-7-10	10 ft	54 ft	< 0.0051 U	< 0.0010 U	< 0.0051 U	< 0.0010 U	< 0.0051 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0013 U	< 0.0010 U

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs										
				Analyte	2-Chloroethyl Vinyl Ether	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Disulfide
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level											
				MTCA Method B Cleanup Level		1,600			6,400			16	130	110	8,000
Location	**Date**	**Sample Name**	**Depth**	**Approximate Elevation**											
HC-SB-01	09/26/2016	HC-SB-1-10	10 ft	72 ft	< 0.0051 U	< 0.0010 U	< 0.0051 U	< 0.0010 U	< 0.0051 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0013 U	< 0.0010 U
		HC-SB-1-15	15 ft	67 ft	< 0.0047 U	< 0.00094 U	< 0.0047 U	< 0.00094 U	< 0.0047 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.0012 U	< 0.00094 U
HC-SB-02	09/28/2016	HC-SB-2-10	10 ft	58.5 ft	< 0.0056 U	< 0.0011 U	< 0.0056 U	< 0.0011 U	< 0.0056 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
		HC-SB-2-12.5	12.5 ft	56 ft	< 0.0041 U	< 0.00081 U	< 0.0041 U	< 0.00081 U	< 0.0041 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.0011 U	< 0.00081 U
KEE-B-01	05/24/2010	B1-3	-	-	< 0.0056 U	< 0.0011 U	--	< 0.0011 U	--	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	--
KEE-B-02	05/24/2010	B2-3	-	-	< 0.0053 U	< 0.0011 U	--	< 0.0011 U	--	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	--
KEE-B-03	05/24/2010	B3-4	-	-	< 0.0062 U	< 0.0012 U	--	< 0.0012 U	--	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	--
K-SB-01	01/25/2006	K-SB-1-3	3 ft	76.5 ft	--	--	--	--	--	--	--	--	--	--	--
K-SB-02	01/25/2006	K-SB-2-4	4 ft	84 ft	--	--	--	--	--	--	--	--	--	--	--
		K-SB-2-6	6 ft	82 ft	--	--	--	--	--	--	--	--	--	--	--
K-SB-03	01/25/2006	K-SB-3-7	7 ft	76.5 ft	--	--	--	--	--	--	--	--	--	--	--
SE-B-06	12/20/2011	SE-B-6	-	-	--	< 0.02 U	--	< 0.02 U	--	--	--	--	--	< 0.09 U	--
SW-B-07	12/20/2011	SW-B-7	-	-	--	< 0.02 U	--	< 0.02 U	--	--	--	--	--	< 0.09 U	--

Notes:
U - Analyte not detected above laboratory reporting limit.
J - Analyte estimated
UJ - Estimated, nondetect
SVOCs - Semivolatile organic compounds
VOCs - Volatile organic compounds
ft - feet, mg/kg - milligrams per kilogram
"--" - Not analyzed

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs										
				Analyte	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Isopropylbenzene	m,p-Xylenes
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level											
				MTCA Method B Cleanup Level	14	1,600		800			12	800	16,000	8,000	
Location	Date	Sample Name	Depth	Approximate Elevation											
AB-01	02/18/2017	AB-1-6.0	6 ft	72 ft	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.1 U
		AB-1-11.0	11 ft	67 ft	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.1 U
AB-02	02/18/2017	AB-2-8.0	8 ft	70 ft	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.1 U
		AB-2-13.6	13.6 ft	64 ft	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.1 U
AB-03	02/18/2017	AB-3-2.0	2 ft	76 ft	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.1 U
		AB-3-9.5	9.5 ft	68.5 ft	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.1 U
ATC-B-01	01/08/2016	B-1-9.5-10	9.5 - 10 ft	76 - 76.5 ft	< 0.00269 U	< 0.00269 U	< 0.00808 U	< 0.00269 U	< 0.00808 U	< 0.00269 U	< 0.00404 U	< 0.00539 U	< 0.00808 U	< 0.0108 U	< 0.00269 U
ATC-B-02	01/08/2016	B-2-4.5-5	4.5 - 5 ft	79 - 79.5 ft	< 0.0332 U	< 0.0332 U	< 0.0997 U	< 0.0332 U	< 0.0997 U	< 0.0332 U	< 0.0498 U	< 0.0665 U	< 0.0997 U	< 0.133 U	< 0.0332 U
		B-2-9.5-10	9.5 - 10 ft	74 - 74.5 ft	< 0.0455 U	< 0.0455 U	< 0.136 U	< 0.0455 U	< 0.136 U	< 0.0455 U	< 0.0682 U	< 0.0910 U	< 0.136 U	< 0.182 U	< 0.0455 U
ATC-B-03	01/08/2016	B-3-7.5-8	7.5 - 8 ft	73 - 73.5 ft	< 0.0278 U	< 0.0278 U	< 0.0834 U	< 0.0278 U	< 0.0834 U	< 0.0278 U	< 0.0417 U	< 0.0556 U	< 0.0834 U	< 0.111 U	< 0.0278 U
ATC-B-04	01/08/2016	B-4-4.5-5	4.5 - 5 ft	84 - 84.5 ft	< 0.0289 U	< 0.0289 U	< 0.0867 U	< 0.0289 U	< 0.0867 U	< 0.0289 U	< 0.0433 U	< 0.0578 U	< 0.0867 U	< 0.116 U	< 0.0289 U
ATC-B-05	01/08/2016	B-5-4.5-5	4.5 - 5 ft	83 - 83.5 ft	< 0.0289 U	< 0.0289 U	< 0.0867 U	< 0.0289 U	< 0.0867 U	< 0.0289 U	< 0.0433 U	< 0.0578 U	< 0.0867 U	< 0.116 U	< 0.0289 U
ATC-B-06	01/08/2016	B-6-4.5-5	4.5 - 5 ft	81 - 81.5 ft	< 0.0500 U	< 0.0500 U	< 0.150 U	< 0.0500 U	< 0.150 U	< 0.0500 U	< 0.0750 U	< 0.100 U	< 0.150 U	< 0.200 U	< 0.0500 U
B-01	04/18/2011	B-1-5	5 ft	57.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-1-10	10 ft	52.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-1-15	15 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-1-18	18 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--
B-02	04/18/2011	B-2-5	5 ft	57.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-2-11	11 ft	51.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-2-15	15 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--
		B-2-18	18 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--
B-03	04/18/2011	B-3-5	5 ft	59 ft	--	--	--	--	--	--	--	--	--	--	--
		B-3-10	10 ft	54 ft	--	--	--	--	--	--	--	--	--	--	--
		B-3-15	15 ft	49 ft	--	--	--	--	--	--	--	--	--	--	--
		B-3-20	20 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--
B-04	04/18/2011	B-4-5	5 ft	56 ft	--	--	--	--	--	--	--	--	--	--	--
		B-4-10	10 ft	51 ft	--	--	--	--	--	--	--	--	--	--	--
		B-4-15	15 ft	46 ft	--	--	--	--	--	--	--	--	--	--	--
		B-4-17	17 ft	44 ft	--	--	--	--	--	--	--	--	--	--	--
B-05	04/18/2011	B-5-5	5 ft	57 ft	--	--	--	--	--	--	--	--	--	--	< 0.001 U
		B-5-10	10 ft	52 ft	--	--	--	--	--	--	--	--	--	--	< 0.001 U
		B-5-15	15 ft	47 ft	--	--	--	--	--	--	--	--	--	--	< 0.001 U
		B-5-18	18 ft	44 ft	--	--	--	--	--	--	--	--	--	--	< 0.001 U

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs										
				Analyte	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Isopropylbenzene	m,p-Xylenes
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level											
				MTCA Method B Cleanup Level	14	1,600		800			12	800	16,000	8,000	
Location	Date	Sample Name	Depth	Approximate Elevation											
B-06	04/18/2011	B-6-5	5 ft	57 ft	--	--	--	--	--	--	--	--	--	--	--
		B-6-10	10 ft	52 ft	--	--	--	--	--	--	--	--	--	--	--
		B-6-15	15 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--
		B-6-17	17 ft	45 ft	--	--	--	--	--	--	--	--	--	--	--
B-07	04/18/2011	B-7-5	5 ft	59 ft	--	--	--	--	--	--	--	--	--	--	--
		B-7-10	10 ft	54 ft	--	--	--	--	--	--	--	--	--	--	--
		B-7-15	15 ft	49 ft	--	--	--	--	--	--	--	--	--	--	--
		B-7-17	17 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--
DP-01	09/02/2015	DP-1-2.0	2 ft	62.5 ft	< 0.00085 U	< 0.00085 U	< 0.0043 U	< 0.00085 U	< 0.0043 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	--	--
		DP-1-6.0	6 ft	58.5 ft	< 0.00081 U	< 0.00081 U	< 0.0041 U	< 0.00081 U	< 0.0041 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	--	--
DP-02	09/02/2015	DP-2-2.0	2 ft	62 ft	< 0.00080 U	< 0.00080 U	< 0.0040 U	< 0.00080 U	< 0.0040 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	--	--
		DP-2-6.0	6 ft	58 ft	< 0.00097 U	< 0.00097 U	< 0.0049 U	< 0.00097 U	< 0.0049 U	< 0.00097 U	< 0.00097 U	< 0.00097 U	< 0.00097 U	--	--
DP-03	09/02/2015	DP-3-2.0	2 ft	63.5 ft	< 0.00085 U	< 0.00085 U	< 0.0042 U	< 0.00085 U	< 0.0042 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	--	--
		DP-3-4.0	4 ft	61.5 ft	< 0.0011 U	< 0.0011 U	< 0.0055 U	< 0.0011 U	< 0.0055 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	--	--
DP-04	09/02/2015	DP-4-2.0	2 ft	64.5 ft	< 0.00083 U	< 0.00083 U	< 0.0041 U	< 0.00083 U	< 0.0041 U	< 0.00083 U	< 0.00083 U	< 0.00083 U	< 0.00083 U	--	--
		DP-4-6.0	6 ft	60.5 ft	< 0.00079 U	< 0.00079 U	< 0.0039 U	< 0.00079 U	< 0.0039 U	< 0.00079 U	< 0.00079 U	< 0.00079 U	< 0.00079 U	--	--
DP-05	09/02/2015	DP-5-2.0	2 ft	64 ft	< 0.00073 U	< 0.00073 U	< 0.0037 U	< 0.00073 U	< 0.0037 U	< 0.00073 U	< 0.00073 U	< 0.00073 U	< 0.00073 U	--	--
		DP-5-4.0	4 ft	62 ft	< 0.00078 U	< 0.00078 U	< 0.0039 U	< 0.00078 U	< 0.0039 U	< 0.00078 U	< 0.00078 U	< 0.00078 U	< 0.00078 U	--	--
DP-06	09/02/2015	DP-6-2.0	2 ft	61.5 ft	< 0.00074 U	< 0.00074 U	< 0.0037 U	< 0.00074 U	< 0.0037 U	< 0.00074 U	< 0.00074 U	< 0.00074 U	< 0.00074 U	--	--
		DP-6-6.0	6 ft	57.5 ft	< 0.00080 U	< 0.00080 U	< 0.0040 U	< 0.00080 U	< 0.0040 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	< 0.00080 U	--	--
DP-07	09/02/2015	DP-7-2.0	2 ft	60.5 ft	< 0.00081 U	< 0.00081 U	< 0.0041 U	< 0.00081 U	< 0.0041 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	--	--
		DP-7-6.0	6 ft	56.5 ft	< 0.00085 U	< 0.00085 U	< 0.0042 U	< 0.00085 U	< 0.0042 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	< 0.00085 U	--	--
HC-MW-01	05/16/2016	HC-MW-1-10	10 ft	57 ft	< 0.0010 U	< 0.0010 U	< 0.0050 U	< 0.0010 U	< 0.0050 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0014 U	--	< 0.062 U
		HC-MW-1-15	15 ft	52 ft	< 0.0011 U	< 0.0011 U	< 0.0053 U	< 0.0011 U	< 0.0053 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0015 U	--	< 0.057 U
HC-MW-02	05/17/2016	HC-MW-2-8.5	8.5 ft	66.5 ft	< 0.0010 U	< 0.0010 U	< 0.0050 U	< 0.0010 U	< 0.0050 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0014 U	--	< 0.048 U
		HC-MW-2-20	20 ft	55 ft	< 0.0012 U	< 0.0012 U	< 0.0058 U	< 0.0012 U	< 0.0058 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0016 U	--	< 0.059 U
HC-MW-03	09/26/2016	HC-MW-3-5	5 ft	73.5 ft	< 0.00092 U	< 0.00092 U	< 0.0066 U	< 0.00092 U	< 0.0079 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.0017 U	< 0.00092 U	< 0.0018 U
		HC-MW-3-7.5	7.5 ft	71 ft	< 0.00075 U	< 0.00075 U	< 0.0054 U	< 0.00075 U	< 0.0065 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.0014 U	< 0.00075 U	< 0.0015 U
HC-MW-04	09/28/2016	HC-MW-4-12	12 ft	76.5 ft	< 0.0010 U	< 0.0010 U	< 0.0080 U	< 0.0010 U	< 0.0075 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0020 U
		HC-MW-4-25	25 ft	63.5 ft	< 0.0011 U	< 0.0011 U	< 0.0053 U	< 0.0011 U	< 0.0053 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0021 U
HC-MW-05	09/29/2016	HC-MW-5-10	10 ft	62.5 ft	< 0.0010 U	< 0.0010 U	< 0.0079 U	< 0.0010 U	< 0.0075 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0020 U
		HC-MW-5-12.5	12.5 ft	60 ft	< 0.057 U	< 0.057 U	< 0.47 U	< 0.057 U	< 0.44 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.11 U
HC-MW-06	09/29/2016	HC-MW-6-10	10 ft	53 ft	< 0.0011 U	< 0.0011 U	< 0.0089 U	< 0.0011 U	< 0.0085 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0023 U
		HC-MW-6-15	15 ft	48 ft	< 0.00098 U	< 0.00098 U	< 0.0077 U	< 0.00098 U	< 0.0073 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.0020 U
HC-MW-07	09/30/2016	HC-MW-7-7.5	7.5 ft	56.5 ft	< 0.0011 U	< 0.0011 U	< 0.0087 U	< 0.0011 U	< 0.0083 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0022 U
		HC-MW-7-10	10 ft	54 ft	< 0.0010 U	< 0.0010 U	< 0.0084 U	< 0.0010 U	< 0.0079 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0021 U

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs										
				Analyte	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Isopropylbenzene	m,p-Xylenes
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level											
				MTCA Method B Cleanup Level	14	1,600		800			12	800	16,000	8,000	
Location	Date	Sample Name	Depth	Approximate Elevation											
HC-SB-01	09/26/2016	HC-SB-1-10	10 ft	72 ft	< 0.0010 U	< 0.0010 U	< 0.0074 U	< 0.0010 U	< 0.0088 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0018 U	< 0.0010 U	< 0.0020 U
		HC-SB-1-15	15 ft	67 ft	< 0.00094 U	< 0.00094 U	< 0.0067 U	< 0.00094 U	< 0.0080 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.0017 U	< 0.00094 U	< 0.0019 U
HC-SB-02	09/28/2016	HC-SB-2-10	10 ft	58.5 ft	< 0.0011 U	< 0.0011 U	< 0.0056 U	< 0.0011 U	< 0.0056 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0022 U
		HC-SB-2-12.5	12.5 ft	56 ft	< 0.00081 U	< 0.00081 U	< 0.0064 U	< 0.00081 U	< 0.0061 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.0016 U
KEE-B-01	05/24/2010	B1-3	-	-	< 0.0011 U	< 0.0011 U	< 0.0056 U	< 0.0011 U	< 0.0056 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	--	--
KEE-B-02	05/24/2010	B2-3	-	-	< 0.0011 U	< 0.0011 U	< 0.0053 U	< 0.0011 U	< 0.0053 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	--	--
KEE-B-03	05/24/2010	B3-4	-	-	< 0.0012 U	< 0.0012 U	< 0.0062 U	< 0.0012 U	< 0.0062 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	--	--
K-SB-01	01/25/2006	K-SB-1-3	3 ft	76.5 ft	--	--	--	--	--	--	--	--	--	--	--
K-SB-02	01/25/2006	K-SB-2-4	4 ft	84 ft	--	--	--	--	--	--	--	--	--	--	--
		K-SB-2-6	6 ft	82 ft	--	--	--	--	--	--	--	--	--	--	--
K-SB-03	01/25/2006	K-SB-3-7	7 ft	76.5 ft	--	--	--	--	--	--	--	--	--	--	--
SE-B-06	12/20/2011	SE-B-6	-	-	< 0.02 U	--	< 0.06 U	< 0.02 U	< 0.06 U	< 0.02 U	--	--	--	--	--
SW-B-07	12/20/2011	SW-B-7	-	-	< 0.02 U	--	< 0.06 U	< 0.02 U	< 0.06 U	< 0.02 U	--	--	--	--	--

Notes:
U - Analyte not detected above laboratory reporting limit.
J - Analyte estimated
UJ - Estimated, nondetect
SVOCs - Semivolatile organic compounds
VOCs - Volatile organic compounds
ft - feet, mg/kg - milligrams per kilogram
"--" - Not analyzed

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs											
				Analyte	Methyl tert-butyl ether (MTBE)	Methylene Chloride	Methyliodide	n-Butylbenzene	n-Hexane	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	trans-1,2-Dichloroethene
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level	0.1	0.02										
				MTCA Method B Cleanup Level					4,800	8,000	16,000			16,000		1,600
Location	Date	Sample Name	Depth	Approximate Elevation												
AB-01	02/18/2017	AB-1-6.0	6 ft	72 ft	< 0.05 U	< 0.5 U	--	--	< 0.25 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
		AB-1-11.0	11 ft	67 ft	< 0.05 U	< 0.5 U	--	--	< 0.25 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
AB-02	02/18/2017	AB-2-8.0	8 ft	70 ft	< 0.05 U	< 0.5 U	--	--	< 0.25 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
		AB-2-13.6	13.6 ft	64 ft	< 0.05 U	< 0.5 U	--	--	< 0.25 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
AB-03	02/18/2017	AB-3-2.0	2 ft	76 ft	< 0.05 U	< 0.5 U	--	--	< 0.25 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
		AB-3-9.5	9.5 ft	68.5 ft	< 0.05 U	< 0.5 U	--	--	< 0.25 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
ATC-B-01	01/08/2016	B-1-9.5-10	9.5 - 10 ft	76 - 76.5 ft	< 0.00674 U	< 0.00269 U	--	< 0.00269 U	--	< 0.00269 U	< 0.00269 U	< 0.00269 U	< 0.00269 U	< 0.00269 U	< 0.00269 U	< 0.00269 U
ATC-B-02	01/08/2016	B-2-4.5-5	4.5 - 5 ft	79 - 79.5 ft	< 0.0831 U	< 0.0332 U	--	< 0.0332 U	--	< 0.0332 U	< 0.0332 U	< 0.0332 U	< 0.0332 U	< 0.0332 U	< 0.0332 U	< 0.0332 U
		B-2-9.5-10	9.5 - 10 ft	74 - 74.5 ft	< 0.114 U	< 0.0455 U	--	< 0.0455 U	--	< 0.0455 U	< 0.0455 U	< 0.0455 U	< 0.0455 U	< 0.0455 U	< 0.0455 U	< 0.0455 U
ATC-B-03	01/08/2016	B-3-7.5-8	7.5 - 8 ft	73 - 73.5 ft	< 0.0695 U	< 0.0278 U	--	< 0.0278 U	--	< 0.0278 U	< 0.0278 U	< 0.0278 U	< 0.0278 U	< 0.0278 U	< 0.0278 U	< 0.0278 U
ATC-B-04	01/08/2016	B-4-4.5-5	4.5 - 5 ft	84 - 84.5 ft	< 0.0722 U	< 0.0289 U	--	< 0.0289 U	--	< 0.0289 U	< 0.0289 U	< 0.0289 U	< 0.0289 U	< 0.0289 U	< 0.0289 U	< 0.0289 U
ATC-B-05	01/08/2016	B-5-4.5-5	4.5 - 5 ft	83 - 83.5 ft	< 0.0722 U	< 0.0289 U	--	< 0.0289 U	--	< 0.0289 U	< 0.0289 U	< 0.0289 U	< 0.0289 U	< 0.0289 U	< 0.0289 U	< 0.0289 U
ATC-B-06	01/08/2016	B-6-4.5-5	4.5 - 5 ft	81 - 81.5 ft	< 0.125 U	< 0.0500 U	--	< 0.0500 U	--	< 0.0500 U	< 0.0500 U	< 0.0500 U	< 0.0500 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
B-01	04/18/2011	B-1-5	5 ft	57.5 ft	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--
		B-1-10	10 ft	52.5 ft	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--
		B-1-15	15 ft	47.5 ft	< 0.02 U	--	--	--	--	--	--	--	--	--	--	--
		B-1-18	18 ft	44.5 ft	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--
B-02	04/18/2011	B-2-5	5 ft	57.5 ft	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--
		B-2-11	11 ft	51.5 ft	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--
		B-2-15	15 ft	47.5 ft	< 0.045 U	--	--	--	--	--	--	--	--	--	--	--
		B-2-18	18 ft	44.5 ft	< 0.0006 U	--	--	--	--	--	--	--	--	--	--	--
B-03	04/18/2011	B-3-5	5 ft	59 ft	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--
		B-3-10	10 ft	54 ft	< 0.022 U	--	--	--	--	--	--	--	--	--	--	--
		B-3-15	15 ft	49 ft	< 0.024 U	--	--	--	--	--	--	--	--	--	--	--
		B-3-20	20 ft	44 ft	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--
B-04	04/18/2011	B-4-5	5 ft	56 ft	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--
		B-4-10	10 ft	51 ft	< 0.0009 U	--	--	--	--	--	--	--	--	--	--	--
		B-4-15	15 ft	46 ft	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--
		B-4-17	17 ft	44 ft	< 0.0007 U	--	--	--	--	--	--	--	--	--	--	--
B-05	04/18/2011	B-5-5	5 ft	57 ft	< 0.0005 U	--	--	--	--	--	< 0.001 U	--	--	--	--	< 0.001 U
		B-5-10	10 ft	52 ft	< 0.0006 U	--	--	--	--	--	< 0.001 U	--	--	--	--	< 0.001 U
		B-5-15	15 ft	47 ft	< 0.0006 U	--	--	--	--	--	< 0.001 U	--	--	--	--	< 0.001 U
		B-5-18	18 ft	44 ft	< 0.0005 U	--	--	--	--	--	< 0.001 U	--	--	--	--	< 0.001 U

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs											
				Analyte	Methyl tert-butyl ether (MTBE)	Methylene Chloride	Methyliodide	n-Butylbenzene	n-Hexane	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	trans-1,2-Dichloroethene
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level	0.1	0.02										
				MTCA Method B Cleanup Level					4,800	8,000	16,000			16,000		1,600
Location	**Date**	**Sample Name**	**Depth**	**Approximate Elevation**												
B-06	04/18/2011	B-6-5	5 ft	57 ft	< 0.0004 U	--	--	--	--	--	--	--	--	--	--	--
		B-6-10	10 ft	52 ft	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--
		B-6-15	15 ft	47 ft	< 0.29 U	--	--	--	--	--	--	--	--	--	--	--
		B-6-17	17 ft	45 ft	< 0.0008 U	--	--	--	--	--	--	--	--	--	--	--
B-07	04/18/2011	B-7-5	5 ft	59 ft	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--
		B-7-10	10 ft	54 ft	< 0.0004 U	--	--	--	--	--	--	--	--	--	--	--
		B-7-15	15 ft	49 ft	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--
		B-7-17	17 ft	47 ft	< 0.0007 U	--	--	--	--	--	--	--	--	--	--	--
DP-01	09/02/2015	DP-1-2.0	2 ft	62.5 ft	--	< 0.0043 U	< 0.0043 U	--	--	--	--	--	--	--	--	< 0.00085 U
		DP-1-6.0	6 ft	58.5 ft	--	< 0.0041 U	< 0.0041 U	--	--	--	--	--	--	--	--	< 0.00081 U
DP-02	09/02/2015	DP-2-2.0	2 ft	62 ft	--	< 0.0040 U	< 0.0040 U	--	--	--	--	--	--	--	--	< 0.00080 U
		DP-2-6.0	6 ft	58 ft	--	< 0.0049 U	< 0.0049 U	--	--	--	--	--	--	--	--	< 0.00097 U
DP-03	09/02/2015	DP-3-2.0	2 ft	63.5 ft	--	< 0.0042 U	< 0.0042 U	--	--	--	--	--	--	--	--	< 0.00085 U
		DP-3-4.0	4 ft	61.5 ft	--	< 0.0055 U	< 0.0055 U	--	--	--	--	--	--	--	--	< 0.0011 U
DP-04	09/02/2015	DP-4-2.0	2 ft	64.5 ft	--	< 0.0041 U	< 0.0041 U	--	--	--	--	--	--	--	--	< 0.00083 U
		DP-4-6.0	6 ft	60.5 ft	--	< 0.0039 U	< 0.0039 U	--	--	--	--	--	--	--	--	< 0.00079 U
DP-05	09/02/2015	DP-5-2.0	2 ft	64 ft	--	< 0.0037 U	< 0.0037 U	--	--	--	--	--	--	--	--	< 0.00073 U
		DP-5-4.0	4 ft	62 ft	--	< 0.0039 U	< 0.0039 U	--	--	--	--	--	--	--	--	< 0.00078 U
DP-06	09/02/2015	DP-6-2.0	2 ft	61.5 ft	--	< 0.0037 U	< 0.0037 U	--	--	--	--	--	--	--	--	< 0.00074 U
		DP-6-6.0	6 ft	57.5 ft	--	< 0.0040 U	< 0.0040 U	--	--	--	--	--	--	--	--	< 0.00080 U
DP-07	09/02/2015	DP-7-2.0	2 ft	60.5 ft	--	< 0.0041 U	< 0.0041 U	--	--	--	--	--	--	--	--	< 0.00081 U
		DP-7-6.0	6 ft	56.5 ft	--	< 0.0042 U	< 0.0042 U	--	--	--	--	--	--	--	--	< 0.00085 U
HC-MW-01	05/16/2016	HC-MW-1-10	10 ft	57 ft	--	< 0.0050 U	< 0.0050 U	--	--	--	< 0.062 U	--	--	--	--	< 0.0010 U
		HC-MW-1-15	15 ft	52 ft	--	< 0.0053 U	< 0.0053 U	--	--	--	< 0.057 U	--	--	--	--	< 0.0011 U
HC-MW-02	05/17/2016	HC-MW-2-8.5	8.5 ft	66.5 ft	--	< 0.0050 U	< 0.0050 U	--	--	--	< 0.048 U	--	--	--	--	< 0.0010 U
		HC-MW-2-20	20 ft	55 ft	--	< 0.0058 U	< 0.0058 U	--	--	--	< 0.059 U	--	--	--	--	< 0.0012 U
HC-MW-03	09/26/2016	HC-MW-3-5	5 ft	73.5 ft	< 0.00092 U	< 0.0046 U	< 0.0046 U	< 0.00092 U	--	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U	< 0.00092 U
		HC-MW-3-7.5	7.5 ft	71 ft	< 0.00075 U	< 0.0038 U	< 0.0038 U	< 0.00075 U	--	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U	< 0.00075 U
HC-MW-04	09/28/2016	HC-MW-4-12	12 ft	76.5 ft	< 0.0010 U	< 0.0050 U	< 0.0050 U	< 0.0010 U	--	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
		HC-MW-4-25	25 ft	63.5 ft	< 0.0011 U	< 0.0053 U	< 0.0053 U	< 0.0011 U	--	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
HC-MW-05	09/29/2016	HC-MW-5-10	10 ft	62.5 ft	< 0.0010 U	< 0.0050 U	< 0.0050 U	< 0.0010 U	--	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
		HC-MW-5-12.5	12.5 ft	60 ft	< 0.057 U	< 0.29 U	< 0.29 U	< 0.057 U	--	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U
HC-MW-06	09/29/2016	HC-MW-6-10	10 ft	53 ft	< 0.0011 U	< 0.0056 U	< 0.0056 U	< 0.0011 U	--	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
		HC-MW-6-15	15 ft	48 ft	< 0.00098 U	< 0.0049 U	< 0.0049 U	< 0.00098 U	--	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U	< 0.00098 U
HC-MW-07	09/30/2016	HC-MW-7-7.5	7.5 ft	56.5 ft	< 0.0011 U	< 0.0055 U	< 0.0055 U	< 0.0011 U	--	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
		HC-MW-7-10	10 ft	54 ft	< 0.0010 U	< 0.0051 U	< 0.0051 U	< 0.0010 U	--	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs											
				Analyte	Methyl tert-butyl ether (MTBE)	Methylene Chloride	Methyliodide	n-Butylbenzene	n-Hexane	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	trans-1,2-Dichloroethene
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level	0.1	0.02										
				MTCA Method B Cleanup Level					4,800	8,000	16,000			16,000		1,600
Location	**Date**	**Sample Name**	**Depth**	**Approximate Elevation**												
HC-SB-01	09/26/2016	HC-SB-1-10	10 ft	72 ft	< 0.0010 U	< 0.0051 U	< 0.0051 U	< 0.0010 U	--	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
		HC-SB-1-15	15 ft	67 ft	< 0.00094 U	< 0.0047 U	< 0.0047 U	< 0.00094 U	--	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U	< 0.00094 U
HC-SB-02	09/28/2016	HC-SB-2-10	10 ft	58.5 ft	< 0.0011 U	< 0.0056 U	< 0.0056 U	< 0.0011 U	--	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
		HC-SB-2-12.5	12.5 ft	56 ft	< 0.00081 U	< 0.0041 U	< 0.0041 U	< 0.00081 U	--	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U	< 0.00081 U
KEE-B-01	05/24/2010	B1-3	-	-	--	< 0.0056 U	< 0.0056 U	--	--	--	--	--	--	--	--	< 0.0011 U
KEE-B-02	05/24/2010	B2-3	-	-	--	< 0.0053 U	< 0.0053 U	--	--	--	--	--	--	--	--	< 0.0011 U
KEE-B-03	05/24/2010	B3-4	-	-	--	< 0.0062 U	< 0.0062 U	--	--	--	--	--	--	--	--	< 0.0012 U
K-SB-01	01/25/2006	K-SB-1-3	3 ft	76.5 ft	--	--	--	--	--	--	--	--	--	--	--	< 0.05 U
K-SB-02	01/25/2006	K-SB-2-4	4 ft	84 ft	--	--	--	--	--	--	--	--	--	--	--	< 0.05 U
		K-SB-2-6	6 ft	82 ft	--	--	--	--	--	--	--	--	--	--	--	< 0.05 U
K-SB-03	01/25/2006	K-SB-3-7	7 ft	76.5 ft	--	--	--	--	--	--	--	--	--	--	--	< 0.05 U
SE-B-06	12/20/2011	SE-B-6	-	-	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U
SW-B-07	12/20/2011	SW-B-7	-	-	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U

Notes:
U - Analyte not detected above laboratory reporting limit.
J - Analyte estimated
UJ - Estimated, nondetect
SVOCs - Semivolatile organic compounds
VOCs - Volatile organic compounds
ft - feet, mg/kg - milligrams per kilogram
"--" - Not analyzed

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs			
				Analyte	trans-1,3-Dichloropropene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
				Units	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level				
				MTCA Method B Cleanup Level		24,000	80,000	0.67
Location	Date	Sample Name	Depth	Approximate Elevation				
AB-01	02/18/2017	AB-1-6.0	6 ft	72 ft	< 0.05 U	< 0.5 U	--	< 0.05 U
		AB-1-11.0	11 ft	67 ft	< 0.05 U	< 0.5 U	--	< 0.05 U
AB-02	02/18/2017	AB-2-8.0	8 ft	70 ft	< 0.05 U	< 0.5 U	--	< 0.05 U
		AB-2-13.6	13.6 ft	64 ft	< 0.05 U	< 0.5 U	--	< 0.05 U
AB-03	02/18/2017	AB-3-2.0	2 ft	76 ft	< 0.05 U	< 0.5 U	--	< 0.05 U
		AB-3-9.5	9.5 ft	68.5 ft	< 0.05 U	< 0.5 U	--	< 0.05 U
ATC-B-01	01/08/2016	B-1-9.5-10	9.5 - 10 ft	76 - 76.5 ft	< 0.00404 U	< 0.00674 U	--	< 0.000269 U
ATC-B-02	01/08/2016	B-2-4.5-5	4.5 - 5 ft	79 - 79.5 ft	< 0.0498 U	< 0.0831 U	--	< 0.00332 U
		B-2-9.5-10	9.5 - 10 ft	74 - 74.5 ft	< 0.0682 U	< 0.114 U	--	< 0.00455 U
ATC-B-03	01/08/2016	B-3-7.5-8	7.5 - 8 ft	73 - 73.5 ft	< 0.0417 U	< 0.0695 U	--	< 0.00278 U
ATC-B-04	01/08/2016	B-4-4.5-5	4.5 - 5 ft	84 - 84.5 ft	< 0.0433 U	< 0.0722 U	--	< 0.00289 U
ATC-B-05	01/08/2016	B-5-4.5-5	4.5 - 5 ft	83 - 83.5 ft	< 0.0433 U	< 0.0722 U	--	< 0.00289 U
ATC-B-06	01/08/2016	B-6-4.5-5	4.5 - 5 ft	81 - 81.5 ft	< 0.0750 U	< 0.125 U	--	< 0.00500 U
B-01	04/18/2011	B-1-5	5 ft	57.5 ft	--	--	--	--
		B-1-10	10 ft	52.5 ft	--	--	--	--
		B-1-15	15 ft	47.5 ft	--	--	--	--
		B-1-18	18 ft	44.5 ft	--	--	--	--
B-02	04/18/2011	B-2-5	5 ft	57.5 ft	--	--	--	--
		B-2-11	11 ft	51.5 ft	--	--	--	--
		B-2-15	15 ft	47.5 ft	--	--	--	--
		B-2-18	18 ft	44.5 ft	--	--	--	--
B-03	04/18/2011	B-3-5	5 ft	59 ft	--	--	--	--
		B-3-10	10 ft	54 ft	--	--	--	--
		B-3-15	15 ft	49 ft	--	--	--	--
		B-3-20	20 ft	44 ft	--	--	--	--
B-04	04/18/2011	B-4-5	5 ft	56 ft	--	--	--	--
		B-4-10	10 ft	51 ft	--	--	--	--
		B-4-15	15 ft	46 ft	--	--	--	--
		B-4-17	17 ft	44 ft	--	--	--	--
B-05	04/18/2011	B-5-5	5 ft	57 ft	--	--	--	< 0.001 U
		B-5-10	10 ft	52 ft	--	--	--	< 0.001 U
		B-5-15	15 ft	47 ft	--	--	--	< 0.001 U
		B-5-18	18 ft	44 ft	--	--	--	< 0.001 U

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs			
				Analyte	trans-1,3-Dichloropropene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
				Units	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level				
				MTCA Method B Cleanup Level		24,000	80,000	0.67
Location	Date	Sample Name	Depth	Approximate Elevation				
B-06	04/18/2011	B-6-5	5 ft	57 ft	--	--	--	--
		B-6-10	10 ft	52 ft	--	--	--	--
		B-6-15	15 ft	47 ft	--	--	--	--
		B-6-17	17 ft	45 ft	--	--	--	--
B-07	04/18/2011	B-7-5	5 ft	59 ft	--	--	--	--
		B-7-10	10 ft	54 ft	--	--	--	--
		B-7-15	15 ft	49 ft	--	--	--	--
		B-7-17	17 ft	47 ft	--	--	--	--
DP-01	09/02/2015	DP-1-2.0	2 ft	62.5 ft	< 0.00085 U	< 0.00085 U	--	< 0.00085 U
		DP-1-6.0	6 ft	58.5 ft	< 0.00081 U	< 0.00081 U	--	< 0.00081 U
DP-02	09/02/2015	DP-2-2.0	2 ft	62 ft	< 0.00080 U	< 0.00080 U	--	< 0.00080 U
		DP-2-6.0	6 ft	58 ft	< 0.00097 U	< 0.00097 U	--	< 0.00097 U
DP-03	09/02/2015	DP-3-2.0	2 ft	63.5 ft	< 0.00085 U	< 0.00085 U	--	< 0.00085 U
		DP-3-4.0	4 ft	61.5 ft	< 0.0011 U	< 0.0011 U	--	< 0.0011 U
DP-04	09/02/2015	DP-4-2.0	2 ft	64.5 ft	< 0.00083 U	< 0.00083 U	--	< 0.00083 U
		DP-4-6.0	6 ft	60.5 ft	< 0.00079 U	< 0.00079 U	--	< 0.00079 U
DP-05	09/02/2015	DP-5-2.0	2 ft	64 ft	< 0.00073 U	< 0.00073 U	--	< 0.00073 U
		DP-5-4.0	4 ft	62 ft	< 0.00078 U	< 0.00078 U	--	< 0.00078 U
DP-06	09/02/2015	DP-6-2.0	2 ft	61.5 ft	< 0.00074 U	< 0.00074 U	--	< 0.00074 U
		DP-6-6.0	6 ft	57.5 ft	< 0.00080 U	< 0.00080 U	--	< 0.00080 U
DP-07	09/02/2015	DP-7-2.0	2 ft	60.5 ft	< 0.00081 U	< 0.00081 U	--	< 0.00081 U
		DP-7-6.0	6 ft	56.5 ft	< 0.00085 U	< 0.00085 U	--	< 0.00085 U
HC-MW-01	05/16/2016	HC-MW-1-10	10 ft	57 ft	< 0.0010 U	< 0.0010 U	--	< 0.0010 U
		HC-MW-1-15	15 ft	52 ft	< 0.0011 U	< 0.0011 U	--	< 0.0011 U
HC-MW-02	05/17/2016	HC-MW-2-8.5	8.5 ft	66.5 ft	< 0.0010 U	< 0.0010 U	--	< 0.0010 U
		HC-MW-2-20	20 ft	55 ft	< 0.0012 U	< 0.0012 U	--	< 0.0012 U
HC-MW-03	09/26/2016	HC-MW-3-5	5 ft	73.5 ft	< 0.00092 U	< 0.00092 U	< 0.0046 U	< 0.0014 U
		HC-MW-3-7.5	7.5 ft	71 ft	< 0.00075 U	< 0.00075 U	< 0.0038 U	< 0.0011 U
HC-MW-04	09/28/2016	HC-MW-4-12	12 ft	76.5 ft	< 0.0010 U	< 0.0010 U	< 0.0050 U	< 0.0015 U
		HC-MW-4-25	25 ft	63.5 ft	< 0.0011 U	< 0.0011 U	< 0.0053 U	< 0.0011 U
HC-MW-05	09/29/2016	HC-MW-5-10	10 ft	62.5 ft	< 0.0010 U	< 0.0010 U	< 0.0050 U	< 0.0015 U
		HC-MW-5-12.5	12.5 ft	60 ft	< 0.057 U	< 0.057 U	< 0.29 U	< 0.086 U
HC-MW-06	09/29/2016	HC-MW-6-10	10 ft	53 ft	< 0.0011 U	< 0.0011 U	< 0.0056 U	< 0.0017 U
		HC-MW-6-15	15 ft	48 ft	< 0.00098 U	< 0.00098 U	< 0.0049 U	< 0.0015 U
HC-MW-07	09/30/2016	HC-MW-7-7.5	7.5 ft	56.5 ft	< 0.0011 U	< 0.0011 U	< 0.0055 U	< 0.0017 U
		HC-MW-7-10	10 ft	54 ft	< 0.0010 U	< 0.0010 U	< 0.0051 U	< 0.0015 U

Table 3. Summary of Historical Soil Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					VOCs			
				Analyte	trans-1,3-Dichloropropene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
				Units	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level				
				MTCA Method B Cleanup Level		24,000	80,000	0.67
Location	Date	Sample Name	Depth	Approximate Elevation				
HC-SB-01	09/26/2016	HC-SB-1-10	10 ft	72 ft	< 0.0010 U	< 0.0010 U	< 0.0051 U	< 0.0015 U
		HC-SB-1-15	15 ft	67 ft	< 0.00094 U	< 0.00094 U	< 0.0047 U	< 0.0014 U
HC-SB-02	09/28/2016	HC-SB-2-10	10 ft	58.5 ft	< 0.0011 U	< 0.0011 U	< 0.0056 U	< 0.0011 U
		HC-SB-2-12.5	12.5 ft	56 ft	< 0.00081 U	< 0.00081 U	< 0.0041 U	< 0.0012 U
KEE-B-01	05/24/2010	B1-3	-	-	< 0.0011 U	< 0.0011 U	--	< 0.0011 U
KEE-B-02	05/24/2010	B2-3	-	-	< 0.0011 U	< 0.0011 U	--	< 0.0011 U
KEE-B-03	05/24/2010	B3-4	-	-	< 0.0012 U	< 0.0012 U	--	< 0.0012 U
K-SB-01	01/25/2006	K-SB-1-3	3 ft	76.5 ft	--	--	--	< 0.01 U
K-SB-02	01/25/2006	K-SB-2-4	4 ft	84 ft	--	--	--	< 0.01 U
		K-SB-2-6	6 ft	82 ft	--	--	--	< 0.01 U
K-SB-03	01/25/2006	K-SB-3-7	7 ft	76.5 ft	--	--	--	< 0.01 U
SE-B-06	12/20/2011	SE-B-6	-	-	< 0.03 U	--	--	< 0.02 U
SW-B-07	12/20/2011	SW-B-7	-	-	< 0.03 U	--	--	< 0.02 U

Notes:
U - Analyte not detected above laboratory reporting limit.
J - Analyte estimated
UJ - Estimated, nondetect
SVOCs - Semivolatile organic compounds
VOCs - Volatile organic compounds
ft - feet, mg/kg - milligrams per kilogram
"--" - Not analyzed

Table 4. Summary of Remedial Investigation Soil Results: Chlorinated Solvents

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Analyte	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane (EDC)	Chloroethane	cis-1,2-Dichloroethene (DCE)	Methylene Chloride	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene	Trichloroethene (TCE)	Vinyl Chloride	PCE TCLP
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L
				TCLP Dangerous Waste Threshold												700
				MTCA Method A Cleanup Level	2						0.02	0.05		0.03		
				MTCA Method B Cleanup Level		16,000	4,000	11		160			1,600		0.67	
Location	Date	Sample Name	Depth	Approximate Elevation												
AB-04	03/08/2017	AB-4-6.0	6 ft	82 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.032**	< 0.05 U	< 0.02 U	< 0.05 U	--
AB-06	03/08/2017	AB-6-6.0	6 ft	72 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-6-14.0	14 ft	64 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.95**	< 0.05 U	< 0.02 U	< 0.05 U	**20**
		AB-6-15.0	15 ft	63 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.48**	< 0.05 U	< 0.02 U	< 0.05 U	**14**
AB-17	11/17/2017	AB-17-2.5	2.5 ft	83 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-17-5.0	5 ft	80.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-17-7.5	7.5 ft	78 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-17-10.0	10 ft	75.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-17-15.0	15 ft	70.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-17-20.0	20 ft	65.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
AB-21	08/09/2017	AB-21-2.5	2.5 ft	67 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-21-5.0	5 ft	64.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-21-10.0	10 ft	59.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-21-15.0	15 ft	54.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-21-20.0	20 ft	49.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-21-25.0	25 ft	44.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
AB-22	08/10/2017	AB-22-2.5	2.5 ft	63 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-22-5.0	5 ft	60.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-22-10.0	10 ft	55.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-22-15.0	15 ft	50.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-22-20.0	20 ft	45.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-22-25.0	25 ft	40.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
AB-25	08/08/2017	AB-25-2.5	2.5 ft	59.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-25-12.5B	12.5 ft	49.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.054**	< 0.05 U	< 0.02 U	< 0.05 U	--
AB-33	08/01/2018	AB-33-5.0	5 ft	61.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-33-12.5	12.5 ft	54 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
AB-35	11/11/2018	AB-35-2.5	2.5 ft	75.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**2.7**	< 0.05 U	**0.02**	< 0.05 U	--
		AB-35-12.5	12.5 ft	65.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**5.1**	< 0.05 U	**0.027**	< 0.05 U	< 200 U
		AB-35-15.0	15 ft	63 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.033**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-35-20.0	20 ft	58 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.036**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-35-22.5	22.5 ft	55.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-35-25.0	25 ft	53 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
AB-37	11/11/2018	AB-37-7.5	7.5 ft	70.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.31**	< 0.05 U	**0.022**	< 0.05 U	--
		AB-37-12.5	12.5 ft	65.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**3.4**	< 0.05 U	**0.053**	< 0.05 U	--
		AB-37-17.5	17.5 ft	60.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--

Table 4. Summary of Remedial Investigation Soil Results: Chlorinated Solvents

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Location	Date	Sample Name	Depth	Approximate Elevation	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane (EDC)	Chloroethane	cis-1,2-Dichloroethene (DCE)	Methylene Chloride	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene	Trichloroethene (TCE)	Vinyl Chloride	PCE TCLP
Analyte																
Units					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L
TCLP Dangerous Waste Threshold																700
MTCA Method A Cleanup Level					2						0.02	0.05		0.03		
MTCA Method B Cleanup Level						16,000	4,000	11		160			1,600		0.67	
AB-38	11/11/2018	AB-38-5.0	5 ft	73 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.42**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-38-10.0	10 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**19**	< 0.05 U	**0.15**	< 0.05 U	**460**
		AB-38-17.5	17.5 ft	60.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-38-20.0	20 ft	58 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.027**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-38-22.5	22.5 ft	55.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-38-25.0	25 ft	53 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
AB-39	11/12/2018	AB-39-5.0	5 ft	73 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.049**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-39-12.5	12.5 ft	65.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.37**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-39-20.0	20 ft	58 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
AB-40	11/12/2018	AB-40-2.5	2.5 ft	75.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.1**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-40-7.5	7.5 ft	70.5 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	**1.4 J**	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	< 200 UJ
		AB-40-10.0	10 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**13**	< 0.05 U	**0.14**	< 0.05 U	**790**
		AB-40-12.5	12.5 ft	65.5 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	**0.23 J**	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	< 200 UJ
		AB-40-15.0	15 ft	63 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-40-20.0	20 ft	58 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
AB-41	11/11/2018	AB-41-5.0	5 ft	73 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**3.4**	< 0.05 U	**0.028**	< 0.05 U	--
		AB-41-15.0	15 ft	63 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**5.9**	< 0.05 U	**0.14**	< 0.05 U	< 200 U
		AB-41-20.0	20 ft	58 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.071**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-41-22.5	22.5 ft	55.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AB-41-25.0	25 ft	53 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
ADP-18	11/12/2017	ADP-18-2.5	2.5 ft	77.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**2**	< 0.05 U	< 0.02 U	< 0.05 U	< 500 U
		ADP-18-5.0	5 ft	75 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**1,200**	< 0.05 U	**0.022**	< 0.05 U	**39,000**
ADP-19	11/12/2017	ADP-19-3.0	3 ft	75 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.13**	< 0.05 U	< 0.02 U	< 0.05 U	< 500 U
		ADP-19-5.0	5 ft	73 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.26**	< 0.05 U	< 0.02 U	< 0.05 U	< 500 U
ADP-20	11/13/2017	ADP-20-3.0	3 ft	75 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-20-5.5	5.5 ft	72.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-20-8.0	8 ft	70 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-20-11.0	11 ft	67 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
ADP-24	11/13/2017	ADP-24-2.5	2.5 ft	60 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.07**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-24-8.5	8.5 ft	54 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.16**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-24-12.5	12.5 ft	50 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.17**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-24-15.0	15 ft	47.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.21**	< 0.05 U	**0.075**	< 0.05 U	--

Table 4. Summary of Remedial Investigation Soil Results: Chlorinated Solvents

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Analyte	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane (EDC)	Chloroethane	cis-1,2-Dichloroethene (DCE)	Methylene Chloride	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene	Trichloroethene (TCE)	Vinyl Chloride	PCE TCLP
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L
				TCLP Dangerous Waste Threshold												700
				MTCA Method A Cleanup Level	2						0.02	0.05		0.03		
				MTCA Method B Cleanup Level		16,000	4,000	11		160			1,600		0.67	
Location	Date	Sample Name	Depth	Approximate Elevation												
ADP-26	11/13/2017	ADP-26-2.0	2 ft	67.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-26-5.0	5 ft	64.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-26-12.5	12.5 ft	57 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.046**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-26-16.0	16 ft	53.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.079**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-26-20.0	20 ft	49.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
ADP-27	11/12/2017	ADP-27-2.0	2 ft	76 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.68**	< 0.05 U	< 0.02 U	< 0.05 U	< 500 U
		ADP-27-4.0	4 ft	74 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**2**	< 0.05 U	< 0.02 U	< 0.05 U	< 500 U
		ADP-27-6.0	6 ft	72 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**5.2**	< 0.05 U	**0.032**	< 0.05 U	< 500 U
		ADP-27-10.0	10 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**3.5**	< 0.05 U	**0.041**	< 0.05 U	< 500 U
		ADP-27-11.5	11.5 ft	66.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**35**	< 0.05 U	**0.32**	< 0.05 U	< 500 U
ADP-28	11/12/2017	ADP-28-3.0	3 ft	75 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.42**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-28-6.5	6.5 ft	71.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**1.4**	< 0.05 U	< 0.02 U	< 0.05 U	--
ADP-29	11/12/2017	ADP-29-2.5	2.5 ft	75.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.5**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-29-5.0	5 ft	73 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**2.2**	< 0.05 U	< 0.02 U	< 0.05 U	--
ADP-30	11/12/2017	ADP-30-2.0	2 ft	76 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**9.2**	< 0.05 U	< 0.02 U	< 0.05 U	< 500 U
		ADP-30-4.0	4 ft	74 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**7.1**	< 0.05 U	< 0.02 U	< 0.05 U	< 500 U
		ADP-30-7.5	7.5 ft	70.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.62**	< 0.05 U	< 0.02 U	< 0.05 U	< 500 U
ADP-31	11/22/2017	ADP-31-2.0	2 ft	73.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.03**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-31-4.5	4.5 ft	71 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.035**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-31-11.0	11 ft	64.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.11**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-31-16.0	16 ft	59.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.07**	< 0.05 U	< 0.02 U	< 0.05 U	--
ADP-32	11/22/2017	ADP-32-3.0	3 ft	59 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-32-6.0	6 ft	56 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-32-8.5	8.5 ft	53.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
ADP-34	11/11/2018	ADP-34-7.5	7.5 ft	80.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.57**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-34-14.0	14 ft	74 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**1.8**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-34-22.5	22.5 ft	65.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.75**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-34-32.5	32.5 ft	55.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
ADP-36	11/11/2018	ADP-36-2.5	2.5 ft	75.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**2.8**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-36-5.0	5 ft	73 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**2.4**	< 0.05 U	**0.038**	< 0.05 U	--
		ADP-36-10.0	10 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.05**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-36-15.0	15 ft	63 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
ADP-42	12/13/2018	ADP-42-6.0	6 ft	74 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**2.4**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-42-9.0	9 ft	71 ft	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 5 U	< 0.5 U	< 5 U	**44**	< 0.5 U	**0.21**	< 0.5 U	**900**
		ADP-42-13.0	13 ft	67 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	**0.031 J**	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	< 200 UJ
ADP-43	12/13/2018	ADP-43-5.0	5 ft	75 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.26**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-43-10.0	10 ft	70 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**2.5**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-43-13.0	13 ft	67 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.91**	< 0.05 U	< 0.02 U	< 0.05 U	--

Table 4. Summary of Remedial Investigation Soil Results: Chlorinated Solvents

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Location	Date	Sample Name	Depth	Approximate Elevation	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane (EDC)	Chloroethane	cis-1,2-Dichloroethene (DCE)	Methylene Chloride	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene	Trichloroethene (TCE)	Vinyl Chloride	PCE TCLP
Analyte																
Units					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L
TCLP Dangerous Waste Threshold																700
MTCA Method A Cleanup Level					2						0.02	0.05		0.03		
MTCA Method B Cleanup Level						16,000	4,000	11		160			1,600		0.67	
ADP-44	12/13/2018	ADP-44-7.0	7 ft	73 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.21**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-44-15.0	15 ft	65 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	< 0.025 UJ	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	--
ADP-45	12/13/2018	ADP-45-2.5	2.5 ft	77.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.19**	< 0.05 U	< 0.02 U	< 0.05 U	< 200 U
		ADP-45-5.0	5 ft	75 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.14**	< 0.05 U	< 0.02 U	< 0.05 U	< 200 U
		ADP-45-9.0	9 ft	71 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.48**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-45-15.0	15 ft	65 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**4.4**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-45-20.0	20 ft	60 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	< 0.025 UJ	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	--
ADP-46	12/13/2018	ADP-46-2.5	2.5 ft	75.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-46-7.5	7.5 ft	70.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.98**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-46-10.0	10 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	**0.072**	< 0.5 U	**2**	< 0.05 U	**0.078**	< 0.05 U	--
		ADP-46-15.0	15 ft	63 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.23**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-46-20.0	20 ft	58 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	**0.048 J**	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	--
ADP-47	12/13/2018	ADP-47-4.0	4 ft	74 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-47-10.0	10 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.078**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-47-15.0	15 ft	63 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	**0.22 J**	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	--
ADP-48	12/13/2018	ADP-48-3.5	3.5 ft	74.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-48-10.0	10 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.074**	< 0.05 U	< 0.02 U	< 0.05 U	--
ADP-49	12/13/2018	ADP-49-9.5	9.5 ft	68.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.23**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-49-12.5	12.5 ft	65.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**3.7**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-49-15.0	15 ft	63 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**44**	< 0.05 U	**0.19**	< 0.05 U	**720**
		ADP-49-17.5	17.5 ft	60.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.19**	< 0.05 U	< 0.02 U	< 0.05 U	< 200 UJ
		ADP-49-22.0	22 ft	56 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	**0.5 J**	**0.061 J**	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	--
ADP-50	12/13/2018	ADP-50-3.0	3 ft	75 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**4.3**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-50-7.0	7 ft	71 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**2.4**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-50-10.0	10 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-50-12.5	12.5 ft	65.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.031**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-50-17.5	17.5 ft	60.5 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	< 0.025 UJ	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	--
ADP-51	12/14/2018	ADP-51-10.0	10 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.13**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-51-15.0	15 ft	63 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**43**	< 0.05 U	**0.08**	< 0.05 U	**830**
		ADP-51-18.0	18 ft	60 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**1.4**	< 0.05 U	**0.035**	< 0.05 U	< 200 UJ
		ADP-51-22.5	22.5 ft	55.5 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	**0.047 J**	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	--
ADP-52	12/14/2018	ADP-52-3.5	3.5 ft	74.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**1.9**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-52-10.0	10 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**4.4**	< 0.05 U	**0.02**	< 0.05 U	--
		ADP-52-15.0	15 ft	63 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
ADP-53	12/14/2018	ADP-53-2.5	2.5 ft	75.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**1.5**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-53-9.0	9 ft	69 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.14**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-53-12.0	12 ft	66 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.71**	< 0.05 U	< 0.02 U	< 0.05 U	--

Table 4. Summary of Remedial Investigation Soil Results: Chlorinated Solvents

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Location	Date	Sample Name	Depth	Approximate Elevation	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane (EDC)	Chloroethane	cis-1,2-Dichloroethene (DCE)	Methylene Chloride	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene	Trichloroethene (TCE)	Vinyl Chloride	PCE TCLP
Analyte																
Units					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L
TCLP Dangerous Waste Threshold																700
MTCA Method A Cleanup Level					2						0.02	0.05		0.03		
MTCA Method B Cleanup Level						16,000	4,000	11		160			1,600		0.67	
ADP-54	12/14/2018	ADP-54-4.5	4.5 ft	73.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-54-10.0	10 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.19**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-54-15.0	15 ft	63 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	**0.23 J**	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	--
ADP-55	12/14/2018	ADP-55-15.0	15 ft	73 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**5.5**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-55-17.5	17.5 ft	70.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**13**	< 0.05 U	< 0.02 U	< 0.05 U	**210**
		ADP-55-20.0	20 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**13**	< 0.05 U	**0.11**	< 0.05 U	**390**
		ADP-55-27.5	27.5 ft	60.5 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	< 0.025 UJ	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	--
ADP-56	12/14/2018	ADP-56-12.5	12.5 ft	75.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**4.3**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-56-17.5	17.5 ft	70.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**2.2**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-56-20.0	20 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.86**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-56-28.0	28 ft	60 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**1.2**	< 0.05 U	< 0.02 U	< 0.05 U	--
ADP-57	12/14/2018	ADP-57-16.0	16 ft	72 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.11**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-57-20.0	20 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.039**	< 0.05 U	< 0.02 U	< 0.05 U	--
		ADP-57-24.0	24 ft	64 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	< 0.025 UJ	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	--
AMW-01	03/08/2017	AMW-1-4.0	4 ft	74 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.036**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-1-11.0	11 ft	67 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.54**	< 0.05 U	< 0.02 U	< 0.05 U	**11**
		AMW-1-15.0	15 ft	63 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.58**	< 0.05 U	< 0.02 U	< 0.05 U	**11**
AMW-02	08/10/2017	AMW-02-2.5	2.5 ft	71 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-02-5.0	5 ft	68.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	**0.066**	< 0.5 U	**0.95**	< 0.05 U	**0.065**	< 0.05 U	--
		AMW-02-7.5	7.5 ft	66 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.069**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-02-12.5	12.5 ft	61 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.3**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-02-15.0	15 ft	58.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	**0.072**	< 0.5 U	**2.8**	< 0.05 U	**0.14**	< 0.05 U	--
		AMW-02-20.0	20 ft	53.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-02-25.0	25 ft	48.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
AMW-04	11/13/2017	AMW-04-6.0	6 ft	58.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.029**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-04-9.0	9 ft	55.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-04-12.0	12 ft	52.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.095**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-04-15.0	15 ft	49.5 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	< 0.025 UJ	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	--
		AMW-04-20.0	20 ft	44.5 ft	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.5 UJ	< 0.05 UJ	< 0.5 UJ	**0.13 J**	< 0.05 UJ	< 0.02 UJ	< 0.05 UJ	--
AMW-05	08/07/2017	AMW-05-5.0	5 ft	59 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-05-12.5A	12.5 ft	51.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
AMW-10	08/09/2017	AMW-10-2.5	2.5 ft	64.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-10-5.0	5 ft	62 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.035**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-10-10.0	10 ft	57 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-10-15.0	15 ft	52 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.19**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-10-20.0	20 ft	47 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-10-25.0	25 ft	42 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--

Table 4. Summary of Remedial Investigation Soil Results: Chlorinated Solvents

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Location	Date	Sample Name	Depth	Approximate Elevation	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane (EDC)	Chloroethane	cis-1,2-Dichloroethene (DCE)	Methylene Chloride	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene	Trichloroethene (TCE)	Vinyl Chloride	PCE TCLP
Analyte																
Units					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L
TCLP Dangerous Waste Threshold																700
MTCA Method A Cleanup Level					2						0.02	0.05		0.03		
MTCA Method B Cleanup Level						16,000	4,000	11		160			1,600		0.67	
AMW-12	08/07/2017	AMW-12-5.0	5 ft	56 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.054**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-12-15.0	15 ft	46 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
AMW-13	08/08/2017	AMW-13-2.5	2.5 ft	61 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.12**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-13-12.5	12.5 ft	51 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.15**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-13-15.0	15 ft	48.5 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-13-17.5	17.5 ft	46 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
AMW-21	11/12/2018	AMW-21-2.5	2.5 ft	75.5 ft	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 5 U	< 0.5 U	< 5 U	**15**	< 0.5 U	< 0.2 U	< 0.5 U	**610**
		AMW-21-10.0	10 ft	68 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.83**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-21-20.0	20 ft	58 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.33**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-21-30.0	30 ft	48 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	**0.082**	< 0.05 U	< 0.02 U	< 0.05 U	--
		AMW-21-35.0	35 ft	43 ft	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.5 U	< 0.05 U	< 0.5 U	< 0.025 U	< 0.05 U	< 0.02 U	< 0.05 U	--
VP-1-D	11/29/2018	S-061992-112918-DT-VP1D 10.5	10.5 ft	54 ft	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.57 U	< 0.057 U	< 0.23 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.023 U	--
VP-1-S	11/27/2018	S-061992-112718-DT-VP1S 6.0	6 ft	58.5 ft	< 0.055 U	< 0.055 U	< 0.055 U	< 0.055 U	< 0.55 U	< 0.055 U	< 0.22 U	< 0.055 U	< 0.055 U	< 0.055 U	< 0.022 U	--
VP-2-D	11/29/2018	S-061992-112918-DT-VP2D-12.0	12 ft	56 ft	< 0.06 U	< 0.06 U	< 0.24 U	< 0.06 U	< 0.6 U	< 0.06 U	< 0.24 U	< 0.06 U	< 0.06 U	< 0.06 U	< 0.06 U	--
VP-2-S	11/29/2018	S-061992-112918-DT-VP2S-6.0	6 ft	62.5 ft	< 0.057 U	< 0.057 U	< 0.23 U	< 0.057 U	< 0.57 U	< 0.057 U	< 0.23 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	--
VP-3-D	11/28/2018	S-061992-112818-DT-VP3D-12.0	12 ft	53.5 ft	< 0.06 U	< 0.06 U	< 0.06 U	< 0.06 U	< 0.6 U	< 0.06 U	< 0.24 U	< 0.06 U	< 0.06 U	< 0.06 U	< 0.06 U	--
VP-3-S	11/28/2018	S-061992-112818-DT-VP3S-7.0	7 ft	59 ft	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.57 U	< 0.057 U	< 0.23 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	--
VP-4-D	11/30/2018	S-061992-113018-VP4D-12.0	12 ft	53 ft	< 0.06 U	< 0.06 U	< 0.06 U	< 0.06 U	< 0.6 U	< 0.06 U	< 0.24 U	< 0.06 U	< 0.06 U	< 0.06 U	< 0.024 U	--
VP-4-S	11/30/2018	S-061992-113018-VP4S-6.0	6 ft	59 ft	< 0.057 U	< 0.057 U	< 0.23 U	< 0.057 U	< 0.57 U	< 0.057 U	< 0.23 U	**0.086**	< 0.057 U	< 0.057 U	< 0.057 U	--
VP-5-D	11/29/2018	S-061992-112918-VP5D-12.0	12 ft	51.5 ft	< 0.058 U	< 0.058 U	< 0.23 U	< 0.058 U	< 0.58 U	< 0.058 U	< 0.23 U	< 0.058 U	< 0.058 U	< 0.058 U	< 0.058 U	--
VP-5-S	11/29/2018	S-061992-112918-VP5S-7.0	7 ft	56.5 ft	< 0.057 U	< 0.057 U	< 0.23 U	< 0.057 U	< 0.57 U	< 0.057 U	< 0.23 U	< 0.057 U	< 0.057 U	< 0.057 U	< 0.057 U	--
VP-6-D	11/30/2018	S-061992-113018-VP6D-12.0	12 ft	52.5 ft	< 0.056 U	< 0.056 U	< 0.056 U	< 0.056 U	< 0.56 U	< 0.056 U	< 0.22 U	< 0.056 U	< 0.056 U	< 0.056 U	< 0.022 U	--
VP-6-S	11/30/2018	S-061992-113018-VP6S-6.0	6 ft	59 ft	< 0.056 U	< 0.056 U	< 0.056 U	< 0.056 U	< 0.56 U	< 0.056 U	< 0.22 U	**0.1**	< 0.056 U	< 0.056 U	< 0.022 U	--
VP-7-D	11/30/2018	S-061992-113018-VP7D-12.0	12 ft	52.5 ft	< 0.054 U	< 0.054 U	< 0.054 U	< 0.054 U	< 0.54 U	< 0.054 U	< 0.22 U	**0.057**	< 0.054 U	< 0.054 U	< 0.022 U	--
VP-7-S	11/28/2018	S-061992-112818-DT-VP7S-5.5	5.5 ft	59 ft	< 0.058 U	< 0.058 U	< 0.058 U	< 0.058 U	< 0.58 U	< 0.058 U	< 0.23 U	< 0.058 U	< 0.058 U	< 0.058 U	< 0.058 U	--
VP-8-D	11/29/2018	S-061992-112918-DT-VP8D-12.0	12 ft	50 ft	< 0.055 U	< 0.055 U	< 0.22 U	< 0.055 U	< 0.55 U	< 0.055 U	< 0.22 U	< 0.055 U	< 0.055 U	< 0.055 U	< 0.055 U	--
VP-8-S	11/29/2018	S-061992-112918-DT-VP8S-7.0	7 ft	55.5 ft	< 0.056 U	< 0.056 U	< 0.22 U	< 0.056 U	< 0.56 U	< 0.056 U	< 0.22 U	< 0.056 U	< 0.056 U	< 0.056 U	< 0.056 U	--
VP-9-D	11/29/2018	S-061992-112918-DT-VP9D-12.0	12 ft	51 ft	< 0.056 U	< 0.056 U	< 0.22 U	< 0.056 U	< 0.56 U	< 0.056 U	< 0.22 U	**0.15**	< 0.056 U	< 0.056 U	< 0.056 U	--
VP-9-S	11/27/2018	S-061992-112718-DT-VP9S-15	1.25 ft	62 ft	< 0.06 U	< 0.06 U	< 0.06 U	< 0.06 U	< 0.6 U	< 0.06 U	< 0.24 U	**0.45**	< 0.06 U	< 0.06 U	< 0.024 U	--
	11/29/2018	S-061992-112918-DT-VP9S-6.0	6 ft	57.5 ft	< 0.062 U	< 0.062 U	< 0.25 U	< 0.062 U	< 0.62 U	< 0.062 U	< 0.25 U	**0.42**	< 0.062 U	< 0.062 U	< 0.062 U	--

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeds Model Toxics Control Act (MTCA) Method A or B Cleanup Levels or TCLP Dangerous Waste Threshold.

U - Analyte not detected above laboratory reporting limit.

J - Analyte estimated

UJ - Estimated, nondetect

TCLP - Toxicity characteristic leaching procedure

ft - feet, mg/kg - milligrams per kilogram

"--" - Not analyzed

Table 5. Summary of Remediation Investigation Soil Results: BTEX, TPH, Metals, PAHs, and PCBs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					BTEX				TPHs			Metals					PAHs		
				Analyte	Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Arsenic	Cadmium	Chromium	Lead	Mercury	Acenaphthene	Acenaphthylene	Anthracene
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level	0.03	7	6	9	30	2,000	2,000	20	2		250	2			
				MTCA Method B Cleanup Level													4,800		24,000
Location	Date	Sample Name	Depth	Approximate Elevation															
AB-04	03/08/2017	AB-4-6.0	6 ft	82 ft	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	--	--	--	--	--	--	--	--	--	--	--
AB-06	03/08/2017	AB-6-6.0	6 ft	72 ft	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	--	--	--	--	--	--	--	--	--	--	--
		AB-6-14.0	14 ft	64 ft	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	--	--	--	--	--	--	--	--	--	--	--
		AB-6-15.0	15 ft	63 ft	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	--	--	--	--	--	--	--	--	--	--	--
AB-17	11/17/2017	AB-17-2.5	2.5 ft	83 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		AB-17-5.0	5 ft	80.5 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		AB-17-7.5	7.5 ft	78 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		AB-17-10.0	10 ft	75.5 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		AB-17-15.0	15 ft	70.5 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		AB-17-20.0	20 ft	65.5 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
AB-23	11/21/2017	AB-23-15.0	15 ft	46 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.06 U	< 5 U	--	--	--	--	--	--	--	--	--	--
		AB-23-20.0	20 ft	41 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.06 U	< 5 U	--	--	--	--	--	--	--	--	--	--
AB-25	08/08/2017	AB-25-5.0	5 ft	57 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.06 U	< 2 U	--	--	--	--	--	--	--	--	--	--
		AB-25-10.0	10 ft	52 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.06 U	< 2 U	--	--	--	--	--	--	--	--	--	--
		AB-25-12.5B	12.5 ft	49.5 ft	**0.7**	**13**	**18**	**140**	**2,200**	**130 X**	< 250 U	--	--	--	--	--	--	--	--
		AB-25-15.0	15 ft	47 ft	< 0.02 U	**0.34**	**0.079**	**0.16**	**31**	--	--	--	--	--	--	--	--	--	--
		AB-25-17.5	17.5 ft	44.5 ft	< 0.02 U	**0.026**	< 0.02 U	< 0.06 U	**2.7**	--	--	--	--	--	--	--	--	--	--
		AB-25-20.0	20 ft	42 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.06 U	< 2 U	--	--	--	--	--	--	--	--	--	--
		AB-25-25.0	25 ft	37 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.06 U	< 2 U	--	--	--	--	--	--	--	--	--	--
		AB-25-30.0	30 ft	32 ft	< 0.02 U	< 0.02 U	< 0.02 U	**0.11**	< 2 U	--	--	--	--	--	--	--	--	--	--
AB-33	08/01/2018	AB-33-5.0	5 ft	61.5 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.06 U	< 5 U	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		AB-33-12.5	12.5 ft	54 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.06 U	< 5 U	< 50 U	< 250 U	--	--	--	--	--	--	--	--
ADP-18	11/12/2017	ADP-18-2.5	2.5 ft	77.5 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		ADP-18-5.0	5 ft	75 ft	--	--	--	--	--	**210 X**	< 250 U	--	--	--	--	--	--	--	--
ADP-19	11/12/2017	ADP-19-3.0	3 ft	75 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		ADP-19-5.0	5 ft	73 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
ADP-24	11/13/2017	ADP-24-2.5	2.5 ft	60 ft	--	--	--	--	--	< 50 U	**1300**	--	--	--	--	--	--	--	--
		ADP-24-8.5	8.5 ft	54 ft	--	--	--	--	--	**860 X**	**12,000**	--	--	--	--	--	--	--	--
		ADP-24-12.5	12.5 ft	50 ft	--	--	--	--	--	**1,200 X**	**12,000**	--	--	--	--	--	--	--	--
		ADP-24-15.0	15 ft	47.5 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
ADP-34	11/11/2018	ADP-34-7.5	7.5 ft	80.5 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		ADP-34-14.0	14 ft	74 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		ADP-34-22.5	22.5 ft	65.5 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		ADP-34-32.5	32.5 ft	55.5 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
AMW-01	03/08/2017	AMW-1-4.0	4 ft	74 ft	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	--	--	--	--	--	--	--	--	--	--	--
		AMW-1-11.0	11 ft	67 ft	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	--	--	--	--	--	--	--	--	--	--	--
		AMW-1-15.0	15 ft	63 ft	< 0.03 U	< 0.05 U	< 0.05 U	< 0.1 U	< 2 U	< 50 U	< 250 U	**2.88**	< 1 U	**34.2**	**3.27**	< 1 U	< 0.01 U	< 0.01 U	< 0.01 U

Table 5. Summary of Remediation Investigation Soil Results: BTEX, TPH, Metals, PAHs, and PCBs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					BTEX				TPHs			Metals					PAHs		
				Analyte	Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Arsenic	Cadmium	Chromium	Lead	Mercury	Acenaphthene	Acenaphthylene	Anthracene
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level	0.03	7	6	9	30	2,000	2,000	20	2		250	2			
				MTCA Method B Cleanup Level													4,800		24,000
Location	Date	Sample Name	Depth	Approximate Elevation															
AMW-02	08/10/2017	AMW-02-7.5	7.5 ft	66 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
AMW-04	11/13/2017	AMW-04-6.0	6 ft	58.5 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		AMW-04-9.0	9 ft	55.5 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		AMW-04-12.0	12 ft	52.5 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
		AMW-04-15.0	15 ft	49.5 ft	--	--	--	--	--	< 50 UJ	< 250 UJ	--	--	--	--	--	--	--	--
		AMW-04-20.0	20 ft	44.5 ft	--	--	--	--	--	< 50 UJ	< 250 UJ	--	--	--	--	--	--	--	--
AMW-05	08/07/2017	AMW-05-12.5A	12.5 ft	51.5 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.06 U	< 2 U	< 50 U	< 250 U	--	--	--	--	--	--	--	--
AMW-12	08/07/2017	AMW-12-15.0	15 ft	46 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.06 U	< 2 U	< 50 U	< 250 U	--	--	--	--	--	--	--	--
AMW-13	08/08/2017	AMW-13-12.5	12.5 ft	51 ft	--	--	--	--	--	**990 X**	**18,000**	--	--	--	--	--	--	--	--
		AMW-13-15.0	15 ft	48.5 ft	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--
VP-1-D	11/29/2018	S-061992-112918-DT-VP1D 10.5	10.5 ft	54 ft	< 0.023 U	< 0.057 U	< 0.057 U	< 0.17 U	< 5.5 U	< 16.9 U	**42.3**	--	--	--	--	--	--	--	--
VP-1-S	11/27/2018	S-061992-112718-DT-VP1S 6.0	6 ft	58.5 ft	< 0.022 U	< 0.055 U	< 0.055 U	< 0.17 U	< 5.5 U	< 16.6 U	< 11.1 U	--	--	--	--	--	--	--	--
VP-2-D	11/29/2018	S-061992-112918-DT-VP2D-12.0	12 ft	56 ft	< 0.024 U	< 0.06 U	< 0.06 U	< 0.18 U	< 6 U	< 17.6 U	**12**	--	--	--	--	--	--	--	--
VP-2-S	11/29/2018	S-061992-112918-DT-VP2S-6.0	6 ft	62.5 ft	< 0.023 U	< 0.057 U	< 0.057 U	< 0.17 U	< 5.6 U	< 17.2 U	< 11.5 U	--	--	--	--	--	--	--	--
VP-3-D	11/28/2018	S-061992-112818-DT-VP3D-12.0	12 ft	53.5 ft	< 0.024 U	< 0.06 U	< 0.06 U	< 0.18 U	< 6.1 U	< 17.7 U	< 11.8 U	--	--	--	--	--	--	--	--
VP-3-S	11/28/2018	S-061992-112818-DT-VP3S-7.0	7 ft	59 ft	< 0.023 U	< 0.057 U	< 0.057 U	< 0.17 U	< 5.7 U	< 17.3 U	< 11.5 U	--	--	--	--	--	--	--	--
VP-4-D	11/30/2018	S-061992-113018-VP4D-12.0	12 ft	53 ft	< 0.024 U	< 0.06 U	< 0.06 U	< 0.18 U	< 5.9 U	< 17 U	< 11.3 U	--	--	--	--	--	--	--	--
VP-4-S	11/30/2018	S-061992-113018-VP4S-6.0	6 ft	59 ft	< 0.023 U	< 0.057 U	< 0.057 U	< 0.17 U	< 5.3 U	< 16.4 U	< 10.9 U	--	--	--	--	--	--	--	--
VP-5-D	11/29/2018	S-061992-112918-VP5D-12.0	12 ft	51.5 ft	< 0.023 U	< 0.058 U	< 0.058 U	< 0.17 U	< 5.8 U	< 16.6 U	< 11.1 U	--	--	--	--	--	--	--	--
VP-5-S	11/29/2018	S-061992-112918-VP5S-7.0	7 ft	56.5 ft	< 0.023 U	< 0.057 U	< 0.057 U	< 0.17 U	< 5.7 U	< 17.4 U	**31.7**	--	--	--	--	--	--	--	--
VP-6-D	11/30/2018	S-061992-113018-VP6D-12.0	12 ft	52.5 ft	< 0.022 U	< 0.056 U	< 0.056 U	< 0.17 U	< 5.4 U	< 16.4 U	< 10.9 U	--	--	--	--	--	--	--	--
VP-6-S	11/30/2018	S-061992-113018-VP6S-6.0	6 ft	59 ft	< 0.022 U	< 0.056 U	< 0.056 U	< 0.17 U	< 5.6 U	< 16.5 U	< 11 U	--	--	--	--	--	--	--	--
VP-7-D	11/30/2018	S-061992-113018-VP7D-12.0	12 ft	52.5 ft	< 0.022 U	< 0.054 U	< 0.054 U	< 0.16 U	< 5.4 U	< 16.4 U	< 10.9 U	--	--	--	--	--	--	--	--
VP-7-S	11/28/2018	S-061992-112818-DT-VP7S-5.5	5.5 ft	59 ft	< 0.023 U	< 0.058 U	< 0.058 U	< 0.17 U	< 5.5 U	< 16.4 U	**16.8**	--	--	--	--	--	--	--	--
VP-8-D	11/29/2018	S-061992-112918-DT-VP8D-12.0	12 ft	50 ft	< 0.022 U	< 0.055 U	**0.082**	**0.74**	**762**	**23.8**	< 11.2 U	--	--	--	--	--	--	--	--
VP-8-S	11/29/2018	S-061992-112918-DT-VP8S-7.0	7 ft	55.5 ft	< 0.022 U	< 0.056 U	< 0.056 U	< 0.17 U	< 5.6 U	< 17 U	< 11.3 U	--	--	--	--	--	--	--	--
VP-9-D	11/29/2018	S-061992-112918-DT-VP9D-12.0	12 ft	51 ft	< 0.022 U	< 0.056 U	< 0.056 U	< 0.17 U	< 5.4 U	**691**	**11,400**	--	--	--	--	--	--	--	--
VP-9-S	11/27/2018	S-061992-112718-DT-VP9S-15	1.25 ft	62 ft	**2.4**	**3.8**	**0.36**	**4.7**	**89.4**	**685**	**9,520**	--	--	--	--	--	--	--	--
	11/29/2018	S-061992-112918-DT-VP9S-6.0	6 ft	57.5 ft	< 0.025 U	< 0.062 U	< 0.062 U	< 0.18 U	< 6.2 U	**896**	**14,200**	--	--	--	--	--	--	--	--

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeds Model Toxics Control Act (MTCA) Method A or B Cleanup Levels.

U - Analyte not detected above laboratory reporting limit.

J - Analyte estimated

UJ - Estimated, nondetect

X - Chromatographic pattern did not match fuel standard.

BTEX - Benzene, toluene, ethylbenzene, and xylenes

TPH - Total petroleum hydrocarbons

PAHs - Polycyclic aromatic hydrocarbons

PCBs - Polychlorinated biphenyls

"--" - Not analyzed

Table 5. Summary of Remediation Investigation Soil Results: BTEX, TPH, Metals, PAHs, and PCBs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					PAHs															PCBAro
				Analyte	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total cPAHs TEQ (ND = 1/2 RDL)	Aroclor 1016
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level		0.1									5			0.1	
				MTCA Method B Cleanup Level	1.4		1.4		14	140	0.14	3,200	3,200	1.4			2,400		5.6
Location	Date	Sample Name	Depth	Approximate Elevation															
AB-04	03/08/2017	AB-4-6.0	6 ft	82 ft	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--
AB-06	03/08/2017	AB-6-6.0	6 ft	72 ft	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--
		AB-6-14.0	14 ft	64 ft	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--
		AB-6-15.0	15 ft	63 ft	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--
AB-17	11/17/2017	AB-17-2.5	2.5 ft	83 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U
		AB-17-5.0	5 ft	80.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U
		AB-17-7.5	7.5 ft	78 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U
		AB-17-10.0	10 ft	75.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U
		AB-17-15.0	15 ft	70.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U
		AB-17-20.0	20 ft	65.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U
AB-23	11/21/2017	AB-23-15.0	15 ft	46 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		AB-23-20.0	20 ft	41 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AB-25	08/08/2017	AB-25-5.0	5 ft	57 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		AB-25-10.0	10 ft	52 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		AB-25-12.5B	12.5 ft	49.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		AB-25-15.0	15 ft	47 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		AB-25-17.5	17.5 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		AB-25-20.0	20 ft	42 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		AB-25-25.0	25 ft	37 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		AB-25-30.0	30 ft	32 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AB-33	08/01/2018	AB-33-5.0	5 ft	61.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		AB-33-12.5	12.5 ft	54 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ADP-18	11/12/2017	ADP-18-2.5	2.5 ft	77.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		ADP-18-5.0	5 ft	75 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ADP-19	11/12/2017	ADP-19-3.0	3 ft	75 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		ADP-19-5.0	5 ft	73 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ADP-24	11/13/2017	ADP-24-2.5	2.5 ft	60 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		ADP-24-8.5	8.5 ft	54 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		ADP-24-12.5	12.5 ft	50 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		ADP-24-15.0	15 ft	47.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ADP-34	11/11/2018	ADP-34-7.5	7.5 ft	80.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		ADP-34-14.0	14 ft	74 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		ADP-34-22.5	22.5 ft	65.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		ADP-34-32.5	32.5 ft	55.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-01	03/08/2017	AMW-1-4.0	4 ft	74 ft	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--
		AMW-1-11.0	11 ft	67 ft	--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--
		AMW-1-15.0	15 ft	63 ft	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.05 U	< 0.01 U	< 0.01 U	< 0.00755 U	--

Table 5. Summary of Remediation Investigation Soil Results: BTEX, TPH, Metals, PAHs, and PCBs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					PAHs														PCBAro
				Analyte	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total cPAHs TEQ (ND = 1/2 RDL)	Aroclor 1016
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level		0.1									5			0.1	
				MTCA Method B Cleanup Level	1.4		1.4		14	140	0.14	3,200	3,200	1.4			2,400		5.6
Location	Date	Sample Name	Depth	Approximate Elevation															
AMW-02	08/10/2017	AMW-02-7.5	7.5 ft	66 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-04	11/13/2017	AMW-04-6.0	6 ft	58.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		AMW-04-9.0	9 ft	55.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		AMW-04-12.0	12 ft	52.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		AMW-04-15.0	15 ft	49.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		AMW-04-20.0	20 ft	44.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-05	08/07/2017	AMW-05-12.5A	12.5 ft	51.5 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-12	08/07/2017	AMW-12-15.0	15 ft	46 ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-13	08/08/2017	AMW-13-12.5	12.5 ft	51 ft	**0.1**	**0.15**	< 0.1 U	--	< 0.1 U	**0.3**	< 0.1 U	--	--	< 0.1 U	--	--	--	**0.183**	--
		AMW-13-15.0	15 ft	48.5 ft	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U	< 0.01 U	< 0.01 U	--	--	< 0.01 U	--	--	--	< 0.00755 U	--
VP-1-D	11/29/2018	S-061992-112918-DT-VP1D 10.5	10.5 ft	54 ft	--	--	--	--	--	--	--	--	--	--	< 0.23 U	--	--	--	--
VP-1-S	11/27/2018	S-061992-112718-DT-VP1S 6.0	6 ft	58.5 ft	--	--	--	--	--	--	--	--	--	--	< 0.22 U	--	--	--	--
VP-2-D	11/29/2018	S-061992-112918-DT-VP2D-12.0	12 ft	56 ft	--	--	--	--	--	--	--	--	--	--	< 0.24 U	--	--	--	--
VP-2-S	11/29/2018	S-061992-112918-DT-VP2S-6.0	6 ft	62.5 ft	--	--	--	--	--	--	--	--	--	--	< 0.23 U	--	--	--	--
VP-3-D	11/28/2018	S-061992-112818-DT-VP3D-12.0	12 ft	53.5 ft	--	--	--	--	--	--	--	--	--	--	< 0.24 U	--	--	--	--
VP-3-S	11/28/2018	S-061992-112818-DT-VP3S-7.0	7 ft	59 ft	--	--	--	--	--	--	--	--	--	--	< 0.23 U	--	--	--	--
VP-4-D	11/30/2018	S-061992-113018-VP4D-12.0	12 ft	53 ft	--	--	--	--	--	--	--	--	--	--	< 0.24 U	--	--	--	--
VP-4-S	11/30/2018	S-061992-113018-VP4S-6.0	6 ft	59 ft	--	--	--	--	--	--	--	--	--	--	< 0.23 U	--	--	--	--
VP-5-D	11/29/2018	S-061992-112918-VP5D-12.0	12 ft	51.5 ft	--	--	--	--	--	--	--	--	--	--	< 0.23 U	--	--	--	--
VP-5-S	11/29/2018	S-061992-112918-VP5S-7.0	7 ft	56.5 ft	--	--	--	--	--	--	--	--	--	--	< 0.23 U	--	--	--	--
VP-6-D	11/30/2018	S-061992-113018-VP6D-12.0	12 ft	52.5 ft	--	--	--	--	--	--	--	--	--	--	< 0.22 U	--	--	--	--
VP-6-S	11/30/2018	S-061992-113018-VP6S-6.0	6 ft	59 ft	--	--	--	--	--	--	--	--	--	--	< 0.22 U	--	--	--	--
VP-7-D	11/30/2018	S-061992-113018-VP7D-12.0	12 ft	52.5 ft	--	--	--	--	--	--	--	--	--	--	< 0.22 U	--	--	--	--
VP-7-S	11/28/2018	S-061992-112818-DT-VP7S-5.5	5.5 ft	59 ft	--	--	--	--	--	--	--	--	--	--	< 0.23 U	--	--	--	--
VP-8-D	11/29/2018	S-061992-112918-DT-VP8D-12.0	12 ft	50 ft	--	--	--	--	--	--	--	--	--	--	**0.51**	--	--	--	--
VP-8-S	11/29/2018	S-061992-112918-DT-VP8S-7.0	7 ft	55.5 ft	--	--	--	--	--	--	--	--	--	--	< 0.22 U	--	--	--	--
VP-9-D	11/29/2018	S-061992-112918-DT-VP9D-12.0	12 ft	51 ft	--	--	--	--	--	--	--	--	--	--	< 0.22 U	--	--	--	--
VP-9-S	11/27/2018	S-061992-112718-DT-VP9S-15	1.25 ft	62 ft	--	--	--	--	--	--	--	--	--	--	< 0.24 U	--	--	--	--
	11/29/2018	S-061992-112918-DT-VP9S-6.0	6 ft	57.5 ft	--	--	--	--	--	--	--	--	--	--	< 0.25 U	--	--	--	--

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeds Model Toxics Control Act (MTCA) Method A or B Cleanup Levels.

U - Analyte not detected above laboratory reporting limit.

J - Analyte estimated

UJ - Estimated, nondetect

X - Chromatographic pattern did not match fuel standard.

BTEX - Benzene, toluene, ethylbenzene, and xylenes

TPH - Total petroleum hydrocarbons

PAHs - Polycyclic aromatic hydrocarbons

PCBs - Polychlorinated biphenyls

"--" - Not analyzed

Table 5. Summary of Remediation Investigation Soil Results: BTEX, TPH, Metals, PAHs, and PCBs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					PCBAro								
				Analyte	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs (Sum of Aroclors)
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level									1
				MTCA Method B Cleanup Level					0.5	0.5			
Location	Date	Sample Name	Depth	Approximate Elevation									
AB-04	03/08/2017	AB-4-6.0	6 ft	82 ft	--	--	--	--	--	--	--	--	--
AB-06	03/08/2017	AB-6-6.0	6 ft	72 ft	--	--	--	--	--	--	--	--	--
		AB-6-14.0	14 ft	64 ft	--	--	--	--	--	--	--	--	--
		AB-6-15.0	15 ft	63 ft	--	--	--	--	--	--	--	--	--
AB-17	11/17/2017	AB-17-2.5	2.5 ft	83 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U
		AB-17-5.0	5 ft	80.5 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U
		AB-17-7.5	7.5 ft	78 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U
		AB-17-10.0	10 ft	75.5 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U
		AB-17-15.0	15 ft	70.5 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U
		AB-17-20.0	20 ft	65.5 ft	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U
AB-23	11/21/2017	AB-23-15.0	15 ft	46 ft	--	--	--	--	--	--	--	--	--
		AB-23-20.0	20 ft	41 ft	--	--	--	--	--	--	--	--	--
AB-25	08/08/2017	AB-25-5.0	5 ft	57 ft	--	--	--	--	--	--	--	--	--
		AB-25-10.0	10 ft	52 ft	--	--	--	--	--	--	--	--	--
		AB-25-12.5B	12.5 ft	49.5 ft	--	--	--	--	--	--	--	--	--
		AB-25-15.0	15 ft	47 ft	--	--	--	--	--	--	--	--	--
		AB-25-17.5	17.5 ft	44.5 ft	--	--	--	--	--	--	--	--	--
		AB-25-20.0	20 ft	42 ft	--	--	--	--	--	--	--	--	--
		AB-25-25.0	25 ft	37 ft	--	--	--	--	--	--	--	--	--
		AB-25-30.0	30 ft	32 ft	--	--	--	--	--	--	--	--	--
AB-33	08/01/2018	AB-33-5.0	5 ft	61.5 ft	--	--	--	--	--	--	--	--	--
		AB-33-12.5	12.5 ft	54 ft	--	--	--	--	--	--	--	--	--
ADP-18	11/12/2017	ADP-18-2.5	2.5 ft	77.5 ft	--	--	--	--	--	--	--	--	--
		ADP-18-5.0	5 ft	75 ft	--	--	--	--	--	--	--	--	--
ADP-19	11/12/2017	ADP-19-3.0	3 ft	75 ft	--	--	--	--	--	--	--	--	--
		ADP-19-5.0	5 ft	73 ft	--	--	--	--	--	--	--	--	--
ADP-24	11/13/2017	ADP-24-2.5	2.5 ft	60 ft	--	--	--	--	--	--	--	--	--
		ADP-24-8.5	8.5 ft	54 ft	--	--	--	--	--	--	--	--	--
		ADP-24-12.5	12.5 ft	50 ft	--	--	--	--	--	--	--	--	--
		ADP-24-15.0	15 ft	47.5 ft	--	--	--	--	--	--	--	--	--
ADP-34	11/11/2018	ADP-34-7.5	7.5 ft	80.5 ft	--	--	--	--	--	--	--	--	--
		ADP-34-14.0	14 ft	74 ft	--	--	--	--	--	--	--	--	--
		ADP-34-22.5	22.5 ft	65.5 ft	--	--	--	--	--	--	--	--	--
		ADP-34-32.5	32.5 ft	55.5 ft	--	--	--	--	--	--	--	--	--
AMW-01	03/08/2017	AMW-1-4.0	4 ft	74 ft	--	--	--	--	--	--	--	--	--
		AMW-1-11.0	11 ft	67 ft	--	--	--	--	--	--	--	--	--
		AMW-1-15.0	15 ft	63 ft	--	--	--	--	--	--	--	--	--

Table 5. Summary of Remediation Investigation Soil Results: BTEX, TPH, Metals, PAHs, and PCBs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

					PCBAro								
				Analyte	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs (Sum of Aroclors)
				Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				MTCA Method A Cleanup Level									1
				MTCA Method B Cleanup Level					0.5	0.5			
Location	Date	Sample Name	Depth	Approximate Elevation									
AMW-02	08/10/2017	AMW-02-7.5	7.5 ft	66 ft	--	--	--	--	--	--	--	--	--
AMW-04	11/13/2017	AMW-04-6.0	6 ft	58.5 ft	--	--	--	--	--	--	--	--	--
		AMW-04-9.0	9 ft	55.5 ft	--	--	--	--	--	--	--	--	--
		AMW-04-12.0	12 ft	52.5 ft	--	--	--	--	--	--	--	--	--
		AMW-04-15.0	15 ft	49.5 ft	--	--	--	--	--	--	--	--	--
		AMW-04-20.0	20 ft	44.5 ft	--	--	--	--	--	--	--	--	--
AMW-05	08/07/2017	AMW-05-12.5A	12.5 ft	51.5 ft	--	--	--	--	--	--	--	--	--
AMW-12	08/07/2017	AMW-12-15.0	15 ft	46 ft	--	--	--	--	--	--	--	--	--
AMW-13	08/08/2017	AMW-13-12.5	12.5 ft	51 ft	--	--	--	--	--	--	--	--	--
		AMW-13-15.0	15 ft	48.5 ft	--	--	--	--	--	--	--	--	--
VP-1-D	11/29/2018	S-061992-112918-DT-VP1D 10.5	10.5 ft	54 ft	--	--	--	--	--	--	--	--	--
VP-1-S	11/27/2018	S-061992-112718-DT-VP1S 6.0	6 ft	58.5 ft	--	--	--	--	--	--	--	--	--
VP-2-D	11/29/2018	S-061992-112918-DT-VP2D-12.0	12 ft	56 ft	--	--	--	--	--	--	--	--	--
VP-2-S	11/29/2018	S-061992-112918-DT-VP2S-6.0	6 ft	62.5 ft	--	--	--	--	--	--	--	--	--
VP-3-D	11/28/2018	S-061992-112818-DT-VP3D-12.0	12 ft	53.5 ft	--	--	--	--	--	--	--	--	--
VP-3-S	11/28/2018	S-061992-112818-DT-VP3S-7.0	7 ft	59 ft	--	--	--	--	--	--	--	--	--
VP-4-D	11/30/2018	S-061992-113018-VP4D-12.0	12 ft	53 ft	--	--	--	--	--	--	--	--	--
VP-4-S	11/30/2018	S-061992-113018-VP4S-6.0	6 ft	59 ft	--	--	--	--	--	--	--	--	--
VP-5-D	11/29/2018	S-061992-112918-VP5D-12.0	12 ft	51.5 ft	--	--	--	--	--	--	--	--	--
VP-5-S	11/29/2018	S-061992-112918-VP5S-7.0	7 ft	56.5 ft	--	--	--	--	--	--	--	--	--
VP-6-D	11/30/2018	S-061992-113018-VP6D-12.0	12 ft	52.5 ft	--	--	--	--	--	--	--	--	--
VP-6-S	11/30/2018	S-061992-113018-VP6S-6.0	6 ft	59 ft	--	--	--	--	--	--	--	--	--
VP-7-D	11/30/2018	S-061992-113018-VP7D-12.0	12 ft	52.5 ft	--	--	--	--	--	--	--	--	--
VP-7-S	11/28/2018	S-061992-112818-DT-VP7S-5.5	5.5 ft	59 ft	--	--	--	--	--	--	--	--	--
VP-8-D	11/29/2018	S-061992-112918-DT-VP8D-12.0	12 ft	50 ft	--	--	--	--	--	--	--	--	--
VP-8-S	11/29/2018	S-061992-112918-DT-VP8S-7.0	7 ft	55.5 ft	--	--	--	--	--	--	--	--	--
VP-9-D	11/29/2018	S-061992-112918-DT-VP9D-12.0	12 ft	51 ft	--	--	--	--	--	--	--	--	--
VP-9-S	11/27/2018	S-061992-112718-DT-VP9S-15	1.25 ft	62 ft	--	--	--	--	--	--	--	--	--
	11/29/2018	S-061992-112918-DT-VP9S-6.0	6 ft	57.5 ft	--	--	--	--	--	--	--	--	--

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeds Model Toxics Control Act (MTCA) Method A or B Cleanup Levels.

U - Analyte not detected above laboratory reporting limit.

J - Analyte estimated

UJ - Estimated, nondetect

X - Chromatographic pattern did not match fuel standard.

BTEX - Benzene, toluene, ethylbenzene, and xylenes

TPH - Total petroleum hydrocarbons

PAHs - Polycyclic aromatic hydrocarbons

PCBs - Polychlorinated biphenyls

"--" - Not analyzed

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Field Parameters						TPH			BTEX				Metals							
			Analyte	Temperature	Specific Conductance	Dissolved Oxygen	pH	Oxidation Reduction Potential	Turbidity	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Arsenic (Dissolved)	Arsenic (Total)	Barium (Dissolved)	Barium (Total)	Cadmium (Dissolved)	Cadmium (Total)	Chromium (Dissolved)	Chromium (Total)
			Units	deg C	uS/cm	mg/L	pH units	mV	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							800	500	500	5	1,000	700	1,000	5	5			5	5	50	50
			Groundwater MTCA Method B Cleanup Level																3,200	3,200				
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																					
AB-21	08/10/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AB-22	08/10/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AB-23	11/21/2017	N/A	N/A	--	--	--	--	--	--	**190**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AB-25	08/08/2017	N/A	N/A	--	--	--	--	--	--	**4,000**	**630 X**	< 400 U	**1.8**	**7.7**	**43**	**320**	--	--	--	--	--	--	--	--
AB-33	08/01/2018	N/A	N/A	--	--	--	--	--	--	**120**	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
AMW-01	03/24/2017	8.08	69.47	**13.5**	**292.2**	**7.68**	**6.83**	**102.3**	**94.1**	< 780 X	**7,000**	**400 X**	< 0.35 U	< 1 U	< 1 U	< 2 U	--	--	--	--	--	--	--	--
	11/27/2017	9.14	68.41	--	--	--	--	--	--	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--	--	--	--	--
AMW-02	11/27/2017	6.71	65.77	**16.9**	**365.6**	**4.73**	**7.04**	**94.7**	**7.41**	--	< 50 U	< 250 U	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/2018	8.39	64.09	**18.7**	**413.2**	**0.4**	**6.62**	**43.5**	**2**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-03	11/27/2017	7.74	70.64	**15.7**	**319**	**5.85**	**7.15**	**94.2**	**24**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	9.01	69.37	**21.3**	**312.4**	**51.4**	**6.71**	**95.7**	**42.8**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-04	11/29/2017	10.46	53.75	**14.4**	**459.8**	**0.55**	**6.36**	**22.9**	**16**	**100 X**	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/27/2018	13.84	50.37	**15.1**	**575.4**	**1.97**	**6.58**	**12.8**	**96.8**	**150 X**	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	12/04/2018	N/A	N/A	--	--	--	--	--	--	< 100 U	< 380 U	< 380 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
AMW-05	11/29/2017	10.76	53.07	**16.1**	**366.8**	**2.61**	**6.73**	**26.6**	**3.58**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/22/2018	12.94	50.89	**18.2**	**798**	**0.26**	**6.22**	**107.7**	**2.69**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	12/04/2018	N/A	N/A	--	--	--	--	--	--	< 100 U	< 370 U	< 370 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
AMW-06	11/28/2017	9.16	65.8	**14**	**333**	**1.86**	**6.91**	**22.9**	**7.04**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	9.83	65.13	**17.6**	**362.6**	**2.23**	**6.29**	**79.3**	**0.32**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-07	11/28/2017	11.38	63.98	**15**	**385.2**	**3.47**	**6.88**	**45.8**	**2.95**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/20/2018	12.08	63.28	**17.8**	**319.4**	**4.91**	**6.67**	**71.2**	**1.32**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-08	11/28/2017	12.87	50.82	**13.9**	**404.3**	**3.23**	**8.33**	**83.8**	**4.35**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/20/2018	13.6	50.09	**16.2**	**423.6**	**0.59**	**6.82**	**83.4**	**2.85**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-09	11/27/2017	8.62	47.88	**17.2**	**797**	**0.3**	**6.76**	**-30.5**	**7.85**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/21/2018	9.62	46.88	**19.4**	**952**	**0.26**	**6.54**	**0.3**	**1.72**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
AMW-10	11/27/2017	7.13	59.95	**15.7**	**389.7**	**1.49**	**6.52**	**106.3**	**16.7**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/2018	8.94	58.14	**17.5**	**312.6**	**0.45**	**6.35**	**64.6**	**1**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-11	11/28/2017	10.92	44.25	**16.3**	**786**	**0.39**	**6.71**	**-98.4**	**9.92**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/23/2018	11.24	43.93	**16.9**	**1035**	**0.11**	**6.59**	**-106.5**	--	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
AMW-12	11/29/2017	11.14	49.19	**15.5**	**393.8**	**0.1**	**6.54**	**16.3**	**7.17**	**870**	**570 X**	< 250 U	**1.3**	**4.6**	< 1 U	**3.3**	--	--	--	--	--	--	--	--
	08/21/2018	12.74	47.59	**16.6**	**460.2**	**0.29**	**6.48**	**57.6**	**5.03**	**720**	**400 X**	< 250 U	< 1 U	**4.8**	< 1 U	**3.8**	--	--	--	--	--	--	--	--
AMW-13	11/29/2017	12.73	49.97	**14.1**	**450.8**	**5**	**6.45**	**82.5**	**67.1**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/27/2018	15.16	47.54	**15.2**	**512.7**	**0.21**	**6.45**	**23.3**	**2.81**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
AMW-14	11/28/2017	11.7	45.15	**15.9**	**1052**	**0.48**	**6.63**	**-96.4**	**7.4**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/23/2018	13.19	43.66	**17.1**	**1142**	**0.23**	**5.56**	**-91.9**	**1.46**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Field Parameters						TPH			BTEX				Metals							
			Analyte	Temperature	Specific Conductance	Dissolved Oxygen	pH	Oxidation Reduction Potential	Turbidity	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Arsenic (Dissolved)	Arsenic (Total)	Barium (Dissolved)	Barium (Total)	Cadmium (Dissolved)	Cadmium (Total)	Chromium (Dissolved)	Chromium (Total)
			Units	deg C	uS/cm	mg/L	pH units	mV	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							800	500	500	5	1,000	700	1,000	5	5			5	5	50	50
			Groundwater MTCA Method B Cleanup Level																3,200	3,200				
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																					
AMW-15	11/28/2017	9.51	46.27	**16.7**	**567.3**	**0.32**	**6.97**	**-128**	**11.6**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/23/2018	10.02	45.76	**19.6**	**484.1**	**0.11**	**6.65**	**-115.6**	--	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
AMW-16	08/23/2018	11.81	46.3	**18.5**	**1613**	**0.19**	**6.4**	**8.1**	**4.91**	< 100 U	**290 X**	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
AMW-17	08/23/2018	12.38	46.41	**19.5**	**614**	**0.15**	**6.31**	**-48.1**	--	**160**	**250 X**	< 250 U	**8.4**	**2.1**	< 1 U	**5.1**	--	--	--	--	--	--	--	--
AMW-18	08/23/2018	10.48	43.59	**18.4**	**1098**	**0.14**	**6.59**	**-114.9**	--	< 100 U	**68 X**	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
AMW-19	08/24/2018	9.24	55.77	**19.6**	**1087**	**0.25**	**6.61**	**36.3**	**2.85**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-20	08/22/2018	12.64	47.26	**17.3**	**501.8**	**0.12**	**6.64**	**-39.4**	**3.09**	**540**	**360 X**	< 250 U	**5.4**	**3.9**	< 1 U	**7.1**	--	--	--	--	--	--	--	--
AMW-22	04/01/2019	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-24	04/01/2019	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ATC-B-01	01/08/2016	N/A	N/A	--	--	--	--	--	--	< 399 U	< 499 U	< 499 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	--	--	--	--	--	--	--	--
ATC-B-02	01/08/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	--	--	--	--	--	--	--	--
ATC-B-03	01/08/2016	N/A	N/A	--	--	--	--	--	--	< 399 U	< 498 U	< 498 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	--	--	--	--	--	--	--	--
ATC-B-05	01/08/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	--	--	--	--	--	--	--	--
ATC-B-06	01/08/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	--	--	--	--	--	--	--	--
B-01	04/19/2011	N/A	N/A	--	--	--	--	--	--	**1,700**	--	--	< 0.5 U	< 0.5 U	< 0.5 U	**1**	--	--	--	--	--	--	--	--
B-02	04/19/2011	N/A	N/A	--	--	--	--	--	--	**20,000**	--	--	< 1 U	**3**	**290**	**5,100**	--	--	--	--	--	--	--	--
B-03	04/19/2011	N/A	N/A	--	--	--	--	--	--	**3,400**	**100,000**	< 3400 U	**1**	**28**	**33**	**150**	--	--	--	--	--	--	--	--
B-04	04/19/2011	N/A	N/A	--	--	--	--	--	--	< 50 U	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
B-05	04/19/2011	N/A	N/A	--	--	--	--	--	--	< 50 U	**530**	< 74 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
B-06	04/19/2011	N/A	N/A	--	--	--	--	--	--	**27,000**	--	--	< 1 U	< 1 U	**330**	**2,000**	--	--	--	--	--	--	--	--
B-07	04/19/2011	N/A	N/A	--	--	--	--	--	--	**3,900**	--	--	**0.6**	**7**	**140**	**570**	--	--	--	--	--	--	--	--
ERM-B-1	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-2	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-3	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-4	11/13/2008	N/A	N/A	--	--	--	--	--	--	< 50 U	--	--	< 0.2 U	< 0.2 U	< 0.2 U	< 0.75 U	--	--	--	--	--	--	--	--
HC-MW-01	09/30/2016	9.86	57.37	**19.67**	**156.5**	< 0 U	**6.49**	**118**	**4.7**	< 430 X	< 260 U	< 410 U	< 2.0 U	< 10 U	< 2.0 U	< 4.0 U	< 3.0 U	< 3.3 U	**79**	**79**	< 4.0 U	< 4.4 U	< 10 U	< 11 U
	11/27/2017	8.02	59.21	**16.7**	**626**	**0.12**	**6.64**	**-12**	**5.6**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/27/2018	9.84	57.39	**18.9**	**732**	**0.23**	**6.34**	**54.2**	**2.32**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-02	09/29/2016	9.33	65.49	**19.99**	**446**	< 0 U	**7.48**	**65**	**1.6**	< 1100 X	< 260 U	< 420 U	< 4.0 U	< 20 U	< 4.0 U	< 8.0 U	**11**	**11**	**26**	< 28 U	< 4.0 U	< 4.4 U	< 10 U	< 11 U
	11/27/2017	8.14	66.68	**16.8**	**407.9**	**0.11**	**7.34**	**19.1**	**2.06**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/27/2018	9.14	65.68	**18.8**	**497.2**	**0.23**	**6.97**	**67.4**	**0.47**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-03	09/30/2016	7.61	70.58	**20.24**	**129.6**	**0.01**	**7.14**	**67**	**11.3**	< 100 U	< 260 U	< 410 U	< 0.20 U	< 1.0 U	< 0.20 U	< 0.40 U	< 3.0 U	< 3.3 U	**27**	**29**	< 4.0 U	< 4.4 U	< 10 U	< 11 U
	11/27/2017	6.33	71.86	**15.1**	**250.9**	**2.93**	**7.16**	**90.5**	**27.2**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/2018	7.68	70.51	**19**	**448.9**	**0.64**	**6.8**	**62.9**	**3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Field Parameters						TPH			BTEX				Metals							
			Analyte	Temperature	Specific Conductance	Dissolved Oxygen	pH	Oxidation Reduction Potential	Turbidity	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Arsenic (Dissolved)	Arsenic (Total)	Barium (Dissolved)	Barium (Total)	Cadmium (Dissolved)	Cadmium (Total)	Chromium (Dissolved)	Chromium (Total)
			Units	deg C	uS/cm	mg/L	pH units	mV	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							800	500	500	5	1,000	700	1,000	5	5			5	5	50	50
			Groundwater MTCA Method B Cleanup Level																3,200	3,200				
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																					
HC-MW-04	10/03/2016	11.73	76.01	**16.64**	**406**	**7.07**	**9.24**	**55**	**2**	< 100 U	< 270 U	< 440 U	< 0.20 U	< 1.0 U	< 0.20 U	< 0.40 U	**9.1**	**9.3**	**44**	**45**	< 4.0 U	< 4.4 U	< 10 U	< 11 U
	11/27/2017	9.5	78.24	**15.6**	**516.2**	**0.24**	**7.23**	**106.1**	**10.3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/2018	12.21	75.53	**16**	**406.2**	**0.18**	**7.71**	**57.3**	**1.5**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-05	09/30/2016	7.6	64.94	**19.95**	**122**	**7.87**	**7.61**	**65**	**2.9**	< 2700 X	< 260 U	< 410 U	< 20 U	< 100 U	< 20 U	< 40 U	< 3.0 U	< 3.3 U	**33**	**33**	< 4.0 U	< 4.4 U	< 10 U	< 11 U
	11/27/2017	5.54	67	**16.9**	**307.2**	**1.17**	**6.47**	**101.4**	**6.86**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/2018	7.59	64.95	**20**	**301.4**	**1.14**	**6.4**	**49.8**	**1.7**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-06	10/03/2016	8.32	54.6	**18.23**	**205.7**	**1.47**	**7.40**	**57**	**5.3**	< 100 U	< 260 U	< 410 U	< 0.20 U	< 1.0 U	< 0.20 U	< 0.40 U	**12**	**13**	**76**	**74**	< 4.0 U	< 4.4 U	< 10 U	< 11 U
	11/28/2017	6.52	56.4	**15**	**550.9**	**0.16**	**6.71**	**37.3**	**10.9**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	8.35	54.57	**17.7**	**530.2**	**0.39**	**6.44**	**56.6**	**5.8**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-07	10/03/2016	7.39	56.2	**19.17**	**163.4**	**2.84**	**6.74**	**91**	**19.5**	< 100 U	< 260 U	< 410 U	< 0.20 U	< 1.0 U	< 0.20 U	< 0.40 U	**6.8**	**6.4**	**37**	**40**	< 4.0 U	< 4.4 U	< 10 U	< 11 U
	11/27/2017	6.11	57.48	**15.1**	**643**	**0.12**	**6.45**	**-44.8**	**21.2**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	7.56	56.03	**17.7**	**627**	**0.12**	**6.3**	**-65.4**	**7.34**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
KEE-B-02	05/24/2010	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
KEE-B-03	05/24/2010	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
K-SB-01	01/25/2006	N/A	N/A	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	--	--	--	--
K-SB-03	01/25/2006	N/A	N/A	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	--	--	--	--
MW-01	10/15/2008	N/A	N/A	--	--	--	--	--	--	< 50 U	--	--	**0.2**	< 0.2 U	< 0.2 U	< 7.5 U	--	--	--	--	--	--	--	--
	11/12/2009	11.79	50.81	--	--	--	--	--	--	< 50 U	--	--	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	03/19/2014	8.69	53.91	--	--	--	--	--	--	< 50 U	< 29 U	< 68 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	05/27/2014	9.98	52.62	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	08/28/2014	11.87	50.73	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	12/11/2014	10.97	51.63	--	--	--	--	--	--	< 50 U	< 29 U	< 67 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	03/12/2015	10.31	52.29	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	02/25/2016	9.56	53.04	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	05/25/2016	11.27	51.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.53	50.07	--	--	--	--	--	--	< 250 U	< 100 U	< 250 U	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	--	--	--	--
	11/29/2017	9.92	52.68	**14.3**	**423.2**	**0.44**	**6.38**	**46.3**	**45.7**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/24/2018	12.93	49.67	**16.6**	**514.7**	**0.36**	**6.55**	**24.5**	**7**	< 100 U	< 50 U	< 250 U	< 1 U	**4.4**	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	12/05/2018	N/A	N/A	--	--	--	--	--	--	< 100 U	< 370 U	< 370 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Field Parameters						TPH			BTEX				Metals							
			Analyte	Temperature	Specific Conductance	Dissolved Oxygen	pH	Oxidation Reduction Potential	Turbidity	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Arsenic (Dissolved)	Arsenic (Total)	Barium (Dissolved)	Barium (Total)	Cadmium (Dissolved)	Cadmium (Total)	Chromium (Dissolved)	Chromium (Total)
			Units	deg C	uS/cm	mg/L	pH units	mV	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							800	500	500	5	1,000	700	1,000	5	5			5	5	50	50
			Groundwater MTCA Method B Cleanup Level																3,200	3,200				
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																					
MW-02	10/15/2008	N/A	N/A	--	--	--	--	--	--	765	--	--	2.38	0.43	1.83	1.86	--	--	--	--	--	--	--	--
	11/12/2009	12.35	48.43	--	--	--	--	--	--	455	--	--	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	03/18/2014	10.31	50.47	--	--	--	--	--	--	870	180	< 68 U	0.9	< 0.5 U	3	2	--	--	--	--	--	--	--	--
	05/27/2014	10.25	50.53	--	--	--	--	--	--	370	300	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	08/28/2014	12.11	48.67	--	--	--	--	--	--	440	270	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	12/11/2014	11.05	49.73	--	--	--	--	--	--	420	170	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	03/12/2015	10.31	50.47	--	--	--	--	--	--	360	330	< 67 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	02/25/2016	9.19	51.59	--	--	--	--	--	--	790	280	< 66 U	< 0.5 U	< 0.5 U	5	21	--	--	--	--	--	--	--	--
	05/25/2016	10.68	50.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.12	48.66	--	--	--	--	--	--	640	72 J	< 250 U	< 1 U	< 1 U	< 1 U	1	--	--	--	--	--	--	--	--
	11/28/2017	10.19	50.59	15.3	340.9	0.13	6.68	-28.3	13.5	350	250 X	< 250 U	< 1 U	2.5	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/21/2018	12.45	48.33	17.9	420.4	0.13	6.55	-15.7	12.7	350	300 X	< 250 U	< 1 U	2.5	< 1 U	< 3 U	--	--	--	--	--	--	--	--
MW-03	10/15/2008	N/A	N/A	--	--	--	--	--	--	2740	--	--	< 0.2 U	0.27	73.5	55.2	--	--	--	--	--	--	--	--
	11/12/2009	11.59	50.28	--	--	--	--	--	--	71.7	--	--	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	03/19/2014	9.2	52.67	--	--	--	--	--	--	6,300	180	< 68 U	< 0.5 U	< 0.5 U	100	410	--	--	--	--	--	--	--	--
	05/27/2014	10.58	51.29	--	--	--	--	--	--	8,700	210	< 66 U	< 1 U	< 1 U	180	460	--	--	--	--	--	--	--	--
	08/29/2014	11.81	50.06	--	--	--	--	--	--	2,800	170	< 66 U	< 0.5 U	< 0.5 U	34	34	--	--	--	--	--	--	--	--
	12/11/2014	9.91	51.96	--	--	--	--	--	--	7,800	150	< 67 U	< 1 U	< 1 U	150	510	--	--	--	--	--	--	--	--
	03/13/2015	10.64	51.23	--	--	--	--	--	--	7,700	310	< 67 U	< 1 U	< 1 U	160	360	--	--	--	--	--	--	--	--
	02/25/2016	9.33	52.54	--	--	--	--	--	--	6,900	410	< 66 U	< 1 U	< 1 U	72	190	--	--	--	--	--	--	--	--
	05/26/2016	11.23	50.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.37	49.5	--	--	--	--	--	--	4,400	99 J	< 250 U	< 1 U	< 1 U	61	39	--	--	--	--	--	--	--	--
	11/28/2017	10.04	51.83	15.6	272.5	1.27	6.65	13.7	5.26	2,400	480 X	< 250 U	< 1 U	12	15	43	--	--	--	--	--	--	--	--
	08/22/2018	12.44	49.43	17.1	375.2	0.22	6.24	39.5	2.26	3,800	1,100 X	< 250 U	2.6	19	86	57	--	--	--	--	--	--	--	--
MW-04	10/15/2008	N/A	N/A	--	--	--	--	--	--	< 50 U	--	--	< 0.2 U	< 0.2 U	< 0.2 U	< 7.5 U	--	--	--	--	--	--	--	--
	11/12/2009	11.98	51	--	--	--	--	--	--	< 50 U	--	--	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	03/18/2014	9.29	53.69	--	--	--	--	--	--	< 50 U	< 29 U	< 68 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	05/27/2014	10.89	52.09	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	08/28/2014	12.27	50.71	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	12/10/2014	11.17	51.81	--	--	--	--	--	--	< 50 U	< 29 U	< 67 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	03/13/2015	10.8	52.18	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	02/25/2016	9.23	53.75	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	05/25/2016	10.83	52.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	12.42	50.56	--	--	--	--	--	--	62 J	< 100 U	< 260 U	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	--	--	--	--
	11/29/2017	10.3	52.68	15.8	499.8	0.08	6.69	-57.2	12.3	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/22/2018	12.86	50.12	17	520.5	0.11	6.57	-72.8	5.47	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Field Parameters						TPH			BTEX				Metals							
			Analyte	Temperature	Specific Conductance	Dissolved Oxygen	pH	Oxidation Reduction Potential	Turbidity	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Arsenic (Dissolved)	Arsenic (Total)	Barium (Dissolved)	Barium (Total)	Cadmium (Dissolved)	Cadmium (Total)	Chromium (Dissolved)	Chromium (Total)
			Units	deg C	uS/cm	mg/L	pH units	mV	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							800	500	500	5	1,000	700	1,000	5	5			5	5	50	50
			Groundwater MTCA Method B Cleanup Level																3,200	3,200				
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																					
MW-05	10/15/2008	N/A	N/A	--	--	--	--	--	--	**827**	--	--	**0.71**	**0.26**	**3.01**	**2**	--	--	--	--	--	--	--	--
	11/12/2009	N/A	N/A	--	--	--	--	--	--	**2,340**	--	--	**1.3**	< 1 U	**36.3**	**125**	--	--	--	--	--	--	--	--
	03/19/2014	N/A	N/A	--	--	--	--	--	--	**1,700**	**110**	< 68 U	< 0.5 U	< 0.5 U	**34**	**150**	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	--	--	--	--	--	--	**570**	**100**	< 66 U	< 0.5 U	< 0.5 U	**8**	**26**	--	--	--	--	--	--	--	--
	08/28/2014	N/A	N/A	--	--	--	--	--	--	**3,900**	**360**	< 66 U	< 0.5 U	**0.9 J**	**34**	**65**	--	--	--	--	--	--	--	--
	12/11/2014	N/A	N/A	--	--	--	--	--	--	**260**	< 29 U	< 67 U	< 0.5 U	< 0.5 U	**0.8 J**	**5**	--	--	--	--	--	--	--	--
	03/13/2015	N/A	N/A	--	--	--	--	--	--	**670**	**170**	< 66 U	< 0.5 U	< 0.5 U	**5**	**5**	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	**1,500**	**180**	< 67 U	< 0.5 U	< 0.5 U	**18**	**44**	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	--	--	--	--	--	--	**3,400**	**270**	< 250 U	< 1 U	**0.6 J**	**9**	**7**	--	--	--	--	--	--	--	--
	11/28/2017	N/A	N/A	**15.8**	**304.9**	**1.93**	**6.53**	**17.6**	**2.32**	**500**	**140 X**	< 250 U	< 1 U	**3.1**	**1.4**	< 3 U	--	--	--	--	--	--	--	--
	08/22/2018	12.51	49.35	**19.5**	**460.7**	**1.42**	**6.16**	**101.7**	**15.4**	**3,400**	**1,300 X**	< 250 U	**2.8**	< 1 U	**12**	**8.8**	--	--	--	--	--	--	--	--
MW-06	03/18/2014	N/A	N/A	--	--	--	--	--	--	< 50 U	< 29 U	< 68 U	**4**	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	**1**	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	08/29/2014	N/A	N/A	--	--	--	--	--	--	< 50 U	**59 J**	**120 J**	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	03/13/2015	N/A	N/A	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	--	--	--	--	--	--	**83 J**	< 100 U	< 260 U	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	--	--	--	--
	11/28/2017	11.72	46.56	**15.7**	**923**	**0.46**	**6.62**	**-110.6**	**144**	< 100 U	**61 X**	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/22/2018	12.4	45.88	**19.3**	**883**	**0.11**	**6.68**	**-103.4**	**5.75**	< 100 U	**53 X**	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
MW-07	03/18/2014	N/A	N/A	--	--	--	--	--	--	< 50 U	< 29 U	< 68 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	--	--	--	--	--	--	< 50 U	< 29 U	< 67 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	08/29/2014	N/A	N/A	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	03/13/2015	N/A	N/A	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	< 50 U	< 29 U	< 67 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	--	--	--	--	--	--	**52 J**	< 100 U	< 250 U	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	--	--	--	--
	11/28/2017	10.68	46.45	**16.8**	**404.9**	**0.42**	**6.57**	**-74**	**14**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/22/2018	11.27	45.86	**18.8**	**435.3**	**0.18**	**6.36**	**72.2**	**1.1**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Field Parameters						TPH			BTEX				Metals							
			Analyte	Temperature	Specific Conductance	Dissolved Oxygen	pH	Oxidation Reduction Potential	Turbidity	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Arsenic (Dissolved)	Arsenic (Total)	Barium (Dissolved)	Barium (Total)	Cadmium (Dissolved)	Cadmium (Total)	Chromium (Dissolved)	Chromium (Total)
			Units	deg C	uS/cm	mg/L	pH units	mV	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							800	500	500	5	1,000	700	1,000	5	5			5	5	50	50
			Groundwater MTCA Method B Cleanup Level																3,200	3,200				
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																					
MW-08	03/19/2014	N/A	N/A	--	--	--	--	--	--	**8,400**	**2,400**	< 68 U	< 0.5 U	< 0.5 U	**33**	**370**	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	--	--	--	--	--	--	**5,600**	**860**	< 67 U	< 0.5 U	< 0.5 U	**50**	**270**	--	--	--	--	--	--	--	--
	08/28/2014	N/A	N/A	--	--	--	--	--	--	**11,000**	**500**	< 67 U	< 0.5 U	**0.8 J**	**170**	**590**	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	**9,000**	**1,600**	< 66 U	< 1 U	< 1 U	**94**	**350**	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	**9,300**	**790**	< 66 U	< 1 U	< 1 U	**92**	**390**	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	**7,900**	**910**	**200 J**	< 0.5 U	< 0.5 U	**36**	**120**	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	--	--	--	--	--	--	**14,000**	**530**	< 250 U	< 1 U	**0.7 J**	**150**	**490**	--	--	--	--	--	--	--	--
	11/29/2017	9.8	52.02	**14.8**	**480.3**	**0.41**	**6.3**	**28.5**	**13.7**	**5,400**	**7,100**	**420 X**	**1.3**	**14**	**44**	**110**	--	--	--	--	--	--	--	--
	08/22/2018	12.74	49.08	**17**	**398.8**	**0.09**	**6.41**	**-54.6**	**5.53**	**9,000**	**2,700 X**	< 250 U	< 5 U	< 10 U	**98**	**360**	--	--	--	--	--	--	--	--
	12/05/2018	N/A	N/A	--	--	--	--	--	--	**6,450**	**790**	< 370 U	< 2 U	< 2 U	**47**	**131**	--	--	--	--	--	--	--	--
MW-09	03/18/2014	N/A	N/A	--	--	--	--	--	--	**96**	**37**	< 68 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	05/27/2014	N/A	N/A	--	--	--	--	--	--	**64**	**50**	< 67 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	08/28/2014	N/A	N/A	--	--	--	--	--	--	< 50 U	**44**	< 67 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	**81 J**	**56 J**	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	**60 J**	**86 J**	< 67 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	02/25/2016	N/A	N/A	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	--	--	--	--	--	--	**120 J**	< 100 U	< 250 U	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	--	--	--	--
	11/29/2017	12.62	50.21	**14.1**	**455.3**	**1.02**	**6.36**	**86.6**	**6.18**	**100 X**	**140 X**	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/27/2018	15.01	47.82	**14.9**	**520.8**	**0.3**	**6.48**	**12.1**	**5.08**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	12/05/2018	N/A	N/A	--	--	--	--	--	--	< 100 U	< 370 U	< 370 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
MW-10	03/18/2014	N/A	N/A	--	--	--	--	--	--	**520**	**190**	< 68 U	**2**	**0.7**	< 0.5 U	**6**	--	--	--	--	--	--	--	--
	05/27/2014	N/A	N/A	--	--	--	--	--	--	< 50 U	**75**	< 67 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	08/29/2014	N/A	N/A	--	--	--	--	--	--	< 50 U	**90 J**	< 67 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	**140 J**	**140**	< 65 U	**1**	< 0.5 U	< 0.5 U	**2**	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	**99 J**	**100**	< 67 U	**0.5 J**	< 0.5 U	< 0.5 U	**0.6 J**	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	**300**	**110**	< 67 U	**1**	< 0.5 U	< 0.5 U	**2**	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	--	--	--	--	--	--	< 250 U	< 100 U	< 260 U	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	--	--	--	--
	11/28/2017	11.06	48.17	**16.3**	**851**	**0.49**	**6.38**	**-24.6**	**9.1**	**1,000**	**570 X**	< 250 U	**4.6**	**6.7**	< 1 U	**11**	--	--	--	--	--	--	--	--
	08/23/2018	13.48	45.75	**16.8**	**2156**	**0.15**	**6.46**	**-109.6**	--	**120**	**260 X**	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Field Parameters						TPH			BTEX				Metals							
			Analyte	Temperature	Specific Conductance	Dissolved Oxygen	pH	Oxidation Reduction Potential	Turbidity	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Arsenic (Dissolved)	Arsenic (Total)	Barium (Dissolved)	Barium (Total)	Cadmium (Dissolved)	Cadmium (Total)	Chromium (Dissolved)	Chromium (Total)
			Units	deg C	uS/cm	mg/L	pH units	mV	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							800	500	500	5	1,000	700	1,000	5	5			5	5	50	50
			Groundwater MTCA Method B Cleanup Level																3,200	3,200				
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																					
MW-11	08/28/2014	N/A	N/A	--	--	--	--	--	--	**580**	< 29 U	< 67 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	**560**	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	**480**	< 29 U	< 67 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	02/25/2016	N/A	N/A	--	--	--	--	--	--	**740**	< 29 U	< 67 U	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	--	--	--	--
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	--	--	--	--	--	--	**760**	< 100 U	< 250 U	< 2 U	< 2 U	< 2 U	< 2 U	--	--	--	--	--	--	--	--
	11/29/2017	9.94	58.23	**16**	**389.8**	**0.24**	**6.99**	**81.9**	**18.8**	**650 X**	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/22/2018	11.58	56.59	**17.8**	**452.5**	**0.17**	**6.52**	**90.4**	**2.96**	**690**	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	12/04/2018	N/A	N/A	--	--	--	--	--	--	**620**	< 370 U	< 370 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
MW-12	11/28/2017	N/A	N/A	**15.5**	**403.5**	**0.46**	**0.31**	**15.9**	**13.8**	**15,000**	**3,800 X**	**290 X**	**2.1**	**11**	**380**	**1,600**	--	--	--	--	--	--	--	--
	08/22/2018	12.41	49.1	**17.1**	**356**	**0.07**	**6.3**	**-64.6**	**9.71**	**24,000**	**4,600 X**	< 250 U	< 5 U	< 10 U	**710**	**3,000**	--	--	--	--	--	--	--	--
MW-13	08/28/2014	N/A	N/A	--	--	--	--	--	--	< 50 U	**41 J**	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	< 50 U	< 28 U	< 65 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	< 50 U	< 28 U	< 66 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	02/25/2016	N/A	N/A	--	--	--	--	--	--	< 50 U	< 29 U	< 67 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	--	--	--	--	--	--	< 250 U	< 100 U	< 250 U	< 1 U	< 1 U	< 1 U	< 1 U	--	--	--	--	--	--	--	--
	11/29/2017	9.2	56.34	**15.6**	**612**	**0.12**	**6.63**	**10.9**	**40.5**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	08/27/2018	10.83	54.71	**18**	**781**	**0.22**	**6.53**	**-3.2**	**28.2**	< 100 U	< 50 U	< 250 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
	12/04/2018	N/A	N/A	--	--	--	--	--	--	< 100 U	< 370 U	< 370 U	< 1 U	< 1 U	< 1 U	< 3 U	--	--	--	--	--	--	--	--
PBS-SB-01	06/25/2009	N/A	N/A	--	--	--	--	--	--	--	--	--	< 1 U	**3.2**	**1.1**	**4.6**	--	--	--	--	--	--	--	--
PBS-SB-03	06/25/2009	N/A	N/A	--	--	--	--	--	--	--	--	--	< 1 U	**1.3**	< 1 U	< 3 U	--	--	--	--	--	--	--	--

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeds Model Toxics Control Act (MTCA) Method A or B Cleanup Levels.

U - Analyte not detected above laboratory reporting limit.

J - Analyte estimated

X - Chromatographic pattern did not match fuel standard.

TPH - total petroleum hydrocarbons

BTEX - benzene, toluene, ethylbenzene, and xylenes

PAHs - polycyclic aromatics hydrocarbons

BTOC - below top of casing

NAVD88 - North American Vertical Datum of 1988

deg C - degree Celsius, ug/L - micrograms per liter,
uS/cm - microSiemens per centimeter, mg/L - milligrams per liter,
mV - millivolts, NTU - Nephelometric Turbidity Units

"--" - Not analyzed

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Metals								PAHs									
			Analyte	Lead (Dissolved)	Lead (Total)	Mercury (Dissolved)	Mercury (Total)	Selenium (Dissolved)	Selenium (Total)	Silver (Dissolved)	Silver (Total)	1-Methylnaphthalene	2-Methylnaphthalene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Naphthalene
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	15	**15**	2	2								0.1						**160**
			Groundwater MTCA Method B Cleanup Level					80	80	80	80	**1.51**	**32**	0.12		0.12	1.2	12	**0.012**	0.12	
Location	**Date**	**Depth to Water (feet BTOC)**	**Groundwater Elevation (feet NAVD88)**																		
AB-21	08/10/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AB-22	08/10/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AB-23	11/21/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AB-25	08/08/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AB-33	08/01/2018	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-01	03/24/2017	8.08	69.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U
	11/27/2017	9.14	68.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-02	11/27/2017	6.71	65.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/2018	8.39	64.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-03	11/27/2017	7.74	70.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	9.01	69.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-04	11/29/2017	10.46	53.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/27/2018	13.84	50.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/04/2018	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 4 U
AMW-05	11/29/2017	10.76	53.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	12.94	50.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/04/2018	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 4 U
AMW-06	11/28/2017	9.16	65.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	9.83	65.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-07	11/28/2017	11.38	63.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/20/2018	12.08	63.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-08	11/28/2017	12.87	50.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/20/2018	13.6	50.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-09	11/27/2017	8.62	47.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/21/2018	9.62	46.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-10	11/27/2017	7.13	59.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/2018	8.94	58.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-11	11/28/2017	10.92	44.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/23/2018	11.24	43.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-12	11/29/2017	11.14	49.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/21/2018	12.74	47.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-13	11/29/2017	12.73	49.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/27/2018	15.16	47.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-14	11/28/2017	11.7	45.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/23/2018	13.19	43.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Metals								PAHs									
			Analyte	Lead (Dissolved)	Lead (Total)	Mercury (Dissolved)	Mercury (Total)	Selenium (Dissolved)	Selenium (Total)	Silver (Dissolved)	Silver (Total)	1-Methylnaphthalene	2-Methylnaphthalene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Naphthalene
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	15	**15**	2	2								0.1						**160**
			Groundwater MTCA Method B Cleanup Level					80	80	80	80	**1.51**	**32**	0.12		0.12	1.2	12	**0.012**	0.12	
Location	**Date**	**Depth to Water (feet BTOC)**	**Groundwater Elevation (feet NAVD88)**																		
AMW-15	11/28/2017	9.51	46.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/23/2018	10.02	45.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-16	08/23/2018	11.81	46.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-17	08/23/2018	12.38	46.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-18	08/23/2018	10.48	43.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-19	08/24/2018	9.24	55.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-20	08/22/2018	12.64	47.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-22	04/01/2019	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-24	04/01/2019	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ATC-B-01	01/08/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.00 U
ATC-B-02	01/08/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.00 U
ATC-B-03	01/08/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.00 U
ATC-B-05	01/08/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.00 U
ATC-B-06	01/08/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.00 U
B-01	04/19/2011	N/A	N/A	--	**18.5**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-02	04/19/2011	N/A	N/A	--	**32.9**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-03	04/19/2011	N/A	N/A	--	**9.2**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**570**
B-04	04/19/2011	N/A	N/A	--	**48.5**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-05	04/19/2011	N/A	N/A	--	**116**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.032 U
B-06	04/19/2011	N/A	N/A	--	**18.4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-07	04/19/2011	N/A	N/A	--	**15.7**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-1	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-2	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-3	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-4	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.5 U
HC-MW-01	09/30/2016	9.86	57.37	< 1.0 U	< 1.1 U	< 0.50 U	< 0.50 U	< 5.0 U	< 5.6 U	< 10 U	< 11 U	--	--	--	--	--	--	--	--	--	< 10 U
	11/27/2017	8.02	59.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/27/2018	9.84	57.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-02	09/29/2016	9.33	65.49	< 1.0 U	< 1.1 U	< 0.50 U	< 0.50 U	< 5.0 U	< 5.6 U	< 10 U	< 11 U	--	--	--	--	--	--	--	--	--	< 20 U
	11/27/2017	8.14	66.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/27/2018	9.14	65.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-03	09/30/2016	7.61	70.58	< 1.0 U	< 1.1 U	< 0.50 U	< 0.50 U	< 5.0 U	< 5.6 U	< 10 U	< 11 U	--	--	--	--	--	--	--	--	--	< 1.0 U
	11/27/2017	6.33	71.86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/2018	7.68	70.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Metals								PAHs									
			Analyte	Lead (Dissolved)	Lead (Total)	Mercury (Dissolved)	Mercury (Total)	Selenium (Dissolved)	Selenium (Total)	Silver (Dissolved)	Silver (Total)	1-Methylnaphthalene	2-Methylnaphthalene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Naphthalene
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	15	**15**	2	2								0.1						**160**
			Groundwater MTCA Method B Cleanup Level					80	80	80	80	**1.51**	**32**	0.12		0.12	1.2	12	**0.012**	0.12	
Location	**Date**	**Depth to Water (feet BTOC)**	**Groundwater Elevation (feet NAVD88)**																		
HC-MW-04	10/03/2016	11.73	76.01	< 1.0 U	< 1.1 U	< 0.50 U	< 0.50 U	< 5.0 U	< 5.6 U	< 10 U	< 11 U	--	--	--	--	--	--	--	--	--	< 1.0 U
	11/27/2017	9.5	78.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/2018	12.21	75.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-05	09/30/2016	7.6	64.94	< 1.0 U	< 1.1 U	< 0.50 U	< 0.50 U	< 5.0 U	< 5.6 U	< 10 U	< 11 U	--	--	--	--	--	--	--	--	--	< 100 U
	11/27/2017	5.54	67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/2018	7.59	64.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-06	10/03/2016	8.32	54.6	< 1.0 U	< 1.1 U	< 0.50 U	< 0.50 U	< 5.0 U	< 5.6 U	< 10 U	< 11 U	--	--	--	--	--	--	--	--	--	< 1.0 U
	11/28/2017	6.52	56.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	8.35	54.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-07	10/03/2016	7.39	56.2	< 1.0 U	< 1.1 U	< 0.50 U	< 0.50 U	< 5.0 U	< 5.6 U	< 10 U	< 11 U	--	--	--	--	--	--	--	--	--	< 1.0 U
	11/27/2017	6.11	57.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	7.56	56.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
KEE-B-02	05/24/2010	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
KEE-B-03	05/24/2010	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
K-SB-01	01/25/2006	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U
K-SB-03	01/25/2006	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U
MW-01	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.5 U
	11/12/2009	11.79	50.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	8.69	53.91	--	**0.2**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	05/27/2014	9.98	52.62	--	**0.10**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.030 U
	08/28/2014	11.87	50.73	--	**0.4 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.028 U
	12/11/2014	10.97	51.63	--	**0.84 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.03 U
	03/12/2015	10.31	52.29	--	**0.29 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	02/25/2016	9.56	53.04	--	**0.25 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	05/25/2016	11.27	51.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.53	50.07	--	**0.19 J**	--	--	--	--	--	--	**0.16**	**0.05 J**	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	**0.014 J**	< 0.050 U	< 0.060 U
	11/29/2017	9.92	52.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/2018	12.93	49.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/05/2018	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 4 U

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Metals								PAHs									
			Analyte	Lead (Dissolved)	Lead (Total)	Mercury (Dissolved)	Mercury (Total)	Selenium (Dissolved)	Selenium (Total)	Silver (Dissolved)	Silver (Total)	1-Methylnaphthalene	2-Methylnaphthalene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Naphthalene
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	15	**15**	2	2								0.1						**160**
			Groundwater MTCA Method B Cleanup Level					80	80	80	80	**1.51**	**32**	0.12		0.12	1.2	12	**0.012**	0.12	
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
MW-02	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.5 U
	11/12/2009	12.35	48.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/18/2014	10.31	50.47	--	**0.9**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	05/27/2014	10.25	50.53	--	**0.42**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.12 J**
	08/28/2014	12.11	48.67	--	**0.44 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.19**
	12/11/2014	11.05	49.73	--	**0.93 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.03 U
	03/12/2015	10.31	50.47	--	**0.59 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.13**
	02/25/2016	9.19	51.59	--	**0.63 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**
	05/25/2016	10.68	50.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.12	48.66	--	**0.18 J**	--	--	--	--	--	--	**0.096**	**0.031 J**	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.061 U
	11/28/2017	10.19	50.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/21/2018	12.45	48.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-03	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**12.7**
	11/12/2009	11.59	50.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	9.2	52.67	--	**1.2**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**49**
	05/27/2014	10.58	51.29	--	**0.65**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**54**
	08/29/2014	11.81	50.06	--	**0.2 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**9**
	12/11/2014	9.91	51.96	--	**0.45 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**69**
	03/13/2015	10.64	51.23	--	**6.7**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**54**
	02/25/2016	9.33	52.54	--	**0.45 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**24**
	05/26/2016	11.23	50.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.37	49.5	--	**0.23 J**	--	--	--	--	--	--	**1.6**	**0.037 J**	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	**3.1**
	11/28/2017	10.04	51.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	12.44	49.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-04	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.5 U
	11/12/2009	11.98	51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/18/2014	9.29	53.69	--	**0.14**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	05/27/2014	10.89	52.09	--	< 0.085 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.030 U
	08/28/2014	12.27	50.71	--	**0.14 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.028 U
	12/10/2014	11.17	51.81	--	**0.15 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.03 U
	03/13/2015	10.8	52.18	--	< 0.082 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	02/25/2016	9.23	53.75	--	< 0.13 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	05/25/2016	10.83	52.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	12.42	50.56	--	**0.12 J**	--	--	--	--	--	--	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.061 U
	11/29/2017	10.3	52.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	12.86	50.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Metals								PAHs									
			Analyte	Lead (Dissolved)	Lead (Total)	Mercury (Dissolved)	Mercury (Total)	Selenium (Dissolved)	Selenium (Total)	Silver (Dissolved)	Silver (Total)	1-Methylnaphthalene	2-Methylnaphthalene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Naphthalene
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	15	**15**	2	2								0.1						**160**
			Groundwater MTCA Method B Cleanup Level					80	80	80	80	**1.51**	**32**	0.12		0.12	1.2	12	**0.012**	0.12	
Location	**Date**	**Depth to Water (feet BTOC)**	**Groundwater Elevation (feet NAVD88)**																		
MW-05	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**8**
	11/12/2009	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	N/A	N/A	--	**0.17**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**26**
	05/28/2014	N/A	N/A	--	**0.16**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**9**
	08/28/2014	N/A	N/A	--	**0.49 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**46**
	12/11/2014	N/A	N/A	--	**1.3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.34**
	03/13/2015	N/A	N/A	--	**0.1 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.5**
	02/26/2016	N/A	N/A	--	**0.28 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.4**
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	--	**1**	--	--	--	--	--	--	**14**	**5.1**	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	**7**
	11/28/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	12.51	49.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-06	03/18/2014	N/A	N/A	--	**0.97**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	05/28/2014	N/A	N/A	--	**30.5**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.030 U
	08/29/2014	N/A	N/A	--	**24.4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.028 U
	12/10/2014	N/A	N/A	--	**20.5**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.03 U
	03/13/2015	N/A	N/A	--	**2.4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	02/26/2016	N/A	N/A	--	**0.89 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.032 U
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	--	**0.74 J**	--	--	--	--	--	--	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.060 U
	11/28/2017	11.72	46.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	12.4	45.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	03/18/2014	N/A	N/A	--	**79.3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	05/28/2014	N/A	N/A	--	**9.7**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.030 U
	08/29/2014	N/A	N/A	--	**40.9**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.028 U
	12/10/2014	N/A	N/A	--	**35.6**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.03 U
	03/13/2015	N/A	N/A	--	**11.8**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	02/26/2016	N/A	N/A	--	**5.9**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.033 U
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	--	**1.6**	--	--	--	--	--	--	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.060 U
	11/28/2017	10.68	46.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	11.27	45.86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Metals								PAHs									
			Analyte	Lead (Dissolved)	Lead (Total)	Mercury (Dissolved)	Mercury (Total)	Selenium (Dissolved)	Selenium (Total)	Silver (Dissolved)	Silver (Total)	1-Methylnaphthalene	2-Methylnaphthalene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Naphthalene
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	15	**15**	2	2								0.1						**160**
			Groundwater MTCA Method B Cleanup Level					80	80	80	80	**1.51**	**32**	0.12		0.12	1.2	12	**0.012**	0.12	
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
MW-08	03/19/2014	N/A	N/A	--	**12.6**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**57**
	05/28/2014	N/A	N/A	--	**3.9**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**39**
	08/28/2014	N/A	N/A	--	**1.6**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**70**
	12/10/2014	N/A	N/A	--	**4.4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**65**
	03/12/2015	N/A	N/A	--	**3.5**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**83**
	02/26/2016	N/A	N/A	--	**4.3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**18**
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	--	**0.78 J**	--	--	--	--	--	--	**31**	**28**	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	**78**
	11/29/2017	9.8	52.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	12.74	49.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/05/2018	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**13.7**
MW-09	03/18/2014	N/A	N/A	--	**0.087**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	05/27/2014	N/A	N/A	--	**0.092**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.030 U
	08/28/2014	N/A	N/A	--	**0.12 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.046 J**
	12/10/2014	N/A	N/A	--	< 0.082 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.03 U
	03/12/2015	N/A	N/A	--	**0.16 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	02/25/2016	N/A	N/A	--	< 0.13 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.032 U
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	--	< 1.0 U	--	--	--	--	--	--	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.060 U
	11/29/2017	12.62	50.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/27/2018	15.01	47.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/05/2018	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 4 U
MW-10	03/18/2014	N/A	N/A	--	< 0.085 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.46**
	05/27/2014	N/A	N/A	--	**0.11**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.04**
	08/29/2014	N/A	N/A	--	**0.43 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.053 J**
	12/10/2014	N/A	N/A	--	**0.23 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.16**
	03/12/2015	N/A	N/A	--	< 0.082 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.075**
	02/26/2016	N/A	N/A	--	< 0.13 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.19**
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	--	< 1.0 U	--	--	--	--	--	--	**0.043 J**	**0.02 J**	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.061 U
	11/28/2017	11.06	48.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/23/2018	13.48	45.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 6. Summary of Groundwater Results: TPH, BTEX, Metal, and PAHs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Metals								PAHs									
			Analyte	Lead (Dissolved)	Lead (Total)	Mercury (Dissolved)	Mercury (Total)	Selenium (Dissolved)	Selenium (Total)	Silver (Dissolved)	Silver (Total)	1-Methylnaphthalene	2-Methylnaphthalene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Naphthalene
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	15	**15**	2	2								0.1						**160**
			Groundwater MTCA Method B Cleanup Level					80	80	80	80	**1.51**	**32**	0.12		0.12	1.2	12	**0.012**	0.12	
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
MW-11	08/28/2014	N/A	N/A	--	**0.22 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.041 J**
	12/10/2014	N/A	N/A	--	**0.2 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.031 J**
	03/12/2015	N/A	N/A	--	**10**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	02/25/2016	N/A	N/A	--	**0.28 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	--	**0.29 J**	--	--	--	--	--	--	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.060 U
	11/29/2017	9.94	58.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	11.58	56.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/04/2018	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 4 U
MW-12	11/28/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/22/2018	12.41	49.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	08/28/2014	N/A	N/A	--	**1.7**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.028 U
	12/10/2014	N/A	N/A	--	**0.81 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.03 U
	03/12/2015	N/A	N/A	--	**0.68 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	02/25/2016	N/A	N/A	--	**0.7 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.031 U
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	--	**1.3**	--	--	--	--	--	--	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.060 U
	11/29/2017	9.2	56.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/27/2018	10.83	54.71	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/04/2018	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 4 U
PBS-SB-01	06/25/2009	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**
PBS-SB-03	06/25/2009	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeds Model Toxics Control Act (MTCA) Method A or B Cleanup Levels.

U - Analyte not detected above laboratory reporting limit.

J - Analyte estimated

X - Chromatographic pattern did not match fuel standard.

TPH - total petroleum hydrocarbons

BTEX - benzene, toluene, ethylbenzene, and xylenes

PAHs - polycyclic aromatics hydrocarbons

BTOC - below top of casing

NAVD88 - North American Vertical Datum of 1988

deg C - degree Celsius, ug/L - micrograms per liter,
uS/cm - microSiemens per centimeter, mg/L - milligrams per liter,
mV - millivolts, NTU - Nephelometric Turbidity Units

"--" - Not analyzed

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs																	
			Analyte	1,1,1,2-Tetrachloroethane	1,1,2-Trifluoroethane	1,1-Dichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Carbon Disulfide	cis-1,2-Dichloroethene (DCE)	Isopropylbenzene	m,p-Xylenes	n-Butylbenzene	n-Hexane	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level																	5	
			Groundwater MTCA Method B Cleanup Level	1.68		400		80	800	16	800		400	480	800	1,600		800			160
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
AB-21	08/10/2017	N/A	N/A	--	--	< 1 U	--	--	--	**6.6**	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
AB-22	08/10/2017	N/A	N/A	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
AB-23	11/21/2017	N/A	N/A	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
AB-25	08/08/2017	N/A	N/A	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
AB-33	08/01/2018	N/A	N/A	--	--	< 1 U	--	--	--	**65**	--	--	--	--	--	--	--	--	--	**160**	< 1 U
AMW-01	03/24/2017	8.08	69.47	**2.1**	--	< 1 U	< 1 U	< 1 U	--	< 1 U	< 1 U	< 2 U	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**1,500**	< 1 U
	11/27/2017	9.14	68.41	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	**1,100**	< 1 U
AMW-02	11/27/2017	6.71	65.77	--	--	< 1 U	--	--	--	**58**	--	--	--	--	--	--	--	--	--	**1,800**	< 1 U
	08/24/2018	8.39	64.09	--	--	< 50 U	--	--	--	**72**	--	--	--	--	--	--	--	--	--	**2,100**	< 50 U
AMW-03	11/27/2017	7.74	70.64	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/22/2018	9.01	69.37	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
AMW-04	11/29/2017	10.46	53.75	--	--	< 1 U	--	--	--	**45**	--	--	--	--	--	--	--	--	--	**110**	< 1 U
	08/27/2018	13.84	50.37	--	--	< 1 U	--	--	--	**68**	--	--	--	--	--	--	--	--	--	**210**	< 1 U
	12/04/2018	N/A	N/A	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	**88.7**	< 1 U	< 2 U	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**153**	< 1 U
AMW-05	11/29/2017	10.76	53.07	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/22/2018	12.94	50.89	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	12/04/2018	N/A	N/A	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
AMW-06	11/28/2017	9.16	65.8	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	**4.2**	< 1 U
	08/22/2018	9.83	65.13	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	**3**	< 1 U
AMW-07	11/28/2017	11.38	63.98	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/20/2018	12.08	63.28	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--	< 1.0 U	< 1.0 U
AMW-08	11/28/2017	12.87	50.82	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/20/2018	13.6	50.09	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--	< 1.0 U	< 1.0 U
AMW-09	11/27/2017	8.62	47.88	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/21/2018	9.62	46.88	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
AMW-10	11/27/2017	7.13	59.95	--	--	< 1 U	--	--	--	**31**	--	--	--	--	--	--	--	--	--	**310**	< 1 U
	08/24/2018	8.94	58.14	--	--	< 10 U	--	--	--	**69**	--	--	--	--	--	--	--	--	--	**650**	< 10 U
AMW-11	11/28/2017	10.92	44.25	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/23/2018	11.24	43.93	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
AMW-12	11/29/2017	11.14	49.19	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/21/2018	12.74	47.59	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
AMW-13	11/29/2017	12.73	49.97	--	--	< 1 U	--	--	--	**110**	--	--	--	--	--	--	--	--	--	**20**	< 1 U
	08/27/2018	15.16	47.54	--	--	< 1 U	--	--	--	**84**	--	--	--	--	--	--	--	--	--	**93**	< 1 U
AMW-14	11/28/2017	11.7	45.15	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/23/2018	13.19	43.66	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs																	
Analyte				1,1,1,2-Tetrachloroethane	1,1,2-Trifluoroethane	1,1-Dichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Carbon Disulfide	cis-1,2-Dichloroethene (DCE)	Isopropylbenzene	m,p-Xylenes	n-Butylbenzene	n-Hexane	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene
Units				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Groundwater MTCA Method A Cleanup Level																				5	
Groundwater MTCA Method B Cleanup Level				1.68		400		80	800	16	800		400	480	800	1,600		800			160
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
AMW-15	11/28/2017	9.51	46.27	--	--	< 1 U	--	--	--	**1.4**	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/23/2018	10.02	45.76	--	--	< 1 U	--	--	--	**6.1**	--	--	--	--	--	--	--	--	--	**1**	< 1 U
AMW-16	08/23/2018	11.81	46.3	--	--	< 1 U	--	--	--	**2.8**	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
AMW-17	08/23/2018	12.38	46.41	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
AMW-18	08/23/2018	10.48	43.59	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
AMW-19	08/24/2018	9.24	55.77	--	--	< 1 U	--	--	--	**14**	--	--	--	--	--	--	--	--	--	**12**	**3**
AMW-20	08/22/2018	12.64	47.26	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
AMW-21	07/31/2019	3.31	N/A	--	--	**1.3**	--	--	--	**3.3**	--	--	--	--	--	--	--	--	--	**97,000**	< 1 U
AMW-22	04/01/2019	1.60	N/A	--	--	< 1 U	--	--	--	**2.7**	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
AMW-23	07/31/2019	8.67	N/A	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	**1.2**	< 1 U
AMW-24	04/01/2019	14.56	N/A	--	--	< 1 U	--	--	--	**9.4**	--	--	--	--	--	--	--	--	--	**510**	< 1 U
ATC-B-01	01/08/2016	N/A	N/A	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	**90.4**	< 1.00 U
ATC-B-02	01/08/2016	N/A	N/A	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	**11.9**	< 1.00 U
ATC-B-03	01/08/2016	N/A	N/A	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
ATC-B-05	01/08/2016	N/A	N/A	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
ATC-B-06	01/08/2016	N/A	N/A	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
B-01	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-02	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-03	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-04	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-05	04/19/2011	N/A	N/A	--	--	--	--	--	--	< 0.8 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.8 U	< 0.8 U
B-06	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-07	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-1	11/13/2008	N/A	N/A	--	< 0.2 U	< 0.2 U	--	--	--	< 0.2 U	--	--	--	--	--	--	--	--	--	< 0.2 U	< 0.2 U
ERM-B-2	11/13/2008	N/A	N/A	--	< 0.2 U	< 0.2 U	--	--	--	**14**	--	--	--	--	--	--	--	--	--	**15.3**	**0.41**
ERM-B-3	11/13/2008	N/A	N/A	--	**0.27**	**0.27**	--	--	--	**51**	--	--	--	--	--	--	--	--	--	**57.6**	**0.56**
ERM-B-4	11/13/2008	N/A	N/A	--	< 0.2 U	< 0.2 U	< 0.2 U	< 0.5 U	--	< 0.2 U	< 0.5 U	--	< 0.2 U	< 1 U	< 0.5 U	--	< 0.2 U	< 0.2 U	< 0.5 U	**0.33**	< 0.2 U
HC-MW-01	09/30/2016	9.86	57.37	< 2.0 U	--	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**63**	< 2.0 U	< 4.0 U	< 2.0 U	--	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**290**	< 2.0 U
	11/27/2017	8.02	59.21	--	--	< 1 U	--	--	--	**47**	--	--	--	--	--	--	--	--	--	**240**	< 1 U
	08/27/2018	9.84	57.39	--	--	< 1 U	--	--	--	**55**	--	--	--	--	--	--	--	--	--	**210**	< 1 U
HC-MW-02	09/29/2016	9.33	65.49	< 4.0 U	--	**6.5**	< 4.0 U	< 4.0 U	< 4.0 U	**35**	< 4.0 U	< 8.0 U	< 4.0 U	--	< 4.0 U	< 4.0 U	< 5.0 U	< 5.2 U	< 4.0 U	**950**	< 4.0 U
	11/27/2017	8.14	66.68	--	--	**3.7**	--	--	--	**28**	--	--	--	--	--	--	--	--	--	**1,100**	< 1 U
	08/27/2018	9.14	65.68	--	--	**3.5**	--	--	--	**28**	--	--	--	--	--	--	--	--	--	**990**	< 1 U
HC-MW-03	09/30/2016	7.61	70.58	< 0.20 U	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	**1.5**	< 0.20 U	< 0.40 U	< 0.20 U	--	< 0.20 U	< 0.20 U	< 0.25 U	< 0.26 U	< 0.20 U	**15**	< 0.20 U
	11/27/2017	6.33	71.86	--	--	< 1 U	--	--	--	**1.1**	--	--	--	--	--	--	--	--	--	**18**	< 1 U
	08/24/2018	7.68	70.51	--	--	< 1 U	--	--	--	**1.2**	--	--	--	--	--	--	--	--	--	**16**	< 1 U

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs																	
			Analyte	1,1,1,2-Tetrachloroethane	1,1,2-Trifluoroethane	1,1-Dichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Carbon Disulfide	cis-1,2-Dichloroethene (DCE)	Isopropylbenzene	m,p-Xylenes	n-Butylbenzene	n-Hexane	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level																	5	
			Groundwater MTCA Method B Cleanup Level	1.68		400		80	800	16	800		400	480	800	1,600		800			160
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
HC-MW-04	10/03/2016	11.73	76.01	< 0.20 U	--	< 0.20 U	< 0.20 U	< 0.20 U	**0.22**	< 0.20 U	< 0.20 U	< 0.40 U	< 0.20 U	--	< 0.20 U	< 0.20 U	< 0.25 U	< 0.26 U	< 0.20 U	< 0.20 U	< 0.20 U
	11/27/2017	9.5	78.24	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/24/2018	12.21	75.53	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
HC-MW-05	09/30/2016	7.6	64.94	< 20 U	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 40 U	< 20 U	--	< 20 U	< 20 U	< 25 U	< 26 U	< 20 U	**4,900**	< 20 U
	11/27/2017	5.54	67	--	--	< 1 U	--	--	--	**8**	--	--	--	--	--	--	--	--	--	**3,400**	< 1 U
	08/24/2018	7.59	64.95	--	--	< 50 U	--	--	--	< 50 U	--	--	--	--	--	--	--	--	--	**5,600**	< 50 U
HC-MW-06	10/03/2016	8.32	54.6	< 0.20 U	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	**18**	< 0.20 U	< 0.40 U	< 0.20 U	--	< 0.20 U	< 0.20 U	< 0.25 U	< 0.26 U	< 0.20 U	**1.5**	**6**
	11/28/2017	6.52	56.4	--	--	< 1 U	--	--	--	**2.4**	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/22/2018	8.35	54.57	--	--	< 1 U	--	--	--	**13**	--	--	--	--	--	--	--	--	--	< 1 U	**3.1**
HC-MW-07	10/03/2016	7.39	56.2	< 0.20 U	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.20 U	--	< 0.20 U	< 0.20 U	< 0.25 U	< 0.26 U	< 0.20 U	< 0.20 U	< 0.20 U
	11/27/2017	6.11	57.48	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/22/2018	7.56	56.03	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
KEE-B-02	05/24/2010	N/A	N/A	< 20 U	--	< 20 U	--	--	--	< 20 U	--	--	--	--	--	--	--	--	--	**3,700**	< 20 U
KEE-B-03	05/24/2010	N/A	N/A	< 20 U	--	< 20 U	--	--	--	**49**	--	--	--	--	--	--	--	--	--	**2,100**	< 20 U
K-SB-01	01/25/2006	N/A	N/A	--	--	--	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
K-SB-03	01/25/2006	N/A	N/A	--	--	--	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
MW-01	10/15/2008	N/A	N/A	--	< 0.2 U	< 0.2 U	< 0.2 U	< 0.5 U	--	**24.9**	< 0.5 U	--	< 0.2 U	< 1 U	< 0.5 U	--	< 0.2 U	< 0.2 U	< 0.5 U	< 0.2 U	**0.68**
	11/12/2009	11.79	50.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	8.69	53.91	--	--	--	--	--	--	**21**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**7**	< 0.8 U
	05/27/2014	9.98	52.62	--	--	--	--	--	--	**19**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**5**	< 0.5 U
	08/28/2014	11.87	50.73	--	--	--	--	--	--	**12**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**6**	< 0.5 U
	12/11/2014	10.97	51.63	--	--	--	--	--	--	**20**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**4**	< 0.5 U
	03/12/2015	10.31	52.29	--	--	--	--	--	--	**15**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**5**	< 0.5 U
	02/25/2016	9.56	53.04	--	--	--	--	--	--	**14**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**4**	< 0.5 U
	05/25/2016	11.27	51.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3**	--
	08/08/2016	12.53	50.07	< 1 U	--	< 1 U	< 5 U	< 5 U	< 5 U	**9**	< 5 U	< 1 U	< 5 U	--	< 5 U	< 1 U	< 5 U	< 5 U	< 5 U	**3**	< 1 U
	11/29/2017	9.92	52.68	--	--	< 1 U	--	--	--	**16**	--	--	--	--	--	--	--	--	--	**3.2**	< 1 U
	08/24/2018	12.93	49.67	--	--	< 1 U	--	--	--	**19**	--	--	--	--	--	--	--	--	--	**1.1**	< 1 U
	12/05/2018	N/A	N/A	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	**25.9**	< 1 U	< 2 U	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**3.4**	< 1 U

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs																	
			Analyte	1,1,1,2-Tetrachloroethane	1,1,2-Trifluoroethane	1,1-Dichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Carbon Disulfide	cis-1,2-Dichloroethene (DCE)	Isopropylbenzene	m,p-Xylenes	n-Butylbenzene	n-Hexane	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level																	5	
			Groundwater MTCA Method B Cleanup Level	1.68		400		80	800	16	800		400	480	800	1,600		800			160
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
MW-02	10/15/2008	N/A	N/A	--	< 0.2 U	< 0.2 U	**0.74**	**0.57**	--	**0.26**	**28.7**	--	**3.31**	< 1 U	**45.3**	--	**0.35**	**3.29**	**3.08**	< 0.2 U	< 0.2 U
	11/12/2009	12.35	48.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/18/2014	10.31	50.47	--	--	--	--	--	--	< 0.8 U	--	**2**	--	--	--	< 0.5 U	--	--	--	< 0.8 U	< 0.8 U
	05/27/2014	10.25	50.53	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	08/28/2014	12.11	48.67	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	12/11/2014	11.05	49.73	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	03/12/2015	10.31	50.47	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	02/25/2016	9.19	51.59	--	--	--	--	--	--	< 0.5 U	--	**19**	--	--	--	**2**	--	--	--	< 0.5 U	< 0.5 U
	05/25/2016	10.68	50.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/08/2016	12.12	48.66	< 1 U	--	< 1 U	< 5 U	< 5 U	< 5 U	< 1 U	**6**	**1**	< 5 U	--	**6**	< 1 U	< 5 U	**2 J**	< 5 U	< 1 U	< 1 U
	11/28/2017	10.19	50.59	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/21/2018	12.45	48.33	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
MW-03	10/15/2008	N/A	N/A	--	< 0.2 U	< 0.2 U	**223**	**77.1**	--	**0.57**	**25**	--	**10.5**	**2.77**	**61.9**	--	**2.94**	**7.26**	< 0.5 U	**0.35**	< 0.2 U
	11/12/2009	11.59	50.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	9.2	52.67	--	--	--	--	--	--	**4**	--	**360**	--	--	--	**44**	--	--	--	< 0.8 U	< 0.8 U
	05/27/2014	10.58	51.29	--	--	--	--	--	--	**4**	--	**410**	--	--	--	**46**	--	--	--	< 1 U	< 1 U
	08/29/2014	11.81	50.06	--	--	--	--	--	--	**2**	--	**28**	--	--	--	**6**	--	--	--	< 0.5 U	< 0.5 U
	12/11/2014	9.91	51.96	--	--	--	--	--	--	**2**	--	**480**	--	--	--	**34**	--	--	--	< 1 U	< 1 U
	03/13/2015	10.64	51.23	--	--	--	--	--	--	**3**	--	**340**	--	--	--	**27**	--	--	--	< 1 U	< 1 U
	02/25/2016	9.33	52.54	--	--	--	--	--	--	**1 J**	--	**180**	--	--	--	**11**	--	--	--	< 1 U	< 1 U
	05/26/2016	11.23	50.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/08/2016	12.37	49.5	< 1 U	--	< 1 U	**300**	**69**	< 5 U	**1**	**28**	**37**	**9**	--	**79**	**2**	**3 J**	**8**	< 5 U	< 1 U	< 1 U
	11/28/2017	10.04	51.83	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/22/2018	12.44	49.43	--	--	< 1 U	--	--	--	**2.3**	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
MW-04	10/15/2008	N/A	N/A	--	< 0.2 U	< 0.2 U	< 0.2 U	< 0.5 U	--	**0.3**	< 0.5 U	--	< 0.2 U	< 1 U	< 0.5 U	--	< 0.2 U	< 0.2 U	< 0.5 U	< 0.2 U	**0.36**
	11/12/2009	11.98	51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/18/2014	9.29	53.69	--	--	--	--	--	--	< 0.8 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.8 U	< 0.8 U
	05/27/2014	10.89	52.09	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	08/28/2014	12.27	50.71	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	12/10/2014	11.17	51.81	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	03/13/2015	10.8	52.18	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	02/25/2016	9.23	53.75	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	05/25/2016	10.83	52.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/09/2016	12.42	50.56	< 1 U	--	< 1 U	< 5 U	< 5 U	< 5 U	< 1 U	< 5 U	< 1 U	< 5 U	--	< 5 U	< 1 U	< 5 U	< 5 U	< 5 U	< 1 U	< 1 U
	11/29/2017	10.3	52.68	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/22/2018	12.86	50.12	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs																	
			Analyte	1,1,1,2-Tetrachloroethane	1,1,2-Trifluoroethane	1,1-Dichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Carbon Disulfide	cis-1,2-Dichloroethene (DCE)	Isopropylbenzene	m,p-Xylenes	n-Butylbenzene	n-Hexane	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level																	5	
			Groundwater MTCA Method B Cleanup Level	1.68		400		80	800	16	800		400	480	800	1,600		800			160
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
MW-05	10/15/2008	N/A	N/A	--	< 0.2 U	< 0.2 U	**7.58**	**1**	--	< 0.2 U	**14.6**	--	**2.54**	**1.33**	**35.3**	--	**0.36**	**2.44**	< 0.5 U	< 0.2 U	< 0.2 U
	11/12/2009	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	N/A	N/A	--	--	--	--	--	--	< 0.8 U	--	**130**	--	--	--	**19**	--	--	--	< 0.8 U	< 0.8 U
	05/28/2014	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	**22**	--	--	--	**4**	--	--	--	**0.5**	< 0.5 U
	08/28/2014	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	**59**	--	--	--	**6**	--	--	--	< 0.5 U	< 0.5 U
	12/11/2014	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	**4**	--	--	--	**0.7 J**	--	--	--	**0.6 J**	< 0.5 U
	03/13/2015	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	**3**	--	--	--	**2**	--	--	--	**0.5 J**	< 0.5 U
	02/26/2016	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	**40**	--	--	--	**4**	--	--	--	< 0.5 U	< 0.5 U
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/08/2016	N/A	N/A	< 1 U	--	< 1 U	**19**	**10**	< 5 U	< 1 U	**51**	**6**	**10**	--	**130**	**0.8 J**	**1 J**	**10**	< 5 U	< 1 U	< 1 U
	11/28/2017	N/A	N/A	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/22/2018	12.51	49.35	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
MW-06	03/18/2014	N/A	N/A	--	--	--	--	--	--	< 0.8 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.8 U	< 0.8 U
	05/28/2014	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	08/29/2014	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	12/10/2014	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	03/13/2015	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	02/26/2016	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/09/2016	N/A	N/A	< 1 U	--	< 1 U	< 5 U	< 5 U	< 5 U	< 1 U	< 5 U	< 1 U	< 5 U	--	< 5 U	< 1 U	< 5 U	< 5 U	< 5 U	< 1 U	< 1 U
	11/28/2017	11.72	46.56	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/22/2018	12.4	45.88	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
MW-07	03/18/2014	N/A	N/A	--	--	--	--	--	--	**13**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.8 U	< 0.8 U
	05/28/2014	N/A	N/A	--	--	--	--	--	--	**12**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	08/29/2014	N/A	N/A	--	--	--	--	--	--	**1 J**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	12/10/2014	N/A	N/A	--	--	--	--	--	--	**7**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	03/13/2015	N/A	N/A	--	--	--	--	--	--	**11**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**1**	< 0.5 U
	02/26/2016	N/A	N/A	--	--	--	--	--	--	**14**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7 J**	--
	08/09/2016	N/A	N/A	< 1 U	--	< 1 U	< 5 U	< 5 U	< 5 U	**13**	< 5 U	< 1 U	< 5 U	--	< 5 U	< 1 U	< 5 U	< 5 U	< 5 U	**2**	< 1 U
	11/28/2017	10.68	46.45	--	--	< 1 U	--	--	--	**15**	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/22/2018	11.27	45.86	--	--	< 1 U	--	--	--	**14**	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs																	
			Analyte	1,1,1,2-Tetrachloroethane	1,1,2-Trifluoroethane	1,1-Dichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Carbon Disulfide	cis-1,2-Dichloroethene (DCE)	Isopropylbenzene	m,p-Xylenes	n-Butylbenzene	n-Hexane	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level																	5	
			Groundwater MTCA Method B Cleanup Level	1.68		400		80	800	16	800		400	480	800	1,600		800			160
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
MW-08	03/19/2014	N/A	N/A	--	--	--	--	--	--	**2**	--	**200**	--	--	--	**180**	--	--	--	**1**	< 0.8 U
	05/28/2014	N/A	N/A	--	--	--	--	--	--	**2**	--	**170**	--	--	--	**99**	--	--	--	**1**	< 0.5 U
	08/28/2014	N/A	N/A	--	--	--	--	--	--	**3**	--	**460**	--	--	--	**130**	--	--	--	< 0.5 U	< 0.5 U
	12/10/2014	N/A	N/A	--	--	--	--	--	--	**2 J**	--	**250**	--	--	--	**100**	--	--	--	< 1 U	< 1 U
	03/12/2015	N/A	N/A	--	--	--	--	--	--	**1 J**	--	**280**	--	--	--	**110**	--	--	--	< 1 U	< 1 U
	02/26/2016	N/A	N/A	--	--	--	--	--	--	**0.6 J**	--	**74**	--	--	--	**50**	--	--	--	**0.8 J**	< 0.5 U
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/09/2016	N/A	N/A	< 1 U	--	< 1 U	**800**	**160**	< 5 U	**1**	**58**	**390**	**18**	--	< 5 U	**93**	**8**	**11**	< 5 U	< 1 U	< 1 U
	11/29/2017	9.8	52.02	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/22/2018	12.74	49.08	--	--	< 1 U	--	--	--	**1.2**	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	12/05/2018	N/A	N/A	< 2 U	--	< 2 U	**335**	**48.7**	< 2 U	< 2 U	**32.7**	**108**	**17.6**	--	**87.9**	**23.4**	**4.3**	**12.7**	< 2 U	< 2 U	< 2 U
MW-09	03/18/2014	N/A	N/A	--	--	--	--	--	--	**110**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**180**	< 0.8 U
	05/27/2014	N/A	N/A	--	--	--	--	--	--	**140**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**140**	**0.9**
	08/28/2014	N/A	N/A	--	--	--	--	--	--	**89**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**71**	< 0.5 U
	12/10/2014	N/A	N/A	--	--	--	--	--	--	**120**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**140**	**0.7 J**
	03/12/2015	N/A	N/A	--	--	--	--	--	--	**150**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**140**	**0.9 J**
	02/25/2016	N/A	N/A	--	--	--	--	--	--	**43**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**96**	< 0.5 U
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**160**	--
	08/08/2016	N/A	N/A	< 1 U	--	< 1 U	< 5 U	< 5 U	< 5 U	**83**	< 5 U	< 1 U	< 5 U	--	< 5 U	< 1 U	< 5 U	< 5 U	< 5 U	**130**	**0.5 J**
	11/29/2017	12.62	50.21	--	--	< 1 U	--	--	--	**54**	--	--	--	--	--	--	--	--	--	**69**	< 1 U
	08/27/2018	15.01	47.82	--	--	< 1 U	--	--	--	**86**	--	--	--	--	--	--	--	--	--	**110**	< 1 U
	12/05/2018	N/A	N/A	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	**75.4**	< 1 U	< 2 U	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**29.4**	< 1 U
MW-10	03/18/2014	N/A	N/A	--	--	--	--	--	--	**0.9**	--	**5**	--	--	--	**1**	--	--	--	< 0.8 U	< 0.8 U
	05/27/2014	N/A	N/A	--	--	--	--	--	--	**12**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	**0.7**
	08/29/2014	N/A	N/A	--	--	--	--	--	--	**0.6 J**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	12/10/2014	N/A	N/A	--	--	--	--	--	--	**1 J**	--	**2**	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	03/12/2015	N/A	N/A	--	--	--	--	--	--	**9**	--	**0.6 J**	--	--	--	< 0.5 U	--	--	--	< 0.5 U	**0.7 J**
	02/26/2016	N/A	N/A	--	--	--	--	--	--	**1**	--	**2**	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/09/2016	N/A	N/A	< 1 U	--	< 1 U	< 5 U	< 5 U	< 5 U	**3**	< 5 U	< 1 U	< 5 U	--	< 5 U	< 1 U	< 5 U	< 5 U	< 5 U	< 1 U	**0.5 J**
	11/28/2017	11.06	48.17	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
	08/23/2018	13.48	45.75	--	--	< 1 U	--	--	--	< 1 U	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs																	
			Analyte	1,1,1,2-Tetrachloroethane	1,1,2-Trifluoroethane	1,1-Dichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Carbon Disulfide	cis-1,2-Dichloroethene (DCE)	Isopropylbenzene	m,p-Xylenes	n-Butylbenzene	n-Hexane	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level																	5	
			Groundwater MTCA Method B Cleanup Level	1.68		400		80	800	16	800		400	480	800	1,600		800			160
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
MW-11	08/28/2014	N/A	N/A	--	--	--	--	--	--	**15**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**1,200**	< 0.5 U
	12/10/2014	N/A	N/A	--	--	--	--	--	--	**15**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**1,200**	< 0.5 U
	03/12/2015	N/A	N/A	--	--	--	--	--	--	**17**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**1,200**	< 0.5 U
	02/25/2016	N/A	N/A	--	--	--	--	--	--	**13**	--	< 1 U	--	--	--	< 1 U	--	--	--	**850**	< 1 U
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1,100**	--
	08/08/2016	N/A	N/A	< 2 U	--	< 2 U	< 10 U	< 10 U	< 10 U	**14**	< 10 U	< 2 U	< 10 U	--	< 10 U	< 2 U	< 10 U	< 10 U	< 10 U	**900**	< 2 U
	11/29/2017	9.94	58.23	--	--	**1.4**	--	--	--	**18**	--	--	--	--	--	--	--	--	--	**1,100**	< 1 U
	08/22/2018	11.58	56.59	--	--	**1.5**	--	--	--	**16**	--	--	--	--	--	--	--	--	--	**1,200**	< 1 U
	12/04/2018	N/A	N/A	< 1 U	--	**1.7**	< 1 U	< 1 U	< 1 U	**19.7**	< 1 U	< 2 U	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**1,400**	< 1 U
MW-12	11/28/2017	N/A	N/A	--	--	< 1 U	--	--	--	**3.9**	--	--	--	--	--	--	--	--	--	**1.7**	< 1 U
	08/22/2018	12.41	49.1	--	--	< 1 U	--	--	--	**5.1**	--	--	--	--	--	--	--	--	--	< 1 U	< 1 U
MW-13	08/28/2014	N/A	N/A	--	--	--	--	--	--	**57**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 0.5 U	< 0.5 U
	12/10/2014	N/A	N/A	--	--	--	--	--	--	**39**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**1**	< 0.5 U
	03/12/2015	N/A	N/A	--	--	--	--	--	--	**35**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	< 5 U	< 0.5 U
	02/25/2016	N/A	N/A	--	--	--	--	--	--	**50**	--	< 0.5 U	--	--	--	< 0.5 U	--	--	--	**19**	< 0.5 U
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2**	--
	08/08/2016	N/A	N/A	< 1 U	--	< 1 U	< 5 U	< 5 U	< 5 U	**44**	< 5 U	< 1 U	< 5 U	--	< 5 U	< 1 U	< 5 U	< 5 U	< 5 U	**0.9 J**	< 1 U
	11/29/2017	9.2	56.34	--	--	< 1 U	--	--	--	**48**	--	--	--	--	--	--	--	--	--	**13**	< 1 U
	08/27/2018	10.83	54.71	--	--	< 1 U	--	--	--	**65**	--	--	--	--	--	--	--	--	--	**7.1**	< 1 U
	12/04/2018	N/A	N/A	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	**36.4**	< 1 U	< 2 U	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**1.7**	< 1 U
PBS-SB-01	06/25/2009	N/A	N/A	--	--	--	--	--	--	**350**	--	--	--	--	--	--	--	--	--	**2,200**	**21**
PBS-SB-03	06/25/2009	N/A	N/A	--	--	--	--	--	--	**32**	--	--	--	--	--	--	--	--	--	**330**	< 1 U

Notes:
Bold - Analyte detected
Blue shading - Analyte exceeds Model Toxicx Control Act (MTCA) Method A or B Cleanup Levels.
U - Analyte not detected above laboratory reporting limit.
J - Analyte estimated
BTOC - below top of casing
NAVD88 - North American Vertical Datum of 1988
VOCs - volatile organic compounds
ug/L - micrograms per liter
-- = Not analyzed
"--" - Not analyzed

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs		Nondetected VOCs													
			Analyte	Trichloroethene (TCE)	Vinyl Chloride	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	**5**	**0.2**	200									0.01		5			
			Groundwater MTCA Method B Cleanup Level				0.219	0.768	7.68			0.00146	1.51	0.0547		720		1.22		
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																	
AB-21	08/10/2017	N/A	N/A	< 1 U	**1.1**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AB-22	08/10/2017	N/A	N/A	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AB-23	11/21/2017	N/A	N/A	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AB-25	08/08/2017	N/A	N/A	< 1 U	**0.27**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AB-33	08/01/2018	N/A	N/A	**26**	**6.1**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-01	03/24/2017	8.08	69.47	**1.8**	< 0.2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	11/27/2017	9.14	68.41	**1.4**	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-02	11/27/2017	6.71	65.77	**58**	**0.21**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/24/2018	8.39	64.09	**68**	< 10 U	< 50 U	--	--	< 50 U	--	--	--	--	--	--	--	< 50 U	--	--	--
AMW-03	11/27/2017	7.74	70.64	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/22/2018	9.01	69.37	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-04	11/29/2017	10.46	53.75	**18**	**8**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/27/2018	13.84	50.37	**36**	**6.5**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	12/04/2018	N/A	N/A	**40.2**	**11.1**	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 4 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 4 U	< 1 U	< 1 U
AMW-05	11/29/2017	10.76	53.07	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/22/2018	12.94	50.89	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	12/04/2018	N/A	N/A	< 0.4 U	**0.0414**	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 4 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 4 U	< 1 U	< 1 U
AMW-06	11/28/2017	9.16	65.8	**1.3**	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/22/2018	9.83	65.13	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-07	11/28/2017	11.38	63.98	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/20/2018	12.08	63.28	< 1.0 U	< 0.20 U	< 1.0 U	--	--	< 1.0 U	--	--	--	--	--	--	--	< 1.0 U	--	--	--
AMW-08	11/28/2017	12.87	50.82	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/20/2018	13.6	50.09	< 1.0 U	< 0.2 U	< 1.0 U	--	--	< 1.0 U	--	--	--	--	--	--	--	< 1.0 U	--	--	--
AMW-09	11/27/2017	8.62	47.88	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/21/2018	9.62	46.88	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-10	11/27/2017	7.13	59.95	**25**	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/24/2018	8.94	58.14	**52**	< 2 U	< 10 U	--	--	< 10 U	--	--	--	--	--	--	--	< 10 U	--	--	--
AMW-11	11/28/2017	10.92	44.25	< 1 U	**0.22**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/23/2018	11.24	43.93	< 1 U	**0.24**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-12	11/29/2017	11.14	49.19	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/21/2018	12.74	47.59	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-13	11/29/2017	12.73	49.97	**59**	**15**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/27/2018	15.16	47.54	**41**	**7.6**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-14	11/28/2017	11.7	45.15	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/23/2018	13.19	43.66	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs		Nondetected VOCs														
			Analyte	Trichloroethene (TCE)	Vinyl Chloride	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	5	0.2	200									0.01		5			
			Groundwater MTCA Method B Cleanup Level				0.219	0.768	7.68			0.00146	1.51	0.0547		720		1.22		
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																	
AMW-15	11/28/2017	9.51	46.27	< 1 U	**4.1**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/23/2018	10.02	45.76	**4.6**	**2.8**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-16	08/23/2018	11.81	46.3	< 1 U	**1.9**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-17	08/23/2018	12.38	46.41	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-18	08/23/2018	10.48	43.59	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-19	08/24/2018	9.24	55.77	**3.6**	**1.1**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-20	08/22/2018	12.64	47.26	< 1 U	**0.32**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-21	07/31/2019	3.31	N/A	**100**		< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-22	04/01/2019	1.60	N/A	< 1 U	**5.3**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-23	07/31/2019	8.67	N/A	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
AMW-24	04/01/2019	14.56	N/A	**24**	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
ATC-B-01	01/08/2016	N/A	N/A	**1.45**	< 0.200 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 4.00 U	< 1.00 U	< 2.00 U	< 1.00 U	< 0.0600 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
ATC-B-02	01/08/2016	N/A	N/A	< 0.500 U	< 0.200 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 4.00 U	< 1.00 U	< 2.00 U	< 1.00 U	< 0.0600 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
ATC-B-03	01/08/2016	N/A	N/A	< 0.500 U	< 0.200 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 4.00 U	< 1.00 U	< 2.00 U	< 1.00 U	< 0.0600 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
ATC-B-05	01/08/2016	N/A	N/A	< 0.500 U	< 0.200 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 4.00 U	< 1.00 U	< 2.00 U	< 1.00 U	< 0.0600 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
ATC-B-06	01/08/2016	N/A	N/A	< 0.500 U	< 0.200 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 4.00 U	< 1.00 U	< 2.00 U	< 1.00 U	< 0.0600 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
B-01	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.5 U	--	--	--
B-02	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--	--	--
B-03	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.5 U	--	--	--
B-04	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.5 U	--	--	--
B-05	04/19/2011	N/A	N/A	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-06	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--	--	--
B-07	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.5 U	--	--	--
ERM-B-1	11/13/2008	N/A	N/A	< 0.2 U	< 0.2 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-2	11/13/2008	N/A	N/A	**4.7**	< 0.2 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-3	11/13/2008	N/A	N/A	**27.4**	**1.35**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-4	11/13/2008	N/A	N/A	< 0.2 U	< 0.2 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-01	09/30/2016	9.86	57.37	**33**	**12**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 10 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
	11/27/2017	8.02	59.21	**37**	**7.7**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/27/2018	9.84	57.39	**28**	**12**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
HC-MW-02	09/29/2016	9.33	65.49	**76**	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 20 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U
	11/27/2017	8.14	66.68	**69**	**0.75**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/27/2018	9.14	65.68	**66**	**0.82**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
HC-MW-03	09/30/2016	7.61	70.58	**3.4**	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
	11/27/2017	6.33	71.86	**1.2**	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/24/2018	7.68	70.51	**2.5**	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs		Nondetected VOCs													
			Analyte	Trichloroethene (TCE)	Vinyl Chloride	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	**5**	**0.2**	200									0.01		5			
			Groundwater MTCA Method B Cleanup Level				0.219	0.768	7.68			0.00146	1.51	0.0547		720		1.22		
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																	
HC-MW-04	10/03/2016	11.73	76.01	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
	11/27/2017	9.5	78.24	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/24/2018	12.21	75.53	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
HC-MW-05	09/30/2016	7.6	64.94	**34**	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 100 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
	11/27/2017	5.54	67	**16**	**0.38**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/24/2018	7.59	64.95	< 50 U	< 10 U	< 50 U	--	--	< 50 U	--	--	--	--	--	--	--	< 50 U	--	--	--
HC-MW-06	10/03/2016	8.32	54.6	**4.8**	**7**	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
	11/28/2017	6.52	56.4	< 1 U	**0.85**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/22/2018	8.35	54.57	< 1 U	**3.5**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
HC-MW-07	10/03/2016	7.39	56.2	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
	11/27/2017	6.11	57.48	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/22/2018	7.56	56.03	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
KEE-B-02	05/24/2010	N/A	N/A	**22**	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 100 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
KEE-B-03	05/24/2010	N/A	N/A	**57**	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 100 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
K-SB-01	01/25/2006	N/A	N/A	< 1 U	< 0.2 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
K-SB-03	01/25/2006	N/A	N/A	< 1 U	< 0.2 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-01	10/15/2008	N/A	N/A	**0.42**	**16.4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	11.79	50.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	8.69	53.91	**6**	**1**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	9.98	52.62	**4**	**2**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	11.87	50.73	**6**	**0.9 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/2014	10.97	51.63	**5**	**1 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	10.31	52.29	**5**	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	9.56	53.04	**4**	**0.8 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	11.27	51.33	**3**	**1**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.53	50.07	**2**	**2**	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 0.029 U	< 5 U	< 1 U	< 1 U	< 5 U	< 1 U
	11/29/2017	9.92	52.68	**4.1**	**2**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/24/2018	12.93	49.67	**1.6**	**5.3**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	12/05/2018	N/A	N/A	**4.2**	**8.26**	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 4 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 4 U	< 1 U	< 1 U

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs		Nondetected VOCs													
			Analyte	Trichloroethene (TCE)	Vinyl Chloride	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	**5**	**0.2**	200									0.01		5			
			Groundwater MTCA Method B Cleanup Level				0.219	0.768	7.68			0.00146	1.51	0.0547		720		1.22		
Location	**Date**	**Depth to Water (feet BTOC)**	**Groundwater Elevation (feet NAVD88)**																	
MW-02	10/15/2008	N/A	N/A	< 0.2 U	< 0.2 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	12.35	48.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/18/2014	10.31	50.47	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	10.25	50.53	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	12.11	48.67	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/2014	11.05	49.73	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	10.31	50.47	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	9.19	51.59	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	10.68	50.1	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.12	48.66	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 0.029 U	< 5 U	< 1 U	< 1 U	< 5 U	< 1 U
	11/28/2017	10.19	50.59	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/21/2018	12.45	48.33	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
MW-03	10/15/2008	N/A	N/A	< 0.2 U	< 0.2 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	11.59	50.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	9.2	52.67	< 1 U	**1**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	10.58	51.29	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/29/2014	11.81	50.06	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/2014	9.91	51.96	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	10.64	51.23	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	9.33	52.54	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	11.23	50.64	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.37	49.5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 0.029 U	< 5 U	< 1 U	< 1 U	< 5 U	< 1 U
	11/28/2017	10.04	51.83	< 1 U	**0.26**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/22/2018	12.44	49.43	< 1 U	**0.84**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
MW-04	10/15/2008	N/A	N/A	< 0.2 U	**0.43**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	11.98	51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/18/2014	9.29	53.69	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	10.89	52.09	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	12.27	50.71	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	11.17	51.81	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	10.8	52.18	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	9.23	53.75	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	10.83	52.15	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	12.42	50.56	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 0.029 U	< 5 U	< 1 U	< 1 U	< 5 U	< 1 U
	11/29/2017	10.3	52.68	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/22/2018	12.86	50.12	< 1 U	**0.34**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs		Nondetected VOCs													
			Analyte	Trichloroethene (TCE)	Vinyl Chloride	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	**5**	**0.2**	200									0.01		5			
			Groundwater MTCA Method B Cleanup Level				0.219	0.768	7.68			0.00146	1.51	0.0547		720		1.22		
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																	
MW-05	10/15/2008	N/A	N/A	< 0.2 U	< 0.2 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	N/A	N/A	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	N/A	N/A	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/2014	N/A	N/A	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	N/A	N/A	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 0.029 U	< 5 U	< 1 U	< 1 U	< 5 U	< 1 U
	11/28/2017	N/A	N/A	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/22/2018	12.51	49.35	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
MW-06	03/18/2014	N/A	N/A	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/29/2014	N/A	N/A	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	N/A	N/A	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 0.029 U	< 5 U	< 1 U	< 1 U	< 5 U	< 1 U
	11/28/2017	11.72	46.56	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/22/2018	12.4	45.88	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
MW-07	03/18/2014	N/A	N/A	**2**	**3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	**3**	**3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/29/2014	N/A	N/A	< 0.5 U	**2**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	**2**	**3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	N/A	N/A	**5**	**3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	**2**	**3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	**4**	**3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	**5**	**3**	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 0.029 U	< 5 U	< 1 U	< 1 U	< 5 U	< 1 U
	11/28/2017	10.68	46.45	**1.2**	**2.5**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/22/2018	11.27	45.86	**2.2**	**2.1**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs		Nondetected VOCs													
			Analyte	Trichloroethene (TCE)	Vinyl Chloride	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	**5**	**0.2**	200									0.01		5			
			Groundwater MTCA Method B Cleanup Level				0.219	0.768	7.68			0.00146	1.51	0.0547		720		1.22		
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																	
MW-08	03/19/2014	N/A	N/A	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	**0.7**	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	N/A	N/A	< 0.5 U	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	**1 J**	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	**0.6 J**	< 0.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	< 1 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 0.029 U	< 5 U	< 1 U	< 1 U	< 5 U	< 1 U
	11/29/2017	9.8	52.02	< 1 U	**0.21**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/22/2018	12.74	49.08	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	12/05/2018	N/A	N/A	< 0.8 U	**0.307**	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 8 U	< 2 U	< 8 U	< 2 U	< 2 U	< 2 U	< 8 U	< 2 U	< 2 U
MW-09	03/18/2014	N/A	N/A	**100**	**13**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	N/A	N/A	**120**	**14**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	N/A	N/A	**41**	**8**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	**87**	**13**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	**120**	**16**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	N/A	N/A	**38**	**5**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	N/A	N/A	**110**	**11**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	**49**	**8**	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 0.029 U	< 5 U	< 1 U	< 1 U	< 5 U	< 1 U
	11/29/2017	12.62	50.21	**45**	**11**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/27/2018	15.01	47.82	**43**	**7.3**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	12/05/2018	N/A	N/A	**25.6**	**6.59**	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 4 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 4 U	< 1 U	< 1 U
MW-10	03/18/2014	N/A	N/A	< 1 U	**12**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	N/A	N/A	**0.6**	**56**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/29/2014	N/A	N/A	< 0.5 U	**17**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	< 0.5 U	**10**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	< 0.5 U	**38**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	< 0.5 U	**10**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	< 1 U	**24**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	< 1 U	**20**	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 0.029 U	< 5 U	< 1 U	< 1 U	< 5 U	< 1 U
	11/28/2017	11.06	48.17	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/23/2018	13.48	45.75	< 1 U	**0.34**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Detected VOCs		Nondetected VOCs														
			Analyte	Trichloroethene (TCE)	Vinyl Chloride	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level	5	0.2	200									0.01		5			
			Groundwater MTCA Method B Cleanup Level				0.219	0.768	7.68			0.00146	1.51	0.0547		720		1.22		
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																	
MW-11	08/28/2014	N/A	N/A	**38**	**0.6 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	**37**	**0.6 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	**41**	**0.7 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	N/A	N/A	**30**	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	N/A	N/A	**45**	**0.6 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	**34**	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 0.580 U	< 10 U	< 2 U	< 2 U	< 10 U	< 2 U
	11/29/2017	9.94	58.23	**31**	**0.62**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/22/2018	11.58	56.59	**38**	**0.43**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	12/04/2018	N/A	N/A	**45.8**	**0.401**	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 4 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 4 U	< 1 U	< 1 U
MW-12	11/28/2017	N/A	N/A	**1.1**	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/22/2018	12.41	49.1	< 1 U	< 0.2 U	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
MW-13	08/28/2014	N/A	N/A	< 0.5 U	**27**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	< 0.5 U	**26**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	< 0.5 U	**26**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	N/A	N/A	**5**	**18**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	N/A	N/A	< 1 U	**31**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	< 1 U	**37**	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 0.029 U	< 5 U	< 1 U	< 1 U	< 5 U	< 1 U
	11/29/2017	9.2	56.34	**5.7**	**19**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	08/27/2018	10.83	54.71	**3.5**	**30**	< 1 U	--	--	< 1 U	--	--	--	--	--	--	--	< 1 U	--	--	--
	12/04/2018	N/A	N/A	< 0.4 U	**29.6**	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 4 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 4 U	< 1 U	< 1 U
PBS-SB-01	06/25/2009	N/A	N/A	**250**	**6.3**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PBS-SB-03	06/25/2009	N/A	N/A	**28**	< 0.2 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
Bold - Analyte detected
Blue shading - Analyte exceeds Model Toxicx Control Act (MTCA) Method A or B Cleanup Levels.
U - Analyte not detected above laboratory reporting limit.
J - Analyte estimated
BTOC - below top of casing
NAVD88 - North American Vertical Datum of 1988
VOCs - volatile organic compounds
ug/L - micrograms per liter
-- = Not analyzed
"--" - Not analyzed

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs																	
			Analyte	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chloroethyl Vinyl Ether	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level																		
			Groundwater MTCA Method B Cleanup Level	8.1		4,800		160			640	7,200			0.706	5.54	11	0.625	160		1.41
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
AB-21	08/10/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AB-22	08/10/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AB-23	11/21/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AB-25	08/08/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AB-33	08/01/2018	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-01	03/24/2017	8.08	69.47	< 1 U	< 1 U	< 10 U	--	< 1 U	< 10 U	< 1 U	< 10 U	< 10 U	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	11/27/2017	9.14	68.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-02	11/27/2017	6.71	65.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/24/2018	8.39	64.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 50 U	--
AMW-03	11/27/2017	7.74	70.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/22/2018	9.01	69.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-04	11/29/2017	10.46	53.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/27/2018	13.84	50.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	12/04/2018	N/A	N/A	< 1 U	< 4 U	< 5 U	--	< 1 U	< 5 U	< 1 U	< 5 U	< 20 U	< 1 U	< 1 U	< 1 U	< 4 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U
AMW-05	11/29/2017	10.76	53.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/22/2018	12.94	50.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	12/04/2018	N/A	N/A	< 1 U	< 4 U	< 5 U	--	< 1 U	< 5 U	< 1 U	< 5 U	< 20 U	< 1 U	< 1 U	< 1 U	< 4 U	< 4 U	< 1 U	< 1 U	< 4 U	< 1 U
AMW-06	11/28/2017	9.16	65.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/22/2018	9.83	65.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-07	11/28/2017	11.38	63.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/20/2018	12.08	63.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.0 U	--
AMW-08	11/28/2017	12.87	50.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/20/2018	13.6	50.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.0 U	--
AMW-09	11/27/2017	8.62	47.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/21/2018	9.62	46.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-10	11/27/2017	7.13	59.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/24/2018	8.94	58.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 10 U	--
AMW-11	11/28/2017	10.92	44.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/23/2018	11.24	43.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-12	11/29/2017	11.14	49.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/21/2018	12.74	47.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-13	11/29/2017	12.73	49.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/27/2018	15.16	47.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-14	11/28/2017	11.7	45.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/23/2018	13.19	43.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs																
			Analyte	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chloroethyl Vinyl Ether	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level																		
			Groundwater MTCA Method B Cleanup Level	8.1		4,800		160			640	7,200			0.706	5.54	11	0.625	160		1.41
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
AMW-15	11/28/2017	9.51	46.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/23/2018	10.02	45.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-16	08/23/2018	11.81	46.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-17	08/23/2018	12.38	46.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-18	08/23/2018	10.48	43.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-19	08/24/2018	9.24	55.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-20	08/22/2018	12.64	47.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-21	07/31/2019	3.31	N/A	-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-22	04/01/2019	1.60	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-23	07/31/2019	8.67	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
AMW-24	04/01/2019	14.56	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
ATC-B-01	01/08/2016	N/A	N/A	< 1.00 U	< 2.00 U	--	--	< 1.00 U	--	< 1.00 U	--	--	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
ATC-B-02	01/08/2016	N/A	N/A	< 1.00 U	< 2.00 U	--	--	< 1.00 U	--	< 1.00 U	--	--	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
ATC-B-03	01/08/2016	N/A	N/A	< 1.00 U	< 2.00 U	--	--	< 1.00 U	--	< 1.00 U	--	--	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
ATC-B-05	01/08/2016	N/A	N/A	< 1.00 U	< 2.00 U	--	--	< 1.00 U	--	< 1.00 U	--	--	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
ATC-B-06	01/08/2016	N/A	N/A	< 1.00 U	< 2.00 U	--	--	< 1.00 U	--	< 1.00 U	--	--	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
B-01	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-02	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-03	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-04	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-05	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-06	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-07	04/19/2011	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-1	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-2	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-3	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-4	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-01	09/30/2016	9.86	57.37	< 2.0 U	< 2.0 U	< 220 U	< 110 U	< 2.0 U	< 35 U	< 2.0 U	< 20 U	< 82 U	< 2.0 U	< 2.0 U	< 2.0 U	< 10 U	< 2.0 U	< 2.0 U	< 2.0 U	< 10 U	< 2.0 U
	11/27/2017	8.02	59.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/27/2018	9.84	57.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
HC-MW-02	09/29/2016	9.33	65.49	< 4.0 U	< 4.0 U	< 300 U	< 20 U	< 4.0 U	< 40 U	< 4.0 U	< 40 U	< 100 U	< 5.2 U	< 4.0 U	< 4.0 U	< 20 U	< 4.0 U	< 4.0 U	< 4.0 U	< 20 U	< 4.0 U
	11/27/2017	8.14	66.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/27/2018	9.14	65.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
HC-MW-03	09/30/2016	7.61	70.58	< 0.20 U	< 0.20 U	< 15 U	< 1.0 U	< 0.20 U	< 2.0 U	< 0.20 U	< 2.0 U	< 5.0 U	< 0.26 U	< 0.20 U	< 0.20 U	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U	< 0.20 U
	11/27/2017	6.33	71.86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/24/2018	7.68	70.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs																
			Analyte	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chloroethyl Vinyl Ether	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level																		
			Groundwater MTCA Method B Cleanup Level	8.1		4,800		160			640	7,200			0.706	5.54	11	0.625	160		1.41
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
HC-MW-04	10/03/2016	11.73	76.01	< 0.20 U	< 0.20 U	< 5.0 U	< 1.0 U	< 0.20 U	< 2.0 U	< 0.20 U	< 2.0 U	< 5.0 U	< 0.26 U	< 0.20 U	< 0.20 U	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U	< 0.20 U
	11/27/2017	9.5	78.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/24/2018	12.21	75.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
HC-MW-05	09/30/2016	7.6	64.94	< 20 U	< 20 U	< 1500 U	< 100 U	< 20 U	< 200 U	< 20 U	< 200 U	< 500 U	< 26 U	< 20 U	< 20 U	< 100 U	< 20 U	< 20 U	< 20 U	< 100 U	< 20 U
	11/27/2017	5.54	67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/24/2018	7.59	64.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 50 U	--
HC-MW-06	10/03/2016	8.32	54.6	< 0.20 U	< 0.20 U	< 5.0 U	< 1.0 U	< 0.20 U	< 2.0 U	< 0.20 U	< 2.0 U	< 5.0 U	< 0.26 U	< 0.20 U	< 0.20 U	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U	< 0.20 U
	11/28/2017	6.52	56.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/22/2018	8.35	54.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
HC-MW-07	10/03/2016	7.39	56.2	< 0.20 U	< 0.20 U	< 5.0 U	< 1.0 U	< 0.20 U	< 2.0 U	< 0.20 U	< 2.0 U	< 5.0 U	< 0.26 U	< 0.20 U	< 0.20 U	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U	< 0.20 U
	11/27/2017	6.11	57.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/22/2018	7.56	56.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
KEE-B-02	05/24/2010	N/A	N/A	< 20 U	< 20 U	--	< 100 U	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	< 20 U	< 100 U	< 20 U	< 20 U	< 20 U	< 100 U	< 20 U
KEE-B-03	05/24/2010	N/A	N/A	< 20 U	< 20 U	--	< 100 U	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	< 20 U	< 100 U	< 20 U	< 20 U	< 20 U	< 100 U	< 20 U
K-SB-01	01/25/2006	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
K-SB-03	01/25/2006	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-01	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	11.79	50.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	8.69	53.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	9.98	52.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	11.87	50.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/2014	10.97	51.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	10.31	52.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	9.56	53.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	11.27	51.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.53	50.07	< 5 U	< 1 U	< 10 U	--	< 5 U	< 10 U	< 5 U	< 10 U	< 20 U	< 5 U	< 5 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	11/29/2017	9.92	52.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/24/2018	12.93	49.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	12/05/2018	N/A	N/A	< 1 U	< 4 U	< 5 U	--	< 1 U	< 5 U	< 1 U	< 5 U	< 20 U	< 1 U	< 1 U	< 1 U	< 4 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs																
			Analyte	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chloroethyl Vinyl Ether	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level																		
			Groundwater MTCA Method B Cleanup Level	8.1		4,800		160			640	7,200			0.706	5.54	11	0.625	160		1.41
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
MW-02	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	12.35	48.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/18/2014	10.31	50.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	10.25	50.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	12.11	48.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/2014	11.05	49.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	10.31	50.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	9.19	51.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	10.68	50.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.12	48.66	< 5 U	< 1 U	< 10 U	--	< 5 U	< 10 U	< 5 U	< 10 U	< 20 U	< 5 U	< 5 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	11/28/2017	10.19	50.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/21/2018	12.45	48.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
MW-03	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	11.59	50.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	9.2	52.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	10.58	51.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/29/2014	11.81	50.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/2014	9.91	51.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	10.64	51.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	9.33	52.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	11.23	50.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.37	49.5	< 5 U	< 1 U	< 10 U	--	< 5 U	< 10 U	< 5 U	< 10 U	< 20 U	< 5 U	< 5 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	11/28/2017	10.04	51.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/22/2018	12.44	49.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
MW-04	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	11.98	51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/18/2014	9.29	53.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	10.89	52.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	12.27	50.71	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	11.17	51.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	10.8	52.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	9.23	53.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	10.83	52.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	12.42	50.56	< 5 U	< 1 U	< 10 U	--	< 5 U	< 10 U	< 5 U	< 10 U	< 20 U	< 5 U	< 5 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	11/29/2017	10.3	52.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/22/2018	12.86	50.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs																
			Analyte	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chloroethyl Vinyl Ether	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level																		
			Groundwater MTCA Method B Cleanup Level	8.1		4,800		160			640	7,200			0.706	5.54	11	0.625	160		1.41
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
MW-05	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	< 5 U	< 1 U	< 10 U	--	< 5 U	< 10 U	< 5 U	< 10 U	< 20 U	< 5 U	< 5 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	11/28/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/22/2018	12.51	49.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
MW-06	03/18/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/29/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	< 5 U	< 1 U	< 10 U	--	< 5 U	< 10 U	< 5 U	< 10 U	< 20 U	< 5 U	< 5 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	11/28/2017	11.72	46.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/22/2018	12.4	45.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
MW-07	03/18/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/29/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	< 5 U	< 1 U	< 10 U	--	< 5 U	< 10 U	< 5 U	< 10 U	< 20 U	< 5 U	< 5 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	11/28/2017	10.68	46.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/22/2018	11.27	45.86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs																	
			Analyte	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chloroethyl Vinyl Ether	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level																		
			Groundwater MTCA Method B Cleanup Level	8.1		4,800		160			640	7,200			0.706	5.54	11	0.625	160		1.41
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
MW-08	03/19/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	< 5 U	< 1 U	< 10 U	--	< 5 U	< 10 U	< 5 U	< 10 U	< 20 U	< 5 U	< 5 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	11/29/2017	9.8	52.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/22/2018	12.74	49.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	12/05/2018	N/A	N/A	< 2 U	< 8 U	< 10 U	--	< 2 U	< 10 U	< 2 U	< 10 U	< 40 U	< 2 U	< 2 U	< 2 U	< 8 U	< 8 U	< 2 U	< 2 U	< 2 U	< 2 U
MW-09	03/18/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	< 5 U	< 1 U	< 10 U	--	< 5 U	< 10 U	< 5 U	< 10 U	< 20 U	< 5 U	< 5 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	11/29/2017	12.62	50.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/27/2018	15.01	47.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	12/05/2018	N/A	N/A	< 1 U	< 4 U	< 5 U	--	< 1 U	< 5 U	< 1 U	< 5 U	< 20 U	< 1 U	< 1 U	< 1 U	< 4 U	< 4 U	< 1 U	< 1 U	< 4 U	< 1 U
MW-10	03/18/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/29/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	< 5 U	< 1 U	< 10 U	--	< 5 U	< 10 U	< 5 U	< 10 U	< 20 U	< 5 U	< 5 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	11/28/2017	11.06	48.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/23/2018	13.48	45.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs																	
			Analyte	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chloroethyl Vinyl Ether	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level																		
			Groundwater MTCA Method B Cleanup Level	8.1		4,800		160			640	7,200			0.706	5.54	11	0.625	160		1.41
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)																		
MW-11	08/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	< 10 U	< 2 U	< 20 U	--	< 10 U	< 20 U	< 10 U	< 20 U	< 40 U	< 10 U	< 10 U	< 2 U	< 8 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
	11/29/2017	9.94	58.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/22/2018	11.58	56.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	12/04/2018	N/A	N/A	< 1 U	< 4 U	< 5 U	--	< 1 U	< 5 U	< 1 U	< 5 U	< 20 U	< 1 U	< 1 U	< 1 U	< 4 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U
MW-12	11/28/2017	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/22/2018	12.41	49.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
MW-13	08/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	< 5 U	< 1 U	< 10 U	--	< 5 U	< 10 U	< 5 U	< 10 U	< 20 U	< 5 U	< 5 U	< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	11/29/2017	9.2	56.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	08/27/2018	10.83	54.71	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1 U	--
	12/04/2018	N/A	N/A	< 1 U	< 4 U	< 5 U	--	< 1 U	< 5 U	< 1 U	< 5 U	< 20 U	< 1 U	< 1 U	< 1 U	< 4 U	< 4 U	< 1 U	< 1 U	< 1 U	< 1 U
PBS-SB-01	06/25/2009	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PBS-SB-03	06/25/2009	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeds Model Toxicx Control Act (MTCA) Method A or B Cleanup Levels.

U - Analyte not detected above laboratory reporting limit.

J - Analyte estimated

BTOC - below top of casing

NAVD88 - North American Vertical Datum of 1988

VOCs - volatile organic compounds

ug/L - micrograms per liter

-- = Not analyzed

"--" - Not analyzed

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs													
			Analyte	Chloromethane	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Methyl tert-butyl ether (MTBE)	Methylene Chloride	Methyliodide	Styrene	trans-1,3-Dichloropropene	Trichlorofluoromethane	Vinyl Acetate
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							20	5					
			Groundwater MTCA Method B Cleanup Level			0.521	80	1,600	0.561				1,600		2,400	8,000
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)													
AB-21	08/10/2017	N/A	N/A	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AB-22	08/10/2017	N/A	N/A	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AB-23	11/21/2017	N/A	N/A	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AB-25	08/08/2017	N/A	N/A	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AB-33	08/01/2018	N/A	N/A	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-01	03/24/2017	8.08	69.47	< 10 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	--	< 1 U	< 1 U	< 1 U	--
	11/27/2017	9.14	68.41	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-02	11/27/2017	6.71	65.77	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/24/2018	8.39	64.09	--	--	--	--	--	--	--	< 250 U	--	--	--	--	--
AMW-03	11/27/2017	7.74	70.64	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/22/2018	9.01	69.37	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-04	11/29/2017	10.46	53.75	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/27/2018	13.84	50.37	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	12/04/2018	N/A	N/A	< 4 U	< 4 U	< 1 U	< 4 U	< 1 U	< 1 U	--	< 4 U	--	< 1 U	< 4 U	< 1 U	--
AMW-05	11/29/2017	10.76	53.07	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/22/2018	12.94	50.89	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	12/04/2018	N/A	N/A	< 4 U	< 4 U	< 1 U	< 4 U	< 1 U	< 1 U	--	< 4 U	--	< 1 U	< 4 U	< 1 U	--
AMW-06	11/28/2017	9.16	65.8	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/22/2018	9.83	65.13	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-07	11/28/2017	11.38	63.98	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/20/2018	12.08	63.28	--	--	--	--	--	--	--	< 5.0 U	--	--	--	--	--
AMW-08	11/28/2017	12.87	50.82	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/20/2018	13.6	50.09	--	--	--	--	--	--	--	< 5.0 U	--	--	--	--	--
AMW-09	11/27/2017	8.62	47.88	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/21/2018	9.62	46.88	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-10	11/27/2017	7.13	59.95	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/24/2018	8.94	58.14	--	--	--	--	--	--	--	< 50 U	--	--	--	--	--
AMW-11	11/28/2017	10.92	44.25	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/23/2018	11.24	43.93	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-12	11/29/2017	11.14	49.19	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/21/2018	12.74	47.59	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-13	11/29/2017	12.73	49.97	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/27/2018	15.16	47.54	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-14	11/28/2017	11.7	45.15	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/23/2018	13.19	43.66	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs													
			Analyte	Chloromethane	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Methyl tert-butyl ether (MTBE)	Methylene Chloride	Methyliodide	Styrene	trans-1,3-Dichloropropene	Trichlorofluoromethane	Vinyl Acetate
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							20	5					
			Groundwater MTCA Method B Cleanup Level			0.521	80	1,600	0.561				1,600		2,400	8,000
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)													
AMW-15	11/28/2017	9.51	46.27	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/23/2018	10.02	45.76	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-16	08/23/2018	11.81	46.3	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-17	08/23/2018	12.38	46.41	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-18	08/23/2018	10.48	43.59	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-19	08/24/2018	9.24	55.77	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-20	08/22/2018	12.64	47.26	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-21	07/31/2019	3.31	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
AMW-22	04/01/2019	1.60	N/A	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-23	07/31/2019	8.67	N/A	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
AMW-24	04/01/2019	14.56	N/A	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
ATC-B-01	01/08/2016	N/A	N/A	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 4.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	--
ATC-B-02	01/08/2016	N/A	N/A	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 4.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	--
ATC-B-03	01/08/2016	N/A	N/A	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 4.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	--
ATC-B-05	01/08/2016	N/A	N/A	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 4.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	--
ATC-B-06	01/08/2016	N/A	N/A	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 4.00 U	< 1.00 U	< 1.00 U	--	< 1.00 U	< 1.00 U	< 1.00 U	--
B-01	04/19/2011	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--
B-02	04/19/2011	N/A	N/A	--	--	--	--	--	--	< 1 U	--	--	--	--	--	--
B-03	04/19/2011	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--
B-04	04/19/2011	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--
B-05	04/19/2011	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--
B-06	04/19/2011	N/A	N/A	--	--	--	--	--	--	< 1 U	--	--	--	--	--	--
B-07	04/19/2011	N/A	N/A	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--
ERM-B-1	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-2	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-3	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
ERM-B-4	11/13/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-01	09/30/2016	9.86	57.37	< 10 U	< 2.0 U	< 2.0 U	< 2.0 U	< 3.2 U	< 2.0 U	< 2.0 U	< 10 U	< 10 U	< 2.0 U	< 2.0 U	< 2.0 U	< 10 U
	11/27/2017	8.02	59.21	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/27/2018	9.84	57.39	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
HC-MW-02	09/29/2016	9.33	65.49	< 20 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 20 U	< 20 U	< 4.0 U	< 4.0 U	< 4.0 U	< 20 U
	11/27/2017	8.14	66.68	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/27/2018	9.14	65.68	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
HC-MW-03	09/30/2016	7.61	70.58	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U
	11/27/2017	6.33	71.86	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/24/2018	7.68	70.51	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs												
			Analyte	Chloromethane	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Methyl tert-butyl ether (MTBE)	Methylene Chloride	Methyliodide	Styrene	trans-1,3-Dichloropropene	Trichlorofluoromethane	Vinyl Acetate
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							20	5					
			Groundwater MTCA Method B Cleanup Level			0.521	80	1,600	0.561				1,600		2,400	8,000
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)													
HC-MW-04	10/03/2016	11.73	76.01	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U
	11/27/2017	9.5	78.24	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/24/2018	12.21	75.53	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
HC-MW-05	09/30/2016	7.6	64.94	< 100 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 100 U	< 100 U	< 20 U	< 20 U	< 20 U	< 100 U
	11/27/2017	5.54	67	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/24/2018	7.59	64.95	--	--	--	--	--	--	--	< 250 U	--	--	--	--	--
HC-MW-06	10/03/2016	8.32	54.6	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U
	11/28/2017	6.52	56.4	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/22/2018	8.35	54.57	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
HC-MW-07	10/03/2016	7.39	56.2	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U	< 1.0 U	< 0.20 U	< 0.20 U	< 0.20 U	< 1.0 U
	11/27/2017	6.11	57.48	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/22/2018	7.56	56.03	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
KEE-B-02	05/24/2010	N/A	N/A	< 100 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	--	< 100 U	< 100 U	--	< 20 U	< 20 U	--
KEE-B-03	05/24/2010	N/A	N/A	< 100 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	--	< 100 U	< 100 U	--	< 20 U	< 20 U	--
K-SB-01	01/25/2006	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
K-SB-03	01/25/2006	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-01	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	11.79	50.81	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	8.69	53.91	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	9.98	52.62	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	11.87	50.73	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/2014	10.97	51.63	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	10.31	52.29	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	9.56	53.04	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	11.27	51.33	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.53	50.07	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 1 U	< 4 U	--	< 5 U	< 1 U	< 1 U	--
	11/29/2017	9.92	52.68	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/24/2018	12.93	49.67	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	12/05/2018	N/A	N/A	< 4 U	< 4 U	< 1 U	< 4 U	< 1 U	< 1 U	--	< 4 U	--	< 1 U	< 4 U	< 1 U	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs													
			Analyte	Chloromethane	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Methyl tert-butyl ether (MTBE)	Methylene Chloride	Methyliodide	Styrene	trans-1,3-Dichloropropene	Trichlorofluoromethane	Vinyl Acetate
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							20	5					
			Groundwater MTCA Method B Cleanup Level			0.521	80	1,600	0.561				1,600		2,400	8,000
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)													
MW-02	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	12.35	48.43	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/18/2014	10.31	50.47	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	10.25	50.53	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	12.11	48.67	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/2014	11.05	49.73	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	10.31	50.47	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	9.19	51.59	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	10.68	50.1	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.12	48.66	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 1 U	< 4 U	--	< 5 U	< 1 U	< 1 U	--
	11/28/2017	10.19	50.59	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/21/2018	12.45	48.33	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
MW-03	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	11.59	50.28	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	9.2	52.67	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	10.58	51.29	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/29/2014	11.81	50.06	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/2014	9.91	51.96	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	10.64	51.23	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	9.33	52.54	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	11.23	50.64	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	12.37	49.5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 1 U	< 4 U	--	< 5 U	< 1 U	< 1 U	--
	11/28/2017	10.04	51.83	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/22/2018	12.44	49.43	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
MW-04	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	11.98	51	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/18/2014	9.29	53.69	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	10.89	52.09	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	12.27	50.71	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	11.17	51.81	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	10.8	52.18	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	9.23	53.75	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	10.83	52.15	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	12.42	50.56	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 1 U	< 4 U	--	< 5 U	< 1 U	< 1 U	--
	11/29/2017	10.3	52.68	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/22/2018	12.86	50.12	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs													
			Analyte	Chloromethane	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Methyl tert-butyl ether (MTBE)	Methylene Chloride	Methyliodide	Styrene	trans-1,3-Dichloropropene	Trichlorofluoromethane	Vinyl Acetate
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							20	5					
			Groundwater MTCA Method B Cleanup Level			0.521	80	1,600	0.561				1,600		2,400	8,000
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)													
MW-05	10/15/2008	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/12/2009	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/19/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 1 U	< 4 U	--	< 5 U	< 1 U	< 1 U	--
	11/28/2017	N/A	N/A	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/22/2018	12.51	49.35	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
MW-06	03/18/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/29/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 1 U	< 4 U	--	< 5 U	< 1 U	< 1 U	--
	11/28/2017	11.72	46.56	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/22/2018	12.4	45.88	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
MW-07	03/18/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/29/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/13/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 1 U	< 4 U	--	< 5 U	< 1 U	< 1 U	--
	11/28/2017	10.68	46.45	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/22/2018	11.27	45.86	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs												
			Analyte	Chloromethane	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Methyl tert-butyl ether (MTBE)	Methylene Chloride	Methyliodide	Styrene	trans-1,3-Dichloropropene	Trichlorofluoromethane	Vinyl Acetate
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							20	5					
			Groundwater MTCA Method B Cleanup Level			0.521	80	1,600	0.561				1,600		2,400	8,000
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)													
MW-08	03/19/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 1 U	< 4 U	--	< 5 U	< 1 U	< 1 U	--
	11/29/2017	9.8	52.02	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/22/2018	12.74	49.08	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	12/05/2018	N/A	N/A	< 8 U	< 8 U	< 2 U	< 8 U	< 2 U	< 2 U	--	< 8 U	--	< 2 U	< 8 U	< 2 U	--
MW-09	03/18/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 1 U	< 4 U	--	< 5 U	< 1 U	< 1 U	--
	11/29/2017	12.62	50.21	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/27/2018	15.01	47.82	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	12/05/2018	N/A	N/A	< 4 U	< 4 U	< 1 U	< 4 U	< 1 U	< 1 U	--	< 4 U	--	< 1 U	< 4 U	< 1 U	--
MW-10	03/18/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/27/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/29/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/26/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/09/2016	N/A	N/A	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 1 U	< 4 U	--	< 5 U	< 1 U	< 1 U	--
	11/28/2017	11.06	48.17	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/23/2018	13.48	45.75	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--

Table 7. Summary of Groundwater Results: VOCs

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Nondetected VOCs													
			Analyte	Chloromethane	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Methyl tert-butyl ether (MTBE)	Methylene Chloride	Methyliodide	Styrene	trans-1,3-Dichloropropene	Trichlorofluoromethane	Vinyl Acetate
			Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Groundwater MTCA Method A Cleanup Level							20	5					
			Groundwater MTCA Method B Cleanup Level			0.521	80	1,600	0.561				1,600		2,400	8,000
Location	Date	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)													
MW-11	08/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 10 U	< 2 U	< 8 U	--	< 10 U	< 2 U	< 2 U	--
	11/29/2017	9.94	58.23	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/22/2018	11.58	56.59	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	12/04/2018	N/A	N/A	< 4 U	< 4 U	< 1 U	< 4 U	< 1 U	< 1 U	--	< 4 U	--	< 1 U	< 4 U	< 1 U	--
MW-12	11/28/2017	N/A	N/A	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/22/2018	12.41	49.1	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
MW-13	08/28/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/10/2014	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/12/2015	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/25/2016	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/08/2016	N/A	N/A	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 5 U	< 1 U	< 4 U	--	< 5 U	< 1 U	< 1 U	--
	11/29/2017	9.2	56.34	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	08/27/2018	10.83	54.71	--	--	--	--	--	--	--	< 5 U	--	--	--	--	--
	12/04/2018	N/A	N/A	< 4 U	< 4 U	< 1 U	< 4 U	< 1 U	< 1 U	--	< 4 U	--	< 1 U	< 4 U	< 1 U	--
PBS-SB-01	06/25/2009	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--
PBS-SB-03	06/25/2009	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeds Model Toxicx Control Act (MTCA) Method A or B Cleanup Levels.

U - Analyte not detected above laboratory reporting limit.

J - Analyte estimated

BTOC - below top of casing

NAVD88 - North American Vertical Datum of 1988

VOCs - volatile organic compounds

ug/L - micrograms per liter

-- = Not analyzed

"--" - Not analyzed

Table 8. Mt. Baker Properties Well Construction Details

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Well Location on the Site	Monitoring Well ID	Consultant	Type of Monitoring Well	Installation Date	Bottom of Well (feet bgs)	Screened Interval (feet bgs)	Sand Pack Interval (feet bgs)	Ground Elevation (feet NAVD88)	TOC Elevation (feet NAVD88)
McClellan Parcels	AB-21	Aspect	Temporary	08/10/17	20	10-20	N/A	N/A	N/A
	AB-22			08/10/17	26	5-25	N/A	N/A	N/A
	AMW-01		Permanent	02/18/17	13.5	8.5-13.5	6.5-15	77.81	77.55
	AMW-02			08/10/17	17	7-17	5-19	72.81	72.48
	AMW-10			08/09/17	15	5-15	6-17	67.15	67.08
	AMW-21			11/12/18	15	5-15	4-17	78.06	77.70
	KEE-B-2	KEE	Temporary	05/24/10	16	6-16	3.0-16	N/A	N/A
	KEE-B-3			05/24/10	16	6-16	3.0-16	N/A	N/A
	PBS-SB-1	PBS	Temporary	06/29/09	16	13-16	N/A	N/A	N/A
	PBS-SB-3			06/29/09	14	11-14	N/A	N/A	N/A
MLK, McClellan and 29th ROWs	AMW-06	Aspect	Permanent	11/17/17	20	10-20	8-21.5	75.59	74.96
	AMW-07			11/16/17	25	15-25	13-26.5	75.73	75.36
	AMW-08			11/16/17	20	10-20	8-21	64.19	63.69
	AMW-09			11/15/17	18	8-18	6-21.5	57.05	56.50
	AMW-11			11/20/17	17	7-17	5-21.5	55.55	55.17
	AMW-14			11/21/17	18	8-18	6-18	57.14	56.85
	AMW-15			11/20/17	15	5-15	3-15	56.21	55.78
	AMW-16			07/30/18	25	8-18	6-19	58.48	58.11
	AMW-17			07/30/18	21	10-20	8-21	59.14	58.79
	AMW-18			08/01/18	21.5	7-17	5-18	54.53	54.07
	AMW-19			07/31/18	19	9-19	7-19	65.40	65.01
	HC-MW-1	Hart Crowser	Permanent	05/16/16	17	7-17	5.0-20	67.54	67.23
	HC-MW-2			05/16/16	17	7-17	5.0-20	75.07	74.82
	HC-MW-3			09/26/16	16	6-16	4.0-20	78.5	78.19
	HC-MW-4			09/28/16	20	10-20	8.0-20	87.94	87.74
	HC-MW-5			09/29/16	17	7-17	5.0-20	72.79	72.54
	HC-MW-6			09/29/16	19	9-19	7.0-20	63.22	62.92
	HC-MW-7			09/30/16	18	8-18	6.0-20	63.88	63.59
Former Phillips 66 Gas Station Property	AMW-04	Aspect	Permanent	11/13/17	19	9-19	8-20	64.65	64.21
	AMW-05			08/07/17	20	10-20	12-22	64.13	63.83
	AMW-12			08/07/17	20	10-20	8-22	60.77	60.33
	AMW-13			08/08/17	20	10-20	8-22	63.15	62.70
	AMW-20			07/30/18	23	10-20	8-23	60.34	59.90
	MW-1	G-logics	Permanent	08/09/05	23	13-23	11-23.5	63.04	62.6
	MW-2			08/09/05	23	13-23	11.0-23	61.36	60.78
	MW-3			08/09/05	20	10-20	6.75-20	62.18	61.87
	MW-4			06/22/06	20	15-20	13-20	63.18	62.98
	MW-5			06/22/06	20	10-20	5-20	61.98	61.86
	MW-6	Stantec		07/12/11	20	10-20	8-20	58.6	58.28
	MW-7			07/13/11	20	10-20	8-20	57.43	57.13
	MW-8			07/12/11	20	10-20	8-20	62.21	61.82
	MW-9			07/12/11	25	10-25	8-25	63.24	62.83
	MW-10			07/13/11	20	10-20	8-20	59.42	59.23
	MW-11	CRA		6/19/2014	20	10-20	9-20	68.67	68.17
	MW-12			6/19/2014	20	5-20	4-20	62.21	61.51
	MW-13			6/16/2014	20	10-20	9-20	66.09	65.54
	B-1	Stantec	Grab	04/19/11	N/A	N/A	N/A	N/A	N/A
	B-2			04/20/11	N/A	N/A	N/A	N/A	N/A
	B-3			04/21/11	N/A	N/A	N/A	N/A	N/A
	B-4			04/22/11	N/A	N/A	N/A	N/A	N/A
	B-5			04/23/11	N/A	N/A	N/A	N/A	N/A
	B-6			04/24/11	N/A	N/A	N/A	N/A	N/A
	B-7			04/25/11	N/A	N/A	N/A	N/A	N/A
Surrounding Private Properties	AMW-03	Aspect	Permanent	11/22/17	15	5-15	3-15	78.79	78.38
	AMW-22	Aspect		03/29/19	14	4-14	3-14	N/A	N/A
	AMW-23	Aspect		07/29/19	15	5-15	3-15	N/A	N/A
	AMW-24	Aspect		03/30/19	25	10-25	8-25	N/A	N/A
	ATC-B-1	Cardno ATC	Grab	01/08/16	N/A	N/A	N/A	N/A	N/A
	ATC-B-2	Cardno ATC		01/09/16	N/A	N/A	N/A	N/A	N/A
	ATC-B-3	Cardno ATC		01/10/16	N/A	N/A	N/A	N/A	N/A
	ATC-B-4	Cardno ATC		01/11/16	N/A	N/A	N/A	N/A	N/A
	ATC-B-5	Cardno ATC		01/12/16	N/A	N/A	N/A	N/A	N/A
	K-SB-1	Kane, Inc.		1/25/2006	N/A	N/A	N/A	N/A	N/A
	K-SB-3	Kane, Inc.		1/25/2006	N/A	N/A	N/A	N/A	N/A

Notes:
TOC - top of casing
NAVD88 - North America Vertical Datum of 1988
bgs - below ground surface

Table 9. Summary of Soil Gas Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Analyte	Units	MTCA Method B Subslab Screening Level	MTCA Method B Indoor Air Cleanup Level	Property Address	2864 S. McClellan St.		2810 S. McClellan St.	2806 S. McClellan St.	2802 S. McClellan St.	2800 MLK Way S.		
				Location	ASV-1	ASV-2	ASV-3	ASV-4	ASV-5	ASV-6	ASV-7	VP-1-D
				Date	11/12/2017	11/12/2017	11/13/2017	11/13/2017	11/12/2017	11/12/2017	11/12/2017	12/06/2018
				Sample Depth	--	--	--	--	--	--	--	9.75 ft
				Sample Name	ASV-1-20171112	ASV-2-20171112	ASV-3-20171112	ASV-4-20171112	ASV-5-20171112	ASV-6-20171112	ASV-7-20171112	VP-1-D
Benzene, Toluene, Ethylbenzene, and Total Xylenes												
Benzene	ug/m^3	**10.7**	--		**23**	**29**	**22**	**13**	**3.5**	**3.2**	**6**	< 0.75 U
Toluene	ug/m^3	**76,200**	--		**44**	**45**	**92**	**57**	**28**	**20**	**52**	**67**
Ethylbenzene	ug/m^3	**15,200**	--		< 11 U	< 11 U	**4.2**	**3.6**	**3.8**	**3.4**	**5.6**	< 0.75 U
Total Xylenes	ug/m^3	**1,520**	--		**25**	**31**	**19.7**	**17.3**	**19.8**	**17.5**	**30.8**	**3.8**
Aromatic Hydrocarbons												
C5 - C8 Aliphatic Hydrocarbons	ug/m^3	**90,000**	--		--	--	--	--	--	--	--	**79**
C9 - C10 Aromatic Hydrocarbons	ug/m^3	**6,000**	--		--	--	--	--	--	--	--	**5.3**
C9 - C12 Aliphatic Hydrocarbons	ug/m^3	**4,700**	--		--	--	--	--	--	--	--	**61**
Conventionals												
Oxygen	%		--		--	--	--	--	--	--	--	14.9
Other												
Helium	%		--		**0.98**	**2.7**	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U	
Polycyclic Aromatic Hydrocarbons												
Naphthalene	ug/m^3	2.45	--		< 13 U	< 13 U	< 1.3 U	< 1.3 U	< 1.3 U	< 1.3 U	< 1.3 U	< 0.73 U
Toxic Organic Compounds in Air												
Freon 114	ug/m^3		--		--	--	--	--	--	--	--	
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	ug/m^3	11.3	--		--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	ug/m^3	76,200	2290		< 14 U	< 14 U	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	--
1,1,2 - Trichlorotrifluoroethane	ug/m^3	457,000	--		--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	ug/m^3	1.44	--		--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	ug/m^3	5.21	0.156		< 14 U	< 14 U	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	--
1,1-Dichloroethane	ug/m^3	52.1	1.56		< 10 U	< 10 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	--
1,1-Dichloroethene	ug/m^3	**3,050**	91.4		**16**	**68**	< 0.99 U	< 0.99 U	< 0.99 U	< 0.99 U	< 0.99 U	--
1,2,4-Trichlorobenzene	ug/m^3	**30.5**	--		--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	ug/m^3	**107**	--		--	--	--	--	--	--	--	**1.2**
1,2-Dibromo-3-chloropropane	ug/m^3		--		--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	ug/m^3	0.139	--		< 19 U	< 19 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 0.78 U
1,2-Dichlorobenzene	ug/m^3	3050	--		--	--	--	--	--	--	--	--
1,2-Dichloroethane (EDC)	ug/m^3	**3.21**	0.0962		< 10 U	< 10 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 0.76 U
1,2-Dichloropropane	ug/m^3	**8.33**	--		--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	ug/m^3		--		--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m^3		--		--	--	--	--	--	--	--	< 0.76 U
1,4-Dichlorobenzene	ug/m^3	7.58	--		--	--	--	--	--	--	--	--
Bromodichloromethane	ug/m^3	2.25	--		--	--	--	--	--	--	--	--
Bromoform	ug/m^3	75.8	--		--	--	--	--	--	--	--	--
Bromomethane	ug/m^3	76.2	--		--	--	--	--	--	--	--	--

Table 9. Summary of Soil Gas Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Analyte	Units	MTCA Method B Subslab Screening Level	MTCA Method B Indoor Air Cleanup Level	Property Address	2864 S. McClellan St.		2810 S. McClellan St.	2806 S. McClellan St.	2802 S. McClellan St.	2800 MLK Way S.		
				Location	ASV-1	ASV-2	ASV-3	ASV-4	ASV-5	ASV-6	ASV-7	VP-1-D
				Date	11/12/2017	11/12/2017	11/13/2017	11/13/2017	11/12/2017	11/12/2017	11/12/2017	12/06/2018
				Sample Depth	--	--	--	--	--	--	--	9.75 ft
				Sample Name	ASV-1-20171112	ASV-2-20171112	ASV-3-20171112	ASV-4-20171112	ASV-5-20171112	ASV-6-20171112	ASV-7-20171112	VP-1-D
Carbon Tetrachloride	ug/m^3	13.9	--		--	--	--	--	--	--	--	--
Chlorobenzene	ug/m^3	762	--		--	--	--	--	--	--	--	--
Chloroethane	ug/m^3	152,000	4570		< 6.6 U	< 6.6 U	< 0.66 U	< 0.66 U	< 0.66 U	< 0.66 U	< 0.66 U	--
Chloroform	ug/m^3	**3.62**	--		--	--	--	--	--	--	--	--
Chloromethane	ug/m^3	**1,370**	--		--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene (DCE)	ug/m^3		--		**190**	**140**	< 0.99 U	< 0.99 U	**110**	< 0.99 U	< 0.99 U	< 0.76 U
cis-1,3-Dichloropropene	ug/m^3		--		--	--	--	--	--	--	--	--
Dibromochloromethane	ug/m^3	3.09	--		--	--	--	--	--	--	--	--
Dichlorodifluoromethane	ug/m^3	1,520	--		--	--	--	--	--	--	--	--
m,p-Xylenes	ug/m^3		--		**25**	**31**	**15**	**13**	**15**	**13**	**23**	**2.6**
Methyl tert-butyl ether (MTBE)	ug/m^3	321	--		< 45 U	< 45 U	< 4.5 U	< 4.5 U	< 4.5 U	< 4.5 U	< 4.5 U	--
Methylene Chloride	ug/m^3	8,330	--		--	--	--	--	--	--	--	--
n-Hexane	ug/m^3	**10,700**	--		**180**	**120**	**50**	**40**	< 8.8 U	**15**	**13**	< 0.78 U
o-Xylene	ug/m^3	1,520	--		< 11 U	< 11 U	**4.7**	**4.3**	**4.8**	**4.5**	**7.8**	**1.2**
Tetrachloroethene (PCE)	ug/m^3	**321**	9.62		**170,000 E**	**16,000 E**	**94**	**59**	**910 E**	**940 E**	**650**	**130**
trans-1,2-Dichloroethene	ug/m^3		--		< 9.9 U	< 9.9 U	< 0.99 U	< 0.99 U	**2.4**	< 0.99 U	< 0.99 U	--
trans-1,3-Dichloropropene	ug/m^3		--		--	--	--	--	--	--	--	--
Trichloroethene (TCE)	ug/m^3	**12.3**	0.37		**1,500**	**250**	**4.3**	< 1.3 U	**80**	**7.4**	**2.9**	< 0.76 U
Trichlorofluoromethane	ug/m^3	1,070	--		--	--	--	--	--	--	--	
Vinyl Chloride	ug/m^3	9.33	0.28		< 6.4 U	< 6.4 U	< 0.64 U	< 0.64 U	< 0.64 U	< 0.64 U	< 0.64 U	< 0.76 U

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeded Model Toxics Control Act (MTCA) Method B Subslab Screening Level.

Red font - Analyte exceeded Model Toxics Control Act (MTCA) Method B Indoor Air Cleanup Level.

J - Analyte estimated

E - Analyte result exceeded instrument calibration range, and dilution/reanalyis was not feasible. Analyte is clearly detected at a value of at least the upper calibration range and in excess of the screening level, but numeric value provided is an estimate.

ft - feet, ug/m^3 - micrograms per cubic meter, % - percent

Table 9. Summary of Soil Gas Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

			Property Address	2800 MLK Way S.								
			Location	VP-1-S	VP-2-D	VP-2-S	VP-3-D	VP-3-S	VP-4-D	VP-4-S	VP-5-D	VP-5-S
			Date	12/06/2018	12/05/2018	12/05/2018	12/05/2018	12/06/2018	12/07/2018	12/07/2018	12/04/2018	12/04/2018
			Sample Depth	4.75 ft	9.75 ft	4.75 ft	9.75 ft	4.75 ft	9.75 ft	4.75 ft	9.75 ft	4.75 ft
			Sample Name	VP-1-S	VP-2-D	VP-2-S	VP-3-D	VP-3-S	VP-4-D	VP-4-S	VP-5-D	VP-5-S
Analyte	**Units**	**MTCA Method B Subslab Screening Level**	**MTCA Method B Indoor Air Cleanup Level**									
Benzene, Toluene, Ethylbenzene, and Total Xylenes												
Benzene	ug/m^3	**10.7**	--	< 0.69 U	< 0.84 U	< 0.72 U	< 0.71 U	< 0.67 U	< 12 U	< 18 U	< 5.2 U	**0.75**
Toluene	ug/m^3	**76,200**	--	**60**	**6.9**	**25**	**3.7**	**9.3**	< 13 U	< 18 U	< 5.3 U	**3.3**
Ethylbenzene	ug/m^3	**15,200**	--	< 0.69 U	< 0.84 U	< 0.72 U	**0.82**	< 0.67 U	< 12 U	< 18 U	< 5.2 U	**1.7**
Total Xylenes	ug/m^3	**1,520**	--	**3.5**	< 1.8 U	< 1.5 U	**6**	< 1.4 U	< 26 U	< 37 U	< 5.3 U	**2.85**
Aromatic Hydrocarbons												
C5 - C8 Aliphatic Hydrocarbons	ug/m^3	**90,000**	--	**130**	**93**	< 28 U	**110**	< 26 U	< 470 U	< 680 U	< 200 U	**170**
C9 - C10 Aromatic Hydrocarbons	ug/m^3	**6,000**	--	**3.9**	**6.9**	< 3.5 U	**20**	< 3.2 U	< 59 U	< 84 U	< 25 U	**11**
C9 - C12 Aliphatic Hydrocarbons	ug/m^3	**4,700**	--	**74**	**58**	**36**	**51**	**30**	< 240 U	**2,800**	< 99 U	**20**
Conventionals												
Oxygen	%		--	15.7	9.24	8.86	16	16.3	16	17.7	11.9	12.7
Other												
Helium	%		--									
Polycyclic Aromatic Hydrocarbons												
Naphthalene	ug/m^3	2.45	--	< 0.68 U	< 0.82 U	< 0.7 U	< 0.7 U	< 0.66 U	< 12 U	< 17 U	< 5.1 U	1.1
Toxic Organic Compounds in Air												
Freon 114	ug/m^3		--									
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	ug/m^3	11.3	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	ug/m^3	76,200	2290	--	--	--	--	--	--	--	--	--
1,1,2 - Trichlorotrifluoroethane	ug/m^3	457,000	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	ug/m^3	1.44	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	ug/m^3	5.21	0.156	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	ug/m^3	52.1	1.56	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	ug/m^3	**3,050**	91.4	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	ug/m^3	**30.5**	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	ug/m^3	**107**	--	**0.95**	**1.4**	< 0.73 U	**2.2**	< 0.68 U	< 13 U	< 18 U	< 5.3 U	**1.3**
1,2-Dibromo-3-chloropropane	ug/m^3		--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	ug/m^3	0.139	--	< 0.72 U	< 0.87 U	< 0.75 U	< 0.74 U	< 0.7 U	< 13 U	< 18 U	< 5.4 U	< 0.73 U
1,2-Dichlorobenzene	ug/m^3	3050	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane (EDC)	ug/m^3	**3.21**	0.0962	< 0.7 U	< 0.85 U	< 0.73 U	< 0.73 U	< 0.68 U	< 13 U	< 18 U	< 5.3 U	< 0.72 U
1,2-Dichloropropane	ug/m^3	**8.33**	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	ug/m^3		--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m^3		--	< 0.7 U	0.87	< 0.73 U	< 0.73 U	< 0.68 U	< 13 U	< 18 U	< 5.3 U	< 0.72 U
1,4-Dichlorobenzene	ug/m^3	7.58	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	ug/m^3	2.25	--	--	--	--	--	--	--	--	--	--
Bromoform	ug/m^3	75.8	--	--	--	--	--	--	--	--	--	--
Bromomethane	ug/m^3	76.2	--	--	--	--	--	--	--	--	--	--

Table 9. Summary of Soil Gas Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

			Property Address	2800 MLK Way S.									
			Location	VP-1-S	VP-2-D	VP-2-S	VP-3-D	VP-3-S	VP-4-D	VP-4-S	VP-5-D	VP-5-S	
			Date	12/06/2018	12/05/2018	12/05/2018	12/05/2018	12/06/2018	12/07/2018	12/07/2018	12/04/2018	12/04/2018	
			Sample Depth	4.75 ft	9.75 ft	4.75 ft	9.75 ft	4.75 ft	9.75 ft	4.75 ft	9.75 ft	4.75 ft	
			Sample Name	VP-1-S	VP-2-D	VP-2-S	VP-3-D	VP-3-S	VP-4-D	VP-4-S	VP-5-D	VP-5-S	
Analyte	**Units**	**MTCA Method B Subslab Screening Level**	**MTCA Method B Indoor Air Cleanup Level**										
Carbon Tetrachloride	ug/m^3	13.9	--	--	--	--	--	--	--	--	--	--	
Chlorobenzene	ug/m^3	762	--	--	--	--	--	--	--	--	--	--	
Chloroethane	ug/m^3	152,000	4570	--	--	--	--	--	--	--	--	--	
Chloroform	ug/m^3	**3.62**	--	--	--	--	--	--	--	--	--	--	
Chloromethane	ug/m^3	**1,370**	--	--	--	--	--	--	--	--	--	--	
cis-1,2-Dichloroethene (DCE)	ug/m^3		--	< 0.7 U	**2.4**	< 0.73 U	< 0.73 U	< 0.68 U	**77**	< 18 U	< 5.3 U	< 0.72 U	
cis-1,3-Dichloropropene	ug/m^3		--	--	--	--	--	--	--	--	--	--	
Dibromochloromethane	ug/m^3	3.09	--	--	--	--	--	--	--	--	--	--	
Dichlorodifluoromethane	ug/m^3	1,520	--	--	--	--	--	--	--	--	--	--	
m,p-Xylenes	ug/m^3		--	**2.4**	< 1.8 U	< 1.5 U	**3.9**	< 1.4 U	< 26 U	< 37 U	< 11 U	**2**	
Methyl tert-butyl ether (MTBE)	ug/m^3	321	--	--	--	--	--	--	--	--	--	--	
Methylene Chloride	ug/m^3	8,330	--	--	--	--	--	--	--	--	--	--	
n-Hexane	ug/m^3	**10,700**	--	< 0.72 U	< 0.87 U	< 0.75 U	**1.9**	< 0.7 U	< 13 U	< 18 U	< 5.4 U	< 0.73 U	
o-Xylene	ug/m^3	1,520	--	**1.1**	< 0.85 U	< 0.73 U	**2.1**	< 0.68 U	< 13 U	< 18 U	< 5.3 U	0.85	
Tetrachloroethene (PCE)	ug/m^3	**321**	9.62	**51**	**450**	**200**	**360**	**250**	**1,700**	**3,100**	**1,100**	**360**	
trans-1,2-Dichloroethene	ug/m^3		--	--	--	--	--	--	--	--	--	--	
trans-1,3-Dichloropropene	ug/m^3		--	--	--	--	--	--	--	--	--	--	
Trichloroethene (TCE)	ug/m^3	**12.3**	0.37	< 0.7 U	**19**	< 0.73 U	2.1	**4.7**	**63**	< 18 U	**120**	**2.1**	
Trichlorofluoromethane	ug/m^3	1,070	--		--	--	--	--	--	--	--	--	
Vinyl Chloride	ug/m^3	9.33	0.28	< 0.7 U	< 0.85 U	< 0.73 U	< 0.73 U	< 0.68 U	< 13 U	< 18 U	< 5.3 U	< 0.72 U	

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeded Model Toxics Control Act (MTCA) Method B Subslab Screening Level.

Red font - Analyte exceeded Model Toxics Control Act (MTCA) Method B Indoor Air Cleanup Level.

J - Analyte estimated

E - Analyte result exceeded instrument calibration range, and dilution/reanalysis was not feasible. Analyte is clearly detected at a value of at least the upper calibration range and in excess of the screening level, but numeric value provided is an estimate.

ft - feet, ug/m^3 - micrograms per cubic meter, % - percent

Table 9. Summary of Soil Gas Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

			Property Address	2800 MLK Way S.						
			Location	VP-6-D	VP-6-S	VP-7-D	VP-7-S	VP-8-S	VP-9-D	VP-9-S
			Date	12/07/2018	12/07/2018	12/07/2018	12/07/2018	12/05/2018	12/06/2018	12/06/2018
			Sample Depth	9.75 ft	4.75 ft	9.75 ft	4.75 ft	4.75 ft	9.75 ft	4.75 ft
			Sample Name	VP-6-D	VP-6-S	VP-7-D	VP-7-S	VP-8-S	VP-9-D	VP-9-S
Analyte	**Units**	**MTCA Method B Subslab Screening Level**	**MTCA Method B Indoor Air Cleanup Level**							
Benzene, Toluene, Ethylbenzene, and Total Xylenes										
Benzene	ug/m^3	**10.7**	--	< 24 U	< 17 U	< 14 U	< 11 U	< 0.72 U	< 4.6 U	< 4.6 U
Toluene	ug/m^3	**76,200**	--	< 24 U	< 17 U	< 14 U	< 12 U	**6.6**	< 4.7 U	< 4.7 U
Ethylbenzene	ug/m^3	**15,200**	--	< 24 U	< 17 U	< 14 U	< 11 U	< 0.72 U	< 4.6 U	< 4.6 U
Total Xylenes	ug/m^3	**1,520**	--	< 51 U	< 36 U	< 29 U	< 24 U	< 1.5 U	< 9.7 U	< 9.8 U
Aromatic Hydrocarbons										
C5 - C8 Aliphatic Hydrocarbons	ug/m^3	**90,000**	--	< 920 U	< 660 U	< 530 U	< 440 U	**43**	< 180 U	< 180 U
C9 - C10 Aromatic Hydrocarbons	ug/m^3	**6,000**	--	< 120 U	< 82 U	< 67 U	< 55 U	**5.1**	< 22 U	< 22 U
C9 - C12 Aliphatic Hydrocarbons	ug/m^3	**4,700**	--	< 460 U	< 330 U	< 270 U	< 220 U	**78**	< 88 U	< 89 U
Conventionals										
Oxygen	%		--	16.3	17	17.6	18	12	21.2	21.3
Other										
Helium	%		--							
Polycyclic Aromatic Hydrocarbons										
Naphthalene	ug/m^3	2.45	--	< 23 U	< 17 U	< 14 U	< 11 U	< 0.71 U	< 4.5 U	< 4.6 U
Toxic Organic Compounds in Air										
Freon 114	ug/m^3		--							
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	ug/m^3	11.3	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	ug/m^3	76,200	2290	--	--	--	--	--	--	--
1,1,2 - Trichlorotrifluoroethane	ug/m^3	457,000	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	ug/m^3	1.44	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	ug/m^3	5.21	0.156	--	--	--	--	--	--	--
1,1-Dichloroethane	ug/m^3	52.1	1.56	--	--	--	--	--	--	--
1,1-Dichloroethene	ug/m^3	**3,050**	91.4	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	ug/m^3	**30.5**	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	ug/m^3	**107**	--	< 24 U	< 17 U	< 14 U	< 12 U	**0.96**	< 4.7 U	< 4.7 U
1,2-Dibromo-3-chloropropane	ug/m^3		--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	ug/m^3	0.139	--	< 25 U	< 18 U	< 14 U	< 12 U	< 0.75 U	< 4.8 U	< 4.8 U
1,2-Dichlorobenzene	ug/m^3	3050	--	--	--	--	--	--	--	--
1,2-Dichloroethane (EDC)	ug/m^3	**3.21**	0.0962	< 24 U	< 17 U	< 14 U	< 12 U	< 0.74 U	< 4.7 U	< 4.7 U
1,2-Dichloropropane	ug/m^3	**8.33**	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	ug/m^3		--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m^3		--	< 24 U	< 17 U	< 14 U	< 12 U	< 0.74 U	< 4.7 U	< 4.7 U
1,4-Dichlorobenzene	ug/m^3	7.58	--	--	--	--	--	--	--	--
Bromodichloromethane	ug/m^3	2.25	--	--	--	--	--	--	--	--
Bromoform	ug/m^3	75.8	--	--	--	--	--	--	--	--
Bromomethane	ug/m^3	76.2	--	--	--	--	--	--	--	--

Table 9. Summary of Soil Gas Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

				Property Address	2800 MLK Way S.						
				Location	VP-6-D	VP-6-S	VP-7-D	VP-7-S	VP-8-S	VP-9-D	VP-9-S
				Date	12/07/2018	12/07/2018	12/07/2018	12/07/2018	12/05/2018	12/06/2018	12/06/2018
				Sample Depth	9.75 ft	4.75 ft	9.75 ft	4.75 ft	4.75 ft	9.75 ft	4.75 ft
				Sample Name	VP-6-D	VP-6-S	VP-7-D	VP-7-S	VP-8-S	VP-9-D	VP-9-S
Analyte	**Units**	**MTCA Method B Subslab Screening Level**	**MTCA Method B Indoor Air Cleanup Level**								
Carbon Tetrachloride	ug/m^3	13.9	--		--	--	--	--	--	--	--
Chlorobenzene	ug/m^3	762	--		--	--	--	--	--	--	--
Chloroethane	ug/m^3	152,000	4570		--	--	--	--	--	--	--
Chloroform	ug/m^3	**3.62**	--		--	--	--	--	--	--	--
Chloromethane	ug/m^3	**1,370**	--		--	--	--	--	--	--	--
cis-1,2-Dichloroethene (DCE)	ug/m^3		--		< 24 U	< 17 U	< 14 U	< 12 U	< 0.74 U	**13**	**16**
cis-1,3-Dichloropropene	ug/m^3		--		--	--	--	--	--	--	--
Dibromochloromethane	ug/m^3	3.09	--		--	--	--	--	--	--	--
Dichlorodifluoromethane	ug/m^3	1,520	--		--	--	--	--	--	--	--
m,p-Xylenes	ug/m^3		--		< 51 U	< 36 U	< 29 U	< 24 U	< 1.5 U	< 9.7 U	< 9.8 U
Methyl tert-butyl ether (MTBE)	ug/m^3	321	--		--	--	--	--	--	--	--
Methylene Chloride	ug/m^3	8,330	--		--	--	--	--	--	--	--
n-Hexane	ug/m^3	**10,700**	--		< 25 U	< 18 U	< 14 U	< 12 U	< 0.75 U	< 4.8 U	< 4.8 U
o-Xylene	ug/m^3	1,520	--		< 24 U	< 17 U	< 14 U	< 12 U	< 0.74 U	< 4.7 U	< 4.7 U
Tetrachloroethene (PCE)	ug/m^3	**321**	9.62		**4,000**	**3,000**	**2,300**	**2,000**	**140**	**830**	**740**
trans-1,2-Dichloroethene	ug/m^3		--		--	--	--	--	--	--	--
trans-1,3-Dichloropropene	ug/m^3		--		--	--	--	--	--	--	--
Trichloroethene (TCE)	ug/m^3	**12.3**	0.37		**140**	**60**	**130**	**64**	< 0.74 U	**90**	**88**
Trichlorofluoromethane	ug/m^3	1,070	--		--	--	--	--	--	--	--
Vinyl Chloride	ug/m^3	9.33	0.28		< 24 U	< 17 U	< 14 U	< 12 U	< 0.74 U	< 4.7 U	< 4.7 U

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeded Model Toxics Control Act (MTCA) Method B Subslab Screening Level.

Red font - Analyte exceeded Model Toxics Control Act (MTCA) Method B Indoor Air Cleanup Level.

J - Analyte estimated

E - Analyte result exceeded instrument calibration range, and dilution/reanalysis was not feasible. Analyte is clearly detected at a value of at least the upper calibration range and in excess of the screening level, but numeric value provided is an estimate.

ft - feet, ug/m^3 - micrograms per cubic meter, % - percent

Table 9. Summary of Soil Gas Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

			Property Address	2817 S. McClellan St.			2811 S. McClellan St.			2813 29th Ave. S.		
			Location	ASV-08	AAM-08	AIN-08	ASV-09	AAM-09	AIN-09	ASV-10	AAM-10	AIN-10
			Date	03/29/2019	03/29/2019	03/29/2019	03/29/2019	03/29/2019	03/29/2019	03/29/2019	03/29/2019	03/29/2019
			Sample Depth	--	--	--	--	--	--	--	--	--
			Sample Name	ASV-8	AAM-8	AIN-8	ASV-9	AAM-9	AIN-9	ASV-10	AAM-10	AIN-10
Analyte	Units	MTCA Method B Subslab Screening Level	MTCA Method B Indoor Air Cleanup Level									
Benzene, Toluene, Ethylbenzene, and Total Xylenes												
Benzene	ug/m^3	**10.7**	--	--	--	--	--	--	--	--	--	--
Toluene	ug/m^3	**76,200**	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	ug/m^3	**15,200**	--	--	--	--	--	--	--	--	--	--
Total Xylenes	ug/m^3	**1,520**	--	--	--	--	--	--	--	--	--	--
Aromatic Hydrocarbons												
C5 - C8 Aliphatic Hydrocarbons	ug/m^3	**90,000**	--	--	--	--	--	--	--	--	--	--
C9 - C10 Aromatic Hydrocarbons	ug/m^3	**6,000**	--	--	--	--	--	--	--	--	--	--
C9 - C12 Aliphatic Hydrocarbons	ug/m^3	**4,700**	--	--	--	--	--	--	--	--	--	--
Conventionals												
Oxygen	%		--	--	--	--	--	--	--	--	--	--
Other												
Helium	%		--	< 0.6 U	--	--	< 0.6 U	--	--	< 0.6 U	--	--
Polycyclic Aromatic Hydrocarbons												
Naphthalene	ug/m^3	2.45	--	--	--	--	--	--	--	--	--	--
Toxic Organic Compounds in Air												
Freon 114	ug/m^3		--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	ug/m^3	11.3	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	ug/m^3	76,200	2290	< 0.76 U	< 0.55 U	< 0.55 U	< 7.6 U			< 0.71 U		
1,1,2 - Trichlorotrifluoroethane	ug/m^3	457,000	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	ug/m^3	1.44	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	ug/m^3	5.21	0.156	< 0.15 U	< 0.11 U	< 0.11 U	< 1.5 U			< 0.14 U		
1,1-Dichloroethane	ug/m^3	52.1	1.56	< 0.57 U	< 0.4 U	< 0.4 U	< 5.7 U			< 0.53 U		
1,1-Dichloroethene	ug/m^3	**3,050**	91.4	< 0.56 U	< 0.4 U	< 0.4 U	< 5.6 U			< 0.52 U		
1,2,4-Trichlorobenzene	ug/m^3	**30.5**	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	ug/m^3	**107**	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	ug/m^3		--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	ug/m^3	0.139	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	ug/m^3	3050	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane (EDC)	ug/m^3	**3.21**	0.0962	< 0.057 U	**0.13**	**0.14**	< 0.57 U	**0.13**	**0.16**	**0.14**	**0.13**	**0.24**
1,2-Dichloropropane	ug/m^3	**8.33**	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	ug/m^3		--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m^3		--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	ug/m^3	7.58	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	ug/m^3	2.25	--	--	--	--	--	--	--	--	--	--
Bromoform	ug/m^3	75.8	--	--	--	--	--	--	--	--	--	--
Bromomethane	ug/m^3	76.2	--	--	--	--	--	--	--	--	--	--

Table 9. Summary of Soil Gas Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

			Property Address	2817 S. McClellan St.			2811 S. McClellan St.			2813 29th Ave. S.		
			Location	ASV-08	AAM-08	AIN-08	ASV-09	AAM-09	AIN-09	ASV-10	AAM-10	AIN-10
			Date	03/29/2019	03/29/2019	03/29/2019	03/29/2019	03/29/2019	03/29/2019	03/29/2019	03/29/2019	03/29/2019
			Sample Depth	--	--	--	--	--	--	--	--	--
			Sample Name	ASV-8	AAM-8	AIN-8	ASV-9	AAM-9	AIN-9	ASV-10	AAM-10	AIN-10
Analyte	Units	MTCA Method B Subslab Screening Level	MTCA Method B Indoor Air Cleanup Level									
Carbon Tetrachloride	ug/m^3	13.9	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	ug/m^3	762	--	--	--	--	--	--	--	--	--	--
Chloroethane	ug/m^3	152,000	4570	< 3.7 U	< 2.6 U	< 2.6 U	< 37 U	< 2.6 U	< 2.6 U	< 3.4 U	< 2.6 U	< 2.6 U
Chloroform	ug/m^3	**3.62**	--	--	--	--	--	--	--	--	--	--
Chloromethane	ug/m^3	**1,370**	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene (DCE)	ug/m^3		--	< 0.56 U	< 0.4 U	< 0.4 U	< 5.6 U	< 0.4 U	< 0.4 U	< 0.52 U	< 0.4 U	< 0.4 U
cis-1,3-Dichloropropene	ug/m^3		--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	ug/m^3	3.09	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane	ug/m^3	1,520	--	--	--	--	--	--	--	--	--	--
m,p-Xylenes	ug/m^3		--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether (MTBE)	ug/m^3	321	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	ug/m^3	8,330	--	--	--	--	--	--	--	--	--	--
n-Hexane	ug/m^3	**10,700**	--	--	--	--	--	--	--	--	--	--
o-Xylene	ug/m^3	1,520	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	ug/m^3	**321**	9.62	**9.8**	< 6.8 U	< 6.8 U	**950**	< 6.8 U	< 6.8 U	**22**	< 6.8 U	< 6.8 U
trans-1,2-Dichloroethene	ug/m^3		--	< 0.56 U	< 0.4 U	< 0.4 U	< 5.6 U	< 0.4 U	< 0.4 U	< 0.52 U	< 0.4 U	< 0.4 U
trans-1,3-Dichloropropene	ug/m^3		--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE)	ug/m^3	**12.3**	0.37	< 0.38 U	< 0.27 U	< 0.27 U	**5.5**	< 0.27 U	< 0.27 U	< 0.35 U	< 0.27 U	< 0.27 U
Trichlorofluoromethane	ug/m^3	1,070	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	ug/m^3	9.33	0.28	< 0.36 U	< 0.26 U	< 0.26 U	< 3.6 U	< 0.26 U	< 0.26 U	< 0.33 U	< 0.26 U	< 0.26 U

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeded Model Toxics Control Act (MTCA) Method B Subslab Screening Level.

Red font - Analyte exceeded Model Toxics Control Act (MTCA) Method B Indoor Air Cleanup Level.

J - Analyte estimated

E - Analyte result exceeded instrument calibration range, and dilution/reanalysis was not feasible. Analyte is clearly detected at a value of at least the upper calibration range and in excess of the screening level, but numeric value provided is an estimate.

ft - feet, ug/m^3 - micrograms per cubic meter, % - percent

Table 9. Summary of Soil Gas Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

			Property Address	2825 29th Ave. S.			2569 29th Ave S.			
			Location	ASV-11	AAM-11	AIN-11	SV-1	SV2	SV-4	SV-5
			Date	03/30/2019	03/30/2019	03/30/2019	02/24/2016	02/24/2016	02/24/2016	02/24/2016
			Sample Depth	--	--	--	--	--	--	--
			Sample Name	ASV-11	AAM-11	AIN-11	SV-1	SV-2	SV-4	SV-5
Analyte	**Units**	**MTCA Method B Subslab Screening Level**	**MTCA Method B Indoor Air Cleanup Level**							
Benzene, Toluene, Ethylbenzene, and Total Xylenes				**BTEX**						
Benzene	ug/m^3	**10.7**	--	--	--	--	--	--	--	--
Toluene	ug/m^3	**76,200**	--	--	--	--	--	--	--	--
Ethylbenzene	ug/m^3	**15,200**	--	--	--	--	--	--	--	--
Total Xylenes	ug/m^3	**1,520**	--	--	--	--	--	--	--	--
Aromatic Hydrocarbons										
C5 - C8 Aliphatic Hydrocarbons	ug/m^3	**90,000**	--	--	--	--	--	--	--	--
C9 - C10 Aromatic Hydrocarbons	ug/m^3	**6,000**	--	--	--	--	--	--	--	--
C9 - C12 Aliphatic Hydrocarbons	ug/m^3	**4,700**	--	--	--	--	--	--	--	--
Conventionals										
Oxygen	%		--	--	--	--	**14**	**13**	**13**	**13**
Other										
Helium	%		--	< 0.6 U	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons										
Naphthalene	ug/m^3	2.45	--	--	--	--	--	--	--	--
Toxic Organic Compounds in Air										
Freon 114	ug/m^3		--	--	--	--	< 3.6 U	< 30 U	< 10 U	< 9.5 U
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	ug/m^3	11.3	--	--	--	--	< 3.5 U	< 30 U	< 9.9 U	< 9.4 U
1,1,1-Trichloroethane	ug/m^3	76,200	2290	< 0.76 U			< 2.8 U	< 24 U	< 7.8 U	< 7.4 U
1,1,2 - Trichlorotrifluoroethane	ug/m^3	457,000	--	--	--	--	< 3.9 U	< 33 U	< 11 U	< 10 U
1,1,2,2-Tetrachloroethane	ug/m^3	1.44	--	--	--	--	< 3.5 U	< 30 U	< 9.9 U	< 9.4 U
1,1,2-Trichloroethane	ug/m^3	5.21	0.156	< 0.15 U			< 2.8 U	< 24 U	< 7.8 U	< 7.4 U
1,1-Dichloroethane	ug/m^3	52.1	1.56	< 0.57 U			< 2 U	< 18 U	< 5.8 U	< 5.5 U
1,1-Dichloroethene	ug/m^3	**3,050**	91.4	< 0.56 U			< 2 U	< 17 U	< 5.7 U	< 5.4 U
1,2,4-Trichlorobenzene	ug/m^3	**30.5**	--	--	--	--	**0.49 J**	**5.6 J**	< 11 U	**1.2 J**
1,2,4-Trimethylbenzene	ug/m^3	**107**	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	ug/m^3		--	--	--	--	< 0.12 U	< 1.1 U	< 0.35 U	< 0.33 U
1,2-Dibromoethane (EDB)	ug/m^3	0.139	--	--	--	--	< 3.9 U	< 33 U	< 11 U	< 10 U
1,2-Dichlorobenzene	ug/m^3	3050	--	--	--	--	< 3 U	< 26 U	< 8.7 U	< 8.2 U
1,2-Dichloroethane (EDC)	ug/m^3	**3.21**	0.0962	< 0.057 U	**0.13**	**0.16**	**0.099 J**	< 18 U	< 5.8 U	< 5.5 U
1,2-Dichloropropane	ug/m^3	**8.33**	--	--	--	--	**0.12 J**	< 20 U	< 6.7 U	< 6.3 U
1,3-Dichlorobenzene	ug/m^3		--	--	--	--	< 3 U	< 26 U	< 8.7 U	< 8.2 U
1,3,5-Trimethylbenzene	ug/m^3		--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	ug/m^3	7.58	--	--	--	--	**1.9 J**	< 26 U	< 8.7 U	< 8.2 U
Bromodichloromethane	ug/m^3	2.25	--	--	--	--	< 3.5 U	< 30 U	< 9.9 U	< 9.4 U
Bromoform	ug/m^3	75.8	--	--	--	--	< 5.2 U	< 45 U	< 15 U	< 14 U
Bromomethane	ug/m^3	76.2	--	--	--	--	< 2 U	< 17 U	< 5.5 U	< 5.2 U

Table 9. Summary of Soil Gas Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

			Property Address	2825 29th Ave. S.			2569 29th Ave S.			
			Location	ASV-11	AAM-11	AIN-11	SV-1	SV2	SV-4	SV-5
			Date	03/30/2019	03/30/2019	03/30/2019	02/24/2016	02/24/2016	02/24/2016	02/24/2016
			Sample Depth	--	--	--	--	--	--	--
			Sample Name	ASV-11	AAM-11	AIN-11	SV-1	SV-2	SV-4	SV-5
Analyte	Units	MTCA Method B Subslab Screening Level	MTCA Method B Indoor Air Cleanup Level							
Carbon Tetrachloride	ug/m^3	13.9	--	--	--	--	< 3.2 U	< 27 U	< 9.1 U	< 8.6 U
Chlorobenzene	ug/m^3	762	--	--	--	--	< 2.4 U	< 20 U	< 6.7 U	< 6.3 U
Chloroethane	ug/m^3	152,000	4570	< 3.7 U	< 2.6 U	< 2.6 U	< 1.3 U	< 11 U	< 3.8 U	< 3.6 U
Chloroform	ug/m^3	**3.62**	--	--	--	--	**1.1 J**	< 21 U	< 7 U	< 6.6 U
Chloromethane	ug/m^3	**1,370**	--	--	--	--	**1.3**	< 9 U	< 3 U	< 2.8 U
cis-1,2-Dichloroethene (DCE)	ug/m^3		--	< 0.56 U	< 0.4 U	< 0.4 U	< 2 U	< 17 U	< 5.7 U	< 5.4 U
cis-1,3-Dichloropropene	ug/m^3		--	--	--	--	< 2.3 U	< 20 U	< 6.5 U	< 6.2 U
Dibromochloromethane	ug/m^3	3.09	--	--	--	--	< 4.4 U	< 37 U	< 12 U	< 12 U
Dichlorodifluoromethane	ug/m^3	1,520	--	--	--	--	**2.3 J**	< 21 U	**2.5 J**	**2.3 J**
m,p-Xylenes	ug/m^3		--	--	--	--	--	--	--	--
Methyl tert-butyl ether (MTBE)	ug/m^3	321	--	--	--	--	--	--	--	--
Methylene Chloride	ug/m^3	8,330	--	--	--	--	**1.4 J**	**10 J**	**4.4 J**	**2.9 J**
n-Hexane	ug/m^3	**10,700**	--	--	--	--	--	--	--	--
o-Xylene	ug/m^3	1,520	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	ug/m^3	**321**	9.62	< 9.5 U	< 6.8 U	< 6.8 U	**10**	**6.4 J**	**3.4 J**	**19**
trans-1,2-Dichloroethene	ug/m^3		--	< 0.56 U	< 0.4 U	< 0.4 U	< 2 U	< 17 U	< 5.7 U	< 5.4 U
trans-1,3-Dichloropropene	ug/m^3		--	--	--	--	< 2.3 U	< 20 U	< 6.5 U	< 6.2 U
Trichloroethene (TCE)	ug/m^3	**12.3**	0.37	< 0.38 U	< 0.27 U	< 0.27 U	< 2.8 U	< 24 U	< 7.8 U	< 7.4 U
Trichlorofluoromethane	ug/m^3	1,070	--	--	--	--	**1.3 J**	< 24 U	< 8.1 U	< 7.7 U
Vinyl Chloride	ug/m^3	9.33	0.28	< 0.36 U	< 0.26 U	< 0.26 U	< 1.3 U	< 11 U	< 3.7 U	< 3.5 U

Notes:

Bold - Analyte detected

Blue shading - Analyte exceeded Model Toxics Control Act (MTCA) Method B Subslab Screening Level.

Red font - Analyte exceeded Model Toxics Control Act (MTCA) Method B Indoor Air Cleanup Level.

J - Analyte estimated

E - Analyte result exceeded instrument calibration range, and dilution/reanalysis was not feasible. Analyte is clearly detected at a value of at least the upper calibration range and in excess of the screening level, but numeric value provided is an estimate.

ft - feet, ug/m^3 - micrograms per cubic meter, % - percent

Table 10. Summary of Remedial Alternatives

Project No. 160324, Mt Baker Properties, Seattle, Washington

	Alternative 1 *No Action - Groundwater Monitoring and Chemical Vapor Barrier*	**Alternative 2** *Chlorinated Solvent Source Area Excavation to Elevation 60, Petroleum Hydrocarbon Source Area Excavation, Chemical Vapor Barriers, and Monitored Natural Attenuation*	**Alternative 3** *Chlorinated Solvent Source Area Excavation to Elevation 60,* In Situ *Soil Stabilization, Petroleum Hydrocarbon Source Area Excavation, Chemical Vapor Barriers, Contingency* In Situ *Chemical Reduction, and Monitored Natural Attenuation*	**Alternative 4** *Electrical Resistance Heating, Thermal Conductance Heating, Chemical Vapor Barriers, Contingency* In Situ *Chemical Reduction, and Monitored Natural Attenuation* (No Excavation)	**Alternative 5** *Chlorinated Solvent Source Area Excavation to Elevation 44, Petroleum Hydrocarbon Source Area Excavation, Chemical Vapor Barriers, Contingency In Situ Chemical Reduction, and Monitored Natural Attenuation*
Design Concept	--	Figures 25 and 26	Figures 26 and 27	Figure 28	Figure 29
Elements of Remedial Alternative	● Install chemical vapor barrier and underslab soil vapor venting underneath future buildings. ● Continued groundwater monitoring	● Install chemical vapor barrier and underslab soil vapor venting underneath future buildings. ● Excavate the CSSA to an elevation of 60' on the eastern parcel. Over-excavate via potholing PCE exceedances in soil below elevation 60, to the extent practical. Excavation of the deepest soil exceedance at AMW-21 is assumed to be impractical. ● Excavate the two petroleum hydrocarbon source areas on the Phillips 66 parcel. ● Replace monitoring wells post-remedial excavation. ● Conduct semi-annual groundwater monitoring at select wells for 5 years. Conduct annual groundwater monitoring at select wells for an additional 25 years. ● Evaluate monitored natural attenuation (MNA) in groundwater and report results annually for 30 years.	● Install chemical vapor barrier and underslab soil vapor venting underneath future buildings. ● Excavate the CSSA to an elevation of 60' on the eastern parcel. Over-excavate via potholing PCE exceedances in soil. ● Solidify remaining impacted soil on the McClellan parcels via advancement of rigid inclusions, which will densify the soil to prevent future leaching of PCE from soil to groundwater. ● Excavate the two petroleum hydrocarbon source areas on the Phillips 66 parcel ● Replace monitoring wells post remedial excavation ● Conduct semi-annual groundwater monitoring at select wells for 5 years. Conduct annual groundwater monitoring at select wells for an additional 15 years. ● If monitoring results indicate MNA will not meet RAOs within a reasonable timeframe, perform contingency active groundwater treatment assumed to be ISCR via temporary injection points for residual PCE in groundwater. ● Evaluate monitored natural attenuation (MNA) in groundwater and report results annually for 20 years.	● Install chemical vapor barrier and underslab soil vapor venting underneath future buildings. ● Design and construct a thermal treatment system on for the CSSA and PHSA. ERH technology is assumed for the chlorinated solvent and gas-range PHSA; TCH technology is assumed for the oil-range PHSA. ● Operate and maintain the ERH/TCH treatment systems for an assumed six months. ● Allow the subsurface to cool for six months and perform soil confirmation sampling ● If necessary, resume operation of the ERH/TCH treatment systems to target soils remaining above CULs. ● Conduct semi-annual groundwater monitoring at select wells for 5 years. Conduct annual groundwater monitoring at select wells for an additional 15 years. ● If monitoring results indicate MNA will not meet RAOs within a reasonable timeframe, perform contingency active groundwater treatment assumed to be ISCR via temporary injection points for residual PCE in groundwater. ● Evaluate monitored natural attenuation (MNA) in groundwater and report results annually for 20 years.	● Install chemical vapor barrier and underslab soil vapor venting underneath future buildings. ● Excavate the CSSA to an elevation of 44', removing all known PCE exceedances in soil on the eastern two McClellan parcels. ● Solidify remaining impacted soil on the western two McClellan parcels via advancement of rigid inclusions, which will densify the soil to prevent future leaching of PCE from soil to groundwater. ● Excavate the two petroleum hydrocarbon source areas on the Phillips 66 parcel. ● Replace monitoring wells post remedial excavation ● Conduct semi-annual groundwater monitoring at select wells for 5 years. Conduct annual groundwater monitoring at select wells for an additional 15 years. ● If monitoring results indicate MNA will not meet RAOs within a reasonable timeframe, perform contingency active groundwater treatment assumed to be ISCR via temporary injection points for residual PCE in groundwater. ● Evaluate monitored natural attenuation (MNA) in groundwater and report results annually for 20 years.
Remedial Alternative Evaluation with Respect to MTCA Threshold Criteria[1]					
MTCA Threshold Criteria *(WAC 173-340-360(2)(a))*	**Does Alternative Comply with Threshold Criterion?**				
Protect human health and the environment	No	Yes	Yes	Yes	Yes
Comply with cleanup standards	No	Yes	Yes	Yes	Yes
Comply with applicable state and federal laws	No	Yes	Yes	Yes	Yes
Provide for compliance monitoring	No	Yes	Yes	Yes	Yes
Evaluation Results	**Eliminated from Further Consideration**	**Carried Forward to Detailed Evaluation**	**Carried Forward to Detailed Evaluation**	**Carried Forward to Detailed Evaluation**	**Carried Forward to Detailed Evaluation**

Notes:

1) Refer to Section 11.2 for evaluation with respect to the MTCA threshold criteria.

MNA - Monitored Natural Attenuation
CULs - Cleanup Levels
ERH - Electrical Resistive Heating
MTCA - Model Toxics Control Act
TCH - Thermal Conductive Heating
ISCR - *In Situ* Chemical Reduction
WAC - Washington Administrative Code

Table 11. Remedial Alternatives Cost Summary

Project No. 160324, Mt. Baker Properties, Seattle, Washington

	Remedial Alternative	Capital Cost	Total OMM Cost (NPV) [1]	OMM Period (years)[2]	Contingency OMM (NPV)[1,3]	Total Alternative Cost (NPV)[1]
2)	Alternative 2 Chlorinated Solvent Source Area Excavation to Elevation 60, Petroleum Hydrocarbon Source Area Excavation, Chemical Vapor Barriers, and Monitored Natural Attenuation	$ 4,940,000	$ 680,000	30(+)	$ -	$ 5,620,000
3)	Alternative 3 Chlorinated Solvent Source Area Excavation to Elevation 60, In Situ Soil Stabilization, Petroleum Hydrocarbon Source Area Excavation, Chemical Vapor Barriers, Contingency In Situ Chemical Reduction, and Monitored Natural Attenuation	$ 5,030,000	$ 640,000	20	$ 590,000	$ 6,260,000
4)	Alternative 4 Electrical Resistance Heating, Thermal Conductance Heating, Chemical Vapor Barriers, Contingency In Situ Chemical Reduction, and Monitored Natural Attenuation (No Excavation)	$ 8,380,000	$ 640,000	20	$ 590,000	$ 9,610,000
5)	Alternative 5 Chlorinated Solvent Source Area Excavation to Elevation 44, Petroleum Hydrocarbon Source Area Excavation, Chemical Vapor Barriers, Contingency In Situ Chemical Reduction, and Monitored Natural Attenuation	$ 7,330,000	$ 640,000	20	$ 590,000	$ 8,560,000

Notes:

1) Estimated costs are Net Present Value (NPV) in 2019 dollars, assuming a discount rate of 7%. The cost estimates are preliminary and for the Feasibility Study, based on existing information, and are estimated to be within +20/-20% of actual costs.

2) See Section 11.3.8 for Evaluation of restoration time frames. The estimated restoration time frame of Alternative 2 is greater than 30 years. However, 30 years is assumed for cost estimation.

MNA - Monitored Natural Attenuation
EAB - Enhanced Anaerobic Bioremediation
ISCR - *In Situ* Chemical Reduction
PRB - Permeable Reactive Barrier
OMM - Operations, Maintenance, and Monitoring

Table 12. Disproportionate Cost Analysis

Project No. 160324, Mt. Baker Properties, Seattle, Washington

		Disproportionate Cost Analysis			
		Alternative 2 **Chlorinated Solvent Source Area Excavation to Elevation 60, Petroleum Hydrocarbon Source Area Excavation, Chemical Vapor Barriers, and Monitored Natural Attenuation**	**Alternative 3** **Chlorinated Solvent Source Area Excavation to Elevation 60, In Situ Soil Stabilization, Petroleum Hydrocarbon Source Area Excavation, Chemical Vapor Barriers, Contingency In Situ Chemical Reduction, and Monitored Natural Attenuation**	**Alternative 4** **Electrical Resistance Heating, Thermal Conductance Heating, Chemical Vapor Barriers, Contingency In Situ Chemical Reduction, and Monitored Natural Attenuation (No Excavation)**	**Alternative 5** **Chlorinated Solvent Source Area Excavation to Elevation 44, Petroleum Hydrocarbon Source Area Excavation, Chemical Vapor Barriers, Contingency In Situ Chemical Reduction, and Monitored Natural Attenuation**
Criteria to Evaluate Use of Permanent Solutions to the Maximum Extent Practicable	Protectiveness (30% weighting factor)	Site exposure risks are currently low. Significant groundwater concentrations will remain after source removal, and protection from groundwater ingestion or vapor intrusion will rely on institutional controls for extended period of time based on the expected duration of MNA. (3)	Site exposure risks are currently low. Significant groundwater concentrations will remain after source removal, and protection from groundwater ingestion or vapor intrusion will rely on institutional controls. The assumed contingency action for groundwater treatment during the OMM period ensures the protectiveness. (5)	Site exposure risks are currently low. The combinations of these technologies are expected to protect human health and the environment. The assumed contingency action for groundwater treatment during the OMM period ensures the protectiveness. (6)	Site exposure risks are currently low. The combinations of these technologies are expected to protect human health and the environment. The assumed contingency action for groundwater treatment during the OMM period ensures the protectiveness. (6)
	Permanence (20% weighting factor)	The removal and off-site disposal of the CSSA and PHSA is very permanent. The reliance on MNA for the groundwater plume can't ensure the permanence of this alternative; however, the mechanisms of MNA, if capable of achieving RAOs, are permanent. (4)	The removal and off-site disposal of the CSSA and PHSA is very permanent. The permanence of the ISS will be verified through performance monitoring. The contingency groundwater treatment ensures the permanence of this alternative for the groundwater plume. (5)	The thermal treatment technologies applied at the CSSA and PHSA are permanent. . The contingency groundwater treatment ensures the permanence of this alternative for the groundwater plume. (6)	The removal and off-site disposal of the CSSA and PHSA is very permanent. The contingency groundwater treatment ensures the permanence of this alternative for the groundwater plume. (7)
	Long-Term Effectiveness (20% weighting factor)	Once the source area is removed, the long-term effectiveness in entirely reliant on MNA, of which uncertainty exists regarding attenuation rates and associated restoration time frames. (3)	Once the source area is removed, the contingency action provides greater long-term effectiveness of the groundwater plume. Long-term effectiveness of the ISS component can be ensured through design, and performance monitoring. (5)	Thermal is capable of achieving the same endpoint as removal - clean soils. However, the operating time frame and design of thermal systems don't always allow achieving this endpoint, thus thermal is considered slightly less effective over the long-term. (4)	Once the source area is removed, the contingency action provides greater long-term effectiveness of the groundwater plume. (6)
	Short-Term Risk Management (10% weighting factor)	There are significant short-term risks associated with source removal that can be managed through engineering and administrative controls. (3)	There are significant short-term risks associated with source removal that can be managed through engineering and administrative controls. (3)	The risks associated with thermal treatment are very different than removal and overall considered to be slightly less. (4)	There are significant short-term risks associated with source removal that can be managed through engineering and administrative controls. (2)
	Implementability (10% weighting factor)	The source removal is implementable and through careful planning and engineering design can be implemented safely and effectively. MNA is readily implementable (6)	The source removal is implementable and through careful planning and engineering design can be implemented safely and effectively. ISS is readily implementable as the technology is being used for redevelopment ground improvements. MNA is readily implementable. Implementation of contingency groundwater treatment in McClellan would be difficult given the required density of points, utilities, traffic control. (5)	Implementability of ERH in the source areas will be difficult because the lead time required for implementing the technology (design, mobilization, startup) does not meet the redevelopment timeline. MNA is readily implementable. Implementation of contingency groundwater treatment in McClellan would be difficult, given the required density of points, utilities, traffic control. (1)	The source removal is implementable and through careful planning and engineering design can be implemented safely and effectively. The additional shoring needed to reach the maximum depth in the Pre-Fraser unit will require additional engineering and construction. MNA is readily implementable. Implementation of contingency groundwater treatment in McClellan would be difficult, given the required density of points, utilities, traffic control. (3)
	Public Concerns (10% weighting factor)	Public involvement and comment will be managed and addressed through Ecology public review process. (7)	Public involvement and comment will be managed and addressed through Ecology public review process. (7)	Public involvement and comment will be managed and addressed through Ecology public review process. (7)	Public involvement and comment will be managed and addressed through Ecology public review process. (7)
MTCA Benefits Ranking[2]		3.9	5.0	5.0	5.6
Estimated Cost[3]		$5,620,000	$6,260,000	$9,610,000	$8,560,000
Benefit/Cost Ratio[4]		**6.9**	**8.0**	**5.2**	**6.5**

Notes:

1) A numeric scale of 1 to 7 is used to rate the alternatives with respect to the criteria to evaluate use of permanent solutions to the maximum extent practicable, as follows:

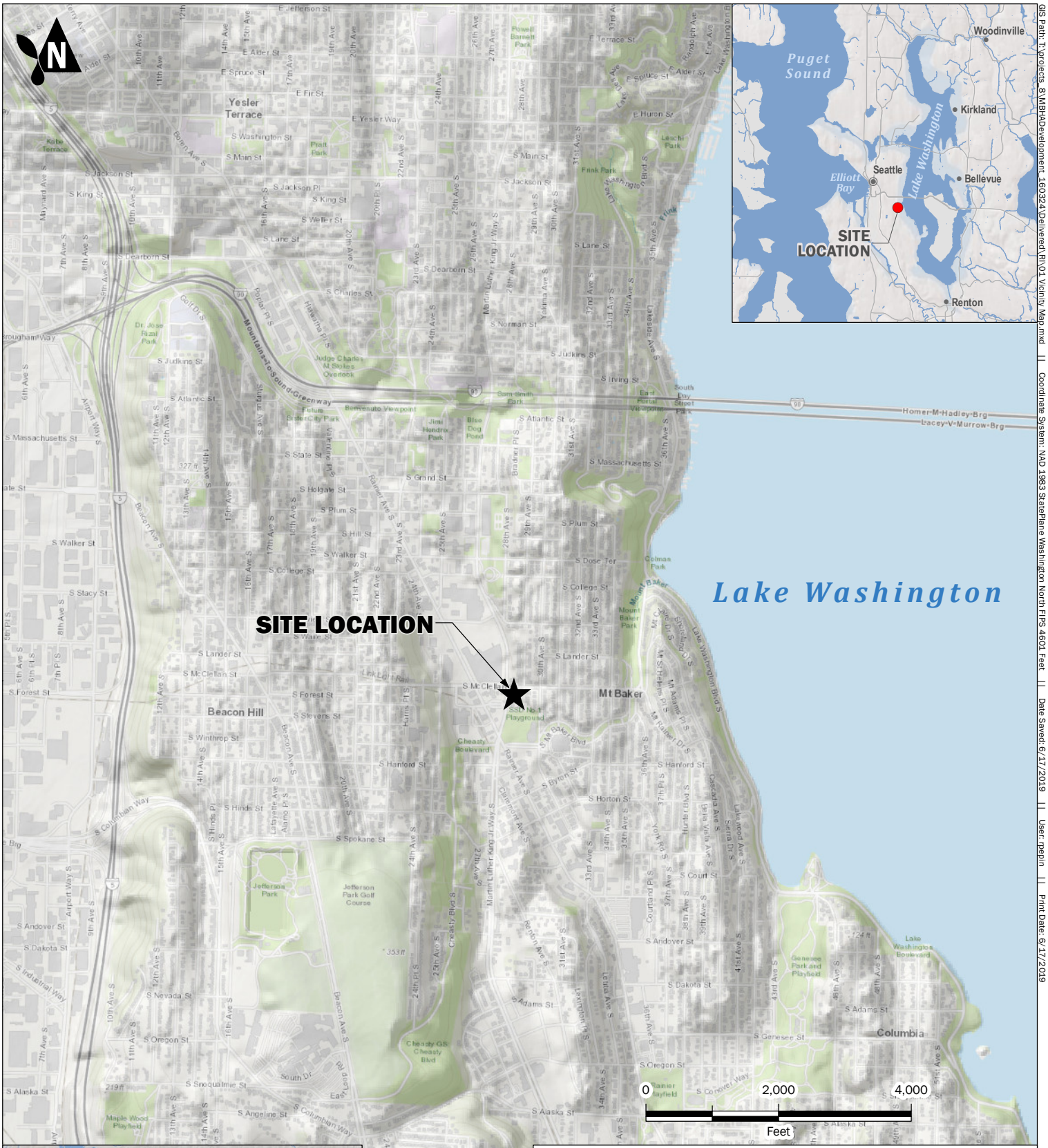
1 - meets criterion to a very low degree
2 - meets criterion to a low degree
3 - meets criterion to a moderate degree
4 - meets criterion to a moderate-high degree
5 - meets criterion to a high degree
6 - meets criterion to a very high degree
7 - meets criterion to a complete degree

2) The MTCA benefits ranking is obtained by multiplying the rating for each criterion by its weighting factor, and summing the results for the six criteria.

3) Costs are Net Present Value in 2019 dollars based on a 7% discount rate. The costs shown are rounded to three significant figures. Detailed cost estimates are provided in the Appendix.

4) The benefit/cost ratio is obtained by dividing the alternative's MTCA benefits ranking by its estimated cost (in $10million).

FIGURES



Site Location

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect CONSULTING	JUN-2019	BY: JAS / EAC	FIGURE NO. 1
	PROJECT NO. 160324	REVISED BY: KB / RAP	

GIS Path: T:\projects_8\MBHADevelopment.160324\Delivered\RI\01 Vicinity Map.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 6/17/2019 || User: jpepin || Print Date: 6/17/2019

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GIS Path: T:\projects_8\MBHADevelopment_160324\Delivered\R\02 Site Plan.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/11/2019 || User: rpepin || Print Date: 9/11/2019

N

MARTIN LUTHER KING JR WAY S

S MC CLELLAN ST

29TH AVE S

SICK'S STADIUM LANDFILL SITE

0003600052

MOUNT BAKER VILLAGE APARTMENTS SITE

0003600001

7954000005

MCCLELLAN PARCELS

FORMER MT. BAKER CLEANERS

Former Heating Oil UST (Approximate)

Former 55-Gallon Waste Drum Containing Spent PCE (Approximate)

Former Dry Cleaning Equipment (Approximate)

0003600030 2802

0003600032 2806

0003600008 2810

0003600031 2864

7954000005

A

A'

B

B'

C

C'

D

D'

E

E'

F

F'

G

G'

FORMER PHILLIPS 66 PARCEL

2811 6725700052

2817 6725700051

6725700045

0003600065

EXISTING BP 76 STATION AND EMPIRE WAY MOBILE SITE

Former Location of Gasoline and Waste Oil USTs

Former Oil/Water Separator

Former Pump Islands

Former Hydraulic Hoist Area

Former Heating Oil UST

2800

0003600055

0003600063

0003600062

0003600010

0003600074 2814

0003600059

6725700060 2813

6725700065 2817

6725700070 2821

6725700075 2825

6725700035

6725700030

6725700025

6725700020

Site Plan

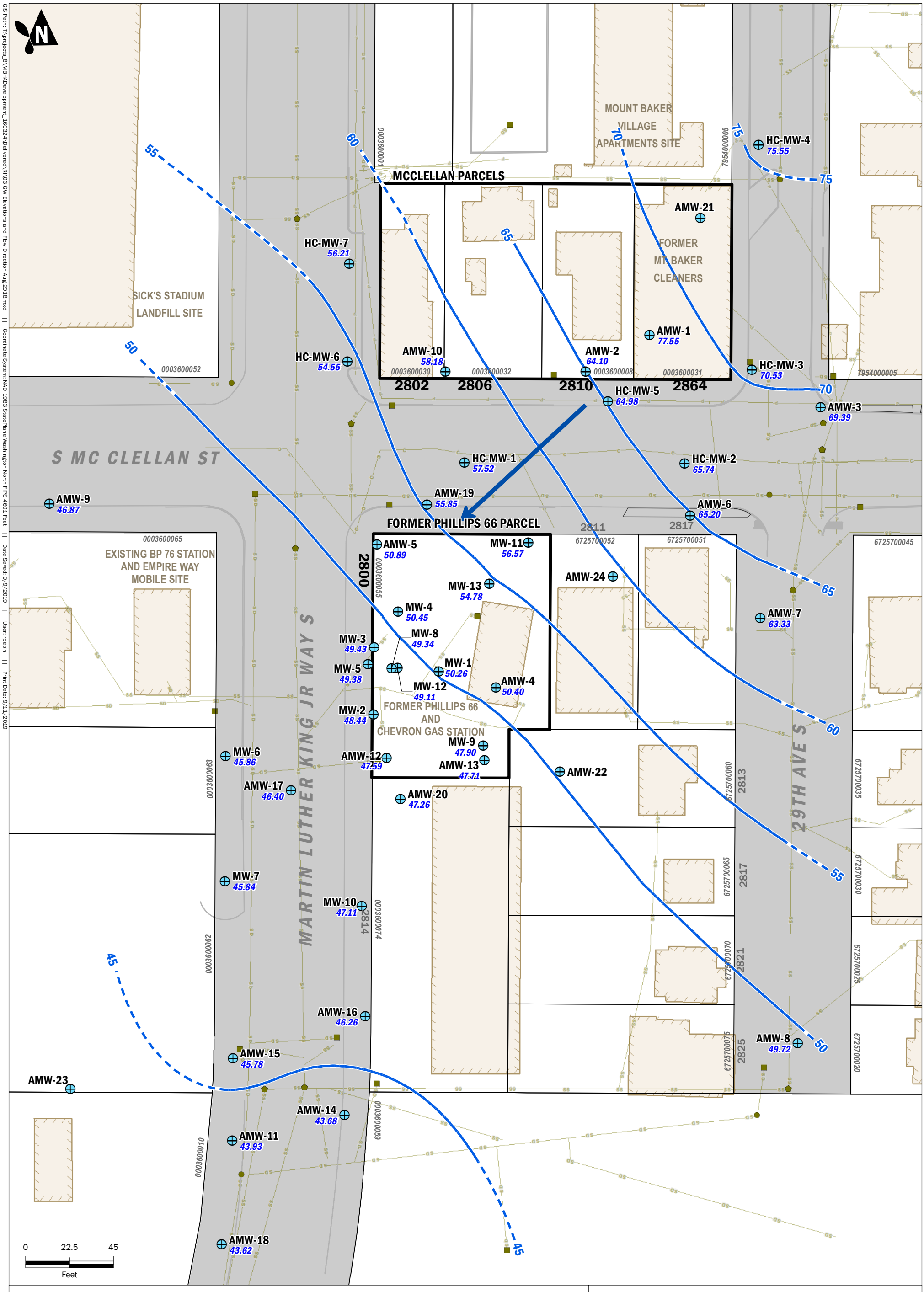
Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Subject Property
MTCA Site Boundary
Historical Property Feature
Cross Section
Building Footprint
Tax Parcel

Note: Tax parcel data from King County was minorly adjusted based on site knowledge.

0 25 50
Feet

Aspect Consulting	SEP-2019	BY: JAS / EAC	FIGURE NO. 2
	PROJECT NO. 160324	REVISED BY: KB / RAP	



Monitoring Well

Groundwater Flow Direction

Groundwater Contour *(Dashed Where Uncertain)*

Subject Property

Power Line

Storm Drain Line

Sanitary Sewer Line

Communication Line

Catch Basin

Storm Manhole

Sanitary Manhole

Building Footprint

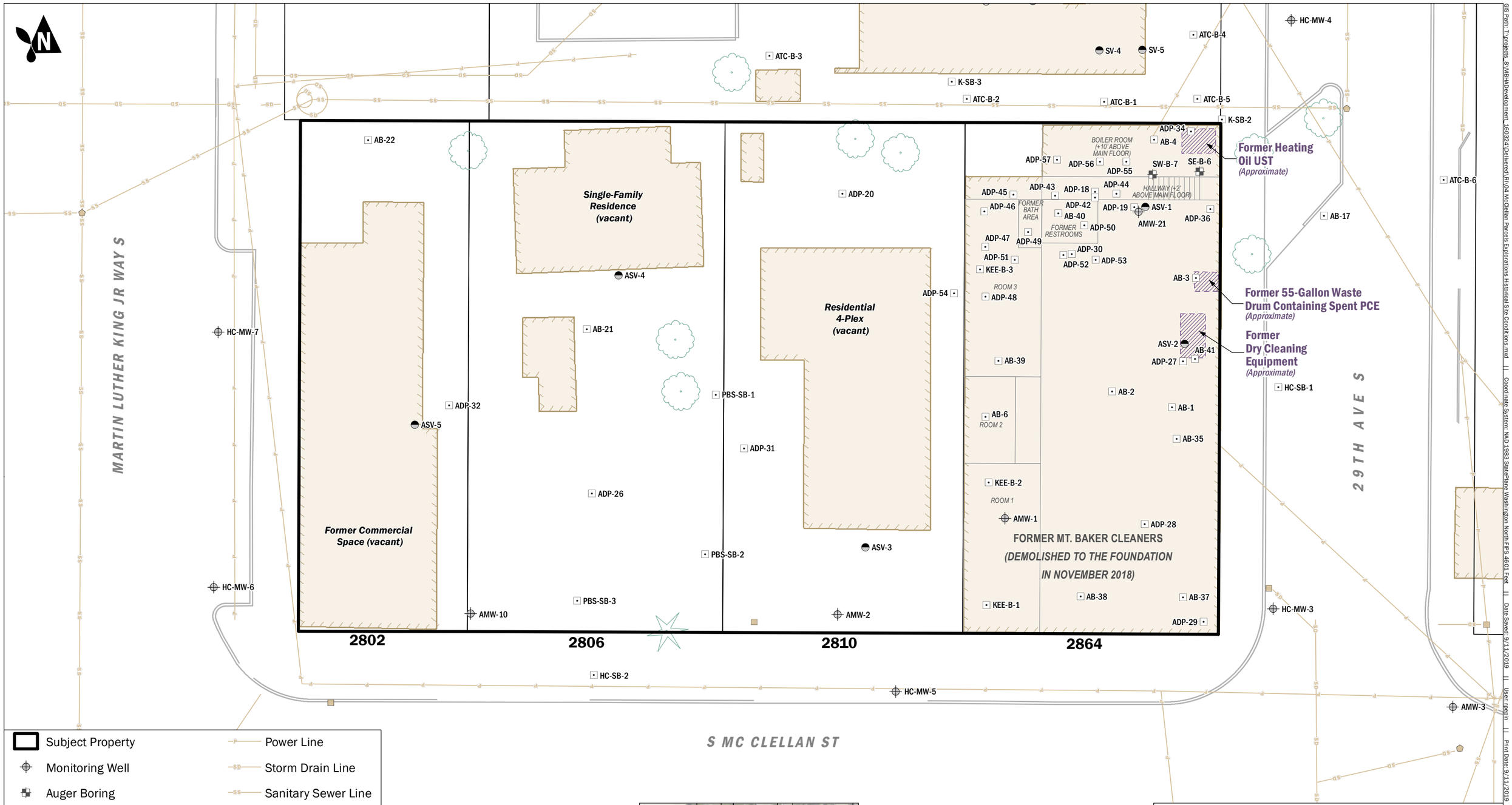
Tax Parcel

Note: Groundwater elevation measured August 21st, 2018. Monitoring wells were surveyed by Core Design, Inc. Tax parcel data from King County was minorly adjusted based on site knowledge.

Groundwater Elevations and Flow Direction - August 2018

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 3
	PROJECT NO. 160324	REVISED BY: ---	



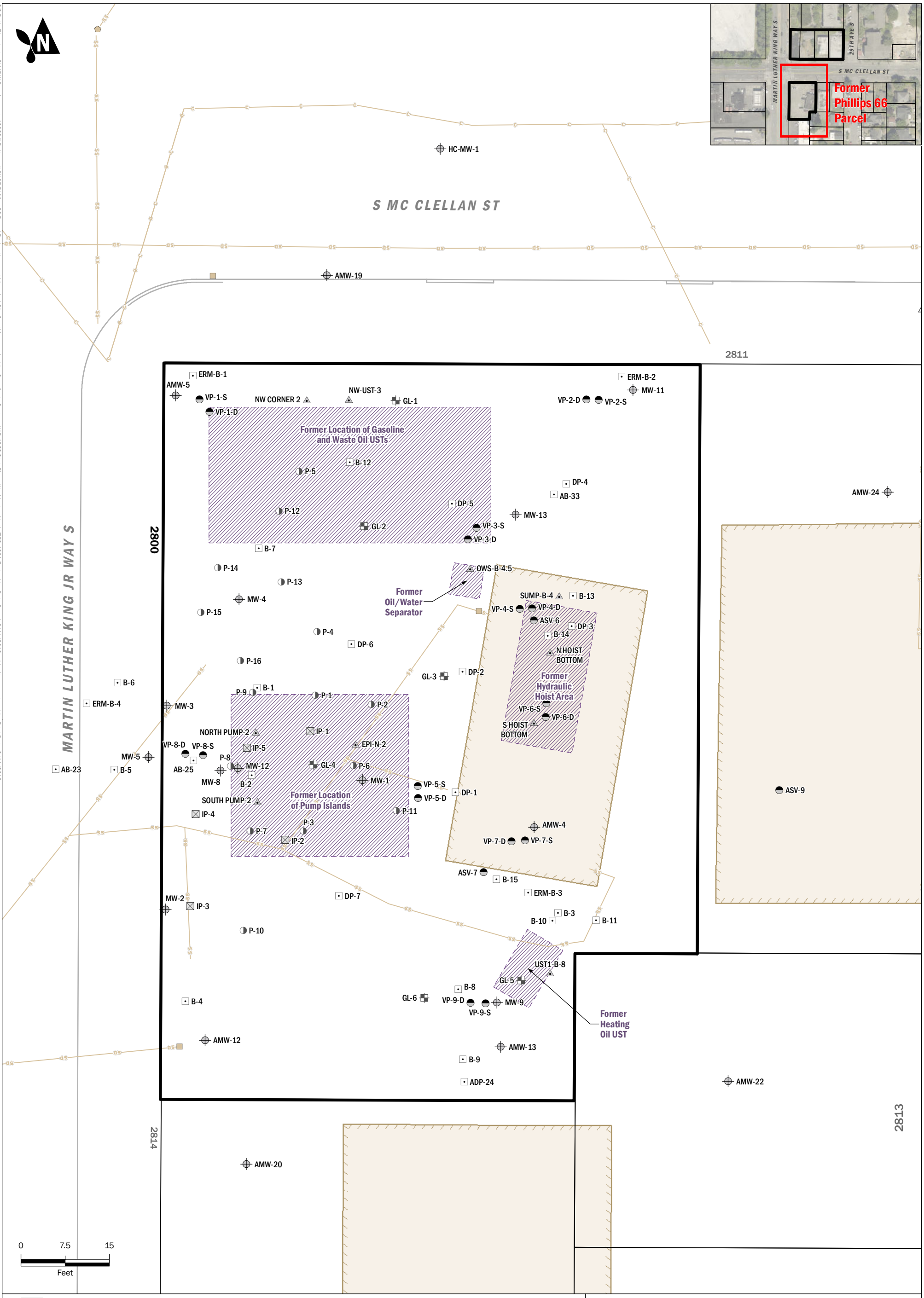
Basemap Layer Credits || Pictometry, King County

McClellan Parcels Explorations and Historical Site Conditions

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: JAS / EAC	FIGURE NO. 4
	PROJECT NO. 160324	REVISED BY: KB / RAP	

GIS Path: T:\projects_8\MBHADevelopment_160324\Delivered\Rl\04 McClellan Parcels Explorations Historical Site Conditions.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/11/2019 || User: rpepin || Print Date: 9/11/2019



Subject Property
Monitoring Well
Auger Boring
Geoprobe
Injection Well
Soil Boring
Soil Sample
Soil Gas
Historical Property Feature
Building Footprint
Tax Parcel
Storm Drain Line
Sanitary Sewer Line
Communication Line
Catch Basin
Sanitary Manhole

Note: Tax parcel data from King County was minorly adjusted based on site knowledge.

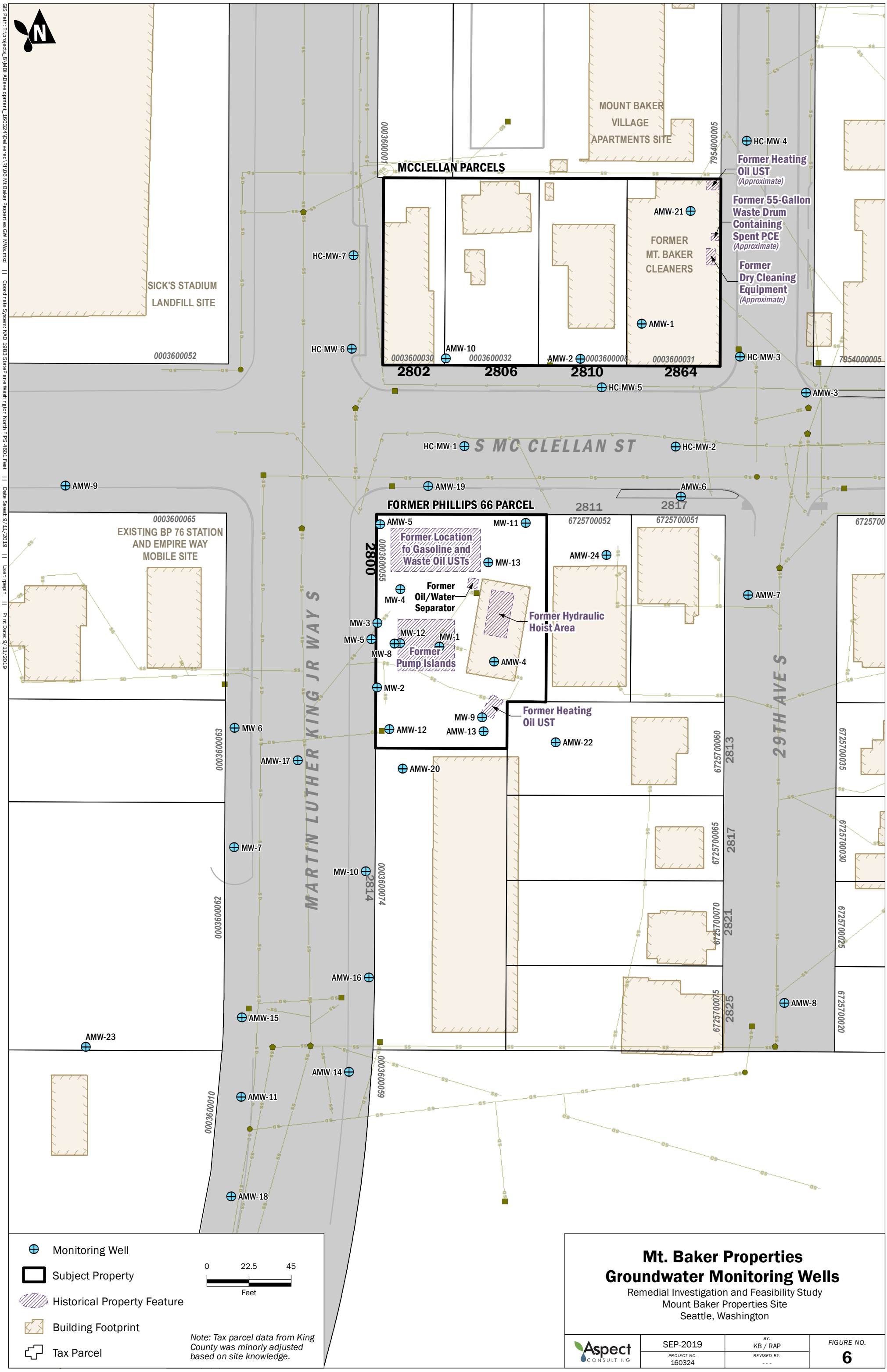
Former Phillips 66 Parcel Explorations and Historical Site Conditions

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 5
	PROJECT NO. 160324	REVISED BY: AY / RAP	

Basemap Layer Credits || Pictometry, King County

GIS Path: T:\projects_8\MBHADevelopment_160324\Delivered\RI\05 Phillips 66 Parcel Explorations and Historical Site Conditions.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/11/2019 || User: rpepin || Print Date: 9/11/2019

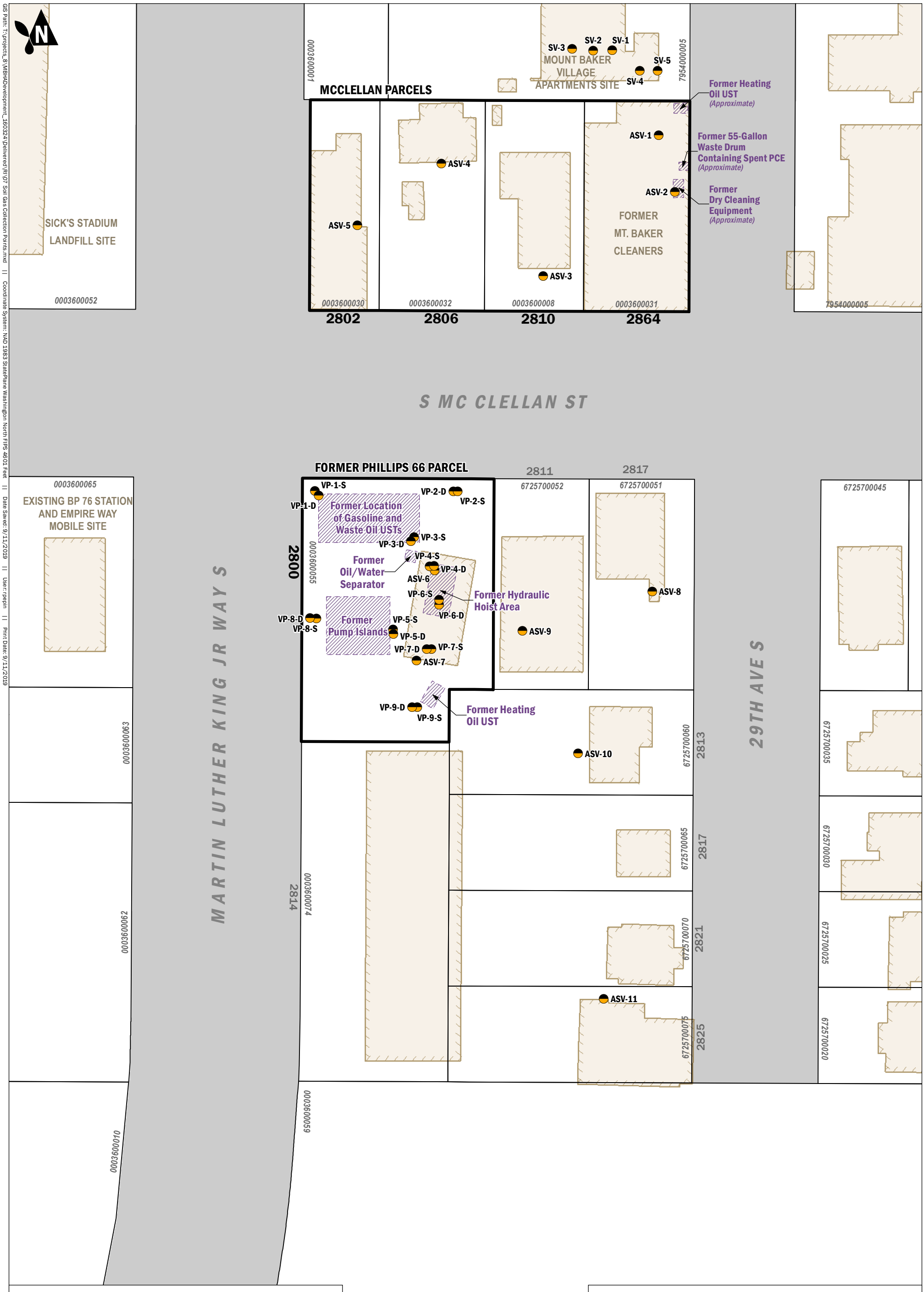


Mt. Baker Properties
Groundwater Monitoring Wells

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 6
	PROJECT NO. 160324	REVISED BY: ---	

GIS Path: T:\projects_8\MBHADevelopment_160324\Delivered\R\06 Mt Baker Properties GW MWs.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/11/2019 || User: rpepin || Print Date: 9/11/2019

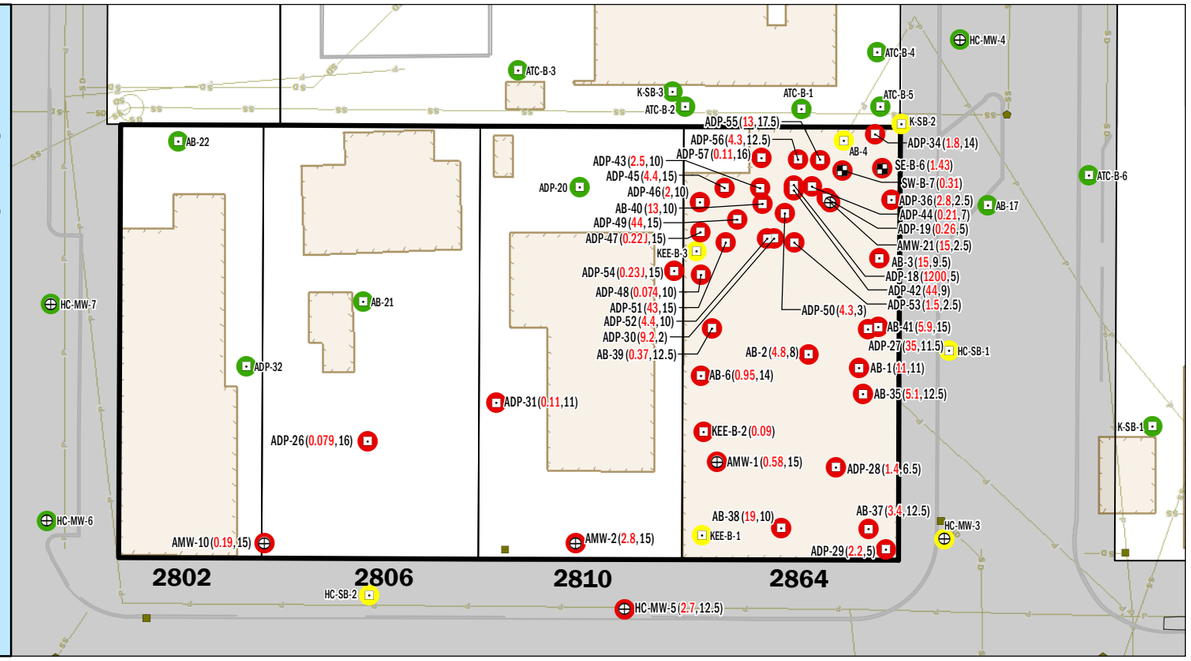


Soil Gas Collection Points

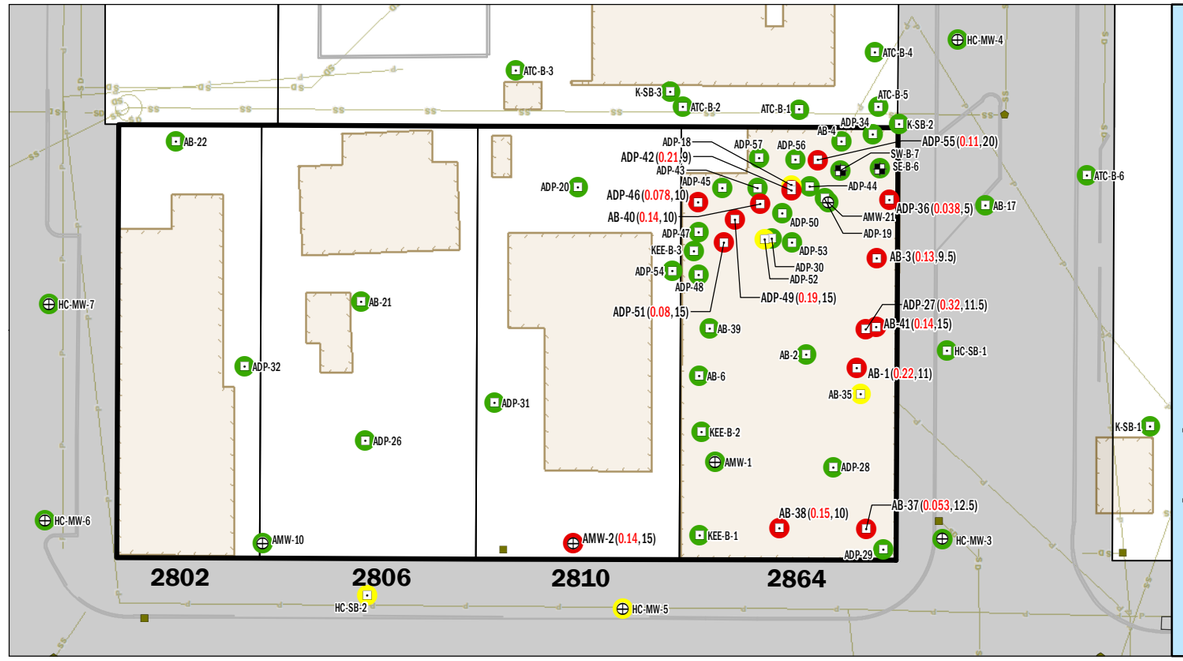
Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 7
	PROJECT NO. 160324	REVISED BY: AY / RAP	

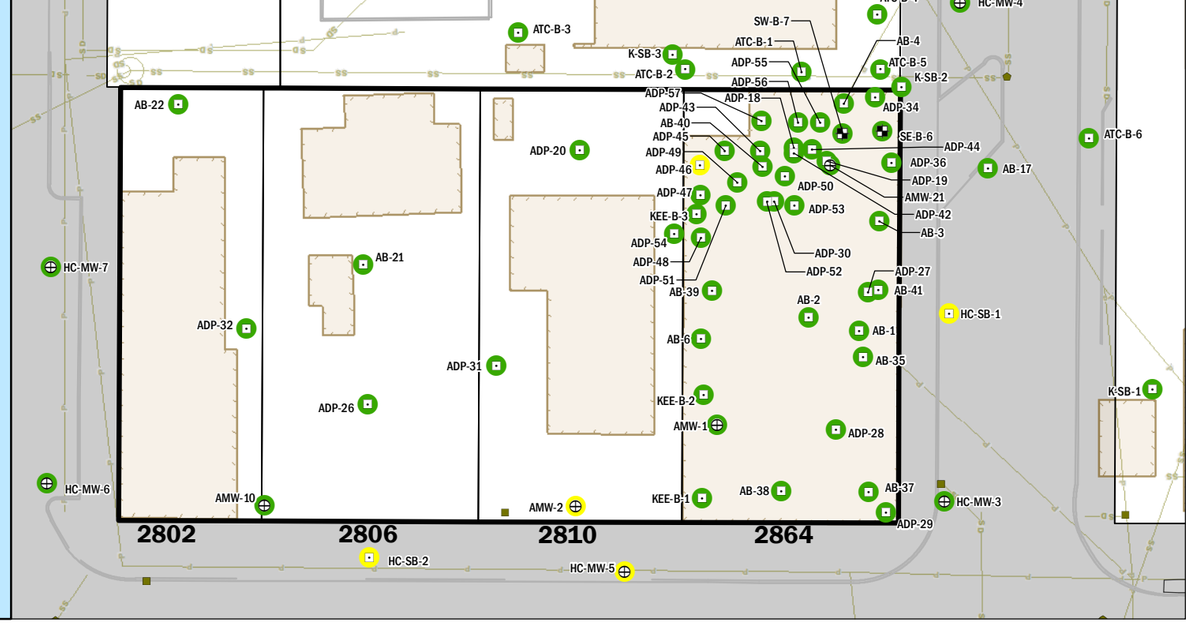
Tetrachloroethene (PCE)



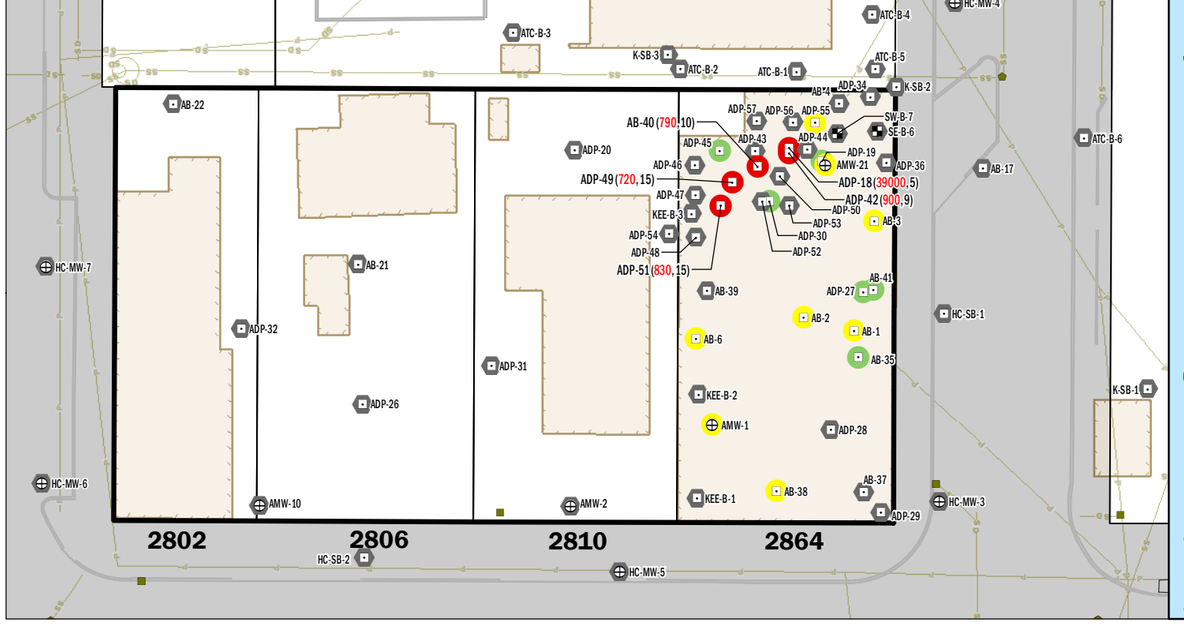
Trichloroethene (TCE)



Vinyl Chloride (VC)/cis-1,2-Dichloroethene (DCE)



Toxicity Characteristic Leaching Procedure (TCLP)



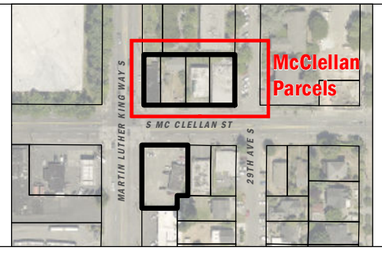
Analytical Results

- Chlorinated solvents detected at a concentration greater than the MTCA Method A cleanup level.
- Chlorinated solvents detected at concentrations less than the MTCA Method A cleanup level.
- Chlorinated solvents were not detected.
- Sample Not Analyzed

Sample ID → ADP-26 (0.079, 16) ← Depth (ft bgs)
Maximum Detected Concentration of Contaminant (mg/kg)

Note: Only explorations with a MTCA Method A cleanup level exceedance are labeled with the maximum concentration detected and the corresponding sample depth. Tax parcel data from King County was minorly adjusted based on site knowledge.

- Monitoring Well
- Soil Boring
- Auger Boring
- Subject Property
- Building Footprint
- Tax Parcel
- Power Line
- Storm Drain Line
- Sanitary Sewer Line
- Communication Line
- Catch Basin
- Storm Manhole
- Sanitary Manhole



N

0 35 70
Feet

Summary of Chlorinated Solvents in Soil - McClellan Parcels

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

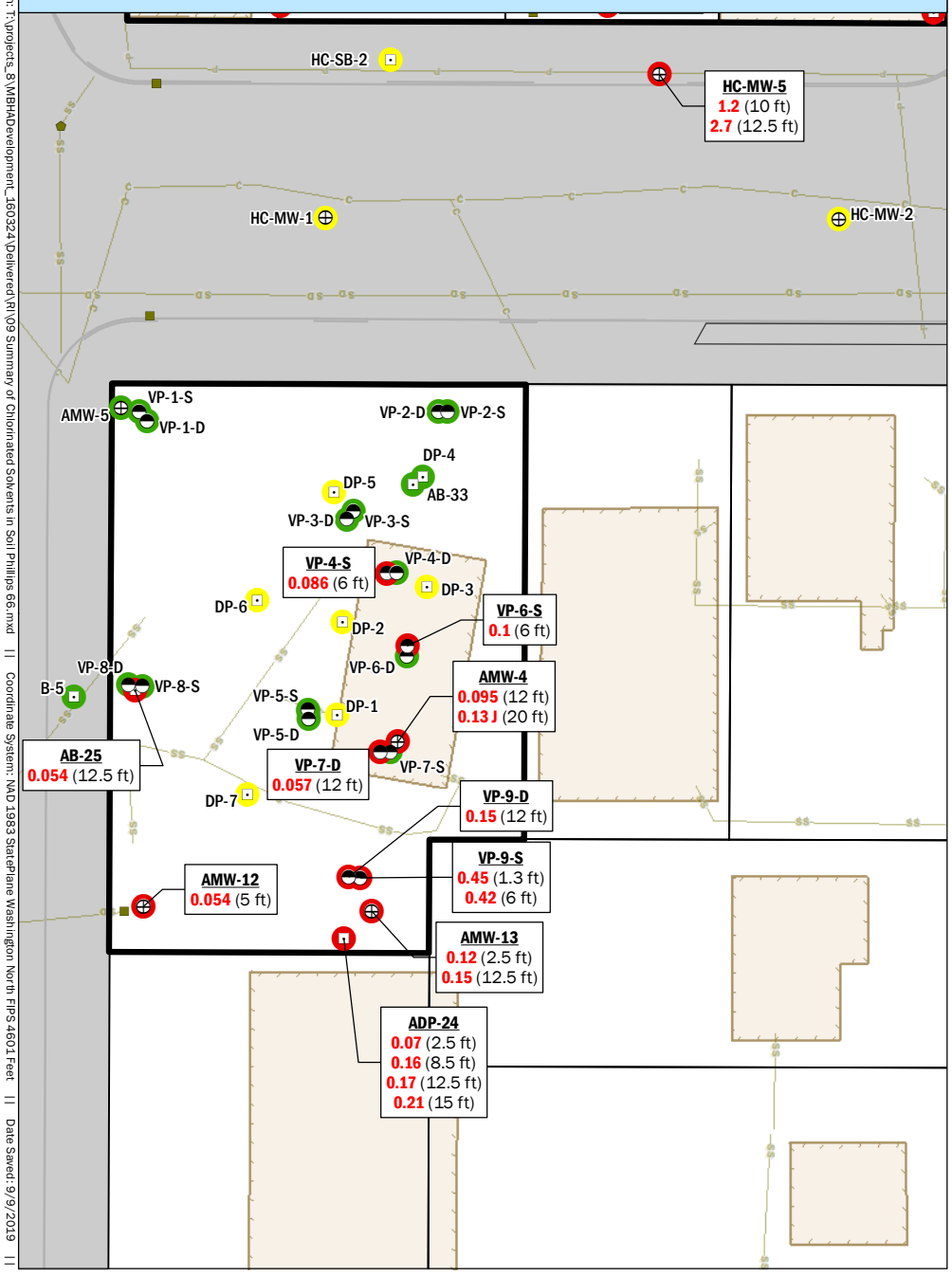
Aspect CONSULTING

SEP-2019	BY: KB / RAP	FIGURE NO. 8
PROJECT NO. 160324	REVISED BY: AY / RAP	

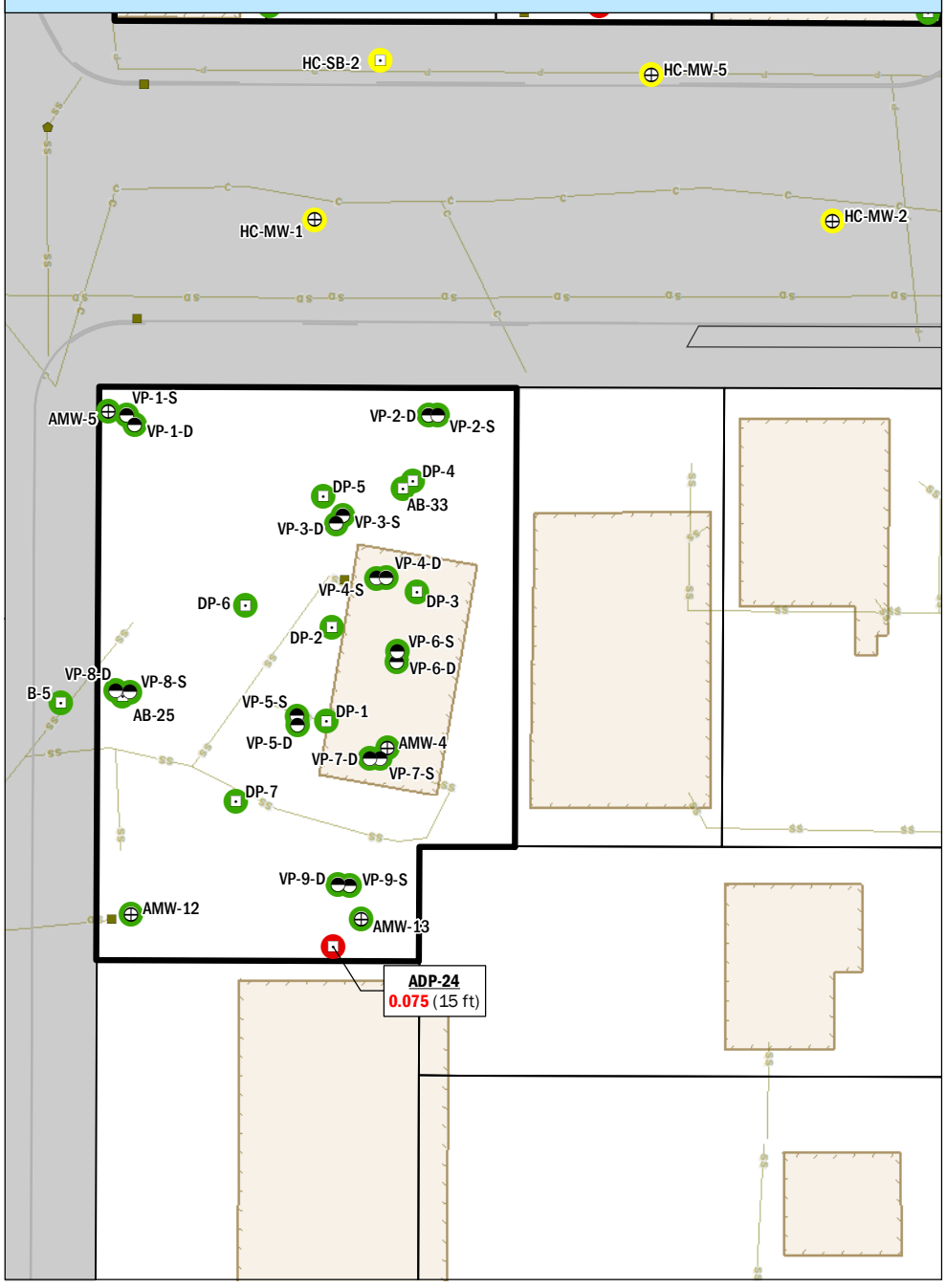
Basemap Layer Credits || Pictometry, King County

GIS Path: T:\projects_8\MBHADevelopment\160324\Deliverables\RI\08 Summary of Chlorinated Solvents in Soil McClellan.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/12/2019 || User: rjepsn || Print Date: 9/12/2019

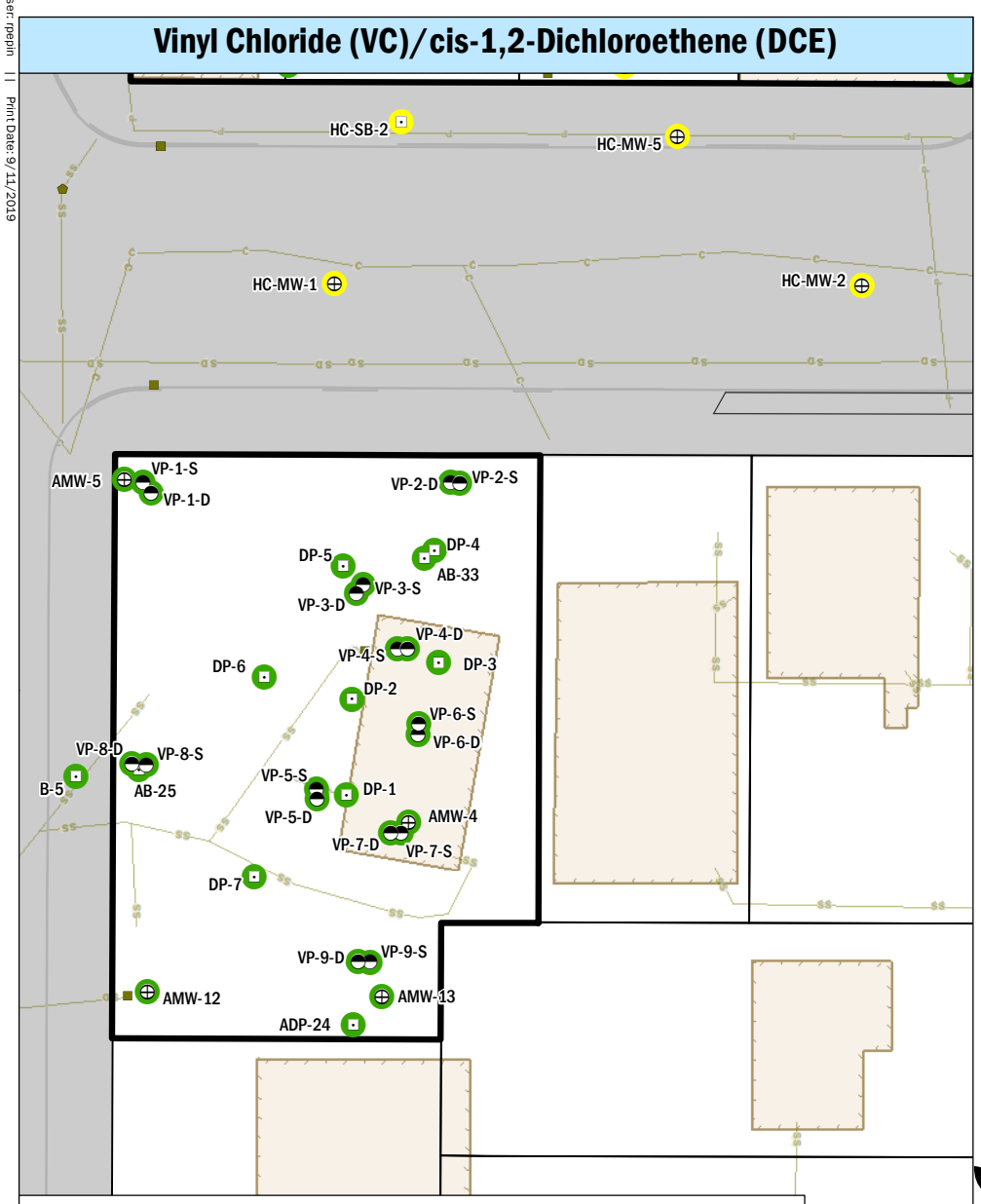
Tetrachloroethene (PCE)



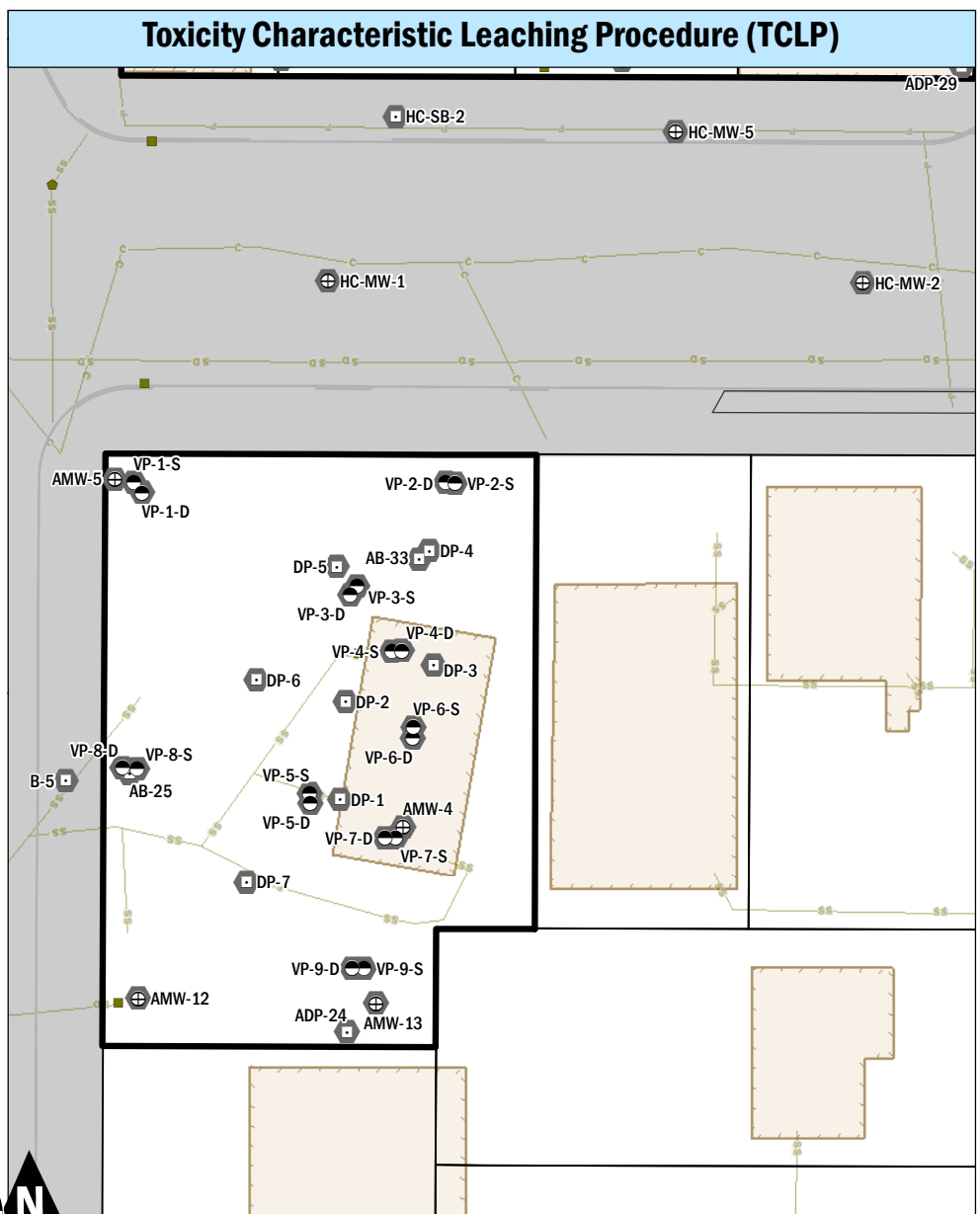
Trichloroethene (TCE)



Vinyl Chloride (VC)/cis-1,2-Dichloroethene (DCE)



Toxicity Characteristic Leaching Procedure (TCLP)



Analytical Results

- Chlorinated solvents detected at a concentration greater than the MTCA Method A cleanup level.
- Chlorinated solvents detected at concentrations less than the MTCA Method A cleanup level.
- Chlorinated solvents were not detected.
- Sample Not Analyzed
- Monitoring Well
- Soil Boring
- Soil Gas Probe
- Subject Property

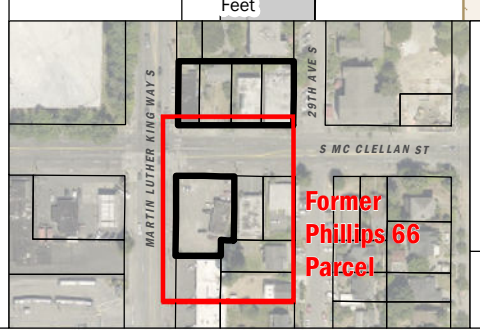
- Building Footprint
- Tax Parcel
- Power Line
- Storm Drain Line
- Sanitary Sewer Line
- Communication Line
- Catch Basin
- Storm Manhole

Location Name
Concentration mg/kg (Sample Depth)

Note: Only exceeded analytical results are posted. Tax parcel data from King County was minorly adjusted based on site knowledge.

N

0 40 80
Feet



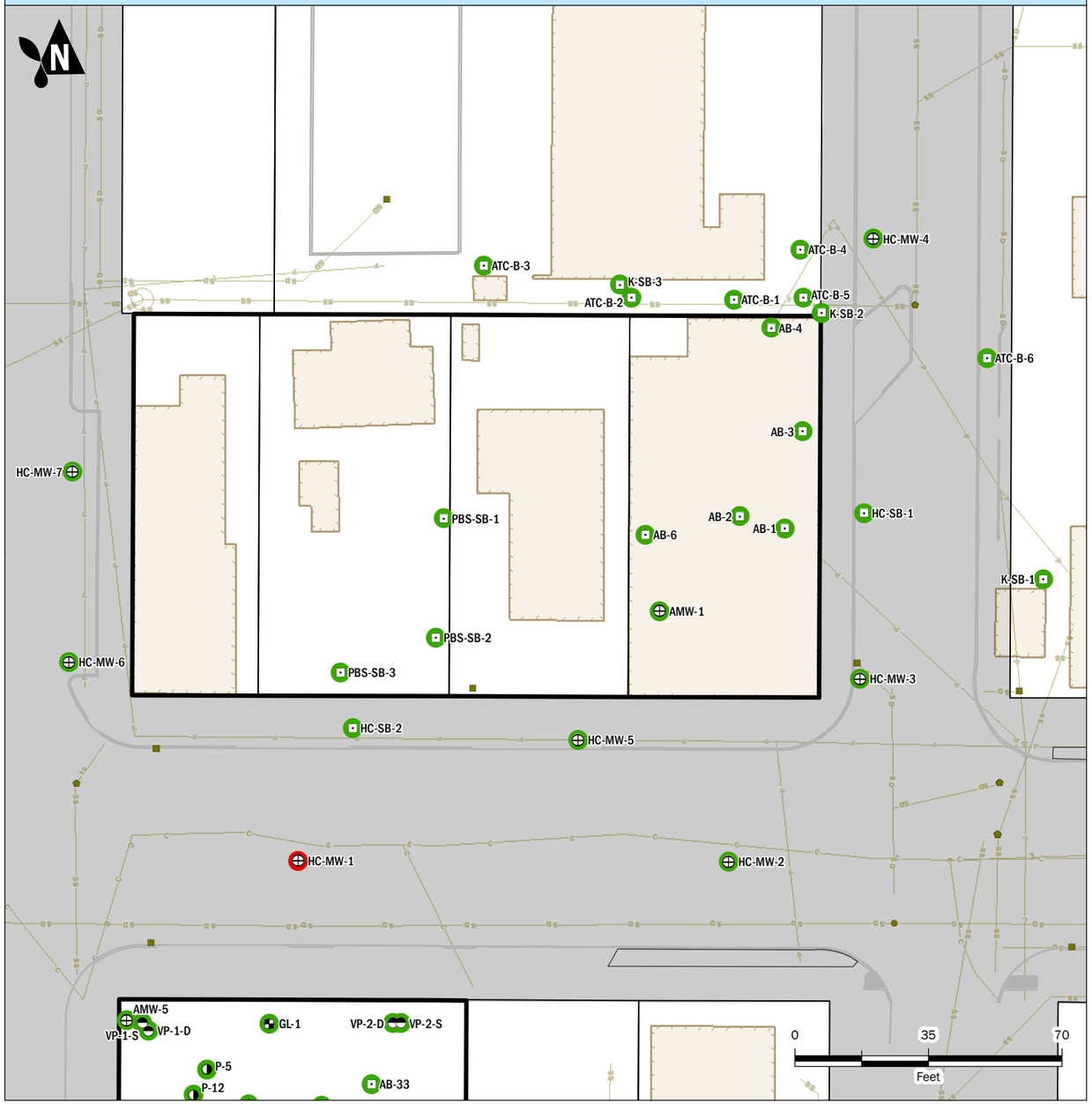
Summary of Chlorinated Solvents in Soil - Phillips 66 Parcel

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

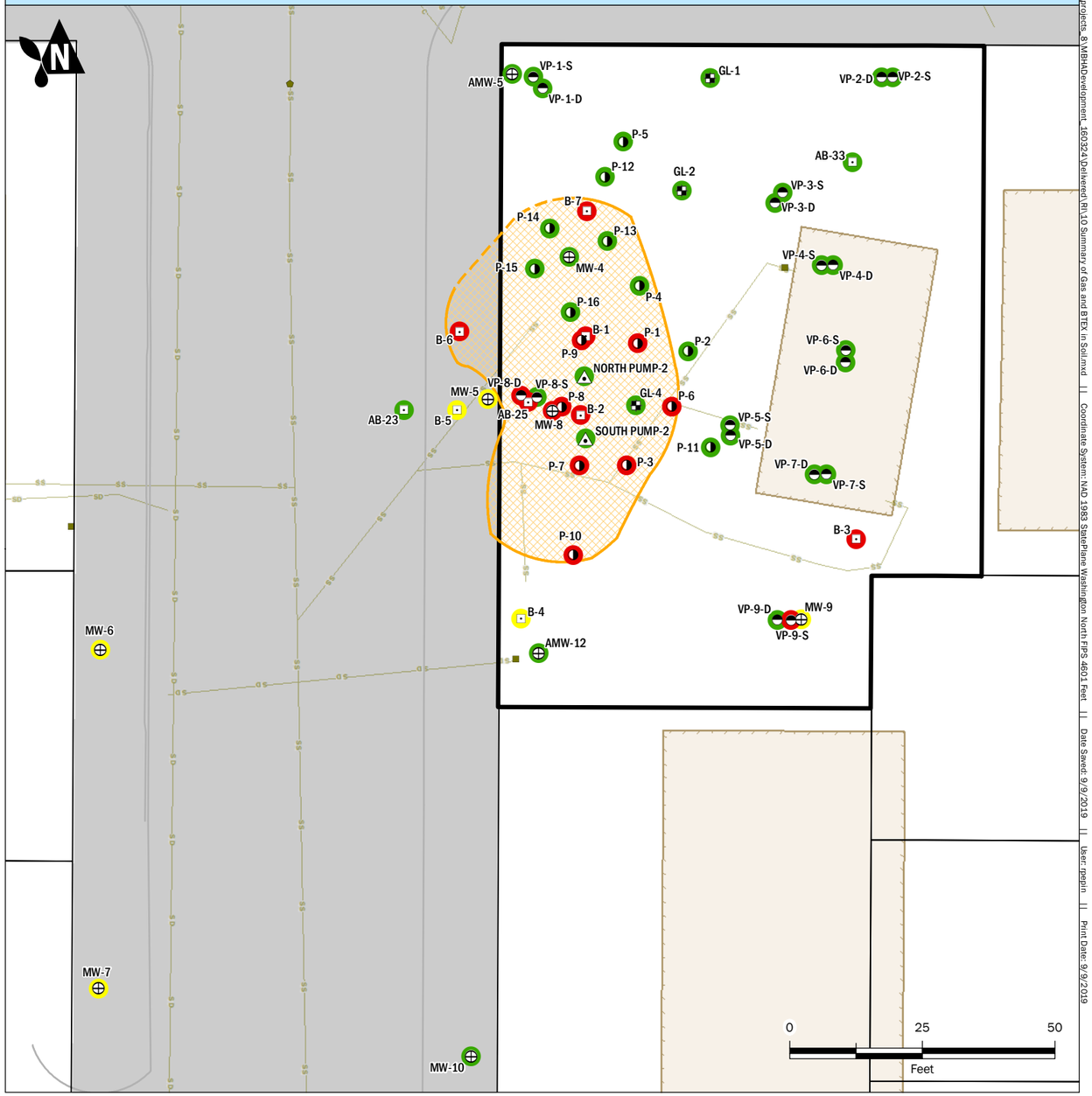
Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 9
	PROJECT NO. 160324	REVISED BY: AY / RAP	

Basemap Layer Credits || Pictometry, King County

McClellan Parcels



Former Phillips 66 Parcel

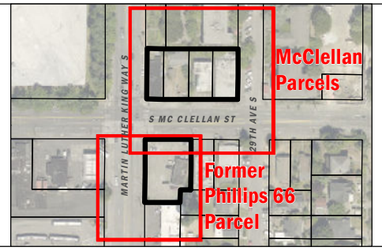


Analytical Results

- Gasoline-range petroleum hydrocarbon and BTEX detected at a concentration greater than the MTCA Method A cleanup level.
- Gasoline-range petroleum hydrocarbon and BTEX detected at concentrations less than the MTCA Method A cleanup level.
- Gasoline-range petroleum hydrocarbon and BTEX were not detected.

- Gasoline-Contaminated Soil
- Monitoring Well
- Soil Boring
- Auger Boring
- Geoprobe
- Soil Gas Probe
- Subject Property
- Building Footprint
- Tax Parcel
- Power Line
- Storm Drain Line
- Sanitary Sewer Line
- Communication Line
- Catch Basin
- Storm Manhole
- Sanitary Manhole

Note: Tax parcel data from King County was minorly adjusted based on site knowledge.



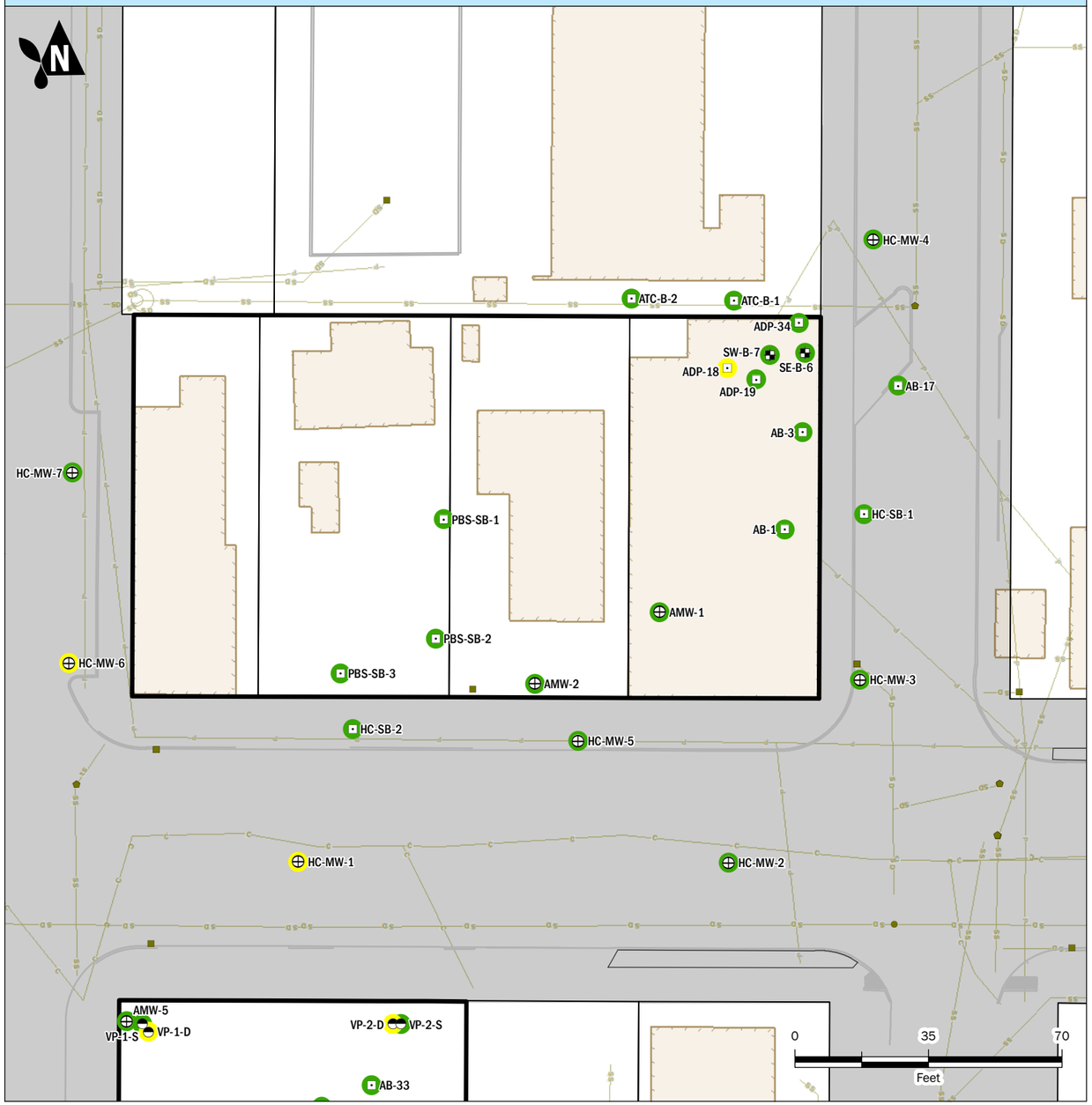
Summary of Gasoline-Range Petroleum Hydrocarbons and BTEX in Soil

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

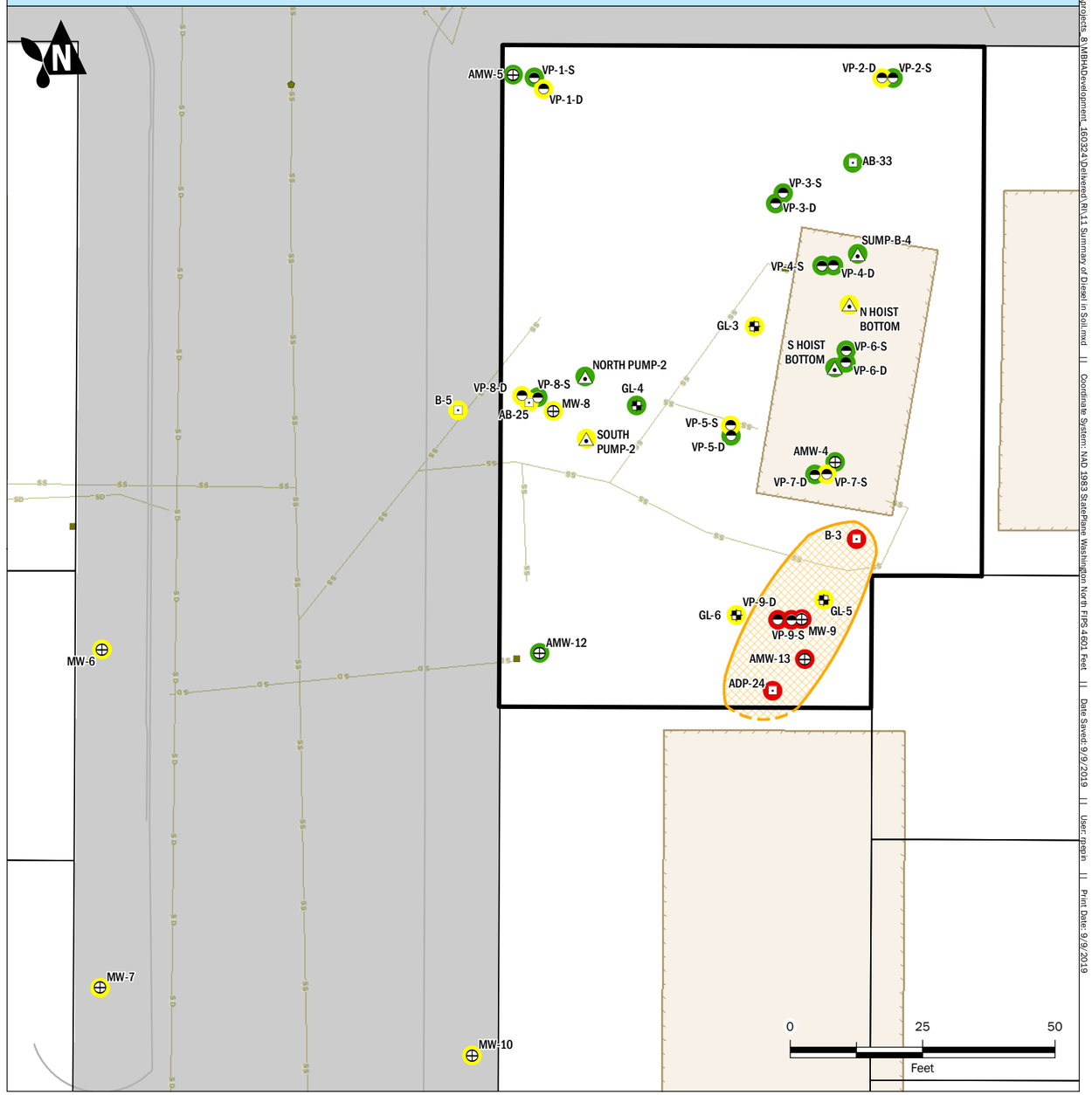
Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 10
	PROJECT NO. 160324	REVISED BY: ---	

Basemap Layer Credits || Pictometry, King County

McClellan Parcels



Former Phillips 66 Parcel

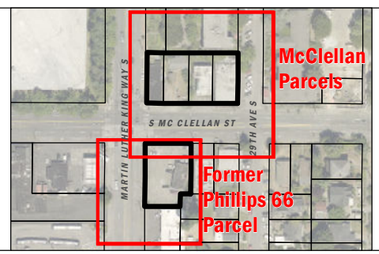


Analytical Results

- Diesel-range petroleum hydrocarbons detected at a concentration greater than the MTCA Method A cleanup level.
- Diesel-range petroleum hydrocarbons detected at concentrations less than the MTCA Method A cleanup level.
- Diesel-range hydrocarbons were not detected.

- Diesel-Contaminated Soil
- Monitoring Well
- Soil Boring
- Auger Boring
- Soil Gas Probe
- Subject Property
- Building Footprint
- Tax Parcel
- Power Line
- Storm Drain Line
- Sanitary Sewer Line
- Communication Line
- Catch Basin
- Storm Manhole
- Sanitary Manhole

Note: Tax parcel data from King County was minorly adjusted based on site knowledge.



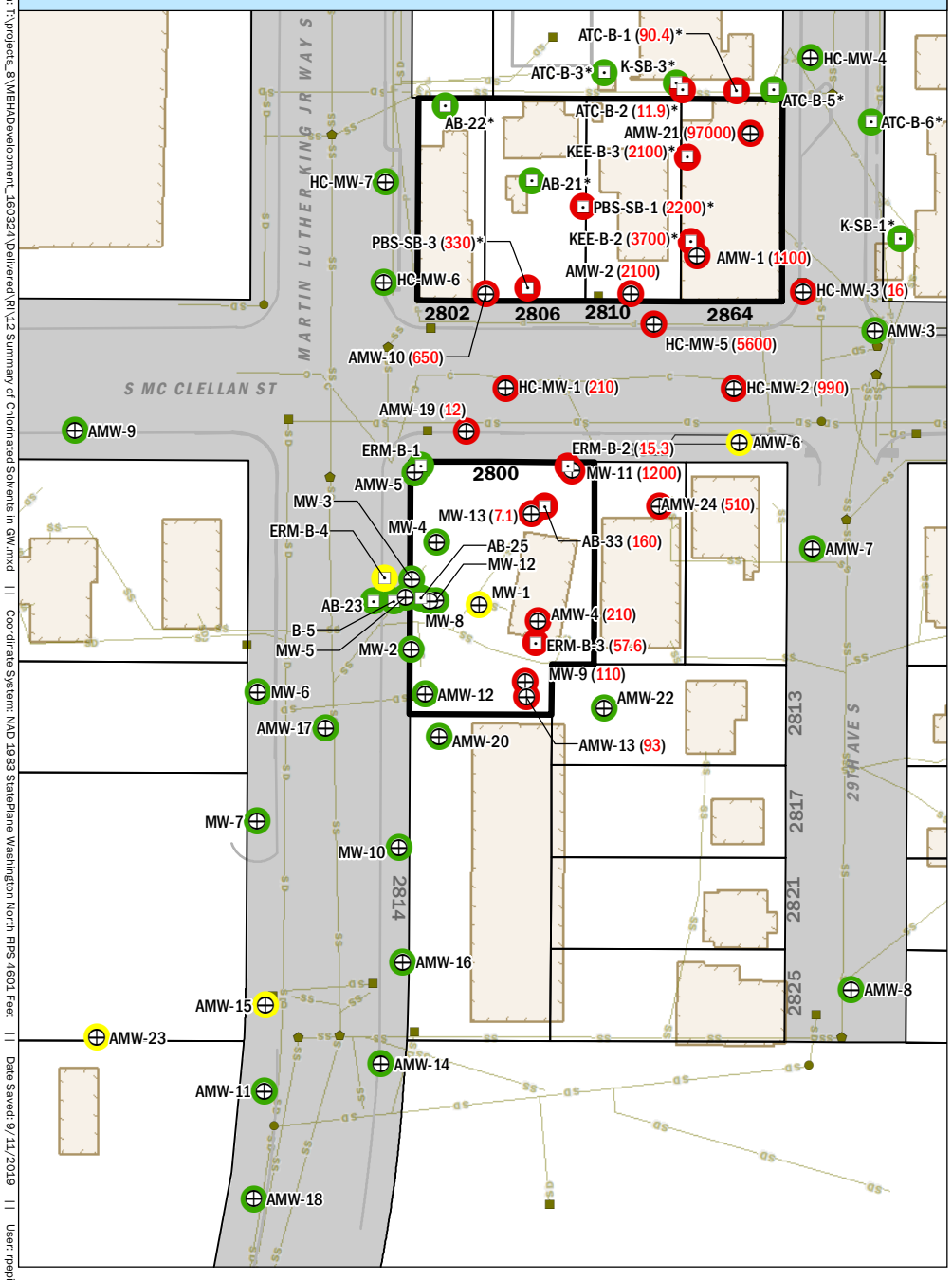
Summary of Diesel-Range Petroleum Hydrocarbons in Soil

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

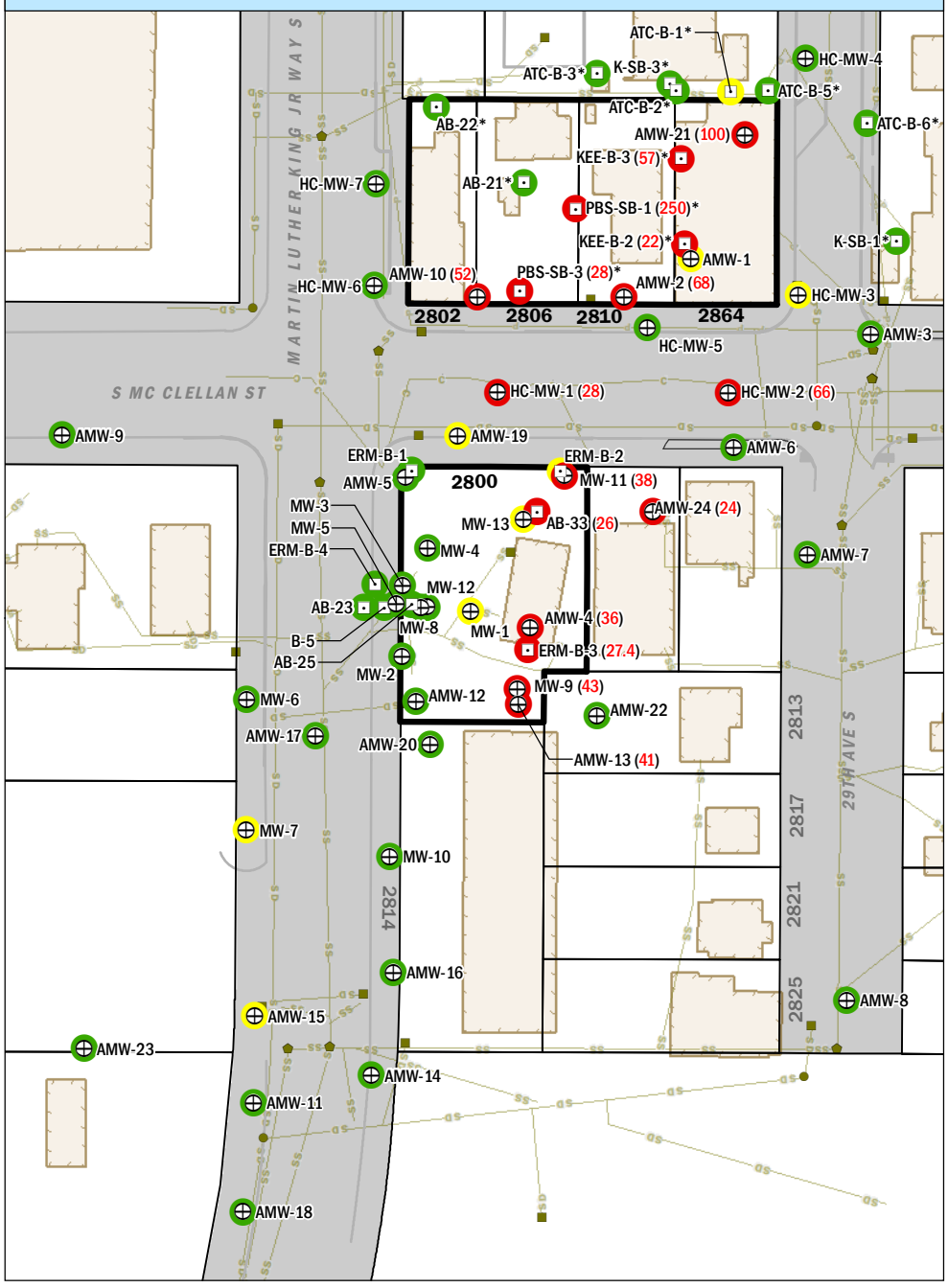
Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 11
	PROJECT NO. 160324	REVISED BY: AY / RAP	

Basemap Layer Credits || Pictometry, King County

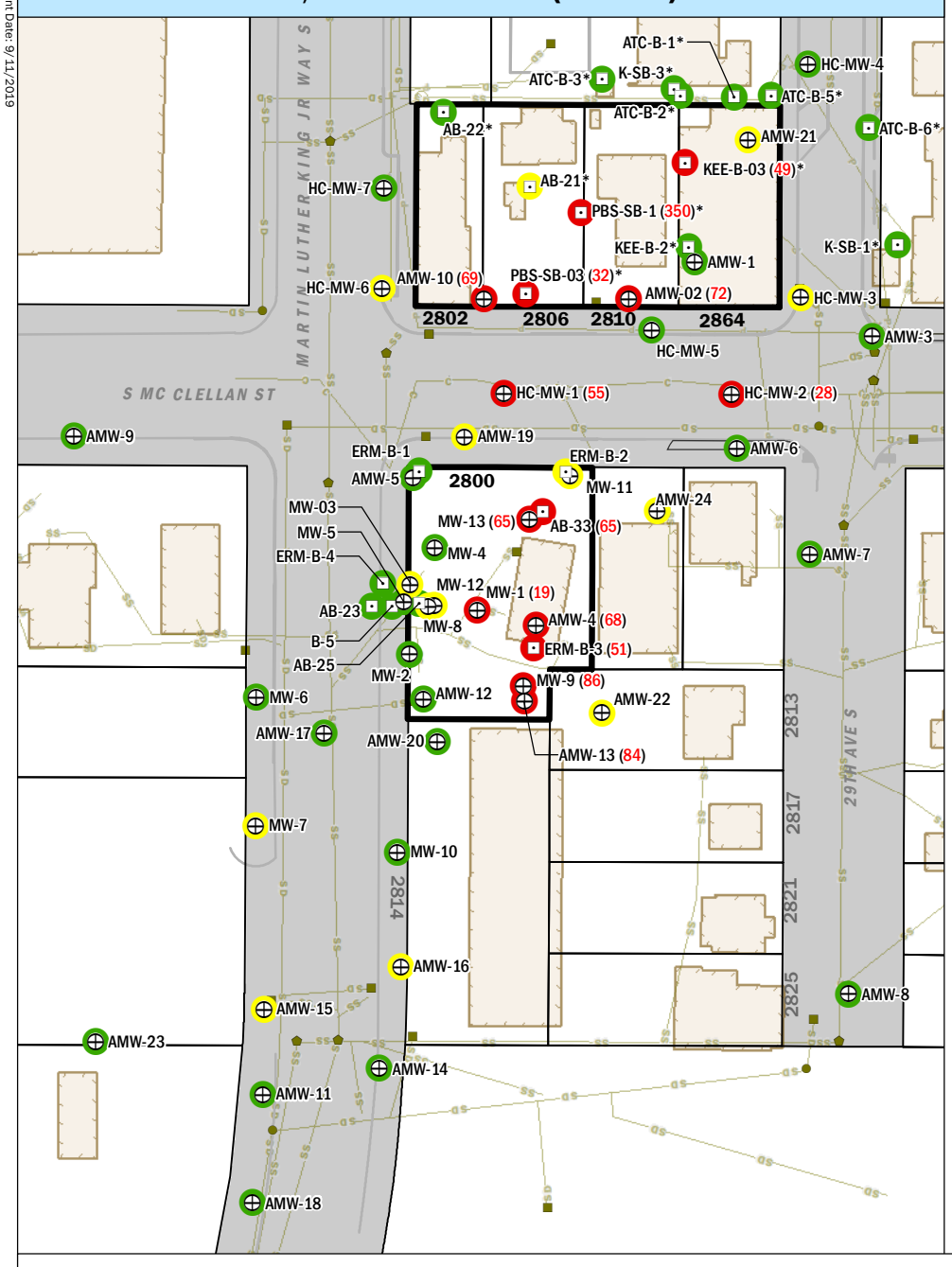
Tetrachloroethene (PCE)



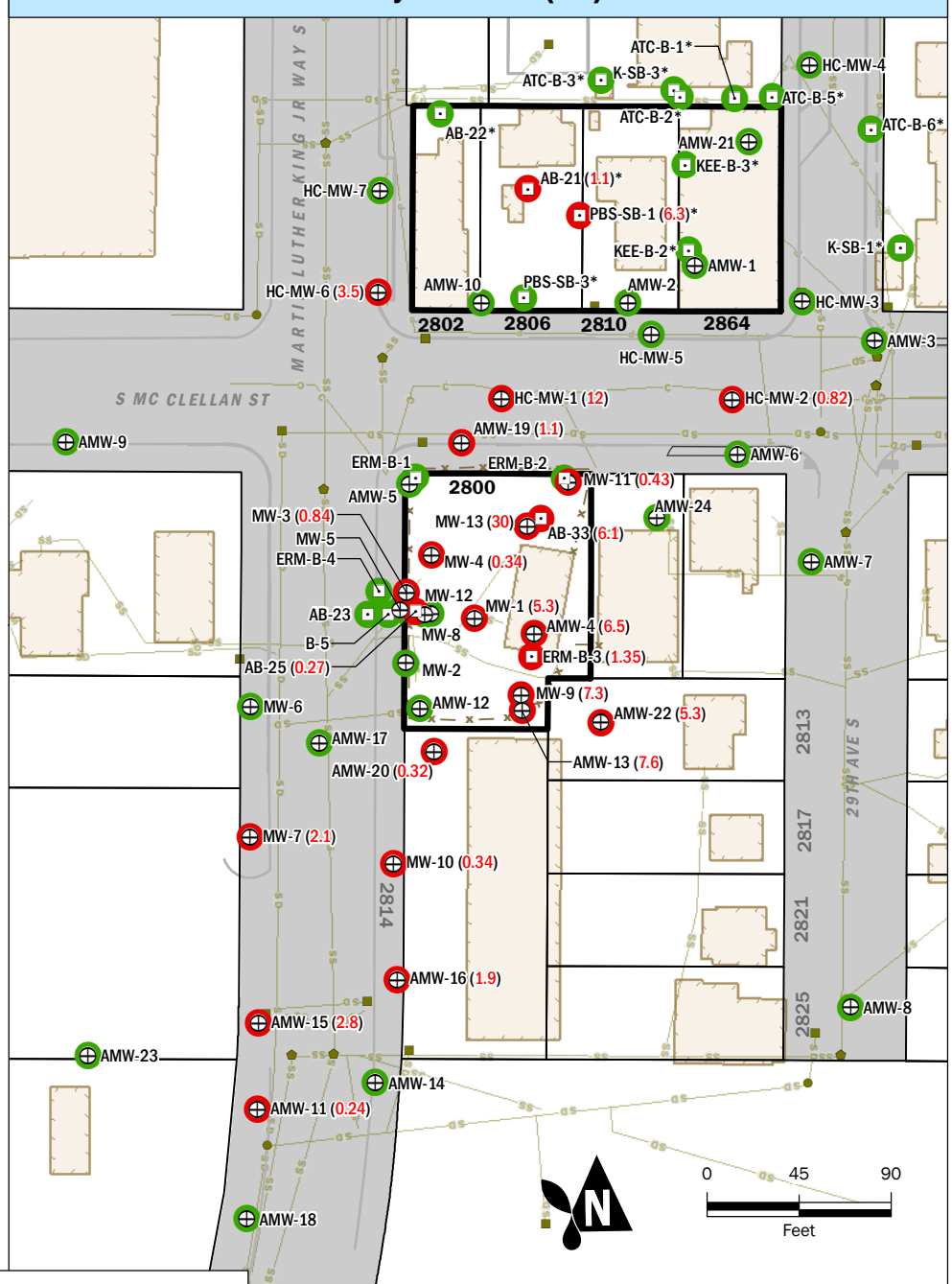
Trichloroethene (TCE)



1,2-Dichloroethene (cis-DCE)



Vinyl Chloride (VC)



Analytical Results

- Chlorinated solvents detected at a concentration greater than the MTCA Method A cleanup level.
- Chlorinated solvents detected at concentrations less than the MTCA Method A cleanup level.
- Chlorinated solvents were not detected.

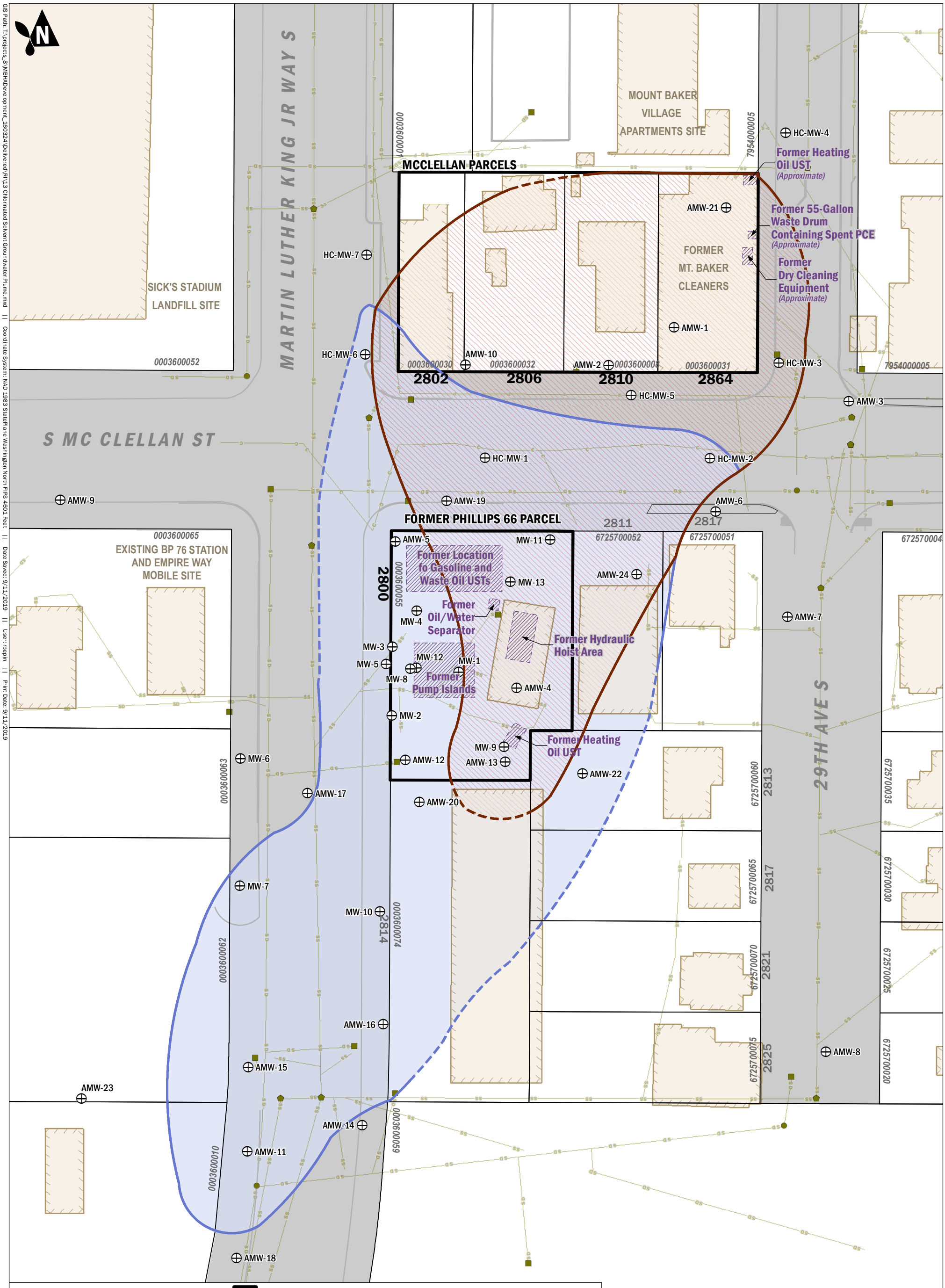
- Monitoring Well
- Soil Boring
- Subject Property
- Building Footprint
- Tax Parcel
- Power Line
- Storm Drain Line
- Sanitary Sewer Line
- Communication Line
- Catch Basin
- Storm Manhole
- Sanitary Manhole

Notes: *1) Analytical results posted in µg/L. Only exceeded results are shown in red font.* *2) *Grab groundwater sample collected on the date that boring was completed (see Table 7).* *3) Tax parcel data from King County was minorly adjusted based on site knowledge.*

Summary of Chlorinated Solvents in Groundwater

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 12
	PROJECT NO. 160324	REVISED BY: ---	



Chlorinated Solvent Groundwater Plume

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 13
	PROJECT NO. 160324	REVISED BY: AY / RAP	

GIS Path: T:\projects_8\MBHADevelopment_160324\Delivered\R\13 Chlorinated Solvent Groundwater Plume.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/11/2019 || User: rpepin || Print Date: 9/11/2019

N

SICK'S STADIUM LANDFILL SITE

0003600052

VILLAGE APARTMENTS SITE

0003600001

7954000005

MCCLELLAN PARCELS

HC-MW-4

HC-MW-7

HC-MW-6

AMW-21

FORMER MT. BAKER CLEANERS

AMW-1

AMW-10

0003600030

0003600032

AMW-2

0003600008

0003600031

HC-MW-3

2802

2806

2810

2864

HC-MW-5

AMW-3

HC-MW-1

S MC CLELLAN ST

HC-MW-2

AMW-9

AMW-19

AMW-6

FORMER PHILLIPS 66 PARCEL

2811

2817

6725700052

6725700051

0003600065

EXISTING BP 76 STATION AND EMPIRE WAY MOBILE SITE

AMW-5

MW-11

AB-33

MW-13

AMW-24

2800

0003600055

MW-4

AMW-7

MW-3 (3800)

MW-12 (24000)

MW-5 (3400)

MW-1

MW-8 (9000)

AMW-4

MW-2

MW-9

AMW-13

MW-6

AMW-12

AMW-22

0003600063

AMW-17

AMW-20

6725700060

2813

MARTIN LUTHER KING JR WAY S

29TH AVE S

MW-7

6725700065

2817

MW-10

2814

0003600074

0003600062

6725700070

2821

AMW-16

AMW-15

6725700075

2825

AMW-8

AMW-23

AMW-14

0003600059

AMW-11

0003600010

AMW-18

Power Line
Storm Drain Line
Sanitary Sewer Line
Communication Line
Catch Basin
Storm Manhole
Sanitary Manhole

Analytical Results

- Gasoline-range petroleum hydrocarbon detected at concentrations greater than the MTCA Method A cleanup levels.
- Gasoline-range petroleum hydrocarbon detected at concentrations less than the MTCA Method A cleanup levels.
- Gasoline-range petroleum hydrocarbons not detected.

MW-8 (9000)
Exploration ID
Gasoline-Range Total Petroleum Hydrocarbon Concentration (µg/L)

Note: Explorations without a colored halo were not submitted for analytical testing of petroleum hydrocarbons. Only explorations with a MTCA Method A cleanup level exceedance are labeled.
Tax parcel data from King County was minorly adjusted based on site knowledge.

Monitoring Well
Soil Boring
Subject Property
Building Footprint
Tax Parcel

0 20 40
Feet

Gasoline-Range Hydrocarbons in Groundwater, August 2018

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 14
	PROJECT NO. 160324	REVISED BY: AY / RAP	

SICK'S STADIUM LANDFILL SITE

0003600052

VILLAGE APARTMENTS SITE

0003600001

7954000005

MCCLELLAN PARCELS

FORMER MT. BAKER CLEANERS

0003600030

0003600032

0003600008

0003600031

2802

2806

2810

2864

S MC CLELLAN ST

FORMER PHILLIPS 66 PARCEL

2811

2817

6725700052

6725700051

EXISTING BP 76 STATION AND EMPIRE WAY MOBILE SITE

0003600065

2800

0003600055

MARTIN LUTHER KING JR WAY S

29TH AVE S

0003600063

0003600062

2814

0003600074

6725700060

2813

6725700065

2817

6725700070

2821

6725700075

2825

0003600059

0003600010

HC-MW-01

HC-MW-02

HC-MW-03

HC-MW-04

HC-MW-05

HC-MW-06

HC-MW-07

AMW-01

AMW-02

AMW-03

AMW-04

AMW-05

AMW-06

AMW-07

AMW-08

AMW-09

AMW-10

AMW-11

AMW-12

AMW-13

AMW-14

AMW-15

AMW-16

AMW-17

AMW-18

AMW-19

AMW-20

AMW-21

AMW-22

AMW-23

AMW-24

MW-01

MW-02

MW-03 (1100 X)

MW-04

MW-05 (1300 X)

MW-06

MW-07

MW-08 (2700 X)

MW-09

MW-10

MW-11

MW-12 (4600 X)

MW-13

AB-33

Power Line
Storm Drain Line
Sanitary Sewer Line
Communication Line
Catch Basin
Storm Manhole
Sanitary Manhole

Analytical Results

- Diesel-range petroleum hydrocarbon detected at concentrations greater than the MTCA Method A cleanup levels.
- Diesel-range petroleum hydrocarbon detected at concentrations less than the MTCA Method A cleanup levels.
- Diesel-range petroleum hydrocarbons not detected.

Exploration ID → MW-8 (2500 X)
Diesel-Range Total Petroleum Hydrocarbon Concentration (µg/L)

Note: Explorations without a colored halo were not submitted for analytical testing of petroleum hydrocarbons. Only explorations with a MTCA Method A cleanup level exceedance are labeled. An "X" qualifier indicates the chromatographic pattern did not match the fuel standard.
Tax parcel data from King County was minorly adjusted based on site knowledge.

Monitoring Well
Soil Boring
Subject Property
Building Footprint
Tax Parcel

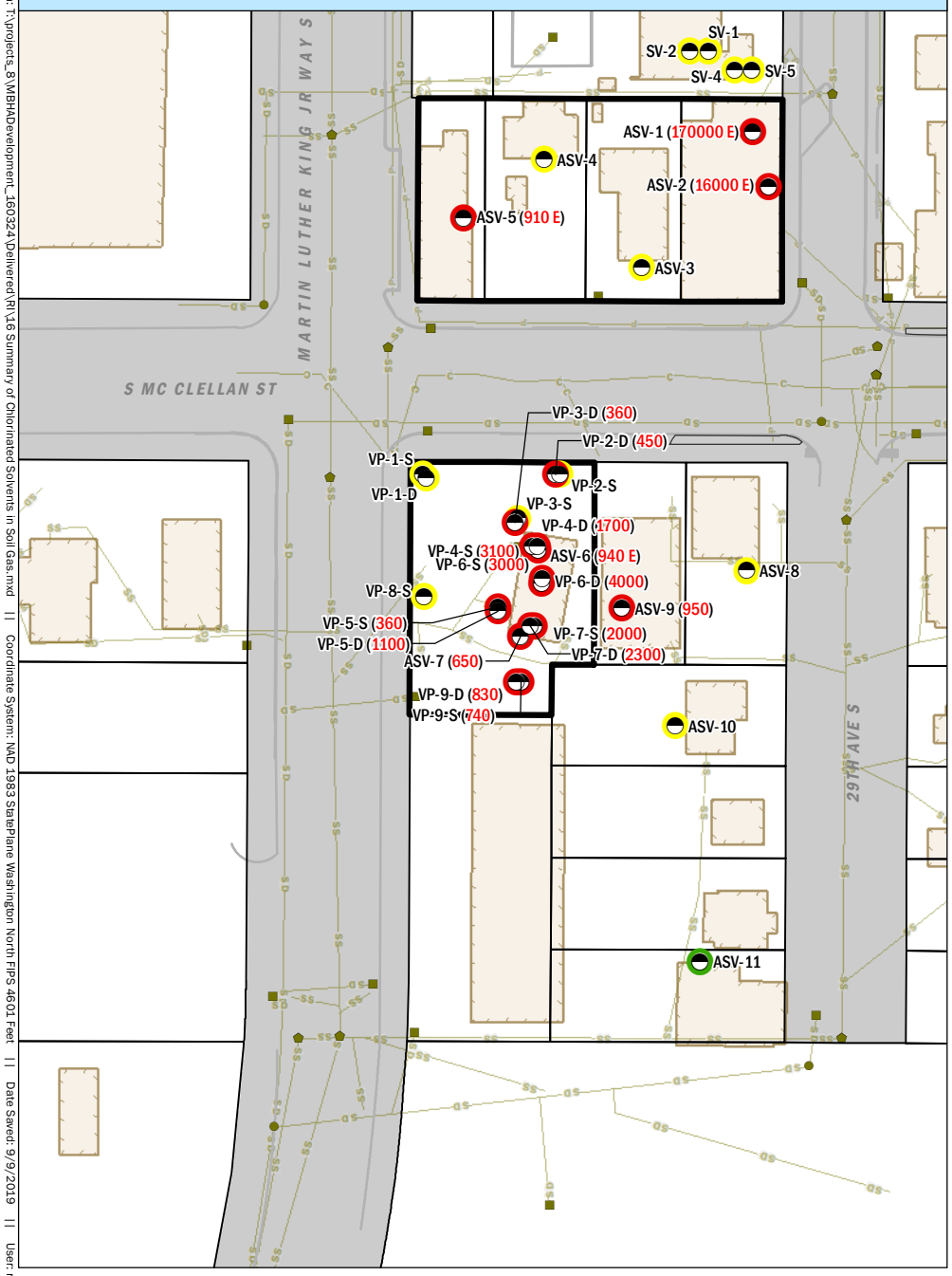
0 20 40
Feet

Diesel-Range Hydrocarbons in Groundwater, August 2018

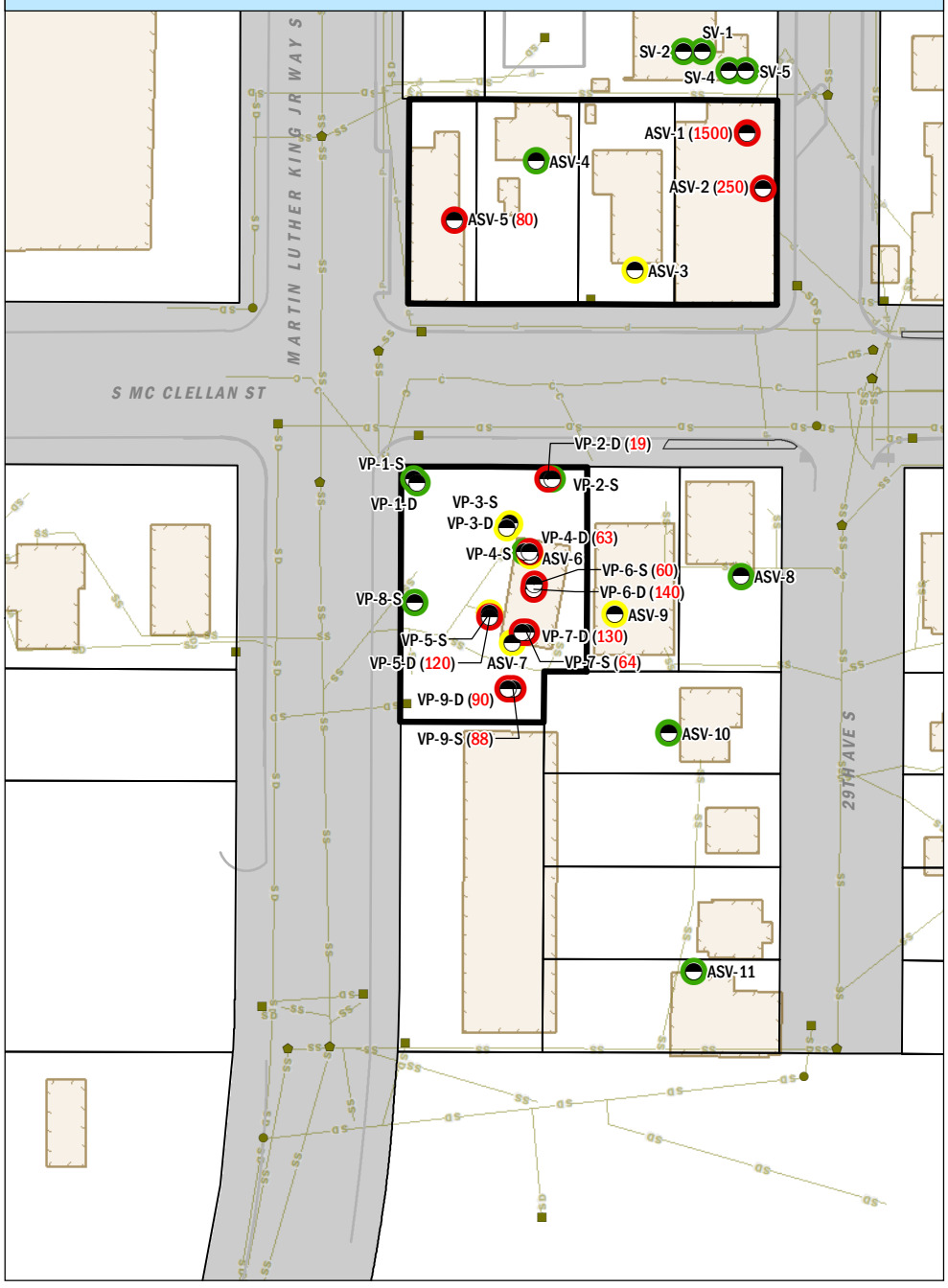
Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 15
	PROJECT NO. 160324	REVISED BY: AY / RAP	

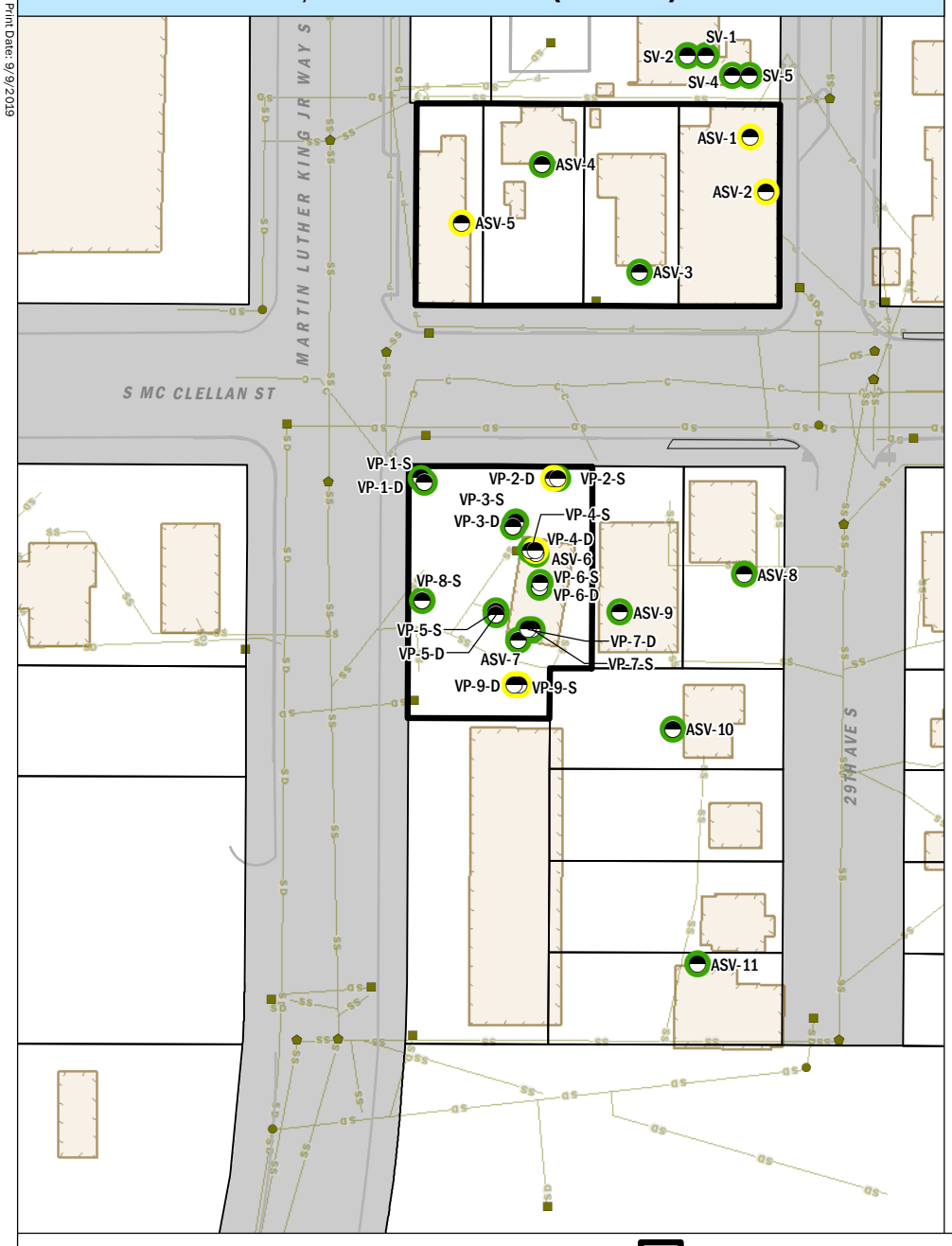
Tetrachloroethene (PCE)



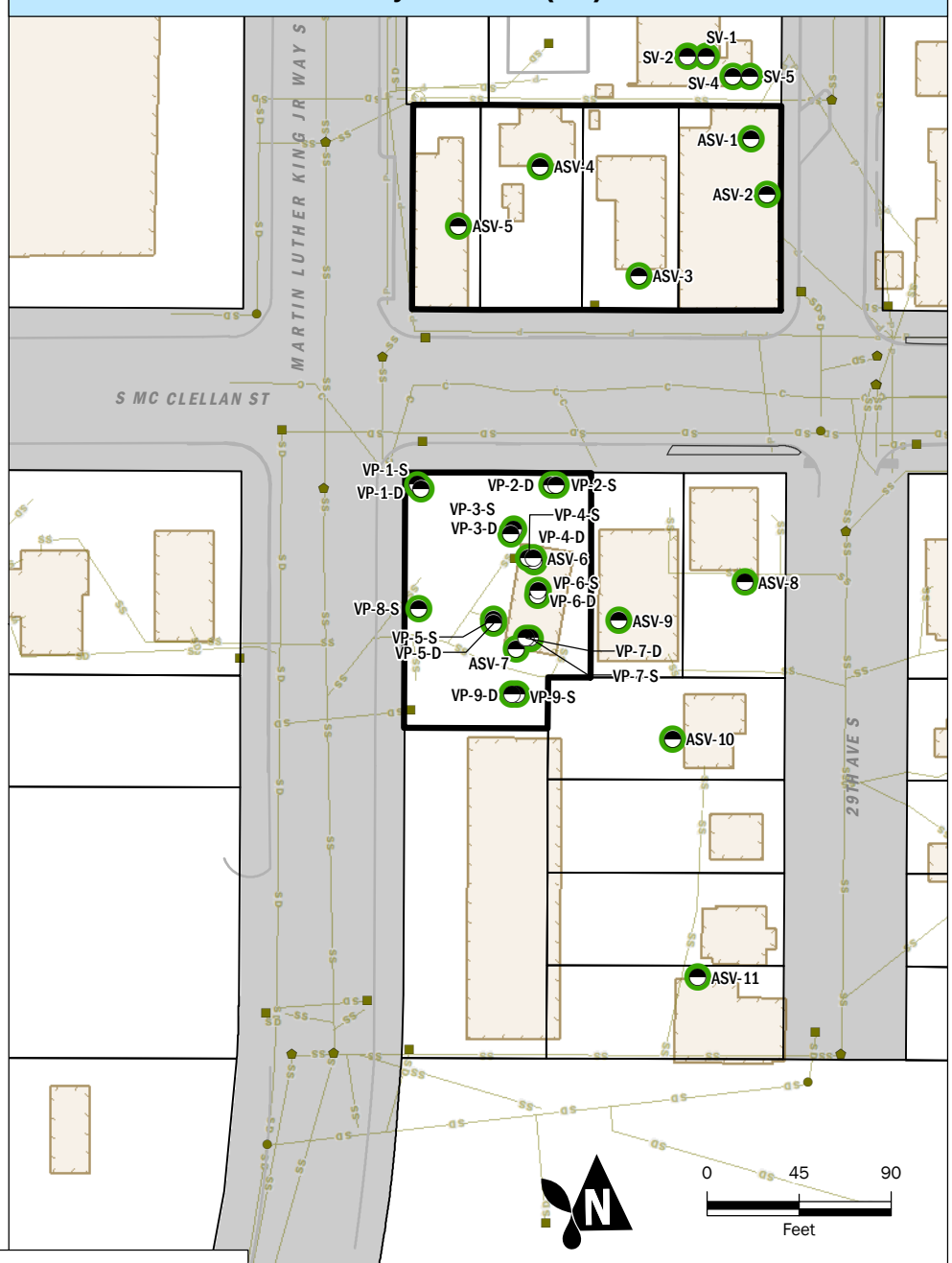
Trichloroethene (TCE)



1,2-Dichloroethene (cis-DCE)



Vinyl Chloride (VC)



Analytical Results

- Chlorinated solvents detected at a concentration greater than the MTCA Vapor Intrusion Sub Slab Method B cleanup level.
- Chlorinated solvents detected at concentrations less than theMTCA Vapor Intrusion Sub Slab Method B cleanup level.
- Chlorinated solvents were not detected.
- Soil Gas

- Subject Property
- Building Footprint
- Tax Parcel

- Power Line
- Storm Drain Line
- Sanitary Sewer Line
- Communication Line
- Catch Basin
- Storm Manhole
- Sanitary Manhole

Note: Analytical results posted in µg/m³. Only exceeded results are shown in red font.
An "E" qualifier indicates analyte result exceeded instrument calibration range, and dilution/reanalysis was not feasible. Analyte is clearly detected at a value of at least the upper calibration range and in excess of the screening level, but numeric value provided is an estimate.
Tax parcel data from King County was minorly adjusted based on site knowledge.

Summary of Chlorinated Solvents in Soil Gas

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 16
	PROJECT NO. 160324	REVISED BY: ---	

GIS Path: T:\projects_8\MBHADevelopment_160324\Delivered\R\16 Summary of Chlorinated Solvents in Soil Gas.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/9/2019 || User: rpepin || Print Date: 9/9/2019

Horizontal Scale: 1" = 25'
Vertical Scale: 1" = 10'
Vertical Exaggeration 2.5x

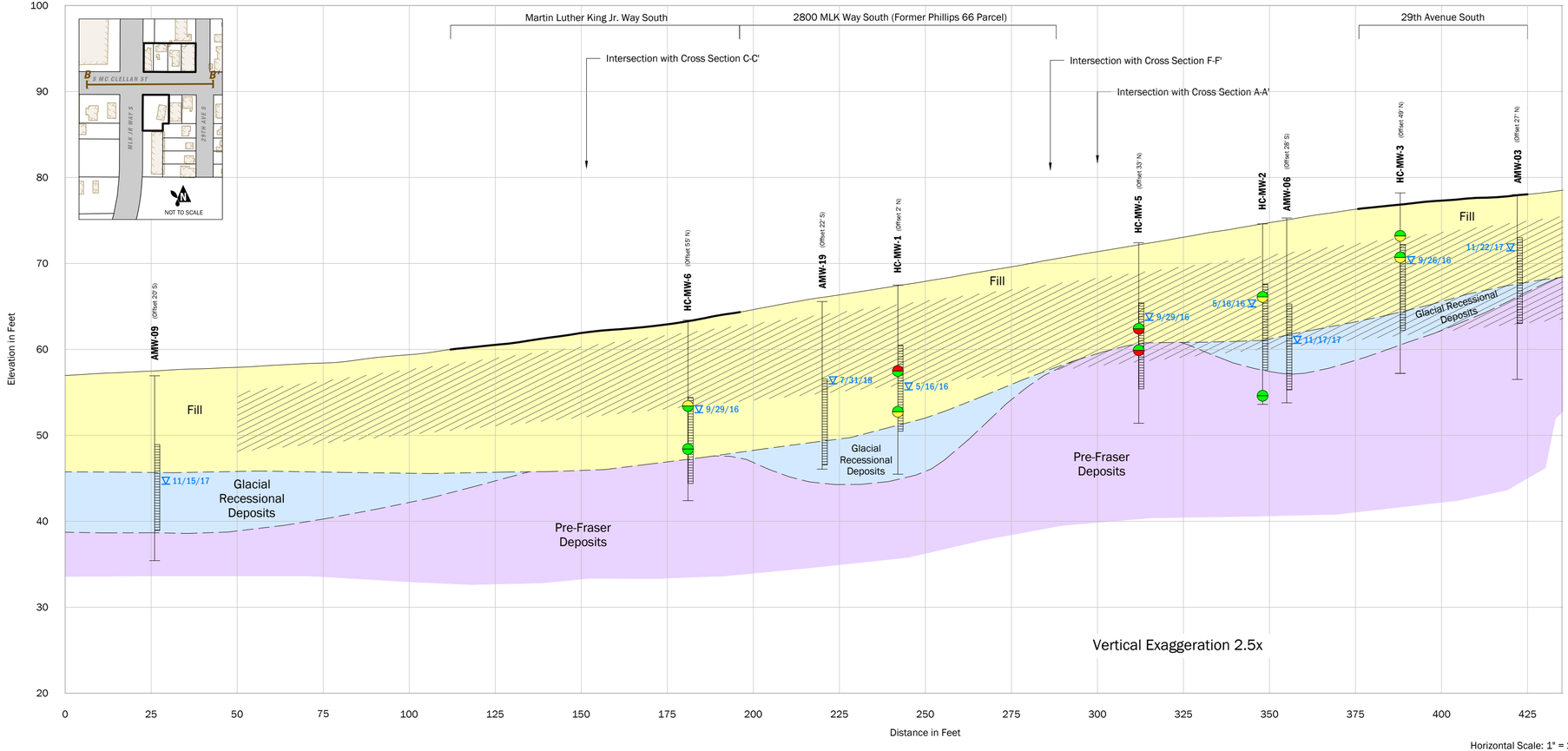
Cross Section A-A'

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	Jul-2019	BY: JAS/SCC	FIGURE NO. 17
	PROJECT NO. 160324	REVISED BY: SCC	

B
West

B'
East



Legend

- Approximate Vertical Extent of Utility Lines and Utility Trench Fill Soil
- Estimated Geologic Contact
- Fill Soil
- Glacial Recessional Deposits
- Pre-Fraser Deposits

K-SB-2 (Offset 17' NW)

- Offset Distance and Direction from Profile
- Boring ID
- Analytical Sample Location
- Petroleum Compounds (Upper Half) PCE (Lower Half)
- 7/31/18 — Water Level and Date Measured
- Screened Interval

Analytical Results

- One or more of contaminants of concern detected at a concentration greater than the MTCA Method A cleanup level.
- One or more of contaminants of concern detected at a concentration less than the MTCA Method A cleanup level.
- Contaminants of concern not detected.
- Contaminant not analyzed.

Note: Petroleum compounds include diesel and gasoline range petroleum hydrocarbons, benzene and total xylenes.

Horizontal Scale: 1" = 25'
Vertical Scale: 1" = 10'
Vertical Exaggeration 2.5x

0 25 50 Feet

Cross Section B-B'

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

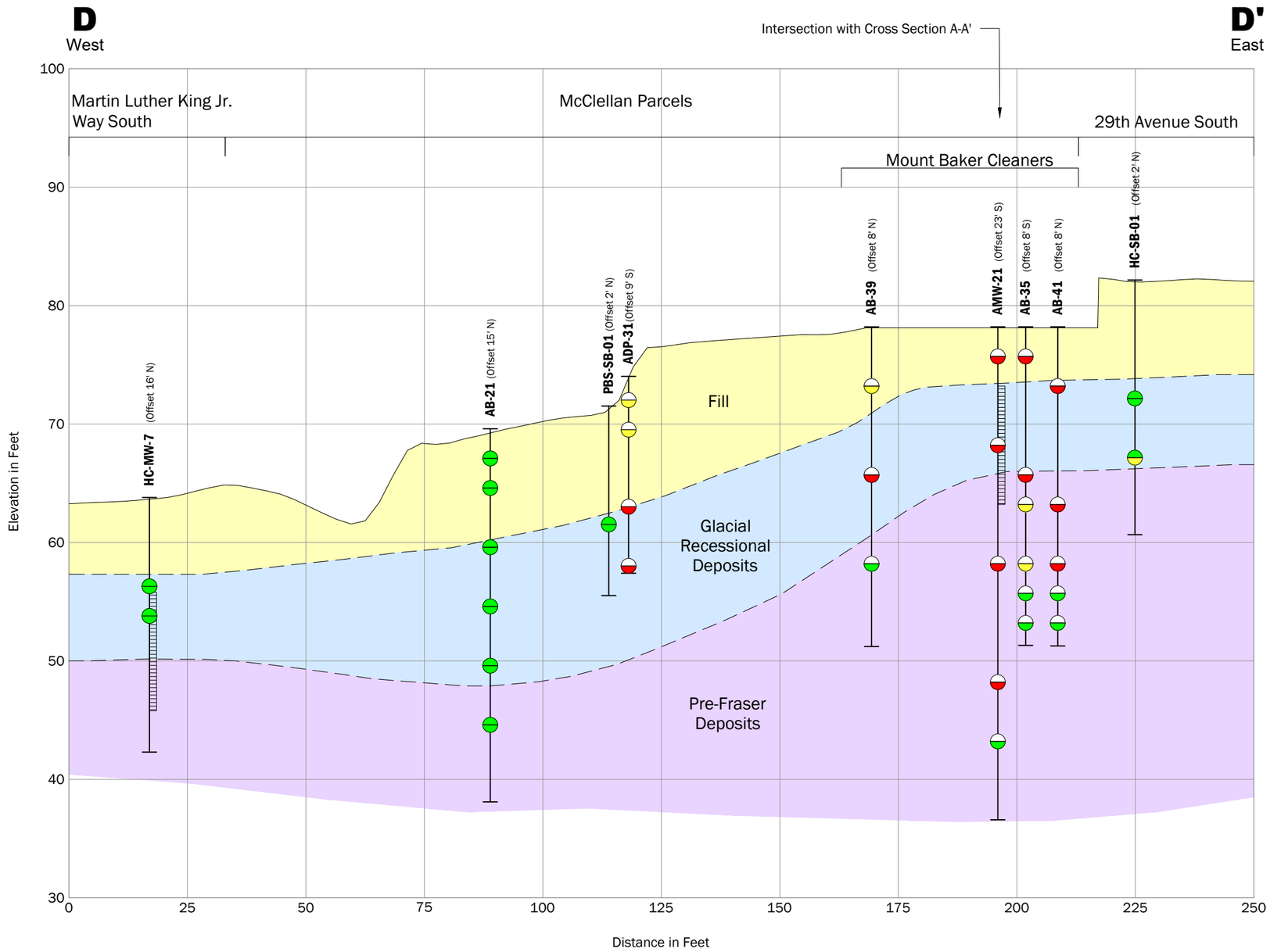
Aspect Consulting	Jul-2019	BY: JAS/SCC	FIGURE NO. 18
	PROJECT NO. 160324	REVISED BY: SCC	

C
North
C'
South
South McClellan Street
2800 MLK Way South (Former Phillips 66 Parcel)
Intersection with Cross Section B-B'
Intersection with Cross Section A-A'
Elevation in Feet
Distance in Feet
HC-MW-7
HC-MW-6
MW-3
AB-23
MW-5
MW-8
MW-2
MW-6
AMW-17
MW-7
MW-10
AMW-16
AMW-15
AMW-14
AMW-11
AMW-18
Fill
Glacial Recessional Deposits
Pre-Fraser Deposits
Vertical Exaggeration 2.5x
Legend
Approximate Vertical Extent of Utility Lines and Utility Trench Fill Soil
Estimated Geologic Contact
Fill Soil
Glacial Recessional Deposits
Pre-Fraser Deposits
Offset Distance and Direction from Profile
Boring ID
Analytical Sample Location
Petroleum Compounds (Upper Half)
PCE (Lower Half)
Water Level and Date Measured
Screened Interval
Analytical Results
One or more of contaminants of concern detected at a concentration greater than the MTCA Method A cleanup level.
One or more of contaminants of concern detected at a concentration less than the MTCA Method A cleanup level.
Contaminants of concern not detected.
Contaminant not analyzed.
Note: Petroleum compounds include diesel and gasoline range petroleum hydrocarbons, benzene and total xylenes.
Horizontal Scale: 1" = 25'
Vertical Scale: 1" = 10'
Vertical Exaggeration 2.5x
Feet

Cross Section C-C'

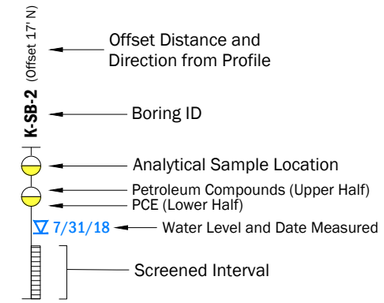
Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect CONSULTING	Jul-2019	BY: JAS/SCC	FIGURE NO. 19
	PROJECT NO. 160324	REVISED BY: SCC	



Legend

- Estimated Geologic Contact
- Fill Soil
- Glacial Recessional Deposits
- Pre-Fraser Deposits



Analytical Results

One or more of contaminants of concern detected at a concentration greater than the MTCA Method A cleanup level.

One or more of contaminants of concern detected at a concentration less than the MTCA Method A cleanup level.

Contaminants of concern not detected.

Contaminant not analyzed.

Note: Petroleum compounds include diesel and gasoline range petroleum hydrocarbons, benzene and total xylenes.

Horizontal Scale: 1" = 25'
Vertical Scale: 1" = 10'
Vertical Exaggeration 2.5x

0 25 50 Feet

Cross Section D-D'

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	Jul-2019	BY: JAS/SCC	FIGURE NO. 20
	PROJECT NO. 160324	REVISED BY: SCC	

E North

E' South

Intersection with Cross Section A-A'

2800 MLK Way South
(Former Phillips 66 parcel)

Elevation in Feet

Distance in Feet

Fill

Glacial Recessional Deposits

Pre-Fraser Deposits

Well	Offset	Water Level Date
AMW-19	(Offset 21' E)	7/31/18
AMW-05	(Offset 5' W)	8/7/17
MW-04	(Offset 5' E)	6/22/06
MW-03	(Offset 7' W)	8/9/05
MW-03		6/19/14
MW-12	(Offset 4' E)	7/12/11
MW-08	(Offset 2' E)	
MW-02	(Offset 8' W)	8/9/05
AMW-12	(Offset 2' W)	11/21/17
AMW-20	(Offset 5' E)	7/30/18
MW-10	(Offset 16' W)	7/13/11
AMW-16	(Offset 15' W)	7/30/18
AMW-14	(Offset 26' W)	11/21/17

Legend

- Estimated Geologic Contact
- Fill Soil
- Glacial Recessional Deposits
- Pre-Fraser Deposits

K-SB-2 (Offset 17' NW)

- Offset Distance and Direction from Profile
- Boring ID
- Analytical Sample Location
- Petroleum Compounds (Upper Half)
- PCE (Lower Half)
- 7/31/18 — Water Level and Date Measured
- Screened Interval

Analytical Results

- One or more of contaminants of concern detected at a concentration greater than the MTCA Method A cleanup level.
- One or more of contaminants of concern detected at a concentration less than the MTCA Method A cleanup level.
- Contaminants of concern not detected.
- Contaminant not analyzed.

Horizontal Scale: 1" = 25'
Vertical Scale: 1" = 10'
Vertical Exaggeration 2.5x

0 25 50 Feet

Note: Petroleum compounds include diesel and gasoline range petroleum hydrocarbons, benzene and total xylenes.

Cross Section E-E'

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	Jul-2019	BY: JAS/SCC	FIGURE NO. 21
	PROJECT NO. 160324	REVISED BY: SCC	

CAD Path: Q:\MBHA Development\160324 Development\2019-06 RI FS\160324-EE.dwg 11x17 Landscape || Date Saved: Jul 15, 2019 1:11pm || User: scudd

F Northeast

F' Southwest

Intersection with Cross Section B-B'

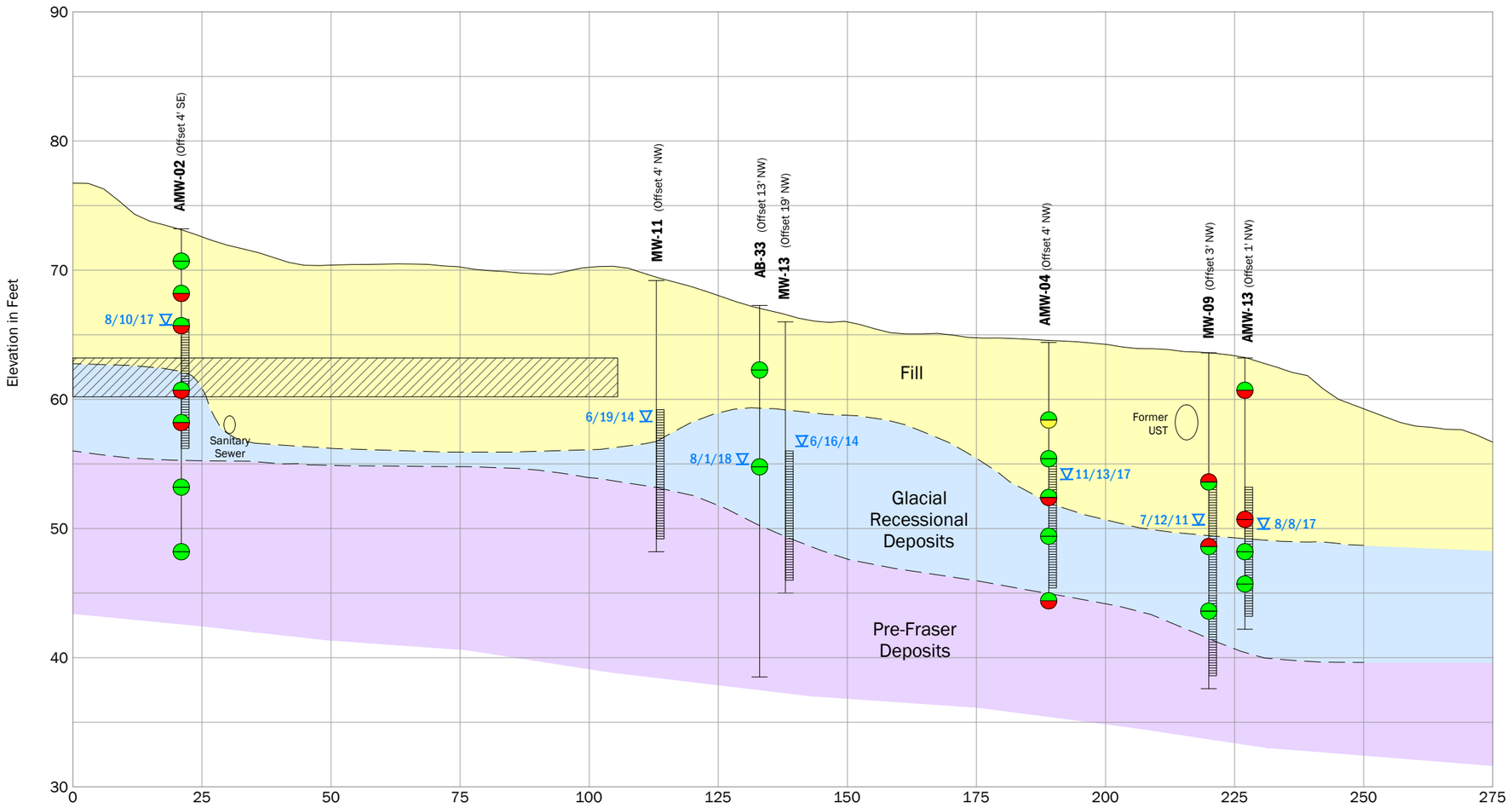
Intersection with Cross Section A-A'

2800 MLK Way South (Former Phillips 66 Parcel)

Apt.

South McClellan Street

Existing Building



Horizontal Scale: 1" = 25'
Vertical Scale: 1" = 10'
Vertical Exaggeration 2.5x

0 25 50 Feet

Legend

- Approximate Vertical Extent of Utility Lines and Utility Trench Fill Soil
- Estimated Geologic Contact
- Fill Soil
- Glacial Recessional Deposits
- Pre-Fraser Deposits

K-SB-2 (Offset 17' NW)

- Offset Distance and Direction from Profile
- Boring ID
- Analytical Sample Location
- Petroleum Compounds (Upper Half)
- PCE (Lower Half)
- 7/31/18 Water Level and Date Measured
- Screened Interval

Analytical Results

- One or more of contaminants of concern detected at a concentration greater than the MTCA Method A cleanup level.
- One or more of contaminants of concern detected at a concentration less than the MTCA Method A cleanup level.
- Contaminants of concern not detected.
- Contaminant not analyzed.

Note: Petroleum compounds include diesel and gasoline range petroleum hydrocarbons, benzene and total xylenes.

Cross Section F-F'

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting			
	Jul-2019	BY: JAS/SCC	FIGURE NO. 22
	PROJECT NO. 160324	REVISED BY: SCC	

G (SW) — **G'** (NE)

Boiler Room | Back Hallway | Mount Baker Cleaners Ground Floor | Property Boundary

UST | Fill

Glacial Recessional Deposits

Pre-Fraser Deposits

Elevation in Feet

Distance in Feet

ADP-54 (Offset 0')	ADP-47 (Offset 4' NW)	ADP-51 (Offset 1' SE)	ADP-46 (Offset 9' NW)	ADP-49 (Offset 2' NW)	AB-40 (Offset 1' NW)	ADP-42 (Offset 0')	ADP-18 (Offset 1' NW)	ADP-44 (Offset 2' SE)	AMW-21 (Offset 7' SE)	ADP-55 (Offset 2' NW)	AB-4 (Offset 3' NW)	ADP-34 (Offset 0')
ND	ND		ND		0.1	2	ND				0.032	0.57
		0.98			1.4	ND	1,200	39,000	15	610		
						2.4		0.21		5.5		1.8
0.19	0.078	0.13	2.0	0.23	13	790	44	900		13	210	
						0.031			0.83	13	390	
0.23	0.22	43	0.23 830	44	720	3.7	0.23	ND				0.75
		1.4	ND	0.19	ND		ND		ND	ND		
		0.048							0.33			ND
		0.047		0.061								
									0.082			
									ND			

Analytical Results

- Contaminants of concern detected at concentrations greater than the MTCA Method A cleanup levels.
- Contaminants of concern detected at concentrations less than the MTCA Method A cleanup levels.
- Contaminants of concern not detected.
- PCE TCLP testing not necessary based on the concentration of PCE detected.

ADP-47 (Offset 4' NW) ← Boring ID; Offset Distance and Direction

Analytical Sample Location

PCE, (mg/kg) — 13 — 390 — PCE, TCLP (µg/L)

- Area of PCE Dangerous Waste
- Area of PCE Contamination
- Geologic Contact

Note: Glacial recessional deposits consist of loose to medium dense silty sands. Pre-Fraser deposits consist of hard silts or clays.

Horizontal Scale: 1" = 5'
Vertical Scale: 1" = 5'
No Vertical Exaggeration

0 5 10 Feet

Cross Section G-G'

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	Jul-2019	BY: KB/SCC	FIGURE NO. 23
	PROJECT NO. 160324	REVISED BY: SCC	

GIS Path: T:\projects_8\MBHADevelopment_160324\Delivered\RI\24 Areas Targeted for Remedial Action.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/11/2019 || User: rpepin || Print Date: 9/11/2019

MARTIN LUTHER KING JR WAY S

S MC CLELLAN ST

29TH AVE S

SICK'S STADIUM LANDFILL SITE

0003600052

MOUNT BAKER VILLAGE APARTMENTS SITE

0003600001

7954000005

MCCLELLAN PARCELS

HC-MW-4

Former Heating Oil UST *(Approximate)*

AMW-21

Former 55-Gallon Waste Drum Containing Spent PCE *(Approximate)*

Former Dry Cleaning Equipment *(Approximate)*

HC-MW-7

FORMER MT. BAKER CLEANERS

AMW-1

HC-MW-6

AMW-10

0003600030

0003600032

AMW-2

0003600008

0003600031

HC-MW-3

2802

2806

2810

2864

HC-MW-5

AMW-3

HC-MW-1

HC-MW-2

AMW-9

AMW-19

AMW-6

FORMER PHILLIPS 66 PARCEL

2811

6725700052

2817

6725700051

6725700004

AMW-5

MW-11

Former Location fo Gasoline and Waste Oil USTs

0003600055

2800

MW-13

AMW-24

AMW-7

Former Oil/Water Separator

MW-4

MW-3

MW-12

MW-1

MW-5

MW-8

Former Pump Islands

Former Hydraulic Hoist Area

AMW-4

MW-2

MW-9

AMW-13

Former Heating Oil UST

AMW-12

AMW-22

0003600063

MW-6

AMW-17

AMW-20

6725700060

2813

6725700035

0003600065

EXISTING BP 76 STATION AND EMPIRE WAY MOBILE SITE

MW-7

MW-10

0003600074

2814

6725700065

2817

6725700030

0003600062

6725700070

2821

6725700025

AMW-16

AMW-15

6725700075

2825

AMW-8

6725700020

AMW-23

AMW-14

0003600059

AMW-11

0003600010

AMW-18

Chlorinated Solvent Source Area

Petroleum Hydrocarbon Source Area
dashed where inferred

Groundwater Plume
dashed where inferred

Monitoring Well

Subject Property

Historical Property Feature

Building Footprint

Tax Parcel

Note: Tax parcel data from King County was minorly adjusted based on site knowledge.

0 22.5 45
Feet

Power Line

Storm Drain Line

Sanitary Sewer Line

Communication Line

Catch Basin

Storm Manhole

Sanitary Manhole

Areas Requiring Remedial Action Evaluation

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 24
	PROJECT NO. 160324	REVISED BY: AY / RAP	

CSSA EXCAVATION DETAILS

North Shoring: Approximately 2,270 ft²
East Shoring: Approximately 2,265 ft²
South Shoring: Approximately 1,420 ft²
PCE-Contaminated Soil to be Removed: Approximately 6,500 tons
Dewatering: Up to 215,000 gallons to be removed, treated, and disposed of off-site

PSHA WEST EXCAVATION DETAILS

Shoring: Approximately 2,500 ft²
Petroleum-Contaminated Soil to be Removed: Approximately 3,700 tons
Dewatering: Up to 75,000 gallons to be removed, treated, and disposed of off-site

PSHA SOUTHEAST EXCAVATION DETAILS

Shoring: Approximately 2,500 ft²
Petroleum-Contaminated Soil to be Removed: Approximately 800 tons
Dewatering: Up to 25,000 gallons to be removed, treated, and disposed of off-site

MCCLELLAN PARCELS

FORMER PHILLIPS 66 PARCEL

MARTIN LUTHER KING JR WAY S

S MC CLELLAN ST

29TH AVE S

Remedial Excavation Sloped at 1.5H:1V, Elevation 60 on East Side and Elevation 75 of West Side

Remedial Excavation to Elevation 60

Remedial Excavation to Elevation 43

Remedial Excavation to Elevation 46

HC-MW-1, HC-MW-2, HC-MW-3, HC-MW-4, HC-MW-5, HC-MW-6, HC-MW-7, AMW-1, AMW-2, AMW-3, AMW-4, AMW-5, AMW-6, AMW-7, AMW-8, AMW-9, AMW-10, AMW-11, AMW-12, AMW-13, AMW-14, AMW-15, AMW-16, AMW-18, AMW-19, AMW-20, AMW-21, AMW-22, AMW-23, AMW-24, AMW-25, AMW-26, AMW-27, AMW-28, AMW-29, MW-1, MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, AB-33

Notes:
CSSA = Chlorinated Solvent Source Area
PHSA = Petroleum Hydrocarbon Source Area
MNA = Monitored Natural Attenuation
Tax parcel data from King County was minorly adjusted based on site knowledge.

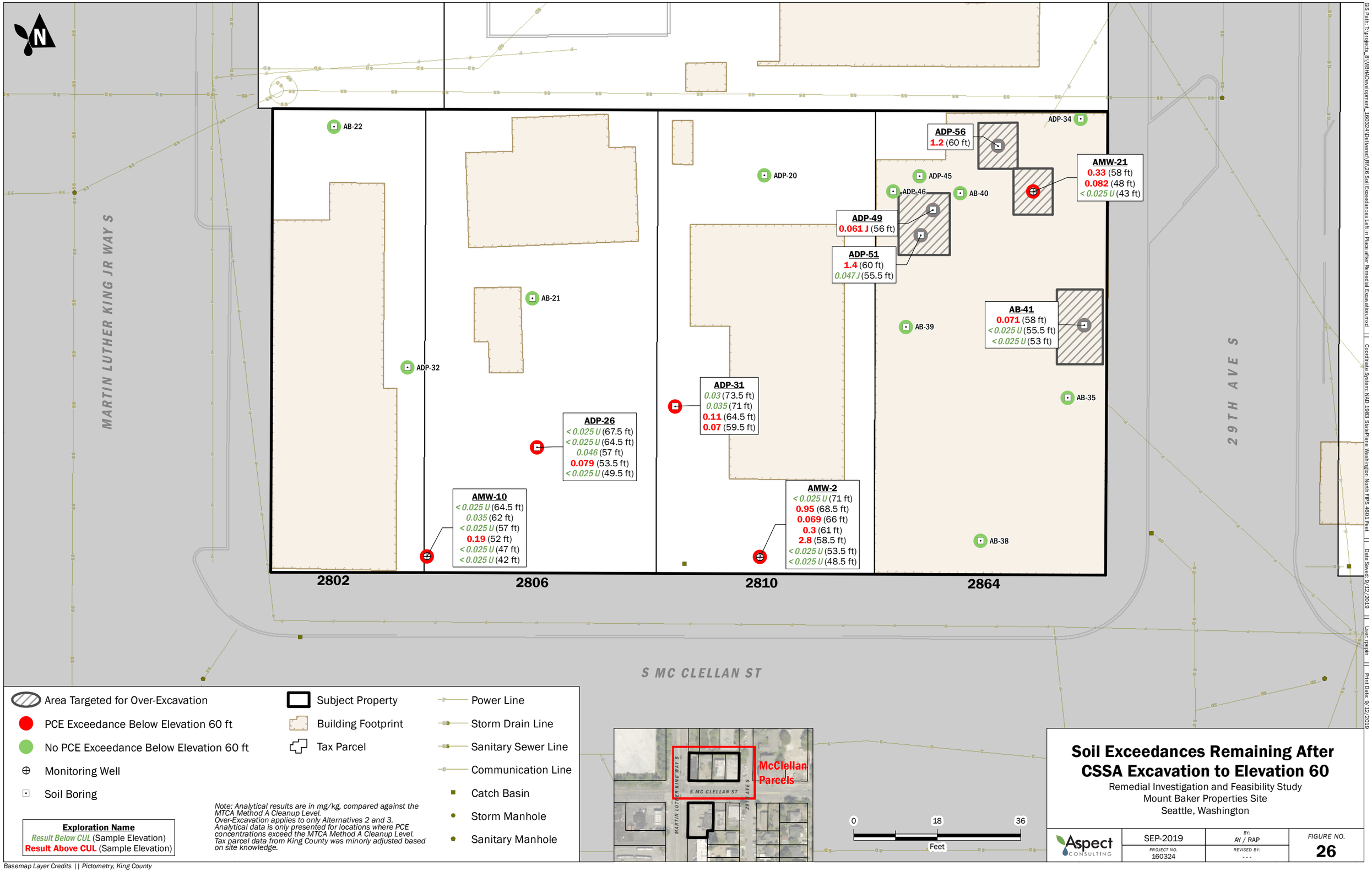
0 25 50 Feet

Chlorinated Solvent Source Area Remedial Excavation
Petroleum Hydrocarbon Source Area Remedial Excavation
Shoring
Monitoring Well to be Abandoned
Proposed Monitoring Well
Monitoring Well
Soil Boring
Subject Property
Building Footprint
Tax Parcel
Power Line
Storm Drain Line
Sanitary Sewer Line
Communication Line
Catch Basin
Storm Manhole
Sanitary Manhole

Remedial Alternative 2 - CSSA Excavation to Elevation 60, PHSA Excavation, and MNA

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: KB / RAP	FIGURE NO. 25
	PROJECT NO. 160324	REVISED BY: ACG / RAP	



Area Targeted for Over-Excavation
PCE Exceedance Below Elevation 60 ft
No PCE Exceedance Below Elevation 60 ft
Monitoring Well
Soil Boring

Subject Property
Building Footprint
Tax Parcel

Power Line
Storm Drain Line
Sanitary Sewer Line
Communication Line
Catch Basin
Storm Manhole
Sanitary Manhole

Exploration Name
Result Below CUL (Sample Elevation)
Result Above CUL (Sample Elevation)

Note: Analytical results are in mg/kg, compared against the MTCA Method A Cleanup Level.
Over-Excavation applies to only Alternatives 2 and 3.
Analytical data is only presented for locations where PCE concentrations exceed the MTCA Method A Cleanup Level.
Tax parcel data from King County was minorly adjusted based on site knowledge.

0 18 36
Feet

Soil Exceedances Remaining After CSSA Excavation to Elevation 60

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: AY / RAP	FIGURE NO. 26
	PROJECT NO. 160324	REVISED BY: ---	

Basemap Layer Credits || Pictometry, King County

GIS Path: T:\projects_8\MBHADevelopment_160324\Deliverables\Ph2\6 Soil Exceedances Left in Place after Remedial Excavation.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/12/2019 || User: mpalin || Print Date: 9/12/2019

CSSA EXCAVATION DETAILS

North Shoring: Approximately 2,270 ft²

East Shoring: Approximately 2,265 ft²

South Shoring: Approximately 1,420 ft²

PCE-Contaminated Soil to be Removed: Approximately 6,500 tons

Dewatering: Up to 215,000 gallons to be removed, treated, and disposed of off-site

PSHA WEST EXCAVATION DETAILS

Shoring: Approximately 2,500 ft²

Petroleum-Contaminated Soil to be Removed: Approximately 3,700 tons

Dewatering: Up to 75,000 gallons to be removed, treated, and disposed of off-site

PSHA SOUTHEAST EXCAVATION DETAILS

Shoring: Approximately 2,500 ft²

Petroleum-Contaminated Soil to be Removed: Approximately 800 tons

Dewatering: Up to 25,000 gallons to be removed, treated, and disposed of off-site

Remedial Excavation Sloped at 1.5H:1V, Elevation 60 on East Side and Elevation 75 of West Side

Remedial Excavation Potholing to Elevation 59

Remedial Excavation to Elevation 60

Remedial Excavation Potholing to Elevation 55

Remedial Excavation Potholing to Elevation 56

Remedial Excavation to Elevation 43

Remedial Excavation to Elevation 46

MCCLELLAN PARCELS

FORMER PHILLIPS 66 PARCEL

MARTIN LUTHER KING JR WAY S

S MC CLELLAN ST

29TH AVE S

HC-MW-1 HC-MW-2 HC-MW-3 HC-MW-4 HC-MW-5 HC-MW-6 HC-MW-7

AMW-1 AMW-2 AMW-3 AMW-4 AMW-5 AMW-6 AMW-7 AMW-8 AMW-9 AMW-10 AMW-11 AMW-12 AMW-13 AMW-14 AMW-15 AMW-16 AMW-18 AMW-19 AMW-20 AMW-21 AMW-22 AMW-23 AMW-24

MW-1 MW-2 MW-3 MW-4 MW-5 MW-7 MW-8 MW-9 MW-10 MW-11 MW-12 MW-13 AB-33

Notes:
CSSA = Chlorinated Solvent Source Area
ISS = In Situ Soil Solidification
ISCR = In Situ Chemical Reduction
MNA = Monitored Natural Attenuation
Contingency ISCR Injection Transect locations shown are conceptual for the FS and if determined necessary after 5 years of ISCR monitoring, the location and design details will be determined at that time based on post-source removal groundwater conditions.
Tax parcel data from King County was minorly adjusted based on site knowledge.

0 25 50 Feet

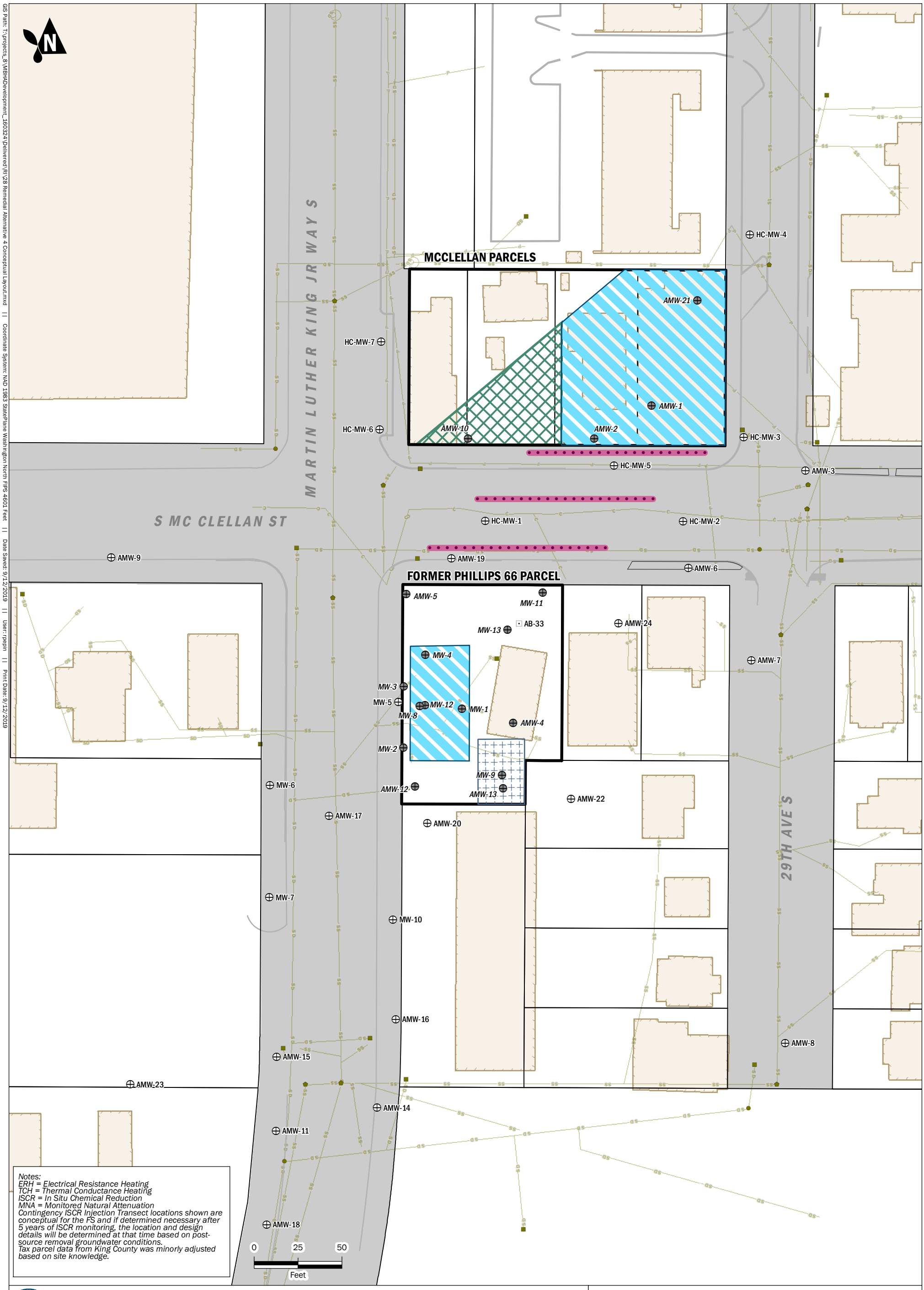
- Area to be Treated with *In Situ* Soil Solidification (ISS)
- Contingency ISCR Transect
- Chlorinated Solvent Source Area Remedial Excavation
- Petroleum Hydrocarbon Source Area Remedial Excavation
- Area Targeted for Over-Excavation
- Shoring
- Monitoring Well to be Abandoned
- Monitoring Well
- Soil Boring
- Subject Property
- Building Footprint
- Tax Parcel
- Power Line
- Storm Drain Line
- Sanitary Sewer Line
- Communication Line
- Catch Basin
- Storm Manhole
- Sanitary Manhole

Remedial Alternative 3 - CSSA Excavation to Elevation 60, ISS, PHSA Excavation, and MNA

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting

SEP-2019	BY: ACG / RAP	FIGURE NO. 27
PROJECT NO. 160324	REVISED BY: ---	

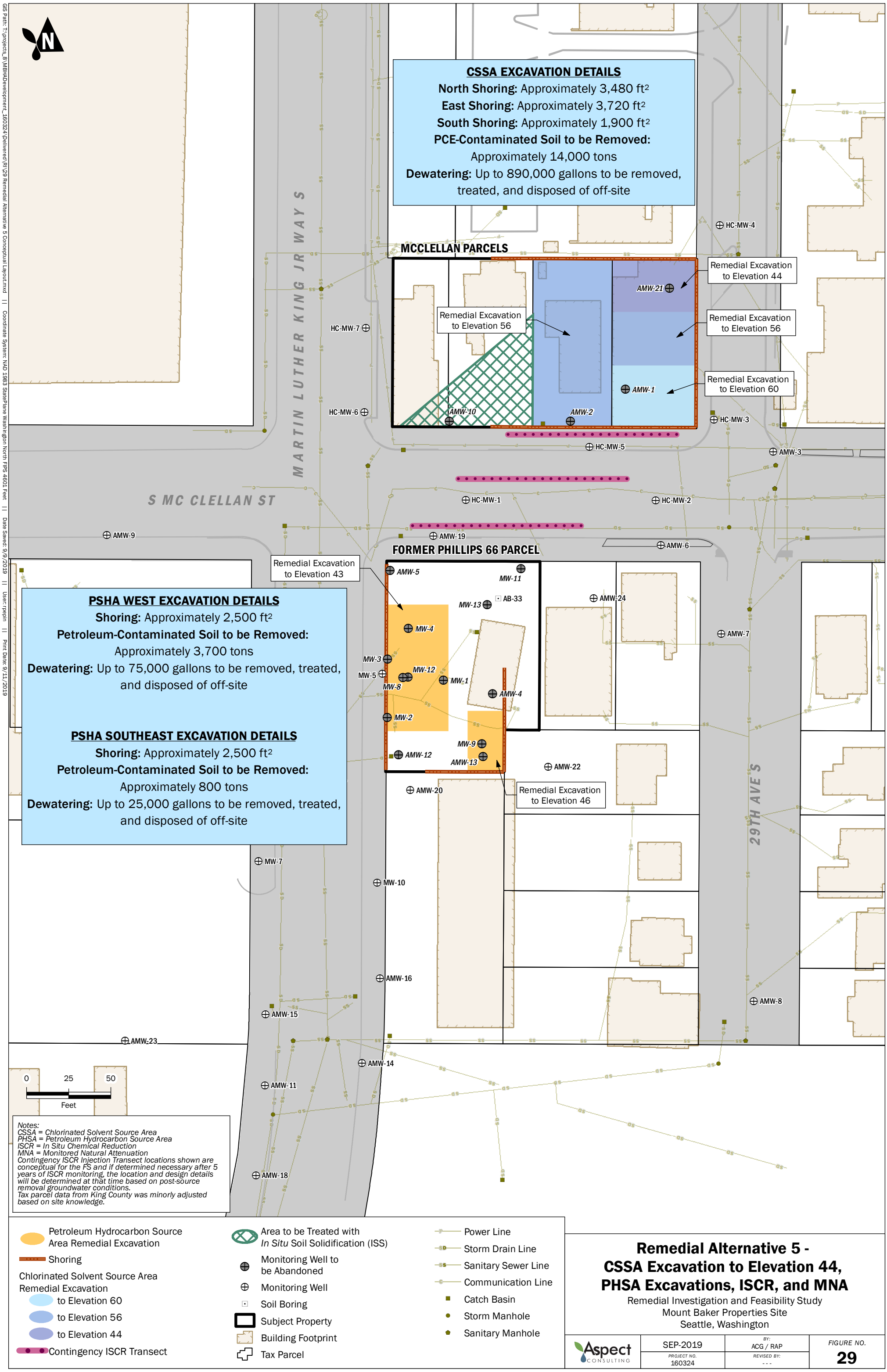


GIS Path: T:\projects_8\MBHADevelopment_160324\Delivered\RI\28 Remedial Alternative 4 Conceptual Layout.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/12/2019 || User: rpepin || Print Date: 9/12/2019

Remedial Alternative 4 - In Situ ERH and TCH, ISCR, and MNA

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: ACG / RAP	FIGURE NO. 28
	PROJECT NO. 160324	REVISED BY: ---	

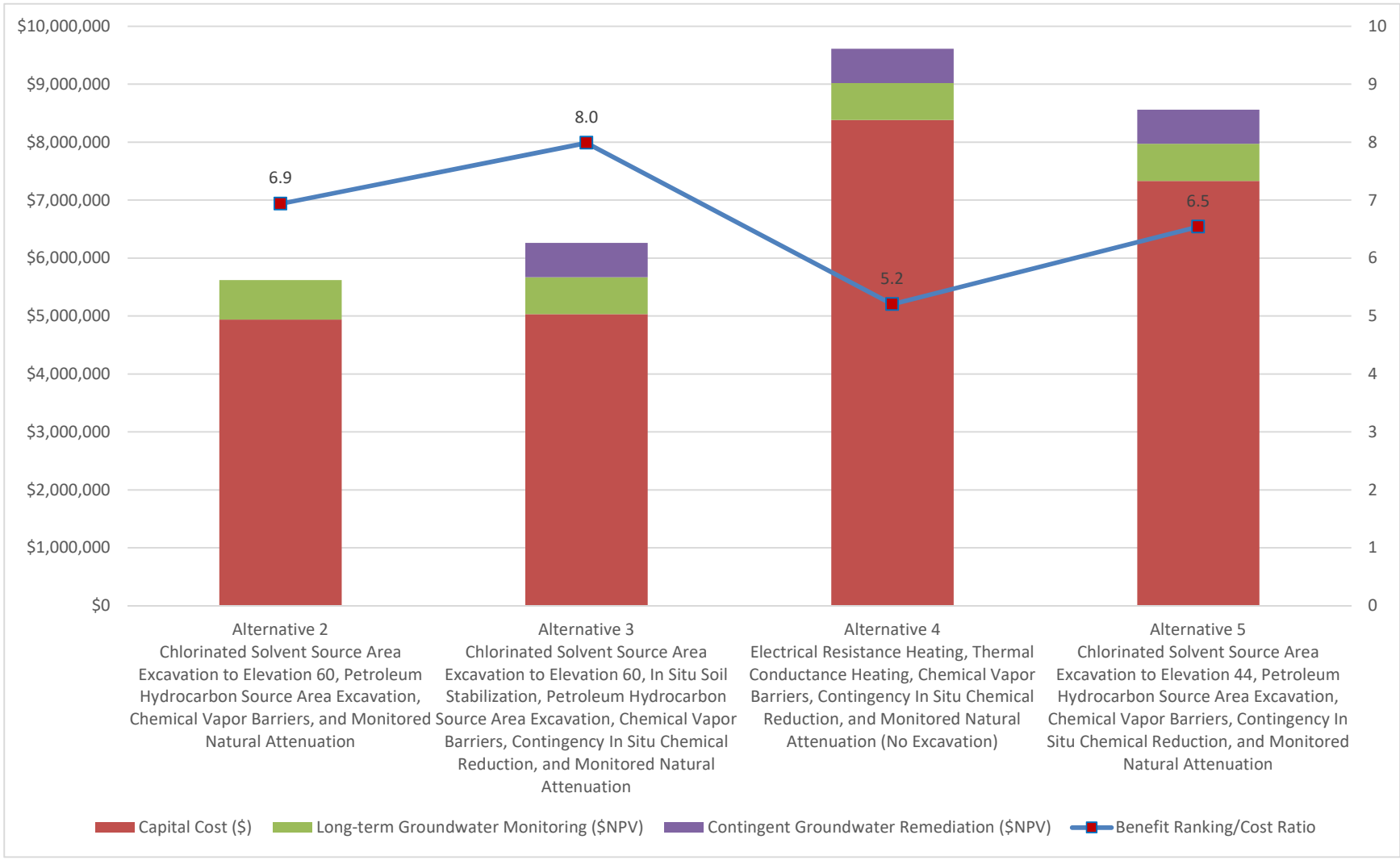


Remedial Alternative 5 - CSSA Excavation to Elevation 44, PHSA Excavations, ISCR, and MNA

Remedial Investigation and Feasibility Study
Mount Baker Properties Site
Seattle, Washington

Aspect Consulting	SEP-2019	BY: ACG / RAP	FIGURE NO. 29
	PROJECT NO. 160324	REVISED BY: ---	

GIS Path: T:\projects_8\MBHADevelopment_160324\Delivered\RI\29 Remedial Alternative 5 Conceptual Layout.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/9/2019 || User: rpepin || Print Date: 9/11/2019



Notes:

1) Cost are Net Present Value (NPV) in 2019 dollars, calculated using a discount factor of 7%.

2) A numeric scale of 1 to 7 is used to rate the alternatives with respect to the criteria to evaluate use of permanent solutions to the maximum extent practicable, the ranking detail is presented in Table 12.

Figure 30
Disproportionate Cost Analysis Summary
Remedial Investigation / Feasibility Study

APPENDIX A

Boring Logs from Remedial Investigation

Coarse-Grained Soils - More than 50% [1] Retained on No. 200 Sieve	Gravels - More than 50% [1] of Coarse Fraction Retained on No. 4 Sieve	≤5% Fines [5]	GW	Well-graded gravel and gravel with sand, little to no fines
			GP	Poorly-graded gravel and gravel with sand, little to no fines
		≥15% Fines [5]	GM	Silty gravel and silty gravel with sand
			GC	Clayey gravel and clayey gravel with sand
	Sands - 50% [1] or More of Coarse Fraction Passes No. 4 Sieve	≤5% Fines [5]	SW	Well-graded sand and sand with gravel, little to no fines
			SP	Poorly-graded sand and sand with gravel, little to no fines
		≥15% Fines [5]	SM	Silty sand and silty sand with gravel
			SC	Clayey sand and clayey sand with gravel
Fine-Grained Soils - 50% [1] or More Passes No. 200 Sieve	Silts and Clays Liquid Limit Less than 50		ML	Silt, sandy silt, gravelly silt, silt with sand or gravel
			CL	Clay of low to medium plasticity; silty, sandy, or gravelly clay, lean clay
			OL	Organic clay or silt of low plasticity
	Silts and Clays Liquid Limit 50 or More		MH	Elastic silt, clayey silt, silt with micaceous or diato-maceous fine sand or silt
			CH	Clay of high plasticity, sandy or gravelly clay, fat clay with sand or gravel
			OH	Organic clay or silt of medium to high plasticity
Highly Organic Soils			PT	Peat, muck and other highly organic soils

Terms Describing Relative Density and Consistency

	Density	SPT [2] blows/foot
Coarse-Grained Soils	Very Loose	0 to 4
	Loose	4 to 10
	Medium Dense	10 to 30
	Dense	30 to 50
	Very Dense	>50
	Consistency	**SPT [2] blows/foot**
Fine-Grained Soils	Very Soft	0 to 2
	Soft	2 to 4
	Medium Stiff	4 to 8
	Stiff	8 to 15
	Very Stiff	15 to 30
	Hard	>30

Test Symbols

FC = Fines Content
G = Grain Size
M = Moisture Content
A = Atterberg Limits
C = Consolidation
DD = Dry Density
K = Permeability
Str = Shear Strength
Env = Environmental
PiD = Photoionization Detector

Component Definitions

Descriptive Term	Size Range and Sieve Number
Boulders	Larger than 12"
Cobbles	3" to 12"
Gravel	3" to No. 4 (4.75 mm)
Coarse Gravel	3" to 3/4"
Fine Gravel	3/4" to No. 4 (4.75 mm)
Sand	No. 4 (4.75 mm) to No. 200 (0.075 mm)
Coarse Sand	No. 4 (4.75 mm) to No. 10 (2.00 mm)
Medium Sand	No. 10 (2.00 mm) to No. 40 (0.425 mm)
Fine Sand	No. 40 (0.425 mm) to No. 200 (0.075 mm)
Silt and Clay	Smaller than No. 200 (0.075 mm)

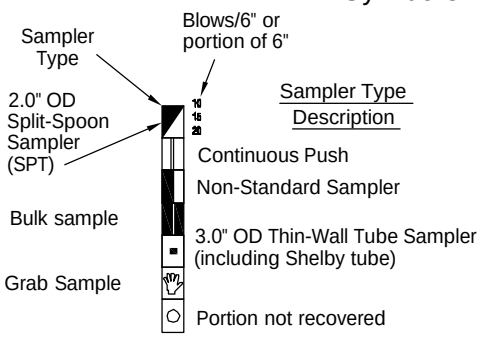
[3] Estimated Percentage

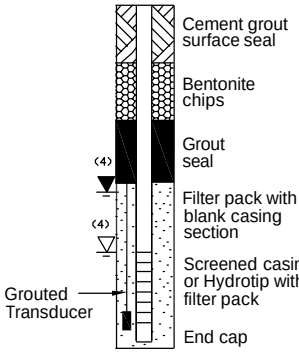
Percentage by Weight	Modifier
<5	Trace
5 to 15	Slightly (sandy, silty, clayey, gravelly)
15 to 30	Sandy, silty, clayey, gravelly)
30 to 49	Very (sandy, silty, clayey, gravelly)

Moisture Content

Dry - Absence of moisture, dusty, dry to the touch
Slightly Moist - Perceptible moisture
Moist - Damp but no visible water
Very Moist - Water visible but not free draining
Wet - Visible free water, usually from below water table

Symbols





(1) Percentage by dry weight
(2) (SPT) Standard Penetration Test (ASTM D-1586)
(3) In General Accordance with Standard Practice for Description and Identification of Soils (ASTM D-2488)
(4) Depth of groundwater — ATD = At time of drilling; Static water level (date); BGS = below ground surface
(5) Combined USCS symbols used for fines between 5% and 15% as estimated in General Accordance with Standard Practice for Description and Identification of Soils (ASTM D-2488)

Classifications of soils in this report are based on visual field and/or laboratory observations, which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field or laboratory testing unless presented herein. Visual-manual and/or laboratory classification methods of ASTM D-2487 and D-2488 were used as an identification guide for the Unified Soil Classification System.

Aspect CONSULTING

Exploration Log Key

DATE:
DESIGNED BY:
DRAWN BY:
REVISED BY:

PROJECT NO.

FIGURE NO.
A-1

Q:_ACAD Standards\Standard Details\Exploration Log Key B1.dwg

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214482.7 N:1279590 (est)	Exploration Number: **AB-01**
Contractor: Standard Environmental Probe	Equipment: Direct push rig	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 77.81'(est)	
Operator: Steve and Russell	Exploration Method(s): Direct push	Work Start/Completion Dates: 2/18/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 6.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
							FILL	
1	77				PID= 2.2		Slightly moist, brown, silty SAND (SM); fine to medium sand.	1
2	76	Backfilled with bentonite chips and capped with concrete		AB-1-2.0	PID= 5.7			2
3	75				PID= 9.0		**GLACIAL RECESSIONAL DEPOSITS**	3
4	74			AB-1-4.0	PID= 37		Moist to wet, blue-gray, sandy SILT (ML); non-plastic.	4
5	73							5
6	72			AB-1-6.0 NWTPH-Dx, NWTPH-Gx, 8260, 8270D, MTCA 5	PID= 69			6
		▽ 2/18/2017					Moist to wet, blue-gray, silty SAND (SM) interbedded with dense, wet, gray, sandy SILT (ML); thinly laminated to bedded.	
7	71			AB-1-7.0	PID= 22			7
8	70			AB-1-8.0	PID= 36			8
9	69							9
10	68			AB-1-9.5	PID= 28		Becomes gravelly .	10
11	67			AB-1-11.0 8260; PCE TCLP	PID= 64		Bottom of exploration at 11 ft. bgs. Note: Refusal at 11 ft bgs	11
12	66							12
13	65							13
14	64							14
	63							

Legend

Sample Method: ◯ No Soil Sample Recovery; ◧ Continuous core 1" ID

Water Level: ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-01
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214473.7 N:1279570 (est)	Exploration Number: **AB-02**
Contractor: Standard Environmental Probe	Equipment: Direct push rig	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 78.66'(est)	
Operator: Steve and Russell	Exploration Method(s): Direct push	Work Start/Completion Dates: 2/18/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 6' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
1	78				PID= 4.2		**FILL** Dry, brown, slightly gravelly, silty SAND (SM); red brick fragments.	1
2	77						Moist, brown, silty SAND (SM); fine to coarse sand.	2
3	76							3
4	75			AB-2-4.0	PID= 16.7			4
5	74				PID= 23		Moist, brown, sandy, slightly silty GRAVEL (GW-GM); fine to coarse gravel.	5
6	73	▽ 2/22/2017		AB-2-6.0	PID= 40		**GLACIAL RECESSIONAL DEPOSITS** Moist, brown, gravelly, SILT (ML). Wet, brown, slightly silty SAND (SW-SM).	6
7	72				PID= 71		Moist, brown-gray, slightly gravelly, silty SAND (SM) interbedded with stiff, moist, gray, sandy SILT (ML); fine to coarse sand.	7
8	71			AB-2-8.0 8260; PCE TCLP	PID= 40			8
9	70	Backfilled with bentonite chips and capped with concrete			PID= 86		Moist, gray, sandy, clayey, SILT (ML) interbedded with loose, wet, brown-gray silty SAND (SM); fine to coarse sand, trace fine gravel.	9
10	69			AB-2-10.0	PID= 36			10
11	68				PID= 33			11
12	67			AB-2-12.0	PID= 43		Wet, brown-gray, silty SAND (SM); fine to coarse sand, trace fine gravel.	12
13	66				PID= 90			13
14	65			AB-2-13.6 8260	PID= 45		Bottom of exploration at 13.6 ft. bgs. Note: Refusal at 13.6 ft bgs	14
	64							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-02
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214494.7 N:1279590 (est)	Exploration Number: **AB-03**
Contractor: Standard Environmental Probe	Equipment: Direct push rig	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 82.39'(est)	
Operator: Steve and Russell	Exploration Method(s): Direct push	Work Start/Completion Dates: 2/18/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 2.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					PID		Concrete.	
	82						**FILL** Moist, brown-gray, gravelly, silty SAND (SM).	
1				NWTPH-Dx, NWTPH-Gx, 8260, 8270D, MTCA 5	PID= 8		Moist, brown, sandy SILT (ML); reverse graded, fine to medium sand.	1
	81							
2					PID= 1.5		Wet, brown, silty SAND (SM); trace gravel, fine to coarse sand.	2
	80	▽ 2/18/2017						
3				AB-3-2.0	PID= 5			3
	79						**GLACIAL RECESSIONAL DEPOSITS** Moist, gray, clayey SILT (ML).	
4					PID= 3		Moist, brown, silty SAND (SM); fine to medium sand.	4
	78	Backfilled with bentonite chips and capped with concrete						
5				AB-3-4.0	PID= 6			5
	77							
6					PID= 4			6
	76							
7				AB-3-6.0	PID= 2			7
	75							
8					PID= 3			8
	74							
				AB-3-8.0				
9					PID= 7.5		Becomes gray with trace coarse sand .	9
	73			AB-3-9.5 8260; PCE TCLP	PID= 16			
10							Bottom of exploration at 9.5 ft. bgs. Note: Refusal at 9.5 ft bgs	10
	72							
11								11
	71							
12								12
	70							
13								13
	69							
14								14
	68							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-03
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214526.6 N:1279590 (est)	*Exploration Number* **AB-04**
Contractor Standard Environmental Probe	*Equipment* Direct push rig	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 86.77'(est)	
Operator Steve and Russell	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 3/8/2017	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
1	86	Capped with concrete					**GLACIAL RECESSIONAL DEPOSITS** Hard, moist, tan, slightly clayey SILT (ML); trace gravel.	1
2	85			AB-4-2.0	PID= 0.2 Sheen= None			2
3	84				Sheen= None			3
4	83	Backfilled with bentonite chips			PID= 0.2 Sheen= None			4
5	82			AB-4-4.0	Sheen= None			5
6	81			AB-4-6.0 8260	PID= 0.3 Sheen= None		Bottom of exploration at 6 ft. bgs. Note: Refusal at 6 ft bgs	6
7	80							7
8	79							8
9	78							9
10	77							10
11	76							11
12	75							12
13	74							13
14	73							14
	72							

Legend

Sample Method: Continuous core 1.85" ID

Water Level: No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: ALC
Approved by: SJA

Exploration Log AB-04

Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214473.2 N:1279560 (est)	Exploration Number: **AB-06**
Contractor: Standard Environmental Probe	Equipment: Direct push rig	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 77.86'(est)	
Operator: Steve and Russell	Exploration Method(s): Direct push	Work Start/Completion Dates: 3/8/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 6' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Capped with concrete					Concrete.	
				AB-6-2.0	PID= 0.2 Sheen= None		**FILL** Moist, brown to tan, silty SAND (SM); trace gravel.	
	75				PID= 0.2 Sheen= None		Moist, tan, sandy SILT (ML); non-plastic.	
				AB-6-4.0	PID= 0.2 Sheen= None		Moist, tan, slightly clayey, silty SAND (SM); gravelly sand laminae.	
5					PID= 0.2 Sheen= None			5
		▽ 3/8/2017		AB-6-6.0 8260	PID= 0.2 Sheen= None		Wet from 6 to 8 feet bgs .	
					PID= 0.2 Sheen= None			
	70			AB-6-8.0	PID= 0.3 Sheen= None			
					PID= 0.3 Sheen= None		**GLACIAL RECESSIONAL DEPOSITS** Moist, tan, sandy SILT (ML); non-plastic, mica-rich coarse sand laminae.	
10		Backfilled with bentonite chips		AB-6-10.0	PID= 0.8 Sheen= None			10
					PID= 0.5 Sheen= None		Moist to wet, silty SAND (SM).	
				AB-6-12.0	PID= 0.5 Sheen= None			
	65				PID= 1.0 Sheen= None		Becomes wet .	
				AB-6-14.0 8260, PCE TCLP	PID= 2.5 Sheen= None			
15				AB-6-15.0 8260, PCE TCLP	PID= 1.4 Sheen= None		Bottom of exploration at 15 ft. bgs.	15
	60							

Legend

Sample Method
- Continuous core 1.85" ID
- Continuous core 1" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: ALC
Approved by: SJA

Exploration Log AB-06
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, 29th ROW, E of Cleaners		*Coordinates (SPN NAD83 ft)* E:214513.1 N:1279630 (est)	*Exploration Number* **AB-17**
Contractor Cascade Drilling	*Equipment* CME-75	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 85.16'(est)	
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 11/17/2017	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
	85						Topsoil.	
							FILL Moist, brown, silty SAND (SM); fine to medium sand, trace fine gravel.	
				AB-17-2.5	PID= 0.0 Sheen= None			
5	80	Hydrated bentonite chips		AB-17-5.0	PID= 0.0 Sheen= None			5
				AB-17-7.5 GS	PID= 0.0 Sheen= Slight Blows (non-SPT)= 6,16,19			
10	75			AB-17-10.0	PID= 0.0 Sheen= Slight Blows (non-SPT)= 9,9,9		**GLACIAL RECESSIONAL DEPOSITS** Very stiff, moist, gray SILT (ML) interbedded with moist, gray, silty SAND (SM); low plasticity, fine sand.	10
				AB-17-12.5 AL	PID= 0.0 Sheen= None Blows (non-SPT)= 11,23,23		**PRE-FRASER DEPOSITS** Hard, slightly moist, gray, SILT (ML); low plasticity.	
15	70			AB-17-15.0 MC	PID= 0.0 Sheen= None Blows (non-SPT)= 7,11,13		Becomes very stiff.	15
				AB-17-17.5 MC	PID= 0.0 Sheen= None Blows (non-SPT)= 6,24,34		Hard, moist, gray, CLAY (CL); medium plasticity. Dense, moist, gray, silty SAND (SM); fine sand. Hard, moist, gray, SILT (ML); low plasticity.	
20	65			AB-17-20.0 MC	PID= 0.0 Sheen= None Blows (non-SPT)= 9,11,15		Becomes very stiff, with trace fine gravel, trace fine sand.	20

Legend

Sample Method
- No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DIM
Approved by: SJA

Exploration Log AB-17

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, 29th ROW, E of Cleaners		Coordinates (SPN NAD83 ft): E:214513.1 N:1279630 (est)	Exploration Number: **AB-17**
Contractor: Cascade Drilling	Equipment: CME-75	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 85.16'(est)	
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 11/17/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
	60			AB-17-25.0	PID= 0.0 Sheen= None Blows (non-SPT)= 11,12,19		Hard, moist, gray, SILT (ML); low plasticity, trace fine gravel, trace fine sand.	
30	55			AB-17-30.0	PID= 0.0 Sheen= None Blows (non-SPT)= 19,23,26			30
35	50			AB-17-35.0	PID= 0.0 Sheen= None Blows (non-SPT)= 20,50/6"			35
40	45			AB-17-40.0	PID= 0.0 Sheen= None Blows (non-SPT)= 6,8,15			40
							Bottom of exploration at 41.5 ft. bgs. Note: Boring cleared with air knife to 5 ft. bgs, HSA to 41.5 ft. bgs	
45	40							45

Legend

Sample Method
- No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DIM
Approved by: SJA

Exploration Log AB-17
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Center of 2806 McClellan		*Coordinates (SPN NAD83 ft)* E:214493.3 N:1279480 (est)	*Exploration Number* **AB-21**
Contractor Cascade Drilling	*Equipment* CME-55	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 69.6'(est)	
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 8/9/2017	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 9' (Static)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	70	Borehole backfilled with bentonite chips					**FILL** Medium dense, slightly moist, brown, slightly gravelly, silty SAND (SM); fine sand, fine gravel, numerous rootlets, moderate iron-oxide staining.	0
				AB-21-2.5	SPT= 9,9,8 PID= 0.1 Sheen= NS			
							Becomes gravelly with rounded fine to coarse gravel.	
5	65			AB-21-5.0	SPT= 4,6,9 PID= 0.1 Sheen= NS		Becomes without gravel, organics, or iron-oxide staining.	5
				AB-21-7.5	SPT= 6,4,4 PID= 0 Sheen= NS			
		8/10/2017 Temporary well						
10	60			AB-21-10.0 AL, FC	SPT= 2,2,3 PID= 0.1 Sheen= NS		**GLACIAL RECESSIONAL DEPOSITS** Medium stiff, moist, brown, slightly gravelly SILT (ML); low plasticity, rounded fine gravel, fine sand pockets.	10
		8/9/2017						
				AB-21-12.5 FC	SPT= 2,3,3 PID= 0.1 Sheen= NS		Loose, very moist to wet, brown, SILT (ML) interbedded with silty SAND (SM); non-plastic, fine to coarse sand, inclined thin beds.	
15	55			AB-21-15.0 AL	SPT= 4,4,5 PID= 0.1 Sheen= NS		Stiff, moist, light gray CLAY (CL); medium plasticity, trace rounded fine to coarse gravel, light and dark laminae.	15
				AB-21-17.5 AL, FC	SPT= 4,5,8 PID= 0.1 Sheen= NS		**WEATHERED PRE-FRASER DEPOSITS** Stiff, moist, light gray to gray blue SILT (ML); low plasticity, trace sand and gravel.	
	50							

Legend

Sample Method
- No Soil Sample Recovery
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- Static Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: NHC
Approved by: SJA

Exploration Log AB-21

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Center of 2806 McClellan		*Coordinates (SPN NAD83 ft)* E:214493.3 N:1279480 (est)	*Exploration Number* **AB-21**
Contractor Cascade Drilling	*Equipment* CME-55	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 69.6'(est)	
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 8/9/2017	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 9' (Static)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
				AB-21-20.0	SPT= 6,7,9 PID= 0.1 Sheen= NS		**WEATHERED PRE-FRASER DEPOSITS** Stiff, moist, light gray to gray blue SILT (ML); low plasticity, trace sand and gravel. (continued)	
25	45			AB-21-25.0	SPT= 7,12,12 PID= 0.1 Sheen= SS		Medium dense, moist, light gray to gray blue, slightly gravelly, silty SAND (SM); predominately fine sand, trace fine subangular gravel.	25
30	40			AB-21-30.0	SPT= 13,26,50 PID= 0.1 Sheen= NS		**PRE-FRASER DEPOSITS** Very dense, moist, light gray, slightly gravelly, sandy SILT (ML); non-plastic, rounded fine to coarse gravel.	30
							Bottom of exploration at 31.5 ft. bgs. Note: Grab water sample AB-21-081017 was collected from a temporary well screened from 10 ft to 20 ft bgs.	
35	35							35
	30							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: NHC
Approved by: SJA

Exploration Log AB-21
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, NW corner of 2802 McClellan		Coordinates (SPN NAD83 ft): E:214531.0 N:1279440 (est)	Exploration Number: **AB-22**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 65.69'(est)	
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 8/10/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 15.6' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
	65	Borehole backfilled with bentonite chips					**FILL** Very loose, moist, dark brown, slightly gravelly, very silty SAND (SM); rounded fine to coarse sand, numerous organics.	
				AB-22-2.5	Blows (non-SPT)= 1,1,1 PID= 0 Sheen= NS			
5							Becomes gravelly; fine angular gravel.	5
	60			AB-22-5.0	Blows (non-SPT)= 1,1,2 PID= 0 Sheen= NS		Soft, moist to very moist, gray and brown, slightly sandy SILT (ML); low plasticity, weak iron-oxide staining.	
							GLACIAL RECESSIONAL DEPOSITS Medium dense, moist, brown, very silty SAND (SM); fine sand.	
				AB-22-7.5	Blows (non-SPT)= 9,12,15 PID= 0 Sheen= NS			
10							Medium dense, moist, brown to light gray, sandy SILT (ML); non-plastic, trace fine gravel, fine to coarse sand, trace iron-oxide staining along fractures, diamict texture.	10
	55			AB-22-10.0	Blows (non-SPT)= 6,12,15 PID= 0 Sheen= NS			
				AB-22-12.5	Blows (non-SPT)= 10,14,17 PID= 0.1 Sheen= SS		**WEATHERED PRE-FRASER DEPOSITS** Dense, moist, gray, SILT (ML); non-plastic, trace fine to coarse sand.	
15								15
	50	▽ 8/10/2017		AB-22-15.0	Blows (non-SPT)= 9,16,23 PID= 0.1 Sheen= NS		**PRE-FRASER DEPOSITS** Dense, moist, light gray, silty SAND (SM); fine to medium sand.	
				AB-22-17.5	Blows (non-SPT)= 10,15,21 PID= 0.1 Sheen= NS			

Legend

Sample Method: ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level: ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: NHC
Approved by: SJA

Exploration Log AB-22

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, NW corner of 2802 McClellan		Coordinates (SPN NAD83 ft): E:214531.0 N:1279440 (est)	Exploration Number: **AB-22**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 65.69'(est)	
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 8/10/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 15.6' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
	45			AB-22-20.0	Blows (non-SPT)= 10,30,47 PID= 0.1 Sheen= NS		Very dense, moist to very moist, light gray, silty SAND (SM); fine to medium sand, trace rounded fine gravel.	
25	40			AB-22-25.0	Blows (non-SPT)= 20,50/6" PID= 0.1 Sheen= NS			25
							Bottom of exploration at 26 ft. bgs. Note: Grab water sample AB-22-081017 was collected from a temporary well screened from 5 ft to 25 ft bgs.	
30	35							30
35	30							35

Legend

Sample Method: Split Barrel 3.25" X 2.375" (D&M)

Water Level: Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: NHC
Approved by: SJA

Exploration Log AB-22

Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, E side of MLK in ROW		*Coordinates (SPN NAD83 ft)* E:214286.7 N:1279400 (est)	*Exploration Number* **AB-23**
Contractor Cascade Drilling	*Equipment* CME-75	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 60.88'(est)	
Operator James Goble	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 11/21/2017	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 11' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1	60						Concrete	
							FILL Very loose to loose, slightly moist to moist, slightly gravelly, silty SAND (SM); fine to coarse sand, fine gravel.	1
2	59							2
				AB-23-2.5	PID= 0.5 Sheen= None			
3	58							3
4	57							4
5	56	Hydrated bentonite chips		AB-23-5.0	PID= 0.8 Sheen= None			5
6	55							6
7	54							7
8	53			AB-23-7.5	PID= 0.0 Sheen= None Blows (non-SPT)= 2,1,2			8
9	52							9
10	51							10
11	50	▽ 11/21/2017		AB-23-10.0	PID= 0.0 Sheen= None Blows (non-SPT)= 2,1,1			11
12	49							12
13	48			AB-23-12.5	PID= 4.7 Sheen= None Blows (non-SPT)= 1,1,1		Strong petroleum-like odor 12.5 to 19 ft. bgs	13
14	47							14
15	46							15
16	45			AB-23-15.0	PID= 11.1 Sheen= Slight Blows (non-SPT)= 0,0,1			16
17	44							17
18	43			AB-23-17.5	PID= 4.6 Sheen= Slight Blows (non-SPT)= 3,2,2		**GLACIAL RECESSIONAL DEPOSITS** Soft, moist, brown, SILT (ML); low plasticity, trace organic fragments, strong petroleum-like odor.	18
19	42							19
20	41							20
21	40			AB-23-20.0	PID= 2.7 Sheen= None Blows (non-SPT)= 1,2,2		Soft, moist, blue-gray, CLAY (CL); low plasticity, trace roots and organic fragments.	21
22	39							22
23	38			AB-23-22.5	PID= 0.0 Sheen= Slight Blows (non-SPT)= 6,4,6			23
24	37						**PRE-FRASER DEPOSITS** Dense, moist, gray, silty SAND (SM); fine to medium sand.	24
	36							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-23

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, E side of MLK in ROW		Coordinates (SPN NAD83 ft): E:214286.7 N:1279400 (est)	Exploration Number: **AB-23**
Contractor: Cascade Drilling	Equipment: CME-75	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 60.88'(est)	
Operator: James Goble	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 11/21/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 11' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
26	35			AB-23-25.0	PID= 0.0 Sheen= None Blows (non-SPT)= 15,16,18		**PRE-FRASER DEPOSITS** Dense, moist, gray, silty SAND (SM); fine to medium sand. (continued)	26
27	34						Hard, moist, slightly sandy SILT (ML); low plasticity, fine sand, trace fine gravel.	27
28	33			AB-23-27.5	PID= 0.3 Sheen= None Blows (non-SPT)= 50/6"			28
29	32							29
30	31							30
31	30			AB-23-30.0	PID= 0.0 Sheen= None Blows (non-SPT)= 36,50/6"			31
32	29						Bottom of exploration at 31.5 ft. bgs. Note: Boring cleared with air knife to 5 ft. bgs, HSA to 31.5 ft. bgs	32
33	28							33
34	27							34
35	26							35
36	25							36
37	24							37
38	23							38
39	22							39
40	21							40
41	20							41
42	19							42
43	18							43
44	17							44
45	16							45
46	15							46
47	14							47
48	13							48
49	12							49
	11							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-23
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, P66 Property		Coordinates (SPN NAD83 ft): E:214287.8 N:1279420 (est)	Exploration Number: **AB-25**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 62.25'(est)	
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 8/8/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 16' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
							FILL Very loose to loose, moist, brown, slightly gravelly, silty SAND (SM); fine to medium sand, fine gravel.	
	60	Borehole backfiled with bentonite chips.		AB-25-2.5 GS	Blows (non-SPT)= 3,3,3 PID= 0.4 Sheen= SS			
5				AB-25-5.0	Blows (non-SPT)= 1,1,1 PID= 0.2 Sheen= NS			5
	55			AB-25-7.5 FC	Blows (non-SPT)= 3,2,3 FC=28.5% PID= 0.2 Sheen= SS		Becomes gray-brown with weak iron-oxide staining; till-like fragments.	
10				AB-25-10.0	Blows (non-SPT)= 3,2,2 PID= 2.2 Sheen= SS			10
	50			AB-25-12.5	Blows (non-SPT)= 0,0,0 PID= 913 Sheen= SS Odor= strong petroleum odor		**GLACIAL RECESSIONAL DEPOSITS** Very loose, wet, gray, silty SAND (SM); trace fine gravel, fine to medium sand.	
15		▽ 8/8/2017 Temporary Well		AB-25-15.0 GS	Blows (non-SPT)= 0,0,3 PID= 22.4 Sheen= SS			15
	45			AB-25-17.5 MC	Blows (non-SPT)= 1,1,3 PID= 2.3 Sheen= NS		Very loose, moist, dark gray to brown, sandy SILT (ML); non-plastic, numerous organics.	
							Very loose, moist, gray, gravelly, silty SAND (SM).	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-25

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, P66 Property		*Coordinates (SPN NAD83 ft)* E:214287.8 N:1279420 (est)	*Exploration Number* **AB-25**
Contractor Cascade Drilling	*Equipment* CME-55	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 62.25'(est)	
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 8/8/2017	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 16' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
				AB-25-20.0	Blows (non-SPT)= 3,7,11 PID= 3.8 Sheen= NS		**PRE-FRASER DEPOSITS** Medium dense, moist, gray blue, sandy SILT (ML) interbedded with medium dense, wet, gray blue, silty SAND (SM); non-plastic, trace fine gravel, medium sand, trace organic fragments.	
	40			AB-25-22.5 AL	Blows (non-SPT)= 7,8,13 PID= 1.8 Sheen= SS		Medium dense, moist, gray blue, gravelly, silty SAND (SM); fine to medium sand, fine gravel.	
25				AB-25-25.0 AL	Blows (non-SPT)= 13,18,20 PID= 2.6 Sheen= SS		Hard, moist, gray blue, sandy CLAY (CL); low plasticity, fine sand.	25
	35			AB-25-27.5	Blows (non-SPT)= 23,50/6" PID= 2.0 Sheen= NS			
30				AB-25-30.0	Blows (non-SPT)= 12,50/5" PID= 9.5 Sheen= NS			30
	30			AB-25-32.5	Blows (non-SPT)= 13,50/6" PID= 0.7 Sheen= NS			
35				AB-25-35.0	Blows (non-SPT)= 13,23,15 PID= 0.2 Sheen= NS			35
	25						Bottom of exploration at 36.5 ft. bgs. Note: Grab water sample AB-25-080817 was collected from a temporary well screened from 13 ft to 23 ft bgs.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-25
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, P66 Property		Coordinates (SPN NAD83 ft): E:214334.2 N:1279480 (est)	Exploration Number: **AB-33**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 140 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 67'(est)	
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 8/1/2018	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 12' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1	66						GRAVEL (GP); base course.	1
							FILL	
							Medium dense, moist, gravelly, silty SAND (SM); fine to medium sand, fine gravel, no odor.	
2	65	Capped with concrete						2
3	64			AB-33-2.5	PID= 0.0 Sheen= None Blows (non-SPT)= 15,12,7			3
4	63							4
5	62							5
6	61			AB-33-5.0	PID= 0.0 Sheen= None Blows (non-SPT)= 6,7,9			6
7	60							7
8	59			AB-33-7.5	PID= 0.0 Sheen= None Blows (non-SPT)= 4,5,6			8
9	58							9
10	57							10
11	56			AB-33-10.0	PID= 0.0 Sheen= None Blows (non-SPT)= 6,9,10		Medium dense, moist, brown, sandy SILT (ML); non-plastic, fine to coarse sand, trace fine gravel, no odor.	11
12	55	▽ 8/1/2018						12
							GLACIAL RECESSIONAL DEPOSITS	
13	54			AB-33-12.5	PID= 0.0 Sheen= None Blows (non-SPT)= 26,50/6"		Very dense, wet, brown, silty SAND (SM); fine to medium sand, no odor.	13
14	53							14
15	52	Backfilled with hydrated bentonite chips					Becomes dense and gravelly, fine gravel.	15
16	51			AB-33-15.0	PID= 0.0 Sheen= None Blows (non-SPT)= 18,19,25			16
17	50							17
							PRE-FRASER DEPOSITS	
18	49			AB-33-17.5	PID= 0.0 Sheen= None Blows (non-SPT)= 20,25,26		Very dense, moist to very moist, gravelly, silty SAND (SM); fine to medium sand, fine gravel, no odor.	18
19	48							19
20	47				PID= 0.0 Sheen= None			20
21	46			AB-33-20.0				21
22	45						Hard, moist, gray SILT (ML); low plasticity, trace fine to coarse sand, no odor.	22
23	44			AB-33-22.5	PID= 0.0 Sheen= None Blows (non-SPT)= 50/6"			23
24	43							24

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-33

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, P66 Property		*Coordinates (SPN NAD83 ft)* E:214334.2 N:1279480 (est)	*Exploration Number* **AB-33**
Contractor Cascade Drilling	*Equipment* CME-55	*Sampling Method* Autohammer; 140 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 67'(est)	
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 8/1/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 12' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
26	41	Backfilled with hydrated bentonite chips		AB-33-25.0	PID= 0.0 Sheen= None Blows (non-SPT)= 30,50/4"		Hard, moist, gray, sandy SILT (ML); low plasticity, fine sand.	26
27	40							27
28	39			AB-33-27.5	PID= 0.0 Sheen= None Blows (non-SPT)= 24,50/6"			28
29	38							29
30	37			AB-33-30.0	PID= 0.0 Sheen= None Blows (non-SPT)= 50/6"			30
31	36						Bottom of exploration at 30.5 ft. bgs.	31
32	35							32
33	34							33
34	33							34
35	32							35
36	31							36
37	30							37
38	29							38
39	28							39
40	27							40
41	26							41
42	25							42
43	24							43
44	23							44
45	22							45
46	21							46
47	20							47
48	19							48
49	18							49

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-33
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214502.0 N:1279580 (est)	*Exploration Number* **ADP-18**
Contractor Cascade Drilling	*Equipment* 420M	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 81.34'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 11/12/2017	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	81	Capped with concrete					**FILL** Concrete.	0
1	80				PID= 0.9 Sheen= None		Moist, light brown, silty SAND (SM); fine to medium sand, trace coarse sand and fine gravel.	1
2	79			ADP-18-2.5	PID= 4.2 Sheen= None			2
3	78	Backfilled with hydrated bentonite chips					Concrete. Moist, brown, silty SAND (SM) interbedded with sandy SILT (ML); strong sweet odor.	3
4	77							4
5	76			ADP-18-5.0	PID= 709 Sheen= None		Bottom of exploration at 5 ft. bgs.	5
6	75							6
7	74							7
8	73							8
9	72							9

Legend

Sample Method
- No Soil Sample Recovery
- Continuous core 1.85" ID

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-18
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214496.6 N:1279590 (est)	Exploration Number: **ADP-19**
Contractor: Cascade Drilling	Equipment: 420M	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 82.67'(est)	
Operator: Kyle Conti	Exploration Method(s): Direct push	Work Start/Completion Dates: 11/12/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	82	Capped with concrete					**FILL** Concrete.	0
1							Moist, light brown, silty SAND (SM).	1
2	81							2
3	80	Backfilled with hydrated bentonite chips		ADP-19-3.0	PID= 0.5 Sheen= None		Concrete.	3
4	79						Moist, light brown, silty SAND (SM).	4
5	78			ADP-19-4.5	PID= 0.8 Sheen= None		Moist, light brown, sandy SILT (ML); trace coarse sand and coarse gravel.	5
6	77			ADP-19-5.0	PID= 2.1 Sheen= None		Bottom of exploration at 4.5 ft. bgs.	6
7	76							7
8	75							8
9	74							9
10	73							10
11	72							11
12	71							12
13	70							13
14	69							14
	68							

Legend

Sample Method
- No Soil Sample Recovery
- Continuous core 1.85" ID

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-19
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214496.6 N:1279590 (est)	*Exploration Number* **ADP-19A**
Contractor Cascade Drilling	*Equipment* 420M	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 81.1'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 11/12/2017	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	81						**FILL** Concrete.	0
1	80	Capped with concrete					Moist, light brown, silty SAND (SM) interbedded with sandy SILT (ML); fine to medium sand, trace fine gravel.	1
2	79				PID= 1.0 Sheen= None			2
3	78	Backfilled with hydrated bentonite chips			PID= 2.5 Sheen= None			3
4	77			ADP-19A-3.0				4
5	76			ADP-19A-5.0	PID= 30.9 Sheen= None		Moist, brown, sandy SILT (ML); fine to medium sand, trace coarse sand.	5
							Bottom of exploration at 5 ft. bgs.	
6	75						Note: ADP-19A was located approximately 2 feet south of ADP-19, and approximately 1.5 feet below the elevation of ADP-19. Two soil borings were attempted at this location to confirm refusal at approximately 5 ft bgs.	6
7	74							7
8	73							8
9	72							9
10	71							10
11	70							11
12	69							12
13	68							13
14	67							14

Legend

Sample Method: Continuous core 1.85" ID

Water Level: No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-19A
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, N of 2810 McClellan apts		Coordinates (SPN NAD83 ft): E:214518.9 N:1279530 (est)	Exploration Number: **ADP-20**
Contractor: Cascade Drilling	Equipment: 420M	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 77.69'(est)	
Operator: Tim W.	Exploration Method(s): Direct push	Work Start/Completion Dates: 11/12/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 7.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	77						**FILL** Concrete.	0
1		Capped with concrete					Moist, brown, silty SAND (SM); fine to medium sand, trace fine gravel, charcoal fragments in the upper 6".	1
2	76							2
3	75	Backfilled with hydrated bentonite chips		ADP-20-3.0	PID= 0.0 Sheen= None		Moist, brown, slightly silty SAND (SP-SM); fine to coarse sand, trace fine gravel.	3
4	74							4
5	73			ADP-20-5.5	PID= 0.0 Sheen= None			5
6	72							6
7	71	▽ 11/13/2017						7
8	70			ADP-20-8.0	PID= 0.0 Sheen= None			8
9	69				PID= 0.0 Sheen= None			9
10	68							10
11	67			ADP-20-11.0	PID= 0.0 Sheen= None		Bottom of exploration at 11 ft. bgs.	11
12	66							12
13	65							13
14	64							14
	63							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-20
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, SE corner of P66 property		Coordinates (SPN NAD83 ft): E:214232.6 N:1279470 (est)	Exploration Number: **ADP-24**
Contractor: Cascade Drilling	Equipment: 54L	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 62.34'(est)	
Operator: Tim W.	Exploration Method(s): Direct push	Work Start/Completion Dates: 11/12/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 13.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Capped with concrete			PID= 0.0 Sheen= Slight		Topsoil; glass and brick fragments.	
	60						**FILL** Moist, gray-brown, gravelly, sandy SILT (ML); fine sand, fine gravel.	
		Backfilled with hydrated bentonite chips		ADP-24-2.5	PID= 0.0 Sheen= None		Moist, black-brown, gravelly, slightly silty SAND (SW-SM); fine to coarse sand, fine gravel.	
							Moist, black, sandy GRAVEL (GP); fine gravel.	
							Fill; red bricks.	
5					PID= 0.0 Sheen= Organic		Moist, black, silty SAND (SM); fine sand, fine gravel, trace charcoal, brick fragments.	5
	55							
				ADP-24-8.5	PID= 0.0 Sheen= Organic		Trace coarse gravel .	
10								10
	50			ADP-24-12.0	PID= 0.0 Sheen= Organic		**ALLUVIUM** Moist to very moist, brown, silty SAND (SM); fine to medium sand, organic fragments.	
		▽ 11/12/2017					Moist, dark brown, sandy SILT (ML); fine to medium sand, trace coarse sand, organic fragments.	
15				ADP-24-15.0	PID= 0.0 Sheen= Slight			15
							Moist, brown, sandy GRAVEL (GP).	
					Sheen= Slight			
	45						Bottom of exploration at 17 ft. bgs.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-24
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Front of 2814 McClellan		*Coordinates (SPN NAD83 ft)* E:214461.0 N:1279480 (est)	*Exploration Number* **ADP-26**
Contractor Cascade Drilling	*Equipment* 54L	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 69.47'(est)	
Operator Tim W.	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 11/12/2017	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	69						Topsoil.	0
							FILL Moist, dark brown, silty SAND (SM); fine sand, trace fine gravel, abundant organic fragments.	
1	68	Capped with concrete						1
2	67			ADP-26-2.0	PID= 0.0 Sheen= None			2
3	66	Backfilled with hydrated bentonite chips					Moist, brown, silty SAND (SM); fine sand, trace fine gravel.	3
4	65							4
5	64			ADP-26-5.0	PID= 0.0 Sheen= None		Moist, light brown, sandy SILT (ML) interbedded withsilty SAND (SM); trace fine gravel.	5
6	63							6
7	62						**GLACIAL RECESSIONAL DEPOSITS** Moist, orange-brown, silty SAND (SM); fine sand, trace fine to coarse gravel.	7
8	61			ADP-26-8.5	PID= 0.0 Sheen= None			8
9	60							9
10	59	▽ 11/12/2017						10
11	58							11
12	57			ADP-26-12.5	PID= 0.0 Sheen= None			12
13	56							13
14	55							14

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-26
Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Front of 2814 McClellan		Coordinates (SPN NAD83 ft): E:214461.0 N:1279480 (est)	Exploration Number: **ADP-26**
Contractor: Cascade Drilling	Equipment: 54L	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 69.47'(est)	
Operator: Tim W.	Exploration Method(s): Direct push	Work Start/Completion Dates: 11/12/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
16	54				PID= 0.0 Sheen= None		**GLACIAL RECESSIONAL DEPOSITS** Moist, orange-brown, silty SAND (SM); fine sand, trace fine to coarse gravel. (continued)	16
17	53							17
18	52			ADP-26-16.0			Moist to wet, gray-blue, sandy SILT (ML); fine sand, trace fine gravel.	18
19	51							19
20	50			ADP-26-20.0	PID= 0.0 Sheen= None		Bottom of exploration at 20 ft. bgs.	20
21	49							21
22	48							22
23	47							23
24	46							24
25	45							25
26	44							26
27	43							27
28	42							28
29	41							29
	40							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-26
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214472.5 N:1279590 (est)	Exploration Number: **ADP-27**
Contractor: Cascade Drilling	Equipment: 420M	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 80.25'(est)	
Operator: Kyle Conti	Exploration Method(s): Direct push	Work Start/Completion Dates: 11/12/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 7' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	80						Concrete.	0
1	79	Capped with concrete					**FILL** Moist, brown, silty SAND (SM); fine to medium sand, trace coarse gravel.	1
2	78			ADP-27-2.0	PID= 3.8 Sheen= None		Moist, brown, silty SAND (SM); fine to medium sand, trace coarse sand, chemical odor.	2
3	77	Backfilled with hydrated bentonite chips						3
4	76			ADP-27-4.0	PID= 15.2 Sheen= None		Moist, brown-gray, sandy SILT (ML); fine sand.	4
5	75						Moist, brown, silty SAND (SM) interbedded with sandy SILT (ML); fine to coarse sand, trace fine gravel.	5
6	74				PID= 15.8 Sheen= None			6
7	73	▽ 11/12/2017		ADP-27-7.0	PID= 15.5 Sheen= None		**GLACIAL RECESSIONAL DEPOSITS**	7
8	72			ADP-27-6.0			Moist, blue-gray, sandy SILT (ML); fine to medium sand, trace coarse sand and fine gravel.	8
9	71				PID= 3.6 Sheen= None			9
10	70			ADP-27-10.0	PID= 13.3 Sheen= None		Moist to wet, brown, slightly silty SAND (SP-SM); medium sand.	10
11	69						Moist, blue-gray, sandy SILT (ML); medium sand, trace coarse sand.	11
11.5				ADP-27-11.5	PID= 9.0 Sheen= None		Bottom of exploration at 11.5 ft. bgs.	11.5
12	68							12
13	67							13
14	66							14

Legend

Sample Method: Continuous core 1.85" ID

Water Level: ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-27
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214450.9 N:1279580 (est)	Exploration Number: **ADP-28**
Contractor: Cascade Drilling	Equipment: 420M	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 78.87'(est)	
Operator: Kyle Conti	Exploration Method(s): Direct push	Work Start/Completion Dates: 11/12/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 4' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
							FILL	
1	78	Capped with concrete					Moist, red-brown, silty SAND (SM); medium sand, trace coarse gravel.	1
					PID= 0.8 Sheen= None		Moist, brown, silty SAND (SM) interbedded with sandy SILT (ML); fine to medium sand.	
2	77							2
							Moist, light brown, sandy SILT (ML); fine sand, flakey texture.	
3	76	Backfilled with hydrated bentonite chips		ADP-28-3.0	PID= 0.8 Sheen= None		Moist, brown, silty SAND (SM) interbedded with sandy SILT (ML); fine to medium sand.	3
4	75	▽ 11/12/2017			PID= 3.4 Sheen= None			4
5	74				PID= 3.4 Sheen= None			5
6	73			ADP-28-6.0	PID= 5.1 Sheen= None		Moist, brown-gray, sandy SILT (ML); medium sand, trace fine gravel.	6
7	72			ADP-28-6.5	PID= 1.4 Sheen= None		Bottom of exploration at 6.5 ft. bgs.	7
8	71							8
9	70							9
10	69							10
11	68							11
12	67							12
13	66							13
14	65							14
	64							

Legend

Sample Method: ◫ Continuous core 1.85" ID

Water Level: ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-28
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214430.2 N:1279590 (est)	Exploration Number: **ADP-29**
Contractor: Cascade Drilling	Equipment: 420M	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 77.23'(est)	
Operator: Kyle Conti	Exploration Method(s): Direct push	Work Start/Completion Dates: 11/12/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	77						Concrete.	0
1	76	Capped with concrete					**FILL** Moist, brown, silty SAND (SM) interbedded with sandy SILT (ML); fine to medium sand.	1
2	75							2
3	74	Backfilled with hydrated bentonite chips		ADP-29-2.5	PID= 7.4 Sheen= None			3
4	73			ADP-29-3.5	PID= 10.6 Sheen= None		Moist, brown-gray, sandy SILT (ML); fine sand.	4
5	72			ADP-29-5.0	PID= 5.3 Sheen= None		Bottom of exploration at 5 ft. bgs.	5
6	71							6
7	70							7
8	69							8
9	68							9
10	67							10
11	66							11
12	65							12
13	64							13
14	63							14

Legend

Sample Method: Continuous core 1.85" ID

Water Level: No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-29
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214495.1 N:1279570 (est)	Exploration Number: **ADP-30**
Contractor: Cascade Drilling	Equipment: 420M	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 77.8'(est)	
Operator: Kyle Conti	Exploration Method(s): Direct push	Work Start/Completion Dates: 11/12/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 3.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	77						Concrete.	0
1		Capped with concrete					**FILL** Moist, brown, silty SAND (SM); medium sand, trace coarse sand.	1
2	76			ADP-30-2.0	PID= 34.4 Sheen= None			2
3	75	▽ 11/12/2017	○					3
4	74			ADP-30-4.0	PID= 454 Sheen= None		Chemical odor to 7 ft.	4
5	73	Backfilled with hydrated bentonite chips			PID= 10.9 Sheen= None			5
6	72				PID= 7.8 Sheen= None			6
7	71			ADP-30-7.5	PID= 0.9 Sheen= None		**GLACIAL RECESSIONAL DEPOSITS** Moist, brown, sandy SILT (ML); non-plastic, fine to medium sand..	7
8	70						Bottom of exploration at 7.5 ft. bgs.	8
9	69							9
10	68							10
11	67							11
12	66							12
13	65							13
14	64							14
	63							

Legend

Sample Method
- ○ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-30
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, W of 2810 S. McClellan		Coordinates (SPN NAD83 ft): E:214469.8 N:1279510 (est)	Exploration Number: **ADP-31**
Contractor: Cascade Drilling	Equipment: 420M	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 74.28'(est)	
Operator: Tim W.	Exploration Method(s): Direct push	Work Start/Completion Dates: 11/22/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 7.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
							FILL Moist to very moist, brown, gravelly, silty SAND (SM); fine to medium sand, trace coarse sand, fine gravel, charcoal fragments.	
		Backfilled with hydrated bentonite chips		ADP-31-2.0	PID= 0.0 Sheen= None			
	70			ADP-31-4.5	PID= 0.0 Sheen= None			
5								5
							Wet, brown-gray, silty SAND (SM); fine to medium sand, trace coarse sand, iron-oxide stained pockets.	
		▽ 11/22/2017						
				ADP-31-8.0	PID= 0.0 Sheen= None			
	65							
10								10
							GLACIAL RECESSIONAL DEPOSITS Moist to very wet, brown-gray, sandy SILT (ML); fine to medium sand, pockets of organic material.	
				ADP-31-11.0	PID= 0.0 Sheen= None			
							Wet, gray, silty SAND (SM); fine to medium, slight sweet odor.	
				ADP-31-13.5	PID= 2.9 Sheen= None			
	60						Moist, gray-brown, sandy SILT (ML); non-plastic.	
15							Wet, gray-brown, silty SAND (SM); fine to medium sand, iron-oxide stained pockets.	15
				ADP-31-15.0	PID= 0.0 Sheen= None			
							Bottom of exploration at 16 ft. bgs.	
	55							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-31
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, E side of 2802 S. McClellan		*Coordinates (SPN NAD83 ft)* E:214478.8 N:1279450 (est)	*Exploration Number* **ADP-32**
Contractor Cascade Drilling	*Equipment* 420M	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 61.82'(est)	
Operator Tim W.	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 11/22/2017	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 2' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1	61	Capped with concrete			PID= 1.7 Sheen= Slight		Topsoil.	1
							FILL Moist to very moist, dark brown, silty SAND (SM); fine to medium sand, trace coarse sand and fine gravel, abundant organic fragments, brick fragments, slight petroleum-like odor.	
2	60	▽ 11/22/2017					Wet, brown, silty SAND (SM); fine to medium sand, sweet odor.	2
3	59	Backfilled with hydrated bentonite chips		ADP-32-3.0	PID= 5.2 Sheen= Slight			3
4	58							4
5	57			ADP-32-4.5	PID= 13.5 Sheen= None			5
6	56			ADP-32-6.0	PID= 2.8 Sheen= None			6
7	55							7
8	54						**GLACIAL RECESSIONAL DEPOSITS** Moist, brown, sandy SILT (ML); non-plastic.	8
9	53		◯	ADP-32-8.5	PID= 0.0 Sheen= None			9
10	52						Bottom of exploration at 9.5 ft. bgs.	10
11	51							11
12	50							12
13	49							13
14	48							14
	47							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-32
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214438.0 N:1279560 (est)	Exploration Number: **AMW-01**
Contractor: Standard Environmental Probe	Equipment: Direct push rig	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 77.81'(est)	Ecology Well Tag No. BJP 800
Operator: Steve and Russell	Exploration Method(s): Direct push	Work Start/Completion Dates: 3/8/2017	Top of Casing Elev. (NAVD88): 77.55'	Depth to Water (Below GS): 10' (Static)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" flush-mount monument and concrete surface seal					Concrete.	
							FILL Moist, brown, silty SAND (SM); trace gravel.	
	75	Hydrated bentonite chips	AMW-1-2.0		PID= 0.3 Sheen= None		Moist, dark brown, gravelly, sandy SILT (ML); non-plastic, trace organics.	
			AMW-1-4.0		PID= 0.2 Sheen= None		Moist, tan, slightly gravelly, silty SAND (SM); orange mottling.	
5				8260	PID= 0.2 Sheen= None			5
			AMW-1-6.0		PID= 0.2 Sheen= None			
					PID= 0.2 Sheen= None		**GLACIAL RECESSIONAL DEPOSITS** Moist, tan, sandy SILT (ML) interbedded withSAND (SP); non-plastic, coarse, micaceous sand.	
	70	Colorado Silica 10/20 sand filter pack	AMW-1-8.0		PID= 0.2 Sheen= None			
					PID= 0.5 Sheen= None		Moist, tan to gray, slightly clayey SILT (ML) interbedded withSAND (SP); low plasticity, coarse, micaceous sand.	
			AMW-1-10.0		PID= 0.5 Sheen= None			
10		3/8/2017 At time of groundwater sampling			PID= 0.6 Sheen= None			10
			AMW-1-11.0	8260, PCE TCLP	PID= 0.8 Sheen= None		**PRE-FRASER DEPOSITS** Moist to wet, gray silty SAND (SM); fine sand.	
		0.010" slot screen			PID= 2.9 Sheen= None			
	65		AMW-1-13.0		PID= 3.0 Sheen= None			
					PID= 4.3 Sheen= None			
15			AMW-1-15.0	NWTPH-Dx, NWTPH-GX, 8260, MTCA 5, PAHs 8270D, PCE TCLP	PID= 3.2 Sheen= None		Bottom of exploration at 15 ft. bgs.	15
	60							

Legend

Sample Method
- Continuous core 1.85" ID
- Continuous core 1" ID

Water Level
- Static Water Level

See Exploration Log Key for explanation of symbols

Logged by: ALC
Approved by: SJA

Exploration Log AMW-01
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, S of 2810 McClellan		*Coordinates (SPN NAD83 ft)* E:214436.6 N:1279530 (est)	*Exploration Number* **AMW-02**
Contractor Cascade Drilling	*Equipment* CME-55	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 72.81'(est)	Ecology Well Tag No. BKA 277
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 8/10/2017	*Top of Casing Elev. (NAVD88)* 72.48'	*Depth to Water (Below GS)* 6.89' (Static) 25' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0		8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips					Concrete.	
							FILL Very loose, moist, brown, gravelly, silty SAND (SM); fine sand, rounded coarse gravel, moderate iron-oxide staining.	
	70		AMW-02-2.5		Blows (non-SPT)= 2,2,2 PID= 0 Sheen= Slight			
5			AMW-02-5.0		Blows (non-SPT)= 1,1,2 PID= 0.5 Sheen= None			5
		▼ 3/13/2017 10-slot screen in 10/20 sand						
	65	▼ 8/21/2017	AMW-02-7.5		Blows (non-SPT)= 1,1,2 PID= 0.6 Sheen= None			
10			AMW-02-10.0		Blows (non-SPT)= 3,3,6 PID= 0.2 Sheen= None		**GLACIAL RECESSIONAL DEPOSITS** Stiff, moist, light brown and light gray, SILT (ML) interbedded with slightly gravelly, silty SAND (SM); low plasticity, fine sand, rounded coarse gravel, moderate iron-oxide staining.	10
	60		AMW-02-12.5		Blows (non-SPT)= 5,6,12 PID= 0.4 Sheen= None		Very stiff, moist, light brown and light gray, sandy SILT (ML); low plasticity, fine sand, trace iron-oxide staining.	
15			AMW-02-15.0		Blows (non-SPT)= 7,12,14 PID= 0.3 Sheen= None		Very stiff, moist, light gray, SILT (ML) interbedded with SAND (SP); low plasticity, fine sand.	15
	55	Bentonite chip backfill						

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: NHC
Approved by: SJA

Exploration Log AMW-02

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, S of 2810 McClellan		Coordinates (SPN NAD83 ft): E:214436.6 N:1279530 (est)	Exploration Number: **AMW-02**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 72.81'(est)	Ecology Well Tag No. BKA 277
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 8/10/2017	Top of Casing Elev. (NAVD88): 72.48'	Depth to Water (Below GS): 6.89' (Static) 25' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
			AMW-02-20.0		Blows (non-SPT)= 17,20,25 PID= 0 Sheen= None		**PRE-FRASER DEPOSITS** Dense, moist, light gray, sandy SILT (ML); non-plastic, trace rounded fine gravel, predominantly fine sand.	
	50						Dense, very moist to wet, gray, gravelly, SAND (SP); rounded fine to coarse gravel.	
25		▽ 8/10/2017	AMW-02-25.0		Blows (non-SPT)= 17,21,25 PID= 0 Sheen= Slight			25
	45						Hard, very moist to wet, gray, very sandy SILT (ML); low plasticity, fine to coarse sand.	
30			AMW-02-30.0		Blows (non-SPT)= 8,16,30 PID= 0.2 Sheen= None			30
	40						Very dense, very moist, light gray, SAND (SP); trace silt, fine sand.	
35			AMW-02-35.0		Blows (non-SPT)= 19,50/6" PID= 0.2 Sheen= Slight			35
	35						Bottom of exploration at 36 ft. bgs.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: NHC
Approved by: SJA

Exploration Log AMW-02
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Sidewalk on NE corner of 29th/McClellan		*Coordinates (SPN NAD83 ft)* E:214416.5 N:1279650 (est)	*Exploration Number* **AMW-03**
Contractor Cascade Drilling	*Equipment* CME-75	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 78.79'(est)	Ecology Well Tag No. BKF 048
Operator James Goble	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 11/22/2017	*Top of Casing Elev. (NAVD88)* 78.38'	*Depth to Water (Below GS)* 6.75' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in hydrated bentonite chips					Concrete.	
							FILL Dense, moist to wet, brown, slightly silty SAND (SP-SM); fine to medium sand.	
	75				PID= 0.5 Sheen= None			
5					PID= 0.5 Sheen= None			5
		▽ 11/14/2017						
	70							
10		10-slot screen in 10/20 sand		AMW-03-10.0	PID= 0.0 Sheen= None Blows (non-SPT)= 6,20,21		**GLACIAL RECESSIONAL DEPOSITS** Dense, very moist, gray, silty SAND (SM); fine to medium sand. Becomes gray-brown.	10
				AMW-03-12.5	PID= 0.0 Sheen= None Blows (non-SPT)= 8,16,30		**PRE-FRASER DEPOSITS** Very dense, moist, gray, gravelly, sandy SILT (ML); non-plastic, fine to coarse sand, fine to coarse gravel.	
	65							
15				AMW-03-15.0	PID= 0.0 Sheen= None Blows (non-SPT)= 13,14,21		Dense, very moist, gray, silty SAND (SM); fine to medium sand.	15
							Dense, moist, gray, sandy SILT (ML); non-plastic, fine sand, trace fine gravel.	
				AMW-03-17.5	PID= 0.0 Sheen= None Blows (non-SPT)= 15,16,16			
	60							
20				AMW-03-20.0	PID= 0.0 Sheen= None Blows (non-SPT)= 15,31,32		Becomes very dense. Becomes slightly clayey.	20
							Bottom of exploration at 21.5 ft. bgs. Note: Boring cleared with air knife to 5 ft. bgs, HSA to 21.5 ft. bgs	
	55							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-03
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Inside P66 building		*Coordinates (SPN NAD83 ft)* E:214275.6 N:1279480 (est)	*Exploration Number* **AMW-04**
Contractor Cascade Drilling	*Equipment* 54L	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 64.65'(est)	Ecology Well Tag No. BKF 013
Operator Tim W.	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 11/13/2017	*Top of Casing Elev. (NAVD88)* 64.21'	*Depth to Water (Below GS)* 14' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete					Concrete.	
		2" diameter, schedule 40 PVC casing in concrete					**FILL** Moist, brown-gray, silty SAND (SM); fine to medium sand, trace fine gravel.	
		Casing in hydrated bentonite chips					Moist, brown-gray, sandy SILT (ML); non-plastic, fine to medium sand.	
				AMW-04-3.0	PID= 0.0 Sheen= None			
5	60							5
				AMW-04-6.0	PID= 0.0 Sheen= None			
				AMW-04-9.0	PID= 0.0 Sheen= None		Moist, brown-gray, silty SAND (SM); fine to medium sand, trace fine gravel.	
10	55	10-slot screen in 10/20 sand						10
							Trace fine to coarse gravel.	
				AMW-04-12.0	PID= 0.0 Sheen= None			
		▽ 11/13/2017					**GLACIAL RECESSIONAL DEPOSITS** Moist, gray-green, sandy SILT (ML); non-plastic, fine sand, trace coarse sand, trace woody debris.	
15	50			AMW-04-15.0	PID= 0.0 Sheen= None			15
							Very moist, blue-gray, silty SAND (SM); fine to coarse sand.	
				AMW-04-17.0	PID= 0.0 Sheen= None		Very moist, gray-brown, sandy SILT (ML); non-plastic, fine sand.	
							PRE-FRASER DEPOSITS Moist, gray-brown to brown, sandy SILT (ML); non-plastic, fine sand, trace coarse sand.	
20	45			AMW-04-20.0	PID= 0.0 Sheen= None			20
							Bottom of exploration at 20 ft. bgs.	
	40							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-04
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, NW corner of 2800 MLK		Coordinates (SPN NAD83 ft): E:214349.8 N:1279420 (est)	Exploration Number: **AMW-05**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 64.13'(est)	Ecology Well Tag No. BKA 273
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 8/7/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 13.4' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete					Asphalt.	
		2" diameter, schedule 40 PVC casing in concrete	AMW-05-2.5		SPT= 13,10,9 PID= 0 Sheen= None		**FILL** Medium dense, moist, slightly gravelly, SAND (SP); trace silt, fine sand, fine gravel.	
	60	Casing in bentonite chips						
5			AMW-05-5.0		SPT= 5,3,3 PID= 0 Sheen= None		Loose, moist, gravelly, slightly silty SAND (SP-SM); fine to medium sand, fine to medium gravel.	5
			AMW-05-7.5		SPT= 2,3,3 PID= 0 Sheen= None		Loose, moist, slightly gravelly, silty SAND (SM); fine to medium sand, fine gravel.	
	55							
10		10-slot screen in 10/20 sand	AMW-05-10.0		SPT= 2,3,3 PID= 0.6 Sheen= Slight			10
		▼ 8/7/2017						
		▽ 8/7/2017	AMW-05-12.5		SPT= 2,2,2 PID= 0.2 Sheen= Slight		Very loose, moist to very moist, gray blue, slightly silty SAND (SW-SM); trace coarse gravel, fine to coarse sand.	
	50							
15			AMW-05-15.0		SPT= 3,4,4 PID= 0.5 Sheen= Slight		Loose, moist, brown, PEAT (PT); brick fragments.	15
							GLACIAL RECESSIONAL DEPOSITS Loose, moist to very moist, gray blue, slightly silty SAND (SP-SM).	
			AMW-05-17.5		SPT= 4,4,4 PID= 0.6 Sheen= Slight			
	45							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-05
Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, NW corner of 2800 MLK		Coordinates (SPN NAD83 ft): E:214349.8 N:1279420 (est)	Exploration Number: **AMW-05**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 64.13'(est)	Ecology Well Tag No. BKA 273
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 8/7/2017	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 13.4' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
			AMW-05-20.0		SPT= 15,30,38 PID= 0.5 Sheen= None		**PRE-FRASER DEPOSITS** Very dense, moist, gray blue, silty SAND (SM); fine to medium sand, trace organics.	
		Bentonite chip backfill					Very dense, moist, light brown, slightly silty SAND (SP-SM); fine to medium sand.	
	40						Hard, dry to moist, gray-blue, SILT (ML); low plasticity, fine sand laminae.	
25			AMW-05-25.0		SPT= 18,25,50/4" PID= 0.2 Sheen= None			25
	35							
30			AMW-05-30.0		SPT= 23,50/6" PID= 0.2 Sheen= None			30
							Bottom of exploration at 31 ft. bgs.	
	30							
35								35
	25							

Legend

Sample Method
- No Soil Sample Recovery
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- Static Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-05
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Parking strip at 2817 S. McClellan		Coordinates (SPN NAD83 ft): E:214362.1 N:1279580 (est)	Exploration Number: **AMW-06**
Contractor: Cascade Drilling	Equipment: CME-75	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 75.39'(est)	Ecology Well Tag No. BKF 044
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 11/17/2017	Top of Casing Elev. (NAVD88): 74.96'	Depth to Water (Below GS): 14.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	75	8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips			PID= 1.2 Sheen= None		Asphalt. **FILL** Loose, moist to very moist, brown and gray, slightly gravelly, silty SAND (SM); fine to coarse sand.	0
5	70				PID= 0.6 Sheen= Slight PID= 0.9 Sheen= Slight Blows (non-SPT)= 2,2,2			5
				AMW-06-7.5	PID= 0.9 Sheen= None Blows (non-SPT)= 4,4,5 PID= 0.8 Sheen= Slight PID= 0.3 Sheen= Slight		Becomes more silty.	
10	65	10-slot screen in 10/20 sand			PID= 0.0 Sheen= Slight Blows (non-SPT)= 4,5,12		**GLACIAL RECESSIONAL DEPOSITS** Very stiff, slightly moist, light brown, SILT (ML); low plasticity.	10
		▽ 11/17/2017			PID= 0.0 Sheen= None Blows (non-SPT)= 12,14,15		Medium dense, moist, gray silty SAND (SM); fine sand.	
15	60				PID= 0.0 Sheen= Slight Blows (non-SPT)= 12,13,13		Medium dense, wet, gray, slightly silty SAND (SP-SM) interbedded with medium dense, very moist, gray, silty SAND (SM); fine to medium sand, strong iron-oxide staining.	15
					PID= 0.0 Sheen= Slight Blows (non-SPT)= 12,13,14		**PRE-FRASER DEPOSITS** Very stiff, moist, gray SILT (ML); low plasticity, few gray fine sand interbeds.	
20	55			AMW-06-20	PID= 0.0 Sheen= None Blows (non-SPT)= 5,17,25		Hard, moist, gray SILT (ML) interbedded with dense, wet, silty SAND (SM). Dense, wet, gray, gravelly, silty SAND (SM); fine to coarse sand, fine gravel. Bottom of exploration at 21.5 ft. bgs. Note: Boring cleared with air knife to 5 ft. bgs, HSA to 21.5 ft. bgs	20

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▩ Grab sample
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DIM
Approved by: SJA

Exploration Log AMW-06
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, SE corner of 29th and McClellan; parking strip		Coordinates (SPN NAD83 ft): E:214309.0 N:1279620 (est)	Exploration Number: **AMW-07**
Contractor: Cascade Drilling	Equipment: CME-75	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 75.73'(est)	Ecology Well Tag No. BKF 043
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 11/16/2017	Top of Casing Elev. (NAVD88): 75.36'	Depth to Water (Below GS): 17' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
	75	8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips			PID= 0.0 Sheen= None		Asphalt. **FILL** Loose, moist, light brown, silty SAND (SM); fine sand, trace medium to coarse sand, trace fine gravel, trace charcoal.	
5	70				PID= 0.0 Sheen= None Blows (non-SPT)= 3,4,4			5
					PID= 0.0 Sheen= None Blows (non-SPT)= 9,10,12		Loose, slightly moist, gray and brown, silty SAND (SM); fine sand, trace medium to coarse sand, trace gravel.	
10	65	10-slot screen in 10/20 sand			PID= 0.0 Sheen= None Blows (non-SPT)= 7,12,12		**GLACIAL RECESSIONAL DEPOSITS** Very stiff, slightly moist, light gray and brown, SILT (ML); low plasticity.	10
					PID= 0.0 Sheen= None Blows (non-SPT)= 7,10,12			
15	60	▽ 11/16/2017			PID= 0.0 Sheen= None Blows (non-SPT)= 7,10,10			15
					PID= 0.0 Sheen= None Blows (non-SPT)= 3,4,4		Loose, wet, gray and brown, silty SAND (SM); fine sand, iron-oxide staining.	
							Stiff, moist, gray-blue, SILT (ML); low plasticity.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DIM
Approved by: SJA

Exploration Log AMW-07
Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTWPROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, SE corner of 29th and McClellan; parking strip		*Coordinates (SPN NAD83 ft)* E:214309.0 N:1279620 (est)	*Exploration Number* **AMW-07**
Contractor Cascade Drilling	*Equipment* CME-75	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 75.73'(est)	Ecology Well Tag No. BKF 043
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 11/16/2017	*Top of Casing Elev. (NAVD88)* 75.36'	*Depth to Water (Below GS)* 17' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
	55				PID= 0.0 Sheen= None Blows (non-SPT)= 2,5,5		Stiff, moist, gray-blue, SILT (ML); low plasticity. (continued)	
					PID= 0.0 Sheen= None Blows (non-SPT)= 3,5,5		Medium dense, wet, gray, silty SAND (SM); fine to medium sand, trace coarse sand, trace gravel, iron-oxide staining.	
25	50				PID= 0.0 Sheen= None Blows (non-SPT)= 4,5,6		Medium dense, wet, gray, slightly silty SAND (SP-SM); fine to medium sand.	25
							Medium dense, very moist, gray, silty SAND (SM); fine to medium sand, trace coarse sand.	
							Bottom of exploration at 26.5 ft. bgs. Note: Boring cleared with air knife to 5 ft. bgs, HSA to 26.5 ft. bgs	
30	45							30
35	40							35

Legend

Sample Method
- No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DIM
Approved by: SJA

Exploration Log AMW-07
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Center of 29th, end of street		*Coordinates (SPN NAD83 ft)* E:214090.8 N:1279630 (est)	*Exploration Number* **AMW-08**
Contractor Cascade Drilling	*Equipment* CME-75	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 64.19'(est)	Ecology Well Tag No. BKF 042
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 11/16/2017	*Top of Casing Elev. (NAVD88)* 63.69'	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete					Asphalt.	
		2" diameter, schedule 40 PVC casing in concrete					**FILL** Medium dense to dense, slightly moist, brown, slightly gravelly, silty SAND (SM); fine to coarse sand, fine to coarse gravel.	
		Casing in bentonite chips			PID= 0.0 Sheen= None			
	60							
5					PID= 0.0 Sheen= None Blows (non-SPT)= 3,5,5			5
					PID= 3.0 Sheen= None Blows (non-SPT)= 8,16,20			
	55							
10		10-slot screen in 10/20 sand			PID= 0.0 Sheen= None Blows (non-SPT)= 5,13,13		**PRE-FRASER DEPOSITS** Very stiff, slightly moist, gray, SILT (ML); low plasticity.	10
					PID= 0.0 Sheen= None Blows (non-SPT)= 10,15,16			
	50						Dense, moist, gray, silty SAND (SM).	
15					PID= 0.0 Sheen= None Blows (non-SPT)= 10,13,15			15
							Very stiff, slightly moist, gray, SILT (ML); low plasticity, trace gravel.	
					PID= 0.0 Sheen= None Blows (non-SPT)= 10,15,20			
	45							

Legend

Sample Method
- No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DIM
Approved by: SJA

Exploration Log AMW-08

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Center of 29th, end of street		Coordinates (SPN NAD83 ft): E:214090.8 N:1279630 (est)	Exploration Number: **AMW-08**
Contractor: Cascade Drilling	Equipment: CME-75	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 64.19'(est)	Ecology Well Tag No. BKF 042
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 11/16/2017	Top of Casing Elev. (NAVD88): 63.69'	Depth to Water (Below GS): No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					PID= 0.0 Sheen= None Blows (non-SPT)= 7,16,19		Very stiff, slightly moist, gray, SILT (ML); low plasticity, trace gravel. (continued)	
					PID= 0.0 Sheen= None Blows (non-SPT)= 8,14,15			
25	40				PID= 0.0 Sheen= None Blows (non-SPT)= 17,25,25		Becomes hard.	25
							Bottom of exploration at 26.5 ft. bgs. Note: Boring cleared with air knife to 5 ft. bgs, HSA to 26.5 ft. bgs	
30	35							30
35	30							35
	25							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: DIM
Approved by: SJA

Exploration Log AMW-08
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, In S McClellan, N of 76 station		Coordinates (SPN NAD83 ft): E:214373.4 N:1279250 (est)	Exploration Number: **AMW-09**
Contractor: Cascade Drilling	Equipment: CME-75	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 57.05'(est)	Ecology Well Tag No. BKF 041
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 11/15/2017	Top of Casing Elev. (NAVD88): 56.5'	Depth to Water (Below GS): 13' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete					Concrete.	
		2" diameter, schedule 40 PVC casing in concrete					**FILL** Moist, slightly gravelly, silty SAND (SM).	
	55	Casing in bentonite chips					Fill; trash mixed with slightly gravelly, silty SAND (SM).	
5					PID= 0.5 Sheen= None		Moist, gray, slightly gravelly silty SAND (SM); fine to medium sand, fine gravel, trace coarse sand.	5
	50							
10		10-slot screen in 10/20 sand		AMW-09-10.0	PID= 0.0 Sheen= None Blows (non-SPT)= 1,0,0		Very loose, moist, brown, silty SAND (SM); fine to coarse sand, iron-oxide stained. **GLACIAL RECESSIONAL DEPOSITS** Very loose, very moist, blue-gray, silty SAND (SM); fine to medium sand.	10
	45	▽ 11/15/2017						
15					PID= 0.0 Sheen= None Blows (non-SPT)= 1,1,1		Soft, moist, dark brown, SILT (ML); low plasticity, trace sand, wood fragments 15-15.5 ft.	15
	40				Blows (non-SPT)= 1,1,2 PID= 0.0 Sheen= None		Soft, moist, dark brown to black, silty PEAT (PT). **GLACIAL RECESSIONAL DEPOSITS** Soft, moist, blue-gray, CLAY (CL).	
20				AMW-09-20.0	PID= 0.0 Sheen= None Blows (non-SPT)= 1,1,1			20
	35						Bottom of exploration at 21.5 ft. bgs. Note: Boring cleared with air knife to 8 ft. bgs, HSA to 21.5 ft. bgs	

Legend

Sample Method: Grab sample; Split Barrel 3.25" X 2.375" (D&M)

Water Level: ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DIM
Approved by: SJA

Exploration Log AMW-09
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, S side of 2806 McClellan		Coordinates (SPN NAD83 ft): E:214437.9 N:1279460 (est)	Exploration Number: **AMW-10**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 67.43'(est)	Ecology Well Tag No. BKA 276
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 8/9/2017	Top of Casing Elev. (NAVD88): 67.08'	Depth to Water (Below GS): 12.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips					**FILL** Very loose, slightly moist, brown, GRAVEL (GP); subangular fine gravel.	
	65		AMW-10-2.5		SPT= 2,1,2 PID= 0 Sheen= Slight		Very loose, moist, brown, slightly gravelly, silty SAND (SM); fine sand, trace organics, moderate iron-oxide staining.	
5		10-slot screen in 10/20 sand	AMW-10-5.0		SPT= 0,1,1 PID= 0 Sheen= Slight		Fine to coarse sand.	5
	60		AMW-10-7.5		SPT= 0,1,1 PID= 0 Sheen= Slight		**GLACIAL RECESSIONAL DEPOSITS** Very loose, moist, dark brown, very sandy SILT (ML); non-plastic, fine to coarse sand, trace organics, moderate iron-oxide staining. Becomes brown, very moist, and slightly gravelly; coarse gravel.	
10			AMW-10-10.0	GS	SPT= 4,5,6 PID= 0 Sheen= None		Medium dense, very moist, light green gray and brown, silty SAND (SM); trace angular fine gravel, fine to coarse sand, trace organics. Grades more sitly with depth.	10
	55	▽ 8/9/2017	AMW-10-12.5		SPT= 6,8,9 PID= 0.3 Sheen= None		Becomes wet and brown.	
15			AMW-10-15.0	FC	SPT= 4,5,5 PID= 0.2 Sheen= None		Medium stiff to stiff, moist, brown to light brown, sandy SILT (ML); low plasticity, fine to coarse sand, trace rounded fine gravel, trace organic fragments, trace iron-oxide staining.	15
	50	Bentonite chip backfill	AMW-10-17.5	AL, FC	SPT= 2,2,3 PID= 0 Sheen= None		Becomes, gray blue with no iron-oxide staining. Becomes light gray.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: NHC
Approved by: SJA

Exploration Log AMW-10

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, S side of 2806 McClellan		Coordinates (SPN NAD83 ft): E:214437.9 N:1279460 (est)	Exploration Number: **AMW-10**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 67.43'(est)	Ecology Well Tag No. BKA 276
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 8/9/2017	Top of Casing Elev. (NAVD88): 67.08'	Depth to Water (Below GS): 12.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
			AMW-10-20.0	AL, FC	SPT= 2,3,3 PID= 0.1 Sheen= None		Medium stiff to stiff, moist, brown to light brown, sandy SILT (ML); low plasticity, fine to coarse sand, trace rounded fine gravel, trace organic fragments, trace iron-oxide staining. (continued)	
	45							
25			AMW-10-25.0	FC	SPT= 5,7,8 PID= 0.1 Sheen= None			25
	40						Medium dense, very moist to wet, light gray, SILT (ML) interbedded with silty SAND (SM); non-plastic, fine sand.	
30			AMW-10-30.0		SPT= 5,8,11 PID= 0.1 Sheen= None			30
	35						**PRE-FRASER DEPOSITS** Very dense, slightly moist to very moist, light gray, very silty SAND (SM); fine sand, fine to coarse sand pockets, trace subrounded gravel, diamict texture.	
35			AMW-10-35.0		SPT= 12,27,50 PID= 0.2 Sheen= None			35
	30							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: NHC
Approved by: SJA

Exploration Log AMW-10
Sheet 2 of 3

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, S side of 2806 McClellan		*Coordinates (SPN NAD83 ft)* E:214437.9 N:1279460 (est)	*Exploration Number* **AMW-10** Ecology Well Tag No. BKA 276
Contractor Cascade Drilling	*Equipment* CME-55	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 67.43'(est)	
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 8/9/2017	*Top of Casing Elev. (NAVD88)* 67.08'	*Depth to Water (Below GS)* 12.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
45	25		AMW-10-40.0		SPT= 30,50/5" PID= 0.1 Sheen= None		**PRE-FRASER DEPOSITS** Very dense, slightly moist to very moist, light gray, very silty SAND (SM); fine sand, fine to coarse sand pockets, trace subrounded gravel, diamict texture. (continued)	45
			AMW-10-45.0		SPT= 30,50/4" PID= 0.1 Sheen= None			
							Bottom of exploration at 46 ft. bgs.	
50	20							50
55	15							55
	10							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: NHC
Approved by: SJA

Exploration Log AMW-10
Sheet 3 of 3

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, W sidewalk of MLK		Coordinates (SPN NAD83 ft): E:214045.4 N:1279340 (est)	Exploration Number: **AMW-11**
Contractor: Cascade Drilling	Equipment: CME-75	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 55.55'(est)	Ecology Well Tag No. BKF 045
Operator: James Goble	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 11/20/2017	Top of Casing Elev. (NAVD88): 55.17'	Depth to Water (Below GS): 7.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
	55	8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips			PID= 0.0 Sheen= None		Asphalt. **FILL** Dry to moist, gray, slightly gravelly, silty SAND (SM).	
5	50	▽ 11/20/2017			PID= 0.0 Sheen= Slight Blows (non-SPT)= 7,8,9		Medium dense, moist, gray, gravelly, sandy SILT (ML); non-plastic.	5
					PID= 0.0 Sheen= Organic Blows (non-SPT)= 2,1,2		Soft, moist, black-brown, SILT (ML); low plasticity, numerous organics, wood, and charcoal fragments, possible brick fragments 7.5-8 ft.	
10	45	10-slot screen in 10/20 sand			PID= 0.0 Sheen= Organic Blows (non-SPT)= 4,4,4		**GLACIAL RECESSIONAL DEPOSITS** Soft to very soft, moist, black-brown, organic CLAY (OL); organic odor, glass fragments.	10
					Blows (non-SPT)= 1,0,1		Soft, moist, tan, SILT (ML); low density, slightly spongey.	
15	40				PID= 0.0 Sheen= None Blows (non-SPT)= 2,3,2		Soft, moist to very moist, blue-gray, CLAY (CL); low to medium plasticity.	15
					PID= 0.0 Sheen= None Blows (non-SPT)= 2,2,2			
20	35			AMW-11-20.0	PID= 0.0 Sheen= None Blows (non-SPT)= 1,2,2			20
							Bottom of exploration at 21.5 ft. bgs. Note: Boring cleared with air knife to 5 ft. bgs, HSA to 21.5 ft. bgs	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-11
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, SW corner of 2800 MLK		Coordinates (SPN NAD83 ft): E:214240.4 N:1279420 (est)	Exploration Number: **AMW-12**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 60.77'(est)	Ecology Well Tag No. BKA 274
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 8/7/2017	Top of Casing Elev. (NAVD88): 60.33'	Depth to Water (Below GS): 13' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete					Asphalt.	
	60	2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips	AMW-12-2.5		Blows (non-SPT)= 2,2,3 PID= 0.6 Sheen= None		**FILL** Loose to very loose, moist, brown, slightly gravelly, silty SAND (SM); fine to medium sand, brick fragments, numerous organic fragments.	
5	55		AMW-12-5.0		Blows (non-SPT)= 2,2,2 PID= 1 Sheen= Slight			5
			AMW-12-7.5 (env only)		Blows (non-SPT)= 2,2,2 PID= 0 Sheen= Slight		Becomes without brick fragments.	
10	50	10-slot screen in 10/20 sand 8/7/2017	AMW-12-12.5A/B		Blows (non-SPT)= 6,4,4 Blows (non-SPT)= 2,1,2 PID= 1.3-2.0 Sheen= Slight		Becomes without organic fragments.	10
15	45		AMW-12-15.0		Blows (non-SPT)= 1,1,1 PID= 3.7 Sheen= Slight			15
			AMW-12-17.5		Blows (non-SPT)= 4,8,8 PID= 1.6 Sheen= Slight		**GLACIAL RECESSIONAL DEPOSITS** Medium dense, very moist to wet, gray silty SAND (SM); medium sand, trace fine gravel.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-12

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, SW corner of 2800 MLK		Coordinates (SPN NAD83 ft): E:214240.4 N:1279420 (est)	Exploration Number: **AMW-12**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 60.77'(est)	Ecology Well Tag No. BKA 274
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 8/7/2017	Top of Casing Elev. (NAVD88): 60.33'	Depth to Water (Below GS): 13' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
	40		AMW-12-20.0		Blows (non-SPT)= 4,8,12 PID= 7.1 Sheen= None		**GLACIAL RECESSIONAL DEPOSITS** Medium dense, very moist to wet, gray silty SAND (SM); medium sand, trace fine gravel. (continued)	
		Bentonite chip backfill						
25	35		AMW-12-25.0		Blows (non-SPT)= 12,16,23 PID= 1.7 Sheen= None		**PRE-FRASER DEPOSITS** Dense, very moist to wet, gray, gravelly, silty SAND (SM).	25
							Dense, moist, gray SILT (ML); non-plastic, trace fine sand.	
30	30		AMW-12-30.0		Blows (non-SPT)= 13,18,25 PID= 0.1 Sheen= None			30
35	25		AMW-12-35.0		Blows (non-SPT)= 30,50/4" PID= 0.1 Sheen= None		Becomes very dense.	35
							Bottom of exploration at 36 ft. bgs.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-12
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, SE corner of 2800 MLK		Coordinates (SPN NAD83 ft): E:214238.4 N:1279470 (est)	Exploration Number: **AMW-13**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 63.15'(est)	Ecology Well Tag No. BKA 275
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 8/8/2017	Top of Casing Elev. (NAVD88): 62.7'	Depth to Water (Below GS): 20' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	60	8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips	AMW-13-2.5		SPT= 5,4,3 PID= 0 Sheen= Slight		**FILL** Loose, dry, gray, GRAVEL (GP); angular fine gravel. Loose, slightly moist, dark brown, sandy silty GRAVEL (GM); subangular fine to coarse gravel, fine to coarse sand.	
5					SPT= 4,4,4		Fill; concrete rubble, bricks.	5
	55				SPT= 8,13,8			
10		10-slot screen in 10/20 sand	AMW-13-10.0 (no env)		SPT= 5,6,8 PID= 0.3 Sheen= Slight			10
	50		AMW-13-12.5 (env only)		SPT= 5,7,4 PID= 0.1 Sheen= Slight		**GLACIAL RECESSIONAL DEPOSITS** Medium dense, very moist, dark brown, very silty SAND (SM); fine sand.	
15			AMW-13-15.0		SPT= 1,2,2 PID= 0.4 Sheen= None		Loose, very moist to moist, brown, sandy SILT (ML); non-plastic, fine sand, trace roots, moderate iron-oxide staining.	15
	45		AMW-13-17.5		SPT= 2,4,4 PID= 0.2 Sheen= None		Becomes gray blue and light brown with trace rounded fine gravel.	

▽ 8/8/2017

Legend

Sample Method:
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level:
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: NHC
Approved by: SJA

Exploration Log AMW-13

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, SE corner of 2800 MLK		Coordinates (SPN NAD83 ft): E:214238.4 N:1279470 (est)	Exploration Number: **AMW-13**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 63.15'(est)	Ecology Well Tag No. BKA 275
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 8/8/2017	Top of Casing Elev. (NAVD88): 62.7'	Depth to Water (Below GS): 20' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
			AMW-13-20.0		SPT= 5,8,9 PID= 0 Sheen= None		Medium dense, very moist to wet, gray, silty SAND (SM); predominantly fine sand. (continued)	
		Bentonite chip backfill						
	40						**PRE-FRASER DEPOSITS** Dense to very dense, slightly moist, gray blue, SILT (ML); non-plastic.	
25			AMW-13-25.0		SPT= 11,27,50 PID= 0 Sheen= None			25
	35							
30			AMW-13-30.0		SPT= 12,18,23 PID= 0 Sheen= None		Trace rounded fine to coarse gravel.	30
	30						Dense, very moist to wet, sandy, silty GRAVEL (GM); rounded fine to coarse gravel, fine sand.	
35			AMW-13-35.0		SPT= 23,24,22 PID= 0 Sheen= None			35
							Dense, slightly moist, gray, gravelly SILT (ML); non-plastic, trace sand, rounded fine gravel.	
							Bottom of exploration at 36.5 ft. bgs.	
	25							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: NHC
Approved by: SJA

Exploration Log AMW-13
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, E sidewalk of MLK		Coordinates (SPN NAD83 ft): E:214057.7 N:1279400 (est)	Exploration Number: **AMW-14**
Contractor: Cascade Drilling	Equipment: CME-75	Sampling Method: Autohammer; 140 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 57.14'(est)	Ecology Well Tag No. BKF 047
Operator: James Goble	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 11/21/2017	Top of Casing Elev. (NAVD88): 56.85'	Depth to Water (Below GS): 9.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	55	8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips			PID= 0.0 Sheen= None		Asphalt. **FILL** Soft, brown, gravelly, slightly sandy, SILT (ML); low plasticity.	0
5	50				PID= 0.0 Sheen= None SPT= 2,3,2			5
					PID= 0.0 Sheen= None SPT= 12,15,12		Becomes very stiff.	
10	45	▽ 11/21/2017 10-slot screen in 10/20 sand			PID= 0.0 Sheen= None SPT= 7,6,6		**GLACIAL RECESSIONAL DEPOSITS** Medium dense, moist, gray-brown, silty SAND (SM); fine to medium sand.	10
					PID= 0.0 Sheen= None SPT= 11,15,16		Medium dense, moist to wet, black, silty SAND (SM); wood fragments. Dense, moist, dark brown, PEAT (PT); wood fragments.	
15	40				PID= 0.0 Sheen= None SPT= 10,12,10		Very stiff, moist, tan, organic SILT (OL); spongey, organic-rich. Becomes brown, faintly laminated.	15
					PID= 0.0 Sheen= None SPT= 6,8,9		Becomes black-brown, woody fragments, trace medium sand.	
20	35			AMW-14-20.0	PID= 0.0 Sheen= None SPT= 4,4,5		Medium stiff, moist to very moist, blue-gray, CLAY (CL); low to medium plasticity.	20
							Bottom of exploration at 21.5 ft. bgs. Note: Boring cleared with air knife to 5 ft. bgs, HSA to 21.5 ft. bgs	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- Grab sample
- Split Barrel 2" X 1.375" (SPT)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-14
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, W sidewalk of MLK		Coordinates (SPN NAD83 ft): E:214087.6 N:1279340 (est)	Exploration Number: **AMW-15**
Contractor: Cascade Drilling	Equipment: CME-75	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 56.21'(est)	Ecology Well Tag No. BKF 046
Operator: James Goble	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 11/20/2017	Top of Casing Elev. (NAVD88): 55.78'	Depth to Water (Below GS): 7.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips					Concrete.	
	55						**FILL** Dry to moist, gray, gravelly, silty SAND (SM).	
5					PID= 0.0 Sheen= None Blows (non-SPT)= 6,5,4		Stiff, moist, gray, slightly gravelly, slightly sandy SILT (ML); low plasticity.	5
	50	▽ 11/20/2017			PID= 0.0 Sheen= None Blows (non-SPT)= 1,1,1		Soft, moist to wet, black-brown, organic-rich SILT (ML); charcoal and woody fragments, organic odor.	
10		10-slot screen in 10/20 sand			PID= 0.0 Sheen= None Blows (non-SPT)= 3,2,2		**GLACIAL RECESSIONAL DEPOSITS** Soft, moist, dark brown, organic SILT (OL); non fibrous. Soft, moist, tan, organic SILT (OL); spongey, organic-rich.	10
	45				PID= 0.0 Sheen= None Blows (non-SPT)= 2,1,1		Soft, moist to very moist, blue-gray, CLAY (CL); low to medium plasticity, scattered 1 inch medium sand (SP) interbeds.	
15					PID= 0.0 Sheen= None Blows (non-SPT)= 3,3,3			15
	40				PID= 0.0 Sheen= None Blows (non-SPT)= 2,2,2			
20				AMW-15-21.0	PID= 0.0 Sheen= None Blows (non-SPT)= 1,1,1			20
	35						Bottom of exploration at 21.5 ft. bgs. Note: Boring cleared with air knife to 5 ft. bgs, HSA to 21.5 ft. bgs	

Legend

Sample Method
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-15
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, NE corner of retail parking lot		Coordinates (SPN NAD83 ft): E:214110.2 N:1279410 (est)	Exploration Number: **AMW-16**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 140 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 58.48'(est)	Ecology Well Tag No. BKF 631
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 7/30/2018	Top of Casing Elev. (NAVD88): 58.11'	Depth to Water (Below GS): 17.6' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete					Concrete; capped with asphalt.	
		2" diameter, schedule 40 PVC casing in concrete					**FILL** Moist, brown, gravelly, silty SAND (SM); fine to medium sand, fine to coarse gravel, no odor.	
		Casing in bentonite chips			PID= 0.0 Sheen= None		Moist, gray, slightly silty SAND (SP-SM); fine to medium sand, no odor.	
	55				PID= 0.0 Sheen= None		Moist, gray-brown, gravelly, silty SAND (SM); fine to medium sand, fine gravel.	
5					PID= 0.0 Sheen= None			5
					PID= 0.0 Sheen= Slight Blows (non-SPT)= 12,13,15		**GLACIAL RECESSIONAL DEPOSITS** Medium dense, moist, gray-blue, gravelly, silty SAND (SM); fine to medium sand, fine gravel.	
	50							
10		10-slot screen in 10/20 sand			PID= 0.0 Sheen= Slight Blows (non-SPT)= 8,9,15			10
		▽ 7/30/2018 Perched			PID= 0.0 Sheen= None Blows (non-SPT)= 9,12,16			
	45							
15					PID= 0.0 Sheen= None Blows (non-SPT)= 9,9,15			15
		▽ 7/30/2018						
					PID= 0.0 Sheen= None Blows (non-SPT)= 4,4,6		Stiff, very moist to wet, light brown, organic SILT (OL); spongey texture, trace charcoal, trace root fragments.	
	40							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-16
Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTWPROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, NE corner of retail parking lot		*Coordinates (SPN NAD83 ft)* E:214110.2 N:1279410 (est)	*Exploration Number* **AMW-16** Ecology Well Tag No. BKF 631
Contractor Cascade Drilling	*Equipment* CME-55	*Sampling Method* Autohammer; 140 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 58.48'(est)	
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 7/30/2018	*Top of Casing Elev. (NAVD88)* 58.11'	*Depth to Water (Below GS)* 17.6' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
25	35				PID= 0.0 Sheen= None Blows (non-SPT)= 4,5,6		Soft to stiff, moist to very moist, blue-gray CLAY (CL); low to medium plasticity, trace fine sand, trace organic fragments. (continued)	25
					PID= 0.0 Sheen= None Blows (non-SPT)= 2,1,2			
					PID= 0.0 Sheen= None Blows (non-SPT)= 2,2,2			
30	30						Bottom of exploration at 26.5 ft. bgs. Note: Boring cleared with air knife to 6 ft. bgs, HSA to 26.5 ft. bgs	30
35	25							35
	20							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-16
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, MLK center turn lane		Coordinates (SPN NAD83 ft): E:214226.6 N:1279370 (est)	Exploration Number: **AMW-17**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 140 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 59.14'(est)	Ecology Well Tag No. BKF 632
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 7/30/2018 to 7/31/2018	Top of Casing Elev. (NAVD88): 58.79'	Depth to Water (Below GS): 14' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips					Concrete.	
	55				PID= 0.0 Sheen= Slight		**FILL** Moist, gray, silty SAND (SM); fine to medium sand, trace fine gravel, slight petroleum-like odor.	
5					PID= 0.0 Sheen= Slight			5
					PID= 0.0 Sheen= Slight		Very moist, gray, silty SAND (SM); becomes siltier with depth, fine to medium sand, trace fine gravel, slight petroleum-like odor.	
	50							
10		10-slot screen in 10/20 sand			PID= 0.0 Sheen= None			10
					PID= 0.0 Sheen= None Blows (non-SPT)= 6,10,4		Medium dense, moist, gray and brown, silty SAND (SM); fine to medium sand, trace organic fragments, 1 inch medium sand (SP) interbeds, no odor.	
	45	▽ 7/31/2018					**GLACIAL RECESSIONAL DEPOSITS** Loose, wet, gray, slightly silty SAND (SP-SM); fine to medium sand, trace woody fragments, no odor.	
15					PID= 0.0 Sheen= Slight Blows (non-SPT)= 4,4,5			15
					PID= 0.0 Sheen= None Blows (non-SPT)= 7,8,8		Stiff, wet, light brown to brown, organic SILT (OL); spongey texture, low density, no odor.	
	40						**PRE-FRASER DEPOSITS** Very stiff, moist, green-gray, SILT (MH); trace fine sand, trace organic fragments, no odor.	
20					PID= 0.0 Sheen= None Blows (non-SPT)= 7,8,8			20
							Bottom of exploration at 21.5 ft. bgs. Note: Boring cleared with air knife to 12 ft. bgs, HSA to 21.5 ft. bgs	
	35							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-17
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, W sidewalk of MLK		*Coordinates (SPN NAD83 ft)* E:213994.3 N:1279330 (est)	*Exploration Number* **AMW-18**
Contractor Cascade Drilling	*Equipment* CME-55	*Sampling Method* Autohammer; 140 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 54.53'(est)	Ecology Well Tag No. BKF 634
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 8/1/2018	*Top of Casing Elev. (NAVD88)* 54.07'	*Depth to Water (Below GS)* 10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	54	8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips			PID= 0.0 Sheen= None Blows (non-SPT)= 9,14,16		Asphalt; underlain by 6 inches of base course.	0
							FILL Dense, moist, gray, slightly gravelly, silty SAND (SM); fine to medium sand, fine gravel, no odor.	
5	50				PID= 0.0 Sheen= Slight Blows (non-SPT)= 15,18,20			5
							Loose, moist, black, organic-rich, silty SAND (SM); abundant wood fragments, abundant charcoal fragments, organic odor.	
					PID= 0.0 Sheen= Slight Blows (non-SPT)= 3,4,4			
10	45	▽ 8/1/2018 40-slot screen in 10/20 sand			PID= 0.0 Sheen= Organic Blows (non-SPT)= 2,2,2		Becomes wet.	10
							GLACIAL RECESSIONAL DEPOSITS Soft, wet, brown, sandy PEAT (PT); fine sand, organic odor.	
					PID= 0.0 Sheen= Organic Blows (non-SPT)= 7,10,12		Very stiff, wet, light brown to brown, organic SILT (OL); spongey texture, organic fragments, wood fragments, no odor.	
15	40				PID= 0.0 Sheen= None Blows (non-SPT)= 4,7,7			15
							Soft, very moist, green-gray, CLAY (CL); low to medium plasticity, trace organic fragments, no odor.	
					PID= 0.0 Sheen= None Blows (non-SPT)= 2,2,2			
20	35				PID= 0.0 Sheen= None Blows (non-SPT)= 2,2,2			20
							Bottom of exploration at 21.5 ft. bgs.	
	30							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-18
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, McClellan and MLK intersection bikelane		Coordinates (SPN NAD83 ft): E:214372.0 N:1279440 (est)	Exploration Number: **AMW-19**
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 140 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 65.4'(est)	Ecology Well Tag No. BKF 633
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 7/31/2018	Top of Casing Elev. (NAVD88): 65.01'	Depth to Water (Below GS): 9.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	65	8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips					Concrete; overlain by 2 inches of asphalt.	0
					PID= 0.0 Sheen= None		**FILL** Moist, brown, slightly silty SAND (SP-SM); fine to medium sand, trace fine gravel, no odor.	
							Moist, brown, SAND (SP); fine to medium sand, no odor.	
5	60				PID= 0.0 Sheen= None			5
					PID= 0.0 Sheen= None			
		7/31/2018			PID= 0.0 Sheen= None Blows (non-SPT)= 9,9,9		**GLACIAL RECESSIONAL DEPOSITS** Medium dense, moist to wet, gray silty SAND (SM); fine to medium sand, trace fine gravel, no odor.	
10	55	10-slot screen in 10/20 sand			PID= 0.0 Sheen= None Blows (non-SPT)= 4,12,20		Becomes dense.	10
					Blows (non-SPT)= 16,19,25			
15	50				PID= 0.0 Sheen= None Blows (non-SPT)= 25,50/6"		**PRE-FRASER DEPOSITS** Medium dense to very dense, wet, gray slightly silty SAND (SP-SM) interbedded withsilty SAND (SM); medium sand, iron-oxide staining, no odor.	15
					PID= 0.0 Sheen= None Blows (non-SPT)= 6,10,12			
20	45						Bottom of exploration at 20.5 ft. bgs. Note: Boring cleared with air knife to 7.5 ft. bgs, HSA to 20.5 ft. bgs	20

Legend

Sample Method
- No Soil Sample Recovery
- Grab sample
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-19
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, West of retail lot, in sidewalk		*Coordinates (SPN NAD83 ft)* E:214221.3 N:1279430 (est)	*Exploration Number* **AMW-20**
Contractor Cascade Drilling	*Equipment* CME-55	*Sampling Method* Autohammer; 140 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 60.34'(est)	Ecology Well Tag No. BKF 630
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 7/30/2018	*Top of Casing Elev. (NAVD88)* 59.9'	*Depth to Water (Below GS)* 12.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	60	8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips		AMW-20-2.5	Blows (non-SPT)= 15,15,11 PID= 0.0 Sheen= None		Asphalt. **FILL** Medium dense, moist, brown, gravelly, silty SAND (SM); fine to medium sand, no odor.	0
5	55			AMW-20-5.0	Blows (non-SPT)= 4,7,1 PID= 0.0 Sheen= None		Loose, moist, gray-brown, slightly silty SAND (SP-SM); fine to medium sand, trace fine gravel, no odor.	5
				AMW-20-7.5	Blows (non-SPT)= 4,7,20 PID= 0.0 Sheen= None		Medium dense, moist, brown, gravelly, silty SAND (SM); fine to coarse sand, fine gravel, no odor.	
10	50	10-slot screen in 10/20 sand ▽ 7/30/2018		AMW-20-10.0	Blows (non-SPT)= 7,7,12 PID= 0.0 Sheen= None			10
				AMW-20-12.5	Blows (non-SPT)= 30,50/6" PID= 0.0 Sheen= None		Very dense, wet, dark brown, sandy, silty GRAVEL (GM); fine gravel, medium to coarse sand, concrete and brick fragments, organic odor.	
15	45				Blows (non-SPT)= 50/6" PID= 0.0 Sheen= None			15
				AMW-20-17.5	Blows (non-SPT)= 20,23,25 PID= 0.0 Sheen= None		**PRE-FRASER DEPOSITS** Very dense, wet, gray, silty SAND (SM); fine to medium sand, trace fine to coarse gravel, no odor.	
20	40			AMW-20-20.0	Blows (non-SPT)= 25,50/6" PID= 0.0 Sheen= None			20
				AMW-20-22.5	Blows (non-SPT)= 25,50/6" PID= 0.0 Sheen= None		Bottom of exploration at 23.5 ft. bgs.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-20

Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, 2813 29th Ave. S backyard		Coordinates (SPN NAD83 ft): E:214232.0 N:1279510 (est)	Exploration Number: **AMW-22**
Contractor: Cascade Drilling	Equipment: 54L	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 53.8'(est)	Ecology Well Tag No. BLK 091
Operator: Tim W.	Exploration Method(s): Direct push	Work Start/Completion Dates: 3/30/2018	Top of Casing Elev. (NAVD88): 53.4'	Depth to Water (Below GS): 7.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete					Moist, brown, silty Topsoil.	
		2" diameter, schedule 40 PVC casing in concrete					**FILL** Moist, brown, silty SAND (SM); fine to medium sand, trace coarse sand, up to 30% organics, organic odor.	
		Casing in bentonite chips		AMW-22-2.5	PID= 0.0 Sheen= None			
	50							
				AMW-22-4.5	PID= 0.0 Sheen= None			
5								5
		▽ 3/30/2018					Moist to wet, blue-gray silty SAND (SM); fine to medium sand, no odor.	
				AMW-22-7.5	PID= 0.0 Sheen= None			
	45							
				AMW-22-9.5	PID= 0.0 Sheen= None			
10		10-slot screen in 10/20 sand						10
							ALLUVIUM Moist to wet, blue-gray slightly silty SAND (SP-SM); fine to medium sand, no odor.	
				AMW-22-11.5	PID= 0.0 Sheen= None			
	40							
							Moist, tan, spongey organic SILT (OL); low density, trace organics.	
15				AMW-22-15.0	PID= 0.0 Sheen= None		Moist, blue-gray, sandy SILT (ML); fine sand, no odor, appears dense.	15
							Bottom of exploration at 15 ft. bgs.	
	35							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-22

Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Parking lot 2811 S. McClellan		*Coordinates (SPN NAD83 ft)* E:214332.2 N:1279530 (est)	*Exploration Number* **AMW-24**
Contractor Cascade Drilling	*Equipment* CME-55	*Sampling Method* Autohammer; 140 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 72.8'(est)	Ecology Well Tag No. BLK 104
Operator Muddy Waters	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 3/30/2018	*Top of Casing Elev. (NAVD88)* 72.4'	*Depth to Water (Below GS)* 19.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips					Asphalt.	
							Medium dense to dense, moist, gray-brown to dark brown, silty SAND (SM); fine to medium sand, fine to coarse gravel, no odor.	
	70			AMW-24-2.5	Blows (non-SPT)= 43,37,44 PID= 0.0 Sheen= None		Blow counts may be overstated due to presence of gravel.	
5				AMW-24-5.0	Blows (non-SPT)= 8,9,8 PID= 0.0 Sheen= None			5
	65			AMW-24-7.5	Blows (non-SPT)= 9,10,10 PID= 0.0 Sheen= None			
10				AMW-24-10.0	Blows (non-SPT)= 9,12,13 PID= 0.0 Sheen= None		Medium dense, moist, gray-brown to brown, sandy SILT (ML); non-plastic, fine to medium sand, no odor.	10
		10-slot screen in 10/20 sand					Dense, moist, light brown, silty SAND (SM); fine to medium sand, no odor.	
	60			AMW-24-12.5	Blows (non-SPT)= 7,16,17 PID= 0.0 Sheen= None			
15				AMW-24-15.0	Blows (non-SPT)= 50/6" PID= 0.0 Sheen= None		Becomes very dense.	15
	55			AMW-24-17.5	Blows (non-SPT)= 47,35,48 PID= 0.0 Sheen= None			
		▽ 3/30/2019						

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-24

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Parking lot 2811 S. McClellan		*Coordinates (SPN NAD83 ft)* E:214332.2 N:1279530 (est)	*Exploration Number* **AMW-24**
Contractor Cascade Drilling	*Equipment* CME-55	*Sampling Method* Autohammer; 140 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 72.8'(est)	Ecology Well Tag No. BLK 104
Operator Muddy Waters	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 3/30/2018	*Top of Casing Elev. (NAVD88)* 72.4'	*Depth to Water (Below GS)* 19.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
				AMW-24-20.0	Blows (non-SPT)= 5,7,11 PID= 0.0 Sheen= None		Medium dense, wet, gray-brown to brown, sandy SILT (ML); non-plastic, fine to medium sand, fine gravel, no odor.	
	50			AMW-24-22.5	Blows (non-SPT)= 16,50/5" PID= 0.0 Sheen= None		Becomes very dense.	
25				AMW-24-25.0	Blows (non-SPT)= 36,50/6" PID= 0.0 Sheen= None			25
							Bottom of exploration at 26.5 ft. bgs.	
	45							
30								30
	40							
35								35
	35							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-24
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Coarse-Grained Soils - More than 50%[1] Retained on No. 200 Sieve	Gravels - More than 50%[1] of Coarse Fraction Retained on No. 4 Sieve	≤5% Fines	GW	Well-graded GRAVEL Well-graded GRAVEL WITH SAND
			GP	Poorly-graded GRAVEL Poorly-graded GRAVEL WITH SAND
		≥15% Fines	GM	SILTY GRAVEL SILTY GRAVEL WITH SAND
			GC	CLAYEY GRAVEL CLAYEY GRAVEL WITH SAND
	Sands - 50%[1] or More of Coarse Fraction Passes No. 4 Sieve	≤5% Fines	SW	Well-graded SAND Well-graded SAND WITH GRAVEL
			SP	Poorly-graded SAND Poorly-graded SAND WITH GRAVEL
		≥15% Fines	SM	SILTY SAND SILTY SAND WITH GRAVEL
			SC	CLAYEY SAND CLAYEY SAND WITH GRAVEL
Fine-Grained Soils - 50%[1] or More Passes No. 200 Sieve	Silts and Clays Liquid Limit Less than 50%		ML	SILT SANDY or GRAVELLY SILT SILT WITH SAND SILT WITH GRAVEL
			CL	LEAN CLAY SANDY or GRAVELLY LEAN CLAY LEAN CLAY WITH SAND LEAN CLAY WITH GRAVEL
			OL	ORGANIC SILT SANDY or GRAVELLY ORGANIC SILT ORGANIC SILT WITH SAND ORGANIC SILT WITH GRAVEL
	Silts and Clays Liquid Limit 50% or More		MH	ELASTIC SILT SANDY or GRAVELLY ELASTIC SILT ELASTIC SILT WITH SAND ELASTIC SILT WITH GRAVEL
			CH	FAT CLAY SANDY or GRAVELLY FAT CLAY FAT CLAY WITH SAND FAT CLAY WITH GRAVEL
			OH	ORGANIC CLAY SANDY or GRAVELLY ORGANIC CLAY ORGANIC CLAY WITH SAND ORGANIC CLAY WITH GRAVEL
Highly Organic Soils			PT	PEAT and other mostly organic soils

"WITH SILT" or "WITH CLAY" means 5 to 15% silt and clay, denoted by a "-" in the group name; e.g., SP-SM • "SILTY" or "CLAYEY" means >15% silt and clay • "WITH SAND" or "WITH GRAVEL" means 15 to 30% sand and gravel. • "SANDY" or "GRAVELLY" means >30% sand and gravel. • "Well-graded" means approximately equal amounts of fine to coarse grain sizes • "Poorly graded" means unequal amounts of grain sizes • Group names separated by "/" means soil contains layers of the two soil types; e.g., SM/ML.

Soils were described and identified in the field in general accordance with the methods described in ASTM D2488. Where indicated in the log, soils were classified using ASTM D2487 or other laboratory tests as appropriate. Refer to the report accompanying these exploration logs for details.

1. Estimated or measured percentage by dry weight
2. (SPT) Standard Penetration Test (ASTM D1586)
3. Determined by SPT, DCPT (ASTM STP399) or other field methods. See report text for details.

GEOTECHNICAL LAB TESTS

MC	=	Natural Moisture Content
GS	=	Grain Size Distribution
FC	=	Fines Content (% < 0.075 mm)
GH	=	Hydrometer Test
AL	=	Atterberg Limits
C	=	Consolidation Test
Str	=	Strength Test
OC	=	Organic Content (% Loss by Ignition)
Comp	=	Proctor Test
K	=	Hydraulic Conductivity Test
SG	=	Specific Gravity Test

CHEMICAL LAB TESTS

Organic Chemicals

BTEX	=	Benzene, Toluene, Ethylbenzene, Xylenes
TPH-Dx	=	Diesel and Oil-Range Petroleum Hydrocarbons
TPH-G	=	Gasoline-Range Petroleum Hydrocarbons
VOCs	=	Volatile Organic Compounds
SVOCs	=	Semi-Volatile Organic Compounds
PAHs	=	Polycyclic Aromatic Hydrocarbon Compounds
PCBs	=	Polychlorinated Biphenyls

Metals

RCRA8	=	As, Ba, Cd, Cr, Pb, Hg, Se, Ag, (d = dissolved, t = total)
MTCA5	=	As, Cd, Cr, Hg, Pb (d = dissolved, t = total)
PP-13	=	Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn (d=dissolved, t=total)

FIELD TESTS

PID	=	Photoionization Detector
Sheen	=	Oil Sheen Test
SPT[2]	=	Standard Penetration Test
NSPT	=	Non-Standard Penetration Test
DCPT	=	Dynamic Cone Penetration Test

COMPONENT DEFINITIONS

Descriptive Term		*Size Range and Sieve Number*
Boulders	=	Larger than 12 inches
Cobbles	=	3 inches to 12 inches
Coarse Gravel	=	3 inches to 3/4 inches
Fine Gravel	=	3/4 inches to No. 4 (4.75 mm)
Coarse Sand	=	No. 4 (4.75 mm) to No. 10 (2.00 mm)
Medium Sand	=	No. 10 (2.00 mm) to No. 40 (0.425 mm)
Fine Sand	=	No. 40 (0.425 mm) to No. 200 (0.075 mm)
Silt and Clay	=	Smaller than No. 200 (0.075 mm)

ESTIMATED[1] PERCENTAGE

% by Weight		*Modifier*	*% by Weight*		*Modifier*
<1	=	Subtrace	15 to 25	=	Little
1 to <5	=	Trace	30 to 45	=	Some
5 to 10	=	Few	>50	=	Mostly

MOISTURE CONTENT

Dry	=	Absence of moisture, dusty, dry to the touch
Slightly Moist	=	Perceptible moisture
Moist	=	Damp but no visible water
Very Moist	=	Water visible but not free draining
Wet	=	Visible free water, usually from below water table

RELATIVE DENSITY

Non-Cohesive or Coarse-Grained Soils

Density[3]		*SPT*[2] *Blows/Foot*	*Penetration with 1/2" Diameter Rod*
Very Loose	=	0 to 4	≥ 2'
Loose	=	5 to 10	1' to 2'
Medium Dense	=	11 to 30	3" to 1'
Dense	=	31 to 50	1" to 3"
Very Dense	=	> 50	< 1"

CONSISTENCY

Cohesive or Fine-Grained Soils

Consistency[3]		*SPT*[2] *Blows/Foot*	*Manual Test*
Very Soft	=	0 to 1	Penetrated >1" easily by thumb. Extrudes between thumb & fingers.
Soft	=	2 to 4	Penetrated 1/4" to 1" easily by thumb. Easily molded.
Medium Stiff	=	5 to 8	Penetrated >1/4" with effort by thumb. Molded with strong pressure.
Stiff	=	9 to 15	Indented ~1/4" with effort by thumb.
Very Stiff	=	16 to 30	Indented easily by thumbnail.
Hard	=	> 30	Indented with difficulty by thumbnail.

GEOLOGIC CONTACTS

Observed and Distinct — Observed and Gradual — Inferred

Aspect CONSULTING

Exploration Log Key

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214467.2 N:1279590 (est)	Exploration Number: **AB-35**
Contractor: Cascade Drilling	Equipment: CME-75	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 77.8'(est)	
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 11/11/2018	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 12.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
							FILL Medium dense, moist, brown silty SAND (SM); fine to medium sand, brick fragments, no odor.	
	75	Capped with concrete		AB-35-2.5 (cVOCs)	PID= 29.4 Sheen= Slight Blows (non-SPT)= 6, 6, 7			
5					PID= 23.0 Sheen= Slight Blows (non-SPT)= 3, 6, 7		**GLACIAL RECESSIONAL DEPOSITS** Medium dense, moist, brown and gray SILT (ML) interbedded with silty SAND (SM); non-plastic, fine to medium sand, slight chemical-like odor (sweet), no odor.	5
	70				PID= 23.5 Sheen= Slight Blows (non-SPT)= 5, 6, 7		Medium dense, moist to very moist, blue to gray, gravelly silty SAND (SM); fine to coarse gravel, fine to medium sand, no odor.	
10					PID= 39.7 Sheen= Slight Blows (non-SPT)= 12, 15, 20		Becomes dense.	10
	65	▽ 11/11/2018		AB-35-12.5 (cVOCs)	PID= 56.4 Sheen= Slight Blows (non-SPT)= 23, 50/6"		**PRE-FRASER DEPOSITS** Very dense, wet, brown slightly silty SAND (SP-SM); medium sand, trace fine to coarse gravel, no odor.	
15		Backfilled with hydrated bentonite chips		AB-35-15 (cVOCs)	PID= 2.4 Sheen= None Blows (non-SPT)= 12, 18, 20		Dense, very moist, blue to gray, sandy SILT (ML); non-plastic, fine sand, trace fine gravel, no odor.	15
	60				PID= 1.1 Sheen= None Blows (non-SPT)= 18, 20, 20			
20				AB-35-20 (cVOCs)	PID= 0.0 Sheen= None Blows (non-SPT)= 13, 14, 20			20
	55				PID= 0.0 Sheen= None Blows (non-SPT)= 13, 14, 21			
25		Backfilled with hydrated bentonite chips			PID= 0.0 Sheen= None Blows (non-SPT)= 5, 9, 14			25
	50						Bottom of exploration at 26.5 ft. bgs.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-35
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTWPROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214439.1 N:1279590 (est)	*Exploration Number* **AB-37**
Contractor Cascade Drilling	*Equipment* CME-75	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 11/11/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 8' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
							FILL Loose, moist, orange-brown silty SAND (SM); fine to medium sand, brick fragments, no odor.	
	75	Capped with concrete			PID= 0.0 Sheen= None Blows (non-SPT)= 3, 3, 3			
5					PID= 0.6 Sheen= None Blows (non-SPT)= 3, 4, 5			5
							GLACIAL RECESSIONAL DEPOSITS Medium dense to dense, wet, brown silty SAND (SM) interbedded with 2" lenses of sandy SILT (ML); fine to medium sand, no odor.	
	70	▽ 11/11/2018		AB-37-7.5 (cVOCs)	PID= 11.6 Sheen= Slight Blows (non-SPT)= 10, 15, 15			
10					PID= 7.3 Sheen= Slight Blows (non-SPT)= 8, 12, 16			10
	65			AB-37-12.5 (cVOCs)	PID= 74.5 Sheen= Slight Blows (non-SPT)= 14, 18, 20		Becomes dense.	
15		Backfilled with hydrated bentonite chips			PID= 51.8 Sheen= Slight Blows (non-SPT)= 12, 14, 20			15
							PRE-FRASER DEPOSITS Dense, moist, blue to gray SILT (ML); non-plastic, fine sand, trace coarse sand, no odor. Interbedded with till-like silty SAND (SM); fine to medium sand, trace coarse sand, trace fine gravel.	
	60			AB-37-17.5 (cVOCs)	PID= 0.0 Sheen= None Blows (non-SPT)= 8, 11, 12			
20					PID= 0.2 Sheen= None Blows (non-SPT)= 7, 11, 15			20
	55				PID= 0.0 Sheen= None Blows (non-SPT)= 8, 12, 20			
							Very stiff to hard, moist, gray SILT (ML); low plasticity; trace fine sand.	
25		Backfilled with hydrated bentonite chips			PID= 0.0 Sheen= None Blows (non-SPT)= 8, 12, 20			25
							Bottom of exploration at 26.5 ft. bgs.	
	50							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-37
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214440.3 N:1279580 (est)	*Exploration Number* **AB-38**
Contractor Cascade Drilling	*Equipment* CME-75	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 11/11/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
							FILL Loose, moist, orange to brown silty SAND (SM); fine to medium sand, no odor.	
	75	Capped with concrete			PID= 1.7 Sheen= None Blows (non-SPT)= 3, 4, 4			
5				AB-38-5.0 (cVOCs)	PID= 6.8 Sheen= None Blows (non-SPT)= 2, 4, 5		Slight sweet odor.	5
	70				PID= 9.4 Sheen= None Blows (non-SPT)= 4, 7, 9		**GLACIAL RECESSIONAL DEPOSITS** Medium dense, moist, orange to brown SILT (ML); non-plastic silt, fine sand, slight sweet odor.	
10				AB-38-10 (cVOCs)	PID= 48.2 Sheen= None Blows (non-SPT)= 3, 7, 10		**WEATHERED PRE-FRASER DEPOSITS** Medium dense, moist, gray to brown, sandy SILT (ML) interbedded with fine, trace coarse SAND (SP); non-plastic, no odor.	10
	65				PID= 6.7 Sheen= None Blows (non-SPT)= 6, 10, 15			
15		Backfilled with hydrated bentonite chips			PID= 0.2 Sheen= None Blows (non-SPT)= 9, 16, 20		**PRE-FRASER DEPOSITS** Medium dense to dense, moist, gray to brown, sandy SILT (ML) interbedded with fine, trace coarse SAND (SP); non-plastic, no odor.	15
	60			AB-38-17.5 (cVOCs)	PID= 2.5 Sheen= None Blows (non-SPT)= 11, 12, 16			
20				AB-38-20.0 (cVOCs)	PID= 0.1 Sheen= None Blows (non-SPT)= 9, 9, 11			20
	55				PID= 0.0 Sheen= None Blows (non-SPT)= 6, 11, 11			
25		Backfilled with hydrated bentonite chips			PID= 0.0 Sheen= None Blows (non-SPT)= 11, 11, 12			25
	50						Bottom of exploration at 26.5 ft. bgs.	

Legend

Sample Method: Split Barrel 3.25" X 2.375" (D&M)

Water Level: No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-38

Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214487.0 N:1279560 (est)	*Exploration Number* **AB-39**
Contractor Cascade Drilling	*Equipment* CME-75	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 11/12/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 17' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
							FILL Medium stiff, moist, brown SILT (ML); low plasticity, fine to medium sand, trace fine gravel, no odor.	
		Capped with concrete			PID= 0.0 Sheen= None Blows (non-SPT)= 2, 4, 4			
5	75			AB-39-5.0 (cVOCs)	PID= 0.4 Sheen= None Blows (non-SPT)= 3, 4, 5		**GLACIAL RECESSIONAL DEPOSITS** Loose, moist to very moist, brown silty SAND (SM) interbedded with 1 inch lenses of sandy silt SILT (ML); fine sand, trace fine gravel, no odor.	5
	70				PID= 0.0 Sheen= None Blows (non-SPT)= 3, 4, 5			
10					PID= 0.0 Sheen= None Blows (non-SPT)= 2, 2, 3		Medium stiff, moist, brown SILT (ML); low plasticity, fine to coarse sand, trace fine to coarse gravel, no odor.	10
	65			AB-39-12.5 (cVOCs)	PID= 2.6 Sheen= None Blows (non-SPT)= 5, 7, 9			
15		Backfilled with hydrated bentonite chips			PID= 0.0 Sheen= None Blows (non-SPT)= 5, 9, 7		Medium dense, moist, gray SILT (ML); flakey and non-plastic, fine to coarse sand, trace fine gravel, no odor.	15
		▽ 11/12/2018						
	60				PID= 1.7 Sheen= None Blows (non-SPT)= 4, 5, 6		Medium dense, wet, brown silty SAND (SM); fine to medium sand, iron-oxide staining, no odor.	
							WEATHERED PRE-FRASER DEPOSITS Very stiff, moist, brown SILT (ML); low plasticity, fine sand, no odor.	
20				AB-39-20.0 (cVOCs)	PID= 0.0 Sheen= None Blows (non-SPT)= 7, 11, 12		Becomes gray.	20
	55				PID= 0.1 Sheen= None Blows (non-SPT)= 7, 7, 14			
25		Backfilled with hydrated bentonite chips			PID= 0.0 Sheen= None Blows (non-SPT)= 10, 13, 19		**PRE-FRASER DEPOSITS** Hard, moist, brown SILT (ML); low plasticity, fine sand, no odor.	25
	50						Bottom of exploration at 26.5 ft. bgs.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-39
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214508.5 N:1279570 (est)	*Exploration Number* **AB-40**
Contractor Cascade Drilling	*Equipment* CME-75	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 11/12/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
							FILL Loose, moist, light brown silty SAND (SM); fine to coarse sand, trace gravel.	
	75	Capped with concrete		AB-40-2.5 (cVOCs)	PID= 0.7 Sheen= Slight Blows (non-SPT)= 2, 3, 5		**GLACIAL RECESSIONAL DEPOSITS** Medium stiff, moist, light brown SILT (ML); low plasticity, fine sand, trace fine gravel, iron-oxide staining.	
5					PID= 1.1 Sheen= Slight Blows (non-SPT)= 2, 3, 4			5
	70				PID= 36.2 Sheen= Slight Blows (non-SPT)= 4, 5, 5		Becomes stiff.	
10				AB-40-10.0 (cVOCs)	PID= 91.7 Sheen= Slight Blows (non-SPT)= 5, 7, 7		**WEATHERED PRE-FRASER DEPOSITS** Medium dense, moist, gray SILT (ML); flakey, non-plastic, fine sand, no odor.	10
	65				PID= 3.0 Sheen= Slight Blows (non-SPT)= 12, 12, 15			
15		Backfilled with hydrated bentonite chips		AB-40-15.0 (cVOCs)	PID= 1.8 Sheen= None Blows (non-SPT)= 15, 18, 20		**PRE-FRASER DEPOSITS** Dense, moist, gray SILT (ML); flakey, non-plastic, fine sand, no odor.	15
	60				PID= 0.1 Sheen= None Blows (non-SPT)= 15, 18, 20			
20				AB-40-20.0 (cVOCs)	PID= 0.1 Sheen= None Blows (non-SPT)= 15, 18, 23		No odor.	20
	55				PID= 0.0 Sheen= None Blows (non-SPT)= 15, 27, 23			
25		Backfilled with hydrated bentonite chips			PID= 0.0 Sheen= None Blows (non-SPT)= 14, 14, 20			25
	50						Bottom of exploration at 26.5 ft. bgs.	

Legend

Sample Method
- No Soil Sample Recovery
- Split Barrel 3.25" X 2.375" (D&M)

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-40
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214488.0 N:1279600 (est)	*Exploration Number* **AB-41**
Contractor Cascade Drilling	*Equipment* CME-75	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 11/11/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
		Capped with concrete			PID= 1.9 Sheen= Slight Blows (non-SPT)= 15, 20, 21		**FILL** Medium dense to dense, moist, dark gray silty SAND (SM); fine to medium sand, no odor.	
	75							
5		▽ 11/11/2018		AB-41-5.0 (cVOCs)	PID= 26.9 Sheen= None Blows (non-SPT)= 7, 9, 15		Becomes wet.	5
	70				PID= 34.5 Sheen= None Blows (non-SPT)= 6, 7, 9		**GLACIAL RECESSIONAL DEPOSITS** Medium dense, moist, gray silty SAND (SM) interbedded with SAND (SP); non-plastic, no odor.	
10					PID= 13.4 Sheen= None Blows (non-SPT)= 6, 15, 15		Becomes brown.	10
	65				PID= 12.4 Sheen= None Blows (non-SPT)= 7, 12, 20		**WEATHERED PRE-FRASER DEPOSITS** Dense, moist, gray SILT (ML); non-plastic, fine sand, no odor.	
15		Backfilled with hydrated bentonite chips		AB-41-15.0 (cVOCs)	PID= 22.9 Sheen= Slight Blows (non-SPT)= 4, 3, 21		Medium dense, moist to wet, brown silty SAND (SM); fine to medium sand, no odor.	15
	60				PID= 0.6 Sheen= None Blows (non-SPT)= 10, 15, 15		Dense, moist, gray SILT (ML); non-plastic, fine sand, no odor.	
20				AB-41-20.0 (cVOCs)	PID= 0.1 Sheen= None Blows (non-SPT)= N/A			20
	55				PID= 0.0 Sheen= None Blows (non-SPT)= 20, 20, 25		**PRE-FRASER DEPOSITS** Dense, moist, gray SILT (ML); non-plastic, fine sand, no odor.	
25		Backfilled with hydrated bentonite chips			PID= 0.0 Sheen= None Blows (non-SPT)= 13, 16, 18			25
	50						Bottom of exploration at 26.5 ft. bgs.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AB-41
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214528.5 N:1279590 (est)	*Exploration Number* **ADP-34**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 88'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 11/11/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 22.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	90	Capped with concrete	ADP-34-2.5		PID= 0.0 Sheen= None		Concrete.	0
							FILL Moist, light brown, slightly silty SAND (SP-SM); fine sand, no odor.	
5	85		ADP-34-5.0		PID= 0.0 Sheen= None			5
			ADP-34-7.5		PID= 0.0 Sheen= None		**GLACIAL RECESSIONAL DEPOSITS** Moist, brown, sandy SILT (ML); non-plastic, fine sand, no odor.	
10	80	Backfilled with hydrated bentonite chips	ADP-34-10.0		PID= 0.0 Sheen= None		Moist, brown, silty SAND (SM); fine to medium sand, no odor.	10
			ADP-34-12.5		PID= 0.0 Sheen= None		**PRE-FRASER DEPOSITS** Moist, brown, sandy SILT (ML); non-plastic, fine to medium sand, no odor.	
15	75		ADP-34-15.0		PID= 0.0 Sheen= None		Becomes gray with 1 inch wet sand (SP) interbeds.	15
			ADP-34-17.5		PID= 0.0 Sheen= None			
	70							

Legend

Sample Method: Continuous core 1.85" ID

Water Level: ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-34

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214528.5 N:1279590 (est)	*Exploration Number* **ADP-34**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 88'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 11/11/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 22.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
			ADP-34-20.0		PID= 0.0 Sheen= None		**PRE-FRASER DEPOSITS** Moist, brown, sandy SILT (ML); non-plastic, fine to medium sand, no odor. (continued)	
							Wet, gray to brown, slightly silty SAND (SM); fine to medium sand, no odor.	
		▽ 11/11/2018	ADP-34-22.5		PID= 17.7 Sheen= None			
25	65		ADP-34-25.0		PID= 1.6 Sheen= None			25
							Moist, gray, sandy SILT (ML); non-plastic, fine to medium sand, no odor.	
			ADP-34-27.5		PID= 0.0 Sheen= None			
30	60		ADP-34-30.0		PID= 0.3 Sheen= None		Wet, gray, silty SAND (SM); medium sand, trace fine gravel, no odor.	30
			ADP-34-32.5		PID= 0.0 Sheen= None		Moist, gray, sandy SILT (ML); non-plastic, fine to medium sand, no odor.	
35	55		ADP-34-35.0		PID= 0.0 Sheen= None		Bottom of exploration at 35 ft. bgs.	35
	50							

Legend

Sample Method: Continuous core 1.85" ID

Water Level: ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-34

Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214511.2 N:1279600 (est)	Exploration Number: **ADP-36**
Contractor: Cascade Drilling	Equipment: 7822DT	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 77.8'(est)	
Operator: Kyle Conti	Exploration Method(s): Direct push	Work Start/Completion Dates: 11/11/2018	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
		Capped with concrete					**FILL** Moist to wet, gray to brown, silty SAND (SM); medium sand, no odor.	
	75	Backfilled with hydrated bentonite chips		ADP-36-2.5 (cVOCs)	PID= 11.8 Sheen= Slight		**GLACIAL RECESSIONAL DEPOSITS** Moist, gray, sandy SILT (ML); non-plastic, fine sand, no odor.	
		▽ 11/11/2018					Wet, brown silty SAND (SM); fine sand, no odor.	
5				ADP-36-5.0 (cVOCs)	PID= 9.2 Sheen= None			5
	70				PID= 1.9 Sheen= Slight		**PRE-FRASER DEPOSITS** Moist, brown, sandy SILT (ML); non-plastic, fine sand, no odor.	
							Becomes gray.	
10				ADP-36-10.0 (cVOCs)	PID= 0.5 Sheen= Slight			10
	65				PID= 0.5 Sheen= Slight			
					PID= 0.0			
15				ADP-36-15 (cVOCs)	PID= 0.0 Sheen= None			15
	60				PID= 0.0 Sheen= None			

Legend

Sample Method: Continuous core 1.85" ID

Water Level: ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-36

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214511.2 N:1279600 (est)	Exploration Number: **ADP-36**
Contractor: Cascade Drilling	Equipment: 7822DT	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 77.8'(est)	
Operator: Kyle Conti	Exploration Method(s): Direct push	Work Start/Completion Dates: 11/11/2018	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					PID= 0.0 Sheen= None		**PRE-FRASER DEPOSITS** Moist, brown, sandy SILT (ML); non-plastic, fine sand, no odor. (continued)	
	55				PID= 0.0 Sheen= None			
25					PID= 0.0 Sheen= None		Bottom of exploration at 25 ft. bgs.	25
	50							
30								30
	45							
35								35
	40							

Legend

Sample Method: Continuous core 1.85" ID

Water Level: Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-36
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214517.4 N:1279580 (est)	*Exploration Number* **ADP-42**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/13/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 6' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Capped with concrete					Concrete.	
							GLACIAL RECESSIONAL DEPOSITS Very moist, brown, gravelly, silty SAND (SM); fine to medium sand, trace fine to coarse gravel, no odor.	
	75			ADP-42-3.0	PID= 11.0 Sheen= Slight			
5								5
		▽ 12/13/2018		ADP-42-6.0	PID= 8.9 Sheen= Slight			
	70				PID= 60.9 Sheen= None		Moist, brown, sandy SILT (ML); non-plastic, fine sand, no odor.	
				ADP-42-9.0	PID= 36.8 Sheen= None			
10		Backfilled with hydrated bentonite chips						10
	65			ADP-42-13.0	PID= 0.0 Sheen= None			
15							Bottom of exploration at 15 ft. bgs.	15
	60							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-42
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214517.9 N:1279570 (est)	*Exploration Number* **ADP-43**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/13/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 7' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Capped with concrete					Concrete.	
							GLACIAL RECESSIONAL DEPOSITS Moist to very moist, sandy SILT (ML); non-plastic, fine to medium sand, trace coarse sand, no odor.	
	75							
5				ADP-43-5.0	PID= 0.0 Sheen= None			5
		▽ 12/13/2018						
	70							
10		Backfilled with hydrated bentonite chips		ADP-43-10.0	PID= 0.0 Sheen= None			10
							PRE-FRASER DEPOSITS Moist, gray, sandy SILT (ML); non plastic, fine sand, no odor.	
	65			ADP-43-13.0	PID= 17.2 Sheen= None			
15								15
	60			ADP-43-18.0	PID= 1.4 Sheen= None		Bottom of exploration at 18 ft. bgs.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-43
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214518.1 N:1279580 (est)	*Exploration Number* **ADP-44**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/13/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 6.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
		Capped with concrete					**GLACIAL RECESSIONAL DEPOSITS** Moist, brown, sandy SILT (ML); non-plastic, fine sand.	
	75				PID= 0.0 Sheen= None			
				ADP-44-4.0	PID= 0.1 Sheen= None			
5					PID= 3.5 Sheen= None		Moist to wet, brown, silty SAND (SM); fine to medium sand, trace coarse sand, no odor.	5
		▽ 12/13/2018						
				ADP-44-7.0	PID= 3.6 Sheen= None			
	70							
10		Backfilled with hydrated bentonite chips					Trace fine gravel.	10
				ADP-44-11.0	PID= 0.0 Sheen= None			
	65						**PRE-FRASER DEPOSITS** Moist, blue-gray, sandy SILT (ML); non-plastic, fine sand, no odor.	
15				ADP-44-15.0	PID= 0.0 Sheen= None		Bottom of exploration at 15 ft. bgs.	15
	60							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-44
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214518.2 N:1279560 (est)	*Exploration Number* **ADP-45**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/13/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 8.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
		Capped with concrete					**GLACIAL RECESSIONAL DEPOSITS** Moist, brown, silty SAND (SM); fine to medium sand, strong PCE-like odor.	
	75			ADP-45-2.5	PID= 31.4 Sheen= Slight			
5				ADP-45-5.0	PID= 50.5 Sheen= Slight			5
					PID= 14.7 Sheen= None			
	70	▽ 12/13/2018						
				ADP-45-9.0	PID= 3.7 Sheen= None			
10		Backfilled with hydrated bentonite chips						10
				ADP-45-12.0	PID= 0.0 Sheen= None			
	65							
15				ADP-45-15.0	PID= 7.2 Sheen= None		**PRE-FRASER DEPOSITS** Moist, gray, sandy SILT (ML); non-plastic, fine to medium sand, no odor.	15
				ADP-45-17.0	PID= 0.5 Sheen= None			
	60							
20				ADP-45-20.0	PID= 0.0 Sheen= None		Bottom of exploration at 20 ft. bgs.	20
	55							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-45
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214515.0 N:1279560 (est)	*Exploration Number* **ADP-46**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/13/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
		Capped with concrete					**GLACIAL RECESSIONAL DEPOSITS** Moist, brown, silty SAND (SM) interbedded with moist, brown, sandy SILT (ML); fine to medium sand, no odor, iron-oxide stained.	
	75			ADP-46-2.5	PID= 0.0 Sheen= None			
5				ADP-46-5.0	PID= 2.7 Sheen= None			5
	70			ADP-46-7.5	PID= 5.7 Sheen= None			
10		▽ 12/13/2018		ADP-46-10.0	PID= 20.1 Sheen= None			10
		Backfilled with hydrated bentonite chips						
	65			ADP-46-12.5	PID= 4.3 Sheen= None			
15				ADP-46-15.0	PID= 1.5 Sheen= None			15
	60			ADP-46-17.5	PID= 0.0 Sheen= None		**PRE-FRASER DEPOSITS** Moist, gray, SILT (ML); non-plastic, trace fine sand, no odor.	
20				ADP-46-20.0	PID= 0.0 Sheen= None		Bottom of exploration at 20 ft. bgs.	20
	55							

Legend

Sample Method: Continuous core 1.85" ID

Water Level: ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-46
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214508.1 N:1279560 (est)	*Exploration Number* **ADP-47**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/13/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Capped with concrete			PID= 0.0 Sheen= None		Concrete.	
							GLACIAL RECESSIONAL DEPOSITS Moist, brown, silty SAND (SM); fine to medium sand, trace coarse sand, no odor.	
	75						Moist, brown, sandy SILT (ML); non-plastic, fine to medium sand, no odor.	
				ADP-47-4.0	PID= 0.0 Sheen= None			
5								5
				ADP-47-7.0	PID= 0.0 Sheen= None			
	70							
		▽ 12/13/2018						
10				ADP-47-10.0	PID= 0.0 Sheen= None			10
		Backfilled with hydrated bentonite chips						
				ADP-47-12.5	PID= 0.0 Sheen= None			
	65							
15				ADP-47-15.0	PID= 0.0 Sheen= None		Bottom of exploration at 15 ft. bgs.	15
	60							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-47
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214498.3 N:1279560 (est)	*Exploration Number* **ADP-48**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/13/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 9' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Capped with concrete					Concrete.	
							GLACIAL RECESSIONAL DEPOSITS Moist, brown, sandy SILT (ML) interbedded with 1 inch fine to medium silty SAND (SM); non-plastic, fine to medium sand, no odor.	
	75			ADP-48-3.5	PID= 0.0 Sheen= None			
5								5
	70	▽ 12/13/2018		ADP-48-7.5	PID= 0.0 Sheen= None			
10		Backfilled with hydrated bentonite chips		ADP-48-10.0	PID= 0.0 Sheen= None			10
	65							
15				ADP-48-15.0	PID= 0.0 Sheen= None		Bottom of exploration at 15 ft. bgs.	15
	60							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-48

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OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214510.8 N:1279570 (est)	Exploration Number: **ADP-49**
Contractor: Cascade Drilling	Equipment: 7822DT	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 77.8'(est)	
Operator: Kyle Conti	Exploration Method(s): Direct push	Work Start/Completion Dates: 12/13/2018	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Capped with concrete					Concrete.	
							GLACIAL RECESSIONAL DEPOSITS Moist, brown, sandy SILT (ML) interbedded with 1-2 inch silty SAND (SM); non-plastic, fine to medium sand.	
	75			ADP-49-3.5	PID= 0.0 Sheen= None			
5								5
				ADP-49-7.0	PID= 0.1 Sheen= None			
	70							
				ADP-49-9.0	PID= 9.7 Sheen= None			
10		▽ 12/13/2018						10
		Backfilled with hydrated bentonite chips						
				ADP-49-12.5	PID= 35.2 Sheen= None			
	65							
15				ADP-49-15.0	PID= 17.1 Sheen= None			15
							PRE-FRASER DEPOSITS Moist, gray SILT (ML); non-plastic, trace fine sand.	
				ADP-49-17.5	Sheen= None			
	60							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-49

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214510.8 N:1279570 (est)	*Exploration Number* **ADP-49**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/13/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
				ADP-49-20.0	PID= 2.3 Sheen= None		**PRE-FRASER DEPOSITS** Moist, gray SILT (ML); non-plastic, trace fine sand. (continued)	
	55			ADP-49-22.0	PID= 0.0 Sheen= None			
25							Bottom of exploration at 25 ft. bgs.	25
30	50							30
35	45							35
	40							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-49
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214512.0 N:1279580 (est)	*Exploration Number* **ADP-50**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/13/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 6' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	75	Capped with concrete		ADP-50-3.0	PID= 65.1 Sheen= None		Concrete. **GLACIAL RECESSIONAL DEPOSITS** Moist, brown, silty SAND (SM); fine to medium sand, no odor.	0
5		▽ 12/13/2018		ADP-50-7.0	PID= 34.6 Sheen= None		Becomes wet.	5
	70							
10		Backfilled with hydrated bentonite chips		ADP-50-10.0	PID= 5.0 Sheen= None		**WEATHERED PRE-FRASER DEPOSITS** Moist, gray, sandy SILT (ML); non-plastic, fine sand, no odor.	10
	65			ADP-50-12.5	PID= 0.0 Sheen= None			
15				ADP-50-15.0	PID= 3.1 Sheen= None		**PRE-FRASER DEPOSITS** Moist, gray, sandy SILT (ML); non-plastic, fine sand, no odor.	15
	60			ADP-50-17.5	PID= 0.0 Sheen= None			
20							Bottom of exploration at 20 ft. bgs.	20
	55							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-50
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214505.5 N:1279560 (est)	*Exploration Number* **ADP-51**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/13/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Capped with concrete			PID= 0.0 Sheen= None		Concrete.	
							FILL Moist, brown, silty SAND (SM); fine to medium sand, no odor.	
	75			ADP-51-2.5	PID= 0.0 Sheen= None		**GLACIAL RECESSIONAL DEPOSITS** Moist, brown, sandy SILT (ML); non-plastic, fine sand, no odor.	
5		▽ 12/14/2018						5
				ADP-51-6.0	PID= 0.0 Sheen= None			
	70							
10		Backfilled with hydrated bentonite chips		ADP-51-10.0	PID= 0.0 Sheen= None			10
				ADP-51-12.5	PID= 4.4 Sheen= None			
	65						**PRE-FRASER DEPOSITS** Wet, gray, sandy SILT (ML); non-plastic, fine to medium sand, no odor.	
15				ADP-51-15.0	PID= 16.3 Sheen= None			15
							Wet, brown, sandy silty GRAVEL (GM); coarse gravel, coarse sand, iron-oxide staining, no odor.	
							Moist to wet, gray, sandy SILT (ML); non-plastic, fine sand.	
	60			ADP-51-18.0	PID= 0.0 Sheen= None			
							Wet, gray, silty SAND (SM); fine to medium sand, no odor.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-51
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OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214505.5 N:1279560 (est)	Exploration Number: **ADP-51**
Contractor: Cascade Drilling	Equipment: 7822DT	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 77.8'(est)	
Operator: Kyle Conti	Exploration Method(s): Direct push	Work Start/Completion Dates: 12/13/2018	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Wet, gray, silty SAND (SM); fine to medium sand, no odor. (continued)	
	55			ADP-51-22.5	PID= 0.5 Sheen= None		Moist, gray, SILT (ML); non-plastic, trace fine sand.	
25				ADP-51-25.0	PID= 0.0 Sheen= None		Bottom of exploration at 25 ft. bgs.	25
	50							
30								30
	45							
35								35
	40							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-51
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OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214506.2 N:1279570 (est)	*Exploration Number* **ADP-52**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/14/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	75	Capped with concrete		ADP-52-3.5	PID= 2.4 Sheen= None PID= 5.0 Sheen= None		Concrete. **FILL** Moist, brown, silty SAND (SM); fine to medium sand, no odor.	0
5	70			ADP-52-7.5	PID= 1.9 Sheen= None		**GLACIAL RECESSIONAL DEPOSITS** Moist, brown, sandy SILT (ML); fine sand, non-plastic, no odor.	5
10	65	▽ 12/14/2018 Backfilled with hydrated bentonite chips		ADP-52-10.0	PID= 3.4 Sheen= None		**PRE-FRASER DEPOSITS** Moist, gray, SILT (ML); non-plastic, trace fine sand, no odor.	10
15	60			ADP-52-15.0	PID= 0.1 Sheen= None			15
20	55			ADP-52-20.0	PID= 0.1 Sheen= None		Bottom of exploration at 20 ft. bgs.	20

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-52
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OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214505.2 N:1279580 (est)	*Exploration Number* **ADP-53**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 77.8'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/14/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
		Capped with concrete					**GLACIAL RECESSIONAL DEPOSITS** Moist, brown, silty SAND (SM); fine to medium sand, no odor.	
	75			ADP-53-2.5	PID= 17.2 Sheen= None			
5		▽ 12/14/2018					Becomes wet.	5
				ADP-53-6.0	PID= 5.1 Sheen= None			
	70							
				ADP-53-9.0	PID= 0.1 Sheen= None			
10		Backfilled with hydrated bentonite chips						10
				ADP-53-12.0	PID= 0.7 Sheen= None			
	65						**PRE-FRASER DEPOSITS** Moist, gray, SILT (ML); non-plastic, trace fine sand.	
15				ADP-53-15.0	PID= 0.0 Sheen= None		Bottom of exploration at 15 ft. bgs.	15
	60							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-53
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214499.1 N:1279550 (est)	Exploration Number: **ADP-54**
Contractor: Cascade Drilling	Equipment: 7822DT	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 77.8'(est)	
Operator: Kyle Conti	Exploration Method(s): Direct push	Work Start/Completion Dates: 12/14/2018	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 7' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Capped with concrete					Concrete.	
							GLACIAL RECESSIONAL DEPOSITS Moist, brown, sandy SILT (ML); non-plastic, fine to medium sand, trace coarse sand, no odor.	
	75			ADP-54-2.0	PID= 0.0 Sheen= None			
5				ADP-54-4.5	PID= 0.0 Sheen= None			5
		▽ 12/14/2018						
	70			ADP-54-7.5	PID= 0.0 Sheen= None			
10		Backfilled with hydrated bentonite chips		ADP-54-10.0	PID= 0.0 Sheen= None			10
	65			ADP-54-12.5	PID= 0.0 Sheen= None			
15				ADP-54-15.0	PID= 0.0 Sheen= None		Bottom of exploration at 15 ft. bgs.	15
	60							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-54
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OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214524.3 N:1279590 (est)	*Exploration Number* **ADP-55**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 88'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/14/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Capped with concrete					Concrete.	
							GLACIAL RECESSIONAL DEPOSITS Moist, brown, sandy SILT (ML); non-plastic, fine to medium sand, trace fine gravel, no odor.	
	85			ADP-55-2.5	PID= 0.0 Sheen= None			
5				ADP-55-5.0	PID= 0.0 Sheen= None			5
	80			ADP-55-7.5	PID= 0.0 Sheen= None			
10		▽ 12/14/2018		ADP-55-10.0	PID= 0.0 Sheen= None			10
		Backfilled with hydrated bentonite chips						
	75			ADP-55-12.5	PID= 0.0 Sheen= None			
15				ADP-55-15.0	PID= 14.8 Sheen= None			15
	70			ADP-55-17.5	PID= 17.8 Sheen= None			
							PRE-FRASER DEPOSITS Moist, gray SILT (ML); non-plastic, trace fine sand, no odor.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-55
Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214524.3 N:1279590 (est)	*Exploration Number* **ADP-55**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 88'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/14/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
				ADP-55-20.0	PID= 0.1 Sheen= None		**PRE-FRASER DEPOSITS** Moist, gray SILT (ML); non-plastic, trace fine sand, no odor. (continued)	
	65			ADP-55-22.5	PID= 0.5 Sheen= None			
25				ADP-55-25.0	PID= 0.0 Sheen= None			25
	60			ADP-55-27.5	PID= 0.0 Sheen= None			
30							Bottom of exploration at 30 ft. bgs.	30
	55							
35								35
	50							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-55
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214524.5 N:1279580 (est)	*Exploration Number* **ADP-56**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 88'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/14/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
		Capped with concrete					**FILL** Moist, brown, silty SAND (SM); fine to medium sand, no odor.	
	85			ADP-56-3.0	PID= 0.0 Sheen= None			
5				ADP-56-6.0	PID= 0.0 Sheen= None			5
	80			ADP-56-8.5	PID= 0.0 Sheen= None		**GLACIAL RECESSIONAL DEPOSITS** Moist, brown, sandy SILT (ML); non-plastic, fine sand, trace fine gravel, no odor.	
10		Backfilled with hydrated bentonite chips						10
	75			ADP-56-12.5	PID= 8.5 Sheen= None			
15				ADP-56-15.0	PID= 1.9 Sheen= None		**PRE-FRASER DEPOSITS** Moist, gray, sandy SILT (ML); non-plastic, fine sand, no odor.	15
	70			ADP-56-17.5	PID= 13.6 Sheen= None			

Legend

Sample Method
- No Soil Sample Recovery
- Continuous core 1.85" ID

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-56
Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214524.5 N:1279580 (est)	*Exploration Number* **ADP-56**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 88'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/14/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
				ADP-56-20.0	PID= 4.4 Sheen= None		**PRE-FRASER DEPOSITS** Moist, gray, sandy SILT (ML); non-plastic, fine sand, no odor. (continued)	
	65			ADP-56-22.5	PID= 3.3 Sheen= None			
25				ADP-56-25.0	PID= 7.4 Sheen= None			25
	60			ADP-56-28.0	PID= 14.9 Sheen= None			
30			◯				Bottom of exploration at 30 ft. bgs.	30
	55							
35								35
	50							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-56
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214524.9 N:1279570 (est)	*Exploration Number* **ADP-57**
Contractor Cascade Drilling	*Equipment* 7822DT	*Sampling Method* Percussion hammer	*Ground Surface (GS) Elev. (NAVD88)* 88'(est)	
Operator Kyle Conti	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/14/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 14' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							Concrete.	
		Capped with concrete					**FILL** Moist, brown, sandy SILT (ML); non-plastic, fine to medium sand, no odor.	
	85							
				ADP-57-4.0	PID= 0.0 Sheen= None		**GLACIAL RECESSIONAL DEPOSITS** Moist, brown, slightly silty SAND (SP-SM); fine to medium sand, no odor.	
5								5
				ADP-57-7.0	PID= 0.0 Sheen= None			
	80						Moist, brown, sandy SILT (ML); non-plastic, fine to medium sand, trace fine gravel, no odor.	
10		Backfilled with hydrated bentonite chips		ADP-57-10.0	PID= 0.0 Sheen= None			10
							Moist, brown silty SAND (SM); fine to medium sand, trace fine to coarse gravel, no odor.	
	75	▽ 12/14/2018		ADP-57-13.0	PID= 0.0 Sheen= None			
15								15
				ADP-57-16.0	PID= 0.1 Sheen= None			
	70						**PRE-FRASER DEPOSITS** Moist, gray, sandy SILT (ML); non-plastic, medium sand, no odor.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-57
Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Environmental Exploration Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214524.9 N:1279570 (est)	Exploration Number: **ADP-57**
Contractor: Cascade Drilling	Equipment: 7822DT	Sampling Method: Percussion hammer	Ground Surface (GS) Elev. (NAVD88): 88'(est)	
Operator: Kyle Conti	Exploration Method(s): Direct push	Work Start/Completion Dates: 12/14/2018	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 14' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
				ADP-57-20.0	PID= 0.0 Sheen= None		**PRE-FRASER DEPOSITS** Moist, gray, sandy SILT (ML); non-plastic, medium sand, no odor. (continued)	
	65							
				ADP-57-24.0	PID= 0.0 Sheen= None		Bottom of exploration at 24 ft. bgs.	
25								25
	60							
30								30
	55							
35								35
	50							

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log ADP-57
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		Coordinates (SPN NAD83 ft): E:214514.3 N:1279600 (est)	Exploration Number: AMW-21
Contractor: Cascade Drilling	Equipment: CME-55	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 78.1'(est)	Ecology Well Tag No. BKF 831
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 11/12/2018	Top of Casing Elev. (NAVD88): 77.7'	Depth to Water (Below GS): 7' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete 2" diameter, schedule 40 PVC casing in concrete Casing in bentonite chips					**FILL** Concrete. Medium dense, moist, brown silty SAND (SM); fine to medium sand, trace fine to coarse gravel, no odor.	
	75			AMW-21-2.5 (cVOCs)	Blows (non-SPT)= 7, 10, 10 PID= 6.1 Sheen= Slight PID= 98.4 Sheen= Slight		**GLACIAL RECESSIONAL DEPOSITS** Medium dense, moist, gray SILT (ML); non-plastic, fine sand, no odor.	
5					Blows (non-SPT)= 7, 8, 9 PID= 26.6 Sheen= None PID= 17.0 Sheen= Slight		Medium dense, moist to very moist, brown silty SAND (SM); fine to coarse sand, no odor.	5
		▽ 11/12/2018					Medium dense, wet, brown slightly silty SAND (SP-SM); fine to medium sand, trace fine gravel, slight odor.	
	70				Blows (non-SPT)= 7, 10, 15 PID= 128 Sheen= Slight			
10		10-slot screen in 10/20 sand		AMW-21-10.0 (cVOCs)	Blows (non-SPT)= 7, 10, 15 PID= 198 Sheen= Slight		Medium dense, wet, brown silty SAND (SM); fine to medium sand, trace fine gravel, no odor.	10
							PRE-FRASER DEPOSITS Hard, moist, gray SILT (ML); low plasticity, fine sand, trace coarse sand, no odor.	
	65				Blows (non-SPT)= 7, 25, 20 PID= 23.4 Sheen= Slight			
15					Blows (non-SPT)= 14, 25, 30 PID= 31.4 Sheen= Slight		Very dense, moist, gray SILT (ML); non-plastic, fine sand, trace coarse sand, no odor.	15
	60				Blows (non-SPT)= 20, 20, 25 PID= 11.2 Sheen= None			
20				AMW-21-20.0 (cVOCs)	Blows (non-SPT)= 14, 15, 20 PID= 15.6 Sheen= None		Dense to very dense, moist, blue to gray SILT (ML); non-plastic, fine sand, trace fine gravel, no odor.	20
	55				Blows (non-SPT)= 13, 14, 17 PID= 3.0 Sheen= None		Becomes interbedded with wet, medium SAND (SP).	

Legend

Sample Method: ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level: ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-21

Sheet 1 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Mt. Baker Cleaners		*Coordinates (SPN NAD83 ft)* E:214514.3 N:1279600 (est)	*Exploration Number* **AMW-21**
Contractor Cascade Drilling	*Equipment* CME-55	*Sampling Method* Autohammer; 300 lb hammer; 30" drop	*Ground Surface (GS) Elev. (NAVD88)* 78.1'(est)	Ecology Well Tag No. BKF 831
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 11/12/2018	*Top of Casing Elev. (NAVD88)* 77.7'	*Depth to Water (Below GS)* 7' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					Blows (non-SPT)= 10, 16, 20 PID= 10.4		Dense to very dense, moist, blue to gray SILT (ML); non-plastic, fine sand, trace fine gravel, no odor. (continued)	
	50				Blows (non-SPT)= 26, 50/6" PID= 13.2 Sheen= None			
30				AMW-21-30.0 (cVOCs)	Blows (non-SPT)= 11, 20, 24 PID= 38.4 Sheen= None		Becomes till-like, with coarse sand.	30
	45				Blows (non-SPT)= 20, 50/6" PID= 9.1 Sheen= None			
35				AMW-21-35.0 (cVOCs)	Blows (non-SPT)= 17, 50/6" PID= 0.6 Sheen= None Sheen= None		Very dense, wet, gray silty SAND (SM); fine to medium sand, trace coarse sand, trace fine gravel, no odor.	35
	40				Blows (non-SPT)= 25, 25, 30 PID= 0.1 Sheen= None			
40					Blows (non-SPT)= 17, 50/6" Sheen= None PID= 0.1		Bottom of exploration at 41 ft. bgs.	40
	35							
45								45
	30							

Legend

Sample Method: Split Barrel 3.25" X 2.375" (D&M)

Water Level: Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-21
Sheet 2 of 2

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

Aspect CONSULTING	MBHA- Gateway Project - 160324		Monitoring Well Log	
	Project Address & Site Specific Location: 2802, 2806, 2810, & 2864 S. McClellan St.; 2800 MLK Way, Sound Transit sidewalk		Coordinates (SPN NAD83 ft): E:214078.5 N:1279230 (est)	Exploration Number: **AMW-23**
Contractor: Cascade Drilling	Equipment: CME-75	Sampling Method: Autohammer; 300 lb hammer; 30" drop	Ground Surface (GS) Elev. (NAVD88): 53.2'(est)	Ecology Well Tag No. BLK 257
Operator: Curtis Askew	Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates: 7/29/2019	Top of Casing Elev. (NAVD88): 52.8'	Depth to Water (Below GS): 8' (ATD)

Depth (feet)	Elev. (feet)	Exploration Completion and Notes	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" diameter flush monument set in concrete					Concrete.	
		2" diameter, schedule 40 PVC casing in concrete					**FILL** Moist, gray, gravelly, silty SAND (SM); fine to medium sand, fine gravel, no odor.	
		Casing in bentonite chips					Very loose to loose, moist, black and tan, silty SAND (SM); fine to coarse sand, abundant charcoal fragments, abundant organic fragments, brick fragments, no odor.	
	50				PID= 0.0 Sheen= None Blows (non-SPT)= 2,3,3			
5					PID= 0.0 Sheen= None Blows (non-SPT)= 1,1,0			5
	45	▽ 7/29/2019			PID= 0.0 Sheen= None Blows (non-SPT)= 0,0,0		Very soft, wet, dark brown, silty SAND (SM); medium to coarse sand, trace fine gravel, organic fragments, trace glass fragments, organic odor.	
10		10-slot screen in 10/20 sand			PID= 0.0 Sheen= None Blows (non-SPT)= 50/4"		**GLACIAL RECESSIONAL** Very dense, wet, gray, gravelly, slightly silty SAND (SP-SM); medium to coarse sand, fine to coarse gravel, organic odor.	10
	40				PID= 0.0 Sheen= None Blows (non-SPT)= 0,1,1		Soft, wet, black and tan, organic CLAY (OL); root fragments, spongey, organic odor.	
15					PID= 0.0 Sheen= None		Soft, moist, green-gray CLAY (CL); medium plasticity, no odor.	15
	35						Bottom of exploration at 16.5 ft. bgs.	

Legend

Sample Method
- ◯ No Soil Sample Recovery
- ▮ Split Barrel 3.25" X 2.375" (D&M)

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: SJA

Exploration Log AMW-23
Sheet 1 of 1

OLD STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\MBHA- GATEWAY- 160324.GPJ August 13, 2019

APPENDIX B

Laboratory Analytical Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 30, 2017

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on November 13, 2017 from the MBHA-Gateway PO 160324, F&BI 711245 project. There are 24 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: data@aspectconsulting.com
ASP1130R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 13, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA-Gateway PO 160324, F&BI 711245 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
711245 -01	ADP-18-2.5
711245 -02	ADP-18-5.0
711245 -03	ADP-19-3.0
711245 -04	ADP-19-4.5
711245 -05	ADP-19-5.0
711245 -06	ADP-19A-3.0
711245 -07	ADP-19A-5.0
711245 -08	ADP-27-2.0
711245 -09	ADP-27-4.0
711245 -10	ADP-27-6.0
711245 -11	ADP-27-7.0
711245 -12	ADP-27-10.0
711245 -13	ADP-27-11.5
711245 -14	ADP-28-3.0
711245 -15	ADP-28-6.0
711245 -16	ADP-28-6.5
711245 -17	ADP-29-2.5
711245 -18	ADP-29-3.5
711245 -19	ADP-29-5.0
711245 -20	ADP-30-2.0
711245 -21	ADP-30-4.0
711245 -22	ADP-30-7.5

All quality control requirements were acceptable.

Date of Report: 11/30/17
Date Received: 11/13/17
Project: MBHA-Gateway PO 160324, F&BI 711245
Date Extracted: 11/21/17
Date Analyzed: 11/21/17

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 53-144)
ADP-18-2.5 711245-01	<50	<250	101
ADP-18-5.0 711245-02	210 x	<250	88
ADP-19-3.0 711245-03	<50	<250	87
ADP-19-5.0 711245-05	<50	<250	102
Method Blank 07-2637 MB2	<50	<250	87

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-18-2.5	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-01
Date Analyzed:	11/21/17	Data File:	112124.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	89	113
Toluene-d8	98	64	137
4-Bromofluorobenzene	101	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	2.0

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-18-5.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-02
Date Analyzed:	11/21/17	Data File:	112138.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	89	113
Toluene-d8	100	64	137
4-Bromofluorobenzene	103	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.022
Tetrachloroethene	430 ve

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-18-5.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-02 1/100
Date Analyzed:	11/22/17	Data File:	112215.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	89	113
Toluene-d8	99	64	137
4-Bromofluorobenzene	100	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<5
Chloroethane	<50
1,1-Dichloroethene	<5
Methylene chloride	<50
trans-1,2-Dichloroethene	<5
1,1-Dichloroethane	<5
cis-1,2-Dichloroethene	<5
1,2-Dichloroethane (EDC)	<5
1,1,1-Trichloroethane	<5
Trichloroethene	<2
Tetrachloroethene	1,200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-19-3.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-03
Date Analyzed:	11/21/17	Data File:	112123.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	89	113
Toluene-d8	97	64	137
4-Bromofluorobenzene	100	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.13

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-19-5.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-05
Date Analyzed:	11/21/17	Data File:	112125.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	89	113
Toluene-d8	99	64	137
4-Bromofluorobenzene	101	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.26

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-27-2.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-08
Date Analyzed:	11/21/17	Data File:	112126.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	89	113
Toluene-d8	97	64	137
4-Bromofluorobenzene	98	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.68

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-27-4.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-09
Date Analyzed:	11/21/17	Data File:	112127.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	89	113
Toluene-d8	98	64	137
4-Bromofluorobenzene	99	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	2.0

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-27-6.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-10
Date Analyzed:	11/21/17	Data File:	112128.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	89	113
Toluene-d8	97	64	137
4-Bromofluorobenzene	97	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.032
Tetrachloroethene	5.2

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-27-10.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-12
Date Analyzed:	11/21/17	Data File:	112129.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	89	113
Toluene-d8	99	64	137
4-Bromofluorobenzene	101	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.041
Tetrachloroethene	3.5

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-27-11.5	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-13
Date Analyzed:	11/21/17	Data File:	112130.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	89	113
Toluene-d8	100	64	137
4-Bromofluorobenzene	105	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.32
Tetrachloroethene	36 ve

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-27-11.5	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-13 1/10
Date Analyzed:	11/22/17	Data File:	112214.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	89	113
Toluene-d8	99	64	137
4-Bromofluorobenzene	101	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.5
Chloroethane	<5
1,1-Dichloroethene	<0.5
Methylene chloride	<5
trans-1,2-Dichloroethene	<0.5
1,1-Dichloroethane	<0.5
cis-1,2-Dichloroethene	<0.5
1,2-Dichloroethane (EDC)	<0.5
1,1,1-Trichloroethane	<0.5
Trichloroethene	0.36
Tetrachloroethene	35

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-28-3.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-14
Date Analyzed:	11/22/17	Data File:	112207.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.42

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-28-6.5	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-16
Date Analyzed:	11/21/17	Data File:	112132.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	89	113
Toluene-d8	95	64	137
4-Bromofluorobenzene	96	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	1.4

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-29-2.5	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-17
Date Analyzed:	11/21/17	Data File:	112133.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	89	113
Toluene-d8	100	64	137
4-Bromofluorobenzene	101	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.50

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-29-5.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-19
Date Analyzed:	11/21/17	Data File:	112134.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	89	113
Toluene-d8	98	64	137
4-Bromofluorobenzene	99	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	2.2

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-30-2.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-20
Date Analyzed:	11/21/17	Data File:	112135.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	89	113
Toluene-d8	98	64	137
4-Bromofluorobenzene	102	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	9.2

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-30-4.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-21
Date Analyzed:	11/21/17	Data File:	112136.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	89	113
Toluene-d8	98	64	137
4-Bromofluorobenzene	100	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	7.1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-30-7.5	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	711245-22
Date Analyzed:	11/21/17	Data File:	112137.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	89	113
Toluene-d8	98	64	137
4-Bromofluorobenzene	101	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.62

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/20/17	Lab ID:	07-2607 mb
Date Analyzed:	11/21/17	Data File:	112122.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	89	113
Toluene-d8	100	64	137
4-Bromofluorobenzene	102	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 11/30/17
Date Received: 11/13/17
Project: MBHA-Gateway PO 160324, F&BI 711245

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 711370-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	86	102	73-135	17

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	120	74-139

Date of Report: 11/30/17
Date Received: 11/13/17
Project: MBHA-Gateway PO 160324, F&BI 711245

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 711245-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	27	26	10-91	4
Chloroethane	mg/kg (ppm)	2.5	<0.5	41	40	10-101	2
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	43	43	22-107	0
Methylene chloride	mg/kg (ppm)	2.5	<0.5	63	62	14-128	2
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	53	52	13-112	2
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	62	61	23-115	2
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	64	63	25-120	2
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	67	66	22-124	2
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	60	59	27-112	2
Trichloroethene	mg/kg (ppm)	2.5	<0.02	60	60	30-112	0
Tetrachloroethene	mg/kg (ppm)	2.5	0.11	54	53	25-114	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	68	42-107
Chloroethane	mg/kg (ppm)	2.5	78	47-115
1,1-Dichloroethene	mg/kg (ppm)	2.5	83	65-110
Methylene chloride	mg/kg (ppm)	2.5	97	50-127
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	88	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	92	74-109
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	91	73-110
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	94	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	90	72-116
Trichloroethene	mg/kg (ppm)	2.5	90	72-107
Tetrachloroethene	mg/kg (ppm)	2.5	89	73-111

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

71245

SAMPLE CHAIN OF CUSTODY

ME 11-13-17

VSY / ACY

Page # 1 of 3

Report To Jessica Smith
Company Aspect Consulting
Address 401 2nd Ave S. Suite 201
City, State, ZIP Seattle, WA 98104
Phone _____ Email _____

SAMPLERS (signature) Kat Beck

PROJECT NAME: MBHA - Gateway

PO # 160324

REMARKS: ~~Please hold~~

INVOICE TO: Accts Payable

TURNAROUND TIME
☐ Standard Turnaround
☐ RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Archive Samples
☐ Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
																	✓ per JS 11/17/17
ADP-18-2.5	01 A-E	11/12/17	1044	soil	5		✓						✓	(X)			(X) - per JS
ADP-18-5.0	02		1412		5		✓						✓	(X)			11/29/17
ADP-19-3.0	03		1115		5		✓						✓	(X)			MG
ADP-19-4.5	04		1135		5												
ADP-19-5.0	05		1522		5		✓						✓	(X)			
ADP-19A-3.0	06		1640		5												
ADP-19A-5.0	07		1646		5												
ADP-27-2.0	08		0929		5								✓	(X)			
ADP-27-4.0	09		0945		5								✓	(X)			
ADP-27-6.0	10		0950		5								✓	(X)			Samples received at 3 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	11/13/17	0830
Received by:	[illegible]	Fedex	11-13	1330
Relinquished by:				
Received by: [illegible]	Nhan Phan	FedEx	11/13/17	1505

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

711245

SAMPLE CHAIN OF CUSTODY ME 11-13-17 VS4 /A04

Report To Jessica Smith
Company Aspect Consulting
Address
City, State, ZIP
Phone Email

SAMPLERS (*signature*) K. Beck
PROJECT NAME MBHA-Gateway
PO # 160324
REMARKS ~~Please hold~~
INVOICE TO

Page # 2 of 3

TURNAROUND TIME
☐ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Archive Samples
☐ Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	CVOCs	TCLP PCE			Notes
ADP-27-7.0	11 A-E	11/12/17	1000	Soil	5												
ADP-27-10.0	12		1021		5								✓	⊗			
ADP-27-11.5	13		1023		5								✓	⊗			
ADP-28-3.0	14		1544		5								✓	⊗ (struck through)			NoTCLP
ADP-28-6.0	15		1003		5												
ADP-28-6.5	16		1620		5								✓	⊗ (struck through)			
ADP-29-2.5	17		1702		5								✓	⊗ (struck through)			
ADP-29-3.5	18		1719		5												
ADP-29-5.0	19		1721		5								✓	⊗ (struck through)			
ADP-30-2.0	20		1300		5								✓	⊗			

Samples received at 3 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: K. Beck	Kristin Beck	Aspect	11/13/17	2:36
Received by: [signature]	Scal Underhen	Fedex	11-13	2:36
Relinquished by:				
Received by: [signature]	Nhan Phan	FeBI	11/13/17	1525

71245

SAMPLE CHAIN OF CUSTODY

ME 11-13-17 VSY/ ADY

Page # 3 of 3

Report To Jessica Smith

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (*signature*) Kat Beck

PROJECT NAME: MBHA - Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-30-4.0	21 A-G	11/12/17	1310	soil	5								✓	⊗			
ADP-30-7.5	22 ✓	↓	1336	↓	5								✓	⊗			

Samples received at 3 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	11/13/17	22
Received by:	Jared Underdown	Fedex	11-14	2:30
Relinquished by:				
Received by:	Nhan Phan	FEDEX	11/13/17	1505

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 12, 2017

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the additional results from the testing of material submitted on November 13, 2017 from the MBHA-Gateway PO 160324, F&BI 711245 project. There are 24 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: data@aspectconsulting.com
ASP1212R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 13, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA-Gateway PO 160324, F&BI 711245 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
711245 -01	ADP-18-2.5
711245 -02	ADP-18-5.0
711245 -03	ADP-19-3.0
711245 -04	ADP-19-4.5
711245 -05	ADP-19-5.0
711245 -06	ADP-19A-3.0
711245 -07	ADP-19A-5.0
711245 -08	ADP-27-2.0
711245 -09	ADP-27-4.0
711245 -10	ADP-27-6.0
711245 -11	ADP-27-7.0
711245 -12	ADP-27-10.0
711245 -13	ADP-27-11.5
711245 -14	ADP-28-3.0
711245 -15	ADP-28-6.0
711245 -16	ADP-28-6.5
711245 -17	ADP-29-2.5
711245 -18	ADP-29-3.5
711245 -19	ADP-29-5.0
711245 -20	ADP-30-2.0
711245 -21	ADP-30-4.0
711245 -22	ADP-30-7.5

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-18-2.5	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	11/30/17	Lab ID:	711245-01 1/500
Date Analyzed:	12/01/17	Data File:	120109.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	100	91	108
4-Bromofluorobenzene	102	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-18-5.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	11/30/17	Lab ID:	711245-02 1/1000
Date Analyzed:	12/01/17	Data File:	120124.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	103	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	39,000

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-19-3.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	11/30/17	Lab ID:	711245-03 1/500
Date Analyzed:	12/01/17	Data File:	120123.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-19-5.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	12/01/17	Lab ID:	711245-05 1/500
Date Analyzed:	12/04/17	Data File:	120410.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	101	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-27-2.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	12/01/17	Lab ID:	711245-08 1/500
Date Analyzed:	12/04/17	Data File:	120411.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	103	91	108
4-Bromofluorobenzene	102	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-27-4.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	12/08/17	Lab ID:	711245-09 1/500
Date Analyzed:	12/11/17	Data File:	121111.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	102	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-27-6.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	12/04/17	Lab ID:	711245-10 1/500
Date Analyzed:	12/05/17	Data File:	120509.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	104	91	108
4-Bromofluorobenzene	104	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-27-10.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	12/04/17	Lab ID:	711245-12 1/500
Date Analyzed:	12/05/17	Data File:	120510.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	103	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-27-11.5	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	12/04/17	Lab ID:	711245-13 1/500
Date Analyzed:	12/05/17	Data File:	120511.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	104	91	108
4-Bromofluorobenzene	105	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-30-2.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	12/05/17	Lab ID:	711245-20 1/500
Date Analyzed:	12/06/17	Data File:	120610.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	85	117
Toluene-d8	104	91	108
4-Bromofluorobenzene	104	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-30-4.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	12/05/17	Lab ID:	711245-21 1/500
Date Analyzed:	12/06/17	Data File:	120611.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	105	91	108
4-Bromofluorobenzene	105	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-30-7.5	Client:	Aspect Consulting, LLC
Date Received:	11/13/17	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	12/05/17	Lab ID:	711245-22 1/500
Date Analyzed:	12/06/17	Data File:	120612.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	105	91	108
4-Bromofluorobenzene	105	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	11/30/17	Lab ID:	07-2677 mb 1/500
Date Analyzed:	12/01/17	Data File:	120108.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	98	91	108
4-Bromofluorobenzene	98	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	12/01/17	Lab ID:	07-2681 mb 1/500
Date Analyzed:	12/04/17	Data File:	120409.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	105	91	108
4-Bromofluorobenzene	105	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	12/04/17	Lab ID:	07-2738 mb 1/500
Date Analyzed:	12/05/17	Data File:	120508.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	104	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	12/05/17	Lab ID:	07-2740 mb 1/500
Date Analyzed:	12/06/17	Data File:	120608.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	105	91	108
4-Bromofluorobenzene	106	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA-Gateway, F&BI 711245
Date Extracted:	12/08/17	Lab ID:	07-2758 mb 1/500
Date Analyzed:	12/11/17	Data File:	121110.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	101	76	126

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<500

Date of Report: 12/12/17
Date Received: 11/13/17
Project: MBHA-Gateway PO 160324, F&BI 711245

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF TCLP EXTRACT SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Tetrachloroethene	ug/L (ppb)	50	92	90	78-109	2

Date of Report: 12/12/17
Date Received: 11/13/17
Project: MBHA-Gateway PO 160324, F&BI 711245

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF TCLP EXTRACT SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Tetrachloroethene	ug/L (ppb)	50	90	90	78-109	0

Date of Report: 12/12/17
Date Received: 11/13/17
Project: MBHA-Gateway PO 160324, F&BI 711245

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF TCLP EXTRACT SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Tetrachloroethene	ug/L (ppb)	50	96	90	78-109	6

Date of Report: 12/12/17
Date Received: 11/13/17
Project: MBHA-Gateway PO 160324, F&BI 711245

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF TCLP EXTRACT SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Tetrachloroethene	ug/L (ppb)	50	92	92	78-109	0

Date of Report: 12/12/17
Date Received: 11/13/17
Project: MBHA-Gateway PO 160324, F&BI 711245

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF TCLP EXTRACT SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Tetrachloroethene	ug/L (ppb)	50	91	89	78-109	2

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

71245

SAMPLE CHAIN OF CUSTODY

ME 11-13-17

VSY / ACY

Page # 1 of 3

Report To Jessica Smith
Company Aspect Consulting
Address 401 2nd Ave S. Suite 201
City, State, ZIP Seattle, WA 98104
Phone _____ Email _____

SAMPLERS (signature) Kat Beck

PROJECT NAME: MBHA - Gateway

PO # 160324

REMARKS: ~~Please hold~~

INVOICE TO: Accts Payable

TURNAROUND TIME
☐ Standard Turnaround
☐ RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Archive Samples
☐ Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
																	✓ per JS 11/17/17
ADP-18-2.5	01 A-E	11/12/17	1044	soil	5		✓						✓	(X)			(X) - per JS
ADP-18-5.0	02		1412		5		✓						✓	(X)			11/29/17
ADP-19-3.0	03		1115		5		✓						✓	(X)			MG
ADP-19-4.5	04		1135		5												
ADP-19-5.0	05		1522		5		✓						✓	(X)			
ADP-19A-3.0	06		1640		5												
ADP-19A-5.0	07		1646		5												
ADP-27-2.0	08		0929		5								✓	(X)			
ADP-27-4.0	09		0945		5								✓	(X)			
ADP-27-6.0	10		0950		5								✓	(X)			Samples received at 3 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	11/13/17	0830
Received by:	[illegible]	Fedex	11-13	1330
Relinquished by:				
Received by: [illegible]	Nhan Phan	FedEx	11/13/17	1505

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

711245

SAMPLE CHAIN OF CUSTODY ME 11-13-17 VS4 /A04

Report To Jessica Smith
Company Aspect Consulting
Address
City, State, ZIP
Phone Email

SAMPLERS (*signature*) [signature]
PROJECT NAME MBHA-Gateway
PO # 160324
REMARKS ~~Please hold~~
INVOICE TO

Page # 2 of 3

TURNAROUND TIME
☐ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	CVOCs	TCLP PCE			Notes
ADP-27-7.0	11 A-E	11/12/17	1000	Soil	5												
ADP-27-10.0	12		1021		5								✓	⊗			
ADP-27-11.5	13		1023		5								✓	⊗			
ADP-28-3.0	14		1544		5								✓	⊗			
ADP-28-6.0	15		1603		5												NoTCLP
ADP-28-6.5	16		1620		5								✓	⊗			
ADP-29-2.5	17		1702		5								✓	⊗			
ADP-29-3.5	18		1719		5												
ADP-29-5.0	19		1721		5								✓	⊗			
ADP-30-2.0	20	↓	1300	↓	5								✓	⊗			

Samples received at 3 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Kristin Beck	Aspect	11/13/17	2:36
Received by: [signature]	Sead Ulad[illegible]	Fedex	11-13	2:36
Relinquished by:				
Received by: [signature]	Nhan Phan	FeBI	11/13/17	15:25

71245

SAMPLE CHAIN OF CUSTODY

ME 11-13-17 VSY/ ADY

Page # 3 of 3

Report To Jessica Smith

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (*signature*) Kat Beck

PROJECT NAME: MBHA - Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-30-4.0	21 A-G	11/12/17	1310	soil	5								✓	⊗			
ADP-30-7.5	22 ✓	↓	1336	↓	5								✓	⊗			

Samples received at 3 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	11/13/17	22
Received by:	Jared Underdown	Fedex	11-14	2:30
Relinquished by:				
Received by:	Nhan Phan	FEDEX	11/13/17	1505

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 6, 2017

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on November 14, 2017 from the MBHA 160324, F&BI 711278 project. There are 13 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: data@aspectconsulting.com
ASP1206R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 14, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA 160324, F&BI 711278 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
711278 -01	ASV-7
711278 -02	ASV-6
711278 -03	ASV-5
711278 -04	ASV-2
711278 -05	ASV-1
711278 -06	ASV-3
711278 -07	ASV-4

The TO-15 naphthalene laboratory control sample exceeded the acceptance criteria. This analyte was not detected in the samples, therefore the data were acceptable.

The TO-15 tetracholoroethene concentration in samples ASV-6, ASV-5, ASV-2, and ASV-1 exceeded the calibration range of the instrument. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	ASV-7	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA 160324, F&BI 711278
Date Collected:	11/12/17	Lab ID:	711278-01 1/2.5
Date Analyzed:	11/21/17	Data File:	112107.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	96	70	130

Compounds:	Concentration ug/m3	Concentration ppbv
Vinyl chloride	<0.64	<0.25
Chloroethane	<0.66	<0.25
1,1-Dichloroethene	<0.99	<0.25
trans-1,2-Dichloroethene	<0.99	<0.25
Methyl t-butyl ether	<4.5	<1.2
1,1-Dichloroethane	<1	<0.25
cis-1,2-Dichloroethene	<0.99	<0.25
Hexane	13	3.7
1,2-Dichloroethane (EDC)	<1	<0.25
1,1,1-Trichloroethane	<1.4	<0.25
Benzene	6.0	1.9
Trichloroethene	2.9	0.55
Toluene	52	14
1,1,2-Trichloroethane	<1.4	<0.25
Tetrachloroethene	650	95
1,2-Dibromoethane (EDB)	<1.9	<0.25
Ethylbenzene	5.6	1.3
m,p-Xylene	23	5.2
o-Xylene	7.8	1.8
Naphthalene	<1.3	<0.25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	ASV-6	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA 160324, F&BI 711278
Date Collected:	11/12/17	Lab ID:	711278-02 1/2.5
Date Analyzed:	11/21/17	Data File:	112108.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.64	<0.25
Chloroethane	<0.66	<0.25
1,1-Dichloroethene	<0.99	<0.25
trans-1,2-Dichloroethene	<0.99	<0.25
Methyl t-butyl ether	<4.5	<1.2
1,1-Dichloroethane	<1	<0.25
cis-1,2-Dichloroethene	<0.99	<0.25
Hexane	15	4.3
1,2-Dichloroethane (EDC)	<1	<0.25
1,1,1-Trichloroethane	<1.4	<0.25
Benzene	3.2	1.0
Trichloroethene	7.4	1.4
Toluene	20	5.4
1,1,2-Trichloroethane	<1.4	<0.25
Tetrachloroethene	940 ve	140 ve
1,2-Dibromoethane (EDB)	<1.9	<0.25
Ethylbenzene	3.4	0.77
m,p-Xylene	13	3.0
o-Xylene	4.5	1.0
Naphthalene	<1.3	<0.25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	ASV-5	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA 160324, F&BI 711278
Date Collected:	11/12/17	Lab ID:	711278-03 1/2.5
Date Analyzed:	11/21/17	Data File:	112109.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.64	<0.25
Chloroethane	<0.66	<0.25
1,1-Dichloroethene	<0.99	<0.25
trans-1,2-Dichloroethene	2.4	0.59
Methyl t-butyl ether	<4.5	<1.2
1,1-Dichloroethane	<1	<0.25
cis-1,2-Dichloroethene	110	27
Hexane	<8.8	<2.5
1,2-Dichloroethane (EDC)	<1	<0.25
1,1,1-Trichloroethane	<1.4	<0.25
Benzene	3.5	1.1
Trichloroethene	80	15
Toluene	28	7.3
1,1,2-Trichloroethane	<1.4	<0.25
Tetrachloroethene	910 ve	130 ve
1,2-Dibromoethane (EDB)	<1.9	<0.25
Ethylbenzene	3.8	0.88
m,p-Xylene	15	3.4
o-Xylene	4.8	1.1
Naphthalene	<1.3	<0.25

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	ASV-2	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA 160324, F&BI 711278
Date Collected:	11/12/17	Lab ID:	711278-04 1/25
Date Analyzed:	11/21/17	Data File:	112110.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	100	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<6.4	<2.5
Chloroethane	<6.6	<2.5
1,1-Dichloroethene	68	17
trans-1,2-Dichloroethene	<9.9	<2.5
Methyl t-butyl ether	<45	<12
1,1-Dichloroethane	<10	<2.5
cis-1,2-Dichloroethene	140	36
Hexane	120	33
1,2-Dichloroethane (EDC)	<10	<2.5
1,1,1-Trichloroethane	<14	<2.5
Benzene	29	9.1
Trichloroethene	250	47
Toluene	45	12
1,1,2-Trichloroethane	<14	<2.5
Tetrachloroethene	16,000 ve	2,300 ve
1,2-Dibromoethane (EDB)	<19	<2.5
Ethylbenzene	<11	<2.5
m,p-Xylene	31	7.2
o-Xylene	<11	<2.5
Naphthalene	<13	<2.5

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	ASV-1	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA 160324, F&BI 711278
Date Collected:	11/12/17	Lab ID:	711278-05 1/25
Date Analyzed:	11/21/17	Data File:	112111.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	101	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<6.4	<2.5
Chloroethane	<6.6	<2.5
1,1-Dichloroethene	16	4.0
trans-1,2-Dichloroethene	<9.9	<2.5
Methyl t-butyl ether	<45	<12
1,1-Dichloroethane	<10	<2.5
cis-1,2-Dichloroethene	190	47
Hexane	180	52
1,2-Dichloroethane (EDC)	<10	<2.5
1,1,1-Trichloroethane	<14	<2.5
Benzene	23	7.3
Trichloroethene	1,500	270
Toluene	44	12
1,1,2-Trichloroethane	<14	<2.5
Tetrachloroethene	170,000 ve	25,000 ve
1,2-Dibromoethane (EDB)	<19	<2.5
Ethylbenzene	<11	<2.5
m,p-Xylene	25	5.8
o-Xylene	<11	<2.5
Naphthalene	<13	<2.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	ASV-3	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA 160324, F&BI 711278
Date Collected:	11/12/17	Lab ID:	711278-06 1/2.5
Date Analyzed:	11/21/17	Data File:	112105.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	100	70	130

Compounds:	Concentration ug/m3	Concentration ppbv
Vinyl chloride	<0.64	<0.25
Chloroethane	<0.66	<0.25
1,1-Dichloroethene	<0.99	<0.25
trans-1,2-Dichloroethene	<0.99	<0.25
Methyl t-butyl ether	<4.5	<1.2
1,1-Dichloroethane	<1	<0.25
cis-1,2-Dichloroethene	<0.99	<0.25
Hexane	50	14
1,2-Dichloroethane (EDC)	<1	<0.25
1,1,1-Trichloroethane	<1.4	<0.25
Benzene	22	6.9
Trichloroethene	4.3	0.79
Toluene	92	24
1,1,2-Trichloroethane	<1.4	<0.25
Tetrachloroethene	94	14
1,2-Dibromoethane (EDB)	<1.9	<0.25
Ethylbenzene	4.2	0.96
m,p-Xylene	15	3.5
o-Xylene	4.7	1.1
Naphthalene	<1.3	<0.25

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	ASV-4	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA 160324, F&BI 711278
Date Collected:	11/12/17	Lab ID:	711278-07 1/2.5
Date Analyzed:	11/21/17	Data File:	112106.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration ug/m3	Concentration ppbv
Vinyl chloride	<0.64	<0.25
Chloroethane	<0.66	<0.25
1,1-Dichloroethene	<0.99	<0.25
trans-1,2-Dichloroethene	<0.99	<0.25
Methyl t-butyl ether	<4.5	<1.2
1,1-Dichloroethane	<1	<0.25
cis-1,2-Dichloroethene	<0.99	<0.25
Hexane	40	11
1,2-Dichloroethane (EDC)	<1	<0.25
1,1,1-Trichloroethane	<1.4	<0.25
Benzene	13	4.0
Trichloroethene	<1.3	<0.25
Toluene	57	15
1,1,2-Trichloroethane	<1.4	<0.25
Tetrachloroethene	59	8.7
1,2-Dibromoethane (EDB)	<1.9	<0.25
Ethylbenzene	3.6	0.83
m,p-Xylene	13	3.0
o-Xylene	4.3	0.99
Naphthalene	<1.3	<0.25

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA 160324, F&BI 711278
Date Collected:	11/21/17	Lab ID:	07-2609 mb
Date Analyzed:	11/21/17	Data File:	112104.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	96	70	130

Compounds:	Concentration ug/m3	Concentration ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<0.26	<0.1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
Methyl t-butyl ether	<1.8	<0.5
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
Hexane	<3.5	<1
1,2-Dichloroethane (EDC)	<0.4	<0.1
1,1,1-Trichloroethane	<0.55	<0.1
Benzene	<0.32	<0.1
Trichloroethene	<0.54	<0.1
Toluene	<0.38	<0.1
1,1,2-Trichloroethane	<0.55	<0.1
Tetrachloroethene	<0.68	<0.1
1,2-Dibromoethane (EDB)	<0.77	<0.1
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.52	<0.1

Date of Report: 12/06/17
Date Received: 11/14/17
Project: MBHA 160324, F&BI 711278
Date Extracted: 12/01/17
Date Analyzed: 12/01/17

RESULTS FROM THE ANALYSIS OF AIR SAMPLES FOR HELIUM USING METHOD ASTM D1946

Results Reported as % Helium

Sample ID Laboratory ID	Helium
ASV-7 711278-01	<0.6
ASV-6 711278-02	<0.6
ASV-5 711278-03	<0.6
ASV-2 711278-04	2.7
ASV-1 711278-05	0.98
ASV-3 711278-06	<0.6
ASV-4 711278-07	<0.6
Method Blank	<0.6

Date of Report: 12/06/17
Date Received: 11/14/17
Project: MBHA 160324, F&BI 711278

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ppbv	10	108	70-130
Chloroethane	ppbv	10	107	70-130
1,1-Dichloroethene	ppbv	10	115	70-130
trans-1,2-Dichloroethene	ppbv	10	118	70-130
Methyl t-butyl ether	ppbv	10	121	70-130
1,1-Dichloroethane	ppbv	10	111	70-130
cis-1,2-Dichloroethene	ppbv	10	118	70-130
Hexane	ppbv	10	112	70-130
1,2-Dichloroethane (EDC)	ppbv	10	112	70-130
1,1,1-Trichloroethane	ppbv	10	112	70-130
Benzene	ppbv	10	119	70-130
Trichloroethene	ppbv	10	113	70-130
Toluene	ppbv	10	120	70-130
1,1,2-Trichloroethane	ppbv	10	111	70-130
Tetrachloroethene	ppbv	10	114	70-130
1,2-Dibromoethane (EDB)	ppbv	10	114	70-130
Ethylbenzene	ppbv	10	124	70-130
m,p-Xylene	ppbv	20	125	70-130
o-Xylene	ppbv	10	123	70-130
Naphthalene	ppbv	10	131 vo	70-130

Date of Report: 12/06/17
Date Received: 11/14/17
Project: MBHA 160324, F&BI 711278

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR HELIUM USING METHOD ASTM D1946

Laboratory Code: 711278-04 (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	2.7	3.9	36 a	0-20

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

711278

SAMPLE CHAIN OF CUSTODY ME11-~~A~~ 14-17

Page # 1 of 1

Report To Jessica Smith
Company Aspect
Address 401 2nd Ave S
City, State, ZIP Seattle, WA 98104
Phone _____ Email _____

SAMPLERS (*signature*)

PROJECT NAME: MBHA 160324

PO #

REMARKS
- target VOCs
- chlorinated VOCs
- Helium

INVOICE TO

TURNAROUND TIME
☐ Standard
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Archive Samples
☐ Other

ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Contr. ID	Date Sampled	Field Initial Press. (Hg)	Field Initial Time	Field Final Press. (Hg)	Field Final Time	~~TO-15 Full Scan~~ Target VOCs	TO-15 BTEXN	TO-15 cVOCs	Helium	Notes
ASV-7	01	3386	17	11/12/17	28.5	1007	5	1015	X		X	X	PID = 105ppm
ASV-6	02	3254	31	11/12/17	29	1052	5	1058	X		X	X	157 ppm
ASV-5	03	2294	12	11/12/17	29	1238	5	1246	X		X	X	193 ppm
ASV-2	04	3253	201	11/12/17	29	1503	3.5	1509	X		X	X	257 ppm
ASV-1	05	3390	229	11/12/17	30	1550	5	1556	X		X	X	374 ppm
ASV-3	06	3260	227	11/13/17	29.5	0849	5	0855	X		X	X	23 ppm
ASV-4	07	3664	224	11/13/17	29	1006	5	1012	X		X	X	39 ppm

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Delia Massey	Aspect	11/14/17	
Received by:	Jon Thomas	FBI	11/14/17	17:35
Relinquished by:				
Received by:				

Samples received at 20 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 30, 2017

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on November 14, 2017 from the MBHA-Gateway PO 160324, F&BI 711280 project. There are 27 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: data@aspectconsulting.com
ASP1130R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 14, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA-Gateway PO 160324, F&BI 711280 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
711280 -01	ADP-20-3.0
711280 -02	ADP-20-5.5
711280 -03	ADP-20-8.0
711280 -04	ADP-20-11.0
711280 -05	ADP-24-2.5
711280 -06	ADP-24-8.5
711280 -07	ADP-24-12.5
711280 -08	ADP-24-15.0
711280 -09	ADP-26-2.0
711280 -10	ADP-26-5.0
711280 -11	ADP-26-8.5
711280 -12	ADP-26-12.5
711280 -13	ADP-26-16.0
711280 -14	ADP-26-20.0
711280 -15	AMW-04-3.0
711280 -16	AMW-04-6.0
711280 -17	AMW-04-9.0
711280 -18	AMW-04-12.0
711280 -19	AMW-04-15.0
711280 -20	AMW-04-17.0
711280 -21	AMW-04-20.0
711280 -22	Trip Blank

Samples AMW-04-15.0 and AMW-04-20.0 were extracted outside of the holding time for NWTPH-Dx and 8260C. The data were flagged accordingly.

All other quality control requirements were acceptable.

Date of Report: 11/30/17
Date Received: 11/14/17
Project: MBHA-Gateway PO 160324, F&BI 711280
Date Extracted: 11/21/17 and 11/29/17
Date Analyzed: 11/21/17 and 11/30/17

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 53-144)
ADP-24-2.5 711280-05	<50	1,300	87
ADP-24-8.5 711280-06	860 x	12,000	102
ADP-24-12.5 711280-07	1,200 x	12,000	104
ADP-24-15.0 711280-08	<50	<250	88
AMW-04-6.0 711280-16	<50	<250	91
AMW-04-9.0 711280-17	<50	<250	89
AMW-04-12.0 711280-18	<50	<250	95
AMW-04-15.0 ht 711280-19	<50	<250	100
AMW-04-20.0 ht 711280-21	<50	<250	103
Method Blank 07-2710 MB	<50	<250	106
Method Blank 07-2636 MB2	<50	<250	84

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-20-3.0	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-01
Date Analyzed:	11/21/17	Data File:	112109.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	103	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-20-5.5	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-02
Date Analyzed:	11/21/17	Data File:	112132.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-20-8.0	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-03
Date Analyzed:	11/21/17	Data File:	112133.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-20-11.0	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-04
Date Analyzed:	11/21/17	Data File:	112134.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-24-2.5	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-05
Date Analyzed:	11/21/17	Data File:	112135.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.070

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-24-8.5	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-06
Date Analyzed:	11/21/17	Data File:	112136.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.16

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-24-12.5	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-07
Date Analyzed:	11/21/17	Data File:	112137.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.17

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-24-15.0	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-08
Date Analyzed:	11/22/17	Data File:	112138.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.075
Tetrachloroethene	0.21

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-26-2.0	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-09
Date Analyzed:	11/22/17	Data File:	112139.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-26-5.0	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-10
Date Analyzed:	11/22/17	Data File:	112140.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-26-12.5	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-12
Date Analyzed:	11/22/17	Data File:	112141.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.046

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-26-16.0	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-13
Date Analyzed:	11/22/17	Data File:	112142.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.079

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-26-20.0	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-14
Date Analyzed:	11/22/17	Data File:	112143.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	103	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-04-6.0	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-16
Date Analyzed:	11/22/17	Data File:	112144.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.029

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-04-9.0	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-17
Date Analyzed:	11/22/17	Data File:	112205.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-04-12.0	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	711280-18
Date Analyzed:	11/22/17	Data File:	112206.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.095

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-04-15.0 ht	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/29/17	Lab ID:	711280-19
Date Analyzed:	11/30/17 10:07	Data File:	113009.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	99	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm) Dry Weight
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-04-20.0 ht	Client:	Aspect Consulting, LLC
Date Received:	11/14/17	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/29/17	Lab ID:	711280-21
Date Analyzed:	11/30/17 10:26	Data File:	113010.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm) Dry Weight
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.13

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	ClientID
Date Received:	Not Applicable	Project:	ProjectID
Date Extracted:	11/29/17	Lab ID:	07-2674 mb
Date Analyzed:	11/30/17 08:50	Data File:	113005.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm) Dry Weight
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA-Gateway PO 160324, F&BI 711280
Date Extracted:	11/20/17	Lab ID:	07-2608 mb
Date Analyzed:	11/21/17	Data File:	112108.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 11/30/17
Date Received: 11/14/17
Project: MBHA-Gateway PO 160324, F&BI 711280

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 711384-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	2,400	73 b	106 b	63-146	37 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	96	79-144

Date of Report: 11/30/17
Date Received: 11/14/17
Project: MBHA-Gateway PO 160324, F&BI 711280

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 711486-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	110	108	73-135	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	98	74-139

Date of Report: 11/30/17
Date Received: 11/14/17
Project: MBHA-Gateway PO 160324, F&BI 711280

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 711280-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	54	52	10-138	4
Chloroethane	mg/kg (ppm)	2.5	<0.5	61	63	10-176	3
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	72	70	10-160	3
Methylene chloride	mg/kg (ppm)	2.5	<0.5	87	81	10-156	7
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	77	75	14-137	3
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	81	80	19-140	1
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	82	80	25-135	2
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	81	81	12-160	0
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	81	80	10-156	1
Trichloroethene	mg/kg (ppm)	2.5	<0.02	81	80	21-139	1
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	79	77	20-133	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	75	22-139
Chloroethane	mg/kg (ppm)	2.5	81	10-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	89	47-128
Methylene chloride	mg/kg (ppm)	2.5	99	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	92	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	94	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	93	72-113
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	93	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	94	62-131
Trichloroethene	mg/kg (ppm)	2.5	93	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	89	72-114

Date of Report: 11/30/17
Date Received: 11/14/17
Project: MBHA-Gateway PO 160324, F&BI 711280

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 711444-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	53	59	10-138	11
Chloroethane	mg/kg (ppm)	2.5	<0.5	58	60	10-176	3
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	68	72	10-160	6
Methylene chloride	mg/kg (ppm)	2.5	<0.5	80	81	10-156	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	74	75	14-137	1
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	79	79	19-140	0
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	78	80	25-135	3
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	80	80	12-160	0
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	79	80	10-156	1
Trichloroethene	mg/kg (ppm)	2.5	<0.02	79	80	21-139	1
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	81	82	20-133	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	64	22-139
Chloroethane	mg/kg (ppm)	2.5	70	10-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	77	47-128
Methylene chloride	mg/kg (ppm)	2.5	86	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	82	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	85	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	85	72-113
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	87	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	88	62-131
Trichloroethene	mg/kg (ppm)	2.5	87	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	88	72-114

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

711280

SAMPLE CHAIN OF CUSTODY ME 11-14-17

A04, [illegible] Page # 1 of 3 [illegible]

Report To Jessica Smith
Company Aspect Consulting
Address
City, State, ZIP Seattle
Phone Email

SAMPLERS (*signature*) [signature]

PROJECT NAME	PO #
MBHA - Gateway	160824
REMARKS	INVOICE TO
~~Please hold~~	Accts Payable

TURNAROUND TIME
☐ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-20-3.0	01 A-E	11/13/17	1434	soil	5								✓				✓-per JS 11/[illegible] [illegible]
ADP-20-5.5	02		1451		5								✓				
ADP-20-8.0	03		1504		5								✓				
ADP-20-11.0	04		1516		5								✓				
ADP-24-2.5	05		0901		5		✓						✓				
ADP-24-8.5	06		0924		5		✓						✓				
ADP-24-12.5	07		0948		5		✓						✓				
ADP-24-15.0	08		0950		5		✓						✓				
ADP-26-2.0	09		1600		5								✓				
ADP-26-5.0	10		1605		5								✓				

Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Kristin Beck	Aspect	11/14/17	
Received by:	[signature]	Jon Shimizu	FBI	11/14/17	12:35
Relinquished by:					
Received by:					

711280

SAMPLE CHAIN OF CUSTODY

ME 11-14-17 AM / VSS 3 VM

Page # 2 of 3

Report To Jessica Smith

Company Aspect Consulting

Address

City, State, ZIP Seattle

Phone Email

SAMPLERS (signature) Kristin Beck

PROJECT NAME: MBHA - Gateway

PO #: 160324

REMARKS: ~~Please hold~~

INVOICE TO

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-26-8.5	11 A-E	11/13/17	1607	soil	5												
ADP-26-12.5	12		1627		5								✓				
ADP-26-16.0	13		1630		5								✓				
ADP-26-20.0	14		1638		5								✓				
AMW-04-3.0	15		1037		5												
AMW-04-6.0	16		1045		5		✓						✓				
AMW-04-9.0	17		1054		5		✓						✓				
AMW-04-12.0	18		1105		5		✓						✓				
~~AMW-04-16.0~~																	
~~AMW-04-20.0~~																	

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kristin Beck	Kristin Beck	Aspect	11/14/17	
Received by:	Jon Shumaker	FBI	11/14/17	1705
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

711280

SAMPLE CHAIN OF CUSTODY ME 11-14-17

A04/VS5 VW1

Page # 3 of 3

Report To Jessica Smith

Company Aspect

Address

City, State, ZIP Seattle

Phone ______ Email ______

SAMPLERS (signature) [signature]

PROJECT NAME	PO #
MBHA - Gateway	160324
REMARKS	INVOICE TO
~~Please hold~~	

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH ______
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other ______

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
AMW-04-15.0	19 A-E	11/13/17	1110	soil	5		✓						✓				
AMW-04-17.0	20	↓	1140	↓	5												
AMW-04-20.0	21	↓	1145	↓	5		✓						✓				
Trip Blank	22 A-B	–	–														added in lab

Samples received at 4 °C

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Kristin Beck	Aspect	11/14/17	
Received by:	[signature]	[illegible]	FBI	11/14/17	12:35
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 30, 2017

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on November 17, 2017 from the MBHA Gateway PO 160324-01, F&BI 711366 project. There are 12 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: data@aspectconsulting.com
ASP1130R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 17, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA Gateway PO 160324-01, F&BI 711366 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
711366 -01	AB-17-2.5
711366 -02	AB-17-5.0

All quality control requirements were acceptable.

Date of Report: 11/30/17
Date Received: 11/17/17
Project: MBHA Gateway PO 160324-01, F&BI 711366
Date Extracted: 11/21/17
Date Analyzed: 11/21/17

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 53-144)
AB-17-2.5 711366-01	<50	<250	104
AB-17-5.0 711366-02	<50	<250	87
Method Blank 07-2636 MB2	<50	<250	84

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-17-2.5	Client:	Aspect Consulting, LLC
Date Received:	11/17/17	Project:	MBHA Gateway PO 160324-01
Date Extracted:	11/27/17	Lab ID:	711366-01
Date Analyzed:	11/28/17	Data File:	112729.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	89	113
Toluene-d8	100	64	137
4-Bromofluorobenzene	99	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-17-5.0	Client:	Aspect Consulting, LLC
Date Received:	11/17/17	Project:	MBHA Gateway PO 160324-01
Date Extracted:	11/27/17	Lab ID:	711366-02
Date Analyzed:	11/28/17	Data File:	112730.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	89	113
Toluene-d8	99	64	137
4-Bromofluorobenzene	99	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway PO 160324-01
Date Extracted:	11/27/17	Lab ID:	07-2651 mb
Date Analyzed:	11/27/17	Data File:	112707.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	89	113
Toluene-d8	98	64	137
4-Bromofluorobenzene	99	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	AB-17-2.5	Client:	Aspect Consulting, LLC
Date Received:	11/17/17	Project:	MBHA Gateway PO 160324-01
Date Extracted:	11/21/17	Lab ID:	711366-01 1/6
Date Analyzed:	11/22/17	Data File:	112155.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	93	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	AB-17-5.0	Client:	Aspect Consulting, LLC
Date Received:	11/17/17	Project:	MBHA Gateway PO 160324-01
Date Extracted:	11/21/17	Lab ID:	711366-02 1/6
Date Analyzed:	11/22/17	Data File:	112156.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	92	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway PO 160324-01
Date Extracted:	11/21/17	Lab ID:	07-2635 mb2 1/6
Date Analyzed:	11/21/17	Data File:	112152.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	106	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Date of Report: 11/30/17
Date Received: 11/17/17
Project: MBHA Gateway PO 160324-01, F&BI 711366

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 711384-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	2,400	73 b	106 b	63-146	37 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	96	79-144

Date of Report: 11/30/17
Date Received: 11/17/17
Project: MBHA Gateway PO 160324-01, F&BI 711366

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 711354-15 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	42	42	10-91	0
Chloroethane	mg/kg (ppm)	2.5	<0.5	54	53	10-101	2
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	56	54	22-107	4
Methylene chloride	mg/kg (ppm)	2.5	<0.5	72	71	14-128	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	64	64	13-112	0
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	69	70	23-115	1
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	71	71	25-120	0
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	74	74	22-124	0
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	71	71	27-112	0
Trichloroethene	mg/kg (ppm)	2.5	<0.02	71	70	30-112	1
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	71	71	25-114	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	73	42-107
Chloroethane	mg/kg (ppm)	2.5	81	47-115
1,1-Dichloroethene	mg/kg (ppm)	2.5	80	65-110
Methylene chloride	mg/kg (ppm)	2.5	92	50-127
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	86	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	90	74-109
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	91	73-110
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	94	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	93	72-116
Trichloroethene	mg/kg (ppm)	2.5	90	72-107
Tetrachloroethene	mg/kg (ppm)	2.5	89	73-111

Date of Report: 11/30/17
Date Received: 11/17/17
Project: MBHA Gateway PO 160324-01, F&BI 711366

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: 711349-01 1/6 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	<0.02	<0.02	nm
Aroclor 1260	mg/kg (ppm)	<0.02	<0.02	nm

Laboratory Code: Laboratory Control Sample 1/6

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Aroclor 1016	mg/kg (ppm)	2	109	55-130
Aroclor 1260	mg/kg (ppm)	2	119	58-133

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

711366

SAMPLE CHAIN OF CUSTODY ~~MP~~ ML 11/17/17 B01/~~B51~~ V52

Report To Aspect, Jessica Smith

Company

Address

City, State, ZIP

Phone Email jsmith@aspectconsulting.com

SAMPLERS (*signature*)

PROJECT NAME	PO #
MBTA Gateway	160324-01
REMARKS Hold	INVOICE TO AT

Page # 1 of 1

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOC	PCB			Notes
AB-17-2.5	01 A-E	11/17	1150	Soil	5		✓						✓	✓			per JS 11/20/17 Hold
AB-17-5.0	02 |	11/17	1159	Soil	5		✓						✓	✓			Hold

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Aspect	11/17/17	1610
Received by:		FRB	11/17/17	1610
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 30, 2017

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on November 17, 2017 from the MBHA 160324, F&BI 711374 project. There are 16 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: data@aspectconsulting.com
ASP1130R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 17, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA 160324, F&BI 711374 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
711374 -01	AMW-06-7.5
711374 -02	AMW-06-20.0
711374 -03	AB-17-7.5
711374 -04	AB-17-10.0
711374 -05	AB-17-12.5
711374 -06	AB-17-15.0
711374 -07	AB-17-17.5
711374 -08	AB-17-20.0
711374 -09	AB-17-25.0
711374 -10	AB-17-30.0
711374 -11	AB-17-35.0
711374 -12	AB-17-40.0

All quality control requirements were acceptable.

Date of Report: 11/30/17
Date Received: 11/17/17
Project: MBHA 160324, F&BI 711374
Date Extracted: 11/21/17
Date Analyzed: 11/21/17

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 53-144)
AB-17-7.5 711374-03	<50	<250	87
AB-17-10.0 711374-04	<50	<250	87
AB-17-15.0 711374-06	<50	<250	88
AB-17-20.0 711374-08	<50	<250	101
Method Blank 07-2637 MB2	<50	<250	87

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-17-7.5	Client:	Aspect Consulting, LLC
Date Received:	11/17/17	Project:	MBHA 160324, F&BI 711374
Date Extracted:	11/27/17	Lab ID:	711374-03
Date Analyzed:	11/28/17	Data File:	112732.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	89	113
Toluene-d8	100	64	137
4-Bromofluorobenzene	99	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-17-10.0	Client:	Aspect Consulting, LLC
Date Received:	11/17/17	Project:	MBHA 160324, F&BI 711374
Date Extracted:	11/27/17	Lab ID:	711374-04
Date Analyzed:	11/28/17	Data File:	112733.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	89	113
Toluene-d8	100	64	137
4-Bromofluorobenzene	100	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-17-15.0	Client:	Aspect Consulting, LLC
Date Received:	11/17/17	Project:	MBHA 160324, F&BI 711374
Date Extracted:	11/27/17	Lab ID:	711374-06
Date Analyzed:	11/28/17	Data File:	112734.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	89	113
Toluene-d8	100	64	137
4-Bromofluorobenzene	101	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-17-20.0	Client:	Aspect Consulting, LLC
Date Received:	11/17/17	Project:	MBHA 160324, F&BI 711374
Date Extracted:	11/27/17	Lab ID:	711374-08
Date Analyzed:	11/28/17	Data File:	112735.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	89	113
Toluene-d8	101	64	137
4-Bromofluorobenzene	101	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA 160324, F&BI 711374
Date Extracted:	11/27/17	Lab ID:	07-2651 mb
Date Analyzed:	11/27/17	Data File:	112707.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	89	113
Toluene-d8	98	64	137
4-Bromofluorobenzene	99	81	119

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	AB-17-7.5	Client:	Aspect Consulting, LLC
Date Received:	11/17/17	Project:	MBHA 160324, F&BI 711374
Date Extracted:	11/21/17	Lab ID:	711374-03 1/6
Date Analyzed:	11/22/17	Data File:	112157.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	87	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	AB-17-10.0	Client:	Aspect Consulting, LLC
Date Received:	11/17/17	Project:	MBHA 160324, F&BI 711374
Date Extracted:	11/21/17	Lab ID:	711374-04 1/6
Date Analyzed:	11/22/17	Data File:	112158.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	90	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	AB-17-15.0	Client:	Aspect Consulting, LLC
Date Received:	11/17/17	Project:	MBHA 160324, F&BI 711374
Date Extracted:	11/21/17	Lab ID:	711374-06 1/6
Date Analyzed:	11/22/17	Data File:	112159.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	88	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	AB-17-20.0	Client:	Aspect Consulting, LLC
Date Received:	11/17/17	Project:	MBHA 160324, F&BI 711374
Date Extracted:	11/21/17	Lab ID:	711374-08 1/6
Date Analyzed:	11/22/17	Data File:	112160.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	85	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA 160324, F&BI 711374
Date Extracted:	11/21/17	Lab ID:	07-2635 mb2 1/6
Date Analyzed:	11/21/17	Data File:	112152.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	106	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Date of Report: 11/30/17
Date Received: 11/17/17
Project: MBHA 160324, F&BI 711374

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 711370-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	86	102	73-135	17

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	120	74-139

Date of Report: 11/30/17
Date Received: 11/17/17
Project: MBHA 160324, F&BI 711374

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 711354-15 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	42	42	10-91	0
Chloroethane	mg/kg (ppm)	2.5	<0.5	54	53	10-101	2
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	56	54	22-107	4
Methylene chloride	mg/kg (ppm)	2.5	<0.5	72	71	14-128	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	64	64	13-112	0
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	69	70	23-115	1
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	71	71	25-120	0
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	74	74	22-124	0
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	71	71	27-112	0
Trichloroethene	mg/kg (ppm)	2.5	<0.02	71	70	30-112	1
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	71	71	25-114	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	73	42-107
Chloroethane	mg/kg (ppm)	2.5	81	47-115
1,1-Dichloroethene	mg/kg (ppm)	2.5	80	65-110
Methylene chloride	mg/kg (ppm)	2.5	92	50-127
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	86	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	90	74-109
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	91	73-110
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	94	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	93	72-116
Trichloroethene	mg/kg (ppm)	2.5	90	72-107
Tetrachloroethene	mg/kg (ppm)	2.5	89	73-111

Date of Report: 11/30/17
Date Received: 11/17/17
Project: MBHA 160324, F&BI 711374

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: 711349-01 1/6 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	<0.02	<0.02	nm
Aroclor 1260	mg/kg (ppm)	<0.02	<0.02	nm

Laboratory Code: Laboratory Control Sample 1/6

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Aroclor 1016	mg/kg (ppm)	2	109	55-130
Aroclor 1260	mg/kg (ppm)	2	119	58-133

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

711374

SAMPLE CHAIN OF CUSTODY

ME 11-17-17

803 / VS1

Page # 1 of 2

Report To Jessica Smith

Company Aspect

Address 401 2nd Ave S #201

City, State, ZIP Seattle, WA 98104

Phone 206-423-8289 Email jsmith@aspectconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: MBHA 160324

PO #

REMARKS: ~~HOLD~~

INVOICE TO

TURNAROUND TIME
- ☑ ~~Standard~~ Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☑ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cPAH	cPAH			Notes
AMW-06-7.5	01 A-E	11/17/17	1028	S	5												V proj MBHA EF
AMW-06-20.0	02		1106	S	5												
AB-17-7.5	03		1413	S	5		✓						✓	✓			
AB-17-10.0	04		1423	S	5		✓						✓	✓			
AB-17-12.5	05		1434	S	5												
AB-17-15.0	06		1445	S	5		✓						✓	✓			
AB-17-17.5	07		1453	S	5												
AB-17-20.0	08		1515	S	5		✓						✓	✓			
AB-17-25.0	09		1533	S	5												
AB-17-30.0	10		1541	S	5												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Delia Massey	Aspect	11/17/17	1045
Received by:	Jen Shinaut	FBT	11/17/17	18:45
Relinquished by:				
Received by:		Samples received at 2 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

Z11374

SAMPLE CHAIN OF CUSTODY

ME 11-17-17

B03 / VS1

Page # 2 of 2

Report To ~~Aspect~~ Jessica Smith

Company Aspect

Address 401 2nd Ave S #201

City, State, ZIP Seattle, WA 98104

Phone _____ Email jsmith@aspectconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: MBHA 160324

PO #

REMARKS: HOLD

INVOICE TO

TURNAROUND TIME
- ☐ ~~Standard~~ Turnaround
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ ~~Dispose after 30 days~~
- ☐ Archive Samples
- ☐ Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
AB-17-35.0	11 A-E	11/17/17	1556	S	5												
AB-17-40.0	12 V	11/17/17	1612	S	5												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Delia Massey	Aspect	11/17/17	1845
Received by:	Jon Shuman	FBI	11/17/17	18:45
Relinquished by:				
Received by:		Samples received at 2°C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 6, 2017

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on November 21, 2017 from the MBHA-Gateway PO 160324, F&BI 711414 project. There are 9 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: data@aspectconsulting.com
ASP1206R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 21, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA-Gateway PO 160324, F&BI 711414 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
711414 -01	AMW-11-20.0
711414 -02	AMW-14-20.0
711414 -03	AMW-15-21.0
711414 -04	AB-23-7.5
711414 -05	AB-23-10.0
711414 -06	AB-23-12.5
711414 -07	AB-23-15.0
711414 -08	AB-23-17.5
711414 -09	AB-23-20.0
711414 -10	AB-23-22.5
711414 -11	AB-23-25.0
711414 -12	AB-23-27.5
711414 -13	AB-23-30.0
711414 -14	AB-23-112117
711414 -15	Trip Blank

All quality control requirements were acceptable.

Date of Report: 12/06/17
Date Received: 11/21/17
Project: MBHA-Gateway PO 160324, F&BI 711414
Date Analyzed: 11/30/17

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
AB-23-112117 711414-14	190	107
Method Blank 11-30-17 11:30	<100	84

Date of Report: 12/06/17
Date Received: 11/21/17
Project: MBHA-Gateway PO 160324, F&BI 711414
Date Extracted: 11/30/17
Date Analyzed: 11/30/17

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-132)
AB-23-15.0 711414-07	<0.02	<0.02	<0.02	<0.06	<5	87
AB-23-20.0 711414-09	<0.02	<0.02	<0.02	<0.06	<5	91
Method Blank 07-2684 MB	<0.02	<0.02	<0.02	<0.06	<5	90

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-23-112117	Client:	Aspect Consulting, LLC
Date Received:	11/21/17	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/30/17	Lab ID:	711414-14
Date Analyzed:	11/30/17	Data File:	113016.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	103	91	108
4-Bromofluorobenzene	104	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA-Gateway PO 160324
Date Extracted:	11/30/17	Lab ID:	07-2675 mb
Date Analyzed:	11/30/17	Data File:	113014.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	102	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 12/06/17
Date Received: 11/21/17
Project: MBHA-Gateway PO 160324, F&BI 711414

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 711445-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	600	660	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	84	69-134

Date of Report: 12/06/17
Date Received: 11/21/17
Project: MBHA-Gateway PO 160324, F&BI 711414

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 711492-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	84	66-121
Toluene	mg/kg (ppm)	0.5	82	72-128
Ethylbenzene	mg/kg (ppm)	0.5	92	69-132
Xylenes	mg/kg (ppm)	1.5	87	69-131
Gasoline	mg/kg (ppm)	20	81	61-153

Date of Report: 12/06/17
Date Received: 11/21/17
Project: MBHA-Gateway PO 160324, F&BI 711414

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 711490-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	93	61-139
Chloroethane	ug/L (ppb)	50	<1	90	55-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	91	71-123
Methylene chloride	ug/L (ppb)	50	<5	100	61-126
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	94	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	98	79-113
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	95	63-126
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	98	70-119
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	97	75-121
Trichloroethene	ug/L (ppb)	50	<1	97	73-122
Tetrachloroethene	ug/L (ppb)	50	<1	90	72-113

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	95	99	70-128	4
Chloroethane	ug/L (ppb)	50	92	95	66-149	3
1,1-Dichloroethene	ug/L (ppb)	50	90	96	75-119	6
Methylene chloride	ug/L (ppb)	50	98	105	63-132	7
trans-1,2-Dichloroethene	ug/L (ppb)	50	93	99	76-118	6
1,1-Dichloroethane	ug/L (ppb)	50	96	102	77-119	6
cis-1,2-Dichloroethene	ug/L (ppb)	50	94	100	76-119	6
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	98	100	78-114	2
1,1,1-Trichloroethane	ug/L (ppb)	50	95	102	80-116	7
Trichloroethene	ug/L (ppb)	50	96	100	72-119	4
Tetrachloroethene	ug/L (ppb)	50	93	93	78-109	0

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

711414

SAMPLE CHAIN OF CUSTODY

ME 11-21-17 VSI/803/ Page # 1 of 2 VW.

Report To Jessica Smith
Company Aspect Consulting
Address
City, State, ZIP Seattle
Phone Email

SAMPLERS (signature) Kat Beck
PROJECT NAME MBHA - Gateway
PO # 160324
REMARKS Please hold
INVOICE TO Accts Payable

TURNAROUND TIME
☐ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	sVOCs by 8270D	PAHs 8270D SIM					Notes
AMW-11-20.0	01 A-E	11/20/17	1022	soil	5												X-per JS
AMW-14-20.0	02	11/21/17	1032		5												11/21/17
AMW-15-21.0	03	11/20/17	1230		5												mr
AB-23-7.5	04	11/21/17	~~1251~~ 1249		5												
AB-23-10.0	05		1251		5												
AB-23-12.5	06		1258		5												
AB-23-15.0	07		1304		5			X	X								
AB-23-17.5	08		1400		5												
AB-23-20.0	09		1411		5			X	X								
AB-23-22.5	10		1421		5												

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	11/21/17	
Received by:	Jen Shmaeff	FBI	11/21/17	18:10
Relinquished by:				
Received by:				

Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

711414

[redacted]

SAMPLE CHAIN OF CUSTODY

ME 11/21/17 ~~V005~~/ VS1

Report To: Jessica Smith

Company: Aspect Consulting

Address: Seattle

City, State, ZIP ______

Phone ______ Email ______

SAMPLERS (signature): Kristin Beck [signature]

PROJECT NAME: MBHA - Gateway

PO #: 160324

REMARKS: ~~Please hold~~

INVOICE TO: Accts Payable

[redacted] Page # 2 of 2 B03

VW3

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH ______
- Rush charges authorized by: ______

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other ______

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	chlorinated solvents				Notes
AB-23-25.0	11 A-E	11/21/17	1430	soil	5												
AB-23-27.5	12 ↓	↓	1437	↓	5												
AB-23-30.0	13	↓	1450	↓	5												
AB-23-112117	14 A-F	↓	1336	water	6			X					X				
Trip Blank	15 A-F	—	—	water	4											&	Added at lab (NP) 11/21

ANALYSES REQUESTED

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Kristin Beck	Aspect	11/21/17	
Received by: [signature]	Jun Shimazu	FBI	11/21/17	18:10
Relinquished by:				
Received by:				

Samples received at 4 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 8, 2017

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on November 23, 2017 from the MBHA-Gateway, PO 160324, F&BI 711441 project. There are 11 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: data@aspectconsulting.com
ASP1208R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 23, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA-Gateway, PO 160324, F&BI 711441 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
711441 -01	AMW-03-10.0
711441 -02	AMW-03-12.5
711441 -03	AMW-03-15.0
711441 -04	AMW-03-17.5
711441 -05	AMW-03-20.0
711441 -06	ADP-31-2.0
711441 -07	ADP-31-4.5
711441 -08	ADP-31-8.0
711441 -09	ADP-31-11.0
711441 -10	ADP-31-13.5
711441 -11	ADP-31-16.0
711441 -12	ADP-32-3.0
711441 -13	ADP-32-4.5
711441 -14	ADP-32-6.0
711441 -15	ADP-32-8.5
711441 -16	TB

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-31-2.0	Client:	Aspect Consulting, LLC
Date Received:	11/23/17	Project:	MBHA-Gateway, PO 160324
Date Extracted:	12/01/17	Lab ID:	711441-06
Date Analyzed:	12/02/17	Data File:	120138.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.030

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-31-4.5	Client:	Aspect Consulting, LLC
Date Received:	11/23/17	Project:	MBHA-Gateway, PO 160324
Date Extracted:	12/01/17	Lab ID:	711441-07
Date Analyzed:	12/02/17	Data File:	120139.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	99	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.035

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-31-11.0	Client:	Aspect Consulting, LLC
Date Received:	11/23/17	Project:	MBHA-Gateway, PO 160324
Date Extracted:	12/01/17	Lab ID:	711441-09
Date Analyzed:	12/02/17	Data File:	120140.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.11

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-31-16.0	Client:	Aspect Consulting, LLC
Date Received:	11/23/17	Project:	MBHA-Gateway, PO 160324
Date Extracted:	12/01/17	Lab ID:	711441-11
Date Analyzed:	12/02/17	Data File:	120141.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.070

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-32-3.0	Client:	Aspect Consulting, LLC
Date Received:	11/23/17	Project:	MBHA-Gateway, PO 160324
Date Extracted:	12/01/17	Lab ID:	711441-12
Date Analyzed:	12/02/17	Data File:	120142.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-32-6.0	Client:	Aspect Consulting, LLC
Date Received:	11/23/17	Project:	MBHA-Gateway, PO 160324
Date Extracted:	12/01/17	Lab ID:	711441-14
Date Analyzed:	12/02/17	Data File:	120143.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-32-8.5	Client:	Aspect Consulting, LLC
Date Received:	11/23/17	Project:	MBHA-Gateway, PO 160324
Date Extracted:	12/01/17	Lab ID:	711441-15
Date Analyzed:	12/02/17	Data File:	120144.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA-Gateway, PO 160324
Date Extracted:	12/01/17	Lab ID:	07-2678 mb2
Date Analyzed:	12/01/17	Data File:	120112.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	97	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 12/08/17
Date Received: 11/23/17
Project: MBHA-Gateway, PO 160324, F&BI 711441

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 711457-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	51	51	10-138	0
Chloroethane	mg/kg (ppm)	2.5	<0.5	57	56	10-176	2
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	66	66	10-160	0
Methylene chloride	mg/kg (ppm)	2.5	<0.5	77	79	10-156	3
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	73	73	14-137	0
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	78	79	19-140	1
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	79	79	25-135	0
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	79	80	12-160	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	80	80	10-156	0
Trichloroethene	mg/kg (ppm)	2.5	<0.02	80	81	21-139	1
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	78	78	20-133	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	71	22-139
Chloroethane	mg/kg (ppm)	2.5	71	10-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	81	47-128
Methylene chloride	mg/kg (ppm)	2.5	88	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	84	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	87	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	88	72-113
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	87	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	89	62-131
Trichloroethene	mg/kg (ppm)	2.5	93	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	87	72-114

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

-T119411

SAMPLE CHAIN OF CUSTODY ME 11-23-17 V05 / B04

Report To ~~Jessica Smith~~

Company Aspect Consulting

Address

City, State, ZIP Seattle

Phone ______ Email ______

SAMPLERS (signature) Kst Beck [redacted]

Page # 1 of 2

PROJECT NAME: MBHA - Gateway

PO #: 160324

REMARKS: ~~Please hold~~

INVOICE TO: Accts Payable

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH ______
- Rush charges authorized by: VWI

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other ______

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Chlorinated solvents				Notes
AMW-03-10.0	01A-E	11/22/17	0955	Soil	5												X-per JS
AMW-03-12.5	02	↓	1007	↓	5												11/29/17 MG
AMW-03-15.0	03	↓	1011	↓	5												
AMW-03-17.5	04	↓	1021	↓	5												
AMW-03-20.0	05	↓	1037	↓	5												Time 10:33
ADP-31-2.0	06	↓	1243	↓	5												
ADP-31-4.5	07	↓	1258	↓	5								X				
ADP-31-8.0	08	↓	1305	↓	5								X				
ADP-31-11.0	09	↓	1315	↓	5												
ADP-31-13.5	10	↓	1327	↓	5								X				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kst Beck	Kristin Beck	Aspect	11/23/17	815
Received by: [signature]	Eric Young	FB	11/23/17	815
Relinquished by:				
Received by:				

LL

71441 [redacted]

SAMPLE CHAIN OF CUSTODY

ME 11-23-17 2 V5 / B04

[redacted] # 2 of 2 VW1

Report To Jessica Smith

Company Aspect

Address

City, State, ZIP Seattle

Phone Email

SAMPLERS (signature) KatBeck

PROJECT NAME	PO #
MBHA - Gateway	160324
REMARKS	INVOICE TO
~~Please hold~~	

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	chlorinated solvents				Notes
ADP-31-16.0	11 A-E	11/22/17	1330	Soil	5								X				
ADP-32-3.0	12	↓	1414	↓	5								X				
ADP-32-4.5	13	↓	1425	↓	5												
ADP-32-6.0	14	↓	1428	↓	5								X				
ADP-32-8.5	15	↓	1443	↓	5								X				
TB	16 A-D																TB cooler added 11/27 B

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: KatBeck	Kristin Beck	Aspect	11/23/17	915
Received by:	Eric Young	FB	11/23/17	915
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 5, 2017

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on November 28, 2017 from the MBHA 160324, F&BI 711467 project. There are 23 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: data@aspectconsulting.com
ASP1205R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 28, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA 160324, F&BI 711467 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
711467 -01	AMW-09-112717
711467 -02	HC-MW-5-112717
711467 -03	AMW-02-112717
711467 -04	HC-MW-2-112717
711467 -05	AMW-10-112717
711467 -06	HC-MW-1-112717
711467 -07	HC-MW-4-112717
711467 -08	HC-MW-7-112717
711467 -09	HC-MW-3-112717
711467 -10	AMW-01-112717
711467 -11	AMW-03-112717
711467 -12	Trip Blank

All quality control requirements were acceptable.

Date of Report: 12/05/17
Date Received: 11/28/17
Project: MBHA 160324, F&BI 711467
Date Extracted: 11/30/17
Date Analyzed: 12/01/17

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
AMW-02-112717 711467-03	<50	<250	78
AMW-01-112717 711467-10	<50	<250	86
Method Blank 07-2713 MB	<50	<250	85

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-09-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-01
Date Analyzed:	11/29/17	Data File:	112906.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-5-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-02
Date Analyzed:	11/29/17	Data File:	112907.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.38
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	8.0
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	16
Tetrachloroethene	2,500 ve

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-5-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-02 1/50
Date Analyzed:	11/30/17	Data File:	113033.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<10
Chloroethane	<50
1,1-Dichloroethene	<50
Methylene chloride	<250
trans-1,2-Dichloroethene	<50
1,1-Dichloroethane	<50
cis-1,2-Dichloroethene	<50
1,2-Dichloroethane (EDC)	<50
1,1,1-Trichloroethane	<50
Trichloroethene	<50
Tetrachloroethene	3,400

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ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-02-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-03
Date Analyzed:	11/29/17	Data File:	112908.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.21
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	58
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	58
Tetrachloroethene	1,700 ve

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-02-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-03 1/50
Date Analyzed:	11/30/17	Data File:	113032.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	102	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<10
Chloroethane	<50
1,1-Dichloroethene	<50
Methylene chloride	<250
trans-1,2-Dichloroethene	<50
1,1-Dichloroethane	<50
cis-1,2-Dichloroethene	57
1,2-Dichloroethane (EDC)	<50
1,1,1-Trichloroethane	<50
Trichloroethene	57
Tetrachloroethene	1,800

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-2-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-04
Date Analyzed:	11/29/17	Data File:	112909.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.75
Chloroethane	<1
1,1-Dichloroethene	3.7
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	28
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	69
Tetrachloroethene	960 ve

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-2-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-04 1/20
Date Analyzed:	11/30/17	Data File:	113030.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<4
Chloroethane	<20
1,1-Dichloroethene	<20
Methylene chloride	<100
trans-1,2-Dichloroethene	<20
1,1-Dichloroethane	<20
cis-1,2-Dichloroethene	29
1,2-Dichloroethane (EDC)	<20
1,1,1-Trichloroethane	<20
Trichloroethene	73
Tetrachloroethene	1,100

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-10-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-05
Date Analyzed:	11/29/17	Data File:	112910.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	31
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	25
Tetrachloroethene	300 ve

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-10-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-05 1/10
Date Analyzed:	11/30/17	Data File:	113028.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	102	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<2
Chloroethane	<10
1,1-Dichloroethene	<10
Methylene chloride	<50
trans-1,2-Dichloroethene	<10
1,1-Dichloroethane	<10
cis-1,2-Dichloroethene	32
1,2-Dichloroethane (EDC)	<10
1,1,1-Trichloroethane	<10
Trichloroethene	26
Tetrachloroethene	310

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-1-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-06
Date Analyzed:	11/29/17	Data File:	112911.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	7.7
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	47
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	37
Tetrachloroethene	240 ve

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-1-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-06 1/10
Date Analyzed:	11/30/17	Data File:	113029.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	102	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	7.3
Chloroethane	<10
1,1-Dichloroethene	<10
Methylene chloride	<50
trans-1,2-Dichloroethene	<10
1,1-Dichloroethane	<10
cis-1,2-Dichloroethene	49
1,2-Dichloroethane (EDC)	<10
1,1,1-Trichloroethane	<10
Trichloroethene	40
Tetrachloroethene	240

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-4-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-07
Date Analyzed:	11/30/17	Data File:	113026.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-7-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-08
Date Analyzed:	11/29/17	Data File:	112913.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-3-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-09
Date Analyzed:	11/29/17	Data File:	112914.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	1.1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	1.2
Tetrachloroethene	18

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-01-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-10
Date Analyzed:	11/29/17	Data File:	112915.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	1.4
Tetrachloroethene	1,100 ve

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-01-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-10 1/20
Date Analyzed:	11/30/17	Data File:	113031.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<4
Chloroethane	<20
1,1-Dichloroethene	<20
Methylene chloride	<100
trans-1,2-Dichloroethene	<20
1,1-Dichloroethane	<20
cis-1,2-Dichloroethene	<20
1,2-Dichloroethane (EDC)	<20
1,1,1-Trichloroethane	<20
Trichloroethene	<20
Tetrachloroethene	1,100

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-03-112717	Client:	Aspect Consulting, LLC
Date Received:	11/28/17	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	711467-11
Date Analyzed:	11/30/17	Data File:	113027.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA 160324, F&BI 711467
Date Extracted:	11/29/17	Lab ID:	07-2673 mb2
Date Analyzed:	11/29/17	Data File:	112905.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 12/05/17
Date Received: 11/28/17
Project: MBHA 160324, F&BI 711467

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 711488-08 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	<250	85	87	64-141	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	84	100	61-133	17

Date of Report: 12/05/17
Date Received: 11/28/17
Project: MBHA 160324, F&BI 711467

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 711467-11 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	93	36-166
Chloroethane	ug/L (ppb)	50	<1	85	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	94	60-136
Methylene chloride	ug/L (ppb)	50	<5	95	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	93	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	94	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	94	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	95	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	99	60-146
Trichloroethene	ug/L (ppb)	50	<1	94	66-135
Tetrachloroethene	ug/L (ppb)	50	2.5	91	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	87	87	50-154	0
Chloroethane	ug/L (ppb)	50	83	82	58-146	1
1,1-Dichloroethene	ug/L (ppb)	50	91	90	67-136	1
Methylene chloride	ug/L (ppb)	50	96	94	39-148	2
trans-1,2-Dichloroethene	ug/L (ppb)	50	92	93	68-128	1
1,1-Dichloroethane	ug/L (ppb)	50	95	95	79-121	0
cis-1,2-Dichloroethene	ug/L (ppb)	50	95	95	80-123	0
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	94	94	73-132	0
1,1,1-Trichloroethane	ug/L (ppb)	50	100	100	83-130	0
Trichloroethene	ug/L (ppb)	50	93	95	80-120	2
Tetrachloroethene	ug/L (ppb)	50	95	97	76-121	2

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

711467

SAMPLE CHAIN OF CUSTODY

ME 11/28/17

VWS/BOA

Page # 1 of 2

Report To Jessica Smith

Company Aspect

Address 401 2nd Ave S #201

City, State, ZIP Seattle, WA 98104

Phone _____ Email jsmith@aspectconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: MBHA 160324

PO #

REMARKS: Run cVOCs per JS 11/29/17 MM ~~HOLD all samples~~

INVOICE TO

TURNAROUND TIME
- ☑ Standard Turnaround
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☑ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ANW-09-112717	01 A-D	11/27/17	1010	W	4								X				
HC-MW-5-112717	02 A-G		1035	W	7								X				
AMW-02-112717	03		1125	W	7		X						X				
HC-MW-2-112717	04		1210	W	7								X				
AMW-10-112717	05		1215	W	7								X				
HC-MW-1-112717	06		1315	W	7								X				
HC-MW-4-112717	07		1405	W	7								X				
HC-MW-7-112717	08		1425	W	7								X				
HC-MW-3-112717	09		1505	W	7								X				
AMW-01-112717	10	↓	1505	W	7		X						X				

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Delia Massey	Aspect	11/27/17	14:22
Received by:	Jared Underdahl	Fedex	11-27	10:28
Relinquished by:		Samples received at 3 °C		
Received by:	Nhan Phan	FEBJ	11/28/17	1230

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

711467

SAMPLE CHAIN OF CUSTODY

ME 11/28/17 VWS / BOA

Page # 2 of 2

Report To Jessica Smith
Company Aspect
Address 401 2nd Ave S #201
City, State, ZIP Seattle, WA 98104
Phone _____ Email jsmith@aspectconsulting.com

SAMPLERS (*signature*)
PROJECT NAME: MBMA 160324
PO #:
REMARKS: HOLD all samples
INVOICE TO:

TURNAROUND TIME
☑ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☑ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	CVOCs				Notes
AMW-03-112717	11 AG	11/27/17	1615	W	7								X				
Trip Blank	12 AB	—	—	W	2											#	# Added at Lab (NP) 11/28/17
										Samples received at 3 °C							

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Delia Massey	Aspect	11/27/17	10:25
Received by:	Jared Underwood	Fedex	11-27	10:25
Relinquished by:				
Received by:	Nhan Phan	FedEx	11/28/17	1230

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 7, 2017

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on November 29, 2017 from the MBHA 160324, F&BI 711490 project. There are 20 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: data@aspectconsulting.com
ASP1207R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 29, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA 160324, F&BI 711490 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
711490 -01	MW-10-112817
711490 -02	HC-MW-6-112817
711490 -03	AMW-06-112817
711490 -04	AMW-14-112817
711490 -05	AMW-07-112817
711490 -06	AMW-11-112817
711490 -07	AMW-08-112817
711490 -08	AMW-15-112817
711490 -09	MW-3-112817
711490 -10	MW-06-112817
711490 -11	MW-2-112817
711490 -12	MW-07-112817
711490 -13	TB

All quality control requirements were acceptable.

Date of Report: 12/07/17
Date Received: 11/29/17
Project: MBHA 160324, F&BI 711490
Date Extracted: 12/04/17
Date Analyzed: 12/04/17 and 12/05/17

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
MW-10-112817 711490-01	4.6	6.7	<1	11	1,000	89
AMW-14-112817 711490-04	<1	<1	<1	<3	<100	88
AMW-11-112817 711490-06	<1	<1	<1	<3	<100	89
AMW-15-112817 711490-08	<1	<1	<1	<3	<100	89
MW-3-112817 711490-09	<1	12	15	43	2,400	105
MW-06-112817 711490-10	<1	<1	<1	<3	<100	89
MW-2-112817 711490-11	<1	2.5	<1	<3	350	94
MW-07-112817 711490-12	<1	<1	<1	<3	<100	89
Method Blank 07-2691 MB	<1	<1	<1	<3	<100	90

Date of Report: 12/07/17
Date Received: 11/29/17
Project: MBHA 160324, F&BI 711490
Date Extracted: 12/01/17
Date Analyzed: 12/01/17

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
MW-10-112817 711490-01	570 x	<250	93
AMW-14-112817 711490-04	<50	<250	89
AMW-11-112817 711490-06	<50	<250	92
AMW-15-112817 711490-08	<50	<250	96
MW-3-112817 711490-09	480 x	<250	101
MW-06-112817 711490-10	61 x	<250	92
MW-2-112817 711490-11	250 x	<250	102
MW-07-112817 711490-12	<50	<250	104
Method Blank 07-2714 MB	<50	<250	90

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-10-112817	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711490
Date Extracted:	11/30/17	Lab ID:	711490-01
Date Analyzed:	11/30/17	Data File:	113021.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-6-112817	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711490
Date Extracted:	11/30/17	Lab ID:	711490-02
Date Analyzed:	11/30/17	Data File:	113022.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	104	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.85
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	2.4
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-06-112817	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711490
Date Extracted:	11/30/17	Lab ID:	711490-03
Date Analyzed:	11/30/17	Data File:	113023.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	101	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	1.3
Tetrachloroethene	4.2

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-14-112817	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711490
Date Extracted:	11/30/17	Lab ID:	711490-04
Date Analyzed:	11/30/17	Data File:	113024.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	99	91	108
4-Bromofluorobenzene	100	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-07-112817	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711490
Date Extracted:	11/30/17	Lab ID:	711490-05
Date Analyzed:	11/30/17	Data File:	113025.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-11-112817	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711490
Date Extracted:	11/30/17	Lab ID:	711490-06
Date Analyzed:	11/30/17	Data File:	113026.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	100	91	108
4-Bromofluorobenzene	101	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.22
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-08-112817	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711490
Date Extracted:	11/30/17	Lab ID:	711490-07
Date Analyzed:	11/30/17	Data File:	113027.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	103	91	108
4-Bromofluorobenzene	105	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-15-112817	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711490
Date Extracted:	11/30/17	Lab ID:	711490-08
Date Analyzed:	11/30/17	Data File:	113028.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	104	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	4.1
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	1.4
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-3-112817	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711490
Date Extracted:	11/30/17	Lab ID:	711490-09
Date Analyzed:	11/30/17	Data File:	113029.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	102	91	108
4-Bromofluorobenzene	102	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.26
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-06-112817	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711490
Date Extracted:	11/30/17	Lab ID:	711490-10
Date Analyzed:	11/30/17	Data File:	113030.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	100	91	108
4-Bromofluorobenzene	101	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-2-112817	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711490
Date Extracted:	11/30/17	Lab ID:	711490-11
Date Analyzed:	11/30/17	Data File:	113031.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	102	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-07-112817	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711490
Date Extracted:	11/30/17	Lab ID:	711490-12
Date Analyzed:	11/30/17	Data File:	113032.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	102	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	2.5
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	15
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	1.2
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA 160324, F&BI 711490
Date Extracted:	11/30/17	Lab ID:	07-2675 mb
Date Analyzed:	11/30/17	Data File:	113014.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	102	76	126

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 12/07/17
Date Received: 11/29/17
Project: MBHA 160324, F&BI 711490

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING METHOD 8021B AND NWTPH-Gx

Laboratory Code: 712017-05 1/10 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	71	67	6
Toluene	ug/L (ppb)	72	70	3
Ethylbenzene	ug/L (ppb)	190	180	5
Xylenes	ug/L (ppb)	920	900	2
Gasoline	ug/L (ppb)	7,500	7,900	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	93	65-118
Toluene	ug/L (ppb)	50	93	72-122
Ethylbenzene	ug/L (ppb)	50	102	73-126
Xylenes	ug/L (ppb)	150	95	74-118
Gasoline	ug/L (ppb)	1,000	83	69-134

Date of Report: 12/07/17
Date Received: 11/29/17
Project: MBHA 160324, F&BI 711490

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	96 b	120 b	61-133	22 b

Date of Report: 12/07/17
Date Received: 11/29/17
Project: MBHA 160324, F&BI 711490

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 711490-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	93	61-139
Chloroethane	ug/L (ppb)	50	<1	90	55-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	91	71-123
Methylene chloride	ug/L (ppb)	50	<5	100	61-126
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	94	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	98	79-113
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	95	63-126
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	98	70-119
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	97	75-121
Trichloroethene	ug/L (ppb)	50	<1	97	73-122
Tetrachloroethene	ug/L (ppb)	50	<1	90	72-113

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	95	99	70-128	4
Chloroethane	ug/L (ppb)	50	92	95	66-149	3
1,1-Dichloroethene	ug/L (ppb)	50	90	96	75-119	6
Methylene chloride	ug/L (ppb)	50	98	105	63-132	7
trans-1,2-Dichloroethene	ug/L (ppb)	50	93	99	76-118	6
1,1-Dichloroethane	ug/L (ppb)	50	96	102	77-119	6
cis-1,2-Dichloroethene	ug/L (ppb)	50	94	100	76-119	6
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	98	100	78-114	2
1,1,1-Trichloroethane	ug/L (ppb)	50	95	102	80-116	7
Trichloroethene	ug/L (ppb)	50	96	100	72-119	4
Tetrachloroethene	ug/L (ppb)	50	93	93	78-109	0

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

711490

SAMPLE CHAIN OF CUSTODY

HE 11-29-17

BOS/D VW4 2

Page # 1 of 2

Report To Jessica Smith

Company Aspect

Address 401 2nd Ave S #201

City, State, ZIP Seattle, WA 98104

Phone _____ Email _____

SAMPLERS (*signature*)

PROJECT NAME: MBHA 160324

PO #:

REMARKS: HOLD all samples

INVOICE TO:

TURNAROUND TIME
- ☑ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☑ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
MW-10-112817	01A-C	11/28/17	0935	W	7		X	X	X				X				X-perSS
HC-MW-6-112817	02		0940	W	7								X				11/29/17 MS
AMW-06-112817	03		1035	W	7								X				
AMW-14-112817	04		1105	W	7		X	X	X				X				
AMW-07-112817	05		1145	W	7								X				
AMW-11-112817	06		1235	W	7		X	X	X				X				
AMW-08-112817	07		1240	W	7								X				
AMW-15-112817	08		1330	W	7		X	X	X				X				
MW-3-112817	09		1405	W	7		X	X	X				X				Samples received at 3 °C
MW-06-112817	10		1425	W	7		X	X	X				X				

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Delia Massey	Aspect	11/28/17	
Received by:	Rob Vaux	FedEx	11-28-17	8:45a
Relinquished by:				
Received by:	VWH	FBI	11/28/17	11:35

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

711490

SAMPLE CHAIN OF CUSTODY

ME 11-29-17

Page # 2 of 2 BOS / VWA

Report To Jessica Smith

Company Aspect

Address 401 2nd Ave S #201

City, State, ZIP Seattle, WA 98104

Phone _____ Email jsmith@aspectconsulting.com

SAMPLERS (signature) J Mas

PROJECT NAME: MBHA 160324

PO #:

REMARKS: HOLD all samples

INVOICE TO:

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	CVOCs				Notes
MW-2-112817	11 A-G	11/28/17	1445	W	7		X	X	X				X				
MW-07-112817	12 T	11/28/17	1525	W	7		X	X	X				X				
TB	13 thru 18																

Samples received at 3 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Delia Massey	Aspect	11/28/17	
Received by:	Rick Vanzwich	Retec	11-28-17	8:45a
Relinquished by:				
Received by:	VWA	FRM	11/28/17	11:35

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 7, 2017

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on November 29, 2017 from the MBHA 160324, F&BI 711494 project. There are 23 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: data@aspectconsulting.com
ASP1207R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 29, 2017 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA 160324, F&BI 711494 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
711494 -01	MW-11-112917
711494 -02	MW-9-20171129
711494 -03	MW-13-112917
711494 -04	AMW-13-20171129
711494 -05	AMW-05-112917
711494 -06	MW-1-20171129
711494 -07	MW-4-112917
711494 -08	AMW-04-20171129
711494 -09	MW-8-20171129
711494 -10	AMW-12-112917
711494 -11	MW-12-20171129
711494 -12	MW-5-112917
711494 -13	TB

All quality control requirements were acceptable.

Date of Report: 12/07/17
Date Received: 11/29/17
Project: MBHA 160324, F&BI 711494
Date Extracted: 11/30/17
Date Analyzed: 11/30/17 and 12/01/17

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
MW-11-112917 711494-01	<1	<1	<1	<3	650 x	98
MW-9-20171129 711494-02	<1	<1	<1	<3	100 x	92
MW-13-112917 711494-03	<1	<1	<1	<3	<100	81
AMW-13-20171129 711494-04	<1	<1	<1	<3	<100	90
AMW-05-112917 711494-05	<1	<1	<1	<3	<100	90
MW-1-20171129 711494-06	<1	<1	<1	<3	<100	86
MW-4-112917 711494-07	<1	<1	<1	<3	<100	82
AMW-04-20171129 711494-08	<1	<1	<1	<3	100 x	90
MW-8-20171129 711494-09	1.3	14	44	110	5,400	89
AMW-12-112917 711494-10	1.3	4.6	<1	3.3	870	95
MW-12-20171129 711494-11	2.1	11	380	1,600	15,000	84

Date of Report: 12/07/17
Date Received: 11/29/17
Project: MBHA 160324, F&BI 711494
Date Extracted: 11/30/17
Date Analyzed: 11/30/17 and 12/01/17

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
MW-5-112917 711494-12	<1	3.1	1.4	<3	500	89
Method Blank 07-2685 MB	<1	<1	<1	<3	<100	81

Date of Report: 12/07/17
Date Received: 11/29/17
Project: MBHA 160324, F&BI 711494
Date Extracted: 12/01/17
Date Analyzed: 12/01/17

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
MW-11-112917 711494-01	<50	<250	89
MW-9-20171129 711494-02	140 x	<250	98
MW-13-112917 711494-03	<50	<250	90
AMW-13-20171129 711494-04	<50	<250	91
AMW-05-112917 711494-05	<50	<250	98
MW-1-20171129 711494-06	<50	<250	99
MW-4-112917 711494-07	<50	<250	107
AMW-04-20171129 711494-08	<50	<250	94
MW-8-20171129 711494-09	7,100	420 x	86
AMW-12-112917 711494-10	570 x	<250	102
MW-12-20171129 711494-11	3,800 x	290 x	98

Date of Report: 12/07/17
Date Received: 11/29/17
Project: MBHA 160324, F&BI 711494
Date Extracted: 12/01/17
Date Analyzed: 12/01/17

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
MW-5-112917 711494-12	140 x	<250	93
Method Blank 07-2714 MB	<50	<250	90

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-11-112917	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	711494-01
Date Analyzed:	11/30/17	Data File:	113021.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.62
Chloroethane	<1
1,1-Dichloroethene	1.4
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	18
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	31
Tetrachloroethene	1,000 ve

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-11-112917	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	711494-01 1/10
Date Analyzed:	12/04/17	Data File:	120419.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	103	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<2
Chloroethane	<10
1,1-Dichloroethene	<10
Methylene chloride	<50
trans-1,2-Dichloroethene	<10
1,1-Dichloroethane	<10
cis-1,2-Dichloroethene	18
1,2-Dichloroethane (EDC)	<10
1,1,1-Trichloroethane	<10
Trichloroethene	33
Tetrachloroethene	1,100

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-9-20171129	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	711494-02
Date Analyzed:	11/30/17	Data File:	113039.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	11
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	54
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	45
Tetrachloroethene	69

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-13-112917	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	711494-03
Date Analyzed:	11/30/17	Data File:	113040.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	19
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	48
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	5.7
Tetrachloroethene	13

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-13-20171129	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	711494-04
Date Analyzed:	11/30/17	Data File:	113041.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	15
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	110
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	59
Tetrachloroethene	20

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-05-112917	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	711494-05
Date Analyzed:	11/30/17	Data File:	113042.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	102	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-1-20171129	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	711494-06
Date Analyzed:	11/30/17	Data File:	113043.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	102	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	2.0
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	16
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	4.1
Tetrachloroethene	3.2

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-4-112917	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	711494-07
Date Analyzed:	12/01/17	Data File:	113044.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	102	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-04-20171129	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	711494-08
Date Analyzed:	12/01/17	Data File:	113045.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	8.0
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	45
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	18
Tetrachloroethene	110

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-8-20171129	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	711494-09
Date Analyzed:	12/01/17	Data File:	113046.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.21
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-12-112917	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	711494-10
Date Analyzed:	12/01/17	Data File:	113047.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-12-20171129	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	711494-11
Date Analyzed:	12/01/17	Data File:	113048.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	3.9
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	1.1
Tetrachloroethene	1.7

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-5-112917	Client:	Aspect Consulting, LLC
Date Received:	11/29/17	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	711494-12
Date Analyzed:	12/01/17	Data File:	113049.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	MBHA 160324, F&BI 711494
Date Extracted:	11/30/17	Lab ID:	07-2676 mb
Date Analyzed:	11/30/17	Data File:	113020.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	102	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 12/07/17
Date Received: 11/29/17
Project: MBHA 160324, F&BI 711494

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING METHOD 8021B AND NWTPH-Gx

Laboratory Code: 711445-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	5.7	6.2	8
Xylenes	ug/L (ppb)	54	58	7
Gasoline	ug/L (ppb)	600	660	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	94	65-118
Toluene	ug/L (ppb)	50	92	72-122
Ethylbenzene	ug/L (ppb)	50	101	73-126
Xylenes	ug/L (ppb)	150	93	74-118
Gasoline	ug/L (ppb)	1,000	84	69-134

Date of Report: 12/07/17
Date Received: 11/29/17
Project: MBHA 160324, F&BI 711494

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	96 b	120 b	61-133	22 b

Date of Report: 12/07/17
Date Received: 11/29/17
Project: MBHA 160324, F&BI 711494

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 711494-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	0.62	91	36-166
Chloroethane	ug/L (ppb)	50	<1	81	46-160
1,1-Dichloroethene	ug/L (ppb)	50	1.4	94	60-136
Methylene chloride	ug/L (ppb)	50	<5	96	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	93	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	95	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	18	94 b	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	94	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	97	60-146
Trichloroethene	ug/L (ppb)	50	31	95 b	66-135
Tetrachloroethene	ug/L (ppb)	50	1,000	27 b	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	91	89	50-154	2
Chloroethane	ug/L (ppb)	50	83	82	58-146	1
1,1-Dichloroethene	ug/L (ppb)	50	91	91	67-136	0
Methylene chloride	ug/L (ppb)	50	95	94	39-148	1
trans-1,2-Dichloroethene	ug/L (ppb)	50	91	91	68-128	0
1,1-Dichloroethane	ug/L (ppb)	50	93	93	79-121	0
cis-1,2-Dichloroethene	ug/L (ppb)	50	93	93	80-123	0
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	93	92	73-132	1
1,1,1-Trichloroethane	ug/L (ppb)	50	97	95	83-130	2
Trichloroethene	ug/L (ppb)	50	93	93	80-120	0
Tetrachloroethene	ug/L (ppb)	50	95	95	76-121	0

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

711494 [redacted]

SAMPLE CHAIN OF CUSTODY

ME 11-29-17 [redacted] VW5

Page # 1 of 2

Report To: Jessica Smith

Company: Aspect

Address: 401 2nd Ave #201

City, State, ZIP: Seattle, WA 98104

Phone: ______ Email: jsmith@aspectconsulting.com

SAMPLERS (signature): Mr

PROJECT NAME: MBHA 160324

PO #:

REMARKS: ~~HOLD all samples~~

INVOICE TO:

TURNAROUND TIME
- ☑ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☑ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	CVOCs				Notes
MW-11-112917	01 A-G	11/29/17	0905	W	7		X	X	X				X				X-per JS
MW-9-20171129	02	↓	0905	W	7		X	X	X				X				11/29/17
MW-13-112917	03		0950	W	7		X	X	X				X				ME
AMW-13-20171129	04		0957	W	7		X	X	X				X				
AMW-05-112917	05		1030	W	7		X	X	X				X				
MW-1-20171129	06		1037	W	7		X	X	X				X				
MW-4-112917	07		1120	W	7		X	X	X				X				
AMW-04-20171129	08		1135	W	7		X	X	X				X				
MW-8-20171129	09		1215	W	7		X	X	X				X	Samples received at 4 °C			
AMW-12-112917	10	↓	1215	W	7		X	X	X				X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Ali Cochrane	Aspect	11/29	1505
Received by: [signature]	Eric Young	F&B	11/29	1505
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

711494

SAMPLE CHAIN OF CUSTODY

ME 11-29-17

Page # 2 of 2 VWS

Report To Jessica Smith
Company Aspect
Address 401 2nd Ave #201
City, State, ZIP Seattle, WA 98104
Phone _____ Email jsmith@aspectconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: MBHA 160324

PO #:

REMARKS: HOLD all samples

INVOICE TO:

TURNAROUND TIME
- ☑ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☑ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
MW-12-20171129	11A-G	11/28/17	1250	W	7		X	X	X				X				
MW-5-112917	12T	11/28/17	1255	W	7		X	X	X				X				
TB	13A-D																

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Ali Cowman	Aspect	11/29	1505
Received by:	Eric Clower	EE B	11/29	1505
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

August 13, 2018

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on August 2, 2018 from the MBHA Gateway 160324, F&BI 808038 project. There are 18 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect, Kristin Beck
ASP0813R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 2, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA Gateway 160324, F&BI 808038 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
808038 -01	AB-33-080118
808038 -02	AB-33-2.5
808038 -03	AB-33-5.0
808038 -04	AB-33-7.5
808038 -05	AB-33-10.0
808038 -06	AB-33-12.5
808038 -07	AB-33-15.0
808038 -08	AB-33-17.5
808038 -09	AB-33-20.0
808038 -10	AB-33-22.5
808038 -11	AB-33-25.0
808038 -12	AB-33-27.5
808038 -13	AB-33-30.0

All quality control requirements were acceptable.

Date of Report: 08/13/18
Date Received: 08/02/18
Project: MBHA Gateway 160324, F&BI 808038
Date Extracted: 08/07/18
Date Analyzed: 08/07/18

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
AB-33-080118 808038-01	<1	<1	<1	<3	120	78
Method Blank 08-1656 MB	<1	<1	<1	<3	<100	80

Date of Report: 08/13/18
Date Received: 08/02/18
Project: MBHA Gateway 160324, F&BI 808038
Date Extracted: 08/06/18
Date Analyzed: 08/06/18

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
AB-33-5.0 808038-03	<0.02	<0.02	<0.02	<0.06	<5	90
AB-33-12.5 808038-06	<0.02	<0.02	<0.02	<0.06	<5	91
Method Blank 08-1659 MB	<0.02	<0.02	<0.02	<0.06	<5	93

Date of Report: 08/13/18
Date Received: 08/02/18
Project: MBHA Gateway 160324, F&BI 808038
Date Extracted: 08/03/18
Date Analyzed: 08/06/18

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 53-144)
AB-33-5.0 808038-03	<50	<250	99
AB-33-12.5 808038-06	<50	<250	98
Method Blank 08-1696 MB	<50	<250	97

Date of Report: 08/13/18
Date Received: 08/02/18
Project: MBHA Gateway 160324, F&BI 808038
Date Extracted: 08/03/18
Date Analyzed: 08/03/18

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
AB-33-080118 808038-01	<50	<250	82
Method Blank 08-1693 MB2	<50	<250	70

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-33-080118	Client:	Aspect Consulting, LLC
Date Received:	08/02/18	Project:	MBHA Gateway 160324, F&BI 808038
Date Extracted:	08/03/18	Lab ID:	808038-01
Date Analyzed:	08/03/18	Data File:	080320.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	6.1
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	65
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	26
Tetrachloroethene	180 ve

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-33-080118	Client:	Aspect Consulting, LLC
Date Received:	08/02/18	Project:	MBHA Gateway 160324, F&BI 808038
Date Extracted:	08/03/18	Lab ID:	808038-01 1/10
Date Analyzed:	08/09/18	Data File:	080927.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	160

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324, F&BI 808038
Date Extracted:	08/03/18	Lab ID:	08-1705 mb
Date Analyzed:	08/03/18	Data File:	080312.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-33-5.0	Client:	Aspect Consulting, LLC
Date Received:	08/02/18	Project:	MBHA Gateway 160324, F&BI 808038
Date Extracted:	08/03/18	Lab ID:	808038-03
Date Analyzed:	08/04/18	Data File:	080337.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	99	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-33-12.5	Client:	Aspect Consulting, LLC
Date Received:	08/02/18	Project:	MBHA Gateway 160324, F&BI 808038
Date Extracted:	08/03/18	Lab ID:	808038-06
Date Analyzed:	08/04/18	Data File:	080338.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	99	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324, F&BI 808038
Date Extracted:	08/03/18	Lab ID:	08-1704 mb
Date Analyzed:	08/03/18	Data File:	080313.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 08/13/18
Date Received: 08/02/18
Project: MBHA Gateway 160324, F&BI 808038

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 808097-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	101	65-118
Toluene	ug/L (ppb)	50	103	72-122
Ethylbenzene	ug/L (ppb)	50	104	73-126
Xylenes	ug/L (ppb)	150	99	74-118
Gasoline	ug/L (ppb)	1,000	110	69-134

Date of Report: 08/13/18
Date Received: 08/02/18
Project: MBHA Gateway 160324, F&BI 808038

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 808100-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	81	69-120
Toluene	mg/kg (ppm)	0.5	88	70-117
Ethylbenzene	mg/kg (ppm)	0.5	93	65-123
Xylenes	mg/kg (ppm)	1.5	91	66-120
Gasoline	mg/kg (ppm)	20	100	71-131

Date of Report: 08/13/18
Date Received: 08/02/18
Project: MBHA Gateway 160324, F&BI 808038

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 808066-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	104	102	64-133	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	102	58-147

Date of Report: 08/13/18
Date Received: 08/02/18
Project: MBHA Gateway 160324, F&BI 808038

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	76	88	63-142	15

Date of Report: 08/13/18
Date Received: 08/02/18
Project: MBHA Gateway 160324, F&BI 808038

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 808075-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	95	36-166
Chloroethane	ug/L (ppb)	50	<1	92	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	103	60-136
Methylene chloride	ug/L (ppb)	50	<5	98	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	102	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	98	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	99	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	95	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	102	60-146
Trichloroethene	ug/L (ppb)	50	<1	97	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	101	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	93	89	50-154	4
Chloroethane	ug/L (ppb)	50	91	87	58-146	4
1,1-Dichloroethene	ug/L (ppb)	50	108	105	67-136	3
Methylene chloride	ug/L (ppb)	50	104	102	39-148	2
trans-1,2-Dichloroethene	ug/L (ppb)	50	103	103	68-128	0
1,1-Dichloroethane	ug/L (ppb)	50	98	99	79-121	1
cis-1,2-Dichloroethene	ug/L (ppb)	50	100	100	80-123	0
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	97	95	73-132	2
1,1,1-Trichloroethane	ug/L (ppb)	50	103	103	83-130	0
Trichloroethene	ug/L (ppb)	50	99	97	80-120	2
Tetrachloroethene	ug/L (ppb)	50	102	102	76-121	0

Date of Report: 08/13/18
Date Received: 08/02/18
Project: MBHA Gateway 160324, F&BI 808038

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 808061-11 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	34	30	10-138	12
Chloroethane	mg/kg (ppm)	2.5	<0.5	43	39	10-176	10
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	56	47	10-160	17
Methylene chloride	mg/kg (ppm)	2.5	<0.5	63	56	10-156	12
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	59	52	14-137	13
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	63	56	19-140	12
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	66	59	25-135	11
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	65	61	12-160	6
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	65	58	10-156	11
Trichloroethene	mg/kg (ppm)	2.5	<0.02	64	59	21-139	8
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	68	60	20-133	12

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	65	22-139
Chloroethane	mg/kg (ppm)	2.5	70	10-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	89	47-128
Methylene chloride	mg/kg (ppm)	2.5	87	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	88	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	87	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	89	72-113
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	87	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	93	62-131
Trichloroethene	mg/kg (ppm)	2.5	89	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	92	72-114

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

808038

SAMPLE CHAIN OF CUSTODY

ME 08/02/18

D03/vw1/USS

Page # 1 of 2

Report To Jessica Smith & Kristin Beck
Company Aspect Consulting
Address 401 2nd Ave S Suite 201
City, State, ZIP Seattle, WA 98104
Phone _____ Email _____

SAMPLERS (signature) Kat Beck

PROJECT NAME: MBHA Gateway
PO #: 160324

REMARKS: ~~Please hold~~

INVOICE TO: Accts Payable

TURNAROUND TIME
- ~~Standard Turnaround~~
- ☐ RUSH
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ~~Dispose after 30 days~~
- ☐ Archive Samples
- ☐ Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	G+BTEX	cVOCs			Notes
																	X-per JS
AB-33-080118	01 A-G	8/1/18	1405	water	7		X						X	X			8/3/18
AB-33-2.5	02 A-E		1315	soil	5												ME
AB-33-5.0	03		1320		5		X						X	X			
AB-33-7.5	04		1325		5												
AB-33-10.0	05		1330		5												
AB-33-12.5	06		1335		5		X						X	X			
AB-33-15.0	07		1340		5												
AB-33-17.5	08		1345		5												
AB-33-20.0	09		1350		5												
AB-33-22.5	10		1435		5												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	8/2/18	0820
Received by:	Nhan Phan	FEBI	8/2/18	0820
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

808038

SAMPLE CHAIN OF CUSTODY ME 08/02/18

D03/VOA/VSS

Page # 2 of 2

Report To Jessica Smith & Kristin Beck
Company Aspect Consulting
Address
City, State, ZIP
Phone Email

SAMPLERS (signature) K. Beck

PROJECT NAME: MBHA Gateway
PO #: 160324

REMARKS: Please hold
INVOICE TO: Accts Payable

TURNAROUND TIME
☒ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
AB-33-25.0	11 A-E	8/1/18	1440	soil	5												
AB-33-27.5	12	↓	1455	↓	5												
AB-33-30.0	13	↓	1500	↓	5												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: K. Beck	Kristin Beck	Aspect	8/2/18	0820
Received by:	Nhan Phan	FCBT	8/2/18	0820
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

August 28, 2018

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on August 20, 2018 from the 160324 - MBHA Gateway, F&BI 808465 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect, Kristin Beck
ASP0828R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 20, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC 160324 - MBHA Gateway, F&BI 808465 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
808465 -01	AMW-08-082018
808465 -02	AMW-07-082018

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-08-082018	Client:	Aspect Consulting, LLC
Date Received:	08/20/18	Project:	160324 - MBHA Gateway, F&BI 808465
Date Extracted:	08/22/18	Lab ID:	808465-01
Date Analyzed:	08/22/18	Data File:	082243.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-07-082018	Client:	Aspect Consulting, LLC
Date Received:	08/20/18	Project:	160324 - MBHA Gateway, F&BI 808465
Date Extracted:	08/22/18	Lab ID:	808465-02
Date Analyzed:	08/22/18	Data File:	082244.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	160324 - MBHA Gateway, F&BI 808465
Date Extracted:	08/22/18	Lab ID:	08-1794 mb
Date Analyzed:	08/22/18	Data File:	082234.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 08/28/18
Date Received: 08/20/18
Project: 160324 - MBHA Gateway, F&BI 808465

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 808483-15 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	105	61-139
Chloroethane	ug/L (ppb)	50	<1	99	55-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	107	71-123
Methylene chloride	ug/L (ppb)	50	<5	104	61-126
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	107	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	108	79-113
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	105	63-126
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	105	70-119
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	107	75-121
Trichloroethene	ug/L (ppb)	50	<1	99	73-122
Tetrachloroethene	ug/L (ppb)	50	<1	102	72-113

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	116	105	70-128	10
Chloroethane	ug/L (ppb)	50	108	99	66-149	9
1,1-Dichloroethene	ug/L (ppb)	50	116	109	75-119	6
Methylene chloride	ug/L (ppb)	50	116	106	63-132	9
trans-1,2-Dichloroethene	ug/L (ppb)	50	114	109	76-118	4
1,1-Dichloroethane	ug/L (ppb)	50	113	109	77-119	4
cis-1,2-Dichloroethene	ug/L (ppb)	50	112	107	76-119	5
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	108	107	78-114	1
1,1,1-Trichloroethane	ug/L (ppb)	50	111	107	80-116	4
Trichloroethene	ug/L (ppb)	50	101	100	72-119	1
Tetrachloroethene	ug/L (ppb)	50	104	103	78-109	1

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

808465

SAMPLE CHAIN OF CUSTODY

ME 08/20/18

VW1

Page # 1 of 1

Report To Jessica Smith / Kristin Beck

Company Aspect

Address 401 2nd AVE S, #201

City, State, ZIP Seattle, WA 98104

Phone _____ Email jsmith@aspectconsulting.com

SAMPLERS (*signature*) Amelia C. Oates

PROJECT NAME: 160324 - MBHA Gateway

PO #:

REMARKS:

INVOICE TO:

TURNAROUND TIME
- ☑ Standard Turnaround
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	Chlorinated VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
AMW-08-082018	01 A-C	8/20/18	1420	water	3					X							cVOCs per
AMW-07-082018	02 V	↓	1515	↓	3					X							JS 8/21/18
																	ML
											Samples received at 7 °C						

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Amelia C. Oates	Amelia C. Oates	Aspect	8/20/18	1705
Received by:	Jon Shimazu	FBI	8/20/18	1705
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

August 30, 2018

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on August 22, 2018 from the MBHA 160324, F&BI 808505 project. There are 11 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect
ASP0830R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 22, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA 160324, F&BI 808505 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
808505 -01	AMW-09-082118
808505 -02	AMW-12-082118
808505 -03	MW-2-082118

All quality control requirements were acceptable.

Date of Report: 08/30/18
Date Received: 08/22/18
Project: MBHA 160324, F&BI 808505
Date Extracted: 08/23/18
Date Analyzed: 08/23/18

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
AMW-09-082118 808505-01	<1	<1	<1	<3	<100	92
AMW-12-082118 808505-02	<1	4.8	<1	3.8	720	100
MW-2-082118 808505-03	<1	2.5	<1	<3	350	97
Method Blank 08-1762 MB	<1	<1	<1	<3	<100	97

Date of Report: 08/30/18
Date Received: 08/22/18
Project: MBHA 160324, F&BI 808505
Date Extracted: 08/23/18
Date Analyzed: 08/23/18

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
AMW-09-082118 808505-01	<50	<250	79
AMW-12-082118 808505-02	400 x	<250	84
MW-2-082118 808505-03	300 x	<250	79
Method Blank 08-1880 MB	<50	<250	87

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-09-082118	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA 160324, F&BI 808505
Date Extracted:	08/27/18	Lab ID:	808505-01
Date Analyzed:	08/27/18	Data File:	082731.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-12-082118	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA 160324, F&BI 808505
Date Extracted:	08/27/18	Lab ID:	808505-02
Date Analyzed:	08/27/18	Data File:	082732.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-2-082118	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA 160324, F&BI 808505
Date Extracted:	08/27/18	Lab ID:	808505-03
Date Analyzed:	08/27/18	Data File:	082733.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA 160324, F&BI 808505
Date Extracted:	08/27/18	Lab ID:	08-1804 mb
Date Analyzed:	08/27/18	Data File:	082708.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 08/30/18
Date Received: 08/22/18
Project: MBHA 160324, F&BI 808505

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 808487-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	109	65-118
Toluene	ug/L (ppb)	50	114	72-122
Ethylbenzene	ug/L (ppb)	50	112	73-126
Xylenes	ug/L (ppb)	150	113	74-118
Gasoline	ug/L (ppb)	1,000	101	69-134

Date of Report: 08/30/18
Date Received: 08/22/18
Project: MBHA 160324, F&BI 808505

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	100	108	63-142	8

Date of Report: 08/30/18
Date Received: 08/22/18
Project: MBHA 160324, F&BI 808505

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 808540-24 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	92	36-166
Chloroethane	ug/L (ppb)	50	<1	88	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	104	60-136
Methylene chloride	ug/L (ppb)	50	<5	99	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	102	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	100	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	99	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	95	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	106	60-146
Trichloroethene	ug/L (ppb)	50	<1	96	66-135
Tetrachloroethene	ug/L (ppb)	50	19	101 b	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	90	91	50-154	1
Chloroethane	ug/L (ppb)	50	90	88	58-146	2
1,1-Dichloroethene	ug/L (ppb)	50	108	106	67-136	2
Methylene chloride	ug/L (ppb)	50	103	100	39-148	3
trans-1,2-Dichloroethene	ug/L (ppb)	50	104	101	68-128	3
1,1-Dichloroethane	ug/L (ppb)	50	100	99	79-121	1
cis-1,2-Dichloroethene	ug/L (ppb)	50	100	99	80-123	1
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	93	94	73-132	1
1,1,1-Trichloroethane	ug/L (ppb)	50	105	106	83-130	1
Trichloroethene	ug/L (ppb)	50	96	96	80-120	0
Tetrachloroethene	ug/L (ppb)	50	101	101	76-121	0

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

808585

SAMPLE CHAIN OF CUSTODY

ME 8-22-18

VW2/604

Page # 1 of 1

Report To Jessica Smith

Company Aspect

Address 401 Second Ave, Suite 201

City, State, ZIP Seattle, WA 98104

Phone 206-838-6592 Email jsmith@aspectconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: MBHA

PO #: 160324

REMARKS

INVOICE TO

TURNAROUND TIME
- ☒ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
AMW-09-082118	01 A-E	8/21	1455	Water	5		X	X	X	X							
AMW-12-082118	02	↓	1550	↓	↓		↓	↓	↓	↓							
MW-2-082118	03	↓	1600	↓	↓		↓	↓	↓	↓							

Samples received at 6 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Hannah McDonough	Aspect	8/22	
Received by: John Bream	John Bream	Fed Ex	8/22-18	12:37pm
Relinquished by: John Bream	John Bream	Fed Ex	8/22/18	1:03pm
Received by:	Liza Radford	FBI	8/22/18	1:03pm

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

August 30, 2018

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on August 22, 2018 from the MBHA Gateway-160324, F&BI 808517 project. There are 23 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect
ASP0830R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 22, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA Gateway-160324, F&BI 808517 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
808517 -01	AMW-06-082218
808517 -02	AMW-03-082218
808517 -03	HC-MW-06-082218
808517 -04	HC-MW-07-082218
808517 -05	MW-3-082218
808517 -06	MW-12-082218
808517 -07	MW-11-082218
808517 -08	MW-8-082218
808517 -09	MW-7-082218
808517 -10	MW-6-082218
808517 -11	MW-4-082218
808517 -12	AMW-05-082218
808517 -13	AMW-20-082218
808517 -14	MW-05-082218

Samples MW-3-082218, MW-12-082218, MW-11-082218, MW-8-082218, and MW-7-082218 were sent to Sirem for dehalococcoides analysis. The report will be forwarded to your office upon receipt.

All quality control requirements were acceptable.

Date of Report: 08/30/18
Date Received: 08/22/18
Project: MBHA Gateway-160324, F&BI 808517
Date Extracted: 08/24/18
Date Analyzed: 08/24/18 and 08/27/18

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
MW-3-082218 808517-05	2.6	19	86	57	3,800	89
MW-12-082218 808517-06 1/10	<5	<10	710	3,000	24,000	109
MW-11-082218 808517-07	<1	<1	<1	<3	690	101
MW-8-082218 808517-08 1/10	<5	<10	98	360	9,000	100
MW-7-082218 808517-09	<1	<1	<1	<3	<100	86
MW-6-082218 808517-10	<1	<1	<1	<3	<100	88
MW-4-082218 808517-11	<1	<1	<1	<3	<100	87
AMW-05-082218 808517-12	<1	<1	<1	<3	<100	87
AMW-20-082218 808517-13	5.4	3.9	<1	7.1	540	88
MW-05-082218 808517-14	2.8	<1	12	8.8	3,400	97
Method Blank 08-1765 MB	<1	<1	<1	<3	<100	94

Date of Report: 08/30/18
Date Received: 08/22/18
Project: MBHA Gateway-160324, F&BI 808517
Date Extracted: 08/24/18
Date Analyzed: 08/24/18

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
MW-3-082218 808517-05	1,100 x	<250	83
MW-12-082218 808517-06	4,600 x	<250	95
MW-11-082218 808517-07	<50	<250	82
MW-8-082218 808517-08	2,700 x	<250	100
MW-7-082218 808517-09	<50	<250	93
MW-6-082218 808517-10	53 x	<250	91
MW-4-082218 808517-11	<50	<250	101
AMW-05-082218 808517-12	<50	<250	104
AMW-20-082218 808517-13	360 x	<250	99
MW-05-082218 808517-14	1,300 x	<250	101
Method Blank 08-1894 MB	<50	<250	101

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-06-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	808517-01
Date Analyzed:	08/29/18	Data File:	082916.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	3.0

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-03-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	808517-02
Date Analyzed:	08/24/18	Data File:	082428.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-06-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	808517-03
Date Analyzed:	08/24/18	Data File:	082429.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	3.5
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	3.1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	13
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-07-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	808517-04
Date Analyzed:	08/24/18	Data File:	082430.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-3-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	808517-05
Date Analyzed:	08/24/18	Data File:	082431.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	106	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.84
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	2.3
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-12-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	808517-06
Date Analyzed:	08/24/18	Data File:	082432.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	94	63	127
4-Bromofluorobenzene	110	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	5.1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-11-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	808517-07
Date Analyzed:	08/24/18	Data File:	082433.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.43
Chloroethane	<1
1,1-Dichloroethene	1.5
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	16
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	38
Tetrachloroethene	1,200 ve

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-11-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/29/18	Lab ID:	808517-07 1/100
Date Analyzed:	08/29/18	Data File:	082909.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<20
Chloroethane	<100
1,1-Dichloroethene	<100
Methylene chloride	<500
trans-1,2-Dichloroethene	<100
1,1-Dichloroethane	<100
cis-1,2-Dichloroethene	<100
1,2-Dichloroethane (EDC)	<100
1,1,1-Trichloroethane	<100
Trichloroethene	<100
Tetrachloroethene	1,200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-8-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/29/18	Lab ID:	808517-08
Date Analyzed:	08/29/18	Data File:	082908.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	106	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	1.2
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-7-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	808517-09
Date Analyzed:	08/24/18	Data File:	082435.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	2.1
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	14
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	2.2
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-6-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	808517-10
Date Analyzed:	08/24/18	Data File:	082436.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-4-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	808517-11
Date Analyzed:	08/24/18	Data File:	082437.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.34
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-05-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	808517-12
Date Analyzed:	08/25/18	Data File:	082438.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-20-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	808517-13
Date Analyzed:	08/25/18	Data File:	082439.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.32
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-05-082218	Client:	Aspect Consulting, LLC
Date Received:	08/22/18	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	808517-14
Date Analyzed:	08/25/18	Data File:	082440.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway-160324
Date Extracted:	08/24/18	Lab ID:	08-1800 mb
Date Analyzed:	08/24/18	Data File:	082421.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 08/30/18
Date Received: 08/22/18
Project: MBHA Gateway-160324, F&BI 808517

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING METHOD 8021B AND NWTPH-Gx

Laboratory Code: 808549-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	112	65-118
Toluene	ug/L (ppb)	50	118	72-122
Ethylbenzene	ug/L (ppb)	50	117	73-126
Xylenes	ug/L (ppb)	150	118	74-118
Gasoline	ug/L (ppb)	1,000	115	69-134

Date of Report: 08/30/18
Date Received: 08/22/18
Project: MBHA Gateway-160324, F&BI 808517

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	80	80	61-133	0

Date of Report: 08/30/18
Date Received: 08/22/18
Project: MBHA Gateway-160324, F&BI 808517

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 808486-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	96	36-166
Chloroethane	ug/L (ppb)	50	<1	91	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	108	60-136
Methylene chloride	ug/L (ppb)	50	<5	99	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	102	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	99	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	99	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	93	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	107	60-146
Trichloroethene	ug/L (ppb)	50	<1	95	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	100	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	95	95	50-154	0
Chloroethane	ug/L (ppb)	50	90	90	58-146	0
1,1-Dichloroethene	ug/L (ppb)	50	108	113	67-136	5
Methylene chloride	ug/L (ppb)	50	101	105	39-148	4
trans-1,2-Dichloroethene	ug/L (ppb)	50	104	108	68-128	4
1,1-Dichloroethane	ug/L (ppb)	50	101	104	79-121	3
cis-1,2-Dichloroethene	ug/L (ppb)	50	100	104	80-123	4
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	95	96	73-132	1
1,1,1-Trichloroethane	ug/L (ppb)	50	106	109	83-130	3
Trichloroethene	ug/L (ppb)	50	96	98	80-120	2
Tetrachloroethene	ug/L (ppb)	50	100	103	76-121	3

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

808517

SAMPLE CHAIN OF CUSTODY

ME 08-22-18

UW4/E04

Page # 1 of 2

Report To Jessica Smith

Company Aspect Consulting

Address 401 2nd Ave S, #201

City, State, ZIP Seattle WA 98104

Phone _____ Email jsmith@aspectconsulting.com

SAMPLERS (signature) Amelia C. Oates

PROJECT NAME: MBHA Gateway - 160324

PO #

REMARKS

INVOICE TO

TURNAROUND TIME
- ☑ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs / VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Dehalococcoides				Notes
AMW-06-082218	01 A-C	8/22/18	0855	H2O	3					X							
AMW-03-082218	02		0900		3					X							
HC-MW-06-082218	03		0955		3					X							
HC-MW-07-082218	04		1010		3					X							
MW-3-082218	05 A-G		1100		7		X	X	X	X			X				
MW-12-082218	06		1130		7		X	X	X	X			X				
MW-11-082218	07		1210		7		X	X	X	X			X				
MW-8-082218	08		1230		7		X	X	X	X			X				
MW-7-082218	09		1410		7		X	X	X	X			X				
MW-6-082218	10 A-E		1425		5		X	X	X	X							

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Amelia C. Oates	Amelia C. Oates	Aspect	8/22/18	1805
Received by:	Jon Shimun	FBI	8/22/18	1805
Relinquished by:				
Received by:		Samples received at 6 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

808 517

SAMPLE CHAIN OF CUSTODY

ME 08-22-18

VWH/EOH

Page # 1 of 2

Report To Jessica Smith

Company Aspect

Address

City, State, ZIP See pg. 1

Phone Email

SAMPLERS (*signature*) Amelia C. Oates

PROJECT NAME: MBHA - Gateway 160324

PO #

REMARKS

INVOICE TO

TURNAROUND TIME
- ☑ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
						ANALYSES REQUESTED											
MW-4-082218	11 A-B	8/22/18	1520	H2O	5		X	X	X	X							
AMW-05-082218	12	"	1530	"	5		X	X	X	X							
AMW-20-082218	13	"	1630	"	5		X	X	X	X							
MW-05-082218	14	"	1630	"	5		X	X	X	X							

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Amelia C. Oates	Amelia C. Oates	Aspect	8/22/18	1805
Received by:	Jan Shimmin	EBI	8/22/18	1805
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

August 31, 2018

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on August 23, 2018 from the 160324-MBHA Gateway, F&BI 808542 project. There are 15 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect
ASP0831R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 23, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC 160324-MBHA Gateway, F&BI 808542 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
808542 -01	AMW-14-082318
808542 -02	AMW-16-082318
808542 -03	AMW-10-082318
808542 -04	AMW-18-082318
808542 -05	AMW-11-082318
808542 -06	AMW-15-082318
808542 -07	AMW-17-082318

All quality control requirements were acceptable.

Date of Report: 08/31/18
Date Received: 08/23/18
Project: 160324-MBHA Gateway, F&BI 808542
Date Extracted: 08/24/18
Date Analyzed: 08/24/18 and 08/27/18

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
AMW-14-082318 808542-01	<1	<1	<1	<3	<100	89
AMW-16-082318 808542-02	<1	<1	<1	<3	<100	85
AMW-10-082318 808542-03	<1	<1	<1	<3	120	96
AMW-18-082318 808542-04	<1	<1	<1	<3	<100	88
AMW-11-082318 808542-05	<1	<1	<1	<3	<100	87
AMW-15-082318 808542-06	<1	<1	<1	<3	<100	89
AMW-17-082318 808542-07	8.4	2.1	<1	5.1	160	85
Method Blank 08-1765 MB	<1	<1	<1	<3	<100	94

Date of Report: 08/31/18
Date Received: 08/23/18
Project: 160324-MBHA Gateway, F&BI 808542
Date Extracted: 08/24/18
Date Analyzed: 08/24/18

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
AMW-14-082318 808542-01	<50	<250	111
AMW-16-082318 808542-02	290 x	<250	94
AMW-10-082318 808542-03	260 x	<250	98
AMW-18-082318 808542-04	68 x	<250	99
AMW-11-082318 808542-05	<50	<250	103
AMW-15-082318 808542-06	<50	<250	106
AMW-17-082318 808542-07	250 x	<250	107
Method Blank 08-1894 MB	<50	<250	101

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-14-082318	Client:	Aspect Consulting, LLC
Date Received:	08/23/18	Project:	160324-MBHA Gateway, F&BI 808542
Date Extracted:	08/29/18	Lab ID:	808542-01
Date Analyzed:	08/29/18	Data File:	082909.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	93	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-16-082318	Client:	Aspect Consulting, LLC
Date Received:	08/23/18	Project:	160324-MBHA Gateway, F&BI 808542
Date Extracted:	08/29/18	Lab ID:	808542-02
Date Analyzed:	08/29/18	Data File:	082910.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	1.9
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	2.8
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-10-082318	Client:	Aspect Consulting, LLC
Date Received:	08/23/18	Project:	160324-MBHA Gateway, F&BI 808542
Date Extracted:	08/29/18	Lab ID:	808542-03
Date Analyzed:	08/29/18	Data File:	082914.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.34
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-18-082318	Client:	Aspect Consulting, LLC
Date Received:	08/23/18	Project:	160324-MBHA Gateway, F&BI 808542
Date Extracted:	08/29/18	Lab ID:	808542-04
Date Analyzed:	08/29/18	Data File:	082911.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-11-082318	Client:	Aspect Consulting, LLC
Date Received:	08/23/18	Project:	160324-MBHA Gateway, F&BI 808542
Date Extracted:	08/29/18	Lab ID:	808542-05
Date Analyzed:	08/29/18	Data File:	082912.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.24
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-15-082318	Client:	Aspect Consulting, LLC
Date Received:	08/23/18	Project:	160324-MBHA Gateway, F&BI 808542
Date Extracted:	08/29/18	Lab ID:	808542-06
Date Analyzed:	08/29/18	Data File:	082913.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	2.8
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	6.1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	4.6
Tetrachloroethene	1.0

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-17-082318	Client:	Aspect Consulting, LLC
Date Received:	08/23/18	Project:	160324-MBHA Gateway, F&BI 808542
Date Extracted:	08/29/18	Lab ID:	808542-07
Date Analyzed:	08/29/18	Data File:	082915.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	160324-MBHA Gateway, F&BI 808542
Date Extracted:	08/29/18	Lab ID:	08-1907 mb
Date Analyzed:	08/29/18	Data File:	082908.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 08/31/18
Date Received: 08/23/18
Project: 160324-MBHA Gateway, F&BI 808542

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING METHOD 8021B AND NWTPH-Gx

Laboratory Code: 808549-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	112	65-118
Toluene	ug/L (ppb)	50	118	72-122
Ethylbenzene	ug/L (ppb)	50	117	73-126
Xylenes	ug/L (ppb)	150	118	74-118
Gasoline	ug/L (ppb)	1,000	115	69-134

Date of Report: 08/31/18
Date Received: 08/23/18
Project: 160324-MBHA Gateway, F&BI 808542

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	80	80	61-133	0

Date of Report: 08/31/18
Date Received: 08/23/18
Project: 160324-MBHA Gateway, F&BI 808542

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 808542-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	115	61-139
Chloroethane	ug/L (ppb)	50	<1	105	55-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	112	71-123
Methylene chloride	ug/L (ppb)	50	<5	113	61-126
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	110	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	113	79-113
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	109	63-126
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	112	70-119
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	110	75-121
Trichloroethene	ug/L (ppb)	50	<1	102	73-122
Tetrachloroethene	ug/L (ppb)	50	<1	104	72-113

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	116	115	70-128	1
Chloroethane	ug/L (ppb)	50	107	107	66-149	0
1,1-Dichloroethene	ug/L (ppb)	50	111	113	75-119	2
Methylene chloride	ug/L (ppb)	50	106	111	63-132	5
trans-1,2-Dichloroethene	ug/L (ppb)	50	110	110	76-118	0
1,1-Dichloroethane	ug/L (ppb)	50	112	112	77-119	0
cis-1,2-Dichloroethene	ug/L (ppb)	50	108	108	76-119	0
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	112	111	78-114	1
1,1,1-Trichloroethane	ug/L (ppb)	50	107	109	80-116	2
Trichloroethene	ug/L (ppb)	50	102	101	72-119	1
Tetrachloroethene	ug/L (ppb)	50	102	103	78-109	1

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

808542

SAMPLE CHAIN OF CUSTODY

ME 08-23-18

A04 / VW3

Page # 1 of 1

Report To Jessica Smith

Company Aspect Consulting

Address 401 2nd AVE S # 201

City, State, ZIP Seattle WA 98104

Phone _____ Email jsmith@aspectconsulting.com

SAMPLERS (*signature*) Amelia C. Oates

PROJECT NAME 160324 - MBHA Gateway

PO #

REMARKS

INVOICE TO

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
AMW-14-082318	01 A.E	8/23/18	1030	H2O	5		X	X	X	X							
AMW-16-082318	02		1125		5		X	X	X	X							
MW-10-082318	03		1225		5		X	X	X	X							
AMW-18-082318	04		1355		5		X	X	X	X							
AMW-11-082318	05		1445		5		X	X	X	X							
AMW-15-082318	06		1525		5		X	X	X	X							
AMW-17-082318	07		1610		5		X	X	X	X							
													Samples received at 6 °C				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Amelia C. Oates	Amelia C. Oates	Aspect	8/23/18	1738
Received by:	Jon Shimazu	FBI	8/23/18	738
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

August 31, 2018

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on August 24, 2018 from the 160324- MBHA Gateway, F&BI 808572 project. There are 15 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect
ASP0831R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 24, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC 160324- MBHA Gateway, F&BI 808572 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
808572 -01	HC-MW-3-082418
808572 -02	AMW-02-082418
808572 -03	AMW-10-082418
808572 -04	HC-MW-5-082418
808572 -05	HC-MW-4-082418
808572 -06	MW-1-082418
808572 -07	AMW-19-082418

All quality control requirements were acceptable.

Date of Report: 08/31/18
Date Received: 08/24/18
Project: 160324- MBHA Gateway, F&BI 808572
Date Extracted: 08/27/18
Date Analyzed: 08/27/18

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
MW-1-082418 808572-06	<1	4.4	<1	<3	<100	94
Method Blank 08-1767 MB	<1	<1	<1	<3	<100	95

Date of Report: 08/31/18
Date Received: 08/24/18
Project: 160324- MBHA Gateway, F&BI 808572
Date Extracted: 08/28/18
Date Analyzed: 08/28/18

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
MW-1-082418 808572-06	<50	<250	81
Method Blank 08-1926 MB	<50	<250	80

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-3-082418	Client:	Aspect Consulting, LLC
Date Received:	08/24/18	Project:	160324- MBHA Gateway
Date Extracted:	08/27/18	Lab ID:	808572-01
Date Analyzed:	08/27/18	Data File:	082723.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	1.2
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	2.5
Tetrachloroethene	16

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-02-082418	Client:	Aspect Consulting, LLC
Date Received:	08/24/18	Project:	160324- MBHA Gateway
Date Extracted:	08/27/18	Lab ID:	808572-02 1/50
Date Analyzed:	08/27/18	Data File:	082727.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<10
Chloroethane	<50
1,1-Dichloroethene	<50
Methylene chloride	<250
trans-1,2-Dichloroethene	<50
1,1-Dichloroethane	<50
cis-1,2-Dichloroethene	72
1,2-Dichloroethane (EDC)	<50
1,1,1-Trichloroethane	<50
Trichloroethene	68
Tetrachloroethene	2,100

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-10-082418	Client:	Aspect Consulting, LLC
Date Received:	08/24/18	Project:	160324- MBHA Gateway
Date Extracted:	08/27/18	Lab ID:	808572-03 1/10
Date Analyzed:	08/27/18	Data File:	082729.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<2
Chloroethane	<10
1,1-Dichloroethene	<10
Methylene chloride	<50
trans-1,2-Dichloroethene	<10
1,1-Dichloroethane	<10
cis-1,2-Dichloroethene	69
1,2-Dichloroethane (EDC)	<10
1,1,1-Trichloroethane	<10
Trichloroethene	52
Tetrachloroethene	650

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-5-082418	Client:	Aspect Consulting, LLC
Date Received:	08/24/18	Project:	160324- MBHA Gateway
Date Extracted:	08/27/18	Lab ID:	808572-04 1/50
Date Analyzed:	08/27/18	Data File:	082728.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<10
Chloroethane	<50
1,1-Dichloroethene	<50
Methylene chloride	<250
trans-1,2-Dichloroethene	<50
1,1-Dichloroethane	<50
cis-1,2-Dichloroethene	<50
1,2-Dichloroethane (EDC)	<50
1,1,1-Trichloroethane	<50
Trichloroethene	<50
Tetrachloroethene	5,600

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-4-082418	Client:	Aspect Consulting, LLC
Date Received:	08/24/18	Project:	160324- MBHA Gateway
Date Extracted:	08/27/18	Lab ID:	808572-05
Date Analyzed:	08/27/18	Data File:	082724.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-1-082418	Client:	Aspect Consulting, LLC
Date Received:	08/24/18	Project:	160324- MBHA Gateway
Date Extracted:	08/27/18	Lab ID:	808572-06
Date Analyzed:	08/27/18	Data File:	082725.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	5.3
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	19
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	1.6
Tetrachloroethene	1.1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-19-082418	Client:	Aspect Consulting, LLC
Date Received:	08/24/18	Project:	160324- MBHA Gateway
Date Extracted:	08/27/18	Lab ID:	808572-07
Date Analyzed:	08/27/18	Data File:	082726.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	1.1
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	3.0
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	14
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	3.6
Tetrachloroethene	12

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	160324- MBHA Gateway
Date Extracted:	08/27/18	Lab ID:	08-1804 mb
Date Analyzed:	08/27/18	Data File:	082708.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 08/31/18
Date Received: 08/24/18
Project: 160324- MBHA Gateway, F&BI 808572

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 808560-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	106	65-118
Toluene	ug/L (ppb)	50	109	72-122
Ethylbenzene	ug/L (ppb)	50	104	73-126
Xylenes	ug/L (ppb)	150	105	74-118
Gasoline	ug/L (ppb)	1,000	107	69-134

Date of Report: 08/31/18
Date Received: 08/24/18
Project: 160324- MBHA Gateway, F&BI 808572

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	80	76	61-133	5

Date of Report: 08/31/18
Date Received: 08/24/18
Project: 160324- MBHA Gateway, F&BI 808572

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 808540-24 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	92	36-166
Chloroethane	ug/L (ppb)	50	<1	88	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	104	60-136
Methylene chloride	ug/L (ppb)	50	<5	99	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	102	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	100	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	99	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	95	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	106	60-146
Trichloroethene	ug/L (ppb)	50	<1	96	66-135
Tetrachloroethene	ug/L (ppb)	50	19	101 b	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	90	91	50-154	1
Chloroethane	ug/L (ppb)	50	90	88	58-146	2
1,1-Dichloroethene	ug/L (ppb)	50	108	106	67-136	2
Methylene chloride	ug/L (ppb)	50	103	100	39-148	3
trans-1,2-Dichloroethene	ug/L (ppb)	50	104	101	68-128	3
1,1-Dichloroethane	ug/L (ppb)	50	100	99	79-121	1
cis-1,2-Dichloroethene	ug/L (ppb)	50	100	99	80-123	1
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	93	94	73-132	1
1,1,1-Trichloroethane	ug/L (ppb)	50	105	106	83-130	1
Trichloroethene	ug/L (ppb)	50	96	96	80-120	0
Tetrachloroethene	ug/L (ppb)	50	101	101	76-121	0

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

808572

SAMPLE CHAIN OF CUSTODY

ME 08/24/18 · AQ3/WW3

Page # 1 of 1

Report To Jessica Smith

Company Aspect Consulting

Address 4012nd AVE S, # 201

City, State, ZIP Seattle, WA 98104

Phone _____ Email jsmith@aspectconsulting.com

SAMPLERS (*signature*): Amelia C. Oates

PROJECT NAME: 160324 - MBHA Gateway

PO #:

REMARKS:

INVOICE TO:

TURNAROUND TIME
- ☑ Standard Turnaround
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
HC-MW-3-082418	01 A-C	8/24/18	0850	H_2O	3					X							
AMW-02-082418	02	08/24/18	0950		3					X							
AMW-10-082418	03		1220		3					X							
HC-MW-5-082418	04		1030		3					X							
HC-MW-4-082418	05		1130		3					X							
MW-1-082418	06 A-E		1355		5		X	X	X	X							
AMW-19-082418	07 A-C	↓	1450	↓	3					X							
																	Samples received at 3 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Amelia C. Oates	Amelia C. Oates	Aspect	8/24/18	1620
Received by: [signature]	[illegible]	FEBI	8-24-18	16:20
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

September 5, 2018

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on August 27, 2018 from the 160324 MBHA Gateway, F&BI 808599 project. There are 17 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect
ASP0905R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 27, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC 160324 MBHA Gateway, F&BI 808599 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
808599 -01	HC-MW-02-082718
808599 -02	HC-MW-01-082718
808599 -03	MW-13-082718
808599 -04	AMW-04-082718
808599 -05	MW-09-082718
808599 -06	AMW-13-082718

All quality control requirements were acceptable.

Date of Report: 09/05/18
Date Received: 08/27/18
Project: 160324 MBHA Gateway, F&BI 808599
Date Analyzed: 08/28/18

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
MW-13-082718 808599-03	<1	<1	<1	<3	<100	83
AMW-04-082718 808599-04	<1	<1	<1	<3	150 x	87
MW-09-082718 808599-05	<1	<1	<1	<3	<100	88
AMW-13-082718 808599-06	<1	<1	<1	<3	<100	86
Method Blank 08-1770 MB	<1	<1	<1	<3	<100	88

Date of Report: 09/05/18
Date Received: 08/27/18
Project: 160324 MBHA Gateway, F&BI 808599
Date Extracted: 08/28/18
Date Analyzed: 08/28/18

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
MW-13-082718 808599-03	<50	<250	87
AMW-04-082718 808599-04	<50	<250	89
MW-09-082718 808599-05	<50	<250	88
AMW-13-082718 808599-06	<50	<250	78
Method Blank 08-1926 MB	<50	<250	80

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-02-082718	Client:	Aspect Consulting, LLC
Date Received:	08/27/18	Project:	160324 MBHA Gateway
Date Extracted:	08/29/18	Lab ID:	808599-01
Date Analyzed:	08/30/18	Data File:	082941.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.82
Chloroethane	<1
1,1-Dichloroethene	3.5
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	28
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	66
Tetrachloroethene	930 ve

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-02-082718	Client:	Aspect Consulting, LLC
Date Received:	08/27/18	Project:	160324 MBHA Gateway
Date Extracted:	08/29/18	Lab ID:	808599-01 1/10
Date Analyzed:	08/30/18	Data File:	083025.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<2
Chloroethane	<10
1,1-Dichloroethene	<10
Methylene chloride	<50
trans-1,2-Dichloroethene	<10
1,1-Dichloroethane	<10
cis-1,2-Dichloroethene	29
1,2-Dichloroethane (EDC)	<10
1,1,1-Trichloroethane	<10
Trichloroethene	71
Tetrachloroethene	990

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-01-082718	Client:	Aspect Consulting, LLC
Date Received:	08/27/18	Project:	160324 MBHA Gateway
Date Extracted:	08/29/18	Lab ID:	808599-02
Date Analyzed:	08/30/18	Data File:	082942.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	12
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	55
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	28
Tetrachloroethene	210 ve

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HC-MW-01-082718	Client:	Aspect Consulting, LLC
Date Received:	08/27/18	Project:	160324 MBHA Gateway
Date Extracted:	08/29/18	Lab ID:	808599-02 1/10
Date Analyzed:	08/30/18	Data File:	083023.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	12
Chloroethane	<10
1,1-Dichloroethene	<10
Methylene chloride	<50
trans-1,2-Dichloroethene	<10
1,1-Dichloroethane	<10
cis-1,2-Dichloroethene	56
1,2-Dichloroethane (EDC)	<10
1,1,1-Trichloroethane	<10
Trichloroethene	29
Tetrachloroethene	210

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-13-082718	Client:	Aspect Consulting, LLC
Date Received:	08/27/18	Project:	160324 MBHA Gateway
Date Extracted:	08/29/18	Lab ID:	808599-03
Date Analyzed:	08/30/18	Data File:	083022.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	30
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	65
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	3.5
Tetrachloroethene	7.1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-04-082718	Client:	Aspect Consulting, LLC
Date Received:	08/27/18	Project:	160324 MBHA Gateway
Date Extracted:	08/29/18	Lab ID:	808599-04
Date Analyzed:	08/30/18	Data File:	082944.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	6.5
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	68
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	36
Tetrachloroethene	210 ve

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-04-082718	Client:	Aspect Consulting, LLC
Date Received:	08/27/18	Project:	160324 MBHA Gateway
Date Extracted:	08/29/18	Lab ID:	808599-04 1/10
Date Analyzed:	08/30/18	Data File:	083024.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	6.7
Chloroethane	<10
1,1-Dichloroethene	<10
Methylene chloride	<50
trans-1,2-Dichloroethene	<10
1,1-Dichloroethane	<10
cis-1,2-Dichloroethene	68
1,2-Dichloroethane (EDC)	<10
1,1,1-Trichloroethane	<10
Trichloroethene	37
Tetrachloroethene	210

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-09-082718	Client:	Aspect Consulting, LLC
Date Received:	08/27/18	Project:	160324 MBHA Gateway
Date Extracted:	08/29/18	Lab ID:	808599-05
Date Analyzed:	08/30/18	Data File:	082945.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	7.3
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	86
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	43
Tetrachloroethene	110

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-13-082718	Client:	Aspect Consulting, LLC
Date Received:	08/27/18	Project:	160324 MBHA Gateway
Date Extracted:	08/29/18	Lab ID:	808599-06
Date Analyzed:	08/30/18	Data File:	082946.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	7.6
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	84
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	41
Tetrachloroethene	93

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	160324 MBHA Gateway
Date Extracted:	08/29/18	Lab ID:	08-1907 mb
Date Analyzed:	08/29/18	Data File:	082908.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 09/05/18
Date Received: 08/27/18
Project: 160324 MBHA Gateway, F&BI 808599

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 808599-03 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	99	72-119
Toluene	ug/L (ppb)	50	97	71-113
Ethylbenzene	ug/L (ppb)	50	99	72-114
Xylenes	ug/L (ppb)	150	92	72-113
Gasoline	ug/L (ppb)	1,000	102	70-119

Date of Report: 09/05/18
Date Received: 08/27/18
Project: 160324 MBHA Gateway, F&BI 808599

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	80	76	61-133	5

Date of Report: 09/05/18
Date Received: 08/27/18
Project: 160324 MBHA Gateway, F&BI 808599

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 808542-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	115	61-139
Chloroethane	ug/L (ppb)	50	<1	105	55-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	112	71-123
Methylene chloride	ug/L (ppb)	50	<5	113	61-126
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	110	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	113	79-113
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	109	63-126
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	112	70-119
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	110	75-121
Trichloroethene	ug/L (ppb)	50	<1	102	73-122
Tetrachloroethene	ug/L (ppb)	50	<1	104	72-113

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	116	115	70-128	1
Chloroethane	ug/L (ppb)	50	107	107	66-149	0
1,1-Dichloroethene	ug/L (ppb)	50	111	113	75-119	2
Methylene chloride	ug/L (ppb)	50	106	111	63-132	5
trans-1,2-Dichloroethene	ug/L (ppb)	50	110	110	76-118	0
1,1-Dichloroethane	ug/L (ppb)	50	112	112	77-119	0
cis-1,2-Dichloroethene	ug/L (ppb)	50	108	108	76-119	0
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	112	111	78-114	1
1,1,1-Trichloroethane	ug/L (ppb)	50	107	109	80-116	2
Trichloroethene	ug/L (ppb)	50	102	101	72-119	1
Tetrachloroethene	ug/L (ppb)	50	102	103	78-109	1

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

808599

SAMPLE CHAIN OF CUSTODY

ME 08-27-18

Page # 1 of 1 HW2/A05

Report To Jessica Smith

Company Aspect Consulting

Address 401 2nd AVE S, #201

City, State, ZIP Seattle WA 98104

Phone _____ Email jsmith@aspectconsulting.com

SAMPLERS (*signature*) Amelia C. Oates

PROJECT NAME 160324 - MBTHA Gateway

PO #

REMARKS

INVOICE TO

TURNAROUND TIME
- ☑ Standard Turnaround
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
HC-MW-02-082718	01A-C	08/27/18	1000	H_2O	3					X							
HC-MW-01-082718	02		1050		3					X							
MW-13-082718	03A-B		1200		5		X	X	X	X							
AMW-04-082718	04		1310		5		X	X	X	X							
MW-09-082718	05		1410		5		X	X	X	X							
AMW-13-082718	06		1455		5		X	X	X	X							

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Amelia C. Oates	Amelia C. Oates	Aspect	8/27/18	1700
Received by:	Jon Shimazu	FBI	8/27/18	17:05
Relinquished by:				
Received by:			Samples received at	7 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 4, 2018

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on November 12, 2018 from the MBHA Gateway 160324, F&BI 811184 project. There are 44 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect, Kristin Beck
ASP1204R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 12, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA Gateway 160324, F&BI 811184 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
811184 -01	ADP-34-111118
811184 -02	AB-41-2.5
811184 -03	AB-41-5.0
811184 -04	AB-41-7.5
811184 -05	AB-41-10.0
811184 -06	AB-41-12.5
811184 -07	AB-41-15.0
811184 -08	AB-41-17.5
811184 -09	AB-41-20.0
811184 -10	AB-41-22.5
811184 -11	AB-41-25.0
811184 -12	ADP-34-2.5
811184 -13	ADP-34-5.0
811184 -14	ADP-34-7.5
811184 -15	ADP-34-10.0
811184 -16	ADP-34-12.5
811184 -17	ADP-34-14.0
811184 -18	ADP-34-17.5
811184 -19	ADP-34-20.0
811184 -20	ADP-34-22.5
811184 -21	ADP-34-25.0
811184 -22	ADP-34-27.5
811184 -23	ADP-34-30.0
811184 -24	ADP-34-32.5
811184 -25	ADP-34-35.0
811184 -26	AB-35-2.5
811184 -27	AB-35-5.0
811184 -28	AB-35-7.5
811184 -29	AB-35-10.0
811184 -30	AB-35-12.5
811184 -31	AB-35-15.0
811184 -32	AB-35-17.5
811184 -33	AB-35-20.0
811184 -34	AB-35-22.5
811184 -35	AB-35-25.0
811184 -36	ADP-36-2.5

CASE NARRATIVE (continued)

Laboratory ID	Aspect Consulting, LLC
811184 -37	ADP-36-5.0
811184 -38	ADP-36-7.5
811184 -39	ADP-36-10.0
811184 -40	ADP-36-12.5
811184 -41	ADP-36-15.0
811184 -42	ADP-36-17.5
811184 -43	ADP-36-20.0
811184 -44	ADP-36-22.5
811184 -45	ADP-36-25.0
811184 -46	AB-37-2.5
811184 -47	AB-37-5.0
811184 -48	AB-37-7.5
811184 -49	AB-37-10.0
811184 -50	AB-37-12.5
811184 -51	AB-37-15.0
811184 -52	AB-37-17.5
811184 -53	AB-37-20.0
811184 -54	AB-37-22.5
811184 -55	AB-37-25
811184 -56	AB-38-2.5
811184 -57	AB-38-5.0
811184 -58	AB-38-7.5
811184 -59	AB-38-10.0
811184 -60	AB-38-12.5
811184 -61	AB-38-15.0
811184 -62	AB-38-17.5
811184 -63	AB-38-20.0
811184 -64	AB-38-22.5
811184 -65	AB-38-25.0

The 8260C matrix spike and matrix spike duplicate failed the relative percent difference for several compounds. The analytes were not detected therefore the data were acceptable.

All other quality control requirements were acceptable.

Date of Report: 12/04/18
Date Received: 11/12/18
Project: MBHA Gateway 160324, F&BI 811184
Date Extracted: 11/15/18
Date Analyzed: 11/15/18

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 48-168)
ADP-34-7.5 811184-14	<50	<250	91
ADP-34-14.0 811184-17	<50	<250	90
ADP-34-22.5 811184-20	<50	<250	104
ADP-34-32.5 811184-24	<50	<250	89
Method Blank 08-2604 MB2	<50	<250	91

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-41-15.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324
Date Extracted:	11/27/18	Lab ID:	811184-07 1/200
Date Analyzed:	11/28/18	Data File:	112828.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-35-12.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324
Date Extracted:	11/27/18	Lab ID:	811184-30 1/200
Date Analyzed:	11/28/18	Data File:	112829.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-38-10.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324
Date Extracted:	11/27/18	Lab ID:	811184-59 1/200
Date Analyzed:	11/28/18	Data File:	112830.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	460

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324
Date Extracted:	11/27/18	Lab ID:	08-2674 mb 1/200
Date Analyzed:	11/28/18	Data File:	112826.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-41-5.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-03
Date Analyzed:	11/15/18	Data File:	111513.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	92	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.028
Tetrachloroethene	3.4

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-41-15.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-07
Date Analyzed:	11/15/18	Data File:	111512.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.14
Tetrachloroethene	5.9

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-41-20.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-09
Date Analyzed:	11/15/18	Data File:	111510.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.071

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-41-22.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324
Date Extracted:	11/21/18	Lab ID:	811184-10
Date Analyzed:	11/22/18	Data File:	112146.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-41-25.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324
Date Extracted:	11/21/18	Lab ID:	811184-11
Date Analyzed:	11/22/18	Data File:	112147.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-34-7.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-14
Date Analyzed:	11/15/18	Data File:	111511.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.57

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-34-14.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-17
Date Analyzed:	11/15/18	Data File:	111527.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	1.8

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-34-22.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-20
Date Analyzed:	11/15/18	Data File:	111528.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.75

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-34-32.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-24
Date Analyzed:	11/15/18	Data File:	111529.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-35-2.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-26
Date Analyzed:	11/15/18	Data File:	111530.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.020
Tetrachloroethene	2.7

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-35-12.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-30
Date Analyzed:	11/15/18	Data File:	111546.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.027
Tetrachloroethene	5.1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-35-15.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-31
Date Analyzed:	11/15/18	Data File:	111531.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.033

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-35-20.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-33
Date Analyzed:	11/15/18	Data File:	111532.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.036

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-35-22.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324
Date Extracted:	11/21/18	Lab ID:	811184-34
Date Analyzed:	11/22/18	Data File:	112148.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-35-25.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324
Date Extracted:	11/21/18	Lab ID:	811184-35
Date Analyzed:	11/22/18	Data File:	112149.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-36-2.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-36
Date Analyzed:	11/15/18	Data File:	111541.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	2.8

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-36-5.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-37
Date Analyzed:	11/15/18	Data File:	111540.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.038
Tetrachloroethene	2.4

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-36-10.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-39
Date Analyzed:	11/15/18	Data File:	111533.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.050

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-36-15.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-41
Date Analyzed:	11/15/18	Data File:	111534.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-37-7.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-48
Date Analyzed:	11/15/18	Data File:	111535.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.022
Tetrachloroethene	0.31

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-37-12.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-50
Date Analyzed:	11/15/18	Data File:	111542.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.053
Tetrachloroethene	3.4

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-37-17.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-52
Date Analyzed:	11/15/18	Data File:	111536.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-38-5.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-57
Date Analyzed:	11/15/18	Data File:	111537.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.42

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-38-10.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-59
Date Analyzed:	11/15/18	Data File:	111545.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.15
Tetrachloroethene	19

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-38-17.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-62
Date Analyzed:	11/15/18	Data File:	111538.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-38-20.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	811184-63
Date Analyzed:	11/15/18	Data File:	111539.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.027

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-38-22.5	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324
Date Extracted:	11/21/18	Lab ID:	811184-64
Date Analyzed:	11/22/18	Data File:	112150.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-38-25.0	Client:	Aspect Consulting, LLC
Date Received:	11/12/18	Project:	MBHA Gateway 160324
Date Extracted:	11/21/18	Lab ID:	811184-65
Date Analyzed:	11/22/18	Data File:	112151.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	99	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	08-2572 mb
Date Analyzed:	11/15/18	Data File:	111507.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324, F&BI 811184
Date Extracted:	11/15/18	Lab ID:	08-2574 mb
Date Analyzed:	11/15/18	Data File:	111525.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324
Date Extracted:	11/21/18	Lab ID:	08-2634 mb
Date Analyzed:	11/22/18	Data File:	112140.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 12/04/18
Date Received: 11/12/18
Project: MBHA Gateway 160324, F&BI 811184

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 811184-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	46	43	10-91	7
Chloroethane	mg/kg (ppm)	2.5	<0.5	60	58	10-101	3
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	64	61	22-107	5
Methylene chloride	mg/kg (ppm)	2.5	<0.5	65	68	14-128	5
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	71	69	13-112	3
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	73	71	23-115	3
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	77	74	25-120	4
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	81	79	22-124	2
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	73	72	27-112	1
Trichloroethene	mg/kg (ppm)	2.5	0.023	74	73	30-112	1
Tetrachloroethene	mg/kg (ppm)	2.5	2.9	0 b	0 b	25-114	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	68	42-107
Chloroethane	mg/kg (ppm)	2.5	79	47-115
1,1-Dichloroethene	mg/kg (ppm)	2.5	82	65-110
Methylene chloride	mg/kg (ppm)	2.5	79	50-127
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	84	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	86	74-109
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	89	73-110
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	94	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	88	72-116
Trichloroethene	mg/kg (ppm)	2.5	88	72-107
Tetrachloroethene	mg/kg (ppm)	2.5	92	73-111

Date of Report: 12/04/18
Date Received: 11/12/18
Project: MBHA Gateway 160324, F&BI 811184

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 811184-59 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	41	29	10-91	34 vo
Chloroethane	mg/kg (ppm)	2.5	<0.5	56	44	10-101	24 vo
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	58	48	22-107	19
Methylene chloride	mg/kg (ppm)	2.5	<0.5	59	52	14-128	13
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	65	57	13-112	13
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	69	61	23-115	12
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	72	65	25-120	10
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	76	70	22-124	8
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	70	60	27-112	15
Trichloroethene	mg/kg (ppm)	2.5	0.12	71	64	30-112	10
Tetrachloroethene	mg/kg (ppm)	2.5	14	2 b	74 b	25-114	189 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	63	42-107
Chloroethane	mg/kg (ppm)	2.5	76	47-115
1,1-Dichloroethene	mg/kg (ppm)	2.5	79	65-110
Methylene chloride	mg/kg (ppm)	2.5	79	50-127
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	82	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	83	74-109
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	86	73-110
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	91	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	84	72-116
Trichloroethene	mg/kg (ppm)	2.5	85	72-107
Tetrachloroethene	mg/kg (ppm)	2.5	89	73-111

Date of Report: 12/04/18
Date Received: 11/12/18
Project: MBHA Gateway 160324, F&BI 811184

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 811173-08 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	230	107	107	63-146	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	92	79-144

Date of Report: 12/04/18
Date Received: 11/12/18
Project: MBHA Gateway 160324, F&BI 811184

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF TCLP EXTRACT SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Tetrachloroethene	ug/L (ppb)	50	93	92	78-109	1

Date of Report: 12/04/18
Date Received: 11/12/18
Project: MBHA Gateway 160324, F&BI 811184

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 811351-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	65	64	10-138	2
Chloroethane	mg/kg (ppm)	2.5	<0.5	70	85	10-176	19
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	61	87	10-160	35 vo
Methylene chloride	mg/kg (ppm)	2.5	<0.5	77	76	10-156	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	88	88	14-137	0
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	92	92	19-140	0
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	92	93	25-135	1
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	91	92	12-160	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	95	94	10-156	1
Trichloroethene	mg/kg (ppm)	2.5	<0.02	93	93	21-139	0
Tetrachloroethene	mg/kg (ppm)	2.5	0.056	88	88	20-133	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	67	22-139
Chloroethane	mg/kg (ppm)	2.5	110	10-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	106	47-128
Methylene chloride	mg/kg (ppm)	2.5	96	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	101	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	103	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	105	72-113
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	101	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	104	62-131
Trichloroethene	mg/kg (ppm)	2.5	102	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	102	72-114

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

811184

SAMPLE CHAIN OF CUSTODY

ME 11-12-18

Page # 1 of 1

BOS/VSH/KW

Report To Jessica Smith & Kristin Beck
Company Aspect Consulting
Address 710 2nd Ave Suite 550
City, State, ZIP Seattle, WA 98104
Phone _____ Email _____

SAMPLERS (signature) KatBeck

PROJECT NAME: MPHA Gateway
PO #: 160324

REMARKS: Please hold

INVOICE TO: Accts payable

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	TCLP Pb				Notes
ADP-34-111118	01 A-F	11/11/18	1035	water	6												
AB-33-2.5	02 A-E		0839	soil	5												
AB-33-5.0	03		0846		5					X							
AB-33-7.5	04		0852		5												
AB-33-10.0	05		0856		5												
AB-33-12.5	06		0906		5												
AB-33-15.0	07		0917		5					X			◆				◆ - per KB 11/21/18 ME
AB-33-17.5	08		0922		5												
AB-33-20.0	09		0935		5					X							
AB-33-22.5	10		0937		5					◆							

AB-41

11/11

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: KatBeck	Kristin Beck	Aspect	11/12/18	0620
Received by: S. Obora	S. Obora	F&B Inc	11/12/18	0612
Relinquished by:				
Received by:		Samples received at 5 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

811184

SAMPLE CHAIN OF CUSTODY

ME 11-12-18

Page # 2 of 7 BDS/184 VW1

Report To: Jessica Smith & Kristin Beck
Company: Aspect Consulting
Address:
City, State, ZIP:
Phone: Email:

SAMPLERS (signature): Kat Beck
PROJECT NAME: MBHA Gateway
PO #: 160324
REMARKS: Please hold
INVOICE TO:

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Notes
41						ANALYSES REQUESTED							
AB-33-25.0	11 A-E	11/11/18	0942	Soil	5					◆			
ADP-34-2.5	12		0850		5								
ADP-34-5.0	13		0900		5								
ADP-34-7.5	14		0902		5		X			X			
ADP-34-10.0	15		0905		5								
ADP-34-12.5	16		0910		5								
ADP-34-14.0	17		0913		5		X			X			
ADP-34-17.5	18		0920		5								
ADP-34-20.0	19		0933		5								
ADP-34-22.5	20		0947		5		X			X			

11/14

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	11/12/18	06:20
Received by: S. Olson	S. Olson	FFB, Inc	11/12/18	06:20
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

811184

SAMPLE CHAIN OF CUSTODY

ME 11-12-18

805/U84

Page # 3 of 7 (W)

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) Krst Beck

PROJECT NAME	PO #
MBHA Gateway	160324
REMARKS: Please hold	INVOICE TO

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

						ANALYSES REQUESTED											
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	TCLP PCE				Notes
ADP-34-25.0	21 A-E	11/11/18	0950	soil	5												
ADP-34-27.5	22		1015		5												
ADP-34-30.0	23		1017		5												
ADP-34-32.5	24		1125		5		X			X							
ADP-34-35.0	25		1127		5												
AB-35-2.5	26		1047		5					X							
AB-35-5.0	27		1052		5												
AB-35-7.5	28		1100		5												
AB-35-10.0	29		1103		5												
AB-35-12.5	30	↓	1107	↓	5					X			■				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Krst Beck	Kristin Beck	Aspect	11/12/18	06:20
Received by: S. Obern	S. Obern	FtB, Inc	11/12/18	06:20
Relinquished by:				
Received by:				

5111184

SAMPLE CHAIN OF CUSTODY

ME 11-12-18

Page 4 of 7 BDS/JW

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) KstBeck

PROJECT NAME: MBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO: Accts payable

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	TCLP PCE				Notes
AB-35-15.0	31A-E	11/11/18	1113	Soil	5					X							
AB-35-17.5	32		1129							-							
AB-35-20.0	33		1131							X							
AB-35-22.5	34		1135							♦							
AB-35-25.0	35		1145							♦							
ADP-36-2.5	36		1251							X							
ADP-36-5.0	37		1208							X							
ADP-36-7.5	38		1212														
ADP-36-10.0	39		1215							X							
ADP-36-12.5	40	↓	1223	↓	↓												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: KstBeck	Kristin Beck	Aspect	11/12/18	06:20
Received by: S. Olson	S. Olson	F&B, Inc	11/12/18	06:26
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

811184

SAMPLE CHAIN OF CUSTODY

ME 11-12-18

Page # 5 of 7 B05/ V54/ VW1

Report To ~~Jessica Smith~~ & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) Kristin Beck

PROJECT NAME	PO #
MBHA Gateway	160324
REMARKS: Please hold	INVOICE TO

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
ADP-36-15.0	41 A-E	11/11/18	1226	Soil	5					X							
ADP-36-17.5	42		1230														
ADP-36-20.0	43		1235														
ADP-36-22.5	44		1240														
ADP-36-25.0	45		1245														
AB-37-2.5	46		1306														
AB-37-5.0	47		1309														
AB-37-7.5	48		1312							X							
AB-37-10.0	49		1337														
AB-37-12.5	50		1342							X							

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kristin Beck	Kristin Beck	Aspect	11/12/18	06:20
Received by:	S. Olson	S. Olson	FBB, Inc	11/12/18	06:20
Relinquished by:					
Received by:					

811184

SAMPLE CHAIN OF CUSTODY

ME 11-12-18

Page # 6 of 7 BOS/VS 4/VWI

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) KatBeck

PROJECT NAME: MBHA Gateway

PO #: 160724

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
- [X] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [X] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	TCLP PCE				Notes
AB-37-15.0	51 A-E	11/11/18	1345	soil	5												
AB-37-17.5	52		1350							X							
AB-37-20.0	53		1358														
AB-37-22.5	54		1400														
AB-37-25.0	55		1405														
AB-38-2.5	56		1500														
AB-38-5.0	57		1503							X							
AB-38-7.5	58		1507														
AB-38-10.0	59		1515							X			◆				
AB-38-12.5	60		1518														

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: KatBeck	Kristin Beck	Aspect	11/12/18	06:20
Received by: S. Obora	S. Obora	F&B, Inc	11/12/18	06:20
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

811189

SAMPLE CHAIN OF CUSTODY

MG 11-12-18

Page # 7 of 7

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) K. A. Beck

PROJECT NAME: MPHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME

☒ Standard Turnaround

☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☑ Dispose after 30 days

☐ Archive Samples

☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
AB-38-15.0	61 AE	11/11/18	1524	soil	5												
AB-38-17.5	62		1530							X							
AB-38-20.0	63		1531							X							
AB-38-22.5	64		1535							♦							
AB-38-25.0	65A-D	↓	1540	(9)	↓					♦							

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: K. A. Beck	Kristin Beck	Aspect	11/12/18	06:20
Received by: S. Obma	S. Obma	F+B, Inc	11/12/18	06:20
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 3, 2018

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on November 13, 2018 from the MBHA Gateway 160324, F&BI 811191 project. There are 22 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect, Kristin Beck
ASP1203R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 13, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA Gateway 160324 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
811191 -01	AMW-21-2.5
811191 -02	AMW-21-5.0
811191 -03	AMW-21-7.5
811191 -04	AMW-21-10.0
811191 -05	AMW-21-12.5
811191 -06	AMW-21-15.0
811191 -07	AMW-21-17.5
811191 -08	AMW-21-20.0
811191 -09	AMW-21-22.5
811191 -10	AMW-21-25.0
811191 -11	AMW-21-27.5
811191 -12	AMW-21-30.0
811191 -13	AMW-21-32.5
811191 -14	AMW-21-35.0
811191 -15	AMW-21-37.5
811191 -16	AMW-21-40.0
811191 -17	AB-39-2.5
811191 -18	AB-39-5.0
811191 -19	AB-39-7.5
811191 -20	AB-39-10.0
811191 -21	AB-39-12.5
811191 -22	AB-39-15.0
811191 -23	AB-39-17.5
811191 -24	AB-39-20.0
811191 -25	AB-39-22.5
811191 -26	AB-39-25.0
811191 -27	AB-40-2.5
811191 -28	AB-40-5.0
811191 -29	AB-40-7.5
811191 -30	AB-40-10.0
811191 -31	AB-40-12.5
811191 -32	AB-40-15.0
811191 -33	AB-40-17.5
811191 -34	AB-40-20.0
811191 -35	AB-40-22.5
811191 -36	AB-40-25.0

The 8260C matrix spike and matrix spike duplicate failed the relative percent difference for several compounds. The analytes were not detected therefore the data were acceptable.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-21-2.5	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/26/18	Lab ID:	811191-01 1/200
Date Analyzed:	11/27/18	Data File:	112712.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	610

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-40-10.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/26/18	Lab ID:	811191-30 1/200
Date Analyzed:	11/27/18	Data File:	112713.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	790

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324
Date Extracted:	11/26/18	Lab ID:	08-2637 mb 1/200
Date Analyzed:	11/27/18	Data File:	112711.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-21-2.5	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/14/18	Lab ID:	811191-01 1/10
Date Analyzed:	11/14/18	Data File:	111444.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.5
Chloroethane	<5
1,1-Dichloroethene	<0.5
Methylene chloride	<5
trans-1,2-Dichloroethene	<0.5
1,1-Dichloroethane	<0.5
cis-1,2-Dichloroethene	<0.5
1,2-Dichloroethane (EDC)	<0.5
1,1,1-Trichloroethane	<0.5
Trichloroethene	<0.2
Tetrachloroethene	15

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-21-10.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/14/18	Lab ID:	811191-04
Date Analyzed:	11/14/18	Data File:	111442.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.83

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-21-20.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/14/18	Lab ID:	811191-08
Date Analyzed:	11/14/18	Data File:	111433.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.33

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-21-30.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/14/18	Lab ID:	811191-12
Date Analyzed:	11/14/18	Data File:	111434.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.082

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-21-35.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/14/18	Lab ID:	811191-14
Date Analyzed:	11/14/18	Data File:	111435.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-39-5.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/14/18	Lab ID:	811191-18
Date Analyzed:	11/14/18	Data File:	111436.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.049

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-39-12.5	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/14/18	Lab ID:	811191-21
Date Analyzed:	11/14/18	Data File:	111437.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.37

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-39-20.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/14/18	Lab ID:	811191-24
Date Analyzed:	11/14/18	Data File:	111438.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-40-2.5	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/14/18	Lab ID:	811191-27
Date Analyzed:	11/14/18	Data File:	111439.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.10

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-40-10.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/14/18	Lab ID:	811191-30
Date Analyzed:	11/14/18	Data File:	111445.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.14
Tetrachloroethene	13

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-40-15.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/15/18	Lab ID:	811191-32
Date Analyzed:	11/15/18	Data File:	111526.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-40-20.0	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324
Date Extracted:	11/14/18	Lab ID:	811191-34
Date Analyzed:	11/14/18	Data File:	111440.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324
Date Extracted:	11/15/18	Lab ID:	08-2572 mb
Date Analyzed:	11/15/18	Data File:	111507.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324
Date Extracted:	11/14/18	Lab ID:	08-2570 mb
Date Analyzed:	11/14/18	Data File:	111414.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 12/03/18
Date Received: 11/13/18
Project: MBHA Gateway 160324, F&BI 811191

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF TCLP EXTRACT SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Tetrachloroethene	ug/L (ppb)	50	98	99	76-121	1

Date of Report: 12/03/18
Date Received: 11/13/18
Project: MBHA Gateway 160324, F&BI 811191

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 811184-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	46	43	10-91	7
Chloroethane	mg/kg (ppm)	2.5	<0.5	60	58	10-101	3
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	64	61	22-107	5
Methylene chloride	mg/kg (ppm)	2.5	<0.5	65	68	14-128	5
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	71	69	13-112	3
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	73	71	23-115	3
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	77	74	25-120	4
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	81	79	22-124	2
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	73	72	27-112	1
Trichloroethene	mg/kg (ppm)	2.5	0.023	74	73	30-112	1
Tetrachloroethene	mg/kg (ppm)	2.5	2.9	0 b	0 b	25-114	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	68	42-107
Chloroethane	mg/kg (ppm)	2.5	79	47-115
1,1-Dichloroethene	mg/kg (ppm)	2.5	82	65-110
Methylene chloride	mg/kg (ppm)	2.5	79	50-127
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	84	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	86	74-109
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	89	73-110
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	94	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	88	72-116
Trichloroethene	mg/kg (ppm)	2.5	88	72-107
Tetrachloroethene	mg/kg (ppm)	2.5	92	73-111

Date of Report: 12/03/18
Date Received: 11/13/18
Project: MBHA Gateway 160324, F&BI 811191

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 811184-59 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	41	29	10-91	34 vo
Chloroethane	mg/kg (ppm)	2.5	<0.5	56	44	10-101	24 vo
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	58	48	22-107	19
Methylene chloride	mg/kg (ppm)	2.5	<0.5	59	52	14-128	13
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	65	57	13-112	13
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	69	61	23-115	12
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	72	65	25-120	10
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	76	70	22-124	8
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	70	60	27-112	15
Trichloroethene	mg/kg (ppm)	2.5	0.12	71	64	30-112	10
Tetrachloroethene	mg/kg (ppm)	2.5	14	2 b	74 b	25-114	189 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	63	42-107
Chloroethane	mg/kg (ppm)	2.5	76	47-115
1,1-Dichloroethene	mg/kg (ppm)	2.5	79	65-110
Methylene chloride	mg/kg (ppm)	2.5	79	50-127
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	82	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	83	74-109
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	86	73-110
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	91	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	84	72-116
Trichloroethene	mg/kg (ppm)	2.5	85	72-107
Tetrachloroethene	mg/kg (ppm)	2.5	89	73-111

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

8119/

SAMPLE CHAIN OF CUSTODY ME 11-13-18

VS4/4 BOS

Page # 1 of 4

Report To Jessica Smith & Kristin Beck
Company Aspect Consulting
Address 710 2nd Ave, Suite 550
City, State, ZIP Seattle, WA 98104
Phone Email

SAMPLERS (signature) Kat Beck

PROJECT NAME: MBHA Gateway
PO #: 160324

REMARKS: Please hold
INVOICE TO: Accts Payable

TURNAROUND TIME
☒ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	TCLP PCE				Notes
																	◆ pc KB
AMW-21-2.5	01 A-E	11/12/18	0805	soil	5					X			◆				11/21/18 MC
AMW-21-5.0	02		0810														
AMW-21-7.5	03		0814														
AMW-21-10.0	04		0830							X							
AMW-21-12.5	05		0835														
AMW-21-15.0	06		0840														
AMW-21-17.5	07		0848														
AMW-21-20.0	08		0855							X							
AMW-21-22.5	09		0859														
AMW-21-25.0	10	↓	0905	↓	↓												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	11/13/18	605
Received by: James Bruya	James Bruya	F&B	11/13	605
Relinquished by:				
Received by:		Samples received at 2 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

611191

SAMPLE CHAIN OF CUSTODY

ME 11-13-18

VS4

Page # 2 of 4

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) Kristin Beck

PROJECT NAME: MBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
AMW-21-27.5	11A-E	11/12/18	0914	soil	5												
AMW-21-30.0	12		0919							X							
AMW-21-32.5	13		0946														
AMW-21-35.0	14		0950							X							
AMW-21-37.5	15		0959														
AMW-21-40.0	16		1003														
AB-39-2.5	17		1427														
AB-39-5.0	18		1430							X							
AB-39-7.5	19		1440														
AB-39-10.0	20	↓	1445	↓	↓												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kristin Beck	Kristin Beck	Aspect	11/13/18	605
Received by: James Bruya	James Bruya	F&B	11/13	605
Relinquished by:				
Received by:		Samples received at 2 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

811191

SAMPLE CHAIN OF CUSTODY

ME 11-13-18

VS4

Page # 3 of 4

B05

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) Kat Beck

PROJECT NAME: MBHA Gateway

PO # 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	TCLP PCE				Notes
AB-39-12.5	21A-E	11/12/18	1455	soil	5					X							
AB-39-15.0	22	"	1500	"	"												
AB-39-17.5	23	"	1510	"	"												
AB-39-20.0	24	"	1520	"	"					X							
AB-39-22.5	25	"	1530	"	"												
AB-39-25.0	26	"	1540	"	"												
AB-40-2.5	27	"	1246	"	"					X							
AB-40-5.0	28	"	1250	"	"												
AB-40-7.5	29	"	1255	"	"												
AB-40-10.0	30	↓	1302	↓	↓					X			◆				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	11/13/18	605
Received by:	James Bruya	F&B	11/13	605
Relinquished by:				
Received by:		Samples received at 2 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

811191

SAMPLE CHAIN OF CUSTODY

ME 11-13-18

VSY

Page # 4 of 4 BOS

Report To: Jessica Smith & Kristin Beck
Company: Aspect Consulting
Address:
City, State, ZIP:
Phone: Email:

SAMPLERS (signature): K A Beck

PROJECT NAME: MBTA Gateway
PO #: 160324

REMARKS: Please hold
INVOICE TO:

TURNAROUND TIME
- [X] Standard Turnaround
- [ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
- [X] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	SVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
AB-40-12.5	31 A-E	11/12/18	1308	soil	5												
AB-40-15.0	32		1311							X							
AB-40-17.5	33		1315														
AB-40-20.0	34		1321							X							
AB-40-22.5	35		1338														
AB-40-25.0	36	↓	1345	↓	↓												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: K A Beck	Kristin Beck	Aspect	11/13/18	0605
Received by:	James Bruya	F&B	11/13	0605
Relinquished by:				
Received by:		Samples received at 2 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 11, 2018

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the additional results from the testing of material submitted on November 13, 2018 from the MBHA Gateway 160324, F&BI 811191 project. There are 11 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect, Kristin Beck
ASP1211R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 13, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA Gateway 160324, F&BI 811191 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
811191 -01	AMW-21-2.5
811191 -02	AMW-21-5.0
811191 -03	AMW-21-7.5
811191 -04	AMW-21-10.0
811191 -05	AMW-21-12.5
811191 -06	AMW-21-15.0
811191 -07	AMW-21-17.5
811191 -08	AMW-21-20.0
811191 -09	AMW-21-22.5
811191 -10	AMW-21-25.0
811191 -11	AMW-21-27.5
811191 -12	AMW-21-30.0
811191 -13	AMW-21-32.5
811191 -14	AMW-21-35.0
811191 -15	AMW-21-37.5
811191 -16	AMW-21-40.0
811191 -17	AB-39-2.5
811191 -18	AB-39-5.0
811191 -19	AB-39-7.5
811191 -20	AB-39-10.0
811191 -21	AB-39-12.5
811191 -22	AB-39-15.0
811191 -23	AB-39-17.5
811191 -24	AB-39-20.0
811191 -25	AB-39-22.5
811191 -26	AB-39-25.0
811191 -27	AB-40-2.5
811191 -28	AB-40-5.0
811191 -29	AB-40-7.5
811191 -30	AB-40-10.0
811191 -31	AB-40-12.5
811191 -32	AB-40-15.0
811191 -33	AB-40-17.5
811191 -34	AB-40-20.0
811191 -35	AB-40-22.5
811191 -36	AB-40-25.0

CASE NARRATIVE (continued)

The 8260C soil samples AB-40-7.5, AB-40-12.5, and the TCLP analysis of sample AB-40-7.5 were requested outside of the holding time. The data were flagged accoridngly.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-40-7.5 ht	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324, F&BI 811191
Date Extracted:	12/04/18	Lab ID:	811191-29
Date Analyzed:	12/04/18	Data File:	120423.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	1.4

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AB-40-12.5 ht	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324, F&BI 811191
Date Extracted:	12/04/18	Lab ID:	811191-31
Date Analyzed:	12/04/18	Data File:	120424.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.23

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324, F&BI 811191
Date Extracted:	12/04/18	Lab ID:	08-2701 mb
Date Analyzed:	12/04/18	Data File:	120407.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Methods 8260C and 1311

Client Sample ID:	AB-40-7.5 ht	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324, F&BI 811191
Date Extracted:	12/05/18	Lab ID:	811191-29 1/200
Date Analyzed:	12/06/18	Data File:	120618.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Methods 8260C and 1311

Client Sample ID:	AB-40-12.5 ht	Client:	Aspect Consulting, LLC
Date Received:	11/13/18	Project:	MBHA Gateway 160324, F&BI 811191
Date Extracted:	12/05/18	Lab ID:	811191-31 1/200
Date Analyzed:	12/06/18	Data File:	120619.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Analysis For Volatile Compounds By EPA Methods 8260C and 1311

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324, F&BI 811191
Date Extracted:	12/05/18	Lab ID:	08-2709 mb 1/200
Date Analyzed:	12/06/18	Data File:	120616.D
Matrix:	TCLP Extract	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Date of Report: 12/11/18
Date Received: 11/13/18
Project: MBHA Gateway 160324, F&BI 811191

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 812019-15 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	53	55	10-138	4
Chloroethane	mg/kg (ppm)	2.5	<0.5	67	68	10-176	1
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	61	63	10-160	3
Methylene chloride	mg/kg (ppm)	2.5	<0.5	78	79	10-156	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	72	74	14-137	3
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	79	81	19-140	2
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	79	81	25-135	2
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	85	87	12-160	2
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	79	83	10-156	5
Trichloroethene	mg/kg (ppm)	2.5	<0.02	78	80	21-139	3
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	78	82	20-133	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	70	22-139
Chloroethane	mg/kg (ppm)	2.5	84	10-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	77	47-128
Methylene chloride	mg/kg (ppm)	2.5	98	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	86	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	91	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	91	72-113
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	95	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	90	62-131
Trichloroethene	mg/kg (ppm)	2.5	89	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	90	72-114

Date of Report: 12/11/18
Date Received: 11/13/18
Project: MBHA Gateway 160324, F&BI 811191

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF TCLP EXTRACT SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Tetrachloroethene	ug/L (ppb)	50	91	89	78-109	2

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

8111/91

SAMPLE CHAIN OF CUSTODY

ME 11-13-18

VS4/24 B05

Report To Jessica Smith & Kristin Beck
Company Aspect Consulting
Address 710 2nd Ave, Suite 550
City, State, ZIP Seattle, WA 98104
Phone _____ Email _____

SAMPLERS (signature) Kat Beck

PROJECT NAME: MBHA Gateway
PO #: 160324

REMARKS: Please hold

INVOICE TO: Accts Payable

Page # 1 of 4

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	TCLP PCE				Notes
AMW-21-2.5	01 A-E	11/12/18	0805	soil	5					X			◆				◆ per KB 11/21/16 ME
AMW-21-5.0	02		0810														
AMW-21-7.5	03		0814														◆ per KB/JS 12/3/16 ME
AMW-21-10.0	04		0830							X							
AMW-21-12.5	05		0835														
AMW-21-15.0	06		0840														
AMW-21-17.5	07		0848														
AMW-21-20.0	08		0855							X							
AMW-21-22.5	09		0859														
AMW-21-25.0	10	↓	0905	↓	↓												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	11/13/18	605
Received by: James Bruya	James Bruya	F&B	11/13	605
Relinquished by:				
Received by:		Samples received at 2 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

811191

SAMPLE CHAIN OF CUSTODY

ME 11-13-18

VS4

Page # 2 of 4

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) Kristin Beck

PROJECT NAME: MBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
- [X] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [X] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
AMW-21-27.5	11-A-E	11/12/18	0914	soil	5												
AMW-21-30.0	12		0919							X							
AMW-21-32.5	13		0946														
AMW-21-35.0	14		0950							X							
AMW-21-37.5	15		0959														
AMW-21-40.0	16		1003														
AB-39-2.5	17		1427														
AB-39-5.0	18		1430							X							
AB-39-7.5	19		1440														
AB-39-10.0	20	↓	1445	↓	↓												

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kristin Beck	Kristin Beck	Aspect	11/13/18	605
Received by: James Bruya	James Bruya	F&B	11/13	605
Relinquished by:				
Received by:		Samples received at 2 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

811191

SAMPLE CHAIN OF CUSTODY

NE 11-13-18

Page # 3 of 4

VS4 B05

Report To: Jessica Smith & Kristin Beck
Company: Aspect Consulting
Address:
City, State, ZIP:
Phone: Email:

SAMPLERS (signature): Kat Beck
PROJECT NAME: MBHA Gateway
PO #: 160324
REMARKS: Please hold
INVOICE TO:

TURNAROUND TIME
☒ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	CVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	TCLP PCE				Notes
AB-39-12.5	21A-E	11/12/18	1455	soil	5					X							
AB-39-15.0	22		1500														
AB-39-17.5	23		1510														
AB-39-20.0	24		1520							X							
AB-39-22.5	25		1530														
AB-39-25.0	26		1540														
AB-40-2.5	27		1246							X							
AB-40-5.0	28		1250														
AB-40-7.5	29		1255							◊			◊				
AB-40-10.0	30	↓	1302	↓	↓					X			◆				

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	11/13/18	605
Received by:	James Bruya	F&B	11/13	605
Relinquished by:				
Received by:		Samples received at 2 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
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8/1191

SAMPLE CHAIN OF CUSTODY

ME 11-13-18

VSY

Page # 4 of 4 BOS

Report To: Jessica Smith & Kristin Beck
Company: Aspect Consulting
Address:
City, State, ZIP:
Phone: Email:

SAMPLERS (signature): K&A Beck
PROJECT NAME: MBAA Gateway
PO #: 160324
REMARKS: Please hold
INVOICE TO:

TURNAROUND TIME
☒ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	CVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	TCLP PCC				Notes
AB-40-12.5	31 A-E	11/12/18	1308	soil	5					⊕			⊕				
AB-40-15.0	32		1311							X							
AB-40-17.5	33		1315														
AB-40-20.0	34		1321							X							
AB-40-22.5	35		1338														
AB-40-25.0	36	↓	1345	↓	↓												

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: K&A Beck	Kristin Beck	Aspect	11/13/18	0605
Received by: James Bryan	James Bryan	F&B	11/13	0605
Relinquished by:				
Received by:		Samples received at 2 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 27, 2018

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on December 15, 2018 from the MBHA Gateway 160324, F&BI 812222 project. There are 62 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect, Kristin Beck
ASP1227R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 15, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA Gateway 160324, F&BI 812222 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
812222 -01	ADP-42-3.0
812222 -02	ADP-42-6.0
812222 -03	ADP-42-9.0
812222 -04	ADP-42-13.0
812222 -05	ADP-43-5.0
812222 -06	ADP-43-10.0
812222 -07	ADP-43-13.0
812222 -08	ADP-43-18.0
812222 -09	ADP-44-4.0
812222 -10	ADP-44-7.0
812222 -11	ADP-44-11.0
812222 -12	ADP-44-15.0
812222 -13	ADP-45-2.5
812222 -14	ADP-45-5.0
812222 -15	ADP-45-9.0
812222 -16	ADP-45-12.0
812222 -17	ADP-45-15.0
812222 -18	ADP-45-17.0
812222 -19	ADP-45-20.0
812222 -20	ADP-46-2.5
812222 -21	ADP-46-5.0
812222 -22	ADP-46-7.5
812222 -23	ADP-46-10.0
812222 -24	ADP-46-12.5
812222 -25	ADP-46-15.0
812222 -26	ADP-46-17.0
812222 -27	ADP-46-20.0
812222 -28	ADP-47-4.0
812222 -29	ADP-47-7.0
812222 -30	ADP-47-10.0
812222 -31	ADP-47-12.5
812222 -32	ADP-47-15.0
812222 -33	ADP-48-3.5
812222 -34	ADP-48-7.5
812222 -35	ADP-48-10.0
812222 -36	ADP-48-12.5

CASE NARRATIVE (continued)

Laboratory ID	Aspect Consulting, LLC
812222 -37	ADP-48-15.0
812222 -38	ADP-49-3.5
812222 -39	ADP-49-7.0
812222 -40	ADP-49-9.5
812222 -41	ADP-49-12.5
812222 -42	ADP-49-15.0
812222 -43	ADP-49-17.5
812222 -44	ADP-49-20.0
812222 -45	ADP-49-22.0
812222 -46	ADP-50-3.0
812222 -47	ADP-50-7.0
812222 -48	ADP-50-10.0
812222 -49	ADP-50-12.5
812222 -50	ADP-50-15.0
812222 -51	ADP-50-17.5
812222 -52	ADP-51-2.5
812222 -53	ADP-51-6.0
812222 -54	ADP-51-10.0
812222 -55	ADP-51-12.5
812222 -56	ADP-51-15.0
812222 -57	ADP-51-18.0
812222 -58	ADP-51-22.5
812222 -59	ADP-51-25.0
812222 -60	ADP-52-3.5
812222 -61	ADP-52-7.5
812222 -62	ADP-52-10.0
812222 -63	ADP-52-15.0
812222 -64	ADP-52-20.0
812222 -65	ADP-53-2.5
812222 -66	ADP-53-5.0
812222 -67	ADP-53-9.0
812222 -68	ADP-53-12.0
812222 -69	ADP-53-15.0
812222 -70	ADP-54-2.0
812222 -71	ADP-54-4.5
812222 -72	ADP-54-7.5
812222 -73	ADP-54-10.0
812222 -74	ADP-54-12.5
812222 -75	ADP-54-15.0

CASE NARRATIVE (continued)

Laboratory ID	Aspect Consulting, LLC
812222 -76	ADP-55-2.5
812222 -77	ADP-55-5.0
812222 -78	ADP-55-7.5
812222 -79	ADP-55-10.0
812222 -80	ADP-55-12.5
812222 -81	ADP-55-15.0
812222 -82	ADP-55-17.5
812222 -83	ADP-55-20.0
812222 -84	ADP-55-22.5
812222 -85	ADP-55-25.0
812222 -86	ADP-55-27.5
812222 -87	ADP-56-3.0
812222 -88	ADP-56-6.0
812222 -89	ADP-56-8.5
812222 -90	ADP-56-12.5
812222 -91	ADP-56-15.0
812222 -92	ADP-56-17.5
812222 -93	ADP-56-20.0
812222 -94	ADP-56-22.5
812222 -95	ADP-56-25.0
812222 -96	ADP-56-28.0
812222 -97	ADP-57-4.0
812222 -98	ADP-57-7.0
812222 -99	ADP-57-10.0
812222 -100	ADP-57-13.0
812222 -101	ADP-57-16.0
812222 -102	ADP-57-20.0
812222 -103	ADP-57-24.0

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-42-6.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-02
Date Analyzed:	12/19/18	Data File:	121916.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	2.4

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-42-9.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-03 1/10
Date Analyzed:	12/19/18	Data File:	121917.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.5
Chloroethane	<5
1,1-Dichloroethene	<0.5
Methylene chloride	<5
trans-1,2-Dichloroethene	<0.5
1,1-Dichloroethane	<0.5
cis-1,2-Dichloroethene	<0.5
1,2-Dichloroethane (EDC)	<0.5
1,1,1-Trichloroethane	<0.5
Trichloroethene	0.21
Tetrachloroethene	44

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-43-5.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-05
Date Analyzed:	12/19/18	Data File:	121915.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.26

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-43-10.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-06
Date Analyzed:	12/20/18	Data File:	121945.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	103	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	2.5

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-43-13.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-07
Date Analyzed:	12/19/18	Data File:	121922.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.91

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-44-7.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-10
Date Analyzed:	12/19/18	Data File:	121923.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.21

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-45-2.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-13
Date Analyzed:	12/19/18	Data File:	121924.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.19

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-45-5.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-14
Date Analyzed:	12/19/18	Data File:	121925.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.14

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-45-9.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-15
Date Analyzed:	12/19/18	Data File:	121926.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.48

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-45-15.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-17
Date Analyzed:	12/19/18	Data File:	121927.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	4.4

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-46-2.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-20
Date Analyzed:	12/19/18	Data File:	121928.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-46-7.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-22
Date Analyzed:	12/19/18	Data File:	121929.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.98

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-46-10.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-23
Date Analyzed:	12/19/18	Data File:	121930.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	0.072
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.078
Tetrachloroethene	2.0

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-46-15.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-25
Date Analyzed:	12/19/18	Data File:	121931.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.23

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-47-4.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-28
Date Analyzed:	12/19/18	Data File:	121932.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-47-10.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-30
Date Analyzed:	12/19/18	Data File:	121933.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.078

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-48-3.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-33
Date Analyzed:	12/19/18	Data File:	121934.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-48-10.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-35
Date Analyzed:	12/19/18	Data File:	121935.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.074

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-49-9.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-40
Date Analyzed:	12/19/18	Data File:	121936.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.23

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-49-12.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-41
Date Analyzed:	12/19/18	Data File:	121937.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	94	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	3.7

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-49-15.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-42
Date Analyzed:	12/20/18	Data File:	122009.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.19
Tetrachloroethene	30 ve

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-49-15.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-42 1/10
Date Analyzed:	12/20/18	Data File:	122021.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.5
Chloroethane	<5
1,1-Dichloroethene	<0.5
Methylene chloride	<5
trans-1,2-Dichloroethene	<0.5
1,1-Dichloroethane	<0.5
cis-1,2-Dichloroethene	<0.5
1,2-Dichloroethane (EDC)	<0.5
1,1,1-Trichloroethane	<0.5
Trichloroethene	0.31
Tetrachloroethene	44

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-49-17.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-43
Date Analyzed:	12/19/18	Data File:	121938.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.19

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-50-3.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/20/18	Lab ID:	812222-46
Date Analyzed:	12/20/18	Data File:	122008.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	4.3

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-50-7.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-47
Date Analyzed:	12/20/18	Data File:	121952.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	2.4

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-50-10.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-48
Date Analyzed:	12/19/18	Data File:	121939.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-50-12.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-49
Date Analyzed:	12/19/18	Data File:	121940.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.031

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-51-10.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-54
Date Analyzed:	12/19/18	Data File:	121941.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.13

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-51-15.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/20/18	Lab ID:	812222-56
Date Analyzed:	12/20/18	Data File:	122010.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.080
Tetrachloroethene	24 ve

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-51-15.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/20/18	Lab ID:	812222-56 1/10
Date Analyzed:	12/20/18	Data File:	122022.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.5
Chloroethane	<5
1,1-Dichloroethene	<0.5
Methylene chloride	<5
trans-1,2-Dichloroethene	<0.5
1,1-Dichloroethane	<0.5
cis-1,2-Dichloroethene	<0.5
1,2-Dichloroethane (EDC)	<0.5
1,1,1-Trichloroethane	<0.5
Trichloroethene	<0.2
Tetrachloroethene	43

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-51-18.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-57
Date Analyzed:	12/19/18	Data File:	121942.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.035
Tetrachloroethene	1.4

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-52-3.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-60
Date Analyzed:	12/20/18	Data File:	121943.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	1.9

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-52-10.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-62
Date Analyzed:	12/20/18	Data File:	121944.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.020
Tetrachloroethene	4.4

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-52-15.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-63
Date Analyzed:	12/20/18	Data File:	121945.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-53-2.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-65
Date Analyzed:	12/20/18	Data File:	121946.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	1.5

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-53-9.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-67
Date Analyzed:	12/20/18	Data File:	121947.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.14

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-53-12.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-68
Date Analyzed:	12/20/18	Data File:	121948.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.71

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-54-4.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-71
Date Analyzed:	12/20/18	Data File:	121949.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-54-10.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-73
Date Analyzed:	12/20/18	Data File:	121950.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	102	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.19

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-55-15.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-81
Date Analyzed:	12/20/18	Data File:	121951.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	5.5

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-55-17.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-82
Date Analyzed:	12/20/18	Data File:	121948.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	103	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	13

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-55-20.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/20/18	Lab ID:	812222-83
Date Analyzed:	12/20/18	Data File:	122007.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	103	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	0.11
Tetrachloroethene	13

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-56-12.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-90
Date Analyzed:	12/20/18	Data File:	121947.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	103	55	145
4-Bromofluorobenzene	103	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	4.3

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-56-17.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-92
Date Analyzed:	12/20/18	Data File:	121946.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	2.2

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-56-20.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-93
Date Analyzed:	12/20/18	Data File:	121941.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	104	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.86

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-56-28.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-96
Date Analyzed:	12/20/18	Data File:	121942.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	103	55	145
4-Bromofluorobenzene	103	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	1.2

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-57-16.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-101
Date Analyzed:	12/20/18	Data File:	121943.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	102	55	145
4-Bromofluorobenzene	102	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.11

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-57-20.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	812222-102
Date Analyzed:	12/20/18	Data File:	121944.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.039

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	08-2819 mb
Date Analyzed:	12/19/18	Data File:	121913.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	08-2820 mb
Date Analyzed:	12/19/18	Data File:	121914.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324
Date Extracted:	12/19/18	Lab ID:	08-2821 mb
Date Analyzed:	12/19/18	Data File:	121910.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-45-2.5	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/20/18	Lab ID:	812222-13 1/200
Date Analyzed:	12/21/18	Data File:	122109.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-45-5.0	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324
Date Extracted:	12/20/18	Lab ID:	812222-14 1/200
Date Analyzed:	12/21/18	Data File:	122110.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324
Date Extracted:	12/20/18	Lab ID:	08-2849 mb 1/200
Date Analyzed:	12/21/18	Data File:	122108.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Date of Report: 12/27/18
Date Received: 12/15/18
Project: MBHA Gateway 160324, F&BI 812222

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 812222-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	41	40	10-91	2
Chloroethane	mg/kg (ppm)	2.5	<0.5	56	52	10-101	7
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	57	57	22-107	0
Methylene chloride	mg/kg (ppm)	2.5	<0.5	62	60	14-128	3
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	64	65	13-112	2
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	66	66	23-115	0
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	68	68	25-120	0
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	73	72	22-124	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	66	65	27-112	2
Trichloroethene	mg/kg (ppm)	2.5	<0.02	70	68	30-112	3
Tetrachloroethene	mg/kg (ppm)	2.5	1.9	64 b	64 b	25-114	0 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	83	42-107
Chloroethane	mg/kg (ppm)	2.5	94	47-115
1,1-Dichloroethene	mg/kg (ppm)	2.5	94	65-110
Methylene chloride	mg/kg (ppm)	2.5	97	50-127
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	96	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	93	74-109
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	92	73-110
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	97	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	95	72-116
Trichloroethene	mg/kg (ppm)	2.5	95	72-107
Tetrachloroethene	mg/kg (ppm)	2.5	98	73-111

Date of Report: 12/27/18
Date Received: 12/15/18
Project: MBHA Gateway 160324, F&BI 812222

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 812222-43 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	48	46	10-91	4
Chloroethane	mg/kg (ppm)	2.5	<0.5	61	59	10-101	3
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	66	66	22-107	0
Methylene chloride	mg/kg (ppm)	2.5	<0.5	68	68	14-128	0
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	73	73	13-112	0
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	75	74	23-115	1
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	77	76	25-120	1
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	80	80	22-124	0
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	75	73	27-112	3
Trichloroethene	mg/kg (ppm)	2.5	<0.02	78	78	30-112	0
Tetrachloroethene	mg/kg (ppm)	2.5	0.15	83	82	25-114	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	86	42-107
Chloroethane	mg/kg (ppm)	2.5	97	47-115
1,1-Dichloroethene	mg/kg (ppm)	2.5	96	65-110
Methylene chloride	mg/kg (ppm)	2.5	92	50-127
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	99	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	96	74-109
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	96	73-110
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	101	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	98	72-116
Trichloroethene	mg/kg (ppm)	2.5	100	72-107
Tetrachloroethene	mg/kg (ppm)	2.5	101	73-111

Date of Report: 12/27/18
Date Received: 12/15/18
Project: MBHA Gateway 160324, F&BI 812222

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 812222-92 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	57	54	10-138	5
Chloroethane	mg/kg (ppm)	2.5	<0.5	69	65	10-176	6
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	68	62	10-160	9
Methylene chloride	mg/kg (ppm)	2.5	<0.5	80	74	10-156	8
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	77	71	14-137	8
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	79	74	19-140	7
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	83	76	25-135	9
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	79	78	12-160	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	82	79	10-156	4
Trichloroethene	mg/kg (ppm)	2.5	<0.02	75	73	21-139	3
Tetrachloroethene	mg/kg (ppm)	2.5	1.8	40 b	34 b	20-133	16 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	94	22-139
Chloroethane	mg/kg (ppm)	2.5	99	10-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	95	47-128
Methylene chloride	mg/kg (ppm)	2.5	106	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	101	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	99	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	103	72-113
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	97	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	104	62-131
Trichloroethene	mg/kg (ppm)	2.5	94	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	98	72-114

Date of Report: 12/27/18
Date Received: 12/15/18
Project: MBHA Gateway 160324, F&BI 812222

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF TCLP EXTRACT SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Tetrachloroethene	ug/L (ppb)	50	95	98	76-121	3

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

~~812222~~ 812222

SAMPLE CHAIN OF CUSTODY

ME 12-15-18

Page # 1 of 11 DOH 1154

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email _____

SAMPLERS (signature) Kat Beck

PROJECT NAME: MBHA Gateway

PO # 160324

REMARKS: ~~Please hold~~

INVOICE TO: Accts payable

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs 8260C				Notes
ADP-42-3.0	01 A-E	12/13/18	0832	soil	5												X-per JS
ADP-42-6.0	02		0835										X				12/16/18
ADP-42-9.0	03		0840										X				ME
ADP-42-13.0	04		0845														
ADP-43-5.0	05		1001										X				
ADP-43-10.0	06		1003										X				
ADP-43-13.0	07		1007										X				
ADP-43-18.0	08		1010														
ADP-44-4.0	09		0913										Samples received at 4 °C				
ADP-44-7.0	10		0920										X				

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	12/15/18	802
Received by:	Eric Yow	F&B	12/15/18	802
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
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Seattle, WA 98119-2029
Ph. (206) 285-8282

812222

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 2 of 11 Day/USY

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) K Beck

PROJECT NAME	PO #
MBHA Gateway	160324
REMARKS: Please hold	INVOICE TO: Accts Payable

TURNAROUND TIME
- ☒ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☒ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-44-11.0	11 A-E	12/13/18	0930	soil	5												
ADP-44-15.0	12		0935														
ADP-45-2.5	13		1035										X	X			
ADP-45-5.0	14		1037										X	X			
ADP-45-9.0	15		1040										X				
ADP-45-12.0	16		1042														
ADP-45-15.0	17		1045										X				
ADP-45-17.0	18		1050														
ADP-45-20.0	19		1055														
ADP-46-2.5	20		1120										X				

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SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: K Beck	Kristin Beck	Aspect	12/15/18	802
Received by:	Eric Young	FEB	12/15/18	802
Relinquished by:				
Received by:				

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SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 3 of 11 Day/US

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) Kat Beck

PROJECT NAME MBHA Gateway

PO # 160324

REMARKS Please hold

INVOICE TO

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-46-5.0	21 A-E	12/13/18	1125	soil	5												
ADP-46-7.5	22		1130										X				
ADP-46-10.0	23		1131										X				VOA not labelled EWB
ADP-46-12.5	24		1135														
ADP-46-15.0	25		1140										X				
ADP-46-17.5	26		1145														
ADP-46-20.0	27		1150														
ADP-47-4.0	28		1251										X				
ADP-47-7.0	29		1256														
ADP-47-10.0	30		1258										X				

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kat Beck	Kristin Beck	Aspect	12/15/18	802
Received by:		Eric Hon	E C B	12/15/18	802
Relinquished by:					
Received by:					

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SAMPLE CHAIN OF CUSTODY

ME 12-15-18

Page # 4 of 11 pgs

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) Kristin Beck

PROJECT NAME: MBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME (USY)
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-47-12.5	31 A-E	12/13/18	1306	Soil	5												
ADP-47-15.0	32		1307														
ADP-48-3.5	33		1320										X				
ADP-48-7.5	34		1321														
ADP-48-10.0	35		1324										X				
ADP-48-12.5	36		1330														
ADP-48-15.0	37		1331														
ADP-49-3.5	38		1343														
ADP-49-7.0	39		1348														
ADP-49-9.5	40	↓	1350	↓	↓								X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kristin Beck	Kristin Beck	Aspect	12/15/18	800
Received by:	Eric Yan	F&B	12/17/18	800
Relinquished by:				
Received by:				

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Seattle, WA 98119-2029
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SAMPLE CHAIN OF CUSTODY

ME 12-15-18 D04/VS4

[illegible] Page # 5 of [illegible]

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) KBeck

PROJECT NAME	PO #
MBHA Gateway	160324
REMARKS	INVOICE TO
Please hold	

TURNAROUND TIME
☒ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP			Notes
ADP-49-12.5	41 A-E		1357										X				
ADP-49-15.0	42		1400										X				
ADP-49-17.5	43		1420										X				
ADP-49-20.0	44		1421														
ADP-49-22.0	45		1441														
ADP-50-3.0	46		1451										X				
ADP-50-7.0	47		1456										X				
ADP-50-10.0	48		1457										X				
ADP-50-12.5	49		1505										X				Samples received at ___ °C
ADP-50-15.0	50		1507														

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SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: KBeck	Kristin Beck	Aspect	12/15/18	802
Received by: [signature]	Eric Young	FeB	12/15/18	802
Relinquished by:				
Received by:				

812223

SAMPLE CHAIN OF CUSTODY

MC 12-15-18

Page # 6 of 11 Day 1 of 4

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) KatBeck

PROJECT NAME: mBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-50-17.5	51A,E	12/13/18	1519	soil	5												
ADP-51-2.5	52	12/14/18	0824														
ADP-51-6.0	53		0831														
ADP-51-10.0	54		0833										X				
ADP-51-12.5	55		0835														
ADP-51-15.0	56		0837										X				
ADP-51-18.0	57		0846										X				
ADP-51-22.5	58		0908														
ADP-51-25.0	59		0910														Samples received at ____ °C
ADP-52-3.5	60		0926										X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: KatBeck	Kristin Beck	Aspect	12/15/18	802
Received by:	Eric Yer	F&B	12/15/18	802
Relinquished by:				
Received by:				

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SAMPLE CHAIN OF CUSTODY

ME 12-15-18 [redacted] Page # 7 of 11 D04/ US4

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) [signature]

PROJECT NAME	PO #
MBHA Gateway	160324
REMARKS: Please hold	INVOICE TO

TURNAROUND TIME
- [x] Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-52-7.5	61 A-E		0930	soil	5												
ADP-52-10.0	62		0931	↓	↓								X				
ADP-52-15.0	63		0948										X				ADP 52-16.0 on hold
ADP-52-20.0	64		0956														
ADP-53-2.5	65		1019										X				
ADP-53-5.0	66		1024														ADP-53-6.0 on hold
ADP-53-9.0	67		1026										X				
ADP-53-12.0	68		1032										X				
ADP-53-15.0	69		1035														
ADP-54-2.0	70		1050	↓	↓												

Samples received at ____ °C

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3012 16th Avenue West
Seattle, WA 98119-2029
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SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Kristin Beck	Aspect	12/15/18	8:02
Received by: [signature]	Eric Young	F&B	12/15/18	8:02
Relinquished by:				
Received by:				

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SAMPLE CHAIN OF CUSTODY

ME 12-15-18

Page # 8 of 11 DO4/JS4

Report To Jessica Smith / Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) Kat Beck

PROJECT NAME: MBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-54-4.5	71A-E	12/14/18	1051	soil	5								X				
ADP-54-7.5	72		1058														
ADP-54-10.0	73		1100										X				
ADP-54-12.5	74		1105														
ADP-54-15.0	75		1110														
ADP-55-2.5	76		1218														
ADP-55-5.0	77		1220														
ADP-55-7.5	78		1226														
ADP-55-10.0	79		1230														Samples received at ___ °C
ADP-55-12.5	80		1232														

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	12/15/18	802
Received by:	Eric Yan	F+B	12/16/18	802
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

812223

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 9 of 11 POY/WS4

Report To Jessica Smith & Kristin Beck
Company Aspect Consulting
Address
City, State, ZIP
Phone Email

SAMPLERS (signature) KatBeck
PROJECT NAME: MBHA Gateway
PO #: 160324
REMARKS: Please hold
INVOICE TO

TURNAROUND TIME
X Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
X Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-55-15.0	81A-E	12/14/18	1235	soil	5								X				
ADP-55-17.5	82		1242										X				
ADP-55-20.0	83		1245										X				
ADP-55-22.5	84		1251														
ADP-55-25.0	85		1256														
ADP-55-27.5	86		1300														
ADP-56-3.0	87		1331														
ADP-56-6.0	88		1333														Samples received at ____ °C
ADP-56-8.5	89		1335														
ADP-56-12.5	90		1355										X				

ANALYSES REQUESTED

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	KatBeck	Kristin Beck	Aspect	12/15/18	800
Received by:		Eric Chan	F+K	12/15/18	800
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

812223

SAMPLE CHAIN OF CUSTODY

ME 12-5-18

Page # 10 of 11

DO4/US4

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) Kat Beck

PROJECT NAME: MBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-56-15.0	91A-E	12/14/18	1400	Soil	5												
ADP-56-17.5	92		1405										X				
ADP-56-20.0	93		1410										X				
ADP-56-22.5	94		1412														
ADP-56-25.0	95		1414														
ADP-56-28.0	96		1420										X				
ADP-57-4.0	97		1427														
ADP-57-7.0	98		1436														Samples received at °C
ADP-57-10.0	99		1432														
ADP-57-13.0	100		1435														

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	12/15/18	802
Received by:	Eric Hare	F-B	12/5/18	802
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

812723

SAMPLE CHAIN OF CUSTODY

ME 12-15-18

Page # 1 of 1 DOH VS4

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (*signature*) Kat Beck

PROJECT NAME: MRHA Gateway

PO #: 160324

REMARKS: ~~Please hold~~

INVOICE TO

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-57-16.0	101 A-E	12/14/18	1456	soil	5								X				
ADP-57-20.0	102	↓	1458	↓	↓								X				
ADP-57-24.0	103	↓	1500	↓	↓												
													Samples received at ___ °C				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	12/15/18	802
Received by:	Eric Fox	F&B	12/15/18	802
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

January 14, 2019

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the additional results from the testing of material submitted on December 15, 2018 from the MBHA Gateway 160324, F&BI 812222 project. There are 20 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect, Kristin Beck
ASP0114R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 15, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA Gateway 160324, F&BI 812222 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
812222 -01	ADP-42-3.0
812222 -02	ADP-42-6.0
812222 -03	ADP-42-9.0
812222 -04	ADP-42-13.0
812222 -05	ADP-43-5.0
812222 -06	ADP-43-10.0
812222 -07	ADP-43-13.0
812222 -08	ADP-43-18.0
812222 -09	ADP-44-4.0
812222 -10	ADP-44-7.0
812222 -11	ADP-44-11.0
812222 -12	ADP-44-15.0
812222 -13	ADP-45-2.5
812222 -14	ADP-45-5.0
812222 -15	ADP-45-9.0
812222 -16	ADP-45-12.0
812222 -17	ADP-45-15.0
812222 -18	ADP-45-17.0
812222 -19	ADP-45-20.0
812222 -20	ADP-46-2.5
812222 -21	ADP-46-5.0
812222 -22	ADP-46-7.5
812222 -23	ADP-46-10.0
812222 -24	ADP-46-12.5
812222 -25	ADP-46-15.0
812222 -26	ADP-46-17.0
812222 -27	ADP-46-20.0
812222 -28	ADP-47-4.0
812222 -29	ADP-47-7.0
812222 -30	ADP-47-10.0
812222 -31	ADP-47-12.5
812222 -32	ADP-47-15.0
812222 -33	ADP-48-3.5
812222 -34	ADP-48-7.5
812222 -35	ADP-48-10.0

CASE NARRATIVE (CONTINUED)

Laboratory ID	Aspect Consulting, LLC
812222 -36	ADP-48-12.5
812222 -37	ADP-48-15.0
812222 -38	ADP-49-3.5
812222 -39	ADP-49-7.0
812222 -40	ADP-49-9.5
812222 -41	ADP-49-12.5
812222 -42	ADP-49-15.0
812222 -43	ADP-49-17.5
812222 -44	ADP-49-20.0
812222 -45	ADP-49-22.0
812222 -46	ADP-50-3.0
812222 -47	ADP-50-7.0
812222 -48	ADP-50-10.0
812222 -49	ADP-50-12.5
812222 -50	ADP-50-15.0
812222 -51	ADP-50-17.5
812222 -52	ADP-51-2.5
812222 -53	ADP-51-6.0
812222 -54	ADP-51-10.0
812222 -55	ADP-51-12.5
812222 -56	ADP-51-15.0
812222 -57	ADP-51-18.0
812222 -58	ADP-51-22.5
812222 -59	ADP-51-25.0
812222 -60	ADP-52-3.5
812222 -61	ADP-52-7.5
812222 -62	ADP-52-10.0
812222 -63	ADP-52-15.0
812222 -64	ADP-52-20.0
812222 -65	ADP-53-2.5
812222 -66	ADP-53-5.0
812222 -67	ADP-53-9.0
812222 -68	ADP-53-12.0
812222 -69	ADP-53-15.0
812222 -70	ADP-54-2.0

CASE NARRATIVE (CONTINUED)

Laboratory ID	Aspect Consulting, LLC
812222 -71	ADP-54-4.5
812222 -72	ADP-54-7.5
812222 -73	ADP-54-10.0
812222 -74	ADP-54-12.5
812222 -75	ADP-54-15.0
812222 -76	ADP-55-2.5
812222 -77	ADP-55-5.0
812222 -78	ADP-55-7.5
812222 -79	ADP-55-10.0
812222 -80	ADP-55-12.5
812222 -81	ADP-55-15.0
812222 -82	ADP-55-17.5
812222 -83	ADP-55-20.0
812222 -84	ADP-55-22.5
812222 -85	ADP-55-25.0
812222 -86	ADP-55-27.5
812222 -87	ADP-56-3.0
812222 -88	ADP-56-6.0
812222 -89	ADP-56-8.5
812222 -90	ADP-56-12.5
812222 -91	ADP-56-15.0
812222 -92	ADP-56-17.5
812222 -93	ADP-56-20.0
812222 -94	ADP-56-22.5
812222 -95	ADP-56-25.0
812222 -96	ADP-56-28.0
812222 -97	ADP-57-4.0
812222 -98	ADP-57-7.0
812222 -99	ADP-57-10.0
812222 -100	ADP-57-13.0
812222 -101	ADP-57-16.0
812222 -102	ADP-57-20.0
812222 -103	ADP-57-24.0

The 8260C analysis was requested outside of the holding time. The data were flagged accordingly.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-42-13.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-04
Date Analyzed:	01/07/19	Data File:	010716.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.031

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-44-15.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-12
Date Analyzed:	01/07/19	Data File:	010727.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-45-20.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-19
Date Analyzed:	01/07/19	Data File:	010728.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-46-20.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-27
Date Analyzed:	01/07/19	Data File:	010729.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.048

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-49-22.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-45
Date Analyzed:	01/07/19	Data File:	010730.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	0.50
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.061

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-50-17.5 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-51
Date Analyzed:	01/07/19	Data File:	010731.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-51-22.5 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-58
Date Analyzed:	01/07/19	Data File:	010732.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.047

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-55-27.5 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-86
Date Analyzed:	01/07/19	Data File:	010733.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	99	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-57-24.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-103
Date Analyzed:	01/07/19	Data File:	010734.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	09-0012 mb
Date Analyzed:	01/07/19	Data File:	010710.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-42-13.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/08/19	Lab ID:	812222-04 1/200
Date Analyzed:	01/09/19	Data File:	010914.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-49-17.5 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/08/19	Lab ID:	812222-43 1/200
Date Analyzed:	01/09/19	Data File:	010915.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-51-18.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/08/19	Lab ID:	812222-57 1/200
Date Analyzed:	01/09/19	Data File:	010916.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/08/19	Lab ID:	09-0015 mb 1/200
Date Analyzed:	01/09/19	Data File:	010913.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Date of Report: 01/14/19
Date Received: 12/15/18
Project: MBHA Gateway 160324, F&BI 812222

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 812222-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	58	60	10-138	3
Chloroethane	mg/kg (ppm)	2.5	<0.5	65	68	10-176	5
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	69	72	10-160	4
Methylene chloride	mg/kg (ppm)	2.5	<0.5	73	74	10-156	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	75	77	14-137	3
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	80	82	19-140	2
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	81	82	25-135	1
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	81	82	12-160	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	83	85	10-156	2
Trichloroethene	mg/kg (ppm)	2.5	<0.02	80	81	21-139	1
Tetrachloroethene	mg/kg (ppm)	2.5	0.028	82	84	20-133	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	88	22-139
Chloroethane	mg/kg (ppm)	2.5	89	10-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	93	47-128
Methylene chloride	mg/kg (ppm)	2.5	97	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	97	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	99	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	98	72-113
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	97	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	102	62-131
Trichloroethene	mg/kg (ppm)	2.5	95	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	99	72-114

Date of Report: 01/14/19
Date Received: 12/15/18
Project: MBHA Gateway 160324, F&BI 812222

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF TCLP EXTRACT SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Tetrachloroethene	ug/L (ppb)	50	99	100	76-121	1

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

~~812222~~ 812222 — ME 12-15-18 — Page # 1 of 11 Day/USA

Report To: Jessica Smith & Kristin Beck
Company: Aspect Consulting
Address: 710 2nd Ave, Suite 550
City, State, ZIP: Seattle, WA 98104
Phone: _____ Email: _____

SAMPLERS (signature): Kat Beck
PROJECT NAME: MBHA Gateway
PO #: 160324
REMARKS: ~~Please hold~~
INVOICE TO: Accts payable

TURNAROUND TIME
- [X] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- [X] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	sVOCs by 8270D	PAHs 8270D SIM	EDC 8260C	TCLP PCE			Notes
ADP-42-3.0	01 A-B	12/13/18	0832	soil	5												●-per KB 1/4/19 ME
ADP-42-6.0	02		0835										X				X-per JS 12/18/18
ADP-42-9.0	03		0840										X	♦			ME
ADP-42-13.0	04		0845										●	●			♦-per KB 12/26/18 ME
ADP-43-5.0	05		1001										X				
ADP-43-10.0	06		1003										X				
ADP-43-13.0	07		1007										X				
ADP-43-18.0	08		1010														
ADP-44-4.0	09		0913										Samples received at 4 °C				
ADP-44-7.0	10	↓	0920	↓	↓								X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	12/15/18	802
Received by:	Eric Yon	F&B	12/15/18	802
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SAMPLE CHAIN OF CUSTODY

MG 12-15-18 Page # 2 of 11 pages

812222

Report To: Jessica Smith & Kristin Beck
Company: Aspect Consulting
Address:
City, State, ZIP:
Phone: Email:

SAMPLERS (signature): K Beck
PROJECT NAME: MBHA Gateway
PO #: 160324
REMARKS: Please hold
INVOICE TO: Accts Payable

TURNAROUND TIME
☒ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCP ME			Notes
						ANALYSES REQUESTED											
ADP-44-11.0	11 A-E	12/13/18	0930	soil	5								●				
ADP-44-15.0	12		0935										X	X			
ADP-45-2.5	13		1035										X	X			
ADP-45-5.0	14		1037										X				
ADP-45-9.0	15		1040														
ADP-45-12.0	16		1042										X				
ADP-45-15.0	17		1045														
ADP-45-17.0	18		1050										●				
ADP-45-20.0	19		1055										X				
ADP-46-2.5	20	↓	1120	↓	↓												

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	K Beck	Kristin Beck	Aspect	12/15/18	900
Received by:		Eric Howe	FCB	12/15/18	802
Relinquished by:					
Received by:					

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3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

812222

ME 12-15-18 Page # 3 of 11 Day/VS

SAMPLE CHAIN OF CUSTODY

Report To ~~Jessica Smith~~ / Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) [signature]

PROJECT NAME MBHA Gateway

PO # 160324

REMARKS Please hold

INVOICE TO

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH

Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	Trip PCE	Notes
ADP-46-5.0	21 A-E	12/13/18	1125	soil	5								X		Voa not labelled EWB
ADP-46-7.5	22		1130										X		
ADP-46-10.0	23		1131												
ADP-46-12.5	24		1135										X		
ADP-46-15.0	25		1140												
ADP-46-17.5	26		1145										●		
ADP-46-20.0	27		1150										X		
ADP-47-4.0	28		1251												
ADP-47-7.0	29		1256										X		
ADP-47-10.0	30		1258												

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3012 16th Avenue West
Seattle, WA 98119-2029

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Kristin Beck	Aspect	12/15/18	802
Received by: [signature]	Eric Young	F&B	12/15/18	802
Relinquished by:				
Received by:				

812222

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 4 of 11 D04

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) [signature]

PROJECT NAME: MBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME: ☒ Standard Turnaround; ☐ RUSH; Rush charges authorized by: USY

SAMPLE DISPOSAL: ☒ Dispose after 30 days; ☐ Archive Samples; ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-47-12.5	31 A-E	12/13/18	1306	Soil	5												
ADP-47-15.0	32		1307										X				
ADP-48-3.5	33		1320														
ADP-48-7.5	34		1321										X				
ADP-48-10.0	35		1324														
ADP-48-12.5	36		1330														
ADP-48-15.0	37		1331														
ADP-49-3.5	38		1343														
ADP-49-7.0	39		1348										X				
ADP-49-9.5	40		1350														

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Kristin Beck	Aspect	12/15/18	802
Received by: [signature]	Eric Ya[illegible]	F&B	12/15/18	802
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SAMPLE CHAIN OF CUSTODY

ME 12-15-18

Page # 5 of Dou/ISY

812223

Report To: ~~Jessica Smith~~ & Kristin Beck

Company: Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature): [signature]

PROJECT NAME: MBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
- ☒ Standard Turnaround
- ☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL
- ☒ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOC's	TCLP PCE			Notes
													X				
ADP-49-12.5	41 A-E		1357										X	♦			
ADP-49-15.0	42		1400										X	●			
ADP-49-17.5	43		1420														
ADP-49-20.0	44		1421										●				
ADP-49-22.0	45		1441										X				
ADP-50-3.0	46		1451										X				
ADP-50-7.0	47		1456										X				
ADP-50-10.6	48		1457										X				Samples received at ___ °C
ADP-50-12.5	49		1505														
ADP-50-15.0	50		1507														

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3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Kristin Beck	Aspect	12/15/18	802
Received by:	[signature]	Eric Young	F&B	12/15/18	802
Relinquished by:					
Received by:					

812223

SAMPLE CHAIN OF CUSTODY

ME 12-15-18

Page # 6 of 11 Day/VSY

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone ______ Email ______

SAMPLERS (signature) Kristin Beck

PROJECT NAME mBHA Gateway

PO # 160324

REMARKS Please hold

INVOICE TO

TURNAROUND TIME
- ☒ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☒ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-50-17.5	51 A-E	12/13/18	1519	Soil	5								●				
ADP-51-2.5	52	12/14/18	0824	↓	↓												
ADP-51-6.0	53	↓	0831										X				
ADP-51-10.0	54		0833														
ADP-51-12.5	55		0835										X	◆			
ADP-51-15.0	56		0837										X	●			
ADP-51-18.0	57		0846										●				Samples received at ___ °C
ADP-51-22.5	58		0908														
ADP-51-25.0	59		0910										X				
ADP-52-3.5	60	↓	0926	↓	↓												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kristin Beck	Kristin Beck	Aspect	12/15/18	8:02
Received by: [signature]	Eric Y[illegible]	F&B	12/15/18	8:02
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

812223

Report To Jessica Smith & Kristin Beck
Company Aspect Consulting
Address
City, State, ZIP
Phone Email

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 7 of 11 Day/154

SAMPLERS (signature)	Kristin Beck (signature)
PROJECT NAME	MBHA Gateway
PO #	160324
REMARKS	Please hold
INVOICE TO	

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-52-7.5	61 A-E		0936	soil	5												
ADP-52-10.0	62		0931	↓	↓								X				
ADP-52-15.0	63		0948										X				ADP 52-16.0 on hold
ADP-52-20.0	64		0958														
ADP-53-2.5	65		1019										X				
ADP-53-5.0	66		1024														ADP-53-6.0 on hold
ADP-53-9.0	67		1026										X				
ADP-53-12.0	68		1032										X				
ADP-53-15.0	69		1035														
ADP-54-2.0	70		1050														

Samples received at ___ °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kristin Beck (signature)	Kristin Beck	Aspect	12/15/18	8:00
Received by: (signature)	Eric Young	FeB	12/15/18	8:00
Relinquished by:				
Received by:				

812223

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 8 of 11 PD4/VS4

Report To Jessica Smith / Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) [signature]

PROJECT NAME: MBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-S4-4.5	71 A-E	12/14/18	1051	soil	5								X				
ADP-S4-7.5	72	12/14/18	1058	soil	5								X				
ADP-S4-10.0	73	12/14/18	1100	soil	5												
ADP-S4-12.5	74	12/14/18	1105	soil	5												
ADP-S4-15.0	75	12/14/18	1110	soil	5												
ADP-S5-2.5	76	12/14/18	1218	soil	5												
ADP-S5-5.0	77	12/14/18	1220	soil	5												
ADP-S5-7.5	78	12/14/18	1226	soil	5												
ADP-S5-10.0	79	12/14/18	1230	soil	5												
ADP-S5-12.5	80	12/14/18	1232	soil	5												

Samples received at ____ °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Kristin Beck	Aspect	12/15/18	842
Received by: [signature]	Eric [illegible]	FB	12/[illegible]/18	802
Relinquished by:				
Received by:				

812223

SAMPLE CHAIN OF CUSTODY

ME 12-15-18

Page # 9 of 11 D04/JS4

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) [signature]

PROJECT NAME: MBHA Gateway

PO #: 160324

INVOICE TO

REMARKS: ~~Please hold~~

TURNAROUND TIME
- ☒ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☒ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-55-15.0	81 A-E	12/14/18	1235	Soil	5								X	♦	←		NO TCLP ME
ADP-55-17.5	82	↓	1242	↓	↓								X	♦			
ADP-55-20.0	83		1245										X	♦			
ADP-55-22.5	84		1251														
ADP-55-25.0	85		1256										●				
ADP-55-27.5	86		1300														
ADP-56-3.0	87		1331														Samples received at ___ °C
ADP-56-6.0	88		1333														
ADP-56-8.5	89		1335										X				
ADP-56-12.5	90	↓	1355	↓	↓												

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Kristin Beck	Aspect	12/15/18	8:32
Received by:	[signature]	[signature]	FBI	12/15/18	8:32
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SAMPLE CHAIN OF CUSTODY

MC 12-15-18 Page # 10 of 11 DOH/USN

812223

Report To: Jessica Smith & Kristin Beck
Company: Aspect Consulting
Address:
City, State, ZIP:
Phone: Email:

SAMPLERS (signature): Kat Beck
PROJECT NAME: MBHA Gateway
PO #: 160324
REMARKS: Please hold
INVOICE TO:

TURNAROUND TIME
[X] Standard Turnaround
[ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
[X] Dispose after 30 days
[ ] Archive Samples
[ ] Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-56-15.0	91A-E	12/14/18	1400	Soil	5								X				
ADP-56-17.5	92		1405										X				
ADP-56-20.0	93		1410														
ADP-56-22.5	94		1412														
ADP-56-25.0	95		1414										X				
ADP-56-28.0	96		1420														
ADP-57-4.0	97		1427														Samples received at ___ °C
ADP-57-7.0	98		1436														
ADP-57-10.0	99		1432														
ADP-57-13.0	100		1435														

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kat Beck	Kristin Beck	Aspect	12/15/18	800
Received by:		Eric Hone	ERS	12/15/18	800
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

812223

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 11 of 11 Dow/ USA

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone ___ Email ___

SAMPLERS (signature)		
PROJECT NAME: MRHA Gateway	PO #: 160724	
REMARKS: Please hold	INVOICE TO	

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-S7-16.0	101 A-E	12/14/18	1456	soil	5								X				
ADP-S7-20.0	102	↓	1458	↓	↓								X				
ADP-S7-24.0	103	↓	1500	↓	↓								●				

Samples received at ___ °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Kristin Beck	Aspect	12/15/18	8:02
Received by: [signature]	Eric Young	F&B	12/15/18	8:02
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

January 14, 2019

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the additional results from the testing of material submitted on December 15, 2018 from the MBHA Gateway 160324, F&BI 812222 project. There are 20 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect, Kristin Beck
ASP0114R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 15, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA Gateway 160324, F&BI 812222 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
812222 -01	ADP-42-3.0
812222 -02	ADP-42-6.0
812222 -03	ADP-42-9.0
812222 -04	ADP-42-13.0
812222 -05	ADP-43-5.0
812222 -06	ADP-43-10.0
812222 -07	ADP-43-13.0
812222 -08	ADP-43-18.0
812222 -09	ADP-44-4.0
812222 -10	ADP-44-7.0
812222 -11	ADP-44-11.0
812222 -12	ADP-44-15.0
812222 -13	ADP-45-2.5
812222 -14	ADP-45-5.0
812222 -15	ADP-45-9.0
812222 -16	ADP-45-12.0
812222 -17	ADP-45-15.0
812222 -18	ADP-45-17.0
812222 -19	ADP-45-20.0
812222 -20	ADP-46-2.5
812222 -21	ADP-46-5.0
812222 -22	ADP-46-7.5
812222 -23	ADP-46-10.0
812222 -24	ADP-46-12.5
812222 -25	ADP-46-15.0
812222 -26	ADP-46-17.0
812222 -27	ADP-46-20.0
812222 -28	ADP-47-4.0
812222 -29	ADP-47-7.0
812222 -30	ADP-47-10.0
812222 -31	ADP-47-12.5
812222 -32	ADP-47-15.0
812222 -33	ADP-48-3.5
812222 -34	ADP-48-7.5
812222 -35	ADP-48-10.0

CASE NARRATIVE (CONTINUED)

Laboratory ID	Aspect Consulting, LLC
812222 -36	ADP-48-12.5
812222 -37	ADP-48-15.0
812222 -38	ADP-49-3.5
812222 -39	ADP-49-7.0
812222 -40	ADP-49-9.5
812222 -41	ADP-49-12.5
812222 -42	ADP-49-15.0
812222 -43	ADP-49-17.5
812222 -44	ADP-49-20.0
812222 -45	ADP-49-22.0
812222 -46	ADP-50-3.0
812222 -47	ADP-50-7.0
812222 -48	ADP-50-10.0
812222 -49	ADP-50-12.5
812222 -50	ADP-50-15.0
812222 -51	ADP-50-17.5
812222 -52	ADP-51-2.5
812222 -53	ADP-51-6.0
812222 -54	ADP-51-10.0
812222 -55	ADP-51-12.5
812222 -56	ADP-51-15.0
812222 -57	ADP-51-18.0
812222 -58	ADP-51-22.5
812222 -59	ADP-51-25.0
812222 -60	ADP-52-3.5
812222 -61	ADP-52-7.5
812222 -62	ADP-52-10.0
812222 -63	ADP-52-15.0
812222 -64	ADP-52-20.0
812222 -65	ADP-53-2.5
812222 -66	ADP-53-5.0
812222 -67	ADP-53-9.0
812222 -68	ADP-53-12.0
812222 -69	ADP-53-15.0
812222 -70	ADP-54-2.0

CASE NARRATIVE (CONTINUED)

Laboratory ID	Aspect Consulting, LLC
812222 -71	ADP-54-4.5
812222 -72	ADP-54-7.5
812222 -73	ADP-54-10.0
812222 -74	ADP-54-12.5
812222 -75	ADP-54-15.0
812222 -76	ADP-55-2.5
812222 -77	ADP-55-5.0
812222 -78	ADP-55-7.5
812222 -79	ADP-55-10.0
812222 -80	ADP-55-12.5
812222 -81	ADP-55-15.0
812222 -82	ADP-55-17.5
812222 -83	ADP-55-20.0
812222 -84	ADP-55-22.5
812222 -85	ADP-55-25.0
812222 -86	ADP-55-27.5
812222 -87	ADP-56-3.0
812222 -88	ADP-56-6.0
812222 -89	ADP-56-8.5
812222 -90	ADP-56-12.5
812222 -91	ADP-56-15.0
812222 -92	ADP-56-17.5
812222 -93	ADP-56-20.0
812222 -94	ADP-56-22.5
812222 -95	ADP-56-25.0
812222 -96	ADP-56-28.0
812222 -97	ADP-57-4.0
812222 -98	ADP-57-7.0
812222 -99	ADP-57-10.0
812222 -100	ADP-57-13.0
812222 -101	ADP-57-16.0
812222 -102	ADP-57-20.0
812222 -103	ADP-57-24.0

The 8260C analysis was requested outside of the holding time. The data were flagged accordingly.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-42-13.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-04
Date Analyzed:	01/07/19	Data File:	010716.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.031

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-44-15.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-12
Date Analyzed:	01/07/19	Data File:	010727.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-45-20.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-19
Date Analyzed:	01/07/19	Data File:	010728.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-46-20.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-27
Date Analyzed:	01/07/19	Data File:	010729.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.048

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-49-22.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-45
Date Analyzed:	01/07/19	Data File:	010730.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	0.50
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.061

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-50-17.5 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-51
Date Analyzed:	01/07/19	Data File:	010731.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-51-22.5 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-58
Date Analyzed:	01/07/19	Data File:	010732.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.047

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-55-27.5 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-86
Date Analyzed:	01/07/19	Data File:	010733.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	99	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-57-24.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	812222-103
Date Analyzed:	01/07/19	Data File:	010734.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/07/19	Lab ID:	09-0012 mb
Date Analyzed:	01/07/19	Data File:	010710.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-42-13.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/08/19	Lab ID:	812222-04 1/200
Date Analyzed:	01/09/19	Data File:	010914.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-49-17.5 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/08/19	Lab ID:	812222-43 1/200
Date Analyzed:	01/09/19	Data File:	010915.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-51-18.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/08/19	Lab ID:	812222-57 1/200
Date Analyzed:	01/09/19	Data File:	010916.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/08/19	Lab ID:	09-0015 mb 1/200
Date Analyzed:	01/09/19	Data File:	010913.D
Matrix:	TCLP Extract	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	<200

Date of Report: 01/14/19
Date Received: 12/15/18
Project: MBHA Gateway 160324, F&BI 812222

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 812222-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	58	60	10-138	3
Chloroethane	mg/kg (ppm)	2.5	<0.5	65	68	10-176	5
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	69	72	10-160	4
Methylene chloride	mg/kg (ppm)	2.5	<0.5	73	74	10-156	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	75	77	14-137	3
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	80	82	19-140	2
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	81	82	25-135	1
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	81	82	12-160	1
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	83	85	10-156	2
Trichloroethene	mg/kg (ppm)	2.5	<0.02	80	81	21-139	1
Tetrachloroethene	mg/kg (ppm)	2.5	0.028	82	84	20-133	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	88	22-139
Chloroethane	mg/kg (ppm)	2.5	89	10-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	93	47-128
Methylene chloride	mg/kg (ppm)	2.5	97	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	97	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	99	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	98	72-113
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	97	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	102	62-131
Trichloroethene	mg/kg (ppm)	2.5	95	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	99	72-114

Date of Report: 01/14/19
Date Received: 12/15/18
Project: MBHA Gateway 160324, F&BI 812222

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF TCLP EXTRACT SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Tetrachloroethene	ug/L (ppb)	50	99	100	76-121	1

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

~~812222~~ 812222 — ME 12-15-18 — Page # 1 of 11 Day/USA

Report To: Jessica Smith & Kristin Beck
Company: Aspect Consulting
Address: 710 2nd Ave, Suite 550
City, State, ZIP: Seattle, WA 98104
Phone: _____ Email: _____

SAMPLERS (signature): Kat Beck
PROJECT NAME: MBHA Gateway
PO #: 160324
REMARKS: ~~Please hold~~
INVOICE TO: Accts payable

TURNAROUND TIME
- [X] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- [X] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	sVOCs by 8270D	PAHs 8270D SIM	EDC 8260C	TCLP PCE			Notes
ADP-42-3.0	01 A-B	12/13/18	0832	soil	5												●-per KB 1/4/19 ME
ADP-42-6.0	02		0835										X				X-per JS 12/18/18
ADP-42-9.0	03		0840										X	♦			ME
ADP-42-13.0	04		0845										●	●			♦-per KB 12/26/18 ME
ADP-43-5.0	05		1001										X				
ADP-43-10.0	06		1003										X				
ADP-43-13.0	07		1007										X				
ADP-43-18.0	08		1010														
ADP-44-4.0	09		0913										Samples received at 4 °C				
ADP-44-7.0	10	↓	0920	↓	↓								X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	12/15/18	802
Received by:	Eric Yon	F&B	12/15/18	802
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SAMPLE CHAIN OF CUSTODY

MG 12-15-18 Page # 2 of 11 pages

812222

Report To: Jessica Smith & Kristin Beck
Company: Aspect Consulting
Address:
City, State, ZIP:
Phone: Email:

SAMPLERS (signature): K Beck
PROJECT NAME: MBHA Gateway
PO #: 160324
REMARKS: Please hold
INVOICE TO: Accts Payable

TURNAROUND TIME
☒ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCP ME			Notes
						ANALYSES REQUESTED											
ADP-44-11.0	11 A-E	12/13/18	0930	soil	5								●				
ADP-44-15.0	12		0935										X	X			
ADP-45-2.5	13		1035										X	X			
ADP-45-5.0	14		1037										X				
ADP-45-9.0	15		1040														
ADP-45-12.0	16		1042										X				
ADP-45-15.0	17		1045														
ADP-45-17.0	18		1050										●				
ADP-45-20.0	19		1055										X				
ADP-46-2.5	20	↓	1120	↓	↓												

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	K Beck	Kristin Beck	Aspect	12/15/18	900
Received by:		Eric Howe	FCB	12/15/18	802
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

812222

ME 12-15-18 Page # 3 of 11 Day/ VS

SAMPLE CHAIN OF CUSTODY

Report To ~~Jessica Smith~~ + Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) [signature]

PROJECT NAME: MBHA Gateway

PO # 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
☒ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCE PCE			Notes
ADP-46-5.0	21 A-E	12/13/18	1125	soil	5								X				Voa not labelled EwB
ADP-46-7.5	22	↓	1130	↓	↓								X				
ADP-46-10.0	23		1131														
ADP-46-12.5	24		1135										X				
ADP-46-15.0	25		1140														
ADP-46-17.5	26		1145										●				
ADP-46-20.0	27		1150										X				
ADP-47-4.0	28		1251														
ADP-47-7.0	29		1256										X				
ADP-47-10.0	30		1258														

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Kristin Beck	Aspect	12/15/18	802
Received by:	[signature]	Eric Young	F&B	12/15/18	802
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029

ME 12-15-18

SAMPLE CHAIN OF CUSTODY

Page # 4 of 11 D04

812222

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) [signature]

PROJECT NAME: MBHA Gateway

PO # 160324

INVOICE TO

REMARKS: Please hold

TURNAROUND TIME USA
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-47-12.5	31 A-E	12/13/18	1306	Soil	5												
ADP-47-15.0	32		1307										X				
ADP-48-3.5	33		1320														
ADP-48-7.5	34		1321										X				
ADP-48-10.0	35		1324														
ADP-48-12.5	36		1330														
ADP-48-15.0	37		1331														
ADP-49-3.5	38		1343														
ADP-49-7.0	39		1348										X				
ADP-49-9.5	40	↓	1350	↓	↓												

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3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Kristin Beck	Aspect	12/15/18	802
Received by: [signature]	Eric Yo	FEB	12/17/18	802
Relinquished by:				
Received by:				

812223

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 5 of Dov/HS4

Report To: ~~Jessica Smith~~ & Kristin Beck

Company: Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature): [signature]

PROJECT NAME: MBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH

Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOC's	TCLP PCE			Notes
													X				
ADP-49-12.5	41 A-F		1357										X	◆			
ADP-49-15.0	42		1400										X	●			
ADP-49-17.5	43		1420														
ADP-49-20.0	44		1421										●				
ADP-49-22.0	45		1441										X				
ADP-50-3.0	46		1451										X				
ADP-50-7.0	47		1456										X				
ADP-50-10.0	48		1457										X	Samples received at ___ °C			
ADP-50-12.5	49		1505														
ADP-50-15.0	50		1507														

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Kristin Beck	Aspect	12/15/18	802
Received by:	[signature]	Eric Young	FeB	12/15/18	802
Relinquished by:					
Received by:					

812223

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 6 of 11

Report To: Jessica Smith & Kristin Beck

Company: Aspect Consulting

Address:

City, State, ZIP:

Phone: Email:

SAMPLERS (signature): Kristin Beck

PROJECT NAME: MBHA Gateway

PO #: 160324

INVOICE TO:

REMARKS: Please hold

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-50-17.5	51 A-E	12/13/18	1519	Soil	5								●				
ADP-51-2.5	52	12/14/18	0824														
ADP-51-6.0	53		0831										X				
ADP-51-10.0	54		0833														
ADP-51-12.5	55		0835										X	◆			
ADP-51-15.0	56		0837										X	●			
ADP-51-18.0	57		0846										●				
ADP-51-22.5	58		0908														
ADP-51-25.0	59		0910										X				
ADP-52-3.5	60	↓	0926	↓	↓												

Samples received at ____ °C

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kristin Beck	Kristin Beck	Aspect	12/15/18	8:02
Received by:	[signature]	Eric Y	F&B	12/15/18	8:02
Relinquished by:					
Received by:					

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3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

812223

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLE CHAIN OF CUSTODY

ME [redacted] 12-15-18 Page # 7 of 11 Day/ IS4

SAMPLERS (signature)	KatBeck
PROJECT NAME	MBHA Gateway
PO #	160324
REMARKS	Please hold
INVOICE TO	

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-52-7.5	61 A-E		0936	soil	5												
ADP-52-10.0	62		0931										X				
ADP-52-15.0	63		0948										X				ADP 52-16.0 on hold
ADP-52-20.0	64		0958														
ADP-53-2.5	65		1019										X				
ADP-53-5.0	66		1024														ADP-53-6.0 on hold
ADP-53-9.0	67		1026										X				
ADP-53-12.0	68		1032										X				
ADP-53-15.0	69		1035														
ADP-54-2.0	70		1050	↓	↓												

Samples received at ___ °C

Friedman & Bruya, Inc.
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Seattle, WA 98119-2029
Ph. (206) 285-8282

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	KatBeck	Kristin Beck	Aspect	12/15/18	8:02
Received by:	[signature]	Eric Young	F&B	12/15/18	8:02
Relinquished by:					
Received by:					

812223

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 8 of 11 D04/VS4

Report To Jessica Smith / Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature)	Kristin Beck
PROJECT NAME	MBHA Gateway
PO #	160324
REMARKS	Please hold
INVOICE TO	

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-S4-4.5	71 A-E	12/14/18	1051	soil	5								X				
ADP-S4-7.5	72		1058										X				
ADP-S4-10.0	73		1100														
ADP-S4-12.5	74		1105														
ADP-S4-15.0	75		1110														
ADP-S5-2.5	76		1218														
ADP-S5-5.0	77		1220														
ADP-S5-7.5	78		1226														
ADP-S5-10.0	79		1230														
ADP-S5-12.5	80		1232														

Samples received at ___ °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kristin Beck	Kristin Beck	Aspect	12/15/18	842
Received by: [signature]	Eric Y[illegible]	F&B	12/15/18	842
Relinquished by:				
Received by:				

812223

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 — Page # 9 of 11 D04/JS4

Report To: Jessica Smith & Kristin Beck

Company: Aspect Consulting

Address: ____

City, State, ZIP ____

Phone ____ Email ____

SAMPLERS (signature): [signature]

PROJECT NAME: MBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO: ____

TURNAROUND TIME
- [x] Standard Turnaround
- ☐ RUSH ____
- Rush charges authorized by: ____

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- ☐ Archive Samples
- ☐ Other ____

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-55-15.0	81 A-E	12/14/18	1235	Soil	5								X	[filled diamond]	← No TCLP ME		
ADP-55-17.5	82	↓	1242	↓	↓								X	[filled diamond]			
ADP-55-20.0	83	↓	1245	↓	↓								X	[filled diamond]			
ADP-55-22.5	84	↓	1251	↓	↓												
ADP-55-25.0	85	↓	1256	↓	↓								[filled dot]				
ADP-55-27.5	86	↓	1300	↓	↓												
ADP-56-3.0	87	↓	1331	↓	↓												Samples received at ____ °C
ADP-56-6.0	88	↓	1333	↓	↓												
ADP-56-8.5	89	↓	1335	↓	↓								X				
ADP-56-12.5	90	↓	1355	↓	↓												

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Kristin Beck	Aspect	12/15/18	8:32
Received by:	[signature]	[illegible]	[illegible]	[illegible]	[illegible]
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SAMPLE CHAIN OF CUSTODY

MC 12-15-18 Page # 10 of 11 DOH/USN

812223

Report To: Jessica Smith & Kristin Beck
Company: Aspect Consulting
Address:
City, State, ZIP:
Phone: Email:

SAMPLERS (signature): Kat Beck
PROJECT NAME: MBHA Gateway
PO #: 160324
REMARKS: Please hold
INVOICE TO:

TURNAROUND TIME
[X] Standard Turnaround
[ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
[X] Dispose after 30 days
[ ] Archive Samples
[ ] Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-56-15.0	91A-E	12/14/18	1400	Soil	5								X				
ADP-56-17.5	92		1405										X				
ADP-56-20.0	93		1410														
ADP-56-22.5	94		1412														
ADP-56-25.0	95		1414										X				
ADP-56-28.0	96		1420														
ADP-57-4.0	97		1427														Samples received at ___ °C
ADP-57-7.0	98		1436														
ADP-57-10.0	99		1432														
ADP-57-13.0	100		1435														

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kat Beck	Kristin Beck	Aspect	12/15/18	800
Received by:		Eric Hone	ERS	12/15/18	800
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

812223

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone ______ Email ______

SAMPLE CHAIN OF CUSTODY

ME 12-15-18

Page # 11 of 11 Dow/VS4

SAMPLERS (signature) [signature]	
PROJECT NAME MRHA Gateway	PO # 160724
REMARKS Please hold	INVOICE TO

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-57-16.0	101 A-E	12/14/18	1456	soil	5								X				
ADP-57-20.0	102	↓	1458	↓	↓								X				
ADP-57-24.0	103	↓	1500	↓	↓								●				

Samples received at ____ °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Kristin Beck	Aspect	12/15/18	8:02
Received by: [signature]	Eric Young	F&B	12/15/18	8:02
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

January 22, 2019

Jessica Smith, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Smith:

Included are the additional results from the testing of material submitted on December 15, 2018 from the MBHA Gateway 160324, F&BI 812222 project. There are 8 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect, Kristin Beck
ASP0122R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 15, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA Gateway 160324 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
812222 -01	ADP-42-3.0
812222 -02	ADP-42-6.0
812222 -03	ADP-42-9.0
812222 -04	ADP-42-13.0
812222 -05	ADP-43-5.0
812222 -06	ADP-43-10.0
812222 -07	ADP-43-13.0
812222 -08	ADP-43-18.0
812222 -09	ADP-44-4.0
812222 -10	ADP-44-7.0
812222 -11	ADP-44-11.0
812222 -12	ADP-44-15.0
812222 -13	ADP-45-2.5
812222 -14	ADP-45-5.0
812222 -15	ADP-45-9.0
812222 -16	ADP-45-12.0
812222 -17	ADP-45-15.0
812222 -18	ADP-45-17.0
812222 -19	ADP-45-20.0
812222 -20	ADP-46-2.5
812222 -21	ADP-46-5.0
812222 -22	ADP-46-7.5
812222 -23	ADP-46-10.0
812222 -24	ADP-46-12.5
812222 -25	ADP-46-15.0
812222 -26	ADP-46-17.0
812222 -27	ADP-46-20.0
812222 -28	ADP-47-4.0
812222 -29	ADP-47-7.0
812222 -30	ADP-47-10.0
812222 -31	ADP-47-12.5
812222 -32	ADP-47-15.0
812222 -33	ADP-48-3.5
812222 -34	ADP-48-7.5
812222 -35	ADP-48-10.0

CASE NARRATIVE (CONTINUED)

Laboratory ID	Aspect Consulting, LLC
812222 -36	ADP-48-12.5
812222 -37	ADP-48-15.0
812222 -38	ADP-49-3.5
812222 -39	ADP-49-7.0
812222 -40	ADP-49-9.5
812222 -41	ADP-49-12.5
812222 -42	ADP-49-15.0
812222 -43	ADP-49-17.5
812222 -44	ADP-49-20.0
812222 -45	ADP-49-22.0
812222 -46	ADP-50-3.0
812222 -47	ADP-50-7.0
812222 -48	ADP-50-10.0
812222 -49	ADP-50-12.5
812222 -50	ADP-50-15.0
812222 -51	ADP-50-17.5
812222 -52	ADP-51-2.5
812222 -53	ADP-51-6.0
812222 -54	ADP-51-10.0
812222 -55	ADP-51-12.5
812222 -56	ADP-51-15.0
812222 -57	ADP-51-18.0
812222 -58	ADP-51-22.5
812222 -59	ADP-51-25.0
812222 -60	ADP-52-3.5
812222 -61	ADP-52-7.5
812222 -62	ADP-52-10.0
812222 -63	ADP-52-15.0
812222 -64	ADP-52-20.0
812222 -65	ADP-53-2.5
812222 -66	ADP-53-5.0
812222 -67	ADP-53-9.0
812222 -68	ADP-53-12.0
812222 -69	ADP-53-15.0
812222 -70	ADP-54-2.0

CASE NARRATIVE (CONTINUED)

Laboratory ID	Aspect Consulting, LLC
812222 -71	ADP-54-4.5
812222 -72	ADP-54-7.5
812222 -73	ADP-54-10.0
812222 -74	ADP-54-12.5
812222 -75	ADP-54-15.0
812222 -76	ADP-55-2.5
812222 -77	ADP-55-5.0
812222 -78	ADP-55-7.5
812222 -79	ADP-55-10.0
812222 -80	ADP-55-12.5
812222 -81	ADP-55-15.0
812222 -82	ADP-55-17.5
812222 -83	ADP-55-20.0
812222 -84	ADP-55-22.5
812222 -85	ADP-55-25.0
812222 -86	ADP-55-27.5
812222 -87	ADP-56-3.0
812222 -88	ADP-56-6.0
812222 -89	ADP-56-8.5
812222 -90	ADP-56-12.5
812222 -91	ADP-56-15.0
812222 -92	ADP-56-17.5
812222 -93	ADP-56-20.0
812222 -94	ADP-56-22.5
812222 -95	ADP-56-25.0
812222 -96	ADP-56-28.0
812222 -97	ADP-57-4.0
812222 -98	ADP-57-7.0
812222 -99	ADP-57-10.0
812222 -100	ADP-57-13.0
812222 -101	ADP-57-16.0
812222 -102	ADP-57-20.0
812222 -103	ADP-57-24.0

The 8260C samples were requested to be analyzed outside of the holding time. The data were flagged accordingly. In addition, several compounds in the 8260C laboratory control sample failed the acceptance criteria. The data were flagged accordingly.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-47-15.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/17/19	Lab ID:	812222-32
Date Analyzed:	01/17/19	Data File:	011723.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.22 jl

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ADP-54-15.0 ht	Client:	Aspect Consulting, LLC
Date Received:	12/15/18	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/17/19	Lab ID:	812222-75
Date Analyzed:	01/17/19	Data File:	011724.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	0.23 jl

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA Gateway 160324, F&BI 812222
Date Extracted:	01/17/19	Lab ID:	09-0039 mb
Date Analyzed:	01/17/19	Data File:	011710.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 01/22/19
Date Received: 12/15/18
Project: MBHA Gateway 160324, F&BI 812222

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 901182-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	36	39	10-91	8
Chloroethane	mg/kg (ppm)	2.5	<0.5	48	50	10-101	4
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	57	60	22-107	5
Methylene chloride	mg/kg (ppm)	2.5	<0.5	81	85	14-128	5
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	67	70	13-112	4
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	75	78	23-115	4
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	81	83	25-120	2
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	80	82	22-124	2
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	72	76	27-112	5
Trichloroethene	mg/kg (ppm)	2.5	<0.02	75	79	30-112	5
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	79	83	25-114	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	82	42-107
Chloroethane	mg/kg (ppm)	2.5	88	47-115
1,1-Dichloroethene	mg/kg (ppm)	2.5	104	65-110
Methylene chloride	mg/kg (ppm)	2.5	129 vo	50-127
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	107	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	108	74-109
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	111 vo	73-110
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	105	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	107	72-116
Trichloroethene	mg/kg (ppm)	2.5	105	72-107
Tetrachloroethene	mg/kg (ppm)	2.5	113 vo	73-111

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

~~812222~~ 812222

SAMPLE CHAIN OF CUSTODY

ME 12-15-18

Page # 1 of 1 Day 154

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email _____

SAMPLERS (signature) Kat Beck

PROJECT NAME MBHA Gateway

PO # 160324

REMARKES ~~Please hold~~

INVOICE TO Accts payable

TURNAROUND TIME
- [X] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [X] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	cVOCs by 8260C	sVOCs by 8270D	PAHs 8270D-SIM	TOC	TCLP PCE			ANALYSES REQUESTED / Notes
ADP-42-3.0	01 A-B	12/13/18	0832	Soil	5								X				● - per KB 1/4/19 ME
ADP-42-6.0	02		0835										X	♦			X - per JS 12/18/18
ADP-42-9.0	03		0840										●	●			ME
ADP-42-13.0	04		0845										X				♦ - per KB 12/26/18 ME
ADP-43-5.0	05		1001										X				⊕ per KB 1/15/19
ADP-43-10.0	06		1003										X				
ADP-43-13.0	07		1007														
ADP-43-18.0	08		1010														Samples received at 4 °C
ADP-44-4.0	09		0913														
ADP-44-7.0	10	↓	0920	↓	↓								X				

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kat Beck	Kristin Beck	Aspect	12/15/18	802
Received by:		Eric Yoon	FEB	12/15/18	802
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

812222

Report To: Jessica Smith & Kristin Beck

Company: Aspect Consulting

Address:

City, State, ZIP:

Phone: ______ Email: ______

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 2 of 11 Day 1ST

SAMPLERS (signature)	PO #	TURNAROUND TIME
[signature]	160324	☒ Standard Turnaround ☐ RUSH Rush charges authorized by:
PROJECT NAME: MBHA Gateway	INVOICE TO: Accts Payable	SAMPLE DISPOSAL ☒ Dispose after 30 days ☐ Archive Samples ☐ Other
REMARKS: Please hold		

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-44-11.0	11 A-E	12/13/18	0930	soil	5								●				
ADP-44-15.0	12		0935										X	X			
ADP-45-2.5	13		1035										X	X			
ADP-45-5.0	14		1037										X				
ADP-45-9.0	15		1040														
ADP-45-12.0	16		1042										X				
ADP-45-15.0	17		1045														
ADP-45-17.0	18		1050										●				
ADP-45-20.0	19		1055										X				
ADP-46-2.5	20	↓	1120	↓	↓												

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Kristin Beck	Aspect	12/15/18	802
Received by:	[signature]	Eric Young	F&B	12/15/18	802
Relinquished by:					
Received by:					

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SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 3 of 11 Day/VS

812222

Report To Jessica Smith / Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone ________ Email

SAMPLERS (signature)	Kristin Beck
PROJECT NAME	MBHA Gateway
PO #	160324
REMARKS	Please hold
INVOICE TO	

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-46-5.0	21 A-E	12/13/18	1125	soil	5								X				Voa not labelled 5vs
ADP-46-7.5	22	↓	1130	↓	↓								X				
ADP-46-10.0	23		1131														
ADP-46-12.5	24		1135										X				
ADP-46-15.0	25		1140														
ADP-46-17.5	26		1145										●				
ADP-46-20.0	27		1150										X				
ADP-47-4.0	28		1251														
ADP-47-7.0	29		1256										X				
ADP-47-10.0	30	↓	1258	↓	↓												

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kristin Beck	Kristin Beck	Aspect	12/15/18	8:02
Received by:	[signature]	Eric Y.	F&B	12/15/18	8:02
Relinquished by:					
Received by:					

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812222 ME 12-15-18 Page # 4 of 11 POY

SAMPLE CHAIN OF CUSTODY

Report To: Jessica Smith & Kristin Beck

Company: Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature): Kristin Beck

PROJECT NAME: MBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME USY
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-47-12.5	31 A-E	12/13/18	1306	Soil	5								⊕				
ADP-47-15.0	32	↓	1307	↓	↓								X				
ADP-48-3.5	33		1320														
ADP-48-7.5	34		1321										X				
ADP-48-10.0	35		1324														
ADP-48-12.5	36		1330														
ADP-48-15.0	37		1331														
ADP-49-3.5	38		1343														
ADP-49-7.0	39		1348										X				
ADP-49-9.5	40		1350														

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kristin Beck	Kristin Beck	Aspect	12/15/18	802
Received by:	Eric Young	FBI	12/17/18	802
Relinquished by:				
Received by:				

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SAMPLE CHAIN OF CUSTODY

ME 12-19-18 Page # 5 of D04/IS4

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) Kristin Beck

PROJECT NAME: MBHA Gateway

PO # 160324

REMARKS: Please hold

INVOICE TO

TURNAROUND TIME
☒ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-49-12.5	41 A-E		1357										X				
ADP-49-15.0	42		1400										X	◆			
ADP-49-17.5	43		1420										X	●			
ADP-49-20.0	44		1421														
ADP-49-22.0	45		1441										●				
ADP-50-3.0	46		1451										X				
ADP-50-7.0	47		1456										X				
ADP-50-10.0	48		1457										X				
ADP-50-12.5	49		1505										X				
ADP-50-15.0	50		1507														

Samples received at ___ °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kristin Beck	Kristin Beck	Aspect	12/19/18	802
Received by: [signature]	Eric Young	F&B	12/19/18	802
Relinquished by:				
Received by:				

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SAMPLE CHAIN OF CUSTODY

ME 12-15-18

Page # 6 of 11

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone ______ Email ______

SAMPLERS (signature) Kristin Beck

PROJECT NAME mBHA Gateway

PO# 160324

REMARKS Please hold

INVOICE TO

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PLK			Notes
ADP-50-17.5	51 A-E	12/13/18	1519	Soil	5								●				
ADP-51-2.5	52	12/14/18	0824	↓	↓												
ADP-51-6.0	53	↓	0831	↓	↓								X				
ADP-51-10.0	54	↓	0833	↓	↓												
ADP-51-12.5	55	↓	0835	↓	↓								X	◆			
ADP-51-15.0	56	↓	0837	↓	↓								X	●			
ADP-51-18.0	57	↓	0846	↓	↓								●				
ADP-51-22.5	58	↓	0908	↓	↓												Samples received at ___ °C
ADP-51-25.0	59	↓	0910	↓	↓								X				
ADP-52-3.5	60	↓	0926	↓	↓												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kristin Beck	Kristin Beck	Aspect	12/15/18	8:02
Received by: [signature]	Eric Y[illegible]	F&B	12/15/18	8:02
Relinquished by:				
Received by:				

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Seattle, WA 98119-2029
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Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 7 of 11 Day/ 154

SAMPLERS (signature) [signature]

PROJECT NAME	PO #
MBHA Gateway	160324
REMARKS	INVOICE TO
Please hold	

TURNAROUND TIME
- ☒ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☒ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-S2-7.5	61 A-E		0936	soil	5												
ADP-S2-10.0	62		0931										X				
ADP-S2-15.0	63		0948										X				ADP S2-16.0 on hold
ADP-S2-20.0	64		0958														
ADP-S3-2.5	65		1019										X				
ADP-S3-5.0	66		1024														ADP-S3-6.0 on hold
ADP-S3-9.0	67		1026										X				
ADP-S3-12.0	68		1032										X				
ADP-S3-15.0	69		1035														
ADP-S4-20	70		1050	↓	↓												

Samples received at ___ °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Kristin Beck	Aspect	12/15/18	8:02
Received by: [signature]	Eric Young	FEB	12/15/18	8:02
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

8I2223

Report To: Jessica Smith / Kristin Beck

Company: Aspect Consulting

Address: ______

City, State, ZIP: ______

Phone: ______ Email: ______

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 8 of 11 PO4/ US4

SAMPLERS (signature): K. Beck

PROJECT NAME: MBHA Gateway

PO #: 160324

INVOICE TO:

REMARKS: Please hold

TURNAROUND TIME
- ☐ Standard Turnaround
- ☐ RUSH ______
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other ______

						ANALYSES REQUESTED											
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-S4-4.5	71 A-E	12/14/18	1051	soil	5								X				
ADP-S4-7.5	72	↓	1058	↓	↓								X				
ADP-S4-10.0	73		1100														
ADP-S4-12.5	74		1105										⌀				
ADP-S4-15.0	75		1110														
ADP-S5-2.5	76		1218														
ADP-S5-5.0	77		1220														
ADP-S5-7.5	78		1226														Samples received at ___ °C
ADP-S5-10.0	79		1230														
ADP-S5-12.5	80		1232														

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	K. Beck	Kristin Beck	Aspect	12/15/18	842
Received by:	[signature]	Eric Yo	F&B	12/15/18	842
Relinquished by:					
Received by:					

812223

SAMPLE CHAIN OF CUSTODY ME 12-15-18

Page # 9 of 11 D04/IS4

Report To: ~~Jessica Smith~~ & Kristin Beck

Company: Aspect Consulting

Address: ______

City, State, ZIP: ______

Phone: ______ Email: ______

SAMPLERS (signature): [signature]

PROJECT NAME: MBHA Gateway

PO #: 160324

REMARKS: Please hold

INVOICE TO: ______

TURNAROUND TIME
- ☒ Standard Turnaround
- ☐ RUSH ______
- Rush charges authorized by: ______

SAMPLE DISPOSAL
- ☒ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other ______

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs	TCLP PCE			Notes
ADP-SS-15.0	81 A-E	12/14/18	1235	Soil	5								X	◆	← NO TCLP ME		
ADP-SS-17.5	82	↓	1242	↓	↓								X	◆			
ADP-SS-20.0	83		1245										X	◆			
ADP-SS-22.5	84		1251														
ADP-SS-25.0	85		1256										●				
ADP-SS-27.5	86		1300														
ADP-S6-3.0	87		1331										Samples received at ___ °C				
ADP-S6-6.0	88		1333														
ADP-S6-8.5	89		1335										X				
ADP-S6-12.5	90	↓	1355	↓	↓												

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Kristin Beck	Aspect	12/15/18	822
Received by:	[signature]	[signature]	FCB	12/15/18	822
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

812222

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 10 of 11 DOY/VS4

Report To: Jessica Smith & Kristin Beck

Company: Aspect Consulting

Address

City, State, ZIP

Phone ___ Email ___

SAMPLERS (signature) [signature]

PROJECT NAME: MBHA Gateway

PO # 160324

INVOICE TO

REMARKS: Please hold

TURNAROUND TIME
- ☒ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☒ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-56-15.0	91 A-E	12/14/18	1400	Soil	5								X				
ADP-56-17.5	92	↓	1405	↓	↓								X				
ADP-56-20.0	93		1410														
ADP-56-22.5	94		1412														
ADP-56-25.0	95		1414										X				
ADP-56-28.0	96		1420														
ADP-57-4.0	97		1427														Samples received at ___ °C
ADP-57-7.0	98		1430														
ADP-57-10.0	99		1432														
ADP-57-13.0	100		1435														

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Kristin Beck	Aspect	12/15/18	802
Received by: [signature]	Eric Young	F&B	12/15/18	802
Relinquished by:				
Received by:				

812223

SAMPLE CHAIN OF CUSTODY

ME 12-15-18 Page # 11 of 11 Dory/VS4

Report To: Jessica Smith & Kristin Beck

Company: Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature): [signature]

PROJECT NAME: MRHA Gateway

PO #: 160724

REMARKS: ~~Please hold~~

INVOICE TO

TURNAROUND TIME

☐ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL

☐ Dispose after 30 days
☐ Archive Samples
☐ Other

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	cVOCs				Notes
ADP-57-16.0	101 A-E	12/14/18	1456	Soil	5								X				
ADP-57-20.0	102	↓	1458	↓	↓								X				
ADP-57-24.0	103	↓	1500	↓	↓								●				
																	Samples received at ___ °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Kristin Beck	Aspect	12/15/18	8:02
Received by: [signature]	Eric Young	F&B	12/15/18	8:02
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

April 5, 2019

Jessica Smith, Project Manager
Aspect Consulting, LLC
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Ms Smith:

Included is the amended report from the testing of material submitted on March 31, 2019 from the Mt. Baker Properties 160324, F&BI 903586 project. The indoor air 1,1,2-trichloroethane reporting limit has been lowered to 0.055 ug/m3 and the project name was updated.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect, Kristin Beck
ASP0404R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

April 4, 2019

Jessica Smith, Project Manager
Aspect Consulting, LLC
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on March 31, 2019 from the Mt. Baker Properties 160324, F&BI 903586 project. There are 20 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect, Kristin Beck
ASP0404R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 31, 2019 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Mt. Baker Properties 160324, F&BI 903586 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
903586 -01	ASV-8
903586 -02	AAM-8
903586 -03	AIN-8
903586 -04	ASV-9
903586 -05	AAM-9
903586 -06	AIN-9
903586 -07	ASV-10
903586 -08	AAM-10
903586 -09	AIN-10
903586 -10	ASV-11
903586 -11	AAM-11
903586 -12	AIN-11

A TO-15 internal standard failed the acceptance criteria for sample ASV-9. The data were qualified accordingly.

Several compounds in the TO-15 laboratory control sample exceeded the acceptance criteria. The analytes were not detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

Date of Report: 04/04/19
Date Received: 03/31/19
Project: Mt. Baker Properties 160324, F&BI 903586
Date Extracted: 04/04/19
Date Analyzed: 04/04/19

RESULTS FROM THE ANALYSIS OF AIR SAMPLES FOR HELIUM USING METHOD ASTM D1946

Results Reported as % Helium

Sample ID Laboratory ID	Helium
ASV-8 903586-01	<0.6
ASV-9 903586-04	<0.6
ASV-10 903586-07	<0.6
ASV-11 903586-10	<0.6
Method Blank	<0.6

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	ASV-8	Client:	Aspect Consulting, LLC
Date Received:	03/31/19	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	03/29/19	Lab ID:	903586-01 1/1.4
Date Analyzed:	04/03/19	Data File:	040216.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.36	<0.14
Chloroethane	<3.7	<1.4
1,1-Dichloroethene	<0.56	<0.14
trans-1,2-Dichloroethene	<0.56	<0.14
1,1-Dichloroethane	<0.57	<0.14
cis-1,2-Dichloroethene	<0.56	<0.14
1,2-Dichloroethane (EDC)	<0.057	<0.014
1,1,1-Trichloroethane	<0.76	<0.14
Trichloroethene	<0.38	<0.07
1,1,2-Trichloroethane	<0.15	<0.028
Tetrachloroethene	9.8	1.4

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AAM-8	Client:	Aspect Consulting, LLC
Date Received:	03/31/19	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	03/29/19	Lab ID:	903586-02
Date Analyzed:	04/01/19	Data File:	040117.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	VM/bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	100	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.13	0.033
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.27	<0.05
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AIN-8	Client:	Aspect Consulting, LLC
Date Received:	03/31/19	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	03/29/19	Lab ID:	903586-03
Date Analyzed:	04/01/19	Data File:	040118.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	VM/bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	109	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.14	0.035
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.27	<0.05
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	ASV-9	Client:	Aspect Consulting, LLC
Date Received:	03/31/19	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	03/29/19	Lab ID:	903586-04 1/14
Date Analyzed:	04/02/19	Data File:	040128.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	VM/bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<3.6 J	<1.4 J
Chloroethane	<37 J	<14 J
1,1-Dichloroethene	<5.6 J	<1.4 J
trans-1,2-Dichloroethene	<5.6 J	<1.4 J
1,1-Dichloroethane	<5.7 J	<1.4 J
cis-1,2-Dichloroethene	<5.6 J	<1.4 J
1,2-Dichloroethane (EDC)	<0.57 J	<0.14 J
1,1,1-Trichloroethane	<7.6 J	<1.4 J
Trichloroethene	5.5	1.0
1,1,2-Trichloroethane	<1.5	<0.28
Tetrachloroethene	950	140

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AAM-9	Client:	Aspect Consulting, LLC
Date Received:	03/31/19	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	03/29/19	Lab ID:	903586-05
Date Analyzed:	04/01/19	Data File:	040119.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	VM/bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	100	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.13	0.032
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.27	<0.05
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AIN-9	Client:	Aspect Consulting, LLC
Date Received:	03/31/19	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	03/29/19	Lab ID:	903586-06
Date Analyzed:	04/01/19	Data File:	040120.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	VM/bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	105	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.16	0.040
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.27	<0.05
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	ASV-10	Client:	Aspect Consulting, LLC
Date Received:	03/31/19	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	03/29/19	Lab ID:	903586-07 1/1.3
Date Analyzed:	04/02/19	Data File:	040125.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	VM/bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	103	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.33	<0.13
Chloroethane	<3.4	<1.3
1,1-Dichloroethene	<0.52	<0.13
trans-1,2-Dichloroethene	<0.52	<0.13
1,1-Dichloroethane	<0.53	<0.13
cis-1,2-Dichloroethene	<0.52	<0.13
1,2-Dichloroethane (EDC)	0.14	0.034
1,1,1-Trichloroethane	<0.71	<0.13
Trichloroethene	<0.35	<0.065
1,1,2-Trichloroethane	<0.14	<0.026
Tetrachloroethene	22	3.3

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AAM-10	Client:	Aspect Consulting, LLC
Date Received:	03/31/19	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	03/29/19	Lab ID:	903586-08
Date Analyzed:	04/01/19	Data File:	040121.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	VM/bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.13	0.032
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.27	<0.05
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AIN-10	Client:	Aspect Consulting, LLC
Date Received:	03/31/19	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	03/29/19	Lab ID:	903586-09
Date Analyzed:	04/01/19	Data File:	040122.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	VM/bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	106	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.24	0.059
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.27	<0.05
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	ASV-11	Client:	Aspect Consulting, LLC
Date Received:	03/31/19	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	03/30/19	Lab ID:	903586-10 1/1.4
Date Analyzed:	04/02/19	Data File:	040126.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	VM/bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	104	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.36	<0.14
Chloroethane	<3.7	<1.4
1,1-Dichloroethene	<0.56	<0.14
trans-1,2-Dichloroethene	<0.56	<0.14
1,1-Dichloroethane	<0.57	<0.14
cis-1,2-Dichloroethene	<0.56	<0.14
1,2-Dichloroethane (EDC)	<0.057	<0.014
1,1,1-Trichloroethane	<0.76	<0.14
Trichloroethene	<0.38	<0.07
1,1,2-Trichloroethane	<0.15	<0.028
Tetrachloroethene	<9.5	<1.4

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AAM-11	Client:	Aspect Consulting, LLC
Date Received:	03/31/19	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	03/30/19	Lab ID:	903586-11
Date Analyzed:	04/02/19	Data File:	040123.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	VM/bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	107	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.13	0.032
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.27	<0.05
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AIN-11	Client:	Aspect Consulting, LLC
Date Received:	03/31/19	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	03/30/19	Lab ID:	903586-12
Date Analyzed:	04/02/19	Data File:	040124.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	VM/bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	103	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	0.16	0.040
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.27	<0.05
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	Not Applicable	Lab ID:	09-0677 mb
Date Analyzed:	04/02/19	Data File:	040211.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.27	<0.05
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Mt. Baker Properties 160324, F&BI 903586
Date Collected:	Not Applicable	Lab ID:	09-0675 mb
Date Analyzed:	04/01/19	Data File:	040116.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	VM/bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	115	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01
1,1,1-Trichloroethane	<0.55	<0.1
Trichloroethene	<0.27	<0.05
1,1,2-Trichloroethane	<0.11	<0.02
Tetrachloroethene	<6.8	<1

Date of Report: 04/04/19
Date Received: 03/31/19
Project: Mt. Baker Properties 160324, F&BI 903586

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR HELIUM USING METHOD ASTM D1946

Laboratory Code: 903586-01 (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	<0.6	<0.6	nm	0-20

Date of Report: 04/04/19
Date Received: 03/31/19
Project: Mt. Baker Properties 160324, F&BI 903586

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ppbv	5	135 vo	70-130
Chloroethane	ppbv	5	128	70-130
1,1-Dichloroethene	ppbv	5	127	70-130
trans-1,2-Dichloroethene	ppbv	5	123	70-130
1,1-Dichloroethane	ppbv	5	131 vo	70-130
cis-1,2-Dichloroethene	ppbv	5	124	70-130
1,2-Dichloroethane (EDC)	ppbv	5	132 vo	70-130
1,1,1-Trichloroethane	ppbv	5	135 vo	70-130
Trichloroethene	ppbv	5	102	70-130
1,1,2-Trichloroethane	ppbv	5	104	70-130
Tetrachloroethene	ppbv	5	105	70-130

Date of Report: 04/04/19
Date Received: 03/31/19
Project: Mt. Baker Properties 160324, F&BI 903586

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ppbv	5	129	70-130
Chloroethane	ppbv	5	123	70-130
1,1-Dichloroethene	ppbv	5	123	70-130
trans-1,2-Dichloroethene	ppbv	5	118	70-130
1,1-Dichloroethane	ppbv	5	126	70-130
cis-1,2-Dichloroethene	ppbv	5	119	70-130
1,2-Dichloroethane (EDC)	ppbv	5	129	70-130
1,1,1-Trichloroethane	ppbv	5	131 vo	70-130
Trichloroethene	ppbv	5	101	70-130
1,1,2-Trichloroethane	ppbv	5	103	70-130
Tetrachloroethene	ppbv	5	105	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

903586

SAMPLE CHAIN OF CUSTODY

ME 03/31/19

Page # 1 of 2

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address 710 2nd Ave Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email _____

SAMPLERS (*signature*) Kat Beck

PROJECT NAME: Mt. Baker Properties ~~Mt Baker Ski Area~~ per JS

PO # 160324

REPORTING LEVEL 4/4/5

X Indoor Air ☐ Deep Soil Gas ☐ Sub Slab/Soil Gas ☐ SVE/Grab

INVOICE TO ~~Mt Baker~~ Accts Payable

TURNAROUND TIME
☐ Standard
X RUSH 24 hr.
Rush charges authorized by: J Smith

SAMPLE DISPOSAL
X Dispose after 30 days
☐ Archive Samples
☐ Other _____

ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Contr. ID	Date Sampled	Field Initial Press. (Hg)	Field Initial Time	Field Final Press. (Hg)	Field Final Time	TO-15 Full Scan	TO-15 BTEXN	TO-15 cVOCs	Helium	Notes
ASV-8	01	3378	~~2466~~ 247	3/29/19	30	1213	1	1219			X	X	Taken to 1" Hg per EY instructions
AAM-8	02	20546			30	1115	~~1~~ 5	1155			X		
AIN-8	03	23230			30	1125	7	1155			X		
ASV-9	04	~~23230~~ 3412	255		30	1518	1	1524			X	X	Taken to 1" Hg per EY instructions
AAM-9	05	18562			30	1115	5	1200			X		
AIN-9	06	23227			30	1120	7	1100			X		
ASV-10	07	3671	256		30	1213	1	1219			X	X	Taken to 1" Hg per EY instructions
AAM-10	08	18572		↓	30	1135	6	1155			X		

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	3/31/19	2030
Received by:	Eric Cox	F-C B	3/31/19	2030
Relinquished by:				
Received by:		Samples received at 20 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

903586

SAMPLE CHAIN OF CUSTODY

MC 03/31/19

Page # 2 of 2

Report To Jessica Smith

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (*signature*) Kst Bck

PROJECT NAME Mt. Baker Properties ~~MBH Gateway~~ Per JS

PO # 160324

REPORTING LEVEL $415

X Indoor Air ☐ Deep Soil Gas ☐ Sub Slab/Soil Gas ☐ SVE/Grab

INVOICE TO

TURNAROUND TIME

☐ Standard X RUSH 24 hr.

Rush charges authorized by:

SAMPLE DISPOSAL

X Dispose after 30 days ☐ Archive Samples ☐ Other

ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Contr. ID	Date Sampled	Field Initial Press. (Hg)	Field Initial Time	Field Final Press. (Hg)	Field Final Time	TO-15 Full Scan	TO-15 BTEXN	TO-15 cVOCs	Hellum	Notes
AIN-10	09	20545		3/29/19	30	1215	10	1220			X		
ASV-11	10	2436	243	3/30/19	29	1111	1	1118			X	X	Taken to 1" Hg per EY instructions
AAM-11	11	18580		↓	30	1080	6	1120			X		
AIN-11	12	18577			30	1030	5	1300			X		

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kst Bck	Kristin Beck	Aspect	3/31/19	2030
Received by:	Eric Crane	F+B	3/31/19	2030
Relinquished by:				
Received by:		Samples received at 20 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

April 4, 2019

Jessica Smith, Project Manager
Aspect Consulting, LLC
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Ms Smith:

Included are the results from the testing of material submitted on April 1, 2019 from the MBHA-Gateway 160324, F&BI 904020 project. There are 7 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Data Aspect, Kristin Beck
ASP0404R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 1, 2019 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC MBHA-Gateway 160324, F&BI 904020 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
904020 -01	AMW-22-040119
904020 -02	AMW-24-040119

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-22-040119	Client:	Aspect Consulting, LLC
Date Received:	04/01/19	Project:	MBHA-Gateway 160324, F&BI 904020
Date Extracted:	04/02/19	Lab ID:	904020-01
Date Analyzed:	04/02/19	Data File:	040209.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	5.3
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	2.7
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-24-040119	Client:	Aspect Consulting, LLC
Date Received:	04/01/19	Project:	MBHA-Gateway 160324, F&BI 904020
Date Extracted:	04/02/19	Lab ID:	904020-02
Date Analyzed:	04/02/19	Data File:	040210.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	9.4
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	24
Tetrachloroethene	630 ve

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-24-040119	Client:	Aspect Consulting, LLC
Date Received:	04/01/19	Project:	MBHA-Gateway 160324, F&BI 904020
Date Extracted:	04/02/19	Lab ID:	904020-02 1/10
Date Analyzed:	04/02/19	Data File:	040240.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)
Tetrachloroethene	510

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	MBHA-Gateway 160324, F&BI 904020
Date Extracted:	04/02/19	Lab ID:	09-674 mb2
Date Analyzed:	04/02/19	Data File:	040208.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 04/04/19
Date Received: 04/01/19
Project: MBHA-Gateway 160324, F&BI 904020

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 903554-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	99	61-139
Chloroethane	ug/L (ppb)	50	<1	110	55-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	99	71-123
Methylene chloride	ug/L (ppb)	50	<5	94	61-126
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	93	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	92	79-113
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	87	63-126
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	90	70-119
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	99	75-121
Trichloroethene	ug/L (ppb)	50	<1	91	73-122
Tetrachloroethene	ug/L (ppb)	50	<1	91	72-113

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	116	108	70-128	7
Chloroethane	ug/L (ppb)	50	127	115	66-149	10
1,1-Dichloroethene	ug/L (ppb)	50	115	108	75-119	6
Methylene chloride	ug/L (ppb)	50	106	100	63-132	6
trans-1,2-Dichloroethene	ug/L (ppb)	50	104	99	76-118	5
1,1-Dichloroethane	ug/L (ppb)	50	102	97	77-119	5
cis-1,2-Dichloroethene	ug/L (ppb)	50	96	91	76-119	5
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	97	96	78-114	1
1,1,1-Trichloroethane	ug/L (ppb)	50	109	103	80-116	6
Trichloroethene	ug/L (ppb)	50	98	95	72-119	3
Tetrachloroethene	ug/L (ppb)	50	99	96	78-109	3

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

90402O

SAMPLE CHAIN OF CUSTODY

ME 04-01-19 VW/

Page 1 of 1

Report To Jessica Smith & Kristin Beck

Company Aspect Consulting

Address 710 2nd AVE, Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email jsmith@aspectconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: MBTA - Gateway

PO #: 160324

REMARKS

INVOICE TO: Accts Payable

TURNAROUND TIME
- ☐ Standard Turnaround
- ☒ RUSH 24hr TAT

Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM					Notes
AMW-22-040119	01 A-C	4/1/19	1500	water	3					X							
AMW-24-040119	02 A-C	↓	1600	↓	3					X							

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Amelia C. Oates	Aspect	4/1/19	1725
Received by:	Bisrat Tadesse	FBI	4/1/19	1725
Relinquished by:				
Received by:		Samples received at 2 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SiREM
Leading Science · Lasting Solutions

130 Stone Rd. W
Guelph, ON N1G 3Z2
(519) 822-2265

Certificate of Analysis: Gene-Trac® *Dehalococcoides* Assay

Customer: Michael Erdahl, Friedman and Bruya, Inc.
Project: 808517
Customer Reference: Not provided

SiREM Reference: S-4980
Report Date: 11-Sep-18
Data Files: iQ5A-DHCT-TM-QPCR-1583
iQ5A-DB-DHC-TM-QPCR-0910

Table 1: Test Results

Sample ID	*Dehalococcoides* (Dhc)	
	Percent Dhc[(1)]	**Enumeration/Liter[(2)]**
MW-3-082218	0.0003 - 0.0009 %	5×10^3 J
MW-12-082218	NA	1×10^4 U
MW-11-082218	NA	3×10^3 U
MW- 8-082218	NA	1×10^4 U
MW-7-082218	NA	1×10^4 U

See final page for notes.

Analyst: Taylor Aris, B.Sc.
Laboratory Technician

Approved: Ximena Druar, B.Sc.
Genetic Testing Coordinator

Table 2: Detailed Test Parameters, Gene-Trac Test Reference S-4980

Customer Sample ID	MW-3-082218	MW-12-082218	MW-11-082218	MW- 8-082218	MW-7-082218
SiREM Dhc Test ID	DHC-16294	DHC-16295	DHC-16296	DHC-16297	DHC-16298
Date Sampled [3]	22-Aug-18	22-Aug-18	22-Aug-18	22-Aug-18	22-Aug-18
Matrix	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Date Received [3]	24-Aug-18	24-Aug-18	24-Aug-18	24-Aug-18	24-Aug-18
Sample Temperature	4.0 °C	4.0 °C	4.0 °C	4.0 °C	4.0 °C
Filtration Date [3]	27-Aug-18	27-Aug-18	27-Aug-18	27-Aug-18	27-Aug-18
Volume Used for DNA Extraction	100 mL	100 mL	500 mL	100 mL	100 mL
DNA Extraction Date	29-Aug-18	29-Aug-18	29-Aug-18	29-Aug-18	29-Aug-18
DNA Concentration in Sample (extractable)	3038 ng/L	4050 ng/L	246 ng/L (J)	3173 ng/L	518 ng/L (J)
PCR Amplifiable DNA	Detected	Detected	Detected	Detected	Detected
Dhc qPCR Date Analyzed	31-Aug-18	31-Aug-18	31-Aug-18	31-Aug-18	31-Aug-18
Laboratory Controls (see Table 3)	Passed	Passed	Passed	Passed	Passed
Comments	- -	- -	- -	- -	- -

See final page for notes

Table 3: Gene-Trac Dhc Control Results, Test Reference S-4980

Laboratory Control	Analysis Date	Control Description	Spiked Dhc 16S rRNA Gene Copies per Liter	Recovered Dhc 16S rRNA Gene Copies per Liter	Comments
Positive Control Low Concentration	31-Aug-18	Genomic DNA (CSLD-1221)	1.7×10^{6}	7.3×10^{5} (4)	See Note 4
Positive Control High Concentration	31-Aug-18	Genomic DNA (CSHD-1221)	1.9×10^{8}	1.0×10^{8}	Passed
Extraction Control	31-Aug-18	Extraction Control (KB-0624)	3.3×10^{11}	2.0×10^{11}	Passed
DNA Extraction Blank	31-Aug-18	Sterile Water (FB-3123)	0	2.6×10^{3} U	Passed
Negative Control	31-Aug-18	Reagent Blank (TBD-1180)	0	2.6×10^{3} U	Passed

See final page for notes.

Notes:
Dhc = *Dehalococcoides*
J The associated value is an estimated quantity between the method detection limit and quantitation limit.
U Not detected, associated value is the quantitation limit.
B Analyte was detected in the method blank within an order of magnitude of the test sample.
E Extracted genomic DNA was not detected in the sample.
I Sample inhibited the test reaction based on inability to PCR amplify extracted DNA with universal primers.
ng/L = nanograms per liter
mL = milliliter
NA = not applicable
ND = not detected
DNA = deoxyribonucleic acid
16S rRNA = 16S ribosomal ribonucleic acid
PCR = polymerase chain reaction
qPCR = quantitative PCR
°C = degrees Celsius

[1]Percent *Dehalococcoides* (Dhc) in microbial population. This value is calculated by dividing the number of Dhc 16S ribosomal ribonucleic acid (rRNA) gene copies by the total number of bacteria as estimated by the mass of DNA extracted from the sample. Range represents normal variation in Dhc enumeration.

[2]Based on quantification of Dhc 16S rRNA gene copies. Dhc are generally reported to contain one 16S rRNA gene copy per cell; therefore, this number is often interpreted to represent the number of Dhc cells present in the sample.

[3]Samples are stabilized by freezing at -80 °C upon sample reception (field filters) or in-lab filtration (groundwater). Hold time not exceeded if sampling date is within 7 days of date received or filtration date.

[4]Control was outside recovery limit guidelines (+/- 50%), however, test results are deemed acceptable if one of two positive controls falls within the recovery limit guidelines.

SUBCONTRACT SAMPLE CHAIN OF CUSTODY S-4980

Page # 1 of 1

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER	
PROJECT NAME/NO. 808517	PO # A-488
REMARKS Please Email Results	

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

	Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: Total Fe	Hardness	Sulfate	Nitrate	Dehalococcoides Nitrite	Alkalinity	Sulfide	TKN	Total Phosphorus	Dissolved Gasses	Notes
✓	MW-3-082218		8/22/16	1100	water	2					X						Client bottles
✓	MW-12-082218			1130		2					X						
	MW-11-082218			1210		2					X						
✓	MW-8-082218			1230		2					X						
✓	MW-7-082218			1410		2					X						
																	4.0°c
																	Good Condition
																	Blue Ice

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	9/23/16	9:00 AM
Received by:	Susan Thomas	Susan Thomas	SiREM	8-24-18	1100 AM
Relinquished by:	Susan Thomas	Susan Thomas	SiREM	8-27-18	1200 PM
Received by:		Alicia Webb	SiREM	8/28/18	1300

Technical Note 1.5:
Interpretation of Gene-Trac® Dhc, *vcrA*, *bvcA and tceA* Assays

This note provides technical background and guidelines for interpretation of the following Gene-Trac® assays:

(1) Gene-Trac® Dhc

(2) Gene-Trac® *vcrA*

(3) Gene-Trac® *bvcA*

(4) Gene-Trac® *tceA*

Gene-Trac® Dhc-Total *Dehalococcoides* Test

Background

Gene-Trac® Dhc is a quantitative polymerase chain reaction (qPCR) test for the microbial species *Dehalococcoides mccartyi* (i.e., *Dehalococcoides* [Dhc]). The Gene-Trac® Dhc test targets sequences of the 16S ribosomal ribonucleic acid (16S rRNA) gene unique to Dhc. Note the 16S rRNA gene does not directly participate in dechlorination, but is used as a molecular fingerprint in the identification and quantification of a wide variety of microbial groups. The detection of Dhc in environmental samples is significant as Dhc contain the greatest number of reductive dehalogenase genes of any microbial group (Tas et al., 2010). Dhc are capable of reductive dechlorination of a wide variety compounds/compound classes including:

- Chlorinated ethenes (tetrachloroethene [PCE], trichloroethene [TCE] , cis-1,2-dichloroethene [*c*DCE], 1,1-dichloroethene [1,1-DCE], trans-1,2-dichloroethene [*t*DCE, vinyl chloride [VC]) (Duhamel et al., 2002);
- 1,2-dichloroethane (1,2-DCA) to ethene (Grostern and Edwards, 2006);
- Selected polychlorinated biphenyl [PCB] congeners (Bedard et al., 2007);
- Selected chlorinated benzene compounds (Adrian et al., 2000; Fennell et al., 2004);
- Chlorophenols and polychlorinated dibenzo-*p*-dioxins (Fennell et al., 2004) and;
- 1,2-dibromoethane (Magnusson et al., 2000).

In addition to screening for diverse dechlorinating activities, Gene-Trac® Dhc can also be used to assess the *in situ* growth of Dhc containing bioaugmentation cultures such as KB-1® (Major et al., 2002).

Gene-Trac® Dhc Results Interpretation

Negative (Non-detect [ND]) Gene-Trac® Dhc Test Results

The absence of Dhc is associated with a lack of dechlorination or only partial reductive dechlorination of chlorinated ethenes. Where Dhc are absent the accumulation of cDCE is commonly observed, particularly after electron donor addition, often due to the presence of partial dechlorinators (e.g., *Dehalobacter, Geobacter*). Bioaugmentation with Dhc containing cultures (e.g., KB-1®) often improves bioremediation performance at sites lacking indigenous Dhc.

Positive (Detect) Gene-Trac® Dhc Test Results

The detection of Dhc is correlated with the complete biological dechlorination of chlorinated ethenes to non-toxic ethene at contaminated sites (Hendrickson et al., 2002). A positive Gene-Trac® Dhc test indicates that Dhc DNA was detected and is correlated with the occurrence of reductive dechlorination. Note, not all Dhc can convert vinyl chloride to ethene; this capability can be determined by quantifying the functional genes (*vcrA*, *bvcA, tceA*) (see following section). In most cases Dhc must be present at sufficient concentrations in order for significant dechlorination to be observed, guidelines for expected impacts on chlorinated ethenes at various Dhc concentrations in groundwater are indicated below.

- **10^4 Dhc gene copies per liter (or lower):** indicates low concentrations of Dhc which may indicate site conditions that are sub-optimal for high rates of dechlorination. Increases in Dhc concentrations at the site may be possible if conditions are optimized (e.g., electron donor addition/pH adjustment).

- **10^5-10^6 Dhc gene copies per liter:** indicates the sample contains moderate concentrations of Dhc which may, or may not, be associated with observable dechlorination activity.

- **1 x 10^7 Dhc gene copies per liter (or above):** indicates that the sample contains high concentrations of Dhc often associated with significant dechlorination rates (Lu et al., 2006).

- **10^9-10^{10} Dhc gene copies per liter:** are generally the highest observed for groundwater samples and are associated with very high rates of dechlorination

Interpretation of Functional Gene Assays for *vcrA*, *bvcA* and *tceA*

Background

Gene-Trac® *vcrA*, *bvcA* and *tceA* tests are provided combined as a functional gene assay package. These tests quantify genes that code for enzymes that dechlorinate chlorinated ethenes and other compounds. The *vcrA*, *bvcA* and *tceA* genes play specific roles in reductive dechlorination, specifically *tceA* converts TCE and cDCE to VC and *vcrA* and *bvcA* convert cDCE and VC to non-toxic ethene (Figure 1).

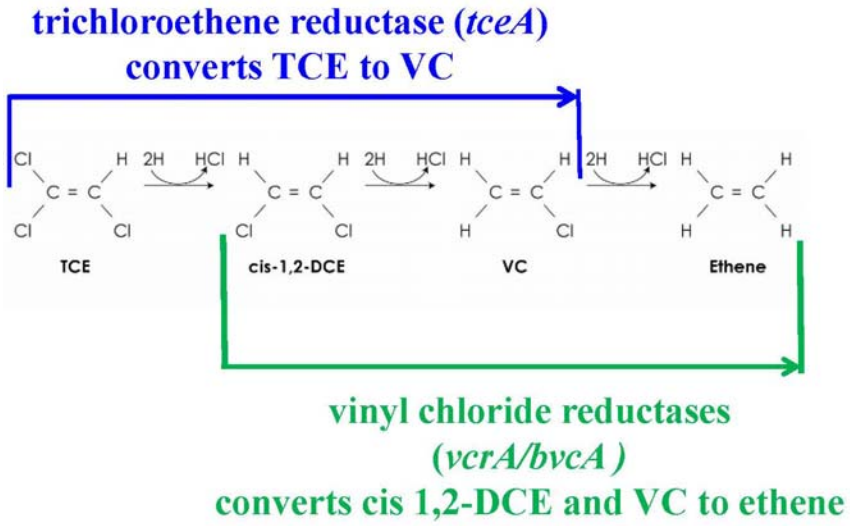
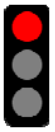


Figure 1: Major (energy yielding) activities against chlorinated ethene of enzymes coded for by the *tceA, vcrA* and *bvcA* genes.

Results Interpretation

Table 1 provides interpretation guidelines for different scenarios for Gene-Trac® Dhc, *vcrA*, *bvcA and tceA* tests. In general, accumulation of VC is more likely where Gene-Trac® *vcrA/bvcA* results are ND, or significantly lower than Gene-Trac® Dhc/*tceA*. Where abundance of *vcrA*/*bvcA* is similar to total Dhc the chances of VC accumulation are reduced.

Table 1: Interpretation of Gene-Trac® Dhc, *vcrA*, bvcA, *tceA* test results

Gene Copies/L				Summary	Interpretation	Remediation Implications	
Dhc	***vcrA***	***bvcA***	***tceA***				
ND	ND	ND	ND	ND for Dhc and functional genes	Site lacks Dhc	Complete dechlorination unlikely, may observe cis-DCE accumulation Site may require bioaugmentation	
≥1 x 10^7	≥1 x 10^7	≥1 x 10^7	≥1 x 10^7	Dhc and *vcrA/bvcA/tceA* are the same	Entire Dhc population has *tceA*, *vcrA* and *bvcA* gene	Potential for complete dechlorination very high. VC stall unlikely-sites with *vcr*A above 1 x 10^7/L typically have detectable ethene	
≥1 x 10^7	ND	≥1 x 10^7	ND	Total Dhc and *bvcA*/are the same *vcrA*/*tceA* ND	Dhc at high concentrations entire Dhc population has *bvcA* gene	Potential for complete dechlorination high. VC stall unlikely	
≥1 x 10^7	≥1 x 10^7	ND	ND	Total Dhc and *vcrA*/are the same *bvcA*/*tceA* ND	Dhc at high concentrations entire Dhc population has *vcrA* gene	Potential for complete dechlorination high. VC stall unlikely-sites with *vcr*A above 1 x 10^7/L often have detectable ethene	
≥1 x 10^7	ND	ND	≥1 x 10^7	Total Dhc high; *vcrA* and *bvcA* non-detect *tceA* same as Dhc	High concentration of Dhc, entire Dhc population has *tceA* but lacks the *vcrA/bvcA* genes	Likelihood for VC accumulation high as *vcrA* and *bvcA* both ND	
1 x 10^7	1 x 10^5	1 x 10^6	1 x 10^7	Total Dhc and *tceA* is significantly higher 10-100 fold) than *vcrA/bvcA*	*Dhc* population consists of different types, some with the *vcrA/* gene (10%) some with *bvcA* gene (1%) all contain *tceA* gene	VC-accumulation possible; Dhc:*vcrA:bvcA:tceA* ratios may evolve over the course of remediation	
1 x 10^7	1 x 10^7	1 x 10^6	ND	Total Dhc is high *vcrA*/*bvcA* high *tceA* ND	*tceA* negative population	cDCE to ethene dechlorination likely PCE and TCE dechlorination possible via *pceA* commonly found in other dechlorinators such as *Dehalobacter*	

 = favorable for complete dechlorination,  = some potential for VC stall  = complete dechlorination unlikely

Gene-Trac® *vcrA*/*bvcA*

Gene-Trac® *vcrA and bvcA* tests quantify VC-reductase genes that produce enzymes that convert VC to non-toxic ethene; a critical step in reductive dechlorination. The VC reductase genes (*vcrA, bvcA*) (Müller et al., 2004; Krajmalnik-Brown et al., 2004) produce enzymes found in many (but not all) Dhc. The *vcrA* gene is reported to be the most commonly identified VC reductase gene in the environment, whereas *bvcA* is generally less common but can predominate especially in more oxidizing groundwater (van der Zaan et al., 2010) and possibly where DCE is dominant. The *vcrA* gene can be used for tracking bioaugmentation cultures including KB-1® and is typically present at a 1:1 ratio with total Dhc whereas the *bvcA* gene is not predominant in the KB-1® culture and is present at less than a 1:1 ratio with total Dhc, therefore *bvcA* is not generally used for tracking KB-1® bioaugmentation and may be negative even after bioaugmentation with KB-1®.

Positive Gene-Trac® *vcrA*, *bvcA* Tests

Positive Gene-Trac® *vcrA* or *bvcA* tests indicate that the Dhc population has the *vcrA* and/or the *bvcA* gene and complete dechlorination to ethene is likely. As a minimal requirement, *vcrA* and/or *bvcA* copies exceeding 10^5/L combined with observed increases over time (i.e., cell growth) are required for robust VC dechlorination (van der Zaan et al., 2010). In one study, more than 90% of samples where *vcrA* enumeration exceeded 1 x 10^7 gene copies/L of groundwater had detectable ethene (Dennis, 2009). The enzyme produced by the *bvcA* genes has also been shown to degrade 1,2-DCA directly to ethene (Grostern and Edwards 2009) and the *bvcA* is used for tracking the KB-1® 1,2-DCA culture.

Non-Detect in Gene-Trac® *vcrA*/*bvcA* Test

A ND in the Gene-Trac® *vcrA* and *bvcA* test indicates that *vcrA/bvcA* gene sequences in the sample were below the detection limit of the assay. In cases where *vcrA/bvcA* are ND the chances of VC accumulation are increased compared to samples with detectable *vcrA*/*bvcA*. In such cases, *tceA* may promote limited and slow cometabolic degradation of VC to ethene (Lee et al., 2008) that may account for (generally low) detections of ethene where *vcrA* and *bvcA* are ND.

Gene-Trac® *tceA*

Gene-Trac® *tceA* test targets the trichloroethene reductase gene that produces an enzyme that primarily converts TCE to *c*DCE and VC. Studies have shown that this gene is commonly expressed under more oxidized conditions compared to *vcrA* (van der Zaan et al., 2010). Note the *tceA* gene is not predominant in the KB-1® culture and therefore *tceA* is not used for tracking KB-1® bioaugmentation.

Positive *tceA* test

A positive *tceA* test indicates that the Dhc population has the potential to dechlorinate TCE to cDCE and VC and VC to ethene cometabolically at relatively slow rates (Lee et al. 2008). Detection of *tceA* in the absence of *vcrA*/*bvcA* also indicates an increased likelihood for VC accumulation. The enzyme produced by *tceA* is also reported to dehalogenate 1,2-DCA and 1,2 dibromoethane (Magnussen et al., 2000).

Negative *tceA* test

A ND *tceA* test indicates that the Dhc population may lack the ability to convert TCE to cDCE and VC, nevertheless, conversion of PCE to cDCE is relatively common amongst other dechlorinators that harbor the *pceA* gene (Maillard et al., 2003; Wagner et al., 2012*)*. Therefore *tceA is* not essential for complete dechlorination of TCE provided that *pceA* harboring microorganisms are present. Gene-Trac® Dhb (*Dehalobacter)* and Gene-Trac® Geo (*Geobacter*) can be used to quantify these common *pceA* containing microorganisms.

Sites with mixed Dhc populations

At some sites the Dhc population is homogenous while other sites have Dhc populations that are mixtures of different Dhc types. These scenarios can lead to differing proportions for Gene-Trac® Dhc *vcrA bvcA* and *tceA* test results. If the numerical results of Gene-Trac® *vcrA, bvcA or tceA* tests are identical to those obtained in the Gene-Trac® Dhc test it suggests that the entire Dhc population contains that gene. In other cases, Gene-Trac® *vcrA, bvcA, tceA* results may differ significantly (i.e., more than an order of magnitude) from total Dhc. For example, the *vcrA* gene may be 100-fold lower than the total Dhc. This scenario would suggest that only 1% of the Dhc population harbors the *vcrA* gene and the remaining 99% of the Dhc population does not contain the *vcrA* gene. In such cases the proportions of the functional genes may change over time (e.g., the proportion of *vcrA* may increase as the VC concentration increases favoring Dhc that contain *vcrA*).

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APPENDIX C

GHD Investigation Data

Table C-1. Summary of GHD Groundwater Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Analyte	Unit	MTCA Method A Cleanup Level	Location / Date / Sample Name: AMW-04 12/04/2018 GW-120418-NT-AMW-4	AMW-05 12/04/2018 GW-120418-NT-AMW-5	MW-01 12/05/2018 GW-120518-NT-MW-1	MW-11 12/04/2018 GW-120418-NT-MW-11	MW-13 12/04/2018 GW-120418-NT-MW-13	MW-08 12/05/2018 GW-120518-NT-MW-8	MW-09 12/05/2018 GW-120518-NT-MW-9
Benzene, Toluene, Ethylbenzene, and Total Xylenes									
Benzene	ug/L	5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Toluene	ug/L	1,000	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Ethylbenzene	ug/L	700	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**47**	< 1 U
Total Xylenes	ug/L	1,000	< 3 U	< 3 U	< 3 U	< 3 U	< 3 U	**131**	< 3 U
Semivolatile Organic Compounds									
Hexachlorobutadiene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Polycyclyic Aromatic Hydrocarbons									
Naphthalene	ug/L	160	< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	**13.7**	< 4 U
Total Petroleum Hydrocarbons									
Gasoline Range Organics	ug/L	1,000	< 100 U	< 100 U	< 100 U	**620**	< 100 U	**6,450**	< 100 U
Diesel Range Organics	mg/L	0.5	< 0.38 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	**0.79**	< 0.37 U
Motor Oil Range Organics	mg/L	0.5	< 0.38 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U
Volatile Organic Compounds									
1,1,1,2-Tetrachloroethane	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
1,1,1-Trichloroethane	ug/L	200	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
1,1,2,2-Tetrachloroethane	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
1,1,2-Trichloroethane	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
1,1-Dichloroethane	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
1,1-Dichloroethene	ug/L		< 1 U	< 1 U	< 1 U	**1.7**	< 1 U	< 2 U	< 1 U
1,1-Dichloropropene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
1,2,3-Trichlorobenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
1,2,3-Trichloropropane	ug/L		< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 8 U	< 4 U
1,2,4-Trichlorobenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
1,2,4-Trimethylbenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**335**	< 1 U
1,2-Dibromo-3-chloropropane	ug/L		< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 8 U	< 4 U
1,2-Dibromoethane (EDB)	ug/L	0.01	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
1,2-Dichlorobenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
1,2-Dichloroethane (EDC)	ug/L	5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
1,2-Dichloropropane	ug/L		< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 8 U	< 4 U
1,3,5-Trimethylbenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**48.7**	< 1 U
1,3-Dichlorobenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
1,3-Dichloropropane	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
1,4-Dichlorobenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
2,2-Dichloropropane	ug/L		< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 8 U	< 4 U
2-Butanone	ug/L		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U
2-Chlorotoluene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
2-Hexanone	ug/L		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U
4-Chlorotoluene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
4-Methyl-2-pentanone	ug/L		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U
Acetone	ug/L		< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 40 U	< 20 U
Bromobenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Bromochloromethane	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Bromodichloromethane	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Bromoform	ug/L		< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 8 U	< 4 U
Bromomethane	ug/L		< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 8 U	< 4 U
Carbon Disulfide	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Carbon Tetrachloride	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Chlorobenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Chloroethane	ug/L		< 1 U	< 4 U	< 1 U	< 1 U	< 1 U	< 2 U	< 4 U
Chloroform	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Chloromethane	ug/L		< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 8 U	< 4 U
cis-1,2-Dichloroethene (DCE)	ug/L		**88.7**	< 1 U	**25.9**	**19.7**	**36.4**	< 2 U	**75.4**
cis-1,3-Dichloropropene	ug/L		< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 8 U	< 4 U
Dibromochloromethane	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Dibromomethane	ug/L		< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 8 U	< 4 U
Dichlorodifluoromethane	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Isopropylbenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**32.7**	< 1 U
m,p-Xylenes	ug/L		< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	**108**	< 2 U
Methylene Chloride	ug/L	5	< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 8 U	< 4 U
n-Butylbenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**17.6**	< 1 U
n-Propylbenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**87.9**	< 1 U
o-Xylene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**23.4**	< 1 U
p-Isopropyltoluene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**4.3**	< 1 U
sec-Butylbenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**12.7**	< 1 U
Styrene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
tert-Butylbenzene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Tetrachloroethene (PCE)	ug/L	5	**153**	< 1 U	**3.4**	**1,400**	**1.7**	< 2 U	**29.4**
trans-1,2-Dichloroethene	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
trans-1,3-Dichloropropene	ug/L		< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 8 U	< 4 U
Trichloroethene (TCE)	ug/L	5	**40.2**	< 0.4 U	**4.2**	**45.8**	< 0.4 U	< 0.8 U	**25.6**
Trichlorofluoromethane	ug/L		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U
Vinyl Chloride	ug/L	0.2	**11.1**	**0.0414**	**8.26**	**0.401**	**29.6**	**0.307**	**6.59**

Notes:

Bold - Analyte was detected.

Blue - Detected concentration exceeded MTCA Method A cleanup level.

U - Analyte was not detected above the laboratory reporting limit.

MTCA - Model Toxics Control Act

mg/L - milligrams per liter, ug/L - micrograms per liter

Table C-2. Summary of GHD Soil Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Analyte	Unit	MTCA Method A Cleanup Level	Location Date Sample Depth VP-1-D 11/29/2018 S-061992-112918-DT-VP1D 10.5 10.5 ft	VP-1-S 11/27/2018 S-061992-112718-DT-VP1S 6.0 6 ft	VP-2-D 11/29/2018 S-061992-112918-DT-VP2D-12.0 12 ft	VP-2-S 11/29/2018 S-061992-112918-DT-VP2S-6.0 6 ft	VP-3-D 11/28/2018 S-061992-112818-DT-VP3D-12.0 12 ft	VP-3-S 11/28/2018 S-061992-112818-DT-VP3S-7.0 7 ft	VP-4-D 11/30/2018 S-061992-113018-VP4D-12.0 12 ft	VP-4-S 11/30/2018 S-061992-113018-VP4S-6.0 6 ft	VP-5-D 11/29/2018 S-061992-112918-VP5D-12.0 12 ft	VP-5-S 11/29/2018 S-061992-112918-VP5S-7.0 7 ft
Benzene, Toluene, Ethylbenzene, and Total Xylenes												
Benzene	mg/kg	0.03	< 0.023 U	< 0.022 U	< 0.024 U	< 0.023 U	< 0.024 U	< 0.023 U	< 0.024 U	< 0.023 U	< 0.023 U	< 0.023 U
Toluene	mg/kg	7	< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Ethylbenzene	mg/kg	6	< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Total Xylenes	mg/kg	9	< 0.17 U	< 0.17 U	< 0.18 U	< 0.17 U	< 0.18 U	< 0.17 U	< 0.18 U	< 0.17 U	< 0.17 U	< 0.17 U
Conventionals												
Moisture Content	%		**12.1**	**9.9**	**15.3**	**13.1**	**15.7**	**14.4**	**13.9**	**10.1**	**11.6**	**15**
Semivolatile Organic Compounds												
Hexachlorobutadiene	mg/kg		< 0.28 U	< 0.28 U	< 0.3 U	< 0.28 U	< 0.3 U	< 0.29 U	< 0.3 U	< 0.29 U	< 0.29 U	< 0.29 U
Polycyclic Aromatic Hydrocarbons												
Naphthalene	mg/kg	5	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.23 U
Total Petroleum Hydrocarbons												
Gasoline Range Organics	mg/kg	30	< 5.5 U	< 5.5 U	< 6 U	< 5.6 U	< 6.1 U	< 5.7 U	< 5.9 U	< 5.3 U	< 5.8 U	< 5.7 U
Diesel Range Organics	mg/kg	2,000	< 16.9 U	< 16.6 U	< 17.6 U	< 17.2 U	< 17.7 U	< 17.3 U	< 17 U	< 16.4 U	< 16.6 U	< 17.4 U
Motor Oil Range Organics	mg/kg	2,000	**42.3**	< 11.1 U	**12**	< 11.5 U	< 11.8 U	< 11.5 U	< 11.3 U	< 10.9 U	< 11.1 U	**31.7**
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,1,1-Trichloroethane	mg/kg	2	< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,1,2,2-Tetrachloroethane	mg/kg		< 0.057 U	< 0.055 U	< 0.24 U	< 0.23 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.23 U	< 0.23 U	< 0.23 U
1,1,2-Trichloroethane	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,1-Dichloroethane	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,1-Dichloroethene	mg/kg		< 0.057 U	< 0.055 U	< 0.24 U	< 0.23 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.23 U	< 0.23 U	< 0.23 U
1,1-Dichloropropene	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.24 U	< 0.23 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,2,3-Trichlorobenzene	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,2,3-Trichloropropane	mg/kg		< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.23 U
1,2,4-Trichlorobenzene	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,2,4-Trimethylbenzene	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,2-Dibromo-3-chloropropane	mg/kg		< 0.57 U	< 0.55 U	< 0.6 U	< 0.57 U	< 0.6 U	< 0.57 U	< 0.6 U	< 0.57 U	< 0.58 U	< 0.57 U
1,2-Dibromoethane (EDB)	mg/kg	0.005	< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,2-Dichlorobenzene	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,2-Dichloroethane (EDC)	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,2-Dichloropropane	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,3,5-Trimethylbenzene	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,3-Dichlorobenzene	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,3-Dichloropropane	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
1,4-Dichlorobenzene	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
2,2-Dichloropropane	mg/kg		< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.23 U
2-Butanone	mg/kg		< 0.28 U	< 0.28 U	< 0.3 U	< 0.28 U	< 0.3 U	< 0.29 U	< 0.3 U	< 0.29 U	< 0.29 U	< 0.29 U
2-Chlorotoluene	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
2-Hexanone	mg/kg		< 0.28 U	< 0.28 U	< 0.3 U	< 0.28 U	< 0.3 U	< 0.29 U	< 0.3 U	< 0.29 U	< 0.29 U	< 0.29 U
4-Chlorotoluene	mg/kg		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
4-Methyl-2-pentanone	mg/kg		< 0.28 U	< 0.28 U	< 0.3 U	< 0.28 U	< 0.3 U	< 0.29 U	< 0.3 U	< 0.29 U	< 0.29 U	< 0.29 U

Table C-2. Summary of GHD Soil Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

			Location	VP-1-D	VP-1-S	VP-2-D	VP-2-S	VP-3-D	VP-3-S	VP-4-D	VP-4-S	VP-5-D	VP-5-S
			Date	11/29/2018	11/27/2018	11/29/2018	11/29/2018	11/28/2018	11/28/2018	11/30/2018	11/30/2018	11/29/2018	11/29/2018
			Sample	S-061992-112918-DT-VP1D 10.5	S-061992-112718-DT-VP1S 6.0	S-061992-112918-DT-VP2D-12.0	S-061992-112918-DT-VP2S-6.0	S-061992-112818-DT-VP3D-12.0	S-061992-112818-DT-VP3S-7.0	S-061992-113018-VP4D-12.0	S-061992-113018-VP4S-6.0	S-061992-112918-VP5D-12.0	S-061992-112918-VP5S-7.0
			Depth	10.5 ft	6 ft	12 ft	6 ft	12 ft	7 ft	12 ft	6 ft	12 ft	7 ft
Volatile Organic Compounds (continued)													
Acetone	mg/kg			< 1.1 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1.2 U	< 1.1 U
Bromobenzene	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Bromochloromethane	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Bromodichloromethane	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Bromoform	mg/kg			< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.23 U
Bromomethane	mg/kg			< 0.57 U	< 0.55 U	< 0.6 U	< 0.57 U	< 0.6 U	< 0.57 U	< 0.6 U	< 0.57 U	< 0.58 U	< 0.57 U
Carbon Disulfide	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Carbon Tetrachloride	mg/kg			< 0.23 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.057 U	< 0.058 U	< 0.057 U
Chlorobenzene	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Chloroethane	mg/kg			< 0.57 U	< 0.55 U	< 0.6 U	< 0.57 U	< 0.6 U	< 0.57 U	< 0.6 U	< 0.57 U	< 0.58 U	< 0.57 U
Chloroform	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Chloromethane	mg/kg			< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.23 U
cis-1,2-Dichloroethene (DCE)	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
cis-1,3-Dichloropropene	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Dibromochloromethane	mg/kg			< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.23 U
Dichlorodifluoromethane	mg/kg			< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.23 U
Isopropylbenzene	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
m,p-Xylenes	mg/kg			< 0.11 U	< 0.11 U	< 0.12 U	< 0.11 U	< 0.12 U	< 0.11 U	< 0.12 U	< 0.11 U	< 0.12 U	< 0.11 U
Methyl tert-butyl ether (MTBE)	mg/kg	0.1		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Methylene Chloride	mg/kg	0.02		< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.23 U
n-Butylbenzene	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
n-Propylbenzene	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
o-Xylene	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
p-Isopropyltoluene	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
sec-Butylbenzene	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Styrene	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
tert-Butylbenzene	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Tetrachloroethene (PCE)	mg/kg	0.05		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	**0.086**	< 0.058 U	< 0.057 U
trans-1,2-Dichloroethene	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
trans-1,3-Dichloropropene	mg/kg			< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Trichloroethene (TCE)	mg/kg	0.03		< 0.057 U	< 0.055 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.058 U	< 0.057 U
Trichlorofluoromethane	mg/kg			< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.23 U
Vinyl Chloride	mg/kg			< 0.023 U	< 0.022 U	< 0.06 U	< 0.057 U	< 0.06 U	< 0.057 U	< 0.024 U	< 0.057 U	< 0.058 U	< 0.057 U

Table C-2. Summary of GHD Soil Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Analyte	Unit	MTCA Method A Cleanup Level	Location Date Sample Depth VP-6-D 11/30/2018 S-061992-113018-VP6D-12.0 12 ft	VP-6-S 11/30/2018 S-061992-113018-VP6S-6.0 6 ft	VP-7-D 11/30/2018 S-061992-113018-VP7D-12.0 12 ft	VP-7-S 11/28/2018 S-061992-112818-DT-VP7S-5.5 5.5 ft	VP-8-D 11/29/2018 S-061992-112918-DT-VP8D-12.0 12 ft	VP-8-S 11/29/2018 S-061992-112918-DT-VP8S-7.0 7 ft	VP-9-D 11/29/2018 S-061992-112918-DT-VP9D-12.0 12 ft	VP-9-S 11/29/2018 S-061992-112918-DT-VP9S-6.0 6 ft	VP-9-S 11/27/2018 S-061992-112718-DT-VP9S-15 1.25 ft
Benzene, Toluene, Ethylbenzene, and Total Xylenes											
Benzene	mg/kg	0.03	< 0.022 U	< 0.022 U	< 0.022 U	< 0.023 U	< 0.022 U	< 0.022 U	< 0.022 U	< 0.025 U	**2.4**
Toluene	mg/kg	7	< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	**3.8**
Ethylbenzene	mg/kg	6	< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	**0.082**	< 0.056 U	< 0.056 U	< 0.062 U	**0.36**
Total Xylenes	mg/kg	9	< 0.17 U	< 0.17 U	< 0.16 U	< 0.17 U	**0.74**	< 0.17 U	< 0.17 U	< 0.18 U	**4.7**
Conventionals											
Moisture Content	%		**10.5**	**11**	**10.2**	**10**	**11**	**12.4**	**10.5**	**6.3**	**8.5**
Semivolatile Organic Compounds											
Hexachlorobutadiene	mg/kg		< 0.28 U	< 0.28 U	< 0.27 U	< 0.29 U	< 0.27 U	< 0.28 U	< 0.28 U	< 0.31 U	< 0.3 U
Polycyclic Aromatic Hydrocarbons											
Naphthalene	mg/kg	5	< 0.22 U	< 0.22 U	< 0.22 U	< 0.23 U	**0.51**	< 0.22 U	< 0.22 U	< 0.25 U	< 0.24 U
Total Petroleum Hydrocarbons											
Gasoline Range Organics	mg/kg	30	< 5.4 U	< 5.6 U	< 5.4 U	< 5.5 U	**762**	< 5.6 U	< 5.4 U	< 6.2 U	**89.4**
Diesel Range Organics	mg/kg	2,000	< 16.4 U	< 16.5 U	< 16.4 U	< 16.4 U	**23.8**	< 17 U	**691**	**896**	**685**
Motor Oil Range Organics	mg/kg	2,000	< 10.9 U	< 11 U	< 10.9 U	**16.8**	< 11.2 U	< 11.3 U	**11,400**	**14,200**	**9,520**
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
1,1,1-Trichloroethane	mg/kg	2	< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
1,1,2,2-Tetrachloroethane	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.22 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.06 U
1,1,2-Trichloroethane	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
1,1-Dichloroethane	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
1,1-Dichloroethene	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.22 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.06 U
1,1-Dichloropropene	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.23 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
1,2,3-Trichlorobenzene	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
1,2,3-Trichloropropane	mg/kg		< 0.22 U	< 0.22 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.24 U
1,2,4-Trichlorobenzene	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
1,2,4-Trimethylbenzene	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	**22.3**	< 0.056 U	< 0.056 U	< 0.062 U	**0.93**
1,2-Dibromo-3-chloropropane	mg/kg		< 0.56 U	< 0.56 U	< 0.54 U	< 0.58 U	< 0.55 U	< 0.56 U	< 0.56 U	< 0.62 U	< 0.6 U
1,2-Dibromoethane (EDB)	mg/kg	0.005	< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
1,2-Dichlorobenzene	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
1,2-Dichloroethane (EDC)	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
1,2-Dichloropropane	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
1,3,5-Trimethylbenzene	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	**8.8**	< 0.056 U	< 0.056 U	< 0.062 U	**0.42**
1,3-Dichlorobenzene	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
1,3-Dichloropropane	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
1,4-Dichlorobenzene	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
2,2-Dichloropropane	mg/kg		< 0.22 U	< 0.22 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.24 U
2-Butanone	mg/kg		< 0.28 U	< 0.28 U	< 0.27 U	< 0.29 U	< 0.27 U	< 0.28 U	< 0.28 U	< 0.31 U	< 0.3 U
2-Chlorotoluene	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
2-Hexanone	mg/kg		< 0.28 U	< 0.28 U	< 0.27 U	< 0.29 U	< 0.27 U	< 0.28 U	< 0.28 U	< 0.31 U	< 0.3 U
4-Chlorotoluene	mg/kg		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
4-Methyl-2-pentanone	mg/kg		< 0.28 U	< 0.28 U	< 0.27 U	< 0.29 U	< 0.27 U	< 0.28 U	< 0.28 U	< 0.31 U	< 0.3 U

Table C-2. Summary of GHD Soil Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

			Location	VP-6-D	VP-6-S	VP-7-D	VP-7-S	VP-8-D	VP-8-S	VP-9-D	VP-9-S	VP-9-S
			Date	11/30/2018	11/30/2018	11/30/2018	11/28/2018	11/29/2018	11/29/2018	11/29/2018	11/29/2018	11/27/2018
			Sample	S-061992-113018-VP6D-12.0	S-061992-113018-VP6S-6.0	S-061992-113018-VP7D-12.0	S-061992-112818-DT-VP7S-5.5	S-061992-112918-DT-VP8D-12.0	S-061992-112918-DT-VP8S-7.0	S-061992-112918-DT-VP9D-12.0	S-061992-112918-DT-VP9S-6.0	S-061992-112718-DT-VP9S-15
			Depth	12 ft	6 ft	12 ft	5.5 ft	12 ft	7 ft	12 ft	6 ft	1.25 ft
Volatile Organic Compounds (continued)												
Acetone	mg/kg			< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.2 U
Bromobenzene	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
Bromochloromethane	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
Bromodichloromethane	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
Bromoform	mg/kg			< 0.22 U	< 0.22 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.24 U
Bromomethane	mg/kg			< 0.56 U	< 0.56 U	< 0.54 U	< 0.58 U	< 0.55 U	< 0.56 U	< 0.56 U	< 0.62 U	< 0.6 U
Carbon Disulfide	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
Carbon Tetrachloride	mg/kg			< 0.22 U	< 0.22 U	< 0.22 U	< 0.23 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
Chlorobenzene	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
Chloroethane	mg/kg			< 0.56 U	< 0.56 U	< 0.54 U	< 0.58 U	< 0.55 U	< 0.56 U	< 0.56 U	< 0.62 U	< 0.6 U
Chloroform	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
Chloromethane	mg/kg			< 0.22 U	< 0.22 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.24 U
cis-1,2-Dichloroethene (DCE)	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
cis-1,3-Dichloropropene	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
Dibromochloromethane	mg/kg			< 0.22 U	< 0.22 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.24 U
Dichlorodifluoromethane	mg/kg			< 0.22 U	< 0.22 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.24 U
Isopropylbenzene	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	**0.31**	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
m,p-Xylenes	mg/kg			< 0.11 U	< 0.11 U	< 0.11 U	< 0.12 U	**0.58**	< 0.11 U	< 0.11 U	< 0.12 U	**3.2**
Methyl tert-butyl ether (MTBE)	mg/kg	0.1		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
Methylene Chloride	mg/kg	0.02		< 0.22 U	< 0.22 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.24 U
n-Butylbenzene	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	**2.6**	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
n-Propylbenzene	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	**1.9**	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
o-Xylene	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	**0.16**	< 0.056 U	< 0.056 U	< 0.062 U	**1.5**
p-Isopropyltoluene	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	**0.63**	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
sec-Butylbenzene	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	**0.69**	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
Styrene	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	**0.79**
tert-Butylbenzene	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
Tetrachloroethene (PCE)	mg/kg	0.05		< 0.056 U	**0.1**	**0.057**	< 0.058 U	< 0.055 U	< 0.056 U	**0.15**	**0.42**	**0.45**
trans-1,2-Dichloroethene	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
trans-1,3-Dichloropropene	mg/kg			< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
Trichloroethene (TCE)	mg/kg	0.03		< 0.056 U	< 0.056 U	< 0.054 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.06 U
Trichlorofluoromethane	mg/kg			< 0.22 U	< 0.22 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.24 U
Vinyl Chloride	mg/kg			< 0.022 U	< 0.022 U	< 0.022 U	< 0.058 U	< 0.055 U	< 0.056 U	< 0.056 U	< 0.062 U	< 0.024 U

Notes:

Bold - analyte was detected

Blue - detected concentration exceeded MTCA Method A cleanup level

U - analyte was not detected above the laboratory reporting limit

MTCA - Model Toxics Control Act, mg/kg - milligrams per kilogram, ft - feet

Table C-3. Summary of GHD Soil Gas Results

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Location			VP-1-D	VP-1-S	VP-2-D	VP-2-S	VP-3-D	VP-3-S	VP-4-D	VP-4-S	VP-5-D	VP-5-S	VP-6-D	VP-6-S	VP-7-D	VP-7-S	VP-8-S	VP-9-D	VP-9-S
Date			12/06/2018	12/06/2018	12/05/2018	12/05/2018	12/05/2018	12/06/2018	12/07/2018	12/07/2018	12/04/2018	12/04/2018	12/07/2018	12/07/2018	12/07/2018	12/07/2018	12/05/2018	12/06/2018	12/06/2018
Sample Name			VP-1-D	VP-1-5	VP-2-D	VP-2-5	VP-3-D	VP-3-S	VP-4-D	VP-4-S	VP-5-D	VP-5-S	VP-6-D	VP-6-S	VP-7-D	VP-7-S	VP-8-5	VP-9-D	VP-9-S
Depth			9.75 ft	4.75 ft	9.75 ft	4.75 ft	9.75 ft	4.75 ft	9.75 ft	4.75 ft	9.75 ft	4.75 ft	9.75 ft	4.75 ft	9.75 ft	4.75 ft	4.75 ft	9.75 ft	4.75 ft
Analyte	Unit	MTCA Method B Subslab Screening Level																	
Conventionals																			
Carbon Dioxide	% VOL		**2.75**	**2.22**	**7.22**	**6.96**	**2.84**	**2.68**	**4.14**	**2.03**	**5.07**	**3.51**	**3.73**	**2.03**	**2.56**	**2.48**	**4.62**	**0.801**	**0.797**
Methane	% VOL		< 0.14 U	< 0.13 U	< 0.16 U	< 0.14 U	< 0.14 U	< 0.13 U	< 0.13 U	< 0.14 U	< 0.14 U	< 0.14 U	< 0.14 U	< 0.13 U	< 0.13 U	< 0.13 U	< 0.14 U	< 0.13 U	< 0.13 U
Oxygen	% VOL		**14.9**	**15.7**	**9.24**	**8.86**	**16**	**16.3**	**16**	**17.7**	**11.9**	**12.7**	**16.3**	**17**	**17.6**	**18**	**12**	**21.2**	**21.3**
Chlorinated Solvents																			
1,2,4-Trimethylbenzene	ug/m^3	107	**1.2**	**0.95**	**1.4**	< 0.73 U	**2.2**	< 0.68 U	< 13 U	< 18 U	< 5.3 U	**1.3**	< 24 U	< 17 U	< 14 U	< 12 U	**0.96**	< 4.7 U	< 4.7 U
1,2-Dibromoethane (EDB)	ug/m^3	0.139	< 0.78 U	< 0.72 U	< 0.87 U	< 0.75 U	< 0.74 U	< 0.7 U	< 13 U	< 18 U	< 5.4 U	< 0.73 U	< 25 U	< 18 U	< 14 U	< 12 U	< 0.75 U	< 4.8 U	< 4.8 U
1,2-Dichloroethane (EDC)	ug/m^3	3.21	< 0.76 U	< 0.7 U	< 0.85 U	< 0.73 U	< 0.73 U	< 0.68 U	< 13 U	< 18 U	< 5.3 U	< 0.72 U	< 24 U	< 17 U	< 14 U	< 12 U	< 0.74 U	< 4.7 U	< 4.7 U
1,3,5-Trimethylbenzene	ug/m^3		< 0.76 U	< 0.7 U	**0.87**	< 0.73 U	< 0.73 U	< 0.68 U	< 13 U	< 18 U	< 5.3 U	< 0.72 U	< 24 U	< 17 U	< 14 U	< 12 U	< 0.74 U	< 4.7 U	< 4.7 U
Benzene	ug/m^3	10.7	< 0.75 U	< 0.69 U	< 0.84 U	< 0.72 U	< 0.71 U	< 0.67 U	< 12 U	< 18 U	< 5.2 U	**0.75**	< 24 U	< 17 U	< 14 U	< 11 U	< 0.72 U	< 4.6 U	< 4.6 U
cis-1,2-Dichloroethene (DCE)	ug/m^3		< 0.76 U	< 0.7 U	**2.4**	< 0.73 U	< 0.73 U	< 0.68 U	**77**	< 18 U	< 5.3 U	< 0.72 U	< 24 U	< 17 U	< 14 U	< 12 U	< 0.74 U	**13**	**16**
Ethylbenzene	ug/m^3	15,200	< 0.75 U	< 0.69 U	< 0.84 U	< 0.72 U	**0.82**	< 0.67 U	< 12 U	< 18 U	< 5.2 U	**1.7**	< 24 U	< 17 U	< 14 U	< 11 U	< 0.72 U	< 4.6 U	< 4.6 U
m,p-Xylenes	ug/m^3	1,520	**2.6**	**2.4**	< 1.8 U	< 1.5 U	**3.9**	< 1.4 U	< 26 U	< 37 U	< 11 U	**2**	< 51 U	< 36 U	< 29 U	< 24 U	< 1.5 U	< 9.7 U	< 9.8 U
Naphthalene	ug/m^3	2.45	< 0.73 U	< 0.68 U	< 0.82 U	< 0.7 U	< 0.7 U	< 0.66 U	< 12 U	< 17 U	< 5.1 U	**1.1**	< 23 U	< 17 U	< 14 U	< 11 U	< 0.71 U	< 4.5 U	< 4.6 U
n-Hexane	ug/m^3	10,700	< 0.78 U	< 0.72 U	< 0.87 U	< 0.75 U	**1.9**	< 0.7 U	< 13 U	< 18 U	< 5.4 U	< 0.73 U	< 25 U	< 18 U	< 14 U	< 12 U	< 0.75 U	< 4.8 U	< 4.8 U
o-Xylene	ug/m^3	1,520	**1.2**	**1.1**	< 0.85 U	< 0.73 U	**2.1**	< 0.68 U	< 13 U	< 18 U	< 5.3 U	**0.85**	< 24 U	< 17 U	< 14 U	< 12 U	< 0.74 U	< 4.7 U	< 4.7 U
Tetrachloroethene (PCE)	ug/m^3	321	**130**	**51**	**450**	**200**	**360**	**250**	**1,700**	**3,100**	**1,100**	**360**	**4,000**	**3,000**	**2,300**	**2,000**	**140**	**830**	**740**
Toluene	ug/m^3	76,200	**67**	**60**	**6.9**	**25**	**3.7**	**9.3**	< 13 U	< 18 U	< 5.3 U	**3.3**	< 24 U	< 17 U	< 14 U	< 12 U	**6.6**	< 4.7 U	< 4.7 U
Total Xylenes	ug/m^3	1,520	**3.8**	**3.5**	< 1.8 U	< 1.5 U	**6**	< 1.4 U	< 26 U	< 37 U	< 5.3 U	**2.85**	< 51 U	< 36 U	< 29 U	< 24 U	< 1.5 U	< 9.7 U	< 9.8 U
Trichloroethene (TCE)	ug/m^3	12.3	< 0.76 U	< 0.7 U	**19**	< 0.73 U	**2.1**	**4.7**	**63**	< 18 U	**120**	**2.1**	**140**	**60**	**130**	**64**	< 0.74 U	**90**	**88**
Vinyl Chloride	ug/m^3	9.33	< 0.76 U	< 0.7 U	< 0.85 U	< 0.73 U	< 0.73 U	< 0.68 U	< 13 U	< 18 U	< 5.3 U	< 0.72 U	< 24 U	< 17 U	< 14 U	< 12 U	< 0.74 U	< 4.7 U	< 4.7 U
Aromatic Hydrocarbons																			
C5 - C8 Aliphatic Hydrocarbons	ug/m^3	90,000	**79**	**130**	**93**	< 28 U	**110**	< 26 U	< 470 U	< 680 U	< 200 U	**170**	< 920 U	< 660 U	< 530 U	< 440 U	**43**	< 180 U	< 180 U
C9 - C10 Aromatic Hydrocarbons	ug/m^3	6,000	**5.3**	**3.9**	**6.9**	< 3.5 U	**20**	< 3.2 U	< 59 U	< 84 U	< 25 U	**11**	< 120 U	< 82 U	< 67 U	< 55 U	**5.1**	< 22 U	< 22 U
C9 - C12 Aliphatic Hydrocarbons	ug/m^3	4,700	**61**	**74**	**58**	**36**	**51**	**30**	< 240 U	**2,800**	< 99 U	**20**	< 460 U	< 330 U	< 270 U	< 220 U	**78**	< 88 U	< 89 U

Notes:

Bold - Analyte was detected.

Blue - Detected concentration exceeded MTCA Method A cleanup level.

U - Analyte was not detected above the laboratory reporting limit.

MTCA - Model Toxics Control Act

% VOL - % volume, ug/m^3 - micrograms per cubic meter, ft - feet

APPENDIX D

Terrestrial Ecological Evaluation Form

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 https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Terrestrial-ecological-evaluation.

Step 1: IDENTIFY HAZARDOUS WASTE SITE	
Please identify below the hazardous waste site for which you are documenting an evaluation.	
Facility/Site Name: Mount Baker Properties	
Facility/Site Address: 2800 Martin Luther King Jr. Way S, 2802, 2806, 2810, and 2864 S McClellan St., Seattle, WA	
Facility/Site No: 96127971	VCP Project No.:

Step 2: IDENTIFY EVALUATOR			
Please identify below the person who conducted the evaluation and their contact information.			
Name: Jessica Smith			Title: Associate Geologist
Organization: Aspect Consulting			
Mailing address: 710 Second Ave, Suite 550			
City: Seattle		State: WA	Zip code: 98103
Phone: 206-423-8289	Fax:		E-mail: jsmith@aspectconsulting.com

Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

A. Exclusion from further evaluation.

1. Does the Site qualify for an exclusion from further evaluation?

☒ Yes *If you answered **"YES,"** then answer **Question 2**.*

☐ No or Unknown *If you answered **"NO" or "UNKNOWN,"** then skip to **Step 3B** of this form.*

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)

☐ 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 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 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.

[±] "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.

B. Simplified evaluation.

1. Does the Site qualify for a simplified evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No or Unknown *If you answered **"NO"** or **"UNKNOWN,"** then skip to **Step 3C** of this form.*

2. Did you conduct a simplified evaluation?

☐ Yes *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?

☐ Yes *If you answered **"YES,"** then answer **Question 4** below.*

☐ No *If you answered **"NO,"** then answer **Question 5** below.*

4. If further evaluation was necessary, what did you do?

☐ Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*

☐ Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

5. If no further evaluation was necessary, what was the reason? *Check all that apply. Then skip to **Step 4** of this form.*

Exposure Analysis: WAC 173-340-7492(2)(a)

☐ Area of soil contamination at the Site is not more than 350 square feet.

☐ Current 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. Site-specific evaluation. 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. Was there a problem? *See* WAC 173-340-7493(2).

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No *If you answered **"NO,"** then identify the reason here and then skip to **Question 5** 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. What did you do to resolve the problem? *See* WAC 173-340-7493(3).

- ☐ Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*
- ☐ Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

3. If you conducted further site-specific evaluations, what methods did you use?
Check all that apply. See WAC 173-340-7493(3).

- ☐ Literature surveys.
- ☐ Soil bioassays.
- ☐ Wildlife exposure model.
- ☐ Biomarkers.
- ☐ Site-specific field studies.
- ☐ Weight of evidence.
- ☐ Other methods approved by Ecology. If so, please specify:

4. What was the result of those evaluations?

- ☐ Confirmed there was no problem.
- ☐ Confirmed there was a problem and established site-specific cleanup levels.

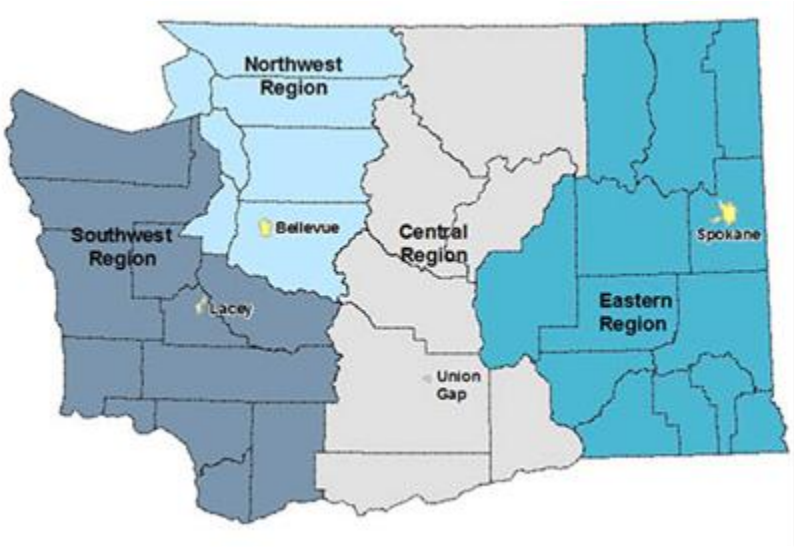
5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?

☐ 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 160th Ave. SE Bellevue, WA 98008-5452	**Central Region:** Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009
Southwest Region: Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775	**Eastern Region:** Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295

If you need this publication in an alternate format, please call the Toxics Cleanup Program at 360-407-7170. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call 877-833-6341.

APPENDIX E

Soil-Groundwater Phase Partitioning of PCE

Appendix E – Groundwater Partitioning

This objective of this analysis is to determine if saturated soil concentrations are representative of a source or if they are in equilibrium with dissolved-phase groundwater concentrations. This determination supports definition of the Chlorinated Solvent Source Area (CSSA) in the Remedial Investigation (RI) and screening and selection of the remedial alternatives in the Feasibility Study (FS). Generally, soil concentrations resulting from partitioning from the dissolved phase (referred to in this analysis as in "equilibrium") will be remediated through groundwater cleanup actions. This is contrasted with soil concentrations that are partitioning to groundwater (i.e., source), defined as the CSSA. Understanding which soil exceedances are due to groundwater partitioning versus which exceedances represent a source area is critical for defining areas for soil and groundwater remedial actions in the FS.

The soil-groundwater partitioning of chlorinated solvents is an integral part of the Conceptual Site Model (CSM). Soil sampling conducted on the Mt. Baker Cleaners parcel at depths within the zone of water table fluctuation indicate detections of chlorinated solvents in soil. Understanding the relative concentration (and therefore contribution) to the dissolved-phase groundwater plume is critical to selection and performance expectations of a cleanup action.

As contaminated groundwater migrates downgradient from the source zone on the Mt. Baker Cleaners parcel, it partitions from the dissolved phase in groundwater to a solid phase sorbed to aquifer solids. Sorption includes both adsorption and absorption, where adsorption is the accumulation in solid phase due to the contaminant's mineral affinity for the aquifer soil surface, and absorption is the accumulation of contaminant on soil organic carbon (Suthersan et al, 2017). For purposes of this analysis, the term sorption is used and encompasses both adsorption and absorption.

For this analysis, sorption to soil is estimated based on the total organic carbon content of a soil using the following equation:

$K_d = f_{oc} \, x \, K_{oc}$ (Equation 1)

Where:

K_d is the partitioning coefficient
f_{oc} is the fraction of organic carbon in soils
K_{oc} is the organic carbon partitioning coefficient

Therefore, soils with a higher fraction of organic carbon would partition more organic contaminants from groundwater to soil. The partitioning coefficient, K_d, relates the dissolved-phase concentration to the soil concentration by the following equation:

$C_{sorbed} = K_d \, x \, C_{aq}$ (Equation 2)

Where:

C_{sorbed} is the sorbed-phase soil contaminant concentration (milligrams per kilogram [mg/kg])
C_{aq} is the groundwater contaminant concentration (milligrams per liter [mg/L])
K_d is the partitioning coefficient

The Washington State Model Toxics Control Act (MTCA) default values were used for the organic carbon partitioning coefficient[1] and fraction of organic carbon[2] in soils. The contaminant-specific default value for the organic carbon partitioning coefficient was developed based on laboratory experiments. The default value for the fraction of organic carbon is based on typical values for subsurface soils in Washington. The partitioning coefficient (K_d) for tetrachlorethene (PCE) at the Site was calculated to be 0.265 using Equation 1. Using measured groundwater concentrations, a predicted "equilibrium soil concentration" was calculated using Equation 2. The predicted equilibrium soil concentration for a given groundwater concentration is plotted as the straight line on Figure E-1.

Figure E-1 also plots locations where collocated soil and groundwater PCE concentrations were collected during the RI. Points close to the straight line indicate that soil contamination at that location is in equilibrium with groundwater concentration. Points that plot significantly above the line would indicate that groundwater-soil partitioning is not in equilibrium and greater adsorption to soil would be expected. Points that plot significantly below the line would indicate continued leaching to groundwater would be expected. The locations where both soil and groundwater analytical data were available and were used are:

- AMW-01, AMW-02, and AMW-10, which are downgradient of the CSSA on the McClellan parcels
- HC-MW-05 and AMW-04, which are downgradient in S. McClellan Street and on the Phillips 66 parcel, respectively
- HC-MW-03, which is sidegradient to the CSSA

As shown on Figure E-1, at these locations, soil concentrations are in equilibrium with groundwater. While several of the points fall below the line, the actual and predicted equilibrium soil concentrations are very comparable. At AMW-10, the predicted equilibrium soil concentration is identical to the actual, measured soil concentration.

Based on this analysis, the soil concentrations at all of these locations is determined to be a result of partitioning from the dissolved-phased groundwater concentrations. Further, based on this determination and for purposes of the FS, the soil concentrations observed at these locations do not represent a source to groundwater.

REFERENCES

Suthersan, Suthan, John Horst, Matthew Schnobrich, Nicklaus Welty, and Jeff McDonough, (Suthersan et. al), 2017, *Remediation Engineering: Design Concepts,* ISBN 978-1-4987-7327-0, Copyright 2017.

[1] The default value of 265 was used (WAC 173-340-747, Table 747-1)
[2] The default value of 0.001 was used (WAC 173-340-747, Equation 747-2)

Table E-1. Data Used for Partitioning Evaluation

Location	Mt Baker Parcel	McClellan Parcel	Phillips 66	McClellan Parcel	McClellan Street	Side-gradient	EQUILIBRIUM FOR PLOTTING	
Well Name	AMW-01	AMW-02	AMW-04	AMW-10	HC-MW-5	HC-MW-3		
Measured GW Conc. (mg/L)	1.5	2.1	0.21	0.65	5.6	0.016	0.01	100
Soil Bulk Density (ρ_b) (kg/m^3)[1]	2000	2000	2000	2000	2000	2000	2000	2000
Organic Carbon Partitioning Coefficient (K_{oc})[2]	265	265	265	265	265	265	265	265
Organic Carbon Content (f_{oc})[3]	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Equilibrium Soil Concentration (mg/m3)	795	1113	111	345	2968	8	5.30	53000
Equilibrium Soil Concentration (mg/kg)	0.44	0.62	0.062	0.19	1.65	0.005	0.003	29
Actual Soil Concentration (mg/kg)	0.58	1.03	0.11	0.19	1.95	0.004		

Notes:

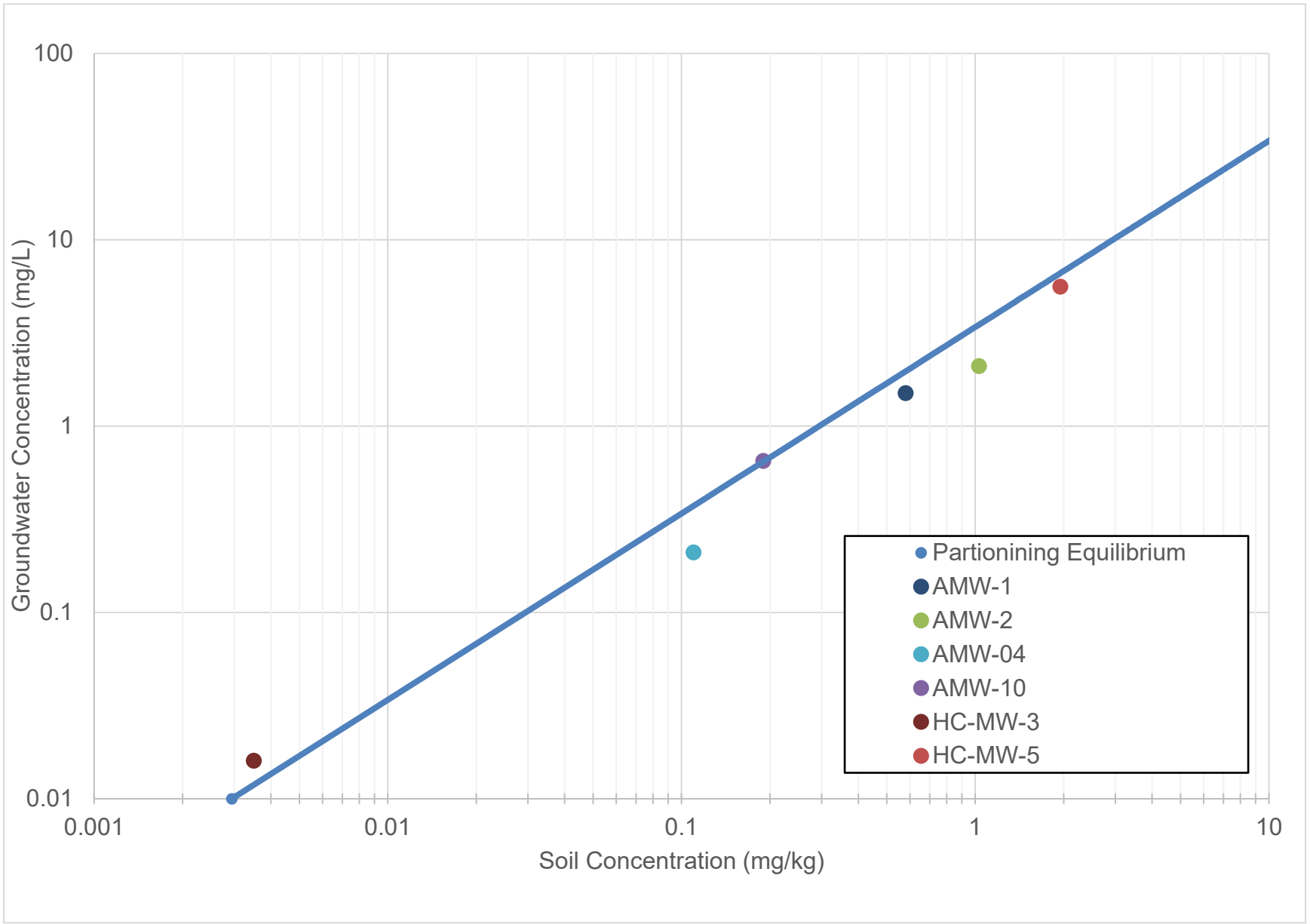
Input Value
Calculated Value

(1) - Default value in WAC 173-340-74 is 1.5 g/cm^3 (1,500 kg/m3). Higher value used for recessional with till

(2) - Soil sorption coefficient values are provided on separate tab and are from WAC-173-340

(3) - The default value in WAC 173-340-747 is 0.001 for organic constituents.

Figure E-1. PCE Partitioning Between Groundwater and Soil Organic Matter



APPENDIX F

Remedial Alternative Detailed Cost Estimates

Table F-1. Alternative 2 Cost Estimate

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Alternative 2

Chlorinated Solvent Source Area Excavation to Elevation 60, Petroleum Hydrocarbon Source Area Excavation, Chemical Vapor Barriers, and Monitored Natural Attenuation

Capital Costs - Remediation	Unit	Unit Cost	Quantity	Extended Cost
Chemical Vapor Barrier	SF	$ 15	34,000	$ 510,000
CSSA Source Removal				$ 1,800,000
Shoring	*SF*	*$ 66*	*5,955*	*$ 394,817*
Excavation, loading, transport and disposal of Dangerous Waste	*Ton*	*$ 293*	*145*	*$ 42,485*
Excavation, loading, transport and disposal of Contained-In Waste	*Ton*	*$ 122*	*8,292*	*$ 1,011,624*
Chemical Confirmation Sampling	*Each*	*$ 500*	*60*	*$ 30,000*
Dewatering	*LS*	*$ 109,000*	*1*	*$ 109,000*
Backfill to Development Grade	*Ton*	*$ 21*	*8,352*	*$ 175,392*
PHSA Source Removal				$ 700,000
Shoring	*SF*	*$ 66*	*5,270*	*$ 349,401*
Excavation, loading, transport and disposal of contaminated soil	*Ton*	*$ 61*	*4,500*	*$ 274,500*
Chemical Confirmation Sampling	*Each*	*$ 500*	*50*	*$ 25,000*
Backfill to Development Grade	*Ton*	*$ 21*	*2,000*	*$ 42,000*
Institutional Controls[a]	LS	$ 100,000	1	$ 100,000
Replacement Monitoring Wells	LS	$ 30,000	1	$ 30,000
			Taxes (Contractor)	*10.1%*	*$ 317,140*
			Remedial Design, Field Oversight, Report (Consultant)	*15%*	*$ 471,000*
			Construction Management (Contractor)	*6%*	*$ 188,400*
			Capital Costs Subtotal		*$ 4,120,000*
			Contingency (Scope and Bid Uncertainty)	*20%*	*$ 824,000*
			Capital Cost Total		**4,940,000**

Operations, Maintenance, and Monitoring (OMM) Costs	Unit	Unit Cost	Quantity	Extended Cost	Net Present Value[b]
MNA Monitoring - Semiannually for Five Years (years 1-5)					
Groundwater Sampling - Select Wells	Event	$ 20,000	10	$ 200,000	$ 164,008
MNA Evaluation and Reporting	Per Year	$ 20,000	5	$ 100,000	$ 82,004
MNA Monitoring - Annually for 25 Years (years 6-30)					
Groundwater Sampling - Select Wells	Event	$ 20,000	25	$ 500,000	$ 166,177
MNA Evaluation and Reporting	Per Year	$ 20,000	25	$ 500,000	$ 166,177
Confirmation Sampling & Closure (Year 30)					
Groundwater Confirmation Monitoring	Event	$ 40,000	4	$ 160,000	$ 21,019
Soil Confirmation Monitoring	LS	$ 50,000	1	$ 50,000	$ 6,568
Closure Reporting and Request	LS	$ 60,000	1	$ 60,000	$ 7,882
			Operations, Maintenance, and Monitoring Cost Subtotal	*$ 1,600,000*	*$ 620,000*
			Project Management 10%	*$ 160,000*	*$ 62,000*
			Operations, Maintenance, and Monitoring Cost Total	**$ 1,760,000**	**$ 680,000**
			Total	**$ 6,700,000**	**$ 5,620,000**

Notes:

a) MNA is included as a long-term OMM cost. Institutional controls may include environmental covenants and/or engineering controls.

b) Present value is calculated at a 7% discount rate, based on USACE guidance (https://www.everycrsreport.com/reports/R44594.html)

c) The cost estimates are preliminary and for the Feasibility Study, based on existing information, and are estimated to be within +20/-20% of actual costs.

Table F-2. Alternative 3 Cost Estimate

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Alternative 3

Chlorinated Solvent Source Area Excavation to Elevation 60, In Situ Soil Stabilization, Petroleum Hydrocarbon Source Area Excavation, Chemical Vapor Barriers, Contingency In Situ Chemical Reduction, and Monitored Natural Attenuation

Capital Costs - Remediation	Unit	Unit Cost	Quantity	Extended Cost
Chemical Vapor Barrier	SF	$ 15	34,000	$ 510,000
CSSA Source Removal (McClellan Parcels)				$ 1,700,000
Shoring	*SF*	*$ 66*	*5,955*	*$ 394,817*
Excavation, loading, transport and disposal of Dangerous Waste	*Ton*	*$ 293*	*145*	*$ 42,485*
Excavation, loading, transport and disposal of Contained-In Waste	*Ton*	*$ 122*	*8,292*	*$ 1,011,624*
Chemical Confirmation Sampling	*Each*	*$ 500*	*60*	*$ 30,000*
Dewatering	*LS*	*$ 109,000*	*1*	*$ 109,000*
Backfill to Development Depth	*Ton*	*$ 21*	*5,305*	*$ 111,405*
PHSA Source Removal (Phillips 66 Parcel)				$ 700,000
Shoring	*SF*	*$ 66*	*5,270*	*$ 347,820*
Excavation, loading, transport and disposal of contaminated soil	*Ton*	*$ 61*	*4,500*	*$ 274,500*
Chemical Confirmation Sampling	*Each*	*$ 500*	*50*	*$ 25,000*
Backfill to Development Depth	*Ton*	*$ 21*	*2,000*	*$ 42,000*
Institutional Controls[a]	LS	$ 100,000	1	$ 100,000
Replacement Monitoring Wells	LS	$ 30,000	1	$ 30,000
In Situ Soil Solidification				$ 154,000
Rigid Inclusions	*per foot*	*$ 55*	*2,439*	*$ 134,145*
Direct Push Drilling (Performance Monitoring)	Per Day	$ 3,000	3	*$ 9,000*
Soil Confirmation Sampling	Each	$ 500	20	*$ 10,000*
			Taxes (Contractor)	*10.1%*	*$ 323,000*
			Remedial Design, Field Oversight, Report (Consultant)	*15%*	*$ 480,000*
			Construction Management (Contractor)	*6%*	*$ 192,000*
			Capital Costs Subtotal		*$ 4,189,000*
			Contingency (Scope and Bid Uncertainty)	*20%*	*$ 837,800*
			Capital Cost Total		**$ 5,030,000**

Operations, Maintenance, and Monitoring (OMM) Costs	Unit	Unit Cost	Quantity	Extended Cost	Net Present Value[b]
MNA Monitoring - Semiannually for Five Years (years 1-5)					
Groundwater Sampling - Select Wells	Event	$ 20,000	10	$ 200,000	$ 164,008
MNA Evaluation and Reporting	Per Year	$ 20,000	5	$ 100,000	$ 82,004
MNA Monitoring - Annually for 15 Years (years 6-20)					
Groundwater Sampling - Select Wells	Event	$ 20,000	15	$ 300,000	$ 129,876
MNA Evaluation and Reporting	Per Year	$ 20,000	15	$ 300,000	$ 129,876
Confirmation Sampling & Closure (Year 20)					
Groundwater Confirmation Monitoring	Event	$ 40,000	4	$ 160,000	$ 41,347
Soil Confirmation Monitoring	LS	$ 50,000	1	$ 50,000	$ 12,921
Closure Reporting and Request	LS	$ 60,000	1	$ 60,000	$ 15,505
			Operations, Maintenance, and Monitoring Cost Subtotal	*$ 1,170,000*	*$ 580,000*
			Project Management *10%*	*$ 117,000*	*$ 58,000*
			Operations, Maintenance, and Monitoring Cost Total	**$ 1,290,000**	**$ 640,000**

Contingency Groundwater Operations and Maintenance Costs	Unit	Unit Cost	Quantity	Extended Cost	Net Present Value[b]
Contingency ISCR Implementation (1 Event, Year 5)					
Bench-Scale Pilot Testing	LS	$ 40,000	1	$ 40,000	$ 28,519
Field-Scale Pilot Testing and Design	LS	$ 60,000	1	$ 60,000	$ 42,779
Direct-Push Injection	Day	$ 8,000	20	$ 160,000	$ 114,078
Amendments	Pound	$ 8	39,000	$ 312,000	$ 222,452
Other Subs/Expenses (traffic control, street and hydrant permit, analytical lab)	LS	$ 45,000	1	$ 45,000	$ 32,084
Field Oversight (Consultant)	Day	$ 3,000	20	$ 60,000	$ 42,779
Performance Monitoring and Reporting	LS	$ 75,000	1	$ 75,000	$ 53,474
			Contingency ISCR Implementation Subtotal	$ 752,000	$ 536,166
			Project Management *10%*	*$ 75,200*	*$ 53,617*
			Contingency Operations and Maintenance Cost Total	**$ 830,000**	**$ 590,000**
			Total	**$ 7,150,000**	**$ 6,260,000**

Notes:

a) MNA is included as a long-term OMM cost. Institutional controls may include environmental covenants and/or engineering controls.

b) Present value is calculated at a 7% discount rate, based on USACE guidance (https://www.everycrsreport.com/reports/R44594.html)

c) The cost estimates are preliminary and for the Feasibility Study, based on existing information, and are estimated to be within +20/-20% of actual costs.

Table F-3. Alternative 4 Cost Estimate

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Alternative 4

Electrical Resistance Heating, Thermal Conductance Heating, Chemical Vapor Barriers, Contingency In Situ Chemical Reduction, and Monitored Natural Attenuation (No Excavation)

Capital Costs - Remediation	Unit	Unit Cost	Quantity	Extended Cost
CSSA ERH Design and Permitting[a]				$ 85,000
Design, Work Plans, Permits	*LS*	*$ 65,000*	*1*	*$ 65,000*
Design Investigation	*LS*	*$ 20,000*	*1*	*$ 20,000*
CSSA ERH Construction and Operation[a]				$ 2,578,000
Drilling and Sampling for Electrical Probe Installation	*LS*	*$ 233,000*	*1*	*$ 233,000*
Investigation Derived Waste Disposal	*LS*	*$ 20,980*	*1*	*$ 20,980*
Electrical Connections	*LS*	*$ 40,000*	*1*	*$ 40,000*
Carbon Use, Transport, and Regeneration for Fugitive Vapors	*LS*	*$ 22,000*	*1*	*$ 22,000*
Electrical Energy Usage	*LS*	*$ 217,000*	*2*	*$ 434,000*
Other Costs for Remedy Installation	*LS*	*$ 26,020*	*1*	*$ 26,020*
Electrode Materials Mobilization	*LS*	*$ 208,000*	*1*	*$ 208,000*
Installation and Startup of ERH System	*LS*	*$ 269,000*	*1*	*$ 269,000*
Operations and Maintenance of ERH System	*LS*	*$ 543,000*	*2*	*$ 1,086,000*
Confirmation Soil Sampling Post ERH Treatment	*LS*	*$ 50,000*	*2*	*$ 100,000*
Demobilization and Final Report	*LS*	*$ 139,000*	*1*	*$ 139,000*
PHSA ERH/TCH Design and Permitting[a]				$ 107,000
Design, Work Plans, Permits	*LS*	*$ 87,000*	*1*	*$ 87,000*
Design Investigation	*LS*	*$ 20,000*	*1*	*$ 20,000*
PHSA ERH/TCH Construction and Operation[a]				$ 1,820,000
Drilling and Sampling for Electrical Probe Installation	*LS*	*$ 56,000*	*1*	*$ 56,000*
Investigation Derived Waste Disposal	*LS*	*$ 8,000*	*1*	*$ 8,000*
Electrical Connections	*LS*	*$ 35,000*	*1*	*$ 35,000*
Carbon Use, Transport, and Regeneration for Fugitive Vapors	*LS*	*$ 17,000*	*1*	*$ 17,000*
Electrical Energy Usage	*LS*	*$ 107,000*	*2*	*$ 214,000*
Electrode Materials Mobilization	*LS*	*$ 163,000*	*1*	*$ 163,000*
Installation and Startup of ERH/TCH System	*LS*	*$ 249,000*	*1*	*$ 249,000*
Operations and Maintenance of ERH/TCH System	*LS*	*$ 456,000*	*2*	*$ 912,000*
Confirmation Soil Sampling Post ERH/TCH Treatment	*LS*	*$ 30,000*	*2*	*$ 60,000*
Demobilization and Final Report	*LS*	*$ 106,000*	*1*	*$ 106,000*
Chemical Vapor Barrier	SF	$ 15	34,000	$ 510,000
Institutional Controls[b]	LS	$ 100,000	1	$ 100,000
In Situ Soil Solidification				$ 118,000
Rigid Inclusions	*per foot*	*$ 55*	*1,800*	*$ 99,000*
Direct Push Drilling (Performance Monitoring)	Per Day	$ 3,000	3	*$ 9,000*
Soil Confirmation Sampling	Each	$ 500	20	*$ 10,000*
		Taxes (Contractor)	*10.1%*	*$ 537,118*
		Remedial Design, Field Oversight, Report (Consultant)	*15%*	*$ 797,700*
		Construction Management (Contractor)	*6%*	*$ 319,080*
		Capital Costs Subtotal		*$ 6,980,000*
		Contingency (Scope and Bid Uncertainty)	*20%*	*$ 1,396,000*
		Capital Cost Total		**$ 8,380,000**

Operations, Maintenance, and Monitoring (OMM) Costs	Unit	Unit Cost	Quantity	Extended Cost	Net Present Value[c]
MNA Monitoring - Semiannually for Five Years (years 1-5)					
Groundwater Sampling - Select Wells	Event	$ 20,000	10	$ 200,000	$ 164,008
MNA Evaluation and Reporting	Per Year	$ 20,000	5	$ 100,000	$ 82,004
MNA Monitoring - Annually for 15 Years (Years 6-20)					
Groundwater Sampling - Select Wells	Event	$ 20,000	10	$ 200,000	$ 129,876
MNA Evaluation and Reporting	Per Year	$ 20,000	10	$ 200,000	$ 129,876
Confirmation Sampling & Closure (Year 20)					
Groundwater Confirmation Monitoring	Event	$ 40,000	4	$ 160,000	$ 41,347
Soil Confirmation Monitoring	LS	$ 50,000	1	$ 50,000	$ 12,921
Closure Reporting and Request	LS	$ 60,000	1	$ 60,000	$ 15,505
		Operations, Maintenance, and Monitoring Cost Subtotal		*$ 970,000*	*$ 580,000*
		Project Management	*10%*	*$ 97,000*	*$ 58,000*
		Operations, Maintenance, and Monitoring Cost Total		**$ 1,070,000**	**$ 640,000**

Contingency Operations and Maintenance Costs	Unit	Unit Cost	Quantity	Extended Cost	Net Present Value[c]
Contingency ISCR Implementation (Year 5)					
Bench-Scale Pilot Testing	LS	$ 40,000	1	$ 40,000	$ 28,519
Field-Scale Pilot testing and Design	LS	$ 60,000	1	$ 60,000	$ 42,779
Direct-push drilling	Day	$ 8,000	20	$ 160,000	$ 114,078
Amendments	Pound	$ 8	39,000	$ 312,000	$ 222,452
Other Subs/Expenses (traffic control, street and hydrant permit, analytical lab)	LS	$ 45,000	1	$ 45,000	$ 32,084
Field oversight	Day	$ 3,000	20	$ 60,000	$ 42,779
Performance Monitoring and Reporting	LS	$ 75,000	1	$ 75,000	$ 53,474
		Contingency ISCR Implementation Subtotal		$ 752,000	$ 537,000
		Project Management	*10%*	*$ 75,200*	*$ 53,700*
		Contingency Operations and Maintenance Cost Total		**$ 830,000**	**$ 590,000**
		Total		**$ 10,280,000**	**$ 9,610,000**

Notes:

a) Based on quotes provided by TRS.

b) MNA is included as a long-term OMM cost. Institutional controls may include environmental covenants and/or engineering controls.

c) Present value is calculated at a 7% discount rate, based on USACE guidance (https://www.everycrsreport.com/reports/R44594.html)

d) The cost estimates are preliminary and for the Feasibility Study, based on existing information, and are estimated to be within +20/-20% of actual costs.

Table F-4. Alternative 5 Cost Estimate

Project No. 160324, Mt. Baker Properties, Seattle, Washington

Alternative 5

Chlorinated Solvent Source Area Excavation to Elevation 44, Petroleum Hydrocarbon Source Area Excavation, Chemical Vapor Barriers, Contingency In Situ Chemical Reduction, and Monitored Natural Attenuation

Capital Costs	Unit	Unit Cost	Quantity	Extended Cost
Chemical Vapor Barrier	SF	$ 15	34,000	$ 510,000
CSSA Source Removal				$ 2,800,000
Shoring	*SF*	*$ 66*	*9,100*	*$ 603,330*
Excavation, loading, transport and disposal of Dangerous Waste	*Ton*	*$ 293*	*145*	*$ 42,485*
Excavation, loading, transport and disposal of Contained-In Waste	*Ton*	*$ 122*	*14,000*	*$ 1,708,000*
Chemical Confirmation Sampling	*Each*	*$ 500*	*60*	*$ 30,000*
Dewatering	*LS*	*$ 109,000*	*1*	*$ 109,000*
Backfill to Development Depth	*Ton*	*$ 21*	*14,000*	*$ 294,000*
PHSA Source Removal				$ 1,100,000
Shoring	*SF*	*$ 125*	*5,270*	*$ 658,750*
Excavation, loading, transport and disposal of contaminated soil	*Ton*	*$ 61*	*4,500*	*$ 274,500*
Chemical Confirmation Sampling	*Each*	*$ 500*	*50*	*$ 25,000*
Backfill to Development Depth	*Ton*	*$ 21*	*2,000*	*$ 42,000*
Institutional Controls[a]	LS	$ 100,000	1	$ 100,000
Replacement Monitoring Wells	LS	$ 30,000	1	$ 30,000
In Situ Soil Solidification				$ 118,000
Rigid Inclusions	*per foot*	*$ 55*	*1,800*	*$ 99,000*
Direct Push Drilling (Performance Monitoring)	Per Day	$ 3,000	3	*$ 9,000*
Soil Confirmation Sampling	Each	$ 500	20	*$ 10,000*
			Taxes (Contractor)	10.1% $ 470,458
			Remedial Design, Field Oversight, Report (Consultant)	15% $ 698,700
			Construction Management (Contractor)	6% $ 279,480
			Capital Costs Subtotal	$ 6,110,000
			Contingency (Scope and Bid Uncertainty)	20% $ 1,222,000
			Capital Costs Total	**$ 7,330,000**

Operations, Maintenance, and Monitoring (OMM) Costs	Unit	Unit Cost	Quantity	Extended Cost	Net Present Value[b]
MNA Monitoring - Semiannually for Five Years (years 1-5)					
Groundwater Sampling - Select Wells	Event	$ 20,000	10	$ 200,000	$ 164,008
MNA Evaluation and Reporting	Per Year	$ 20,000	5	$ 100,000	$ 82,004
MNA Monitoring - Annually for 15 Years (Years 6-20)					
Groundwater Sampling - Select Wells	Event	$ 20,000	10	$ 200,000	$ 129,876
MNA Evaluation and Reporting	Per Year	$ 20,000	10	$ 200,000	$ 129,876
Confirmation Sampling & Closure (Year 20)					
Groundwater Confirmation Monitoring	Event	$ 40,000	4	$ 160,000	$ 41,347
Soil Confirmation Monitoring	LS	$ 50,000	1	$ 50,000	$ 12,921
Closure Reporting and Request	LS	$ 60,000	1	$ 60,000	$ 15,505
			Operations, Maintenance, and Monitoring Cost Subtotal	*$ 970,000*	*$ 580,000*
			Project Management *10%*	*$ 97,000*	*$ 58,000*
			Operations, Maintenance, and Monitoring Cost Total	**$ 1,070,000**	**$ 640,000**

Contingency Operations and Maintenance Costs	Unit	Unit Cost	Quantity	Extended Cost	Net Present Value[b]
Contingency ISCR Implementation (year 5)					
Bench-Scale Pilot Testing	LS	$ 40,000	1	$ 40,000	$ 28,519
Field-Scale Pilot testing and Design	LS	$ 60,000	1	$ 60,000	$ 42,779
Direct-push drilling	Day	$ 8,000	20	$ 160,000	$ 114,078
Amendments	Pound	$ 8	39,000	$ 312,000	$ 222,452
Other Subs/Expenses (traffic control, street and hydrant permit, analytical lab)	LS	$ 45,000	1	$ 45,000	$ 32,084
Field oversight	Day	$ 3,000	20	$ 60,000	$ 42,779
Performance Monitoring and Reporting	LS	$ 75,000	1	$ 75,000	$ 53,474
			Contingency ISCR Implementation Subtotal	*$ 752,000*	*$ 540,000*
			Project Management *10%*	*$ 75,200*	*$ 54,000*
			Contingency Operations and Maintenance Cost Total	**$ 830,000**	**$ 590,000**
			Total	**$ 9,230,000**	**$ 8,560,000**

Notes:

a) MNA is included as a long-term OMM cost. Institutional controls may include environmental covenants and/or engineering controls.

b) Present value is calculated at a 7% discount rate, based on USACE guidance (https://www.everycrsreport.com/reports/R44594.html)

c) The cost estimates are preliminary and for the Feasibility Study, based on existing information, and are estimated to be within +20/-20% of actual costs.

APPENDIX G

Restoration Time Frame Estimates

Table G-1. Batch Flush Model to Estimate Groundwater Restoration Time Frame - Alternative 2 - Maddux North - McClellan Street

Project No. 160324, Mt. Baker Properties, Seattle, WA

Simple Kd model (see Zheng et al, 1991, Analysis of Ground-Water Remedial Alternatives at a Superfund Site; Ground Water v. 29, no. 6, pp. 838 - 848.)

Groundwater seepage velocity estimate

	Assumptions			
	Horizontal Gradient[a] in ft/ft	Maximum Hydraulic Conductivity in ft/day[b]	Average Effective Porosity[c]	Average Horizontal Seepage Velocity in ft/year
Aug-18	0.094	0.2	0.12	53
May-17	0.089			50
Averages	0.092			**51**

PV = pore volume

$t = -\ln(Ct/Co) * PV_t * R$

where:

Ct = concentration at time t = cleanup level to be achieved
Co = Initial concentration
PV_t = time to flush 1 pore volume
R = retardation factor = $1 + (Kd * p_b/n)$
Kd = partition coefficient = Koc*foc
Koc = soil sorption coefficient
foc = organic carbon content
p_b = aquifer bulk density (g/cc = kg/L)
n = effective porosity

Ct =	5	ug/L	Cleanup level (target concentration)
Co =	1000	ug/L	Existing 2019 concentration at HC-MW-5 which is highest PCE concentration well outside of source area to be treated (in each Alt), so those GW concentrations should persist post-source control and represent worst-case for GW restoration time frame.
Pore volume length =	113	ft	Distance from HC-MW-5 to Phillips 66 parcel boundary in direction of GW flow
PV_t =	2.2	year	Calculated based on GW seepage velocity and PV length
Koc =	265		Default value from WAC 173-340-747
foc =	0.001		Default value from WAC 173-340-747
Kd =	0.265		Calculated
p_b =	1.5	kg/L	MTCA default
n =	0.12	dimensionless	Best professional judgement
R =	4.3	dimensionless	Calculated
t =	**51**	**years**	

Notes:

a) Gradients from groundwater elevation contour maps in RI. This analysis assumed that, post-redevelopment (long-term), the same average gradient would be maintained.
b) Hydraulic conductivity estimate from aquifer testing performed for dewatering design.
c) The batch flushing model is premised on advection-driven clean-water flushing that occurs in a small portion of the soil porosity that controls solute transport. Based on this premise, and the low-permeability, well-graded soils in the glacial recessional unit, a mobile porosity of 12% is assumed.

Table G-2. Batch Flush Model to Estimate Groundwater Restoration Time Frame - Alternatives 3, 4, and 5 - Maddux North - McClellan Street

Project No. 160324, Mt. Baker Properties, Seattle, WA

Simple Kd model (see Zheng et al, 1991, Analysis of Ground-Water Remedial Alternatives at a Superfund Site; Ground Water v. 29, no. 6, pp. 838 - 848.)

Average groundwater seepage velocity estimate

	Assumptions			
Measurement Date	Horizontal Gradient[a] in ft/ft	Highest Hydraulic Conductivity in ft/day[b]	Average Effective Porosity	Average Seepage Velocity in ft/year
Aug-18	0.094	1.8.E-01	0.12	53
May-17	0.089			50
Averages	0.092			**51**

PV = pore volume

$t = -\ln(Ct/Co) * PV_t * R$

where:

Ct = concentration at time t = cleanup level to be achieved

Co = Initial concentration

PV_t = time to flush 1 pore volume

R = retardation factor = $1 + (Kd * p_b/n)$

Kd = partition coefficient = Koc*foc

Koc = soil sorption coefficient

foc = organic carbon content

p_b = aquifer bulk density (g/cc = kg/L)

n = effective porosity

Ct =	5	ug/L	Cleanup level (target concentration)
Co =	500	ug/L	Estimated post source removal concentration at HC-MW-5
Pore volume length =	38	ft	Distance between transects from HC-MW-5 to Phillips 66 parcel boundary in direction of GW flow
PV_t =	0.7	year	Calculated based on GW seepage velocity and PV length
Koc =	265	dimensionless	Default value from WAC 173-340-747
foc =	0.001	dimensionless	Default value from WAC 173-340-747
Kd =	0.265	dimensionless	Calculated
p_b =	1.5	kg/L	MTCA default
n =	0.12	dimensionless	Best professional judgement
R =	4.3	dimensionless	Calculated
t =	**15**	**years**	

Notes:

a) Gradients from groundwater elevation contour maps in RI. This analysis assumed that, post-redevelopment (long-term), the same average gradient would be maintained.

b) Hydraulic conductivity estimate from aquifer testing performed for dewatering design.

c) The batch flushing model is premised on advection-driven clean-water flushing that occurs in a small portion of the soil porosity that controls solute transport. Based on this premise, and the low-permeability, well-graded soils in the glacial recessional unit, a mobile porosity of 12% is assumed.

Table G-3. Batch Flush Model to Estimate Groundwater Restoration Time Frame - Alternatives 3, 4, and 5 -Maddox South - Phillips 66 to Downgradient Toe of Plume

Project No. 160324, Mt. Baker Properties, Seatte, WA

Simple Kd model (see Zheng et al, 1991, Analysis of Ground-Water Remedial Alternatives at a Superfund Site; Ground Water v. 29, no. 6, pp. 838 - 848.)

Average groundwater seepage velocity estimate

	Assumptions			
Measurement Date	Horizontal Gradient[a] in ft/ft	Highest Hydraulic Conductivity in ft/day[b]	Average Effective Porosity	Average Horizontal Seepage Velocity in ft/year
Aug-18	0.024	3.E-01	0.12	23
May-17	0.039			38
Averages	0.031			**31**

$t = -\ln(Ct/Co) * PV_t * R$

where:

Ct = concentration at time t = cleanup level to be achieved
Co = Initial concentration
PV_t = time to flush 1 pore volume
R = retardation factor = $1 + (Kd * p_b/n)$
Kd = partition coefficient = Koc*foc
Koc = soil sorption coefficient
foc = organic carbon content
p_b = aquifer bulk density (g/cc = kg/L)
n = effective porosity

Ct =	0.2	ug/L	Cleanup level (target concentration)
Co =	5.3	ug/L	Existing 2019 concentration at HC-MW-5 which is highest PCE concentration well outside of source area to be treated (in each Alt), so those GW concentrations should persist post-source control and represent worst-case for GW restoration timeframe.
Pore volume length =	225	ft	Distance from HC-MW-5 to Phillips 66 parcel boundary in direction of GW flow
PV_t =	7.3	year	Calculated based on GW seepage velocity and PV length
Koc =	18.6		No default value in WAC 173-340-747. Used WAC's basis which was EPA - Superfund Soil Screening Guidance - 1996
foc =	0.001		Default value from WAC 173-340-747
Kd =	0.0186		Calculated
p_b =	1.5	kg/L	MTCA default
n =	0.12	dimensionless	Best professional judgement
R =	1.2	dimensionless	Calculated
t =	**29**	**years**	

Notes:

a) Gradients from groundwater elevation contour maps in RI. This analysis assumed that, post-redevelopment (long-term), the same average gradient would be maintained.
b) Hydraulic conductivity estimate from aquifer testing performed for dewatering design.
c) The batch flushing model is premised on advection-driven clean-water flushing that occurs in a small portion of the soil porosity that controls solute transport. Based on this premise, and the low-permeability, well-graded soils in the glacial recessional unit, a mobile porosity of 12% is assumed.

APPENDIX H

Report Limitations and Guidelines for Use

REPORT LIMITATIONS AND USE GUIDELINES

Reliance Conditions for Third Parties

This report was prepared for the exclusive use of the Client. No other party may rely on this report or the product of our services without the express written consent of Aspect Consulting, LLC (Aspect). This limitation is to provide our firm with reasonable protection against liability claims by third parties with whom there would otherwise be no contractual conditions or limitations and guidelines governing their use of the report. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and recognized standards of professionals in the same locality and involving similar conditions.

Services for Specific Purposes, Persons and Projects

Aspect has performed the services in general accordance with the scope and limitations of our Agreement. This report has been prepared for the exclusive use of the Client and their authorized third parties, approved in writing by Aspect. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

This report is not, and should not, be construed as a warranty or guarantee regarding the presence or absence of hazardous substances or petroleum products that may affect the Site. The report is not intended to make any representation concerning title or ownership to the Site. If real property records were reviewed, they were reviewed for the sole purpose of determining the Site's historical uses. All findings, conclusions, and recommendations stated in this report are based on the data and information provided to Aspect, current use of the Site, and observations and conditions that existed on the date and time of the report.

Aspect structures its services to meet the specific needs of our clients. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and Site. This report should not be applied for any purpose or project except the purpose described in the Agreement.

This Report Is Project-Specific

Aspect considered a number of unique, project-specific factors when establishing the Scope of Work for this project and report. You should not rely on this report if it was:

- Not prepared for you
- Not prepared for the specific purpose identified in the Agreement
- Not prepared for the specific real property assessed
- Completed before important changes occurred concerning the Site, project or governmental regulatory actions

If changes are made to the project or Site after the date of this report, Aspect should be retained to assess the impact of the changes with respect to the conclusions contained in the report.

Geoscience Interpretations

The geoscience practices (geotechnical engineering, geology, and environmental science) require interpretation of spatial information that can make them less exact than other engineering and natural science disciplines. It is important to recognize this limitation in evaluating the content of the report. If you are unclear how these "Report Limitations and Use Guidelines" apply to your project or site, you should contact Aspect.

Discipline-Specific Reports Are Not Interchangeable

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually address any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding the Site.

Environmental Regulations Are Not Static

Some hazardous substances or petroleum products may be present near the Site in quantities or under conditions that may have led, or may lead, to contamination of the Site, but are not included in current local, state or federal regulatory definitions of hazardous substances or petroleum products or do not otherwise present potential liability. Changes may occur in the standards for appropriate inquiry or regulatory definitions of hazardous substance and petroleum products; therefore, this report has a limited useful life.

Property Conditions Change Over Time

This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time (for example, Phase I ESA reports are applicable for 180 days), by events such as a change in property use or occupancy, or by natural events, such as floods, earthquakes, slope failure or groundwater fluctuations. If more than six months have passed since issuance of our report, or if any of the described events may have occurred following the issuance of the report, you should contact Aspect so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.