REMEDIAL INVESTIGATION, FEASIBILITY STUDY, AND CLEANUP ACTION PLAN

1700 Airport Way South, Seattle, Washington

Prepared for: Evergreen Treatment Services

Project No. AS180043 • May 30, 2025 FINAL

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A Geosyntec Company

earth + water

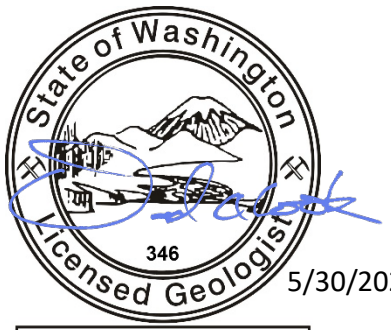
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Contents

Acronyms ..... **v**

Executive Summary **ES-1**

1 Introduction **1**
1.1 Purpose and Objectives 1
1.2 Report Organization 2

2 Site Description and Background **3**
2.1 Site and Property Description 3
2.2 Surrounding Property Descriptions 3
2.3 Historical Use of Property 4
2.3.1 Western Blower – 1910s to 1960s 4
2.3.2 Northwest EnviroService – 1979 to 1995 4
2.3.3 Emerald Recycling and ETS– 1997 to Present 5
2.4 Future Use of the Site 6
2.5 Physical Setting 6
2.6 Climatological Characteristics 7
2.6.1 Air Temperature 8
2.6.2 Precipitation and Storms 8
2.6.3 Sea Level Rise 9
2.6.4 Wildfire and Landslide Vulnerability 9
2.7 Environmental Justice Screening 10
2.7.1 Environmental Health Disparities Map 11
2.7.2 EJScreen 11
2.7.3 Screening Results 11

3 Remedial Investigation **12**
3.1 Field Investigations 12
3.1.1 Phase II ESA – Aspect, 2019 12
3.1.2 Sump Cleanout and Soil Vapor Sampling – Aspect, 2020 13
3.1.3 Subsurface Investigation – Aspect, 2025 13
3.2 Remedial Investigation Results 14
3.2.1 Geology and Hydrogeology 14
3.2.2 Soil 14
3.2.3 Groundwater 15
3.2.4 Soil Gas 15
3.2.5 Data Quality Review 16
3.3 Conceptual Site Model 17
3.3.1 Contaminants of Concern and Affected Media 17
3.3.2 Source, Nature, and Extent of Contamination 17

3.3.3 Contaminant Fate and Transport 18
3.3.4 Receptors and Exposure 19
3.4 Cleanup Standards 20
3.4.1 Applicable or Relevant and Appropriate Requirements 20
3.4.2 Cleanup Levels 21
3.4.3 Point of Compliance 21

4 Feasibility Study 23
4.1 Remedial Action Objectives 23
4.2 Assumptions in Remedial Alternatives Development 23
4.3 Identification and Evaluation of Technologies 23
4.4 Selection and Description of Remedial Alternatives 24
4.4.1 Alternative 1 – MNA and Institutional Controls 25
4.4.2 Alternative 2 – Source Excavation and MNA 25
4.4.3 Alternative 3 – Source Excavation, In Situ Treatment, and MNA 26
4.5 Evaluation of Remedial Alternatives 27
4.5.1 MTCA Threshold Requirements 27
4.5.2 MTCA Disproportionate Cost Analysis 27
4.6 Alternatives Evaluation with Respect to MTCA Threshold Requirements 28
4.7 Disproportionate Cost Analysis 29
4.7.1 Benefits Rankings, Estimated Costs, and Benefit/Cost Ratios 29
4.7.2 Disproportionate Cost Analysis Recommendation 30

5 Cleanup Action Plan 31
5.1 Description of Selected Remedy 31
5.1.1 Sump Removal and Remedial Excavation 31
5.1.2 Regrading and In Situ Chemical Oxidation Injections 32
5.1.3 Monitored Natural Attenuation 32
5.1.4 Engineering/Institutional Controls 33
5.2 Schedule for Implementation 33
5.3 Restoration Timeframe 34

6 Conclusions 35

7 References 36

8 Limitations 39

List of Tables

1a Soil: Metals and PAHs
1b Soil: TPH and VOCs
2 Soil Gas : Analytical Results
3a Groundwater: Field Measurements
3b Groundwater: Analytical Results
4 Remedial Technology Screening
5 Summary of Remedial Alternatives
6 Disproportionate Cost Analysis

List of Figures

1 Site Location
2 Site Map
3a Soil Analytical Results: Metals and PAHs
3b Soil Analytical Results: TPH and VOCs
3c Soil Analytical Results: North Warehouse – VOCs
4 Soil Gas: Analytical Results
5a Groundwater Elevations: December 2018
5b Groundwater Elevations: November 2024
6a Groundwater Analytical December 2018
6b Groundwater Analytical November 2024
7 Cross-Sections
8a Remedial Alternative #1: MNA
8b Remedial Alternative #2: Excavation and MNA
8c Remedial Alternative #3: Excavation, ISCO, and MNA
9a Cleanup Action Plan: Demolition and Remedial Excavation
9b Cleanup Action Plan: Regrading and ISCO
9c Cleanup Action Plan: MNA

List of Appendices

A Supporting Documents

B Previous Environmental Reports

C Boring and Well Logs

D Laboratory Reports

E Report Limitations and Guidelines for Use

Acronyms

APH	air-phase hydrocarbons
ARAR	applicable or relevant and appropriate requirement
Aspect	Aspect Consulting
BaP	benzo(a)pyrene
CAP	Cleanup Action Plan
cDCE	cis-1,2-dichloroethene
CMIP5	Coupled Model Inter-comparison Project
CMMP	Construction Monitoring and Management Plan
COCs	contaminants of concern
COCPs	contaminants of potential concern
cPAHs	carcinogenic polycyclic aromatic hydrocarbons
CSM	conceptual site model
CUL	Cleanup level
cVOCs	chlorinated solvents
DCA	disproportionate cost analysis
DQR	data quality review
-DRO	diesel-range organics
ECA	Environmental Critical Area
Ecology	Washington Department of Ecology
ECs	engineering controls
EHD	Environmental Health Disparities
EPA	US Environmental Protection Agency
ETS	Evergreen Treatment Services
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FS	Feasibility Study
GCMP	Groundwater Compliance Monitoring Plan

-GRO	gasoline-range organics
HSD	City of Seattle Human Services Department
HUD	United States Department of Housing and Urban Development
IBL	Information By Location
IBS	In Situ Bioremediation
ISCO	injection of chemical oxidants
mg/kg	milligrams/kilograms
µg/L	micrograms per liter
MNA	monitored natural attenuation
MTCA	Model Toxics Control Act
NCEI	National Centers for Environmental Information
NEPA	National Environmental Protection Act
NFA	No Further Action
NOAA	National Oceanic and Atmospheric Administration
NWES	Northwest EnviroService, Inc.
OSHA	Occupational Safety and Health Act
-ORO	oil-range organics
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PCE	tetrachloroethylene
PSCAA	Puget Sound Clean Air Agency
QA\QC	quality assurance / quality control
RAOs	remedial action objectives
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
RI/FS	Remedial Investigation/Feasibility Study
ROI	radius of influence
SEPA	State Environmental Policy Act
SHARP	Site Hazard Assessment and Rating Process

SPU	Seattle Public Utilities
SVE	soil vapor extraction
SVOCS	semivolatile organic compounds
TCE	trichloroethylene
TEE	Terrestrial Ecological Evaluation
TPH	total petroleum hydrocarbons
UIC	Underground Injection Control
USC	United States Code
USGS	U.S. Geological Survey
UW	University of Washington
VOC	volatile organic compound
WAC	Washington Administrative Code
WADOH	Washington State Department of Health
WRIA	Water Resource Inventory Area
WTN	Washington Tracking Network

Executive Summary

Aspect Consulting, a Geosyntec Company, (Aspect) prepared this combined Remedial Investigation (RI), Feasibility Study (FS), and Cleanup Action Plan (CAP) on behalf of Evergreen Treatment Services (ETS) for their facility at 1700 Airport Way South in Seattle, Washington (Site). The source of contamination on the Site, which consists of certain heavy metals, polycyclic aromatic hydrocarbons (PAHs), and chlorinated solvents (cVOCs) in soil, groundwater, and soil gas, is determined to be historical fill placed during regrading projects completed in early Seattle history, and from undocumented releases from historical industrial operations on the Site.

1700 Airport Way South (the Property) is currently owned by ETS, an opioid addiction treatment and social services provider. The Property is developed with one Building featuring two wings connected via an open breezeway. Each wing features a subgrade basement extending approximately 5 feet below ground surface. ETS is currently working toward redeveloping the Property with a purpose-built treatment facility (the New Building) to expand its treatment service capacity. ETS is seeking grant funding from multiple sources to support the redevelopment project.

Under Washington State's Model Toxics Control Act, "Site" is defined as any area where a hazardous substance or petroleum product, other than a consumer product in consumer use, has been deposited, stored, disposed of, placed, or otherwise come to be located (WAC 173-340-200). As determined in this report, the "Site" is defined as the extent of contamination identified in soil and groundwater on the Property and in groundwater under the west-adjoining, city-owned right-of-way of Airport Way South. The nature and extent of contamination has been sufficiently characterized and delineated, as described in this report.

Historically, the Property was part of a larger site occupied by an industrial manufacturer, Western Blower, of large industrial fans. Northwest Enviroservice (later Emerald Services) operated a hazardous waste processing facility on the property to the north and used the warehouses on the Site for some of its operations. The entire Northwest Enviroservice operational area was listed by the US Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology) as a contaminated Site. Corrective Action measures were undertaken by Northwest Enviroservice for the Site under the direction of the EPA in the 1990s. The ETS Property, was removed from the cleanup action because the EPA and Ecology determined that only an Environmental Restrictive Covenant would be needed to manage limited arsenic-, lead-, cadmium, petroleum-, benzo(a)pyrene-contaminated soil and concrete at the Property. The Environmental Restrictive Covenant, dated December 7, 2016, involves three restrictions/requirements: (1) limiting non-conforming zoning classification uses, (2) restricting use of groundwater, and (3) restricting the alteration of existing structures without prior written approval from Ecology.

That is one part of the cleanup action proposed for the ETS Subject property – restricting groundwater use and maintaining a protective cap on contaminated soil. The second

component of a cleanup action at the ETS property will involve remedial action related to a solvent plume discovered during ETS' purchase of the Property in 2021. The solvent source is a sump/drain in the north warehouse building that will be demolished as part of ETS' redevelopment of the Site. Therefore, the CAP component on this document focuses on the solvent plume, and it should be considered as a supplemental element to the pre-existing (and planned-to-be-maintained) environmental covenant on this property.

The selected cleanup action for the solvent plume at the Site includes a sump removal and limited remedial excavation around it, *in-situ* treatment of contaminants via injection of chemical oxidants (ISCO), monitored natural attenuation (MNA) of remaining contamination in groundwater, and implementation of engineering (chemical vapor barrier, as needed) and institutional controls (updating the environmental covenant, if needed) for the Property. Remedial excavation would be completed during demolition of the existing Building. ISCO treatment would occur following regrading of the Property but prior to construction of the New Building. Engineering controls would be implemented during construction of the New Building. MNA would follow construction of the New Building and continue for up to 5 years. Institutional controls, currently in place on the Property, would be revised as appropriate following construction and/or completion of the cleanup action.

ETS plans to implement the selected cleanup action in conjunction with the planned redevelopment of the Property.

After implementation of the cleanup action it is expected that the Property and/or Site will qualify for a written no further action determination from Ecology.

This Executive Summary should only be used in the context of the full report.

1 Introduction

Aspect Consulting, a Geosyntec Company (Aspect), presents the Remedial Investigation (RI), Feasibility Study (FS), and Cleanup Action Plan (CAP) in this combined RI/FS/CAP Report for the property located at 1700 Airport Way South in Seattle, Washington (King County tax parcel number 766620-2855) herein referred to as the Property. The location of the Property is shown on Figure 1.

This RI/FS/CAP was prepared in accordance with the Model Toxics Control Act (MTCA), Chapter 70A.305 Revised Code of Washington (RCW), and its implementing regulations, Chapter 173-340 Washington Administrative Code (WAC, together with MTCA), including the requirements of WAC 173-340-350 through -380.

The Property is currently owned by Evergreen Treatment Services (ETS), an opioid addiction treatment and social services provider, and is developed with one Building with two wings connected via an open breezeway. The Building was constructed between 1914 to 1915 and was used to produce industrial blowers for sawmills and furnaces until the late 1960s. The Property was vacant until 1979, when it began being used as part of a larger hazardous waste management facility based at 1500 Airport Way South, north of the Property. The Property was used for business administration and materials management until 1995, when hazardous waste management operations at the 1500 Airport Way South facility ceased and the facility began regulatory closure. ETS moved into the southern wing of the Building as a tenant in 1997. Following a boundary line adjustment establishing the current extent of the Property, a restrictive environmental covenant was recorded on the Property in 2017. Aspect began providing environmental support to ETS regarding the Property in 2018, and the northern portion of the Building was used for management of non-hazardous materials by the Property owner until ETS acquired the Property in 2021. In January 2024, the Building suffered a catastrophic water main break which rendered most of the structure unusable.

ETS is currently working toward redeveloping the Property with a purpose-built treatment facility (the New Building) to expand its treatment service capacity and ETS is seeking grant funding from multiple sources to support the redevelopment project.

Under MTCA, “Site” is defined as any area where a hazardous substance or petroleum product, other than a consumer product in consumer use, has been deposited, stored, disposed of, placed, or otherwise come to be located (WAC 173-340-200). As determined in this report, the “Site” is defined as the extent of contamination identified in soil and groundwater on the Property and in groundwater under the west-adjoining public right-of-way of Airport Way South.

1.1 Purpose and Objectives

The purpose of this RI/FS/CAP Report is to present the results of the independent RI, independent FS, and CAP completed for the Site. Specifically:

- The purpose of the RI is to adequately characterize a contaminated site, including the distribution of hazardous substances and the threat they pose to human health and the environment, to enable cleanup standards to be established for the Site, and cleanup action alternatives to be developed in an FS (WAC 173-340-350).
- The purpose of the FS is to develop and evaluate cleanup action alternatives to enable the selection of a cleanup action that meets the requirements in WAC 173-340-360 and conforms, as appropriate, to the expectations in WAC 173-340-370 (WAC 173-340-351).
- The purpose of the CAP is to document the selected cleanup action and to specify the cleanup standards and other requirements the cleanup action must meet (WAC 173-340-380).

The objectives of this report are as follows

- To fulfill the requirements for enrollment of the Site into the Washington State Department of Ecology's (Ecology's) Expedited Voluntary Cleanup Program (EVCP), and;
- To provide a comprehensive report of the known environmental condition of the Property and expected conditions after redevelopment for review by the City of Seattle Human Services Department (HSD). This review is needed to fulfill applicable requirements of the National Environmental Protection Act (NEPA) as needed to obtain Community Development Block Grant funding provided by the United States Department of Housing and Urban Development (HUD).

1.2 Report Organization

The remaining sections of this report have been organized as follows:

- Section 1 – Introduction
- Section 2 – Site Description and Background
- Section 3 – Remedial Investigation presents the results of the RI and the conceptual site model (CSM), identifies the contaminants of concern (COCs), and describes the cleanup standards selected for the Site.
- Section 4 – Feasibility Study presents the remedial action objectives (RAOs), identifies alternative cleanup actions, and selects the preferred cleanup action.
- Section 5 – Cleanup Action Plan describes the elements of the selected cleanup action, including compliance monitoring.
- Section 6 – Conclusion
- Section 7 – References
- Section 8 – Limitations

2 Site Description and Background

This section describes the Site, surrounding properties, historical uses of the Property, the physical setting, and reviews information relevant to environmental justice.

2.1 Site and Property Description

The Site is defined as the extent of contamination identified in soil and groundwater on the Property and in groundwater under the west-adjoining public right-of-way of Airport Way South. The Property is located at 1700 Airport Way South in Township 24 North, Range 4 East, Section 8 in the City of Seattle in King County, Washington (Figure 1). It comprises King County tax parcel no. 766620-2855, covering approximately 32,516 square feet (0.75 acres), as indicated in tax assessor records. The Site is currently developed with an approximately 15,500-square-foot, 2-story wood-framed Building with two wings separated by a breezeway. The wings are connected at the second story over the breezeway. Both wings feature a basement with a floor approximately 4-5 feet below street grade, and the south wing features a concrete loading dock accessible from the breezeway.

The south wing is a former warehouse with administrative offices which were converted for use by ETS in 1997. The wing has been largely unused since the Building was severely damaged by a water line break in early 2024. The basement was used for employee parking until 2024.

The north wing is a former warehouse that prior to ETS' use was used by Emerald Recycling, a subsidiary of Clean Harbors, as part of their used-oil recycling facility. The north wing is currently in partial use by ETS for storage of equipment and supplies. The central courtyard and parking areas of the Site are currently used to provide addiction treatment services out of Mobile Medical Units operated by ETS.

2.2 Surrounding Property Descriptions

The Property is situated in an area of various commercial and industrial commercial use, as follows:

- **North –** The north-adjacent property is occupied by Emerald Recycling/Clean Harbors as a used-oil recycling facility.
- **East –** Interstate 5 is located east of the Property.
- **South –** The south-adjacent property is a multitenant light industrial property. Tenants include a clothing print shop, cabinet maker, recording studio, window tinting service, product design studio, and martial arts school.
- **West –** The property to the west across Airport Way South includes Holgate Center office building and CenturyLink garage and storage facility. Tenants of the Holgate Center include the Department of Social and Health Services and Quest Diagnostics.

2.3 Historical Use of Property

The historical use of the Site was determined by review of records obtained for previous environmental due diligence reports (Aspect, 2019a; 2021; 2024). The earliest available historical records indicate that the Site was first developed with residential property as early as 1893 (EDR, 2024). At that time, present-day Airport Way South was a wood plank road at the eastern edge of the Elliott Bay tide flats, and the dwellings were possibly built on wharf-like structures supported by timber piles. Between 1907 and 1914, waste soil from the Jackson Street Regrade and Dearborn Street Regrade projects (completed north of the Site) were used to fill in the tide flats west of Beacon Hill, likely including the footprint of the Property (Bagley, 1916; Williams, 2017).

2.3.1 Western Blower – 1910s to 1960s

Records indicate that Western Blower constructed the on-Site Building between 1914 and 1915 and that in 1937, a 350-gallon fuel tank was installed to supply an oil-burning boiler in the central portion of the Building. Building plans dated to 1942 indicate the basement of the north wing featured a paint spray booth, metal shop, metal plating areas, and a sump. Western Blower occupied the Property until the 1960s, and the Site was reportedly vacant in the 1970s. Copies of referenced records are included in Appendix A.

2.3.2 Northwest EnviroService – 1979 to 1995

Northwest EnviroService, Inc. (NWES) began operating a tank cleaning service at 1500 Airport Way South (north of the Site) in 1979 (NWES, 1995; 1996). In 1987, NWES expanded operations onto the Site as part of a 1.3-acre facility between Airport Way South and Interstate 5, spanning from South Atlantic Street to the north and South Holgate Street to the south. Operations on the Site included business administration and materials handling. Facility operations were regulated by Ecology under the Resource Conservation and Recovery Act (RCRA).

In 1995, NWES discontinued its hazardous-waste operations and started RCRA closure of the hazardous-waste handling aspect of the facility. Since their use of the Site (known as the Western Blower Property) was limited, closure of this portion of the Property was conducted separately from the remainder of the Property to the north where more hazardous-waste handling (aka oil recycling) activities were focused. The following provides a summary of NWES' use of the Site, as provided in the following reports:

- "Northwest EnviroService Inc. Interim Status Closure Plan, Western Blower Property" (1995 Closure Plan; NWES, 1995)
- "Northwest EnviroService Inc, Western Blower Property RCRA Closure Sampling Results" (1996 Results Report; NWES, 1996)

Little information is available in the 1995 Closure Plan or 1996 Results Report providing specifics on Site use, chemical handling, or materials storage. NWES states in the reports that Site use included "administrative and warehouse activities," and "sealed and containerized wastes were unloaded from trucks at the load/unload dock and transported to the north-adjacent NWES property for processing." The loading dock near the center of the Building was used for loading and unloading hazardous waste. Containerized waste was then transferred to the north-adjacent parcel, also owned by NWES, for

processing. NWES used the Building space to store pumps, hoses, and other equipment. The north wing of the Building included an area for repairing pumps and a parts washer.

A figure in the report refers to the north wing of the Building as the "Stores Building." King County tax assessor records indicate that the south wing included laboratory space for organic and inorganic sample preparation, most likely for waste disposal characterization.

The 1995 Closure Plan stated the following activities were to be completed for facility closure:

- Remove waste inventory
- Decontamination of Site concrete, sumps, tanks, and equipment
- Disposal of contaminated materials
- Collection of samples to certify completion of closure

The language in the 1995 Closure Plan does not provide details about specific storage tanks or sumps to be decontaminated on the Site. The 1996 Results Report summarizes results from the post-closure sample collection on the Site including three concrete samples, two shallow soil samples, and two groundwater samples from wells[1] MW-1 and MW-2. Samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCS), pesticides, polychlorinated biphenyls (PCBs), sulfide, total petroleum hydrocarbons (TPH), dioxins, metals, and cyanide.

In concrete samples, cadmium was reportedly detected at a concentration of 200 milligrams per kilogram (mg/kg), exceeding the applicable MTCA cleanup level (CUL) for unrestricted land use (NWES, 1996). In soil samples, arsenic, TPH, and benzo(a)pyrene (BaP) were detected at concentrations less than the current MTCA Method A CULs. In groundwater samples, manganese was detected at a concentration of 3,400 micrograms/liter (µg/L) in the sample from MW-2, which exceeded the drinking water standard at the time (2,200 µg/L), and exceeds the current drinking water standard (50 µg/L; WADOH, 2023). Since the laboratory reports were not included in the digital copies of reports reviewed by Aspect, these results cannot be included as part of the RI described in Section 3 but are discussed here as part of the historical context of the Site.

In 1997, Ecology provided an opinion that No Further Action (NFA) or investigation would be required for closure of the Western Blower property except for the recording of a restrictive covenant restricting land use, limiting building alterations, and prohibiting groundwater use. NWES vacated the south wing of the Building in 1997 and began operating the former hazardous waste facility as Emerald Recycling, a processor of nonhazardous waste – primarily used oil (Aspect, 2024).

2.3.3 Emerald Recycling and ETS– 1997 to Present

ETS moved into the south wing of the Building in 1997. In 2017, the Western Blower property was divided into two parcels: the current Property, and the current north-

[1] Monitoring wells were decommissioned or destroyed sometime between 1995 and 2010 (Aspect, 2024)

adjoining property (King County Parcel 7666202861), and the environmental covenant for the Property revised to allow continued use by ETS (Ecology, 2017). Meanwhile, Emerald Recycling (also known as Emerald Services[2]) used the north wing of the Building for materials storage until 2020. ETS acquired the Site from Emerald Services in 2021. In 2024, the Building suffered significant damage from water line break, significantly reducing the usable area for ETS' operations. Since then, ETS has primarily provided treatment services on-Site from temporary structures and Mobile Medical Units located in the central courtyard and parking areas (Aspect, 2024).

2.4 Future Use of the Site

ETS intends to redevelop the Site to improve its capacity to provide treatment services. Specifically, the Site redevelopment plan involves demolishing the current structures and building new structures into an integrated behavioral health and wellness center for the treatment of opioid use disorder specializing in low-barrier, whole-person care.

Redevelopment of the Site is proposed to occur in two Phases. Phase 1 would demolish the current Building completely and build a new structure on the north end of the Property with parking and landscaping placed across the central and southern portions of the Property. Demolition of the current Building would include removal of all structural features of the north wing of the warehouse, including the concrete slab and walls of the basement, and filling of the leftover cavity with clean, imported structural fill. The walls and floor of the basement of the southern wing of the Building would be similarly demolished and the Site would be regarded to be approximately level with Airport Way South Following regrading, the New Building would be built as a two-story wood-framed structure featuring a slab-on-grade foundation covering approximately 10,000 square feet. New hardscaping would be built over regraded areas not covered by the New Building, consisting of either concrete or asphalt over a base course of imported gravel and sand. A copy of the draft Site Improvement Plan is included in Appendix A.

Phase 2 of the redevelopment would build additional clinic space over the parking area on the southern portion of the Site. There is currently no timeline for completion of Phase 2 of the redevelopment. The redeveloped Site is expected to be operated by ETS for the foreseeable future.

2.5 Physical Setting

The project Site is located in the Puget Lowland region, characterized by heterogeneous, glacially deposited sediments within a large topographic basin. According to the Geologic Map of Seattle, produced by the U.S. Geological Survey (USGS) and the Pacific Northwest Center for Geological Mapping Studies, the Site and properties westward are underlain by artificial fill over tide flat deposits (Troost et al., 2005). The eastern boundary of the Site abuts a steep slope beneath current Interstate 5, separating the Site from the northern portion of the Beacon Hill neighborhood. The slope is underlain mainly by Quaternary continental glacial drift deposits from the Pleistocene, including pre-Fraser-age deposits from about 70,000 to 20,000 years ago. The Site features a slight westward slope, with the western boundary and properties west of the

[2] Emerald Services was acquired by Clean Harbors, Inc., in 2016, but still operates the facility at 1500 Airport Way South as Emerald Recycling.

Site situated at approximate Elevation[3] 24 feet. The eastern boundary of the Site, abutting the steep slope under Interstate 5, is at approximate Elevation 27 feet.

GeoEngineers, Inc. (GeoEngineers) completed a geotechnical investigation on the Site in 2023, based on multiple sources of soil data including Aspect soil boring logs from 2018 (GeoEngineers, 2023). Based on the geotechnical investigation report and appended soil boring logs, the Site is underlain by approximately 11 to 16 feet of undocumented imported fill featuring anthropogenic debris including fragments of wood, brick, glass, ceramics, and coal. The fill overlies soft estuarine deposits ranging in thickness from 5 to 19 feet thick, thickening to the west with distance from the steep slopes east of the Site. The estuarine deposits consist of soft interbedded silt and clay, which are underlain by glacially consolidated soils consisting of very stiff to hard silt and clay. The top of these soils appears to slope to the west, increasing in depth from approximately 16 feet below ground surface (bgs; approximate Elevation 15 feet) on the eastern Property boundary to approximately 30 feet bgs (approximate Elevation -5 feet) on the western Property boundary. The glacially consolidated soils reportedly continue deeper than the maximum depth explored on the Site (approximately 35 feet bgs; approximate Elevation -10 feet). The floor of the basement under each wing of the Building is at approximate Elevation 19.4 feet based on survey reports for the Site.

2.6 Climatological Characteristics

Ecology has identified that preparing and adapting to climate change impacts, including rising sea levels, extreme precipitation events, severe drought, increased wildfire risk, and marine water acidification, is a critical challenge for the state (Ecology, 2023a). To assess the vulnerability of a Site remedy to climate change, Ecology requires collection of sufficient information, based on the best available science, regarding current and projected local and regional climatological characteristics to determine which could affect the migration of hazardous substances or the resilience of cleanup action alternatives (WAC 173- 340-350(6)(f)). Current and projected climatological characteristics were assessed based on tools and data sources identified in Ecology's *Sustainable Remediation: Climate Change Resiliency and Green Remediation—A Guide for Cleanup Project Managers* (Ecology, 2023a), and Ecology's Site Hazard Assessment and Rating Process (SHARP; Ecology 2023b).

The following sources were reviewed

- The 2022 Washington State Climate Summary from the National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI);
- Projected climate changes for Census Tract 5303300930 (which includes the Site) and relative severity as reported by the Washington Tracking Network (WTN) Information By Location (IBL) Tool;

[3] Elevations in this document are presented in feet relative to the National Vertical Datum of 1988.

- Relative sea level rise projections from the Washington Coastal Hazards Resilience Network and mapping by the University of Washington (UW) Climate Impacts Group (CIG); and
- Federal Emergency Management Agency (FEMA) flood maps.

Copies of data products and maps referenced in this section are included in Appendix A.

2.6.1 Air Temperature

Average near-surface air temperatures in Washington have increased by approximately 2 degrees Fahrenheit (°F) since the beginning of the twentieth century and are projected to continue increasing through the year 2100, resulting in fewer freezing days (maximum daily temperature less than 32°F) and additional hot days (maximum daily temperature greater than 90°F) over time (NCEI, 2022).

The WTN database includes statistics reflective of projected changes in air temperature for each census tract in Washington for the 30-year period centered around 2050 (2036 to 2065) relative to a historical baseline period (1976 to 2005) under Representative Concentration Pathway 8.5 (RCP 8.5) from Phase 5 of the Coupled Model Inter-comparison Project (CMIP5). These statistics include the projected change in annual cooling degree days (WTN, 2020a), the projected change in annual heating degree days (WTN, 2020b), and the projected number of annual days which exceed the historical 99th percentile temperature (WTN, 2020c). Results for the census tract encompassing the Site were accessed via the Washington State Department of Health (WADOH) Environmental Health Disparities (EHD) Map[4] and are summarized in Table A-1 (Appendix A). Relative to the rest of Washington, the Site is projected to experience a moderately high decrease in cool weather, a moderately high increase in hot weather, and a moderate increase in extremely hot weather (WADOH, 2022).

2.6.2 Precipitation and Storms

Regionally, the projected change in total annual precipitation is uncertain but changes in seasonal patterns are projected to result in decreasing precipitation during summer and increasing precipitation during winter (NCEI, 2022). Winter snowpack volumes across the state are projected to decrease as precipitation is projected to increasingly fall as rain instead of snow due to increasing average temperatures. These changes in precipitation patterns would decrease water availability during summer and increase the risk of spring flooding. Heavy rainfall events (greater than 2 inches of precipitation in western Washington) are projected to occur with increased frequency, which would increase flood risk relative to historical patterns.

The WTN database includes an estimate of relative change in average annual precipitation between a historical baseline period (1976 to 2005) and the projected 30-year period centered around 2050 (2036 to 2065) under RCP 8.5 of CMIP5 (WTN, 2020d). Results for the census tract encompassing the Site are summarized in Table A-1 (Appendix A). Relative to the rest of Washington, the Site is projected to experience a high increase in annual precipitation.

[4] https://fortress.wa.gov/doh/wtnibl/WTNIBL/

The FEMA Flood Insurance Rate Map (FIRM) depicts areas impacted by flooding at least once every 100 years (1 percent annual chance flood) according to historical data and modeling. The map shows that the Site is in an area of minimal flood hazard. Projected changes in seasonal precipitation patterns may increase the annual chance of flooding. A "FIRMette" generated for the Site vicinity is included in Appendix A.

2.6.3 Sea Level Rise

Regionally, rising sea levels will increase the frequency of tidal floods and seawater incursion on coastal sites. Since 1900, global mean sea level has risen by approximately 7-8 inches and is likely to increase an additional 1-4 feet by 2100 (NCEI, 2022).

The UW CIG maintains visualizations[5] of projected relative sea level rise for each Water Resource Inventory Area (WRIA) in Washington. The Site is located in WRIA 9 (Duwamish/Green), and copies of data visualizations generated for the coastal section of the WRIA nearest the Site are included in Appendix A. Based on these visualizations, there is a 1 percent chance sea level rise will meet or exceed 5.1 feet by 2100 under RCP 8.5. Seattle Public Utilities (SPU) maintains a map[6] of areas impacted by 2-5 feet of sea level rise based on the results of the Washington Coastal Resilience Project (Miller et al., 2018). The Site is not indicated as being potentially impacted by coastal flooding due to relative sea level rise of up to 5 feet, which would increase the Mean Higher High Water elevation to approximately 19 feet. The elevation of the Site ranges from approximate Elevations 24 to 27 feet.

2.6.4 Wildfire and Landslide Vulnerability

The Site is not located in a vegetated area prone to drought, near the urban-forest interface, or in a forested area, and does not use planted vegetation for erosion control. Therefore, despite projected increases in hot weather, the Site does not appear to be particularly vulnerable to increased wildfire risk due to climate change.

GeoEngineers (2023) identified historical records identifying the slope east of the Site as an Environmental Critical Area (ECA), a potential slide area, and a known historical slide area. Historical records indicate the slide debris was removed by the City of Seattle soon after the slide occurred in 1934 and that the area of the slide was regraded prior to construction of Interstate 5 in the 1960s. Based on these records, GeoEngineers "judge[d] that the construction of [Interstate 5] structure stabilized the landslide-prone area" (GeoEngineers, 2023). Although annual precipitation is expected to increase due to climate change, the Site does not appear to be particularly vulnerable to increased landslide risk due to climate change.

[5] https://cig.uw.edu/projects/interactive-sea-level-rise-data-visualizations/
[6] https://www.seattle.gov/utilities/protecting-our-environment/community-programs/climate-change/projections-and-maps

2.7 Environmental Justice Screening

Washington State is committed to reducing environmental and health disparities in the state and improving the health of all its residents. State and national studies have found that people of color and low-income people continue to be disproportionately exposed to environmental harms in the places they live. These disparities are amplified when environmental impacts are overlaid on communities with preexisting social and economic barriers.

To address and prevent such environmental health disparities, Ecology requires remedial investigations to include a determination of whether the population threatened by a contaminated Site includes a likely vulnerable population or overburdened community (WAC 173- 340-350(6)(h)(iii)), which are defined to mean the same as under the Healthy Environmental for All (HEAL) Act, Chapter 70A.02 RCW, as follows:

- Vulnerable populations are groups that are more likely to be at higher risk for poor health outcomes in response to environmental harms, due to: (i) adverse socioeconomic factors, such as unemployment, high housing and transportation costs relative to income, limited access to nutritious food and adequate health care, linguistic isolation, and other factors that negatively affect health outcomes and increase vulnerability to the effects of environmental harms; and (ii) sensitivity factors, such as low birth weight and higher rates of hospitalization. Vulnerable populations include, but are not limited to, racial or ethnic minorities, low-income populations, populations disproportionately impacted by environmental harms, and populations of workers experiencing environmental harms.
- An overburdened community is defined as a geographic area where vulnerable populations face multiple, combined environmental harms and health impacts and includes, but is not limited to, highly impacted communities. Highly impacted communities are communities designated by the WADOH based on cumulative impact analyses or a community located in census tracts that are fully or partially on "Indian country" as defined in 18 United States Code (USC) Sec. 1151.

In accordance with the legislation, this remedial investigation includes an environmental justice screening to determine whether the potentially exposed population includes a likely vulnerable population or overburdened community. In “Implementation Memorandum No. 25: Identifying Likely Vulnerable Populations and Overburdened Communities under the Cleanup Regulations”, Ecology (2024) established the following test criteria to determine if the potentially exposed population includes a likely vulnerable or overburdened community

- The EHD Index reported by WADOH’s EHD Map for the census tract is rank 9 or 10;
- The Demographic Index reported by the US Environmental Protection Agency’s (EPA’s) EJScreen tool for the census tract is at or above 80th percentile for Washington State; or
- The Supplemental Demographic Index reported by EPA’s EJScreen tool for the census tract is at or above the 80th percentile for Washington State.

2.7.1 Environmental Health Disparities Map

On the EHD Map, WADOH assigns an environmental health disparity index to each census tract using a 1 (low) to 10 (high) ranking scale based on several environmental health factors (WADOH, 2022). The EHD Map was accessed on May 16, 2025, for this assessment.

The Site has an overall environmental health disparity ranking of 9, which is considered high. This ranking is calculated based on environmental exposures, environmental effects, socioeconomic factors, and sensitive populations, described as follows:

- Environmental exposures had a high (10) ranking for the Site, due to reported diesel exhaust PM2.5 emissions, reported PM2.5 concentrations, proximity to heavy traffic roadways, and reported toxic releases from industrial facilities.
- Environmental effects had a high (10) ranking for lead risk from building materials used in housing, proximity to hazardous waste facilities, proximity to hazardous waste treatment storage and disposal facilities, proximity to Superfund sites, and reported wastewater discharge.
- Socioeconomic factors had a moderate (5) ranking for the community with a high percentage of residents who are people of color and a high percentage of residents whose primary language is not English.
- Sensitive populations had a moderate (5) ranking for the community due to a high rate of low birth weight but a low rate of death from cardiovascular disease.

2.7.2 EJScreen

EPA took EJScreen offline in February 2025. On April 1, 2025, Ecology notified MTCA practitioners via email that new demographic assessments should solely use the first criteria in Implementation Memo No. 25, which relies on WADOH's EHD map, until Ecology identifies alternative reliable data sources or alternative demographic criteria.

2.7.3 Screening Results

This assessment assumes the demographic data for the census tract containing the Site is representative of the population potentially exposed to contaminants present on the Site. The census tract containing the Site is ranked 9 on the Environmental Health Disparities Index reported by WADOH. Based on this result, the potentially exposed population includes a likely vulnerable population or overburdened community.

3 Remedial Investigation

Multiple subsurface investigations have been completed at the Site since 1995. Copies of reports provided by EPA and Ecology describing investigations prior to Aspect's work on the Site are missing key information required to verify data usability. The reported results of those investigations are discussed in Section 2.3 but included as part of this RI. Copies of the reports reviewed in this section are included in Appendix B and should be reviewed for more detailed information.

3.1 Field Investigations

3.1.1 Phase II ESA – Aspect, 2019

Aspect completed a Phase II Environmental Site Assessment (Aspect, 2019b; the "2019 Phase II ESA") consisting of soil, groundwater, and soil gas sampling to evaluate

- the presence and nature of volatile contaminants of potential concern (COPCs) in soil gas beneath the Site;
- the potential presence of soil contamination associated with current or past sources of contamination on the Site or nearby adjacent properties; and
- the potential presence of groundwater contamination associated with current or past sources of contamination on the Site or nearby upgradient properties.

The Phase II ESA included installation of four permanent groundwater monitoring wells (AMW-1 through AMW-4; Figure 2) on and off the Site and collection of soil gas samples via four temporary soil gas sampling points. Copies of soil boring and well construction logs are included in Appendix C. Copies of laboratory reports are included in Appendix D.

A total of six soil samples were submitted for analysis based on field observations and analyzed for TPH as gasoline-range organics (TPH-GRO) via Northwest Method NWTPH-Gx, TPH as diesel- and oil-range organics (TPH-DRO and -ORO) via Northwest Method NWTPH-Dx, and metals (arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, and zinc) using EPA Method 6020B. Additionally, two samples were submitted for analysis of VOCs using EPA Method 8260D and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) using EPA Method 8270D/SIM. Soil results are summarized in Tables 1a and 1b, and discussed in Section 3.2.2.

Four temporary subslab soil gas samples (SV-1 through SV-4; Figure 4) were collected and submitted for analysis of VOCs by EPA Method TO-15. At the time of this report, the soil gas investigation was completed in accordance with available Ecology guidance regarding vapor intrusion assessment (Ecology, 2018a; 2018b; 2018c), which has since been incorporated into the current Ecology guidance (Ecology, 2022a). These results are presented on Table 2 in comparison to current Ecology screening levels protective of commercial workers (Ecology, 2022b) and discussed in Section 3.2.4.

Groundwater was encountered in all four monitoring wells. Groundwater measurements are summarized in Table 3a. Four groundwater samples were collected from the four wells installed during the Phase II ESA and submitted for analysis of gasoline-range TPH

by Northwest Method NWTPH-Gx, diesel- and oil-range TPH by Northwest Method NTWPH-Dx, VOCs by EPA Method 8260D, dissolved metals (arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, and zinc) by EPA Method 6020B, and total cyanide by EPA Method SM 4500-CN. Groundwater analytical results are summarized in Table 3b and discussed further in Section 3.2.3.

3.1.2 Sump Cleanout and Soil Vapor Sampling – Aspect, 2020

In 2020, the basement sump in the north warehouse and on-Site stormwater system were cleaned based on recommendations presented in the 2019 Phase II ESA (Aspect, 2020). After the sump and stormwater systems were cleaned, two subslab soil gas samples were collected from temporary soil gas sampling points and analyzed for VOCs and air-phase petroleum hydrocarbons. Analytical results are summarized on Table 2 and Figure 4 and discussed in Section 3.2.4. A copy of the laboratory report is included in Appendix D.

3.1.3 Subsurface Investigation – Aspect, 2025

From October 2024 to December 2024, Aspect completed a supplemental subsurface investigation to assess the potential nature and extent of contamination shallow soil and groundwater in the vicinity of the sump in the basement of the north warehouse and to assess the current status of contamination in groundwater identified by previous investigations (Aspect, 2025).

Seven soil borings (AB-01 through AB-06 and AMW-05) were completed to depths ranging from approximately 8 to 15 feet bgs to characterize soil in the vicinity of the sump in the basement of the North Warehouse. Borings were terminated at refusal or when the top of the native estuarine deposits was encountered. Soil boring locations are shown on Figures 2, 3a, 3b, and 3c. Copies of soil boring logs are included in Appendix C.

During this subsurface investigation, a total of 14 soil samples were analyzed for one or more of the following analytes: TPH-GRO by Northwest Method NWTPH-Gx, TPH-DRO and -ORO by Northwest Method NWTPH-Dx, VOCs by EPA Method 8260D, PAHs by EPA Method 8270E, and total arsenic, cadmium, chromium, lead, and mercury by EPA Method 6020B.

Soil boring AMW-5 was completed as a groundwater monitoring well. The construction of AMW-5 expanded the network of monitoring wells associated with the Site to a total of five wells, and groundwater samples were collected from each well. The groundwater samples were analyzed for TPH-GRO by Northwest Method NWTPH-Gx, TPH-DRO and -ORO by Northwest Method NWTPH-Dx, VOCs by EPA Method 8260D, PAHs by EPA Method 8270E, and total and dissolved arsenic, cadmium, chromium, lead, and mercury by EPA Method 200.8.

Previously, the monitoring well network had been surveyed relative to an arbitrary elevation datum. On December 5, 2024, the expanded well network was surveyed relative to NAVD88. Groundwater well construction details are summarized in Table 3a. A copy of the survey report is included in Appendix A.

3.2 Remedial Investigation Results

The results of the subsurface investigations completed since 2018, described below, provide enough clarity on the source, nature, and extent of the contamination to serve as a remedial investigation of the Site.

3.2.1 Geology and Hydrogeology

Soils observed during field investigations consisted primarily of artificial fill soil overlying native estuarine sediments. The fill material was observed to generally be composed of reworked silty sand with gravel, with artificial debris including shards of glass, bricks, and wood. The observed estuarine sediments were composed of interbedded silty sand, sand with silt, sandy clay, and sand with gravel. Estuarine sediments included some seashell fragments and trace rootlets. Soil boring logs are included in Appendix C. An interpretation of the subsurface geology is presented in cross-section on Figure 7.

Groundwater elevations are summarized on Table 3a and depicted on Figures 5a and 5b. During both groundwater sampling events, groundwater elevations ranged from approximate Elevations 18 to 19.5 ft, and the groundwater gradient was generally southward with a shallow hydraulic gradient of about 0.014 to 0.017 feet per foot.

3.2.2 Soil

In previous reports, the analytical results for soil samples are evaluated against the applicable MTCA Method A or Method B CULs for unrestricted land use. Metals concentrations were also evaluated against naturally occurring metals background concentrations for the region (Ecology, 1994). Analytical results of soil samples collected for this RI are summarized in Tables 1a and 1b, shown on Figures 3a through 3c, and illustrated in the cross-section on Figure 7. For this RI, the analytical results are compared against the CULs selected in Section 3.4**.**

Concentrations of cadmium, lead, and PAHs exceeding the selected CULs were detected in soil representative of the surficial fill layer underlying the Site and were either not detected or detected at concentrations less than the selected CULs in samples representative of estuarine deposits underlying the fill material. Other metals, including arsenic, chromium, and mercury, were either not detected or detected at concentrations less than the selected CUL. Analytical results for metals and PAHs are summarized in Table 1a.

TPH-DRO was detected in several samples but at concentrations less than the selected CUL. Additionally, the laboratory indicated the detected concentration of TPH-DRO did not match the fuel standard used for quantification, indicating the detected pattern of TPH is not representative of a recent release of diesel product. Analytical results for TPH and VOCs associated with TPH are summarized in Table 1b.

Chlorinated solvents including tetrachloroethylene (PCE) and its common degradation products[7] were detected in soil at various depths beneath the north warehouse, but not detected in soil beyond the footprint of the north wing of the warehouse. Analytical

[7] The most common degradation products of PCE are TCE, cis-1,2-dichloroethene (cDCE), trans-1,2-dichloroethene (tDCE), and vinyl chloride

results for VOCs including PCE, its degradation products, and other halogenated solvents are summarized in Table 1b.

3.2.3 Groundwater

In previous reports, the analytical results for groundwater samples were evaluated against the applicable MTCA Method A or Method B CULs for unrestricted land use. The analytical results of groundwater samples collected for this RI are compared to the CULs selected in Section 3.4 and summarized in Table 3b.

Groundwater analytical results from samples collected in 2018 and 2024 indicate the presence of dissolved arsenic at concentrations exceeding the selected CUL, but these detected concentrations are likely naturally occurring due to reducing conditions in the shallow aquifer.

TPH-DRO was detected in groundwater samples from AMW-2 (in 2018 and 2024) and AMW-5 (in 2024) at concentrations less than the applicable MTCA Method A CUL. Similar to the soil results, the laboratory indicated that the chromatographic pattern of the detected hydrocarbons did not match the fuel standard used for quantitation, indicating the detected pattern is not representative of a recent release of diesel product.

Vinyl chloride was detected at concentrations exceeding the selected CUL in the groundwater sample from AMW-1 in 2018 and 2024. Vinyl chloride and cis-1,2-dichloroethene (cDCE) were detected at concentrations exceeding the selected CULs in the sample from AMW-5 in 2024. No other VOCs were detected at concentrations greater than the laboratory reporting limits in groundwater samples collected during the subsurface investigation.

3.2.4 Soil Gas

In 2018, the following contaminants of potential concern were detected at concentrations greater than the current Ecology screening levels protective of commercial workers[8] at SV-4: benzene and vinyl chloride. SV-4 was not analyzed for total air-phase hydrocarbons (APH). Soil gas results are summarized in Table 2.

Acrolein was detected in the sample from SV-3 at a concentration exceeding the Ecology screening level protective of commercial workers. However, acrolein is commonly detected in samples of soil gas without a known source and based on the lack of evidence of use of acrolein on the Site and lack of detections in other media, this detection is not considered to be representative of subslab soil gas conditions.[9]

[8] Ecology provides default vapor intrusion risk-based indoor air levels protective of workers. These levels apply to sites where adults who are working inside commercial buildings are likely the receptors who represent the reasonable maximum exposure to indoor air contamination caused by vapor intrusion (Ecology, 2022b)

[9] Eklund (2020) explains that post-sampling reactions can occur between ketone solvents and the summa canister lining material which produce acrolein. Eklund also explains that 1,3-butadiene is commonly associated with use of heavy tools during installation of subslab soil gas sampling points and is typically not found in follow-up testing.

In 2020, the following contaminants of potential concern were detected at SV-5, located south of the sump and near the previous SV-4 sample location: total APH, benzene, and vinyl chloride.

3.2.5 Data Quality Review

Data presented in this report meet data quality objectives in accordance with MTCA requirements (WAC 173-340-830). Sample collection, handling, and chain-of-custody protocols were followed to achieve representative data for a given matrix, in accordance with industry-standard practices. Chemical analysis of the samples was conducted by an Ecology-accredited laboratory, using MTCA-required analytical methods (Ecology methods for petroleum mixtures and EPA Standard Methods for other analytes). Those analytical methods, in conjunction with a Contract Laboratory Program, specify quality control (QC) procedures (lab method blanks, spikes, internal standards, etc.) to ensure the analytical results are of known quality and acceptable to achieve project objectives.

The laboratory conducted an internal quality assurance (QA) review of the generated results, and qualified results to identify QC concerns in accordance with their standard operating procedures for each analytical method. The laboratory also defined additional data qualifiers to more completely explain QC concerns regarding particular results when necessary, such as when a sample was diluted prior to analysis, or if a sample chromatograph pattern did not resemble the fuel standard used for quantitation.

Upon receipt of the data, Aspect reviewed the analytical results and laboratory report. Qualifiers were assigned to results, as applicable, based on laboratory flagging and report notes. Laboratory results were loaded and managed in a controlled database environment, with assorted data entry QC procedures, ensuring data integrity and consistency.

3.2.5.1 Data Quality Review

In accordance with QA/QC procedures, Aspect performed a data quality review (DQR) of all analytical data for this study. Aspect's standard DQR was developed based on the EPA Stage 2A data validation, with minor modifications designed to meet Aspect's internal data quality and management program goals and the project objectives. Laboratory QA/QC sample results (including a combination of blanks, blank spike and spike duplicate, matrix spike and spike duplicate, surrogate, and lab duplicate recoveries), laboratory-applied flags, and laboratory-provided analysis comments are reviewed. Based on this review, qualifier flags are assigned to the data where appropriate, which indicate data usability for study goals and objectives. Data qualifiers assigned to results for this study include:

1. Data assigned an X (poor match to fuel standard) may be used for both qualification and quantification purposes, but the chromatograms should be reviewed to assess the source of the detected concentration.

2. Data assigned a J (internal standard recovery out of control limits) may be biased due to the analytical control standard concentration falling out of the acceptable range. This data may not be appropriate for qualification or quantification purposes, but are included for historical reference.

3. Values without qualification meet all data measurement quality objectives and are suitable for use.

Based on review of the laboratory QA/QC results, the results of Aspect's DQR, and review of the data qualifiers, it is our opinion that the data presented in this report generally meet data quality objectives in accordance with MTCA requirements (WAC 173-340-830) and are considered acceptable to achieve project objectives.

3.3 Conceptual Site Model

This section presents the CSM, which was developed from the results of the RI and is the basis for developing remedial alternatives for the Site. The CSM covers soil conditions, contaminant release, nature and extent of contamination, contaminant fate and transport, and a preliminary exposure assessment for potential receptors.

3.3.1 Contaminants of Concern and Affected Media

The COCs retained for the Site are based on the occurrence of chemicals positively identified at concentrations exceeding the applicable MTCA Method A CULs during the RI. The COCs for this Site based on this criterion are:

- Arsenic, cadmium, lead, cPAHs (including benzo[a]pyrene), trichloroethylene (TCE), and vinyl chloride in soil
- APH, benzene, and vinyl chloride in soil gas
- Arsenic, cDCE, and vinyl chloride in groundwater

3.3.2 Source, Nature, and Extent of Contamination

Two historical primary sources of contamination have been identified for the Site:

1. **Historical contaminated fill** placed at the Site which contains artificial debris and contaminants associated with uncontrolled dumping of material derived from regrading projects completed by the City of Seattle in the early 1900s (metals, cPAHs, APH, benzene).
2. **The sump in the basement of the north wing of the Building** located in the vicinity of historical Site operations which likely included the use of solvents without a dedicated solvent recovery system and were discharged into the sump.

The nature of contamination on the Site is divided into two distinct sources: (1) PAHs (including cPAHs identified as a COC) and metals (including arsenic, cadmium, and lead retained as COCs) derived from artificial debris contained in the historical contaminated fill across the Site, and (2) chlorinated solvents including TCE and its degradation products[10] (cDCE, tCDE and vinyl chloride) derived from undocumented releases from historical Site operations focused around the sump.

The extent of contamination has been identified by the RI. The results of the RI corroborate the understanding stated in the Site's current environmental covenant that

[10] TCE degradation products include cis-1,2 dichloroethylene (cDCE), trans-1,2 dichlorethylene (tDCE), and vinyl chloride.

shallow soils across the Site are contaminated with metals and cPAHs including the COCs identified above. The historical fill extends between approximate Elevations 9 to 16 feet on the Site.[11] Groundwater has been identified at approximate Elevations 18 to 19.5 feet on the Site.

Chlorinated solvents including TCE, cDCE, and vinyl chloride, have been identified in soil, soil gas, and/or groundwater under the basement of the north wing of the Building. These appear to be derived from undocumented releases of solvents into the sump in the basement of the north wing of the Building.

3.3.3 Contaminant Fate and Transport

Data evaluated during the RI indicate that contaminated soil and groundwater at the Site is the result of (1) placement of contaminated fill across the Site and (2) release of chlorinated solvents around the sump associated with historical use of the north wing of the on-Site Building. Transport mechanisms for COCs include adsorption and advection through groundwater movement. Transport of COCs from vadose zone soil into deeper soil via infiltration of meteoric water is currently severely limited due to the Site being completely covered in hardscaping in accordance with the current environmental covenant.

Contaminants in fill soil (metals and cPAHs) are the direct result of the historical placement of contaminated fill material at the Site. Fill material extends to depths ranging from 11 to 16 feet bgs across the Site, and the top of the shallow unconfined groundwater aquifer is approximately 4-6 feet bgs. Groundwater testing indicates arsenic from historical fill has mobilized into groundwater, but other metals (including the soil COCs of cadmium and lead) and cPAHs have not leached into groundwater at concentrations exceeding MTCA.

During the two groundwater monitoring events completed at the Site (in December 2018 and November 2024), static groundwater was measured to be less than 1 foot below the top of the basement slabs of the Building (approximately 5 to 6 ft bgs). This indicates that during the regional wet season, there is less than one foot of vadose zone soil between the opening of the sump in the north wing of the Building and saturated soils. Data collected during the RI suggests that soil in the vicinity of the sump is discontinuously contaminated with chlorinated solvents, but groundwater samples from AMW-5 (immediately downgradient of the sump) and AMW-1 (approximately 60 feet downgradient of AMW-5) indicate chlorinated solvents have mobilized along the hydraulic gradient in the shallow unconfined aquifer. However, the groundwater sample from AMW-1 collected in November 2024 contained approximately 17 percent less vinyl chloride (2.4 micrograms per liter [ug/L] than was detected in the sample collected in December 2018 (2.9 ug/L). Along with the lack of detection of PCE or TCE in groundwater samples, and the lack of detection of cDCE in AMW-1 despite the detection in AMW-5, suggests the plume of chlorinated solvents in groundwater is naturally degrading and attenuating.

Finally, COCs in soil and groundwater may be transported via volatilization into vadose zone soil gas and advection to openings in the ground surface.

[11] Ground surface elevation varies from approximate Elevations 24 to 27 feet across the Site.

3.3.4 Receptors and Exposure

The nature and extent of COCs in soil and groundwater determine the potential exposure pathways and receptors at the Site. The following section provides a description of the potential exposure pathways and receptors for the contamination at the Site.

3.3.4.1 Soil Exposure Pathways

Two soil exposure pathways, direct contact and leaching-to-groundwater, have been considered for current and potential future uses of the Site as follows:

- **Direct contact pathway:** The direct contact pathway considers both dermal contact and ingestion of soil beneath the Site, to a maximum depth of 15 feet bgs. Soil explorations show shallow soil impacts between approximately 1 to 12.5 feet bgs (Elevation 10.4 to 18.9 ft). The area of contaminated soil is currently capped and covered with pavement and/or structure which effectively prevents exposure, as long as these surfaces are maintained. However, there is a potential for workers to be exposed to soil contamination when redevelopment commences and the surfaces on the Property are temporarily removed. Therefore, the direct contact pathway is considered potentially complete.
- **Soil leaching-to-groundwater pathway:** The soil leaching-to-groundwater pathway requires consideration of the highest beneficial use of groundwater at the Site in accordance with WAC 173-340-357(2)(d). There are currently no beneficial uses of groundwater identified for the Site or the Site vicinity due to the restrictive covenant prohibiting groundwater use on the Site and industrial land use in the Site vicinity. Therefore, the soil leaching-to-groundwater pathway is considered incomplete.

The soil exposure pathways at the Site will be incomplete after the redevelopment is complete and the structural cap across the Site is rebuilt.

3.3.4.2 Groundwater Exposure Pathways

The groundwater exposure pathway considers ingestion of groundwater at the Site. The pathway is considered incomplete for the following reasons:

- Ingestion of groundwater at the Site is considered an incomplete pathway because any use of groundwater at the Property is forbidden by the current environmental covenant.
- Potable water for the Property and surrounding properties is served by a municipal water supply.
- According to the Regulatory Environmental Database Search (EDR) report generated for Aspect's Phase I ESA of the Property, there are no resource protection or public drinking water wells within a 1/4-mile radius of the Property (Aspect, 2024).

3.3.4.3 Vapor Exposure Pathways

The vapor intrusion pathway includes exposure to volatilized soil gas from chemicals dissolved in groundwater, separate nonaqueous phase chemicals, and chemicals sorbed to soil particles in the subsurface. Based on the detected concentration of COCs in soil gas

samples and lack of indoor air assessment, this exposure pathway is currently potentially complete. The planned redevelopment of the Property is expected to address vapor intrusion concerns and to render the vapor exposure pathway incomplete. This mitigation is described further in Section 5.

3.3.4.4 Terrestrial Ecological Evaluation

The purpose of a Terrestrial Ecological Evaluation (TEE) is to assess the potential risk to terrestrial plants and/or animals that live entirely or primarily on affected land. The Site qualifies for a TEE exclusion under WAC 173-340-7491(1)(c)(i), *For sites contaminated with hazardous substances other than those specified in (c)(ii) of this subsection, there is less than 1.5 acres of contiguous undeveloped land on the site or within 500 feet of any area of the site."* A copy of the TEE form documenting this exclusion is provided in Appendix A.

3.4 Cleanup Standards

Cleanup standards consist of a CUL for each hazardous substance that is present at a Site and the location at which the CUL must be met (point of compliance; WAC 173-340-700(3)). This section presents the appliable or relevant and appropriate requirements, contaminants of concern, CULs, and points of compliance based on the results of the remedial investigation.

3.4.1 Applicable or Relevant and Appropriate Requirements

The most applicable or relevant and appropriate requirement (ARAR) for the Site is Ecology's MTCA CULs and regulations that address the implementation of a cleanup under MTCA (Chapter 173.105D RCW; Chapter 173-340 WAC). Other potential ARARs include:

- Federal Clean Water Act (33 USC 1251)
- Federal Water Quality Standards (40 Code of Federal Regulations [CFR] Part 131)
- Federal Small Business Liability Relief and Brownfields Revitalization Act (115 Stat. 2356)
- Federal Davis-Bacon Act (ch. 411, 46 Stat. 1494)
- Occupational Safety and Health Act (OSHA; 29 CFR Subpart 1910.120)
- Water Pollution Control (Chapter 90.48 RCW)
- Water Resources Act of 1971 (Chapter 90.54 RCW)
- Water Quality Standards for Surface Waters of the State of Washington (Chapter 178-201A WAC)
- Hazardous Waste Management (Chapter 70.105 RCW)
- Dangerous Waste Regulations (Chapter 173-303 WAC)
- Solid Waste Management Reduction and Recycling (Chapter 70.95 RCW)
- Washington Industrial Safety and Health Act (Chapter 49.17 RCW)

- Archaeological Sites and Resources (Chapter 27.53 RCW)
- Washington Clean Air Act (Chapter 70.94 RCW)
- State Environmental Policy Act (SEPA; Chapter 43.21C RCW, Chapter 173-802 WAC, and Chapter 197-11 WAC)
- Minimum Standards for Construction and Maintenance of Wells (Chapter 173-160 WAC)
- Underground Injection Control (UIC) Program (Chapter 173-218 WAC)
- Puget Sound Clean Air Agency (PSCAA) Regulations (http://www.pscleanair.org)
- Permits from local municipalities, as required, for activities at the Site; examples include City of Seattle demolition, grading, and street use or right-of-way permits

3.4.2 Cleanup Levels

Cleanup actions conducted in accordance with MTCA must comply with cleanup standards for identified COCs and affected media, as well as applicable regulatory requirements based on federal and state laws (WAC 173-340-710). Cleanup standards for the Site include establishing CULs and the points of compliance at which those CULs will be attained in soil, groundwater, and air.

The selected CULs for affected media at the Site are:

- **Soil:** MTCA Method A CULs for unrestricted use
- **Groundwater:** MTCA Method A CULs for protection of drinking water as a beneficial use
- **Soil Gas:** Soil Gas screening levels protective of commercial workers

Other constituents not retained as COCs are generally screened against the MTCA Method A CULs or applicable MTCA Method B CULs if a MTCA Method A CULs is not yet established.

3.4.3 Point of Compliance

The standard points of compliance for the Site are adopted as follows:

- **Soil *for protection from direct contact*.** Ground surface to a depth of 15 feet bgs.
- **Soil *for protection of groundwater.*** Throughout the Site.
- **Groundwater *for protection of drinking water.*** Extending vertically from the upper-most depth of the saturated zone to the lowest depth potentially affected.
- **Air *for protection from inhalation.*** Ambient and indoor air throughout the Site.

When it is not practicable to achieve CULs in soil at the standard points of compliance, the cleanup action may involve containment of hazardous substances. In accordance with WAC 173-340-740(6)(f), remedies involving containment may still be determined to comply with cleanup standards, provided:

1. The selected remedy is permanent to the maximum extent practicable.
2. The cleanup action is protective of human health and the environment.

Appropriate institutional controls (IC)s, including compliance monitoring and periodic reviews, are implemented.

4 Feasibility Study

The purpose of the FS is to identify a cleanup action that will achieve the RAOs. Under WAC 173-340-360(4)(c), a cleanup action must take into account current and future uses of the Property.

The FS considers the requirements under 173-340-350 WAC, Site-specific conditions, and the criteria defined in 173-340-360 WAC for screening and evaluation of potentially feasible remedial alternatives for the Site.

4.1 Remedial Action Objectives

RAOs are medium-specific or site-specific goals for protecting human health and the environment. They are established based on the nature and extent of contamination, potential receptors, and current or potential future exposure pathways. The RAOs for the Site consist of the following:

- Minimize or prevent risk to human health from ingestion of and direct contact with soil containing one or more COCs at concentrations above their respective MTCA CULs.
- Minimize or prevent risk to human health from ingestion of and direct contact with groundwater containing one or more COCs at concentrations above their respective MTCA CULs.
- Mitigate potential future risk to human health from inhalation of contaminants in indoor air at concentrations above MTCA CULs through the vapor intrusion pathway.

The goals of the cleanup action are to design and implement a remedy for the Site that is compatible with the planned construction of the New Building, consistent with MTCA, protects human health and the environment, and qualifies the Site for a written determination that no further remedial action is necessary at the Site.

4.2 Assumptions in Remedial Alternatives Development

The following assumptions were made in developing remedial alternatives:

- The extent of contamination is limited to the extent identified in Section 3.3.2.
- Alternatives will not include remediation off-Property (i.e., it is assumed that cleanup of on-Property contamination will result in natural attenuation of off-Property groundwater contamination).

4.3 Identification and Evaluation of Technologies

This section identifies and screens applicable remedial technologies that may be effective cleanup action components for the Site based on the RAOs. The technologies that are retained through this screening process are used to develop the remedial alternatives in

the following sections. Applicable remediation technologies for addressing the areas requiring further remediation at the Site include:

- **Institutional Controls (ICs).** Measures to limit or prohibit activities that may interfere with the integrity of a cleanup action or result in exposure to hazardous substances (e.g., limitations on the use of the Property or resources, such as an environmental covenant or maintenance requirements for engineering controls [ECs]).
- **Engineering Controls (ECs).** Containment and/or mitigation systems designed to prevent or limit the movement of, or the exposure to, hazardous substances (e.g., paving/capping, vapor barriers).
- **Monitored Natural Attenuation (MNA).** Monitoring the reduction of contaminants through natural processes over time (e.g., biodegradation).
- **Soil Vapor Extraction (SVE).** Extracting contaminants in the form of soil vapor and introducing oxygen into the unsaturated zone to enhance microbial activity.
- **In Situ Chemical Oxidation (ISCO).** Injecting or mixing an oxidant, such as potassium permanganate or sodium persulfate, into the subsurface to react with and destroy contaminants.
- **In Situ Bioremediation (ISB).** Introducing oxygen (aerobic) or other electron acceptors (anaerobic) into the subsurface to stimulate microbial biodegradation of contaminants (e.g., injecting a soil amendment or bioventing).
- **Soil Excavation and Off-Site Disposal.** Removal of impacted soil, followed by off-site disposal.

These technologies are summarized and screened based on their potential effectiveness, implementability, and relative cost in Table 4. Technologies with low effectiveness or implementability were not retained for development of remedial alternatives. The technologies retained for further development as remedial alternatives are:

- ICs
- ECs
- MNA
- ISCO
- Soil Excavation and Off-Site Disposal

4.4 Selection and Description of Remedial Alternatives

The following remedial alternatives were selected for evaluation in this FS:

- Alternative 1 – MNA
- **Alternative 2** – Source excavation and MNA
- **Alternative 3** – Source excavation, *in situ* treatment, and MNA

Alternative 1 assumes no redevelopment, but maintenance of the current institutional controls including a hardscape cap. Alternatives 2 and 3 assume demolition of current

building structures and future redevelopment of the Property with buildings and pavement acting as a protective cap maintained with amended ICs.

Each alternative is described and conceptual design criteria and assumptions are briefly discussed, providing the basis for estimating the cost of each alternative. The estimates are Present Value costs using a discount factor of 2.3 percent[12]. They have an intended accuracy in the range of -30 to +50 percent.

The elements that make up the remedial alternatives and the estimated cost of each alternative are summarized in Appendix A.

4.4.1 Alternative 1 – MNA and Institutional Controls

Alternative 1 includes the following:

- ICs, as an administrative mechanism to ensure long-term performance of the cleanup actions, are required for a cleanup action that involves containment of contaminated media (WAC 173-340-740(6)(f)(iv)). The ICs do not include physical actions to remediate or mitigate impacts on environmental media on the Property. ICs will be utilized in the form of administrative/legal tools to (1) provide notification regarding the presence of contaminated materials; (2) regulate the disturbance/management of these materials and the cleanup action components; and (3) provide for long-term care of cleanup actions, including long-term monitoring. The ICs may include deed restrictions which restrict land use and soil disturbance without Ecology approval.
- MNA reduces contaminant concentrations in groundwater by natural processes such as biodegradation, abiotic degradation, adsorption, and dilution. MNA does not include significant infrastructure but does rely on appropriate conditions for effectiveness. MNA will consist of long-term groundwater and vapor intrusion monitoring. A long-term groundwater monitoring plan would be developed to track contaminant attenuation over time.

Contaminant concentrations in soil, groundwater, and soil gas would be expected to decrease over time via natural attenuation, but only at a very slow rate. Monitoring wells included in MNA monitoring are shown in Figure 8a.

This alternative may be implemented without redevelopment of the Property. Cap inspection and maintenance, vapor intrusion monitoring, and groundwater monitoring would be required indefinitely, but 15 years is assumed for cost estimating purposes in accordance with EPA guidance (EPA, 1988).

4.4.2 Alternative 2 – Source Excavation and MNA

Alternative 2 includes the following:

- Demolition of the sump and removal and off-Site disposal of shallow contaminated soil in the general vicinity of the sump and known shallow soil exceedances. The assumed extent of the excavation is approximately 25 feet by

[12] Discount factor based on real interest rate on US Treasury 30-year notes and bonds, Circular A-94 Appendix C, Office of Management and Budget (Revised November 2024).

40 feet to depth reaching approximate Elevation 18 feet (approximately 2 feet below the top of the basement slab). However, the final excavation extent may be modified in the field during excavation by field screening and soil sampling.

- Shallow soil excavation to physically remove soil by standard excavation practices and technology with off-Site disposal at a permitted disposal facility. Excavation and off-Site removal of contaminated soil would address the exposure pathways by permanently removing secondary contaminant sources from the Site. However, excavation dewatering is considered impracticable, therefore only excavation of vadose soils is retained.

- Regrading of the Site to support redevelopment with no below-grade structures. A chemical vapor barrier will be constructed at grade beneath new structures with the buildings and hardscapes acting as a hard cap.

- MNA of groundwater and ICs as described in Alternative 1. However, based on the assumption that sump removal and shallow soil excavation would remove significant contaminant mass from the Site, MNA is assumed to only be necessary for 10 years rather than the 15 years assumed in Alternative 1.

The various elements of this alternative are shown on Figure 8b. This alternative may not be implemented without demolition of the Site structures prior to redevelopment of the Property.

4.4.3 Alternative 3 – Source Excavation, In Situ Treatment, and MNA

Alternative 3 includes the following:

- MNA of groundwater and ICs as described in 4.3.1 with the exceptions as described in Section 4.3.2, and the additional exception that the duration of groundwater monitoring is reduced to twice-annually for up to 5 years.

- Source excavation, regrading, and a chemical vapor barrier beneath new structures with the buildings and hardscapes as a cap as described in Section 4.3.2.

- *In-situ* treatment of groundwater and remaining contaminated soil below the vadose zone via application of chemical oxidizers, known as ISCO. ISCO is a remediation technology that involves injecting or mixing an oxidation agent with organic COCs in soil and groundwater and transforming them into nonhazardous or less toxic compounds that are more stable, less mobile, and/or inert. Oxidants will react with the organic COCs, causing the rapid and complete chemical destruction of many organic chemicals and producing carbon dioxide and water. Oxidizing agents used during ISCO at the Site may include permanganate, peroxide, persulfate, percarbonate, and ozone. Oxidants can also liberate naturally occurring metals in the subsurface and can be toxic to native bacteria. ISCO oxidants can persist in the treatment area for a period of weeks to months; however, multiple rounds of ISCO treatment can be required.

- ISCO treatment will be introduced to the subsurface through direct-push injection points in a 10-foot treatment thickness in the vadose or saturated zone. A 7-foot radius of influence (ROI) is assumed for planning purposes. The injection layout is designed to target contamination around the sump and downgradient of the sump at the Property boundary. Injections within the planned building footprint would be conducted prior to building construction.

The various elements of this alternative are shown on Figure 8c. This alternative may not be implemented without demolition of the Site structures prior to redevelopment of the Property.

4.5 Evaluation of Remedial Alternatives

This section discusses the minimum requirements and procedures for selecting cleanup actions under MTCA (WAC 173-340-360).

4.5.1 MTCA 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 remedial alternatives that meet the threshold requirements, the following three criteria, identified in WAC 173-340-360(2)(b), must be evaluated:

- **Use permanent solutions to the maximum extent practicable.** A disproportionate cost analysis (DCA) is conducted to assess the extent to which the remedial alternatives address this criterion. The general procedure for conducting a DCA is described in Section 4.4.3.
- **Provide a reasonable restoration time frame.** MTCA places a preference on remedial alternatives that can be implemented in a shorter period of time.
- **Consider public concerns.** Consideration of public concerns is an inherent part of the Site cleanup process under MTCA. This FS considers public concerns as a component of the DCA.

4.5.2 MTCA Disproportionate Cost Analysis

A DCA is conducted to determine whether a cleanup action uses permanent solutions to the maximum extent practicable. This is done by evaluating the relative benefits and costs of remedial alternatives. Seven criteria are considered in the evaluation as specified in WAC173-340-360(3)(f):

- **Protectiveness** – The overall protectiveness of human health and the environment, including the degree to which existing Site 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 remedy design, construction, and long-term operation and maintenance expense costs to implement the alternative.
- **Long-term effectiveness** – The degree of certainty that the alternative will successfully and reliably address contamination that exceeds applicable CULs until CULs 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** – 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** – Includes concerns from individuals, community groups, local governments, state agencies, and other interested organizations.

The DCA is based on a comparative evaluation of an alternative's cost against the other six criteria (environmental benefits). Per WAC 173-340-360(3)(e)(i), cost is disproportionate to benefits if the incremental cost of an alternative over that of a lower-cost alternative exceeds the incremental degree of benefits achieved by the alternative over that of the lower-cost alternative.

4.6 Alternatives Evaluation with Respect to MTCA Threshold Requirements

The remedial alternatives are evaluated for compliance with MTCA's threshold criteria as described in Section 4.4.1. All three alternatives provide for compliance monitoring and are expected to be protective of human health and the environment. Alternative 1 may not reach cleanup standards within a reasonable restoration time frame, while Alternatives 2 and 3 may. All three alternatives rely on natural attenuation to achieve groundwater cleanup standards. Alternative 3 includes additional active remediation of the groundwater plume to achieve groundwater cleanup standards. All three alternatives are carried forward to the next stage of evaluation.

4.7 Disproportionate Cost Analysis

A DCA is performed to evaluate whether a cleanup action uses permanent solutions to the maximum extent practicable. The DCA quantifies the environmental benefits of each remedial alternative, and then compares alternative benefits versus costs.

In accordance with WAC 173-340-360(5)(c)(ii), the ranking of alternatives by degree of permanence is the alternative numbering in reverse—Alternative 1 has the lowest degree of permanence and Alternative 3 has the highest degree of permanence (Table 5).

MTCA defines a permanent cleanup action as "a cleanup action in which cleanup standards of Part 7 of this chapter can be met without further action being required at the site being cleaned up or any other site involved with the cleanup action, other than the approved disposal of any residue from the treatment of hazardous substances." (WAC 173-340-200).

The DCA is performed in Table 6, and summarized on Figure 8d. Environmental benefit is quantified by first rating the alternatives with respect to each of the criteria (except cost[13]) discussed in Section 4.5.2. Rating values are assigned on a scale of 1 to 5, where 1 indicates the criterion is satisfied to a very low degree, and 5 indicates the criterion is satisfied to a very high degree. Since Ecology does not consider the criteria to be of equal importance, each criterion is assigned a "weighting factor." Based on Ecology's input for feasibility studies conducted at similar sites, weighting factors are assigned as follows:

- Overall protectiveness: 30 percent
- Permanence: 20 percent
- Long-term effectiveness: 20 percent
- Short-term effectiveness: 10 percent
- Implementability: 10 percent
- Consideration of public concerns: 10 percent

A MTCA benefits ranking is then obtained for each alternative by multiplying the six rating values by their corresponding weighting factors and summing the weighted values. Finally, the benefits ranking of each alternative is divided by the alternative's estimated cost (in $million) to obtain a benefit/cost ratio, which is a relative measure of the cost effectiveness of the alternative.

4.7.1 Benefits Rankings, Estimated Costs, and Benefit/Cost Ratios

The MTCA benefits rankings, estimated costs, and benefit/cost ratios for Alternatives 1 through 3 are presented at the bottom of Table 6.

Benefit rankings were selected based on the following analysis:

- **Overall protectiveness**: Alternative 1 is the least protective because it relies solely on ICs to eliminate exposure pathways.

[13] The cost criterion factors into the DCA after the environmental benefit is quantified.

- **Permanence**: Contaminant mass removal via excavation has the highest permanence. Alternative 1 has the lowest permanence because of its reliance on ICs. Alternative 3 has the highest permanence because of the additional contaminant mass destruction from *in-situ* treatment beyond Alternative 2.
- **Long-term effectiveness**: Scores for this criterion increase with the incremental treatment achieved by each additional Alternative because the additional treatment increases reliability and decreases risk associated with residuals.
- **Short-term effectiveness**: Construction implementation increases the risk to workers' health by exposing them to contamination and operation of heavy machinery and trucking of waste. MNA has the lowest short-term risk to human health associated with construction implementation but does little to address risk associated with current exposure pathways in the short-term. Therefore Alternatives 1 and 2 have similar short-term risk. Alternative 3 includes additional short-term implementation risks associated with drilling and handling of oxidant chemicals that outweigh the additional short-term risk associated with groundwater CUL exceedances.
- **Implementability**: All three alternatives are readily implementable, but MNA is most easily implemented. Alternatives 2 and 3 rely on demolition of the Site Building by others, which is expected as part of redevelopment of the Site.
- **Consideration of public concerns**: Ecology manages public considerations equally no matter which alternative is selected, so all three alternatives rank equally in this criterion.

The benefit rankings range from a low of 2.3 for Alternative 1 to a high of 4.3 for Alternative 3. Estimated costs[14] range from $570,000 (Alternative 1) to $810,000 (Alternative 3). Benefit/cost ratios range from 4.0 (Alternative 1) to 4.9 (Alternative 3).

4.7.2 Disproportionate Cost Analysis Recommendation

In accordance with WAC 173-340-360(5)(c)(iii), Alternative 3 is selected as the baseline alternative. Alternative 3 is selected because while all alternatives rely on capping and are therefore not permanent, Alternative 3 achieved the highest permanence score.

The benefit/cost ratios of each Alternative are somewhat similar but incrementally increase with each Alternative. Alternative 1 has the lowest estimated cost but also provides the lowest benefit/cost ratio. Alternative 3 has the highest estimated cost but provides the greatest benefit/cost ratio. Alternative 2 is estimated to be slightly less costly than Alternative 3, and provides a slightly lower benefit/cost ratio (4.7).

Based on this, Alternative 3 is the preferred cleanup action alternative for the Site.

[14] Estimated costs are presented in Net Present Value in 2025 dollars, based on a discount rate of 2.3 percent.

5 Cleanup Action Plan

This section presents the proposed CAP for implementing the preferred remedial action evaluated during the FS. A CAP is a required part of the Site cleanup process under MTCA. The following sections provide supplemental detail on the selected remedy, including points of compliance, and time frame for the cleanup.

5.1 Description of Selected Remedy

The selected remedial alternative for implementation during the cleanup action was developed through evaluation of the Site conditions and applicable remedial technologies in the FS (Section 3.4). This section provides a more detailed description of the selected remedial alternative. The selected cleanup action includes the following elements:

- Source removal, consisting of the excavation and removal of vadose zone soil containing concentrations of COCs exceeding the CULs for the Site in the vicinity of the historical sump in the basement of the north wing of the Building. Source removal will occur concurrently with the demolition of the Building as part of the planned redevelopment.
- *In-situ* treatment of groundwater and remaining contaminated soil below the vadose zone via application of chemical oxidizers (ISCO), upgradient of the former sump and along the Property line downgradient of the former sump. Treatment would occur after regrading the Property is completed as part of the planned redevelopment.
- MNA of contaminants in groundwater across the Site. MNA may begin during redevelopment construction or after construction is completed as part of the planned redevelopment.
- ECs and ICs implemented during redevelopment, including construction of a chemical vapor barrier under the New Building, modification of the existing environmental covenant to describe the revised Site use, and implementation of a long-term plan for long-term monitoring of the ECs.

A description of the cleanup elements is provided in the following sections.

5.1.1 Sump Removal and Remedial Excavation

The primary element of the cleanup action is source removal, consisting of the demolition of the primary release point identified on the Site (the sump in the basement of the north wing of the Building) and removal from the Site of contaminated soil in the vadose zone.

Sump removal will occur during demolition of subgrade structures under the north wing of the Building as part of the planned redevelopment. Before demolition commences, monitoring well AMW-5, which is located in the basement of the north wing of the Building, will be decommissioned in accordance with applicable state laws.

The extent of remedial excavation is shown on Figure 9a. During remedial excavation, the estimated total volume of soil to be removed containing concentrations of COCs above the CULs at the Site is approximately 74 cubic yards.

Confirmation soil sampling will be completed to document soil conditions at the limits of excavation. The number and location of confirmation soil samples will be determined in coordination with Ecology at the time of cleanup. Generally, the sampling is expected to consist of the collection of a minimum of one sidewall sample per 20 lineal feet from depths where contaminated soil has been identified or where field evidence of contamination is identified during excavation, and one bottom sample per 400 square feet of the remedial excavation. The soil samples will be analyzed for the COCs.

A Construction Monitoring and Management Plan (CMMP) will be developed to provide guidelines for field screening, segregation, sampling, and disposition of soil that will be excavated in the course of mass excavation for the New Building. If contaminated soil is encountered during mass excavation in areas outside of the planned remedial excavation, the contaminated soil will be excavated, sampled, and transported off the Property for disposal and soil samples will be collected and analyzed to confirm removal of the contaminated soil.

5.1.2 Regrading and In Situ Chemical Oxidation Injections

Following demolition of subgrade structures across the Property and remedial excavation, the Site will be regraded in preparation for construction of the New Building. Clean structural fill will be imported and used to fill the voids left by the removal of subgrade structures on the Site. The regrading and building construction effort will include excavation and off-Site disposal of approximately 648 cubic yards of contaminated historical fill soil from the vicinity of the north wing of the current Building. The planned regrading extent is shown on Figure 9b.

Confirmation soil sampling will be completed to document soil conditions at the limits of excavation. Generally, the sampling is expected to consist of the collection of a minimum of one sidewall sample per 50 lineal feet from depths where contaminated soil has been identified or where field evidence of contamination is identified during excavation, and one bottom sample per 1,000 square feet of the remedial excavation. The soil samples will be analyzed for the COCs.

Following regrading of the Site, ISCO treatment will be introduced to the shallow unconfined groundwater aquifer on-Site through direct-push injection points in a 10-foot treatment thickness in the contaminated saturated zone (approximate Elevations 8 to 18 feet; approximately 6 to 16 feet bgs). Proposed injection locations are shown on Figure 9b. Injected oxidants will react with the organic COCs, causing the rapid and complete chemical destruction of many organic chemicals and producing carbon dioxide and water. Oxidizing agents used during ISCO at the Site may include permanganate, peroxide, persulfate, percarbonate, and/or ozone. The composition and volume of oxidizing agents to be used during treatment will be determined prior to implementation of cleanup.

5.1.3 Monitored Natural Attenuation

Pursuant to MTCA, cleanup actions cannot rely primarily on monitoring where it is technically possible to implement a more permanent cleanup action for the Site. The

natural attenuation of dissolved-phase COCs in shallow groundwater is already occurring at the Site, and the attenuation rate will be enhanced by the more permanent removal of contaminated soil and targeted *in Situ* treatment of shallow groundwater. The concentrations of any residual chlorinated solvents comprising the shallow groundwater exceedances will continue to attenuate through natural processes.

Based on the nature and magnitude of COC concentrations in shallow groundwater, the proposed removal of contaminated soil coupled with the targeted *in Situ* treatment, the permanent cleanup actions followed by MNA are estimated to achieve the CULs and RAOs for shallow groundwater in approximately 5 years.

Following completion of ISCO injections, a summary Groundwater Compliance Monitoring Plan (GCMP) will be developed for Ecology's review. The GCMP will document the groundwater monitoring program and include the final locations of monitoring wells, monitoring frequency, location-specific monitoring analytes, analytical methods, and data evaluation and reporting protocols.

Prior to beginning groundwater monitoring, a replacement monitoring well will be installed near the former location of AMW-5. Groundwater wells expected to be monitored during MNA are shown on Figure 9c.

5.1.4 Engineering/Institutional Controls

After excavation and removal of contaminated soil and treatment of shallow groundwater, contaminated material will remain on Site in the areas that are capped. ECs and ICs in the form of an impervious cap and environmental covenant will be implemented to maintain the protectiveness of the remedy.

ECs will include construction of an engineered hard cap across the Site in areas where fill material has been placed or where the existing hard cap is damaged during demolition. The hard cap design will be developed by the redevelopment design team and reviewed by Aspect for compliance with hard cap requirements under the existing covenant. A chemical vapor barrier will be constructed beneath the foundation of the New Building to protect Site occupants from potential intrusion of contaminated volatile COCs. A summary Engineering Design Report will be developed describing the product, installation design, and inspection requirements.

ICs will include revision of the existing environmental covenant on the Property to describe the use of the Site following redevelopment, the nature and extent of remaining contamination following cleanup action, and monitoring requirements for maintenance of the ECs. Prohibitions on land use, groundwater use, and other restrictions currently in place for the Property will be reviewed and included in the revised covenant as appropriate.

5.2 Schedule for Implementation

ETS is currently working through the master use permitting and environmental review processes required to implement redevelopment of the Property. Implementation of the cleanup action is dependent on the redevelopment schedule.

The redevelopment schedule currently assumes demolition in the first to second quarter (Q1-Q2; January-June) of 2026, with regrading occurring in the second to third quarter (Q2-Q3; March to September) of 2026. Construction of the New Building would commence in the third or fourth quarter (Q3-Q4; July to December) of 2026. Construction of the New Building would be completed in 2027. Based on this estimated redevelopment schedule, the implementation schedule for the cleanup action is estimated as follows:

- Q1-Q2 2026: Sump Removal and Remedial Excavation
- Q2-Q3 2026: Regrading and ISCO Treatment
- Q3-Q4 2026: Implementation of ECs and ICs
- 2027 to 2031: MNA
- 2032: Revision of ICs with results of MNA.

Upon public recording of the final revised environmental covenant, it is anticipated that Ecology would be able to issue a Property or Site NFA opinion. A Site NFA will be possible provided residual impacted soil and/or groundwater located under the impervious cap of the Property and in the Airport Way South right-of-way remains in place in accordance with the ECs/ICs described above. Annual inspections to confirm land use has not changed and the cap remains in place will be a condition of the ICs, with periodic reviews from Ecology occurring on a 5-year review interval.

5.3 Restoration Timeframe

Complete restoration of the Site is not expected to be feasible due to the extent of contamination present in historical fill, and cleanup of contaminated historical fill on the Site would be complicated by the likely presence of contamination in historical fill on surrounding properties. However, cleanup of the chlorinated solvents likely released during historical operations on the Site is expected to be completed within 5 years, following remedial excavation, ISCO treatment, and MNA summarized in the estimated implementation schedule, above.

6 Conclusions

The RI has identified COCs in soil, groundwater, and soil gas on the Site related to historical fill and historical industrial operations. Based on the data collected in the RI, concentrations of certain COCs (metal and PAHs) in soil exceeding the MTCA CULs are present throughout the historical fill layer underlying the Site, which was placed throughout the vicinity of the Site during regrading activities early in Seattle's history. Concentration of chlorinated solvents have been identified in soil and groundwater around a sump located in the basement of the north wing of the current Building on-Site, which were likely released during historical industrial operations. The nature and extent of chlorinated solvents have been sufficiently characterized and delineated, as described in this report, to select a cleanup action for the Site.

The FS reviewed three cleanup alternatives for the Site, each with increasing cost and increasing benefit. The selected cleanup action for the Site is Alternative #3: Source Excavation, In Situ Treatment, and MNA. This remedy offers the greatest benefit/cost ratio, fastest restoration timeframe, and greatest permanence.

After documenting implementation of the cleanup action, it is expected that the Site will meet the standard for no further remedial action with the conditions described in the restrictive environmental covenant for the Property.

7 References

Aspect Consulting, LLC (Aspect), 2019a, Phase I Environmental Site Assessment Report, 1700 Airport Way S, Seattle, WA, February 19, 2019.

Aspect Consulting, LLC (Aspect), 2019b, Phase II Environmental Site Assessment Report, 1700 Airport Way South, Seattle, WA, February 11, 2019.

Aspect Consulting, LLC (Aspect), 2020, Sump Cleanout, Stormwater System Inspection, and Soil Gas Sampling Memorandum - 1700 Airport Way South, Seattle, Washington, October 1, 2020.

Aspect Consulting, LLC (Aspect), 2021, Phase I Environmental Site Assessment Report, 1700 Airport Way S, Seattle, WA, April 6, 2021.

Aspect Consulting, a Geosyntec Company (Aspect), 2024, Phase I Environmental Site Assessment, 1700 Airport Way South, Seattle, Washington, November 25, 2024.

Aspect Consulting, a Geosyntec Company (Aspect), 2025, Subsurface Investigation Report, 1700 Airport Way South, Seattle, WA, April 18, 2025.

Bagley, Clarence B., 1916, *History of Seattle From the Earliest Settlement to the Present Time*, First Edition, S. J. Clarke Publishing Company, Chicago, IL.

Eklund, Bart, 2020, Problematic Compounds in Vapor Intrusion Investigations, vaporpin.com/problematiccompounds, February 6, 2020.

Environmental Data Resources, Inc. (EDR), 2024, Certified Sanborn® Map Report, Evergreen Treatment Services, 1700 Airport Way South, Seattle, WA 98134, Inquiry Number 7737352.3, August 16, 2024.

GeoEngineers, Inc. (GeoEngineers), 2023, Geotechnical MUP Report, Seattle Clinic Renovation, Seattle, Washington, August 16, 2023.

Miller, I., Morgan, H., Mauger, G., Newton, R., Schmidt., D., Welch, M., and Grossman, E. (Miller et al.), 2018, Projected Sea Level Rise for Washington State, a 2018 Assessment, The Washington Coastal Resilience Project, July 2018.

National Oceanic and Atmospheric Administration National Centers for Environmental Information (NCEI), 2022, State Climate Summaries: Washington, Publication 150-WA.

Northwest EnviroService Inc (NWES), 1995, Interim Status Closure Plan, Western Blower Property, revision #2, July 24, 1995.

Northwest EnviroService Inc (NWES), 1996, RCRA Closure Sampling Results, Western Blower Property, January 23, 1996.

Troost, K.G., Booth., D.B., Wisher, A.P., and Shimel., S.A. (Troost et al.), 2005, The Geologic Map of Seattle—A Progress Report., United States Geological Survey Open-File Report 2005-1252, version 1.0, August 1, 2005.

Washington State Department of Ecology (Ecology), 1994, Natural Background Soil Metals Concentrations in Washington State, Publication No. 94-115, dated October 1994.

Washington State Department of Ecology (Ecology), 2017, Environmental Restrictive Covenant, Western Blower Associates, LLC (grantor), Ecology (grantee), recorded on December 27, 2017.

Washington State Department of Ecology, 2018a, "Draft Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action," dated October 2009 and Revised February 2016 and April 2018.

Washington State Department of Ecology, 2018b, Frequently Asked Questions (FAQs) Regarding Vapor Intrusion (VI) and Ecology's 2009 Draft VI Guidance, Implementation Memorandum No. 21, dated November 15, 2018.

Washington State Department of Ecology, 2018c. DRAFT Vapor Intrusion (VI) Investigations and Short-term Trichloroethene (TCE) Toxicity, Implementation Memorandum No. 22, dated November 21, 2018.

Washington State Department of Ecology (Ecology), 2022a, Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action, Toxics Cleanup Program Publication No. 09-09-047, dated March 2022.

Washington State Department of Ecology (Ecology), 2022b, Supporting material for Cleanup Levels and Risk Calculation (CLARC): Vapor Intrusion Screening Levels for Workers, Toxics Cleanup Program, July 2022.

Washington State Department of Ecology (Ecology), 2023a, Sustainable Remediation, Climate Change Resiliency and Green Remediation, Toxics Cleanup Program Publication No. 17-09-052, revised January 2023.

Washington State Department of Ecology (Ecology), 2023b, Draft SHARP Tool Manual, Toxics Cleanup Program, March 2023.

Washington State Department of Ecology (Ecology), 2024, Implementation Memorandum No. 25: Identifying Likely Vulnerable Populations and Overburdened Communities under the Cleanup Regulations, Toxics Cleanup Program Publication No. 24-09-044, January 2024.

Washington State Department of Health (WADOH), 2022, Environmental Health Disparities Map, Cumulative Impacts of Environmental Health Risk Factors Across Communities of Washington State, Publication No. 311-011, July 2022, Updated July 2022, Version 2.0.

Washington State Department of Health (WADOH), 2023, Manganese in Drinking Water, Recommendations for Public Water Systems Managers, Publication No. 331-741, December 2023.

Washington Tracking Network, Washington State Department of Health (WTN), 2020a, Change In Average Daily Temperature Deviation From 65 Degree Fahrenheit

(Cooling Degree Day), Data obtained from Phase 5 of the Coupled Model Inter-comparison Project (CMIP5), December 15, 2020.

Washington Tracking Network, Washington State Department of Health (WTN), 2020b, Change In Average Daily Temperature Deviation From 65 Degree Fahrenheit (Heating Degree Day), Data obtained from Phase 5 of the Coupled Model Inter-comparison Project (CMIP5), December 15, 2020.

Washington Tracking Network, Washington State Department of Health (WTN), 2020c, Number Of Days Over Historical High Temperature (99th Percentile) Per Year, Data obtained from Phase 5 of the Coupled Model Inter-comparison Project (CMIP5), December 15, 2020.

Washington Tracking Network, Washington State Department of Health (WTN), 2020d, Change In Average Annual Precipitation, Data obtained from Phase 5 of the Coupled Model Inter-comparison Project (CMIP5), December 15, 2020.

Williams, David B., 2017, Too High and Too Steep: Reshaping Seattle's Topography, University of Washington Press, Seattle, WA.

8 Limitations

Work for this project was performed for Evergreen Treatment Services (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 E titled "Report Limitations and Guidelines for Use" for additional information governing the use of this report.

TABLES

Table 1a. Soil: Metals and PAHs

Project No. AS180043, Evergreen Treatment Services, Seattle, Washington

			Location Name	AB-01	AB-01	AB-02	AB-02	AB-03	AB-03	AB-04	AB-04	AB-05	AB-05	AB-06	AB-06
			Sample Date	10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024	11/01/2024	11/01/2024	11/01/2024	11/01/2024
			Sample Name	AB-01-01.5	AB-01-09	AB-02-03	AB-02-09.5	AB-03-01	AB-03-07	AB-04-02.5	AB-04-10	AB-05-02.5	AB-05-13	AB-06-01	AB-06-08.5
			Surface Elevation[1] (ft NAVD88)	19.5	19.5	19.5	19.5	19.5	19.5	26.0	26.0	19.5	19.5	19.5	19.5
			Sample Depth (ft bgs)	1.5	9.0	3.0	9.5	1.0	7.0	2.5	10	2.5	13	1.0	8.5
			Sample Elevation[2] (ft NAVD88)	18.0	10.5	16.5	10.0	18.5	12.5	23.5	16.0	17.0	6.5	18.5	11.0
Analyte	MTCA Method A CUL	MTCA Method B CUL	Puget Sound Background Soil Level[3]	results in milligrams per kilogram (mg/kg)											
Metals															
Arsenic	20	0.67	7	**4.5**	**4.6**	**3**	**18**	**9.2**	**3.6**	**4.8**	**3.4**	**7.6**	**3.3**	**6.5**	**4**
Cadmium	2	80	1	**1.9**	< 1 U	**40**	**2.2**	**220**	**70**	< 1 U	< 1 U	**1.2**	< 1 U	**18**	< 1 U
Chromium	2000	0.38	48	**32**	**23**	**16**	**37**	**13**	**32**	**19**	**16**	**39**	**19**	**24**	**31**
Copper	*ne*	3200	36	--	--	--	--	--	--	--	--	--	--	--	--
Lead	250	*ne*	24	**45**	**46**	**15**	**2900**	**19**	**75**	**29**	**60**	**73**	**46**	**68**	**32**
Mercury	2	*ne*	0.07	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Nickel	*ne*	1600	48	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	*ne*	24000	85	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)															
1-Methylnaphthalene	*ne*	20	*na*	**0.11**	**0.019**	< 0.005 U	**0.085**	< 0.005 U	< 0.005 U	**0.012**	**0.011**	< 0.005 U	< 0.005 U	**0.036**	**0.17**
2-Methylnaphthalene	*ne*	320	*na*	**0.18**	**0.0088**	**0.0054**	**0.13**	**0.0058**	< 0.005 U	**0.0098**	**0.02**	< 0.005 U	**0.0083**	**0.078**	**0.21**
Acenaphthene	*ne*	4800	*na*	**0.3**	**0.18**	< 0.005 U	**0.063**	**0.011**	< 0.005 U	**0.016**	< 0.005 U	**0.025**	< 0.005 U	**0.15**	**0.014**
Acenaphthylene	*ne*	*ne*	*na*	**0.0085**	< 0.005 U	**0.0056**	**0.05**	< 0.005 U	< 0.005 U	**0.016**	< 0.005 U	**0.0051**	< 0.005 U	**0.0079**	**0.0053**
Anthracene	*ne*	24000	*na*	**0.33**	< 0.005 U	< 0.005 U	**0.086**	**0.012**	< 0.005 U	**0.03**	< 0.005 U	**0.017**	< 0.005 U	**0.14**	< 0.005 U
Benzo(g,h,i)perylene	*ne*	*ne*	*na*	**0.35**	**0.022**	**0.079**	**0.28**	**0.057**	**0.012**	**0.28**	**0.026**	**0.17**	**0.0054 J**	**0.26**	**0.015 J**
Fluoranthene	*ne*	3200	*na*	**4.3**	**0.09**	**0.058**	**0.8**	**0.11**	**0.033**	**0.63**	**0.031**	**0.33**	**0.019**	**0.97**	**0.1**
Fluorene	*ne*	3200	*na*	**0.34 J**	**0.012**	< 0.005 U	**0.11**	**0.01**	< 0.005 U	**0.012**	< 0.005 U	**0.017**	< 0.005 U	**0.17**	**0.037**
Naphthalene	5	1600	*na*	**0.78**	**0.025**	**0.0082**	**0.15**	**0.0065**	**0.0058**	**0.014**	**0.024**	**0.0051**	**0.0058**	**0.42**	**0.33**
Phenanthrene	*ne*	*ne*	*na*	**1.9 J**	**0.061**	**0.022**	**0.6**	**0.079**	**0.018**	**0.32**	**0.022**	**0.06**	**0.014**	**0.53**	**0.18**
Pyrene	*ne*	2400	*na*	**2.2**	**0.07**	**0.053**	**0.79**	**0.078**	**0.034**	**0.54**	**0.046**	**0.24**	**0.015**	**0.61**	**0.067**
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)															
Benz(a)anthracene	*ne*	*ne*	*na*	**0.88**	**0.036**	**0.05**	**0.29**	**0.053**	**0.017**	**0.22**	**0.036**	**0.13**	**0.0084**	**0.33**	**0.029**
Benzo(a)pyrene	0.1	0.19	*na*	**0.46**	**0.026**	**0.078**	**0.3**	**0.06**	**0.012**	**0.29**	**0.022**	**0.16**	**0.0074 J**	**0.33**	**0.024 J**
Benzo(b)fluoranthene	*ne*	*ne*	*na*	**0.91**	**0.03**	**0.09**	**0.44**	**0.09**	**0.022**	**0.33**	**0.031**	**0.24**	**0.01 J**	**0.49**	**0.033 J**
Benzo(k)fluoranthene	*ne*	*ne*	*na*	**0.25**	**0.01**	**0.028**	**0.12**	**0.021 J**	**0.0065**	**0.11**	**0.0089**	**0.061**	< 0.005 UJ	**0.12**	**0.011 J**
Chrysene	*ne*	*ne*	*na*	**1**	**0.059**	**0.055**	**0.36**	**0.058**	**0.021**	**0.3**	**0.036**	**0.14**	**0.012**	**0.51**	**0.057**
Dibenzo(a,h)anthracene	*ne*	*ne*	*na*	**0.091**	< 0.005 U	**0.019**	**0.062**	**0.012 J**	< 0.005 U	**0.049**	**0.006**	**0.023 J**	< 0.005 UJ	**0.062**	< 0.005 UJ
Indeno(1,2,3-cd)pyrene	*ne*	*ne*	*na*	**0.34**	**0.017**	**0.064**	**0.21**	**0.051**	**0.01**	**0.27**	**0.027**	**0.14**	< 0.005 UJ	**0.24**	**0.01 J**
Total cPAHs TEQ[4]	0.1	0.19	*na*	**0.717**	**0.0361**	**0.104**	**0.416**	**0.0833 J**	**0.018**	**0.391**	**0.0333**	**0.221 J**	**0.0101 J**	**0.459**	**0.0331 J**

See notes and definitions on Page 2.

Table 1a. Soil: Metals and PAHs

Project No. AS180043, Evergreen Treatment Services, Seattle, Washington

Analyte	MTCA Method A CUL	MTCA Method B CUL	Puget Sound Background Soil Level[3]	AMW-1	AMW-2	AMW-2	AMW-3	AMW-4	AMW-4	AMW-5	AMW-5
Location Name				AMW-1	AMW-2	AMW-2	AMW-3	AMW-4	AMW-4	AMW-5	AMW-5
Sample Date				12/09/2018	12/09/2018	12/09/2018	12/09/2018	12/09/2018	12/10/2018	10/31/2024	11/01/2024
Sample Name				AMW-1-12.5	AMW-2-2.5	AMW-2-5.5	AMW-3-5.0	AMW-4-2.5	AMW-4-8.0	AMW-5-01	AMW-5-12
Surface Elevation[1] (ft NAVD88)				24.1	23.8	23.8	23.2	23.2	25.6	19.5	19.5
Sample Depth (ft bgs)				12.5	2.5	5.5	5.0	2.5	8.0	1.0	12
Sample Elevation[2] (ft NAVD88)				11.6	21.3	18.3	18.2	20.7	17.6	18.5	7.5
				results in milligrams per kilogram (mg/kg)							
Metals											
Arsenic	20	0.67	7	**27.8**	**6.93**	--	**5.39**	**5.59**	< 1 U	**5.9**	**16**
Cadmium	2	80	1	**2**	< 1 U	--	< 1 U	< 1 U	< 1 U	**53**	**1.2**
Chromium	2000	0.38	48	**22.2**	**42.6**	--	**34.1**	**18.2**	**23.4**	**39**	**12**
Copper	*ne*	3200	36	**404**	**28.7**	--	**29.8**	**22**	**11.4**	--	--
Lead	250	*ne*	24	**4720**	**35.3**	--	**5.21**	**32.1**	**7.35**	**160**	**1700**
Mercury	2	*ne*	0.07	< 1 UJ	< 1 U	--	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Nickel	*ne*	1600	48	**19.6**	**44**	--	**49.7**	**21.5**	**35.7**	--	--
Zinc	*ne*	24000	85	**911**	**66.8**	--	**48.8**	**71.2**	**25.7**	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)											
1-Methylnaphthalene	*ne*	20	*na*	--	--	--	--	--	--	**0.013**	**0.0072**
2-Methylnaphthalene	*ne*	320	*na*	--	--	--	--	--	--	**0.022**	**0.0077**
Acenaphthene	*ne*	4800	*na*	--	--	--	--	--	--	**0.085**	< 0.005 U
Acenaphthylene	*ne*	*ne*	*na*	--	--	--	--	--	--	**0.02**	< 0.005 U
Anthracene	*ne*	24000	*na*	--	--	--	--	--	--	**0.11**	< 0.005 U
Benzo(g,h,i)perylene	*ne*	*ne*	*na*	--	--	--	--	--	--	**0.58**	**0.0074**
Fluoranthene	*ne*	3200	*na*	--	--	--	--	--	--	**1**	**0.022**
Fluorene	*ne*	3200	*na*	--	--	--	--	--	--	**0.11**	< 0.005 U
Naphthalene	5	1600	*na*	< 0.05 U	--	--	--	--	< 0.05 U	**0.034**	**0.017**
Phenanthrene	*ne*	*ne*	*na*	--	--	--	--	--	--	**0.56**	**0.02**
Pyrene	*ne*	2400	*na*	--	--	--	--	--	--	**0.79**	**0.019**
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)											
Benz(a)anthracene	*ne*	*ne*	*na*	--	--	--	< 0.01 U	**0.013**	--	**0.36**	**0.011**
Benzo(a)pyrene	0.1	0.19	*na*	--	--	--	< 0.01 U	**0.02**	--	**0.59**	**0.01**
Benzo(b)fluoranthene	*ne*	*ne*	*na*	--	--	--	< 0.01 U	**0.028**	--	**0.78**	**0.012**
Benzo(k)fluoranthene	*ne*	*ne*	*na*	--	--	--	< 0.01 U	< 0.01 U	--	**0.28**	< 0.005 U
Chrysene	*ne*	*ne*	*na*	--	--	--	< 0.01 U	**0.017**	--	**0.47**	**0.011**
Dibenzo(a,h)anthracene	*ne*	*ne*	*na*	--	--	--	< 0.01 U	< 0.01 U	--	**0.1**	< 0.005 U
Indeno(1,2,3-cd)pyrene	*ne*	*ne*	*na*	--	--	--	< 0.01 U	**0.018**	--	**0.49**	**0.0051**
Total cPAHs TEQ[4]	0.1	0.19	*na*	--	--	--	< 0.00755 U	**0.02707**	--	**0.796**	**0.0134**

Notes and Definitions:

[1] Surface elevation estimated from survey maps of the Site, relative to the North American Vertical Datum of 1988 (NAVD88). See Report for details.

[2] Sample elevation calculated from by subtracting the measured sample depth in feet below ground surface (ft bgs) from the ground surface elevation.

[3] Natural background concentrations for the Puget Sound region, from Ecology (1994). See Report for details.

[4] Total carcinogenic PAHs (cPAHs) calculated using toxicity equivalency factors (TEQs) in accordance with Ecology's Implementation Memorandum #10 (2015).

CUL	Cleanup Level
ne	Indicated cleanup level is not yet established.
na	Not applicable
--	Not analyzed.
U	Analyte was not detected at a concentration greater than the indicated laboratory reporting limit.
J	The reported conceentration is an estimate. See laboratory report for details.
UJ	Analyte was not detected at a concentration greater than the indicated reporting limit and the reporting limit is estimated.
Bold	Analyte detected at a concetration greater than the laboratory reporting limit.
Red Bold	Detected concentration exceeds the Puget Sound Natural Background concentration.
Blue Shaded	Detected concentration exceeds the MTCA Method A Cleanup Level or the MTCA Method B Cleanup Level if Method A is not established.

Table 1b. Soil: TPH and VOCs

Project No. AS180043, Evergreen Treatment Services, Seattle, Washington

			Location Name	**AB-01**	**AB-01**	**AB-02**	**AB-02**	**AB-03**	**AB-03**	**AB-04**	**AB-04**	**AB-05**	**AB-05**	**AB-06**	**AB-06**
			Sample Date	**10/31/2024**	**10/31/2024**	**10/31/2024**	**10/31/2024**	**10/31/2024**	**10/31/2024**	**10/31/2024**	**10/31/2024**	**11/01/2024**	**11/01/2024**	**11/01/2024**	**11/01/2024**
			Sample Name	**AB-01-01.5**	**AB-01-09**	**AB-02-03**	**AB-02-09.5**	**AB-03-01**	**AB-03-07**	**AB-04-02.5**	**AB-04-10**	**AB-05-02.5**	**AB-05-13**	**AB-06-01**	**AB-06-08.5**
			Surface Elevation[1] (ft NAVD88)	**19.5**	**19.5**	**19.5**	**19.5**	**19.5**	**19.5**	**26.0**	**26.0**	**19.5**	**19.5**	**19.5**	**19.5**
			Sample Depth (ft bgs)	**1.5**	**9.0**	**3.0**	**9.5**	**1.0**	**7.0**	**2.5**	**10**	**2.5**	**13**	**1.0**	**8.5**
			Sample Elevation[2] (ft NAVD88)	**18.0**	**10.5**	**16.5**	**10.0**	**18.5**	**12.5**	**23.5**	**16.0**	**17.0**	**6.5**	**18.5**	**11.0**
Analyte	**MTCA Method A CUL**	**MTCA Method B CUL**	results in milligrams per kilogram (mg/kg)											
Petroleum Hydrocarbons (TPH)														
Gasoline Range Organics (GRO)	30	*ne*	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	**8.3**	< 5 U
Diesel Range Organics (DRO)	2000	*ne*	**170 X**	**83 X**	< 50 U	**100 X**	< 50 U	< 50 U	< 50 U	**210 X**	**75 X**	< 50 U	**71 X**	**310 X**
Motor Oil Range Organics (ORO)			< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	**360**	< 250 U	< 250 U	< 250 U	**530**
DRO and ORO			**170 X**	**83 X**	< 250 U	**100 X**	< 250 U	< 250 U	< 250 U	**570 X**	**75 X**	< 250 U	**71 X**	**840 X**
BTEX														
Benzene	0.03	18	< 0.002 U	< 0.002 U	**0.0025**	**0.018**	< 0.002 U	**0.0079**	< 0.002 U	< 0.002 U	**0.0032**	**0.0036**	**0.0024**	< 0.002 U
Toluene	7	6400	**0.0054**	**0.0043**	**0.0055**	**0.018**	**0.041**	**0.061**	< 0.002 U	**0.012**	**0.0029**	**0.0075**	**0.0085**	**0.009**
Ethylbenzene	6	8000	**0.0034**	< 0.002 U	< 0.002 U	**0.0057**	< 0.002 U	**0.015**	< 0.002 U	**0.0026**	< 0.002 U	**0.0029**	**0.0036**	**0.012**
o-Xylene	*ne*	16000	**0.0029**	< 0.002 U	< 0.002 U	**0.0065**	< 0.002 U	**0.0038**	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	**0.0028**	**0.0024**
m,p-Xylenes	*ne*	16000	**0.0064**	**0.006**	< 0.004 U	**0.009**	< 0.004 U	**0.016**	< 0.004 U	**0.007**	< 0.004 U	< 0.004 U	**0.009**	< 0.004 U
Total Xylenes	9	16000	**0.0093**	**0.006**	< 0.004 U	**0.0155**	< 0.004 U	**0.0198**	< 0.004 U	**0.007**	< 0.004 U	< 0.004 U	**0.0118**	**0.0024**
PCE and Degredation Products														
Tetrachloroethene (PCE)	0.05	480	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	**0.0036**	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
Trichloroethene (TCE)	0.03	12	**0.013**	**0.064**	**0.012**	< 0.002 U	**0.058**	**0.16**	< 0.002 U	**0.019**	**0.0037**	< 0.002 U	**0.11**	**0.003**
cis-1,2-Dichloroethene (cDCE)	*ne*	160	**0.0051**	**0.016**	**0.0051**	**0.31**	**0.035**	**0.14**	< 0.002 U	**0.01**	**0.011**	< 0.002 U	**0.018**	**0.038**
trans-1,2-Dichloroethene (tDCE)	*ne*	1600	< 0.002 U	**0.0023**	< 0.002 U	< 0.002 U	< 0.002 U	**0.13**	< 0.002 U	**0.0028**	**0.0036**	< 0.002 U	**0.0068**	< 0.002 U
Vinyl Chloride (VC)	*ne*	0.67	< 0.002 U	< 0.002 U	< 0.002 U	**0.51**	< 0.002 U	**0.017**	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	**0.0026**
Other VOCs														
1,1,1,2-Tetrachloroethane	*ne*	38	< 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	< 0.05 U	< 0.05 U	< 0.05 U
1,1,1-Trichloroethane	2	160000	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
1,1,2,2-Tetrachloroethane	*ne*	5	< 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	< 0.05 U	< 0.05 U	< 0.05 U
1,1,2-Trichloroethane	*ne*	18	< 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	< 0.05 U	< 0.05 U	< 0.05 U
1,1-Dichloroethane	*ne*	180	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
1,1-Dichloroethene	*ne*	4000	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
1,1-Dichloropropene	*ne*	*ne*	< 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	< 0.05 U	< 0.05 U	< 0.05 U
1,2,3-Trichlorobenzene	*ne*	64	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U
1,2,3-Trichloropropane	*ne*	0.0063	< 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	< 0.05 U	< 0.05 U	< 0.05 U
1,2,4-Trichlorobenzene	*ne*	34	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U
1,2,4-Trimethylbenzene	*ne*	800	< 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	< 0.05 U	< 0.05 U	< 0.05 U
1,2-Dibromo-3-chloropropane	*ne*	0.23	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
1,2-Dibromoethane (EDB)	0.005	0.5	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U
1,2-Dichlorobenzene	*ne*	7200	< 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	< 0.05 U	< 0.05 U	< 0.05 U
1,2-Dichloroethane (EDC)	*ne*	11	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U
1,2-Dichloropropane	*ne*	27	< 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	< 0.05 U	< 0.05 U	< 0.05 U
1,3,5-Trimethylbenzene	*ne*	800	< 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	< 0.05 U	< 0.05 U	< 0.05 U
1,3-Dichlorobenzene	*ne*	*ne*	< 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	< 0.05 U	< 0.05 U	< 0.05 U
1,3-Dichloropropane	*ne*	1600	< 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	< 0.05 U	< 0.05 U	< 0.05 U
1,4-Dichlorobenzene	*ne*	190	< 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	< 0.05 U	< 0.05 U	< 0.05 U
2,2-Dichloropropane	*ne*	*ne*	< 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	< 0.05 U	< 0.05 U	< 0.05 U
2-Butanone	*ne*	48000	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
2-Chlorotoluene	*ne*	1600	< 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	< 0.05 U	< 0.05 U	< 0.05 U

Notes and definitions on Page 4.

Table 1b. Soil: TPH and VOCs

Project No. AS180043, Evergreen Treatment Services, Seattle, Washington

		Location Name	AB-01	AB-01	AB-02	AB-02	AB-03	AB-03	AB-04	AB-04	AB-05	AB-05	AB-06	AB-06
		Sample Date	10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024	10/31/2024	11/01/2024	11/01/2024	11/01/2024	11/01/2024
		Sample Name	AB-01-01.5	AB-01-09	AB-02-03	AB-02-09.5	AB-03-01	AB-03-07	AB-04-02.5	AB-04-10	AB-05-02.5	AB-05-13	AB-06-01	AB-06-08.5
		Surface Elevation[1] (ft NAVD88)	19.5	19.5	19.5	19.5	19.5	19.5	26.0	26.0	19.5	19.5	19.5	19.5
		Sample Depth (ft bgs)	1.5	9.0	3.0	9.5	1.0	7.0	2.5	10	2.5	13	1.0	8.5
		Sample Elevation[2] (ft NAVD88)	18.0	10.5	16.5	10.0	18.5	12.5	23.5	16.0	17.0	6.5	18.5	11.0
Analyte	**MTCA Method A CUL**	**MTCA Method B CUL**	results in milligrams per kilogram (mg/kg)											
Other VOCs (continued)														
2-Hexanone	*ne*	400	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
4-Chlorotoluene	*ne*	1600	< 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	< 0.05 U	< 0.05 U	< 0.05 U
4-Methyl-2-pentanone	*ne*	6400	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Acetone	*ne*	72000	< 5 UJ	< 5 UJ	< 5 UJ	< 5 UJ	< 5 UJ	< 5 UJ	< 5 UJ	< 5 UJ	< 5 UJ	< 5 UJ	< 5 UJ	< 5 UJ
Bromobenzene	*ne*	640	< 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	< 0.05 U	< 0.05 U	< 0.05 U
Bromodichloromethane	*ne*	16	< 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	< 0.05 U	< 0.05 U	< 0.05 U
Bromoform	*ne*	130	< 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	< 0.05 U	< 0.05 U	< 0.05 U
Bromomethane	*ne*	110	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
Carbon Tetrachloride	*ne*	14	< 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	< 0.05 U	< 0.05 U	< 0.05 U
Chlorobenzene	*ne*	1600	< 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	< 0.05 U	< 0.05 U	< 0.05 U
Chloroethane	*ne*	*ne*	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Chloroform	*ne*	32	< 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	< 0.05 U	< 0.05 U	< 0.05 U
Chloromethane	*ne*	*ne*	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
cis-1,3-Dichloropropene	*ne*	*ne*	< 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	< 0.05 U	< 0.05 U	< 0.05 U
Dibromochloromethane	*ne*	12	< 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	< 0.05 U	< 0.05 U	< 0.05 U
Dibromomethane	*ne*	800	< 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	< 0.05 U	< 0.05 U	< 0.05 U
Dichlorodifluoromethane	*ne*	16000	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
Isopropylbenzene	*ne*	8000	< 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	< 0.05 U	< 0.05 U	< 0.05 U
Methyl tert-butyl ether (MTBE)	0.1	560	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
Methylene Chloride	0.02	94	< 0.4 UJ	< 0.4 UJ	< 0.4 UJ	< 0.4 UJ	< 0.4 UJ	< 0.4 UJ	< 0.4 UJ	< 0.4 UJ	< 0.4 UJ	< 0.4 UJ	< 0.4 UJ	< 0.4 UJ
n-Hexane	*ne*	4800	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U
n-Propylbenzene	*ne*	8000	< 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	< 0.05 U	< 0.05 U	< 0.05 U
p-Isopropyltoluene	*ne*	*ne*	< 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	< 0.05 U	< 0.05 U	< 0.05 U
sec-Butylbenzene	*ne*	8000	< 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	< 0.05 U	< 0.05 U	< 0.05 U
Styrene	*ne*	16000	< 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	< 0.05 U	< 0.05 U	< 0.05 U
tert-Butylbenzene	*ne*	8000	< 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	< 0.05 U	< 0.05 U	< 0.05 U
trans-1,3-Dichloropropene	*ne*	*ne*	< 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	< 0.05 U	< 0.05 U	< 0.05 U
Trichlorofluoromethane	*ne*	24000	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U

See notes and definitions on Page 4.

Table 1b. Soil: TPH and VOCs

Project No. AS180043, Evergreen Treatment Services, Seattle, Washington

			Location Name	AMW-1	AMW-2	AMW-2	AMW-3	AMW-4	AMW-4	AMW-5	AMW-5
			Sample Date	12/09/2018	12/09/2018	12/09/2018	12/09/2018	12/09/2018	12/10/2018	10/31/2024	11/01/2024
			Sample Name	AMW-1-12.5	AMW-2-2.5	AMW-2-5.5	AMW-3-5.0	AMW-4-2.5	AMW-4-8.0	AMW-5-01	AMW-5-12
			Surface Elevation[1] (ft NAVD88)	24.1	23.8	23.8	23.2	23.2	25.6	19.5	19.5
			Sample Depth (ft bgs)	12.5	2.5	5.5	5.0	2.5	8.0	1.0	12
			Sample Elevation[2] (ft NAVD88)	11.6	21.3	18.3	18.2	20.7	17.6	18.5	7.5
Analyte	**MTCA Method A CUL**	**MTCA Method B CUL**	results in milligrams per kilogram (mg/kg)								
Petroleum Hydrocarbons (TPH)											
Gasoline Range Organics (GRO)	30	*ne*	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Diesel Range Organics (DRO)	2000	*ne*	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	**110 X**	< 50 U
Motor Oil Range Organics (ORO)			< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U
DRO and ORO			--	--	--	--	--	--	**110 X**	< 250 U
BTEX											
Benzene	0.03	18	< 0.03 U	--	--	--	--	< 0.03 U	**0.0047**	**0.03**
Toluene	7	6400	< 0.05 U	--	--	--	--	< 0.05 U	**0.008**	**0.026**
Ethylbenzene	6	8000	< 0.05 U	--	--	--	--	< 0.05 U	**0.0066**	**0.0072**
o-Xylene	*ne*	16000	< 0.05 U	--	--	--	--	< 0.05 U	**0.005**	**0.0052**
m,p-Xylenes	*ne*	16000	< 0.1 U	--	--	--	--	< 0.1 U	**0.0097**	**0.0064**
Total Xylenes	9	16000	< 0.1 U	--	--	--	--	< 0.1 U	**0.0147**	**0.0116**
PCE and Degredation Products											
Tetrachloroethene (PCE)	0.05	480	< 0.025 U	--	--	--	--	< 0.025 U	< 0.002 U	< 0.002 U
Trichloroethene (TCE)	0.03	12	< 0.02 U	--	--	--	--	< 0.02 U	**0.03**	< 0.002 U
cis-1,2-Dichloroethene (cDCE)	*ne*	160	< 0.05 U	--	--	--	--	< 0.05 U	**0.0024**	**0.95**
trans-1,2-Dichloroethene (tDCE)	*ne*	1600	< 0.05 U	--	--	--	--	< 0.05 U	< 0.002 U	**0.002**
Vinyl Chloride (VC)	*ne*	0.67	< 0.05 U	--	--	--	--	< 0.05 U	< 0.002 U	**1.7**
Other VOCs											
1,1,1,2-Tetrachloroethane	*ne*	38	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U
1,1,1-Trichloroethane	2	160000	< 0.05 U	--	--	--	--	< 0.05 U	< 0.002 U	< 0.002 U
1,1,2,2-Tetrachloroethane	*ne*	5	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U
1,1,2-Trichloroethane	*ne*	18	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U
1,1-Dichloroethane	*ne*	180	< 0.05 U	--	--	--	--	< 0.05 U	< 0.002 U	< 0.002 U
1,1-Dichloroethene	*ne*	4000	< 0.05 U	--	--	--	--	< 0.05 U	< 0.002 U	< 0.002 U
1,1-Dichloropropene	*ne*	*ne*	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U
1,2,3-Trichlorobenzene	*ne*	64	< 0.25 U	--	--	--	--	< 0.25 U	< 0.25 U	< 0.25 U
1,2,3-Trichloropropane	*ne*	0.0063	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U
1,2,4-Trichlorobenzene	*ne*	34	< 0.25 U	--	--	--	--	< 0.25 U	< 0.25 U	< 0.25 U
1,2,4-Trimethylbenzene	*ne*	800	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U
1,2-Dibromo-3-chloropropane	*ne*	0.23	< 0.5 U	--	--	--	--	< 0.5 U	< 0.5 U	< 0.5 U
1,2-Dibromoethane (EDB)	0.005	0.5	< 0.05 U	--	--	--	--	< 0.05 U	< 0.005 U	< 0.005 U
1,2-Dichlorobenzene	*ne*	7200	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U
1,2-Dichloroethane (EDC)	*ne*	11	< 0.05 U	--	--	--	--	< 0.05 U	< 0.003 U	< 0.003 U
1,2-Dichloropropane	*ne*	27	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U
1,3,5-Trimethylbenzene	*ne*	800	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U
1,3-Dichlorobenzene	*ne*	*ne*	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U
1,3-Dichloropropane	*ne*	1600	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U
1,4-Dichlorobenzene	*ne*	190	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U
2,2-Dichloropropane	*ne*	*ne*	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U
2-Butanone	*ne*	48000	< 0.5 U	--	--	--	--	< 0.5 U	< 1 U	< 1 U
2-Chlorotoluene	*ne*	1600	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U

Notes and definitions on Page 4.

Table 1b. Soil: TPH and VOCs

Project No. AS180043, Evergreen Treatment Services, Seattle, Washington

			Location Name	**AMW-1**	**AMW-2**	**AMW-2**	**AMW-3**	**AMW-4**	**AMW-4**	**AMW-5**	**AMW-5**
			Sample Date	**12/09/2018**	**12/09/2018**	**12/09/2018**	**12/09/2018**	**12/09/2018**	**12/10/2018**	**10/31/2024**	**11/01/2024**
			Sample Name	**AMW-1-12.5**	**AMW-2-2.5**	**AMW-2-5.5**	**AMW-3-5.0**	**AMW-4-2.5**	**AMW-4-8.0**	**AMW-5-01**	**AMW-5-12**
			Surface Elevation[1] (ft NAVD88)	**24.1**	**23.8**	**23.8**	**23.2**	**23.2**	**25.6**	**19.5**	**19.5**
			Sample Depth (ft bgs)	**12.5**	**2.5**	**5.5**	**5.0**	**2.5**	**8.0**	**1.0**	**12**
			Sample Elevation[2] (ft NAVD88)	**11.6**	**21.3**	**18.3**	**18.2**	**20.7**	**17.6**	**18.5**	**7.5**
Analyte	**MTCA Method A CUL**	**MTCA Method B CUL**	results in milligrams per kilogram (mg/kg)								
Other VOCs (continued)											
2-Hexanone	*ne*	400	< 0.5 U	--	--	--	--	< 0.5 U	< 1 U	< 1 U	
4-Chlorotoluene	*ne*	1600	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
4-Methyl-2-pentanone	*ne*	6400	< 0.5 U	--	--	--	--	< 0.5 U	< 1 U	< 1 U	
Acetone	*ne*	72000	< 0.5 U	--	--	--	--	< 0.5 U	< 5 UJ	< 5 UJ	
Bromobenzene	*ne*	640	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
Bromodichloromethane	*ne*	16	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
Bromoform	*ne*	130	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
Bromomethane	*ne*	110	< 0.5 U	--	--	--	--	< 0.5 U	< 0.5 U	< 0.5 U	
Carbon Tetrachloride	*ne*	14	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
Chlorobenzene	*ne*	1600	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
Chloroethane	*ne*	*ne*	< 0.5 U	--	--	--	--	< 0.5 U	< 0.1 U	< 0.1 U	
Chloroform	*ne*	32	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
Chloromethane	*ne*	*ne*	< 0.5 U	--	--	--	--	< 0.5 U	< 0.5 U	< 0.5 U	
cis-1,3-Dichloropropene	*ne*	*ne*	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
Dibromochloromethane	*ne*	12	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
Dibromomethane	*ne*	800	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
Dichlorodifluoromethane	*ne*	16000	< 0.5 U	--	--	--	--	< 0.5 U	< 0.5 U	< 0.5 U	
Isopropylbenzene	*ne*	8000	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
Methyl tert-butyl ether (MTBE)	0.1	560	< 0.05 U	--	--	--	--	< 0.05 U	< 0.002 U	< 0.002 U	
Methylene Chloride	0.02	94	< 0.5 U	--	--	--	--	< 0.5 U	< 0.4 UJ	< 0.4 UJ	
n-Hexane	*ne*	4800	< 0.25 U	--	--	--	--	< 0.25 U	< 0.25 U	< 0.25 U	
n-Propylbenzene	*ne*	8000	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
p-Isopropyltoluene	*ne*	*ne*	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
sec-Butylbenzene	*ne*	8000	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
Styrene	*ne*	16000	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
tert-Butylbenzene	*ne*	8000	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
trans-1,3-Dichloropropene	*ne*	*ne*	< 0.05 U	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	
Trichlorofluoromethane	*ne*	24000	< 0.5 U	--	--	--	--	< 0.5 U	< 0.5 U	< 0.5 U	

Notes and Definitions:

[1] Surface elevation estimated from survey maps of the Site, relative to the North American Vertical Datum of 1988 (NAVD88). See Report for details.

[2] Sample elevation calculated from by subtracting the measured sample depth in feet below ground surface (ft bgs) from the ground surface elevation.

MTCA	Model Toxics Control Act
CUL	Cleanup Level
ne	Indicated cleanup level is not yet established.
--	Not analyzed.
U	Analyte was not detected at a concentration greater than the indicated laboratory reporting limit.
J	The reported conceentration is an estimate. See laboratory report for details.
UJ	Analyte was not detected at a concentration greater than the indicated reporting limit and the reporting limit is estimated.
X	The laboratory indicated the chromatographic pattern of detected TPH does not match the fuel standard used for quantitation.
Bold	Analyte detected at a concetration greater than the laboratory reporting limit.
Blue Shaded	Detected concentration exceeds the MTCA Method A Cleanup Level or the MTCA Method B Cleanup Level if Method A is not established.

Table 2. Soil Gas: Analytical Results

Project No. 180043, Evergreen Treatment Services, Seattle, Washington

Location Name		SV-1	SV-2	SV-3		SV-4	SV-5
Sample Date		12/10/2018	12/10/2018	12/10/2018	09/10/2020	12/10/2018	09/17/2020
Sample Name		SV-1-181210	SV-2-181210	SV-3-181210	SV-3-091020	SV-4-181210	SV-5-091720
Leak Testing Results (% Helium):		< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U
Analyte	Ecology Screening Levels Protective of Commercial Workers*	Results in micrograms per cubic meter (µg/m^3)					
Air-Phase Hydrocarbons (APH)							
C5 - C8 Aliphatic Hydrocarbons	*ne*	--	--	--	**3100**	--	**29000 E**
C9 - C12 Aliphatic Hydrocarbons		--	--	--	**860**	--	**22000**
C9 - C10 Aromatic Hydrocarbons		--	--	--	< 420 U	--	< 1000 U
Total APH**	13,000	--	--	--	**4,389**	--	**52,135 E**
Polcyclic Aromatic Hydrocarbons							
Naphthalene	11	< 0.73 U	< 0.79 U	< 0.79 U	< 4.5 U	**1.2**	< 11 U
Benzene, Toluene, Ethylbenzene, and Total Xylenes							
Benzene	50	**3.8**	**4.1**	**19**	**29**	**150**	**170**
Toluene	650000	**25**	**25**	**39**	< 320 U	**260**	< 790 U
Ethylbenzene	130000	**5.6**	**5**	**6.7**	< 7.4 U	**11**	< 18 U
m,p-Xylenes	13000	**20**	**18**	**20**	**20**	**24**	< 36 U
o-Xylene		**7**	**6.2**	**7.1**	< 7.4 U	**18**	**37**
Total Xylenes		**27**	**24.2**	**27.1**	**20**	**42**	**37**
PCE and Degredation Products							
Tetrachloroethene (PCE)	1500	< 9.5 U	< 10 U	< 10 U	< 120 U	< 10 U	< 280 U
Trichloroethene (TCE)	95	**26**	< 0.4 U	**14**	**40**	**43**	**61**
cis-1,2-Dichloroethene (cDCE)	5200	< 0.56 U	< 0.59 U	**2.9**	**35**	**220**	**70**
trans-1,2-Dichloroethene (tDCE)	5200	< 0.56 U	< 0.59 U	< 0.59 U	< 6.7 U	**43**	**110**
Vinyl Chloride (VC)	44	< 0.36 U	< 0.38 U	< 0.38 U	< 4.3 U	**320 E**	**280**
Volatile Organic Compounds							
1,1,1-Trichloroethane	650000	< 0.76 U	< 0.82 U	< 0.82 U	< 9.3 U	< 0.82 U	< 23 U
1,1,2,2-Tetrachloroethane	6.7	< 0.19 U	< 0.21 U	< 0.21 U	< 2.3 U	< 0.21 U	< 5.8 U
1,1,2-Trichloroethane	24	< 0.15 U	< 0.16 U	< 0.16 U	< 1.9 U	< 0.16 U	< 2.3 U
1,1,2-Trichlorotrifluoroethane	650000	< 1.1 U	< 1.1 U	**2.1**	< 13 U	< 1.1 U	< 32 U
1,1-Dichloroethane	240	< 0.57 U	< 0.61 U	**1.7**	< 6.9 U	**0.91**	< 17 U
1,1-Dichloroethene	26000	< 0.56 U	< 0.59 U	**0.62**	< 6.7 U	**5.1**	< 17 U
1,2,4-Trichlorobenzene	260	< 1 U	< 1.1 U	< 1.1 U	< 13 U	< 1.1 U	< 31 U
1,2,4-Trimethylbenzene	7800	< 3.4 U	< 3.7 U	< 3.7 U	< 42 U	**5.8**	< 100 U
1,2-Dibromoethane (EDB)	0.65	< 0.11 U	< 0.12 U	< 0.12 U	< 1.3 U	< 0.12 U	< 3.2 U
1,2-Dichlorobenzene	26000	< 0.84 U	< 0.9 U	< 0.9 U	< 10 U	< 0.9 U	< 25 U
1,2-Dichloroethane (EDC)	15	< 0.057 U	< 0.061 U	< 0.061 U	< 0.69 U	< 0.061 U	< 1.7 U
1,2-Dichloropropane	110	**0.9**	**0.85**	**0.58**	< 3.9 U	**0.57**	< 9.7 U
1,3,5-Trimethylbenzene	7800	< 3.4 U	< 3.7 U	< 3.7 U	< 42 U	**5.6**	< 100 U
1,3-Dichlorobenzene	*ne*	< 0.84 U	< 0.9 U	< 0.9 U	< 10 U	< 0.9 U	< 25 U
1,4-Dichlorobenzene	35	< 0.34 U	< 0.36 U	< 0.36 U	< 3.9 U	< 0.36 U	< 9.7 U
1-Propene	*ne*	< 1 U	< 1 U	**52**	**180**	**1700 E**	**2100 E**
2-Butanone	650000	**17**	**13**	**30**	< 50 U	**24**	< 120 U
2-Chlorotoluene	*ne*	< 7.2 U	< 7.8 U	< 7.8 U	< 88 U	< 7.8 U	< 220 U
2-Hexanone	3900	< 5.7 U	< 6.1 U	< 6.1 U	< 70 U	< 6.1 U	< 170 U
4-Methyl-2-pentanone	390000	< 5.7 U	< 6.1 U	< 6.1 U	< 70 U	< 6.1 U	< 170 U
Acetone	*ne*	**130**	**160**	**430 E**	**640**	**780 E**	< 600 U
Acrolein	2.6	< 1.3 U	< 1.4 U	**3.8**	< 35 U	< 1.4 U	< 87 U
Allyl Chloride	65	< 1.8 U	< 1.9 U	< 1.9 U	< 27 U	< 1.9 U	< 66 U
Bromodichloromethane	11	< 0.094 U	< 0.1 U	< 0.1 U	< 1.1 U	< 0.1 U	< 2.8 U
Bromoform	350	< 2.9 U	< 3.1 U	< 3.1 U	< 35 U	< 3.1 U	< 87 U
Bromomethane	650	< 2.2 U	< 2.3 U	< 2.3 U	< 40 U	< 2.3 U	< 98 U
Butane	*ne*	**15**	**19**	**44**	**400**	**2000 E**	**2000**
Carbon Disulfide	91000	< 8.7 U	< 9.3 U	< 9.3 U	< 110 U	< 9.3 U	< 260 U
Carbon Tetrachloride	65	< 0.88 U	< 0.94 U	< 0.94 U	< 5.3 U	< 0.94 U	< 13 U
Chlorobenzene	6500	< 0.64 U	< 0.69 U	< 0.69 U	< 7.8 U	< 0.69 U	< 19 U
Chloroethane	1300000	< 3.7 U	< 4 U	< 4 U	< 45 U	**7.9**	< 110 U
Chloroform	17	**0.46**	**0.61**	**0.7**	**1.7**	< 0.074 U	< 2.1 U
Chloromethane	12000	< 2.9 U	< 3.1 U	< 3.1 U	< 63 U	< 3.1 U	< 160 U
cis-1,3-Dichloropropene	*ne*	< 0.64 U	< 0.68 U	< 0.68 U	< 7.7 U	< 0.68 U	< 19 U
Cyclohexane	780000	< 9.6 U	< 10 U	**12**	< 120 U	**150**	< 290 U
Dibromochloromethane	*ne*	< 0.12 U	< 0.13 U	< 0.13 U	< 1.4 U	< 0.13 U	< 3.6 U
Dichlorodifluoromethane	13000	**2.9**	**2.9**	**2.9**	< 8.4 U	< 0.74 U	< 21 U
Ethanol	*ne*	**280 E**	**140**	**450 E**	**570**	**250 E**	< 320 U
Ethyl acetate	9100	< 10 U	< 11 U	< 11 U	< 120 U	< 11 U	< 300 U
Isopropyl Alcohol	*ne*	**66**	**64**	**70**	< 150 U	**79**	< 360 U
Isopropylbenzene	52000	< 3.4 U	< 3.7 U	< 3.7 U	< 42 U	**8.8**	< 100 U
Methyl Methacrylate	91000	< 5.7 U	< 6.1 U	< 6.1 U	< 70 U	< 6.1 U	< 170 U
Methyl tert-butyl ether (MTBE)	1500	< 2.5 U	< 2.7 U	< 2.7 U	< 31 U	< 2.7 U	< 76 U
Methylene Chloride	39000	< 120 U	< 130 U	< 130 U	< 590 UJ	< 130 U	< 1500 UJ
n-Hexane	91000	**13**	**18**	**29**	**79**	**290 E**	**360**
Nonane	*ne*	< 7.3 U	< 7.9 U	< 7.9 U	< 89 U	**52 J**	< 220 U
n-Propylbenzene	130000	< 3.4 U	< 3.7 U	< 3.7 U	< 42 U	< 3.7 U	< 100 U
Pentane	*ne*	**12**	**16**	**32**	**190**	**850 E**	**870**
Styrene	130000	< 1.2 U	< 1.3 U	**1.5**	< 14 U	< 1.3 U	< 36 U
t-Butyl alcohol (TBA)	*ne*	< 17 U	< 18 U	< 18 U	< 210 U	< 18 U	< 510 U
Tetrahydrofuran	260000	**21 J**	**21 J**	**16 J**	**28**	**16 J**	**18**
trans-1,3-Dichloropropene	*ne*	< 0.64 U	< 0.68 U	< 0.68 U	< 7.7 U	< 0.68 U	< 19 U
Trichlorofluoromethane	91000	< 3.1 U	< 3.4 U	< 3.4 U	< 38 U	< 3.4 U	< 94 U

Notes and Definitions on Page 2.

Table 2. Soil Gas: Analytical Results

Project No. 180043, Evergreen Treatment Services, Seattle, Washington

Location Name		SV-1	SV-2	SV-3		SV-4	SV-5
Sample Date		12/10/2018	12/10/2018	12/10/2018	09/10/2020	12/10/2018	09/17/2020
Sample Name		SV-1-181210	SV-2-181210	SV-3-181210	SV-3-091020	SV-4-181210	SV-5-091720
Leak Testing Results (% Helium):		< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U	< 0.6 U
Analyte	**Ecology Screening Levels Protective of Commercial Workers***	Results in micrograms per cubic meter (µg/m^3)					
Volatile Organic Compounds (Continued)							
Vinyl Acetate	26000	< 9.9 U	< 11 U	< 11 U	< 120 U	< 11 U	< 300 U
Vinyl Bromide	26	< 0.61 U	< 0.66 U	< 0.66 U	< 7.4 U	< 0.66 U	< 18 U
1,3-Butadiene	13	< 0.03 U	< 0.03 U	**12**	< 0.75 U	< 0.03 U	< 1.9 U
2,2,4-Trimethylpentane	*ne*	< 6.5 U	< 7 U	< 7 U	< 79 U	**380 E**	**460**
4-Ethyltoluene	*ne*	< 3.4 U	< 3.7 U	< 3.7 U	< 42 U	< 3.7 U	< 100 U
alpha-Chlorotoluene	7.9	< 0.072 U	< 0.078 U	< 0.078 U	< 0.88 U	< 0.078 U	< 2.2 U
Freon 114	*ne*	< 0.98 U	< 1 U	< 1 U	< 12 U	< 1 U	< 29 U
Heptane	52000	**11**	**17**	**32**	< 70 U	**140**	< 170 U

Notes and Definitions:

* Risk-based screening levels indoor air levels provided by Ecology for Sites where adults who are working inside commercial buildings are (or potentially are) the receptors who represent reasonable maximum exposure.

** Total APH calculated with nondetect concentrations as 1/2 of indicated reporting limit.

MTCA	Model Toxics Control Act
ne	Screening level is not yet established.
--	Not analyzed.
U	Analyte was not detected at a concentration greater than the indicated laboratory reporting limit.
J	The reported conceentration is an estimate. See laboratory report for details.
UJ	Analyte was not detected at a concentration greater than the indicated reporting limit and the reporting limit is estimated.
E	Detected concentration exceeded the laboratory instrument calibration range. Reported value is an estimate.
Bold	Analyte detected at a concetration greater than the laboratory reporting limit.
Blue Shaded	Detected concentration exceeds the MTCA Method B screening level.

Table 3a. Groundwater: Field Measurements

Project No. AS180043, Evergreen Treatment Services, Seattle, Washington

		AMW-1	AMW-2	AMW-3	AMW-4	AMW-5
Well Construction Data						
Date Constructed		12/10/2018	12/10/2018	12/10/2018	12/10/2018	11/1/2025
Ecology Tag ID		BKF 905	BKF 906	BKF 907	BKF 908	BPK 160
Constructed Well Depth (ft bgs)		15	14	15	14	12
Constructed Top of Screen Depth (ft bgs		5	4	5	4	2
Top of Monument Elevation (ft NAVD88)		24.137	23.813	23.226	25.642	19.890
TOC Elevation (ft NAVD88)		23.800	23.398	22.836	25.267	19.593
Top of Screen Elevation (ft NAVD88)		19.137	19.813	18.226	21.642	17.89
Bottom of Well Elevation (ft NAVD88)		9.137	9.813	8.226	11.642	7.89
Measured Groundwater Elevations						
12/17/2018	Depth to Water (ft bTOC)	5.56	4.88	4.50	5.73	*Not Present*
	Elevation (ft NAVD88)	18.24	18.52	18.34	19.54	
11/5/2025	Depth to Water (ft bTOC)	5.67	4.90	4.55	5.55	0.80
	Elevation (ft NAVD88)	18.13	18.50	18.29	19.72	18.79

Notes:

ft = feet

NAVD88 = North American Vertical Datum of 1988

bgs = below ground surface

bTOC = below top of well casing, measured from the north edge.

Elevations provided by True North Land Surveying, Inc., dated December 11, 2024, collected using a Leica LS10.

Survey based on Washington State Department of Transportation Monument # GP17005-231

Table 3b. Groundwater: Analytical Results

Project No. AS180043, Evergreen Treatment Services, Seattle, Washington

				Location Name	AMW-1		AMW-2		AMW-3		AMW-4		AMW-5
				Sample Date	12/17/2018	11/05/2024	12/17/2018	11/05/2024	12/17/2018	11/05/2024	12/17/2018	11/05/2024	11/05/2024
Analyte	Fraction	MTCA Method A CUL	MTCA Method B CUL		Results in micrograms per liter (ug/L)								
Metals													
Arsenic	D	5	0.058		11.4	12	4.33	2.4	20.3	14	< 1 U	< 1 U	4.3
	T				--	12	--	9.5	--	18	--	1.1	4.8
Cadmium	D	5	8		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	T				--	< 1 U	--	< 1 U	--	< 1 U	--	< 1 U	< 1 U
Chromium	D	50	*ne*		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	T				--	< 1 U	--	< 1 U	--	< 1 U	--	< 1 U	**1.6**
Copper	D	*ne*	640		< 5 U	--	< 5 U	--	< 5 U	--	< 5 U	--	--
Lead	D	15	*ne*		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	T				--	**1.9**	--	**7.4**	--	< 1 U	--	< 1 U	**26**
Manganese	D	*ne*	750		**575**	--	**302**	--	**680**	--	**485**	--	--
Mercury	D	2	*ne*		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
	T				--	< 1 U	--	< 1 U	--	< 1 U	--	< 1 U	< 1 U
Nickel	D	*ne*	320		**1.31**	--	**3.8**	--	**2.22**	--	**2.24**	--	--
Zinc	D	*ne*	4800		< 5 U	--	< 5 U	--	< 5 U	--	< 5 U	--	--
Conventionals													
Cyanide (total)	T	*ne*	0.005		< 0.05 U	--	< 0.05 U	--	< 0.05 U	--	< 0.05 U	--	--
Petroleum Hydrocarbons (TPH)													
Gasoline Range Organics (GRO)	T	1000	*ne*		< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Diesel Range Organics (DRO)	T	500	*ne*		< 50 U	< 50 U	**73 X**	**57 X**	< 50 U	< 50 U	< 50 U	< 50 U	**95 X**
Motor Oil Range Organics (ORO)	T				< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U
DRO and ORO	T				< 250 U	< 250 U	**73 X**	**57 X**	< 250 U	< 250 U	< 250 U	< 250 U	**95 X**
BTEX													
Benzene	T	5	0.8		< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
Toluene	T	1000	640		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	T	700	800		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	T	1000	1600		< 1 U	< 2 U	< 1 U	< 2 U	< 1 U	< 2 U	< 1 U	< 2 U	< 2 U
PCE and Degredation Products													
Tetrachloroethene (PCE)	T	5	21		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Trichloroethene (TCE)	T	5	0.54		< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 0.5 U
cis-1,2-Dichloroethene (cDCE)	T	*ne*	16		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	**22**
trans-1,2-Dichloroethene (tDCE)	T	*ne*	160		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Vinyl Chloride (VC)	T	0.2	0.029		**2.9**	**2.4**	< 0.2 U	< 0.02 U	< 0.2 U	< 0.02 U	< 0.2 U	< 0.02 U	**23**
Other VOCs													
1,1,1,2-Tetrachloroethane	T	*ne*	1.7		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1,1-Trichloroethane	T	200	16000		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1,2,2-Tetrachloroethane	T	*ne*	0.22		< 1 U	< 0.2 U	< 1 U	< 0.2 U	< 1 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U
1,1,2-Trichloroethane	T	*ne*	0.77		< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 0.5 U
1,1-Dichloroethane	T	*ne*	7.7		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1-Dichloroethene	T	*ne*	400		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1-Dichloropropene	T	*ne*			< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2,3-Trichlorobenzene	T	*ne*	6.4		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2,3-Trichloropropane	T	*ne*	0.00038		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2,4-Trichlorobenzene	T	*ne*	1.5		< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U

See notes and definitions on Page 3.

Table 3b. Groundwater: Analytical Results

Project No. AS180043, Evergreen Treatment Services, Seattle, Washington

			Location Name	AMW-1		AMW-2		AMW-3		AMW-4		AMW-5
			Sample Date	12/17/2018	11/05/2024	12/17/2018	11/05/2024	12/17/2018	11/05/2024	12/17/2018	11/05/2024	11/05/2024
Analyte	Fraction	MTCA Method A CUL	MTCA Method B CUL	Results in micrograms per liter (ug/L)								
Other VOCs (continued)												
1,2,4-Trimethylbenzene	T	*ne*	80	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dibromo-3-chloropropane	T	*ne*	0.014	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dibromoethane (EDB)	T	0.01	0.022	< 1 U	< 0.01 U	< 1 U	< 0.01 U	< 1 U	< 0.01 U	< 1 U	< 0.01 U	< 0.01 U
1,2-Dichlorobenzene	T	*ne*	720	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichloroethane (EDC)	T	5	0.48	< 1 U	< 0.2 U	< 1 U	< 0.2 U	< 1 U	< 0.2 U	< 1 U	< 0.2 U	< 0.2 U
1,2-Dichloropropane	T	*ne*	1.2	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,3,5-Trimethylbenzene	T	*ne*	80	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,3-Dichlorobenzene	T	*ne*	*ne*	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,3-Dichloropropane	T	*ne*	160	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,4-Dichlorobenzene	T	*ne*	8.1	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
2,2-Dichloropropane	T	*ne*	*ne*	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
2-Butanone	T	*ne*	4800	< 10 U	< 20 U	< 10 U	< 20 U	< 10 U	< 20 U	< 10 U	< 20 U	< 20 U
2-Chlorotoluene	T	*ne*	160	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
2-Hexanone	T	*ne*	40	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Chlorotoluene	T	*ne*	160	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
4-Methyl-2-pentanone	T	*ne*	640	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acetone	T	*ne*	7200	< 50 U	< 50 UJ	< 50 U	< 50 UJ	< 50 U	< 50 UJ	< 50 U	< 50 UJ	< 50 UJ
Bromobenzene	T	*ne*	64	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromodichloromethane	T	*ne*	0.71	< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 0.5 U
Bromoform	T	*ne*	5.5	< 1 U	< 5 U	< 1 U	< 5 U	< 1 U	< 5 U	< 1 U	< 5 U	< 5 U
Bromomethane	T	*ne*	11	< 1 U	< 5 U	< 1 U	< 5 U	< 1 U	< 5 U	< 1 U	< 5 U	< 5 U
Carbon Tetrachloride	T	*ne*	0.63	< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 0.5 U
Chlorobenzene	T	*ne*	160	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chloroethane	T	*ne*	*ne*	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chloroform	T	*ne*	1.4	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chloromethane	T	*ne*	*ne*	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
cis-1,3-Dichloropropene	T	*ne*	*ne*	< 1 U	< 0.4 U	< 1 U	< 0.4 U	< 1 U	< 0.4 U	< 1 U	< 0.4 U	< 0.4 U
Dibromochloromethane	T	*ne*	0.52	< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 1 U	< 0.5 U	< 0.5 U
Dibromomethane	T	*ne*	80	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Dichlorodifluoromethane	T	*ne*	1600	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Isopropylbenzene	T	*ne*	800	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Naphthalene	T	160	160	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
m,p-Xylenes	T	*ne*	1600	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
Methyl tert-butyl ether (MTBE)	T	20	24	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Methylene Chloride	T	5	5.8	< 5 U	< 5 UJ	< 5 U	< 5 UJ	< 5 U	< 5 UJ	< 5 U	< 5 UJ	< 5 UJ
n-Hexane	T	*ne*	480	< 1 U	< 5 U	< 1 U	< 5 U	< 1 U	< 5 U	< 1 U	< 5 U	< 5 U
n-Propylbenzene	T	*ne*	800	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
o-Xylene	T	*ne*	1600	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
p-Isopropyltoluene	T	*ne*	*ne*	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
sec-Butylbenzene	T	*ne*	800	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Styrene	T	*ne*	1600	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
tert-Butylbenzene	T	*ne*	800	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
trans-1,3-Dichloropropene	T	*ne*	*ne*	< 1 U	< 0.4 U	< 1 U	< 0.4 U	< 1 U	< 0.4 U	< 1 U	< 0.4 U	< 0.4 U
Trichlorofluoromethane	T	*ne*	2400	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U

See notes and definitions on Page 3.

Table 3b. Groundwater: Analytical Results

Project No. AS180043, Evergreen Treatment Services, Seattle, Washington

			Location Name	AMW-1		AMW-2		AMW-3		AMW-4		AMW-5
			Sample Date	12/17/2018	11/05/2024	12/17/2018	11/05/2024	12/17/2018	11/05/2024	12/17/2018	11/05/2024	11/05/2024
Analyte	Fraction	MTCA Method A CUL	MTCA Method B CUL	Results in micrograms per liter (ug/L)								

Notes and Definitions:

MTCA	Model Toxics Control Act
CUL	Cleanup Level
ne	Indicated cleanup level is not yet established.
--	Not analyzed.
U	Analyte was not detected at a concentration greater than the indicated laboratory reporting limit.
J	The reported conceentration is an estimate. See laboratory report for details.
UJ	Analyte was not detected at a concentration greater than the indicated reporting limit and the reporting limit is estimated.
Bold	Analyte detected at a concetration greater than the laboratory reporting limit.
Red Bold	Detected concentration exceeds the Model Toxics Control Act (MTCA) Method B Cleanup Level but not the MTCA Method B Cleanup Level.
Blue Shaded	Detected concentration exceeds the Model Toxics Control Act (MTCA) Method A Cleanup Level, or the MTCA Method B Cleanup Level if Method A is not established.

Table 4. Remedial Technology Screening

Project No. AS180043, Evergreen Treatment Services, Seattle, Washington

Remedial Technologies	Preliminary Technology Screening				
	Description	Effectiveness	Implementability	Relative Cost	Screening Result
Institutional Controls (ICs)	Measures undertaken to limit or prohibit activities that may interfere with the integrity of the cleanup action or that may result in exposure to hazardous substances at a site. Most commonly, ICs are recorded as Environmental Covenants with the property deed.	**Moderate** Effective at preventing unacceptable exposures to contamination, but does not reduce contaminant mass.	**High** Readily implementable.	**Low**	**Retained**
Engineering Controls (ECs)	Containment and/or mitigation systems designed to prevent or limit the movement of, or the exposure to, hazardous substances (e.g., paving/capping, vapor barriers).	**Moderate** Capping would be effective at preventing unacceptable exposures to contamination, but does not reduce contaminant mass.	**High** Readily implementable.	**Low**	**Retained**
Monitored Natural Attenuation (MNA)	Monitoring the reduction of contaminants through natural processes over time (e.g., biodegradation, dispersion, and dilution).	**Moderate** Extended restoration time frame, more effective for groundwater impacts than vadose zone soil.	**High** Readily implementable, but would require replacement of groundwater monitoring wells within the redevelopment area.	**Moderate**	**Retained**
Soil Vapor Extraction (SVE)	Extracting contaminants in the form of soil vapor and introducing oxygen into the unsaturated zone to enhance microbial activity. Extracted vapors are typically treated using activated carbon via adsorption or destruction via thermal oxidation.	**Low to Moderate** Provides treatment of vadose zone soil impacts. Full treatment limited by heterogeneous soils and preferential pathways or short-circuiting of air flow through fill materials and gravel surface on Property.	**Low** Extractable area severely limited by shallow groundwater and potential atmospheric short-circuiting.	**Moderate to High**	**Not Retained**
In Situ Chemical Oxidation (ISCO)	Injecting or mixing an oxidant, such as potassium permanganate or sodium persulfate, into the subsurface to react with and destroy contaminants.	**Moderate** Provides treatment of groundwater impacts. Full treatment would be limited by preferential pathways or short-circuiting of injected amendments through fill material and utility corridors.	**Moderate to High** Treatment of shallow groundwater would be readily implementable. Shallow vadose zone soil contamination may not be treatable due to potential short-circuiting and surfacing of injected amendments.	**Moderate to High**	**Retained**

Table 5. Summary of Remedial Alternatives

Project No. AS180043, Evergreen Treatment Services, Seattle, Washington

Alternative	Title	SOIL		SOIL GAS	GROUNDWATER
		Vadose Zone	Saturated Soils		
1	**MNA and Institutional Controls**	No treatment.	No treatment.	**Monitored Natural Attenuation (MNA)** - 15 years of groundwater and subslab soil gas monitoring.	
2	**Source Excavation, MNA, and Institutional Controls**	**Removal** - sump, slab, and contaminated shallowed soil removal. Chemical vapor barrier installed along base of redevelopment.	No treatment.	**Engineered Controls** - Chemical vapor barrier built under new building footprint during redevelopment.	**MNA** - Up to 10 years of semi-annual groundwater monitoring
3	**Source Excavation, In Situ Treatment, MNA, and Institutional Controls**	**Removal** - sump, slab, and contaminated shallowed soil removal. Chemical vapor barrier installed along base of redevelopment.	***In-Situ* Chemical Oxidation (Injections)** - 10-foot treatment thickness targeting the sump and downgradient property boundary.	**Engineered Controls** - Chemical vapor barrier built under new building footprint during redevelopment.	**MNA** - 5 years of quarterly to semi-annual groundwater monitoring.

Notes:

MNA = Monitored Natural Attenuation

"Removal" involves excavation and off-Site disposal of impacted and contaminated soil.

All alternatives include institutional controls to prevent exposure to contaminated media. See Report for details.

Table 6. Disproportionate Cost Analysis

Project No. AS180043, Evergreen Treatment Services, Seattle, Washington

	Remedial Alternatives:	Alternative 1 MNA and Institutional Controls	Alternative 2 Source Excavation, MNA, and Institutional Controls	Alternative 3 Source Excavation, In Situ Treatment, MNA, and Institutional Controls
Criteria to Evaluate Use of Permanent Solutions to the Maximum Extent Practicable		(Note 1)	(Note 1)	(Note 1)
	Overall Protectiveness (30% Weighting Factor)	**2** This alternative will have the longest timeframe for achieving cleanup levels; however, exposure pathways can be reliably controlled via engineering and institutional controls.	**4** Similar to Alternative 1, exposure pathways can be reliably controlled during the restoration timeframe. This alternative will provide additional protectiveness in the short-term through removal of shallow contaminated soil.	**5** Similar to Alternative 2, exposure pathways can be reliably controlled during the restoration timeframe. This alternative will provide additional protectiveness in the short-term through removal of shallow contaminated soil and application of *in situ* chemical oxidation to reduce contaminant mass.
	Permanence (20% Weighting Factor)	**2** The existing impervious cap across the Site will serve as a permanent engineering control to prevent vadose zone soil impacts from leaching to groundwater.	**4** This alternative includes construction of a new impervious cap during redevelopment of the Site. This alternative also permanently removes the most contaminated vadose zone soil in the vicinity of the sump.	**5** Similar to Alternative 2, this alternative includes construction of a permanent impervious cap and permanently removes vadose zone soil. This alternative also permanently destroys contaminant mass in groundwater on the Site.
	Long-Term Effectiveness (20% Weighting Factor)	**2** The current cap will serve as a long-term engineering control to protect human health and the environment. The environmental covenant will continue to serve as a long-term protective administrative measure to establish clear rules for any future transfer of ownership or redevelopment.	**4** Similar to Alternative 1, the new impervious cap and institutional controls will protect human health and the environment. Shallow excavation will increase long-term effectiveness at achieving cleanup standards; however, landfill disposal is considered less effective than destruction/treatment.	**5** Similar to Alternative 1, the new impervious cap and institutional controls will protect human health and the environment. Shallow excavation of contaminated soils and destruction of contaminants in groundwater will greatly increase long-term effectiveness.
	Short-Term Risk Management (10% Weighting Factor)	**2** There are moderate short-term risks to occupants of the Site as the current building does not feature barriers engineered against vapor intrusion.	**4** There are low to moderate short-term health and safety risks associated with excavations into contaminated soil, but redevelopment will improve protection for future site occupants during the restoration timeframe.	**3** There are low to moderate short-term health and safety risks associated with excavations into contaminated soil, and with performing *in situ* injections on an active construction site. Redevelopment will improve protection for future site occupants during the restoration timeframe.
	Implementability (10% Weighting Factor)	**4** Moderately implementable as it requires no changes to current Site use, but Site use is currently limited by potential vapor intrusion concerns.	**3** Implementability challenges include a reliance on the redevelopment of the Site, which is subject to challenges not associated with environmental cleanup.	**2** Implementability challenges include a reliance on the redevelopment of the Site, which is subject to challenges not associated with environmental cleanup. Additional challenges are associated with implementing injections during construction.
	Consideration of Public Concerns (10% Weighting Factor)	**3** (Note 2)	**3** (Note 2)	**3** (Note 2)
	MTCA Benefits Ranking[3]	**2.3**	**3.8**	**4.3**
	Estimated Cost[4]	**$570,000**	**$810,000**	**$870,000**
	Benefit/Cost Ratio[5]	**4.0**	**4.7**	**4.9**

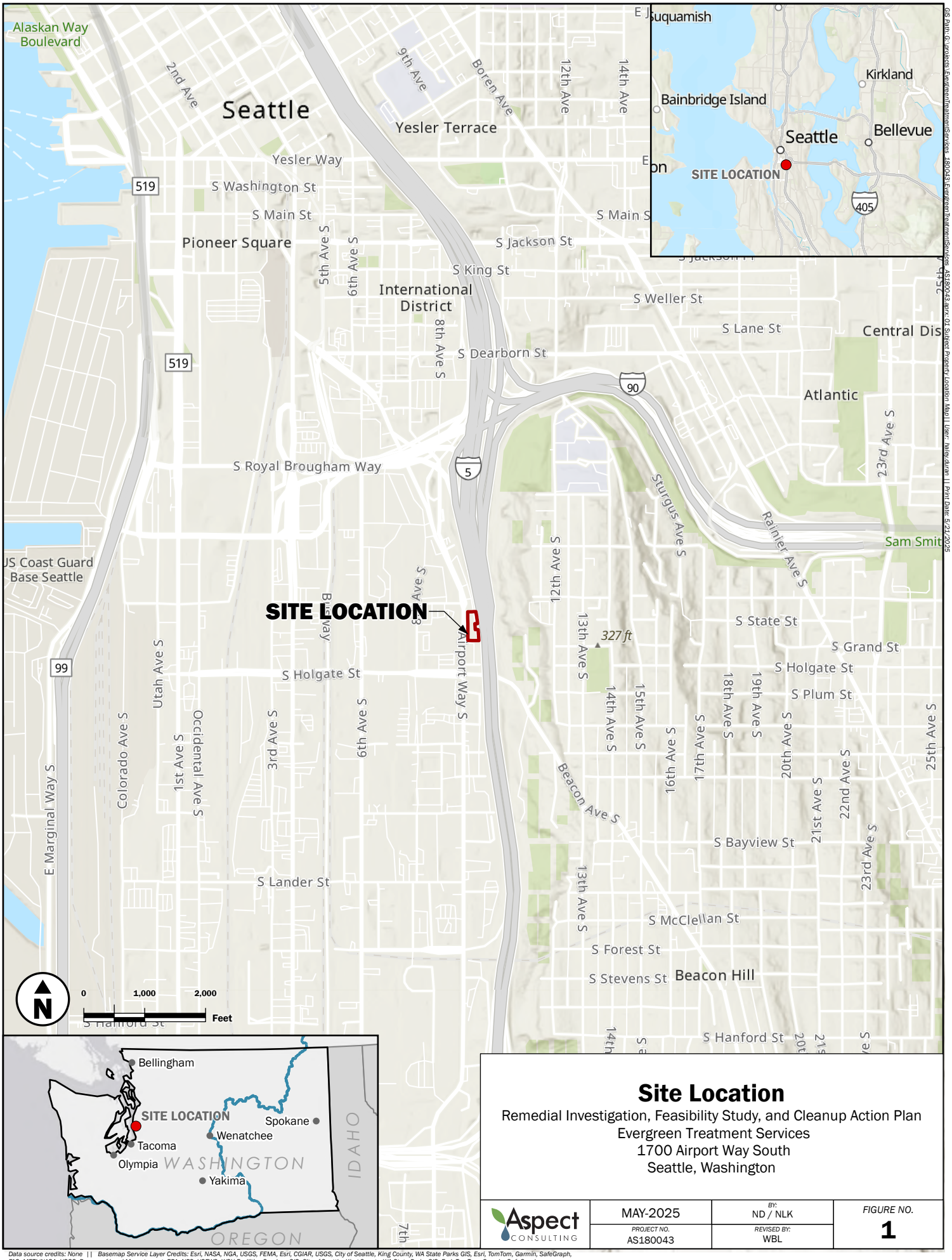
Notes:

MTCA = Model Toxics Control Act

MNA = monitored natural attenuation

1. A scale of 1 to 5 is used to rate the alternatives with respect to the MTCA benefits criteria, where "1" indicates the criterion is satisfied to a very low degree, and "5" to a very high degree. Benefits rating values are shown in **red**. Refer to text for discussion of benefits ranking rationale.
2. Ecology considers and responds to public or other stakeholder comments if received. Therefore, for purposes of this FS, all alternatives are given a rating of 3 for consideration of public concerns.
3. The MTCA benefits ranking for each alternative is obtained by multiplying the rating for each criterion by its assigned weighting factor and summing the results for the six criteria.
4. Cost are Net Present Value in 2025 dollars assuming a discount rate of 2.3%. The costs presented are preliminary, Feasibility Study-level estimates based on existing information and are estimated to be within +50 / -30% of actual costs. Total costs from the detailed cost estimates provided in Appendix A were rounded to the nearest $10,000.
5. The benefit/cost ratio is obtained by dividing the alternative's MTCA benefits ranking by its estimated cost (in $NPV million).

FIGURES



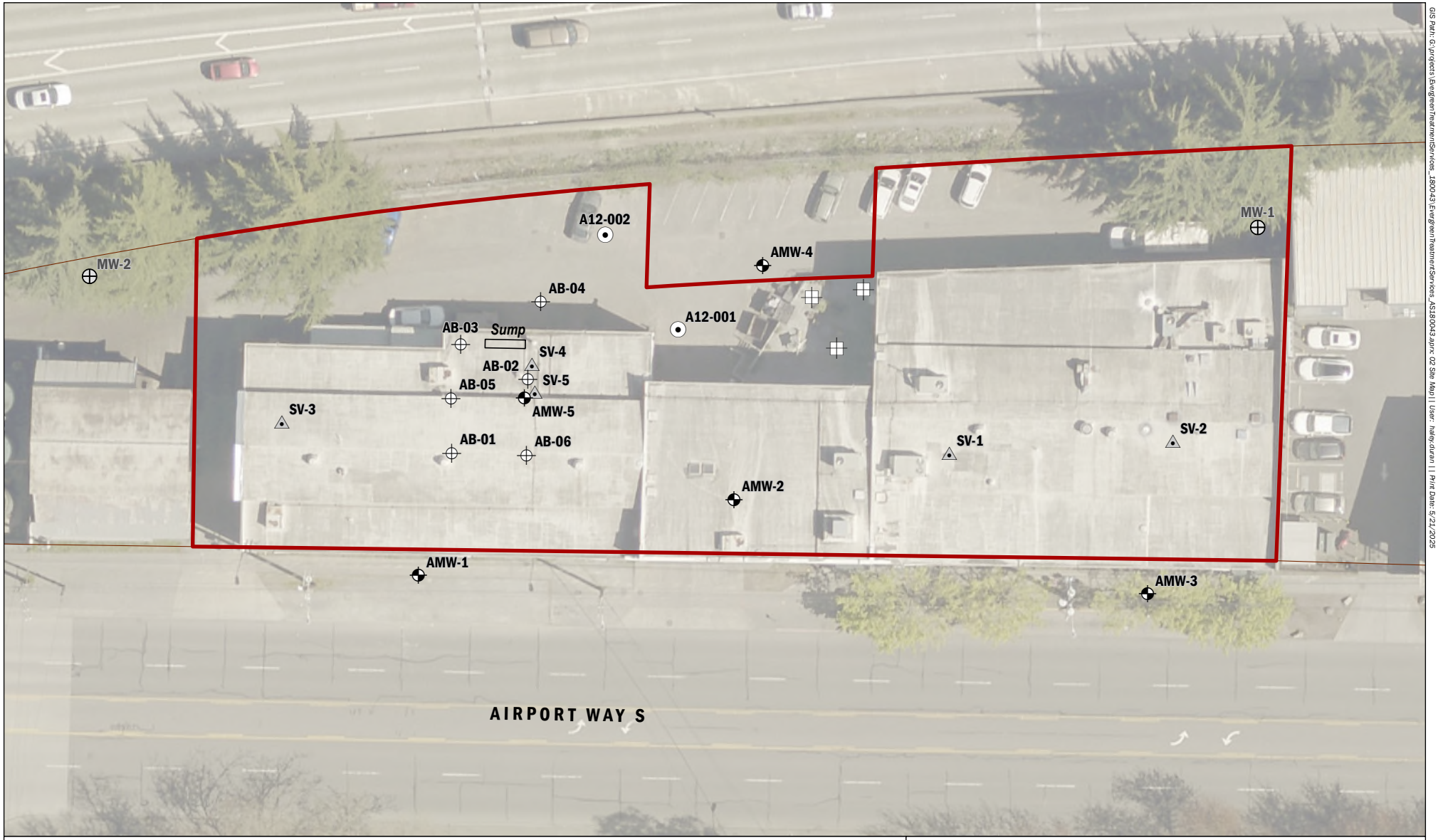
Site Location

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect Consulting	MAY-2025	BY: ND / NLK	FIGURE NO. 1
	PROJECT NO. AS180043	REVISED BY: WBL	

Data source credits: None || Basemap Service Layer Credits: Esri, NASA, NGA, USGS, FEMA, Esri, CGIAR, USGS, City of Seattle, King County, WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS, WSU Facilities Services GIS, City of Seattle, King County, WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, HERE, Garmin, USGS, EPA, NPS

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx; 01 Subject Property Location Map | User: tayloraurin | Print Date: 5/21/2025



Remedial Investigation

- Soil Gas Sample Location (Aspect, 2018-2020)
- Groundwater Monitoring Well Location (Aspect, 2018-2024)
- Soil Boring (Aspect, 2024)

Historical Site Closure Sampling

- Concrete Sample Location (NWES, 1995)
- Shallow Soil Sample Location (NWES, 1995)
- Decommissioned Well (NWES, 1995)

Site Feature

- Sump
- Subject Property
- King County Tax Parcel

N

0 20 40 Feet

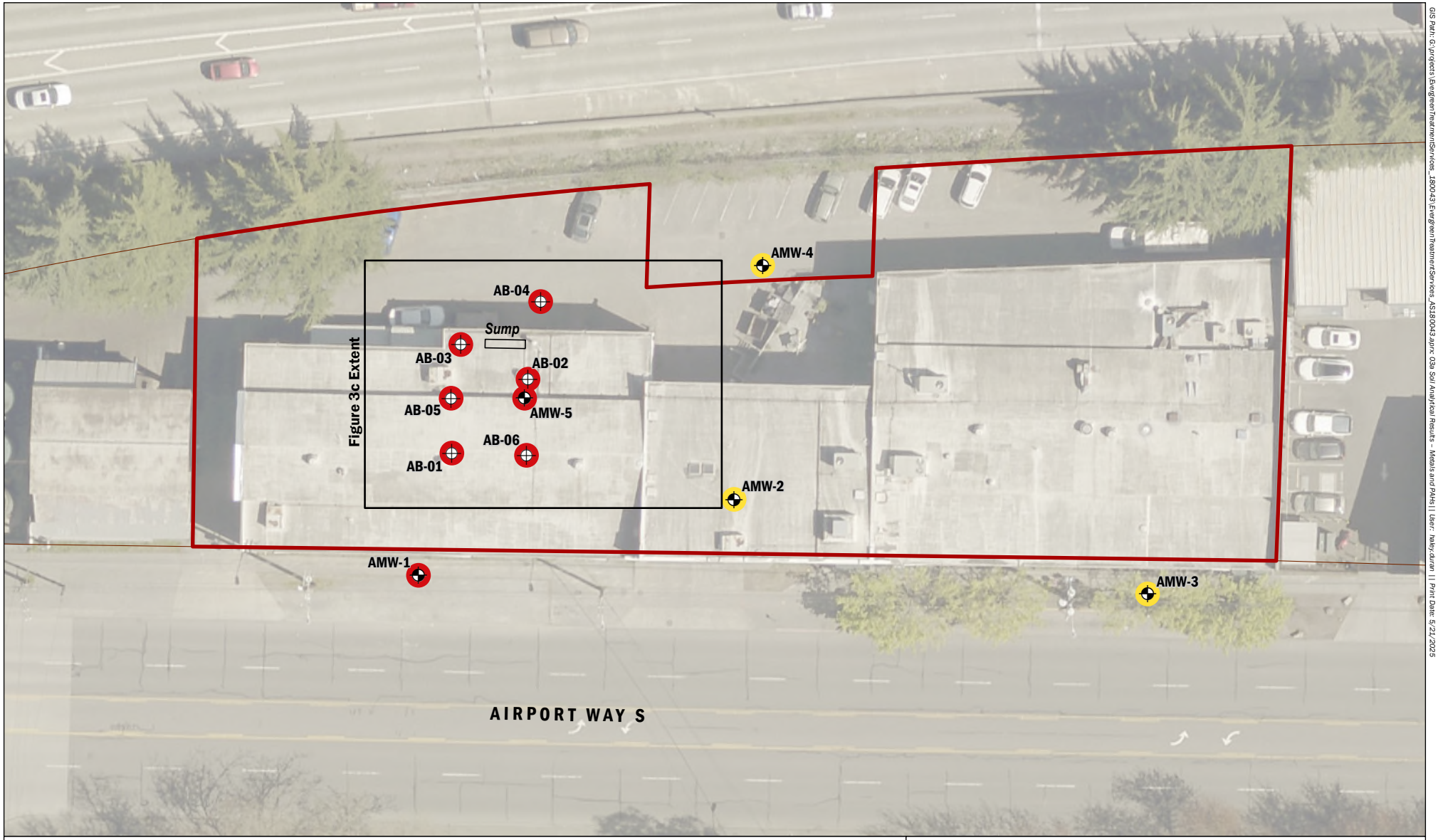
Site Map

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect Consulting	MAY-2025	BY: ND / HMD	FIGURE NO. 2
	PROJECT NO. AS180043	REVISED BY: WBL	

Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx: 02 Site Map || User: haley.duran || Print Date: 5/21/2025



Remedial Investigation

- Groundwater Monitoring Well Location (Aspect, 2018-2024)
- Soil Boring (Aspect, 2024)

Analytical Results

- One or More Analytes Exceed Screening Level
- One or More Analytes Detected, No Screening Level Exceedance

Site Features

- Sump
- Subject Property
- King County Tax Parcel

N

0 20 40 Feet

Note:
- Metals = arsenic, cadmium, chromium, lead, and mercury
- PAHs = Polycyclic Aromatic Hydrocarbons
- See Report for details regarding analytes and chosen screening levels.

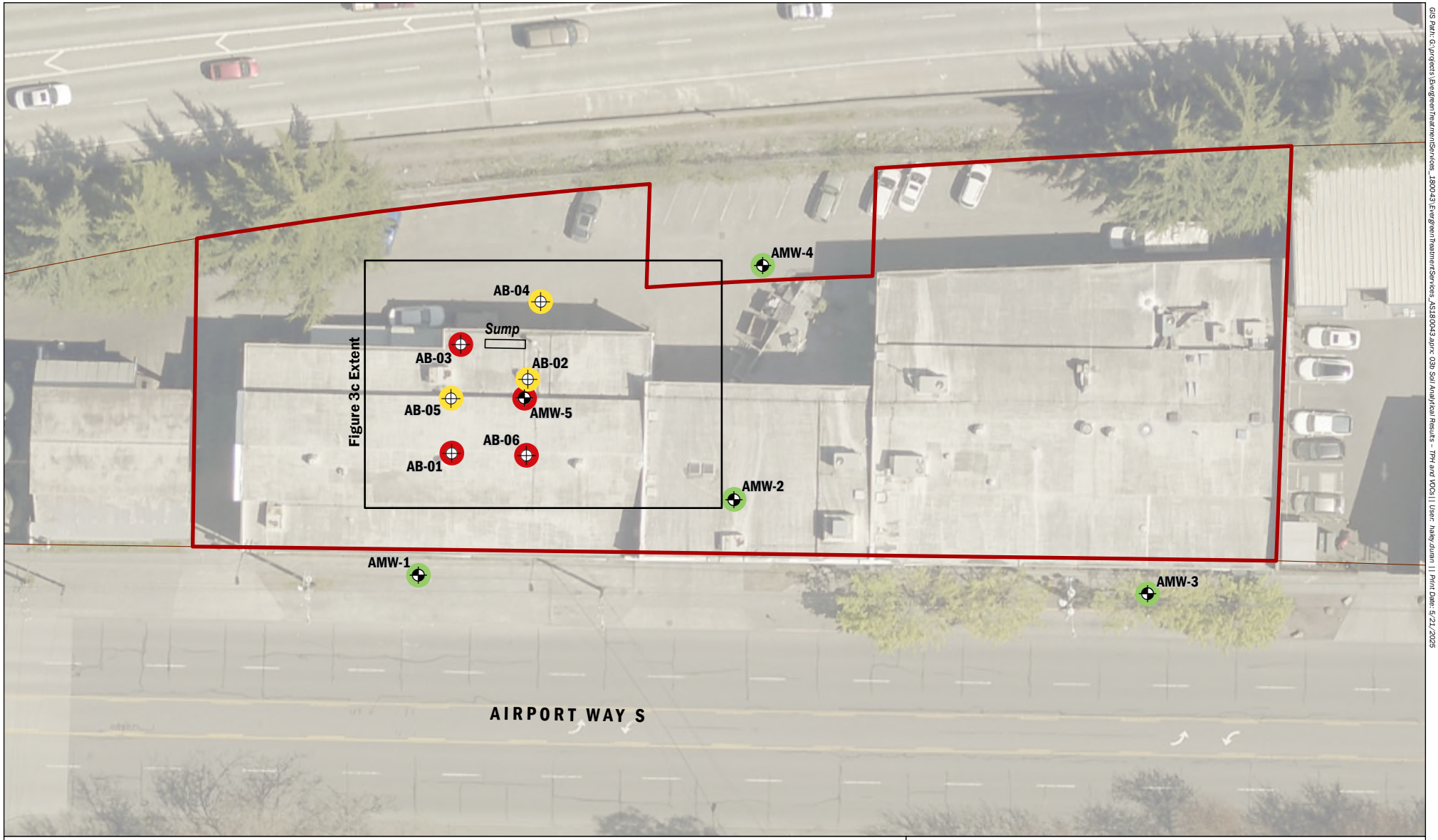
Soil Analytical Results: Metals and PAHs

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect CONSULTING	MAY-2025	BY: ND / NLK	FIGURE NO. 3a
	PROJECT NO. AS180043	REVISED BY: WBL	

Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx; 03a Soil Analytical Results - Metals and PAHs || User: haley.duran || Print Date: 5/21/2025



Remedial Investigation

- Groundwater Monitoring Well Location (Aspect, 2018-2024)
- Soil Boring (Aspect, 2024)

Analytical Results

- One or More Analytes Exceed Screening Level
- One or More Analytes Detected, No Screening Level Exceedance
- No Analytes Detected

Site Features

- Sump
- Subject Property
- King County Tax Parcel

N

0 20 40 Feet

Note:
- TPH = Total Petroleum Hydrocarbons
- VOCs = Volatile Organic Compounds
- See Report for details regarding analytes and chosen screening levels.

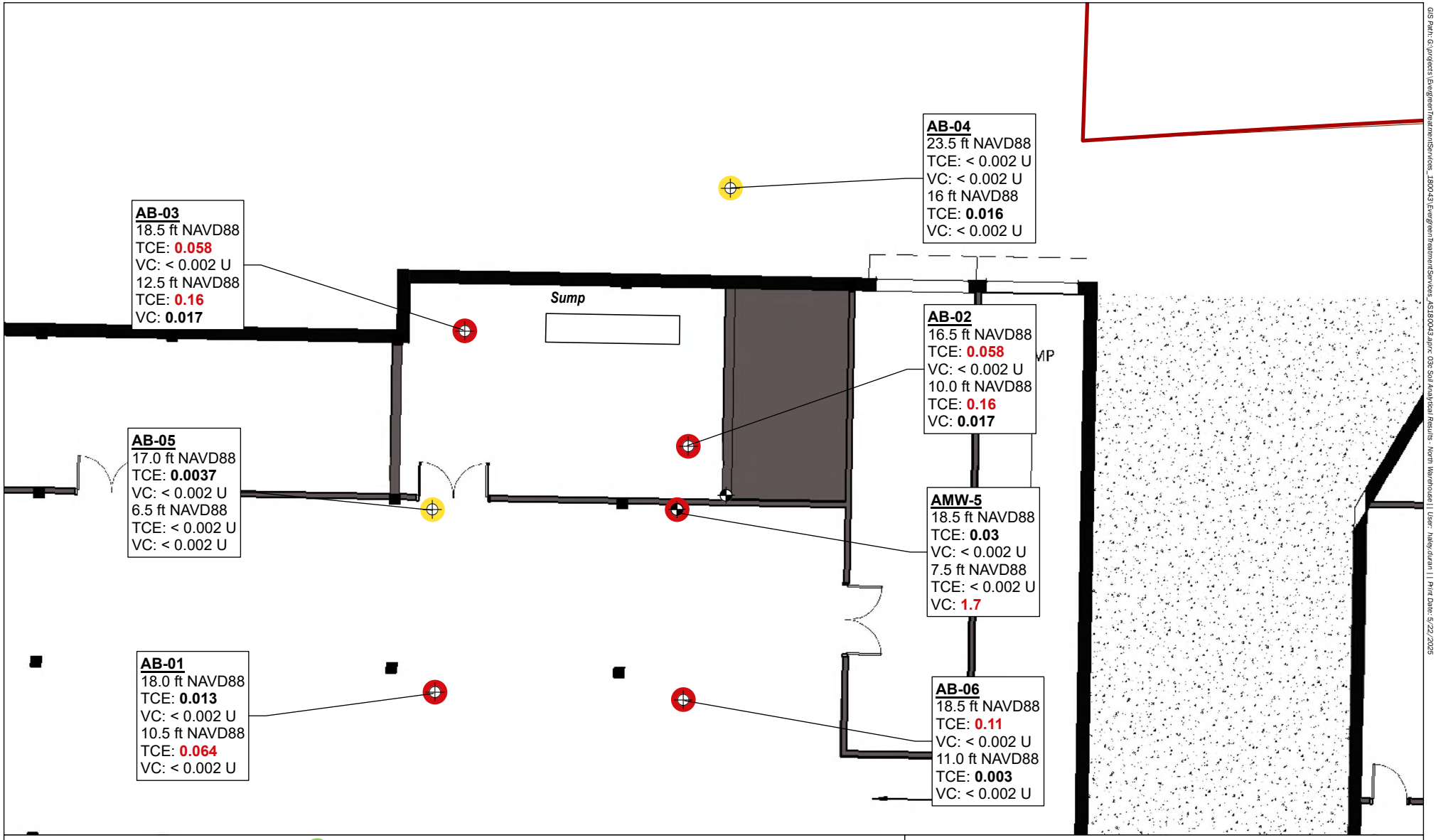
Soil Analytical Results: TPH and VOCs

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect CONSULTING	MAY-2025	BY: ND / NLK	FIGURE NO. 3b
	PROJECT NO. AS180043	REVISED BY: WBL	

Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx; 03b Soil Analytical Results - TPH and VOCs || User: haley.duran || Print Date: 5/21/2025



Remedial Investigation

- Groundwater Monitoring Well (Aspect, 2018 - 2024)
- Soil Boring (Aspect, 2024)

Analytical Results

- One or More Analytes Exceed Screening Level
- One or More Analytes Detected, No Screening Level Exceedance
- No Analytes Detected

Site Features

- Sump
- Subject Property
- King County Tax Parcel

0 6 12 Feet

Note:
- VOCs = Volatile Organic Compounds"
- NAVD88 = North American Vertical Datum of 1988. See Report for Elevation details.
- TCE = Trichloroethylene
- VC = Vinyl Chloride
- See Report for details regarding detected analytes and applicable screening levels.
- Basement plan provided by Evergreen Treatment Services, dated January 13, 2023.

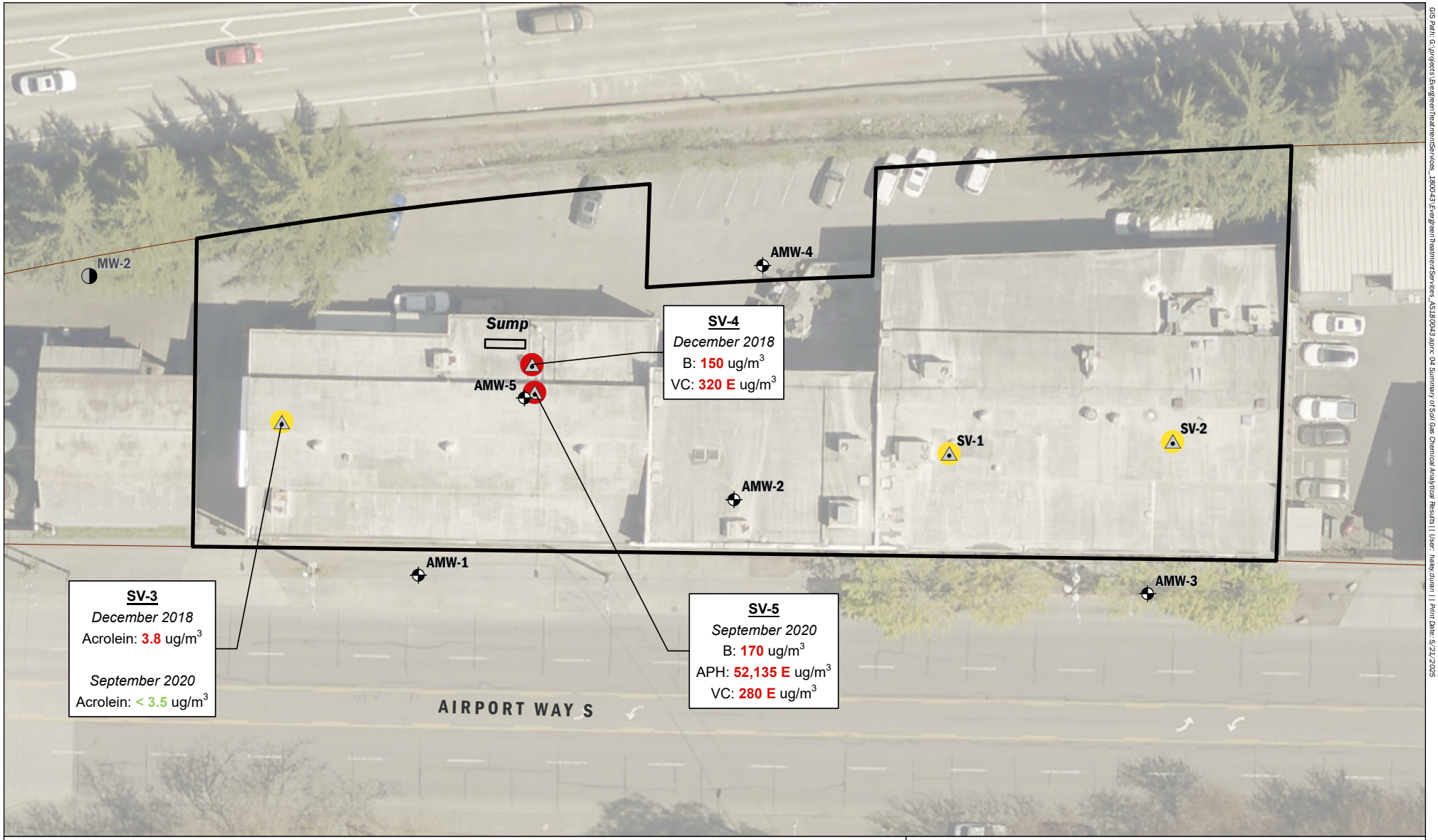
Soil Analytical Results: North Warehouse – VOCs

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect Consulting	MAY-2025	BY: ND / NLK	FIGURE NO. 3c
	PROJECT NO. AS180043	REVISED BY: WBL	

Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx; 03c Soil Analytical Results - North Warehouse || User: haley.duran || Print Date: 5/22/2025



Remedial Investigation

- Soil Gas Sample Location (Aspect, 2018-2020)
- Groundwater Monitoring Well Location (Aspect, 2018 - 2024)
- Damaged Monitoring Well

Analytical Results

- One or More Analytes Exceed Screening Level
- One or More Analytes Detected, No Screening Level Exceedance

Site Features

- Sump
- Subject Property
- King County Tax Parcel

N

0 25 50 Feet

Notes:
- *B: Benzene*
- *APH: Total Petroleum Hydrocarbons*
- *VC: Vinyl Chloride*

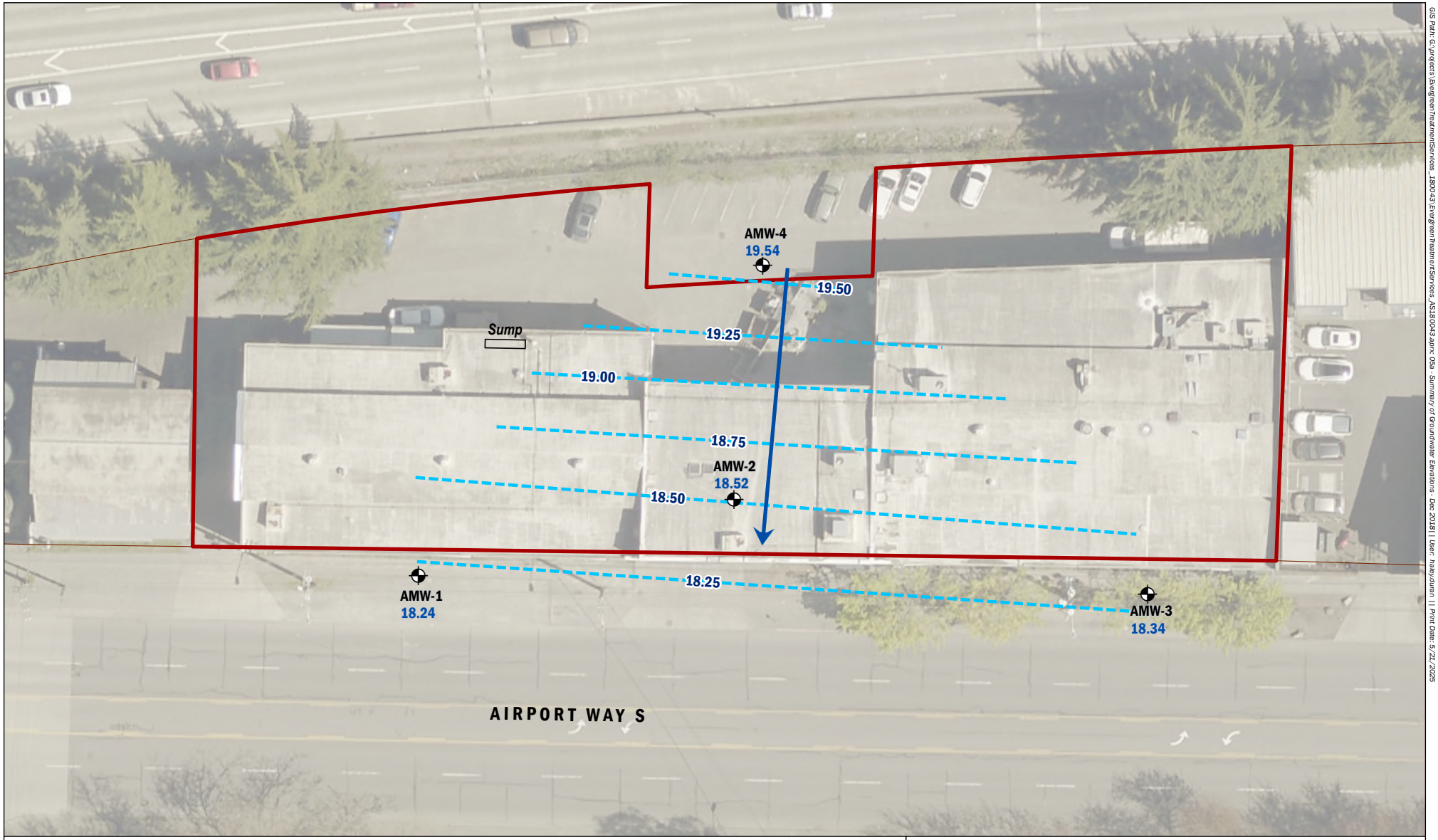
Summary of Soil Gas Chemical Analytical Results

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect CONSULTING	MAY-2025	BY: ND / NLK	FIGURE NO. 4
	PROJECT NO. AS180043	REVISED BY: WBL	

Data source credits: DLC / EAC / SCC || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx; 04 Summary of Soil Gas Chemical Analytical Results || User: haley.curran || Print Date: 5/21/2025



Groundwater Monitoring Well Location (Aspect, 2018)

GW Contour

GW Flow Direction

Sump

Subject Property

King County Tax Parcel

AMW-2 — Exploration Number
18.52 — Groundwater Elevation (ft)

N

0 20 40 Feet

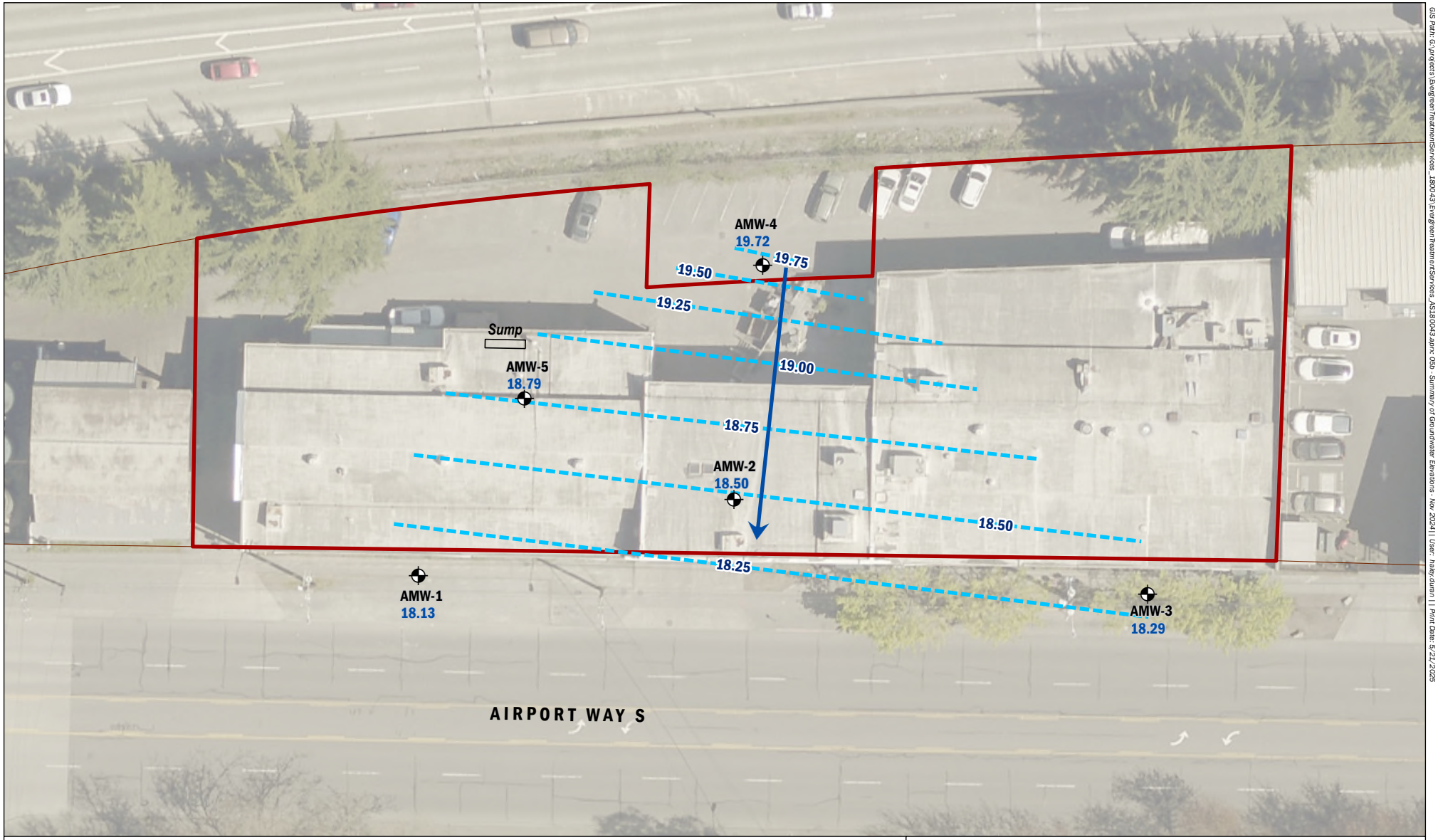
Groundwater Elevations
December 2018

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect CONSULTING	MAY-2025	BY: ND / NLK	FIGURE NO. 5a
	PROJECT NO. AS180043	REVISED BY: WBL	

Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx; 05a - Summary of Groundwater Elevations - Dec 2018 | User: haleyduran || Print Date: 5/21/2025



Groundwater Monitoring Well Location (Aspect, 2018 - 2024)

GW Contour

GW Flow Direction

Sump

Subject Property

King County Tax Parcel

AMW-2 — Exploration Number
18.50 — Groundwater Elevation (ft)

N

0 20 40 Feet

Note: AMW-5 installed in November 2024

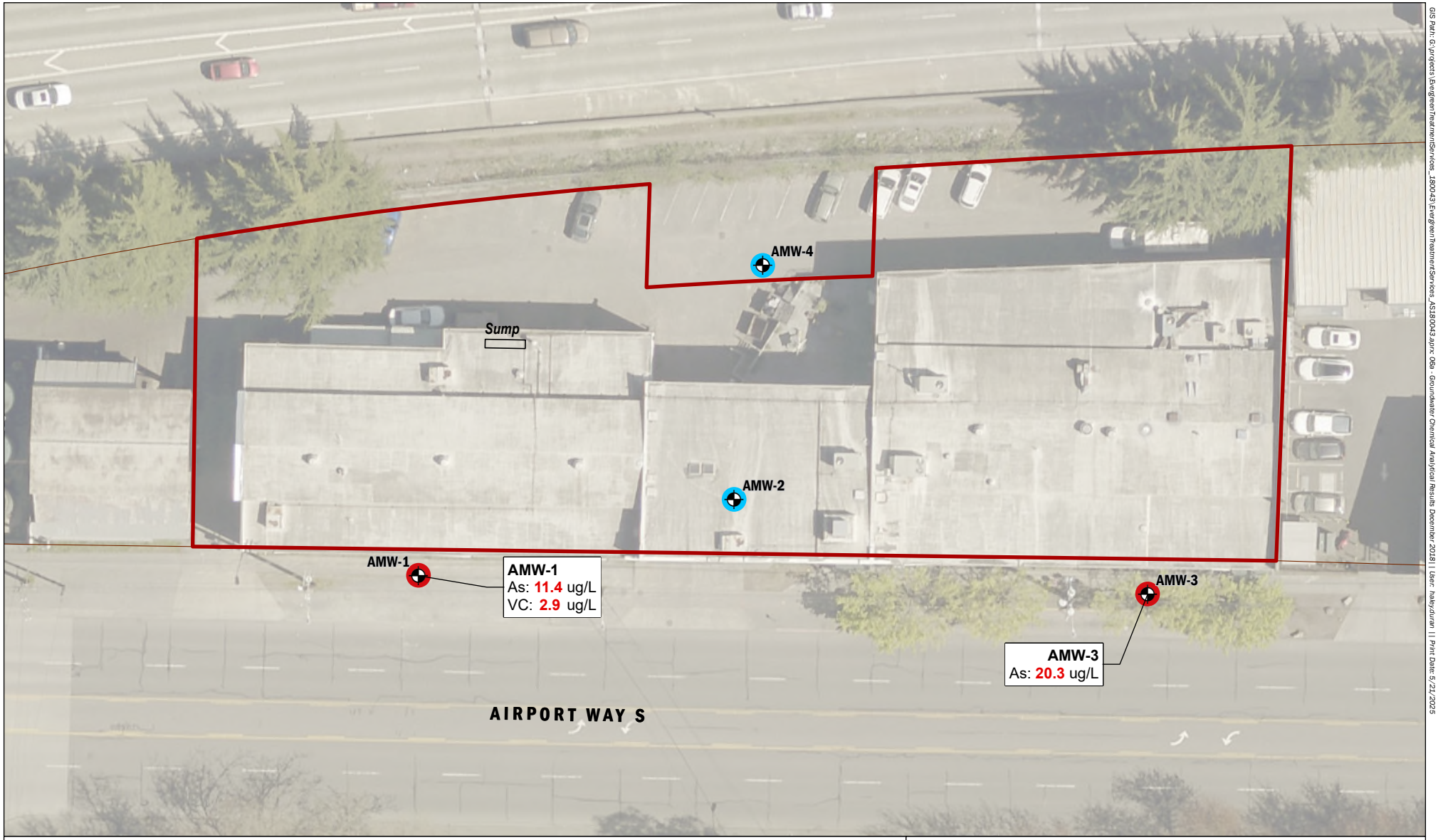
Groundwater Elevations November 2024

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect CONSULTING	MAY-2025	BY: ND / NLK	FIGURE NO. 5b
	PROJECT NO. AS180043	REVISED BY: WBL	

Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx; 05b - Summary of Groundwater Elevations - Nov 2024 | User: haley.duran | | Print Date: 5/21/2025



Groundwater Monitoring Well Location (Aspect, 2018 - 2024)

One or More Analytes Exceed Screening Level

One or More Analytes Detected, No Screening Level Exceedance

Sump

Subject Property

King County Tax Parcel

N

0 20 40 Feet

Notes:
- Only analytical results which exceed the screening level are displayed.
- As = Dissolved Arsenic
- VC = Vinyl Chloride

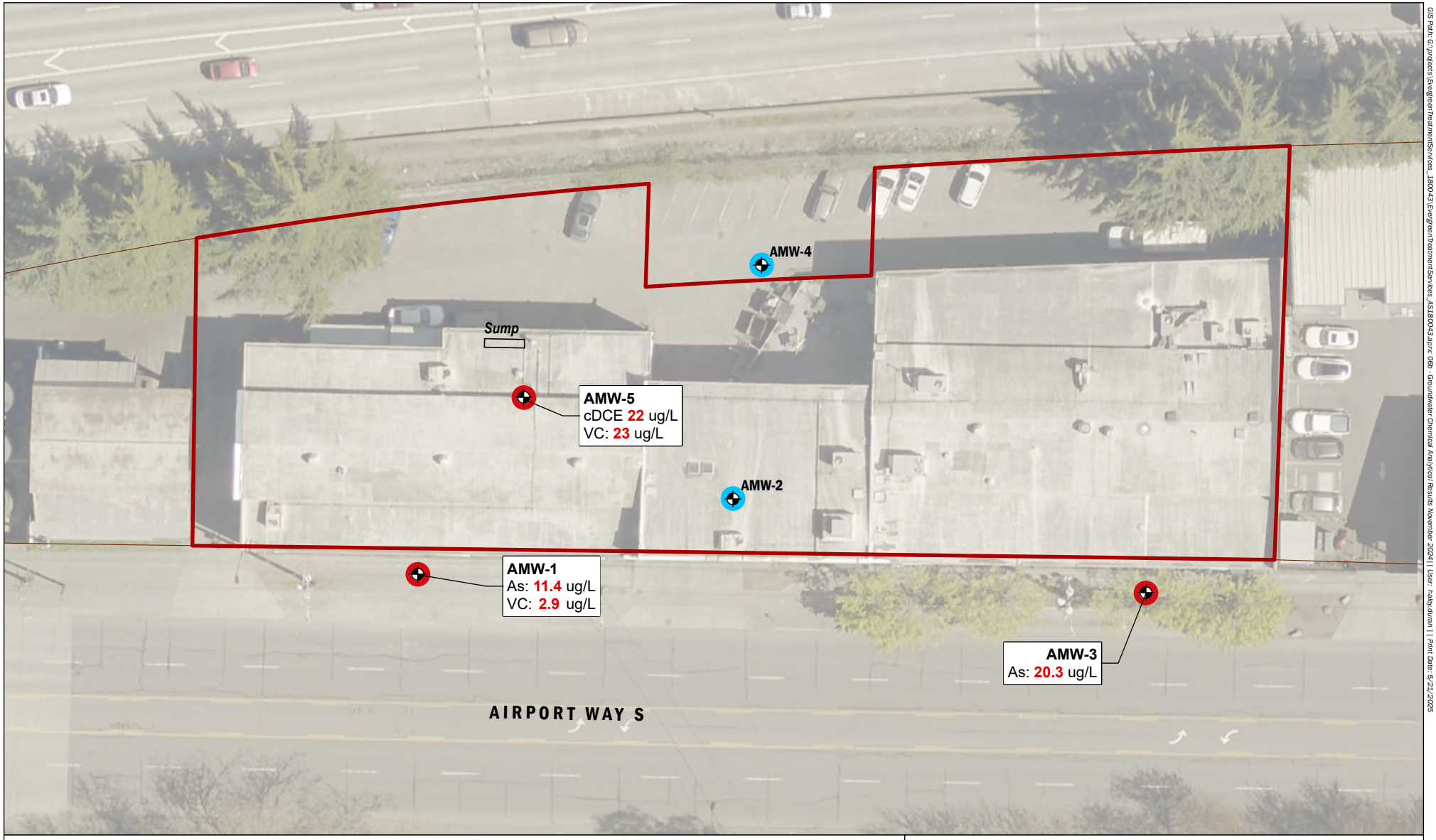
Groundwater Analytical December 2018

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect Consulting	MAY-2025	BY: ND / NLK	FIGURE NO. 6a
	PROJECT NO. AS180043	REVISED BY: WBL	

Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx; 06a - Groundwater Chemical Analytical Results December 2018 | User: haleyduran | | Print Date: 5/21/2025



Groundwater Monitoring Well Location (Aspect, 2018 - 2024)

One or More Analytes Exceed Screening Level

One or More Analytes Detected, No Screening Level Exceedance

No Analytes Detected

Sump

Subject Property

King County Tax Parcel

N

0 20 40 Feet

Notes:
Only analytical results which exceed the screening level are displayed.
- As = Dissolved Arsenic
- cDCE = cis-1,2-Dichloroethene
- VC = Vinyl Chloride

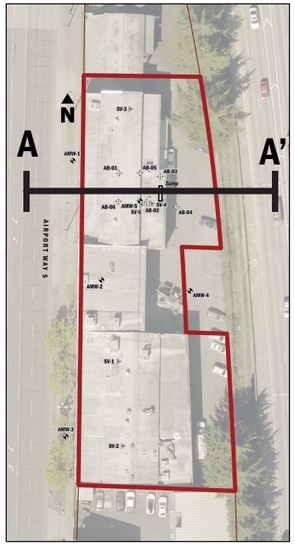
Groundwater Analytical November 2024

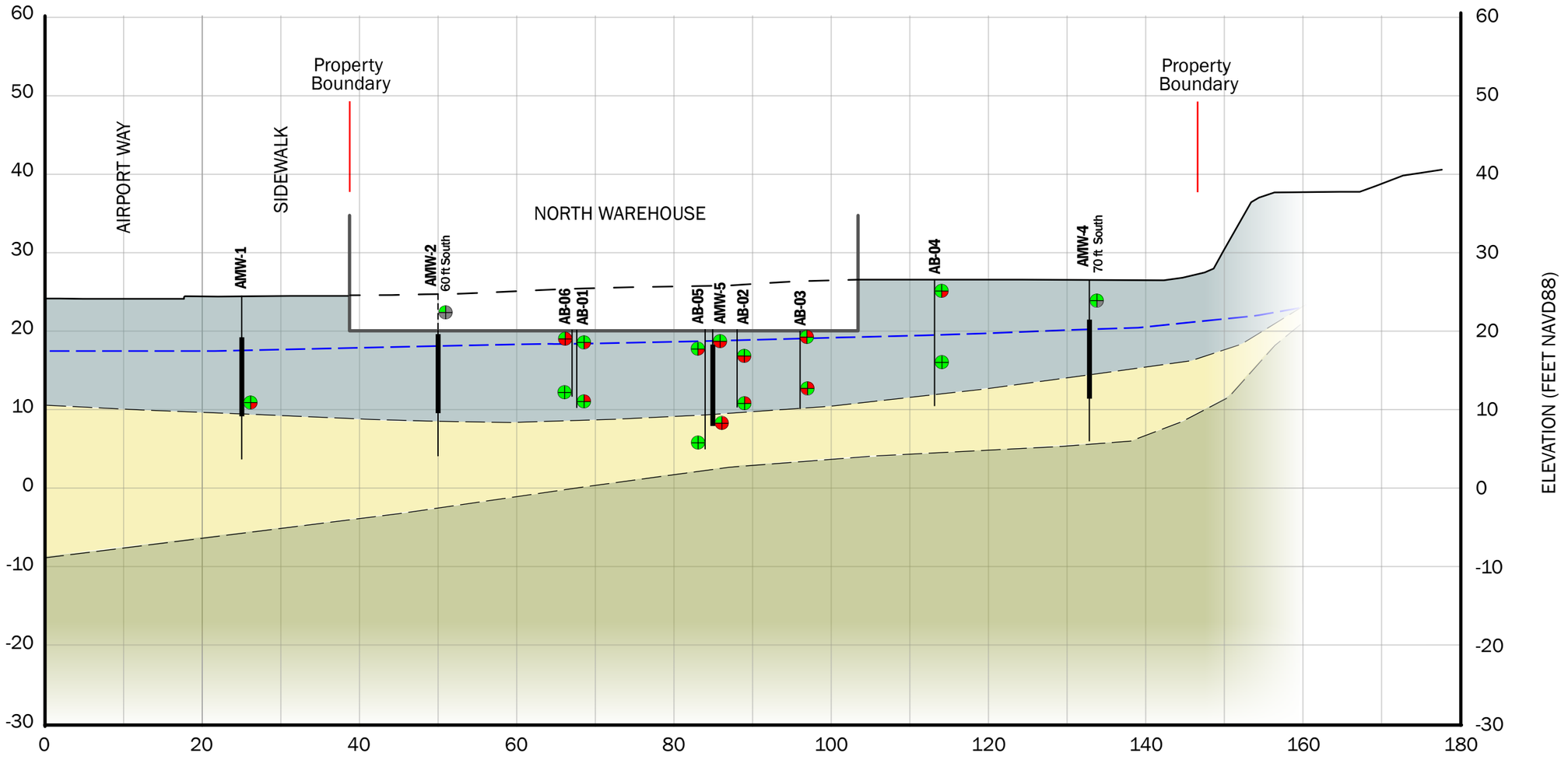
Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect CONSULTING	MAY-2025	BY: ND / NLK	FIGURE NO. 6b
	PROJECT NO. AS180043	REVISED BY: WBL	

Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx; 06b - Groundwater Chemical Analytical Results November 2024 | User: haily.duran | | Print Date: 5/21/2025





Horizontal Scale 1" = 15'
Vertical Scale 1" = 15'
Vertical Exaggeration 1x

Legend

Lithology Graphics

- Artificial Fill
- Lacustrine Deposits
- Glacial Till

Contacts and Groundwater

- Contact - Known
- Contact - Inferred
- Groundwater - Inferred

Soil Boring and Monitoring Well Key

AMW-1 *Location Name*

Screened Interval (Monitoring Wells)

Select Chemical Analytical Results

Petroleum Hydrocarbons
Chlorinated VOCs
Metals
Polycyclic Aromatic Hydrocarbons

- *Analyte(s) detected in soil at a concentration greater than the MTCA Method A cleanup level*
- *Analyte(s) not detected or detected less than the MTCA Method A cleanup level*
- *Analyte result(s) not reported by laboratory*

Note: Some sample locations omitted for clarity. See Report for detailed results and explanations.

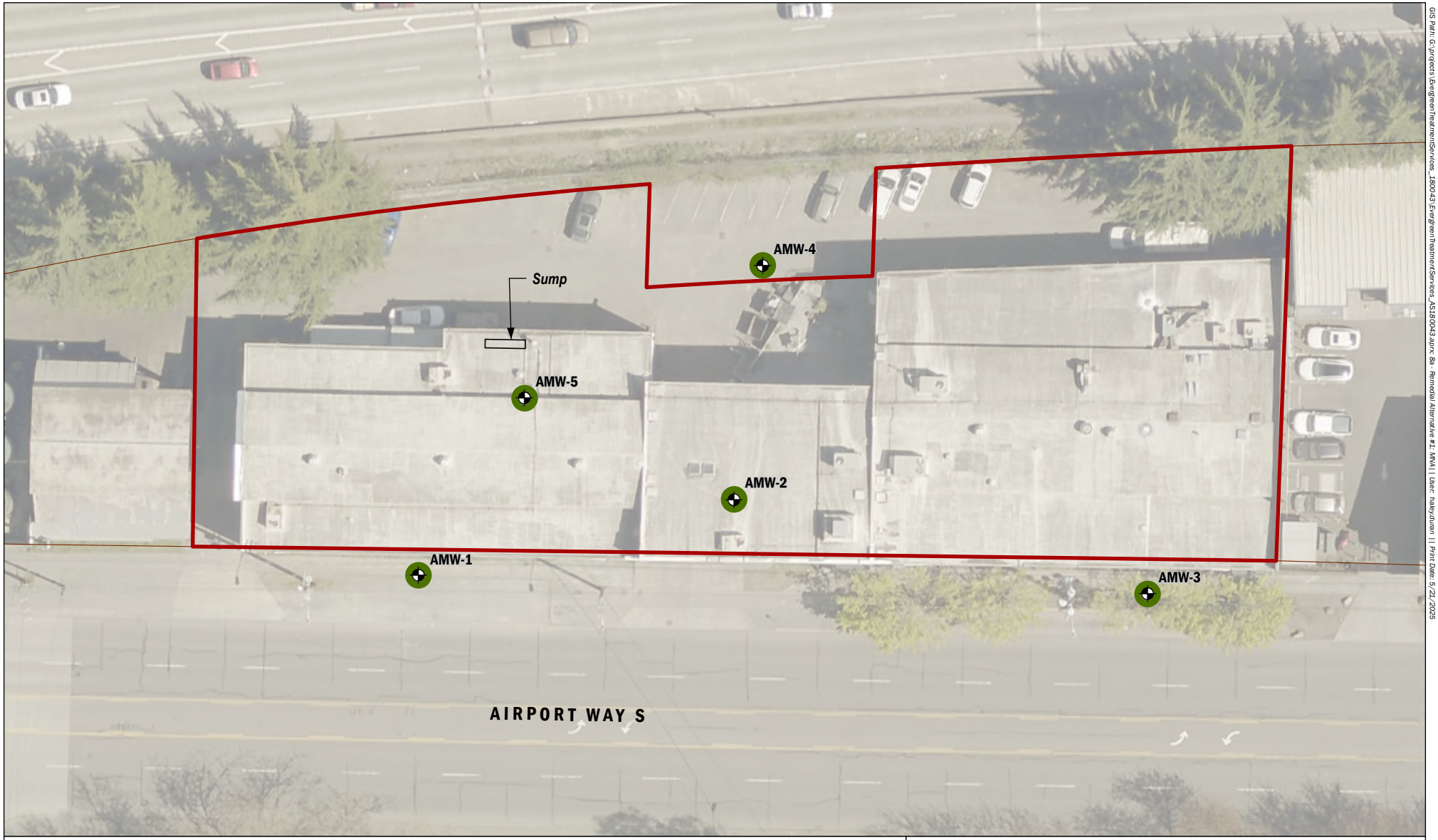
DISCLAIMER: The subsurface conditions presented in this geologic cross section are conceptual. Variations may exist between the soil and groundwater conditions depicted on this figure and those actually underlying the site. Refer to the contents of this report for further context.

Notes:
- Cross section profile based on GeoEngineers (2023), and geologic observations during investigations. See Report for details.
- Site features are approximate.

Cross Section

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
Seattle, Washington

Aspect Consulting	MAY-2025	BY: NWD	FIGURE NO. 7
	PROJECT NO. AS180043	REVISED BY: --	



- Groundwater Monitoring Well Location
- Groundwater MNA Wells
- Sump
- Subject Property
- King County Tax Parcel

N

0 20 40 Feet

Notes:
- MNA = Monitored Natural Attenuation
- No change to Site use assumed. See Report for details

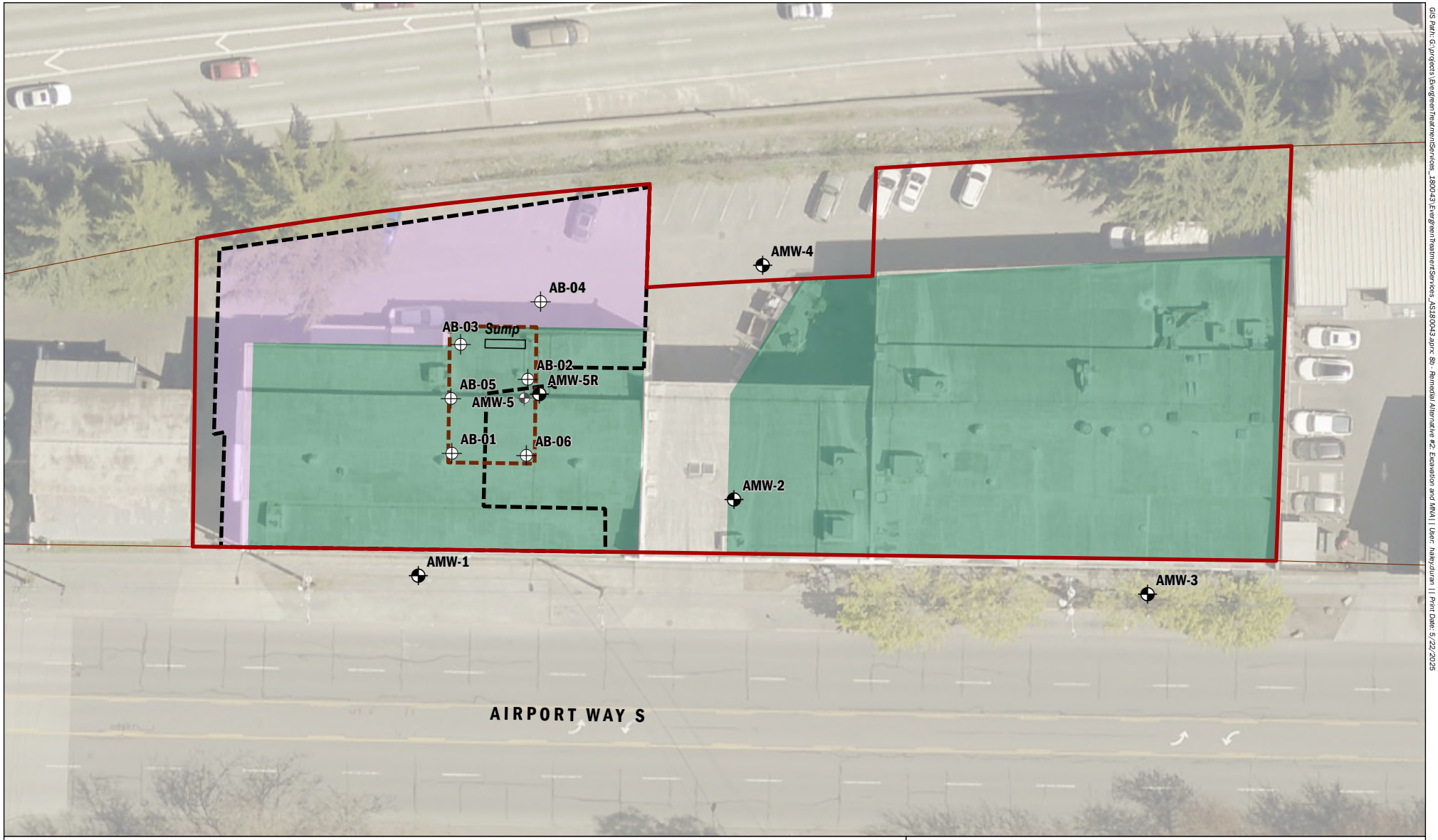
Remedial Alternative #1: MNA

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect Consulting	MAY-2025	BY: JT / HMD	FIGURE NO. 8a
	PROJECT NO. AS180043	REVISED BY: ---/---	

Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx 8a - Remedial Alternative #1: MNA || User: haleyduran || Print Date: 5/21/2025



- Soil Boring
- Groundwater Monitoring Well Location
- Groundwater Monitoring Well to be Decomissioned
- Subgrade Demolition and Backfill
- Extent of Construction Excavation
- Extent of New Building
- Extent of Remedial Excavation (2 ft bgs)
- Sump
- Subject Property
- King County Tax Parcel

N

0 20 40 Feet

Note:
- Screened analytes include aresenic, cadmium, chromicum, lead, mercury, polycyclic aromatic hydrocarbons, total petroleum hydrocarbons, and volatile organic compounds. Analytical results from samples collected on-property above 4 feet below ground surface, which is unsaturated soil.
- See Report for details regarding analytes and chosen screening levels.

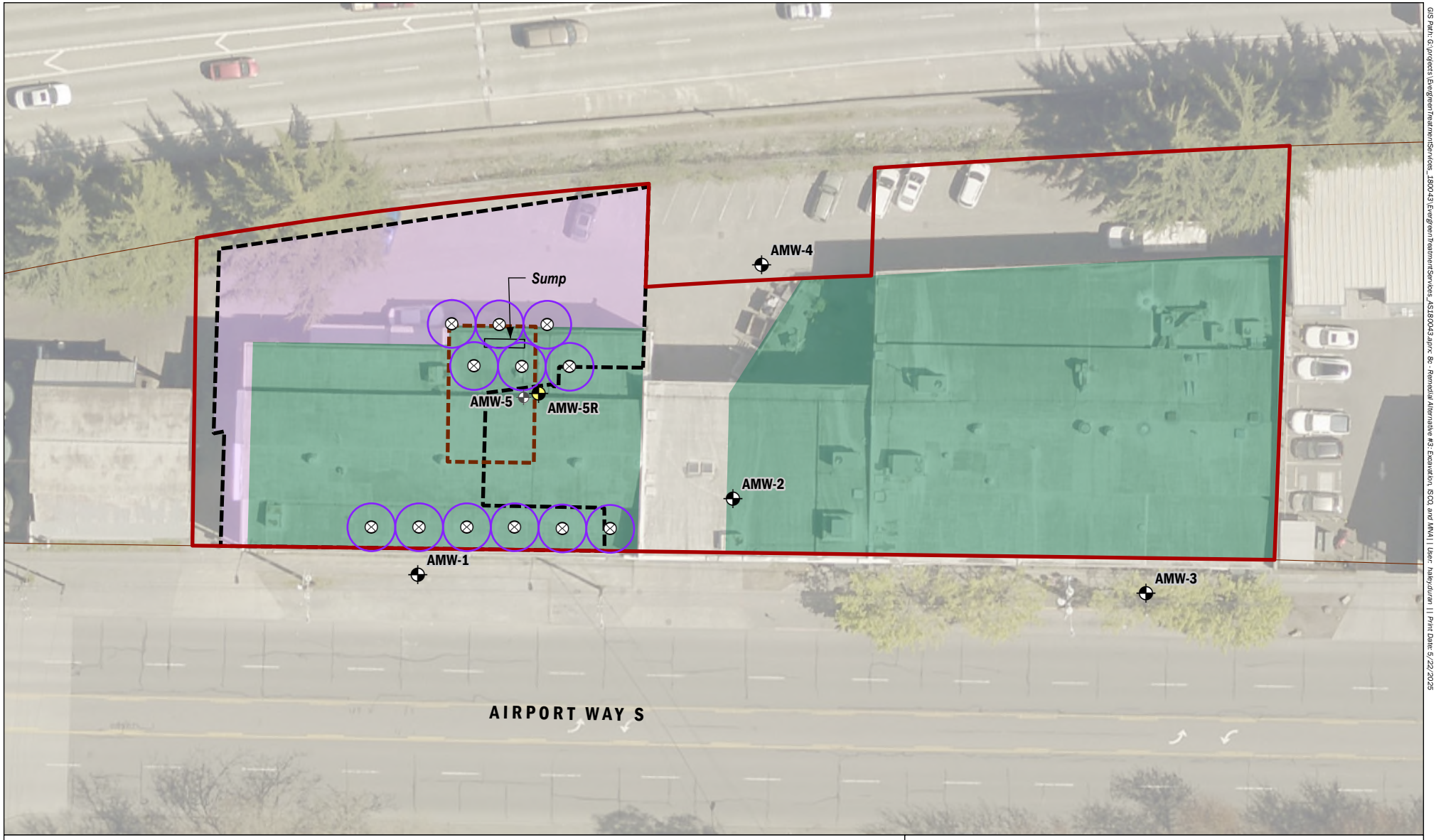
Remedial Alternative #2: Excavation and MNA

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect Consulting	MAY-2025	BY: ND / NLK	FIGURE NO. 8b
	PROJECT NO. AS180043	REVISED BY: WBL	

Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx: 8b - Remedial Alternative #2: Excavation and MNA || User: haleyduran || Print Date: 5/22/2025



Groundwater Monitoring Well Location
Replacement Groundwater Monitoring Well
Groundwater Monitoring Well to be Decommissioned
Injection Point
Injection ROI
Subgrade Demolition and Backfill

Extent of Construction Excavation
Extent of New Building
Extent of Remedial Excavation (2 ft bgs)
Sump
Subject Property
King County Tax Parcel

N

0 20 40 Feet

Notes:
- Injection ROI point spacing is 14-feet center to center

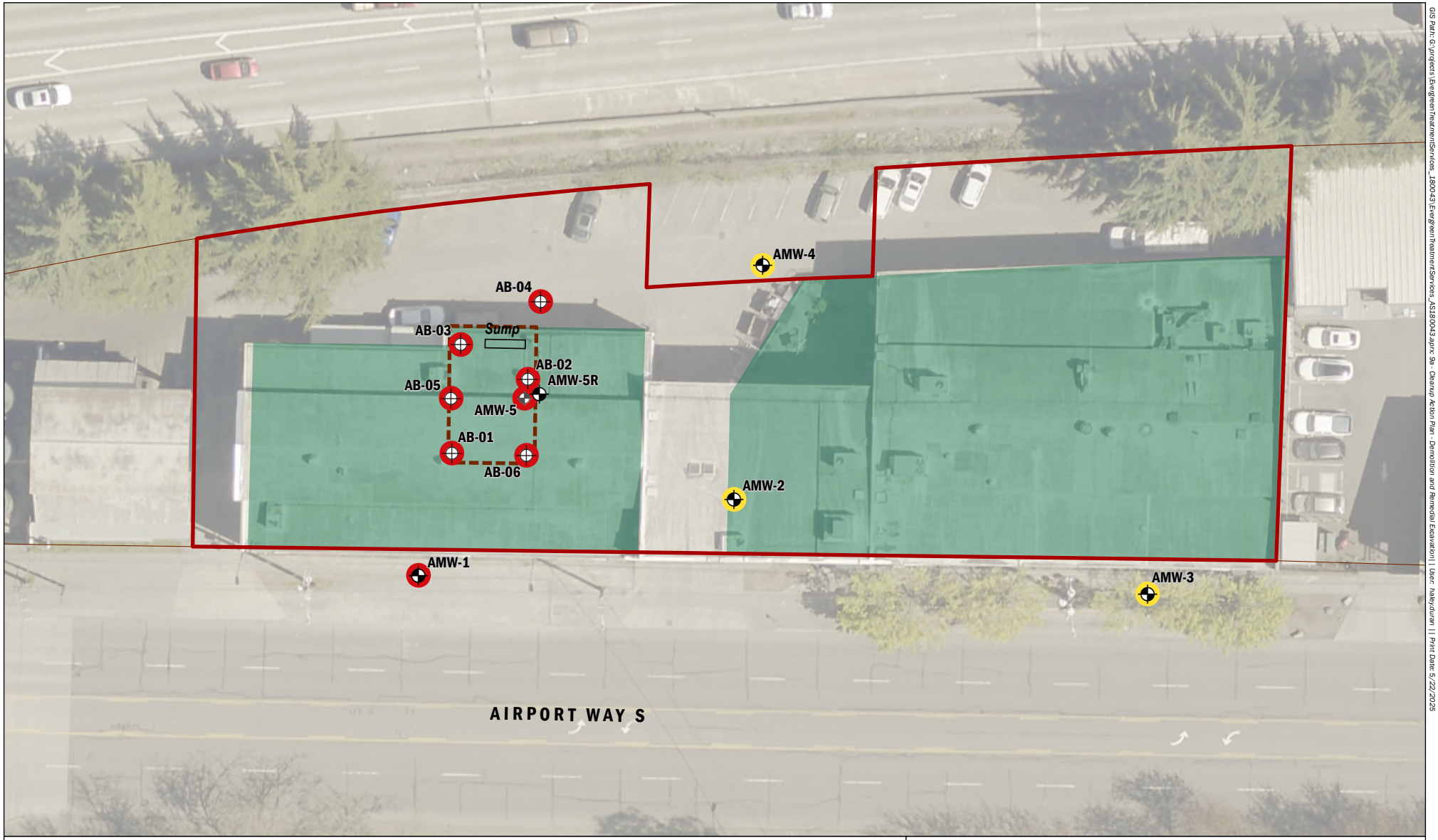
Remedial Alternative #3: Excavation, ISCO, and MNA

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect Consulting	MAY-2025	BY: JT / HMD	FIGURE NO. 8c
	PROJECT NO. AS180043	REVISED BY: ---/---	

Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx: 8c - Remedial Alternative #3: Excavation, ISCO, and MNA || User: haleyduran || Print Date: 5/22/2025



Soil Boring

Groundwater Monitoring Well Location

Groundwater Monitoring Well to be Decomissioned

One or More Analytes Exceed Screening Level

One or More Analytes Detected, No Screening Level Exceedance

Subgrade Demolition Area

Extent of Remedial Excavation (2 ft bgs)

Sump

King County Tax Parcel

Subject Property

N

0 20 40 Feet

Notes:
Screened analytes include arsenic, cadmium, chromium, lead, mercury, polycyclic aromatic hydrocarbons, total petroleum hydrocarbons, and volatile organic compounds - See Report for details regarding analytes and chosen screening levels.

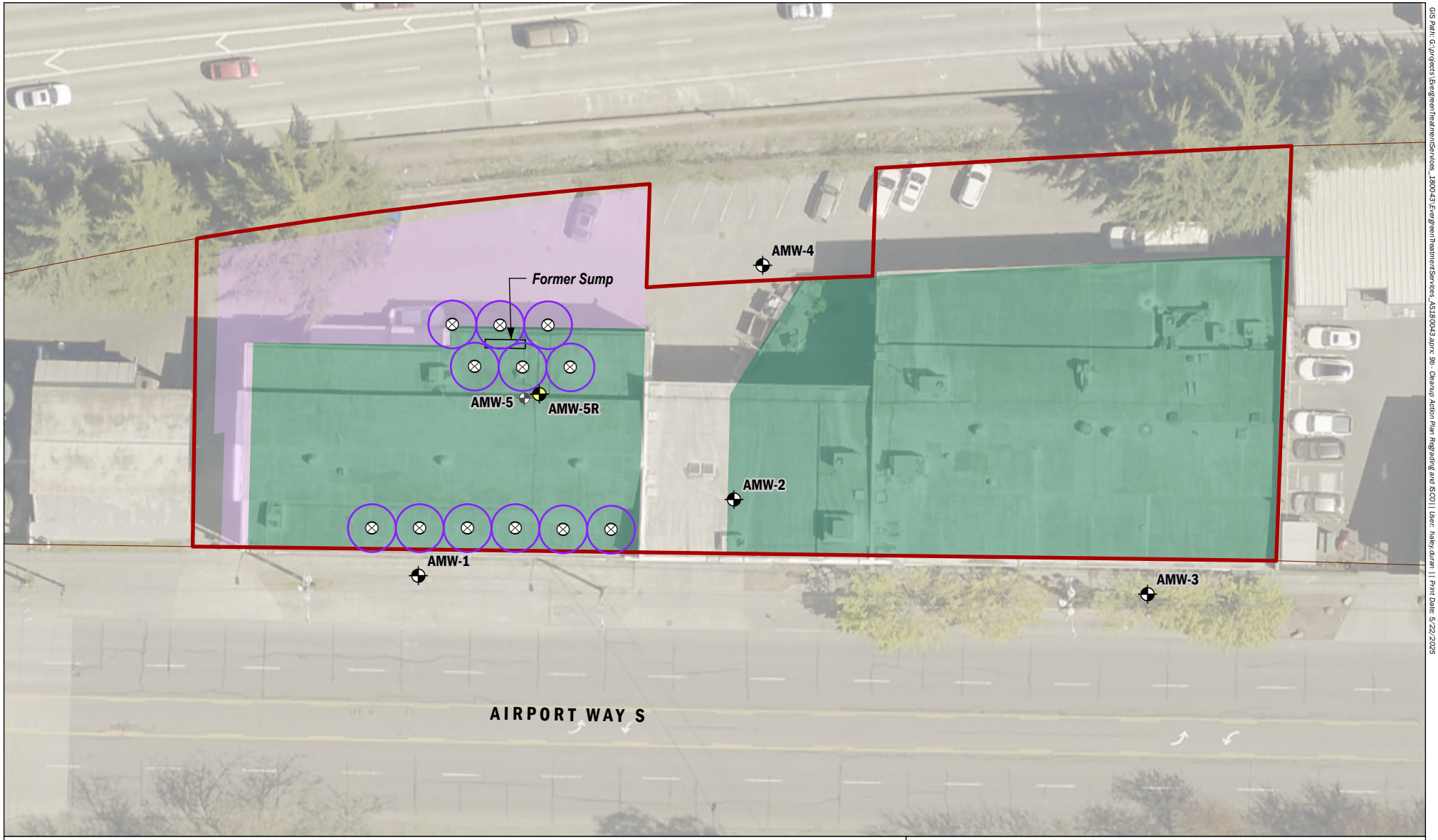
Cleanup Action Plan
Demolition and Remedial Excavation

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect Consulting	MAY-2025	BY: JT / HMD	FIGURE NO. 9a
	PROJECT NO. AS180043	REVISED BY: ---/---	

Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx 9a - Cleanup Action Plan - Demolition and Remedial Excavation || User: haleyduran || Print Date: 5/22/2025



- Groundwater Monitoring Well Location
- Replacement Groundwater Monitoring Well
- Groundwater Monitoring Well to be Decommissioned
- ISCO Injection Point
- Injection ROI
- Sump
- Subject Property
- King County Tax Parcel

Regrading Areas

- Fill
- Excavation

N

0 20 40 Feet

Notes:
- ISCO = In Situ Chemical Oxidation
- Injection ROI point spacing is 14-feet center to center

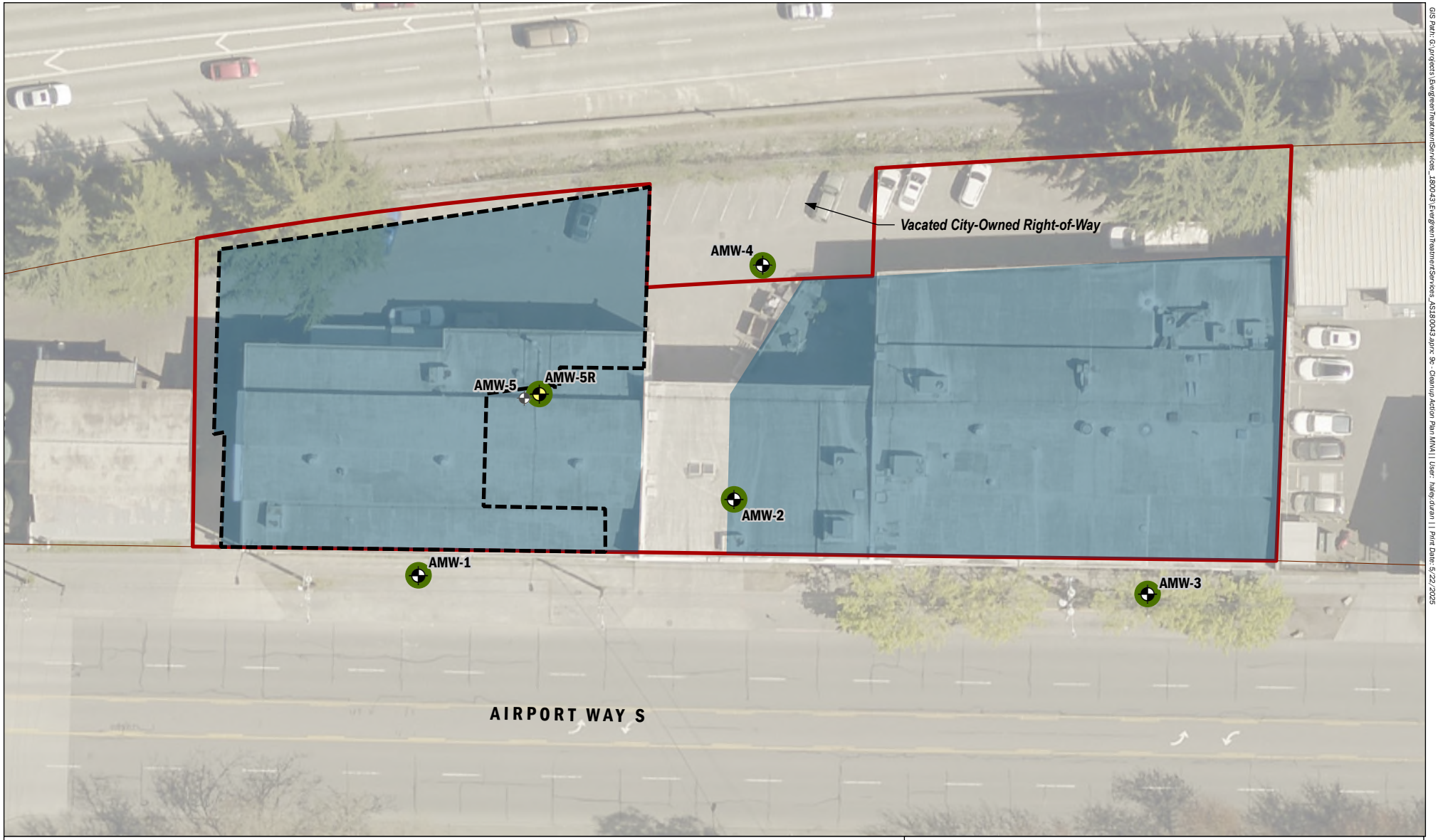
Cleanup Action Plan: Regrading and ISCO

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect Consulting	MAY-2025	BY: JT / HMD	FIGURE NO. 9b
	PROJECT NO. AS180043	REVISED BY: ---/---	

Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx: 9b - Cleanup Action Plan Regrading and ISCO || User: hailey.duran || Print Date: 5/22/2025



Groundwater Monitoring Well Location
Replacement Groundwater Monitoring Well
Groundwater Monitoring Well to be Decommissioned
Groundwater MNA Wells
Extent of New Building
Extent of New Hardscape
Subject Property
King County Tax Parcel

N

0 20 40 Feet

Notes:
- AMW-5 to be replaced during construction of New Building
- Quarterly groundwater monitoring for years 1-2
- Semiannual groundwater monitoring for years 3-5

Cleanup Action Plan: MNA

Remedial Investigation, Feasibility Study, and Cleanup Action Plan
Evergreen Treatment Services
1700 Airport Way South
Seattle, Washington

Aspect Consulting	MAY-2025	BY: JT / HMD	FIGURE NO. 9c
	PROJECT NO. AS180043	REVISED BY: ---/---	

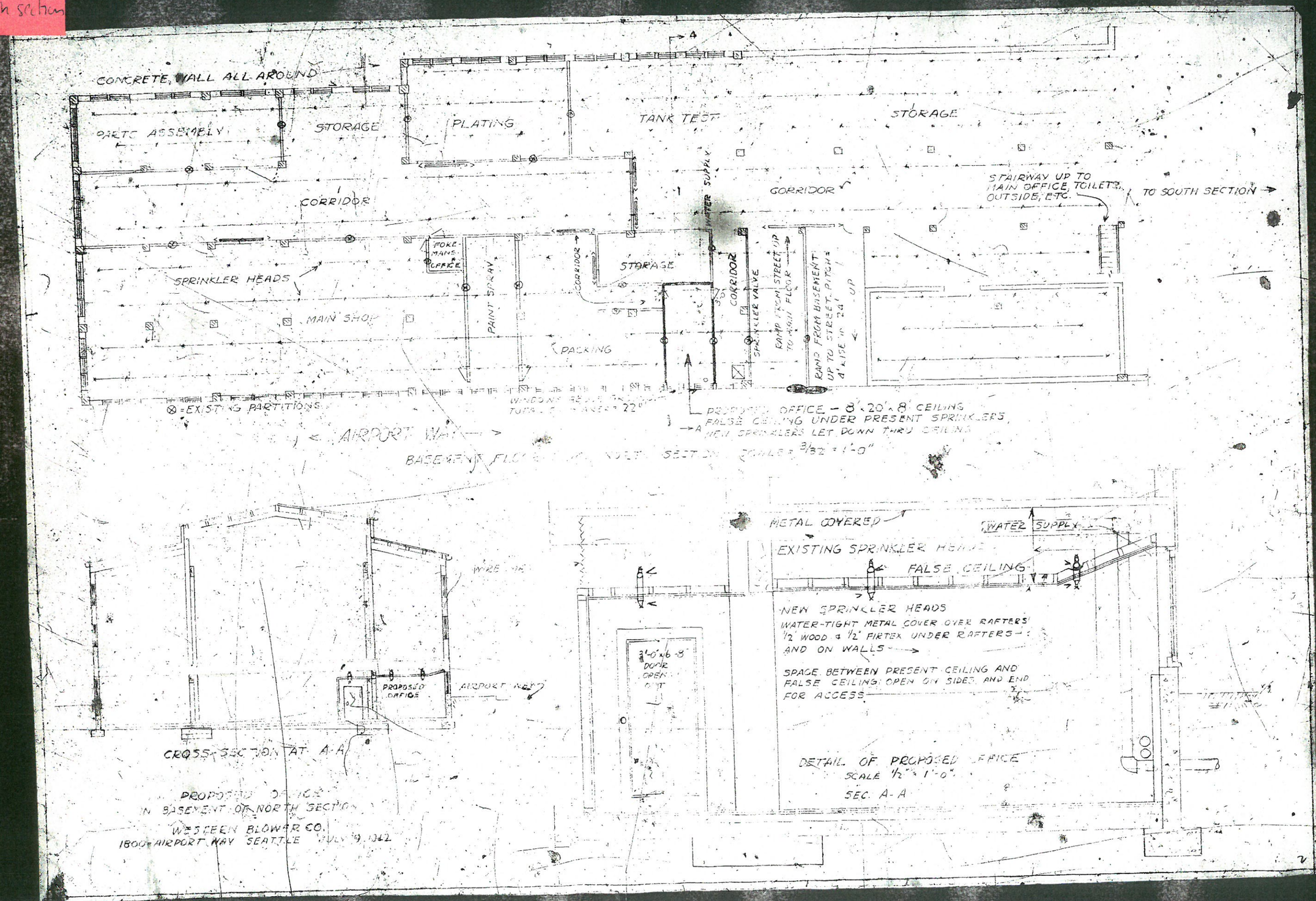
Data source credits: None || Basemap Service Layer Credits: EagleView Technologies, Inc.

GIS Path: G:\projects\EvergreenTreatmentServices_180043\EvergreenTreatmentServices_AS180043.aprx: 9c - Cleanup Action Plan MNA | User: haley.duran | | Print Date: 5/22/2025

APPENDIX A

Supporting Documents

1992
1800 Airport Way
Proposed office in
Bsmnt of north section



76662

1 DISTRICT
CODE NO. 61
PERMIT NO. 1

2 ADDITION SEATTLE TIDE LANDS
SECTION TWP. N. RANGE EWM: BLOCK 222 +221 TRACT OR LOT NO.
NAME 1-2-3 Legal on back
DESCRIPTION Lots 1 to 3 Blk 221 Less Ry R/W Tgw ~~Por vac Grand St West of R/W~~
Lots 5 & 6 Blk 222 and vac Grand st adj AND POR. VAC. ST. adj

3 ADDRESS --- PROPERTY 1800 Airport Way CONT. PURCHASER
4 FEE OWNER Western Blower Co. (1-5-25)
5 ARCHITECT CONTRACTOR

ORIG. COST $

6 BUILDING
Factory
2 Stories
3 Offices
3 Toilet Rms.

INTERIOR
Mill Walls
Fir Trim

FLOORS Fir 2"x6" T.& G.
Mezz 10x75 and 10x50
PLUMBING 10 Fixtures
Typical
Medium-Class

TILE WORK None

WIRING Conduit

HEATING Central
Oil Burner--Western Blower
Name--Ray

ELEVATORS

ENTRANCE ~~XXXXX~~ Y Corridors
Fir Floors & Trim--Mill Walls

CEILINGS -- STORY HEIGHT
Basement 10' 1st Flr. 10'
2nd Floor 10'

BASEMENT ~~100%~~ 75%
Concrete } 18x30
Concrete } Floor
25% wood

FOUNDATION
Concrete
P & P

ROOF
Tar Paper

STORE FRONTS

EXTERIOR
Frame--Single Kd.
Cornice Tin
Fir Trim
Tin Coping

EXTRA FEATURES 472 Sprinkers 5 Stairways-Office Plaster Brd.
88 Skylights 1 350 Fuel Tank
CONSTRUCTION Mill P & B Single--Medium
REFRIGERATION
7 CONDITION: EXTERIOR Fair INTERIOR Fair FOUND. Fair
8 MAIN SUPPORT COLUMN x FOOTING SPAN FT.
9 FIRST FLOOR JOIST INCH CENTER BRIDGED
10 BUILDING Finished
11 GROSS INCOME $ EXPENSE $ NET INCOME $
12 DEPRECIATION: COND. 55 % OBSLSE. % ECON. SUIT. % TOTAL %
YEAR BUILT 1914 REMODELED 1925
EFFECTIVE AGE 22 YEARS FUTURE LIFE 18 YEARS
DIMENSIONS 119 x 92 x SQUARE FT. AREA CUBIC FT.
137 x 66 59 x 60
25210 Sq. Ft.
~~23,530~~ 23454 Total ft



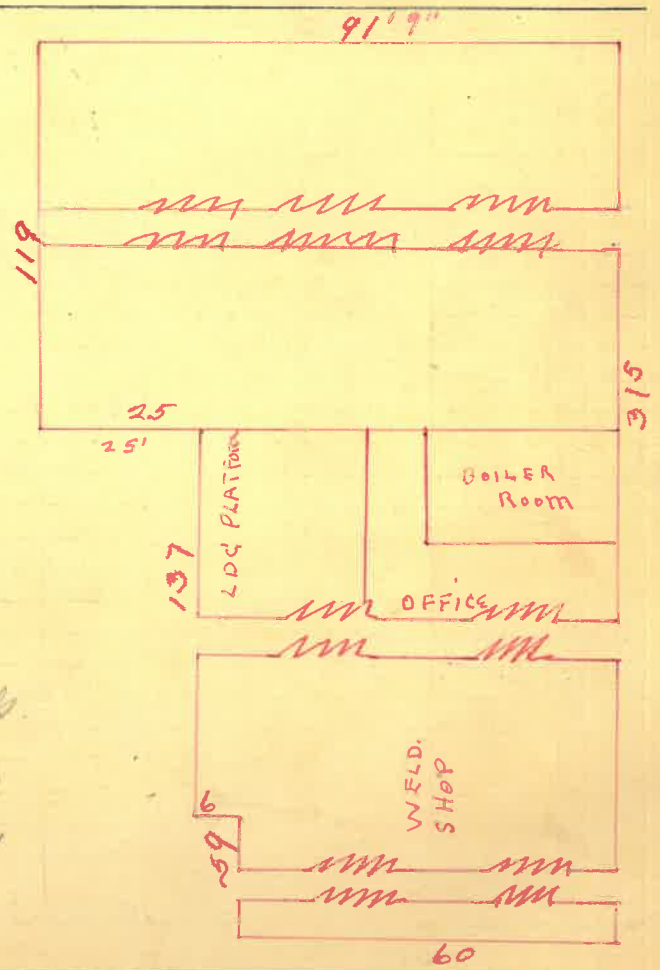
IMPROVEMENT VALUE
MAIN BUILDING $ ~~17200~~
OTHER BUILDINGS $ ~~6402~~
TOTAL ~~23600~~ $
ASSESSED VALUE 50% $ ~~9110~~
DATE 12/15/37
LAND INFORMATION ~~23,900~~
1. SIZE x 18,300
2. STREET --- ROAD
3. SIDEWALK
4. LANDSCAPING Seattle Tide Lnd
5. TREND LAND VALUE $
6. USE
7. DISTRICT -36600-71

C	OWNER OR CONTRACT PURCHASER	DATE	FILE NO.	PRICE	MTGE.	STAMP
			CLEAR TITLE TO ALL VAC GRAND ST. V4232-302			

REMARKS Hvy. Conc. Bldg. Floors Ramp & Platforms Mezz.2"x6" on 6"x10"--30" O.C. 2 Stringers 12"x10" on 10"x12" on 10"x10" Pasts. Loft over office 15'6"x77'9" Floor 2"x10" on 10"x12" on 10"x12" Posts--Office under loft 15'6"x44' Mill Const. Loft over End Mezz 44'6"x20'x9'--2"x10"Joist on 2-10"x12" Beams, 2 Trusses over Boiler Span 41'-10"x12" Timbers 13 Trusses 2"x6" Lattic 28' Double Ramp Timbers Const. 10"x24"--4"x12" Floor loading Plate Solid timber const. 28" Thick 50'x77' 1 350 Fuel Tank 1 Ingersall Rand Air Comp. #15384 Comp.Air Tank 5'x8' ½"Boiler Plate 1 5'x7' Fire Door Roll Type--4-3'x6' Fire Doors 903Sq.Ft. Conc. Floor 10 Unit Heaters 1 Folding Iron Door 10'x12' Also 1-2-3 Seattle Tide Lands 221 Boiler Shop Landing Platfor Frame Timber Const. Joist 4"x10"--2'0.C. Beams 1 10"x10'x77' Long 5 Seattle Tide Lands 222 4 10"x24' 30' Long 20 10"x14"x44' Long 1 10"x12" 60' Long 2 10"x24'x77' Long 1-2 3-4 W. of Ry T-y 5 6. Also Walk 1800½ Airport Way. (Shed) Mc Naughts 3rd Add. Sup'l. A. Comm. No Bldg Card.

30' = 1"

FLOOR PLAN



COMMERCIAL, FACTORY, LOFT, GARAGE -- KING COUNTY ASSESSOR, SEATTLE, WASHINGTON

23

DISTRICT	ROAD	SCHOOL	WATER	FIRE	DECREASE OR INCREASE IN ASSESSED VALUATION

RECORD OF ASSESSED VALUE					DATE	BY	REASON	LAND		BUILDING	
YEAR	AC.	LAND	BLDGS.	TOTAL				DECREASE	INCREASE	DECREASE	INCREASE
19 38		630	9180	9810							
19 39		630	8480	9110	11/7 0	BH	Stat. Tax 7-68 ✓				
19 44		630	8670 (1)	9300	8/11/43	Gar	added Granary				190
19 46		630	8600 (1)	9230	4-26-45	EN	Sup's Bldg Destroyed				
19 49		1400	8600	10000	2-48	mcl	1948 Land Value 710		770		
19 54		1400	23900	25300	5/18/53	Bm.	R.V.				
19		—									
19		—									
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LAND CLASSIFICATION OR SEGREGATION

THIS SQUARE INDICATES _____ ACRES

LOT NO. _____

BLOCK NO. _____

SECTION N E 8

TWP. 24

RANGE 4

TAX LOT NO. _____

PARCEL NO. _____

AERIAL PHOTO _____

QUARTER MAP _____

PLAT MAP Tolo 5-6 3 2

1. DISTRICT
LIMITS
O.L.
CODE NO.
1
PERMIT NO.
DATE

2. ADDITION S. T. L. 131
SECTION TWP. N. RANGE EWM. BLOCK 222 TRACT OR LOT NO. 5
DESCRIPTION

3. ADDRESS OF PROPERTY 1800 Airport Way Served By NP Ry.
4. FEE OWNER Western Blower Co. -1-5-25 CONTRACT PURCHASER
5. ARCHITECT CONTRACTOR
6. ORIG. BUILDING COST $ OCCUPIED BY RENTAL PER MONTH $ ESTIMATED RENTAL PER MONTH $
7. CONDITION OF EXTERIOR INTERIOR FOUNDATION FLOOR PLAN

8. BUILDING
INCL SPUR TR.
INTERIOR WALLS
INCL SPUR TR.
FLOORS
FIRE PLACE
INTERIOR TRIM
PLUMBING

TILE WORK
INCL SPUR TR.
ATTIC
INCL SPUR TR.
HEATING
BASEMENT
FOUNDATION
ROOF
EXTERIOR WALLS

PORCHES
EXTRA FEATURES
BUILT-INS
CONSTRUCTION
CEILING HEIGHT

9. CORNER JOINTS DOWN SPOUTS SEWER CONNECTED
10. FIRST FLOOR JOIST SIZE X AND INCH CENTERS BRIDGED
11. FIRST FLOOR JOIST SUPPORT COLUMN OR POST SIZE X
12. CLASS OR GRADE NO. SHAPE NO.
13. BUILDING FINISHED OR UNFINISHED
14. DEPRECIATION: CONDITION % OBSLSE. % ECON. SUIT % TOTAL %
DATE BUILT REMODELED
EFFECTIVE AGE YEARS FUTURE LIFE YEARS

LAND INFORMATION

1. SIZE X TOPOGRAPHY GRADE FEET
2. STREET ROAD SURFACE ALLEY
3. SIDEWALK SEWERAGE WELL ELECT. PUMP
4. LANDSCAPING Seattle Tide Lands COND.
5. TREND VALUE OF LAND
6. USE OF DISTRICT VIEW
7. RESIDENTIAL ZONED
REMARKS

VOID

MAIN BUILDING	
DIMENSION	SQ. FT. AREA
X	
X	
X	
X	
PCH. X	
PCH. X	

IMPROVEMENT VALUE
MAIN BUILDING $
OTHER BUILDINGS $
TOTAL $
ASSESSED VALUE 50% $ 20.
DATE

OTHER BUILDINGS	CONSTRUCTION	FLOOR	ROOF	STY.	DIMENSION	AREA	VALUE
GARAGE					X		$
					X		
					X		
					X		
					X		

OWNER OR CONTRACT PURCHASER	DATE	FILE NO.	PRICE	MTGE.	STAMP
Told Realty Corp	9-1-67	E699429	$75,000	cash off	

REMARKS 44' Spur Tr.

Bldg. N.V. to Lot 6/222 - S T.L.

MAJOR pt. of this Lot IN McNaught's 3rd

FLOOR PLAN

VOID

FRONT

METRO

DISTRICT: ROAD	SCHOOL	WATER	FIRE
Seattle 1			

766620-2855 8410 18300 0010 VALUATION 2855

RECORD OF ASSESSED VALUE					DATE	BY	REASON	LAND		BUILDING	
YEAR	AC.	LAND	BLDG'S.	TOTAL				DECREASE	INCREASE	DECREASE	INCREASE
19 ~~38~~			~~20.~~	~~20.~~							
19 38		380	20 ~~2220~~	400	8/9	BB	add spur track				20
19 48		870	20	890	3-48	mcl	1946 Duly Bldg E #91		490		
19 ~~56~~		5210	23920	29130	6-54	EP	Merged			F-J (-)	
19 59		8410	23920	32,330	8-23-57	LL	RV (Reg Legal - Ord 36392 - 10/16/57				E-5652
19 ~~59~~		8410	23900	32310	10-21-57	JB	V.I. Spur track -				
19 ~~65~~		8410	23900	32310	5-11-64	(illegible)	(illegible)				
19 ~~65~~		8410	18300	26.710	6-22-64	JC (CA)	Per Jahn - Off Rel 35 Bk E				
19											
19 71	L	16820	B 36600	T 53420	*766620-2855-0	8/9					
19 73		32150	10500	42650	3-14-72	MR	RV-1				
19 72		19620	36600	55620	7/7/72	JBS	Imp 2855 & 539260 0140,0205			C-4645	
19 73		45050	10500	55550	"	"	"			"	
19											
19											
19									

Evergreen Treatment Services

CLINIC SERVICES | REACH

Transforming the lives of individuals and their communities through innovative and effective addiction and social services.

RECEIVED
Date
AUG 12 2024
Dept. of Ecology - NWRO
Hazardous Waste & Toxics Reduction Program

August 1, 2024

Raman Iyer
Washington State Department of Ecology
15700 Dayton Avenue N
Shoreline, Washington 98133

Re: Change in Use Notification – 1700 Airport Way South, Seattle, WA
Environmental Restrictive Covenant No. 20171227001452

Dear Raman:

Evergreen Treatment Services (ETS) is submitting this letter to notify Washington State Department of Ecology of a Change In Use to property subject to an Environmental Restrictive Covenant (ERC). The property is located at 1700 Airport Way South in Seattle, Washington. ETS acquired the property in 2021 (referred to herein - Property or Subject Property). A former industrial building, currently being used by ETS, occupies the Property and is divided into two parts: the north portion is an unoccupied warehouse, while the south portion is used by ETS as a clinic, substance abuse treatment, and counseling facility.

Since 2018, Aspect Consulting provided environmental due diligence support for ETS' property acquisition from Western Blower Associates LLC; including soil, groundwater and soil gas evaluations. The Subject Property historically was part of a larger Site occupied by an industrial facility, Western Blower, manufacturer of large industrial fans. Northwest Enviroservice (NWES, later Emerald Services) operated a hazardous waste processing facility on the north portion of the Site (north of the ETS Subject Property). The entire property (both the NWES north parcel and Western Blower south parcel) was listed by the US Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology) as a contaminated Site. Corrective Action measures were undertaken by NWES for the Site under the direction of the EPA in the 1990s. The south portion of the Site (the Western Blower Parcel, or now, the Subject Property) was removed from the cleanup action because the EPA and Ecology determined that only an Environmental Restrictive Covenant (aka the Covenant) would be needed to manage limited arsenic-, lead-, cadmium, petroleum-, benzo(a)pyrene-contaminated soil or concrete at the Subject Property. The Covenant states the following:

- "As documented in the EPA's June 17, 2011, Statement of Basis for Remedy Selection, the southern portion of the Northwest EnviroService Facility (Western Blower Parcel) contains several buildings including an administration building. In 1996, NWES requested that Ecology accept closure certification for the Western Blower Parcel. In January 1997, Ecology determined that closure was not required as there were no hazardous waste management units located on the Western Blower parcel. Ecology also determined that no

further action would be required so long as certain requirements were met, including a restrictive covenant. The EPA agrees that no further action is required and did not require further investigation of the southern portion of the NWES Facility during the RFI (RCRA Facility Investigation)."

The Covenant was recorded on the Subject Property on December 27, 2017 (Instrument No. 20171227001452) on tax parcel 766620-2855-08. The Covenant involves three restrictions/requirements: (1) limiting non-conforming zoning classification uses, (2) restricting use of groundwater, and (3) restricting the alteration of existing structures without prior written approval from Ecology. A copy of the Covenant is included in Appendix A.

ETS plans to redevelop the property to further support its mission. This will require demolition of the existing buildings on the Subject Property; currently planned for Q1 or Q2 2025, depending on permitting. Construction of new facilities will start after demolition. The new ETS facilities will be constructed at, or near, current grade in two phases (first a clinic and second, supporting facilities). At present there are no plans to remove the existing concrete slab(s), nor are there plans to excavate or remove soil beneath the slab, except for areas where old utilities may be removed or new utilities installed.

Based on this information, this letter represents notification to Ecology and compliance with Covenant No. 20171227001452 about a change in use at this property.

Sincerely,
Evergreen Treatment Services

8/1/24

Rebecca Judy
Chief Transformation Officer
rjudy@evergreentreatment.org

Attachments: Appendix A – Environmental Restrictive Covenant
Appendix B – Conceptual Redevelopment Plan

cc: Dave Cook, Aspect Consulting

Ray Liaw, Ven Ness Feldman

Appendix A

Environmental Restrictive Covenant

Davis Wright Tremaine LLP

Suite 2200
1201 Third Avenue
Seattle, WA 98101-3045

Kevin D. Badgley
206-757-8079 tel
206-757-7079 fax

kevinbadgley@dwt.com

February 20, 2018

VIA CERTIFIED MAIL;
RETURN RECEIPT REQUESTED

Evergreen Treatment Services
Attention: Linda Kruger
1700 Airport Way S.
Seattle, WA 98134

Re: Environmental Restrictive Covenant
Tax Parcel Number 766620-2855-08 (the "Property")

Dear Ms. Kruger:

Our firm represents Western Blower Associates, LLC ("Western Blower"), the owner of the Property. Enclosed please find a copy of an Environmental Restrictive Covenant made by Western Blower in favor of State of Washington, Department of Ecology recorded on December 27, 2017 as Instrument No. 20171227001452 in the official records of King County, Washington (the "ERC").

The ERC is being delivered to you as a sublessee of the Property to satisfy the notice requirements set forth in RCW 64.70.070.

If you have any questions or concerns, please do not hesitate to contact the undersigned at kevinbadgley@dwt.com or (206) 757-8079.

Best regards,

Kevin D. Badgley

Enclosure
cc: John Brigham (via email)
J. Stephan Banchero, Jr. (via email)

Record Date:12/27/2017 3:53 PM
King County, WA

(9)

Return Address:

Raman Iyer Section Manager
Hazardous Waste & Toxics Reduction Program
Northwest Regional Office
Washington Department of Ecology
3190 160 Avenue SE
Bellevue, Washington 98008-5452

20171227001452
COVENANT Rec: $82.00
12/27/2017 3:53 PM
KING COUNTY, WA

Please print or type information WASHINGTON STATE RECORDER'S Cover Sheet (RCW 65.04)

Document Title(s) (or transactions contained therein):
Environmental Restrictive Covenant
Reference Number(s) of Documents assigned or released:
20151006000868 , 20171215000165
Grantor(s) Exactly as name(s) appear on document:
Western Blower Associates, LLC, a Washington limited liability company
Grantee(s) Exactly as name(s) appear on document:
Washington State Department of Ecology and its successors and assigns
Legal description (abbreviated: i.e. lot, block, plat or section, township, range)
Parcel A, City of Seattle LBA No. 3024821, Recording No. 20161110900001, King County, Washington.
Additional legal is on Exhibit A of document.
Assessor's Property Tax Parcel/Account Number ☐ Assessor Tax # not yet assigned
766620-2855-08
****THIS IS A RE-RECORDING OF INSTRUMENT NUMBER 20171215000165 WHICH WAS INADVERTENTLY RECORDED USING THE WRONG COVERSHEET AND DOCUMENT AND SHOULD HAVE BEEN RECORDED WITH THIS COVERSHEET AND THE FOLLOWING DOCUMENT FOR WESTERN BLOWER ASSOCIATES, LLC.****

Record Date:12/27/2017 3:53 PM King County, WA

Instrument Number: 20171215000165 Document:COV Rec: $83.00 Page-1 of 10
Record Date:12/15/2017 9:02 AM
Electronically Recorded King County, WA

Return Address:

Raman Iyer Section Manager
Hazardous Waste & Toxics Reduction Program
Northwest Regional Office
Washington Department of Ecology
3190 160 Avenue SE
Bellevue, Washington 98008-5452

Stewart Title Guaranty Co.

Please print or type information WASHINGTON STATE RECORDER'S Cover Sheet (RCW 65.04)

Document Title(s) (or transactions contained therein):
Environmental Restrictive Covenant
Reference Number(s) of Documents assigned or released:
20151006000860, 20151006000864, 20151006000867
Grantor(s) Exactly as name(s) appear on document:
Western Tank Properties, Inc., a Washington corporation
Grantee(s) Exactly as name(s) appear on document:
Washington State Department of Ecology and its successors and assigns
Legal description (abbreviated: i.e. lot, block, plat or section, township, range)
Parcel B, City of Seattle LBA No. 3024821, Recording No. 20161110900001, King County, Washington.
Additional legal is on Exhibit A of document.
Assessor's Property Tax Parcel/Account Number ☐ Assessor Tax # not yet assigned
766620-2860-01, 766620-2861-00, 377030-0160-02

Record Date:12/27/2017 3:53 PM King County, WA

After Recording Return to:

Raman Iyer
Section Manager
Hazardous Waste & Toxics Reduction Program
Northwest Regional Office
Washington Department of Ecology
3190 160 Avenue SE
Bellevue, Washington 98008-5452

Environmental Restrictive Covenant

THIS INSTRUMENT SUPERSEDES AND REPLACES THE ENVIRONMENTAL RESTRICTIVE COVENANT RECORDED AS INSTRUMENT NO. 20151006000868, IN THE OFFICIAL RECORDS OF KING COUNTY, WASHINGTON.

Grantor: Western Blower Associates, LLC
Grantee: State of Washington, Department of Ecology
Legal: See Exhibit A
Tax Parcel No.: 766620-2855-08

Grantor, **Western Blower Associates, LLC, a Washington limited liability company,** hereby binds Grantor, its successors and assigns to the land use restrictions identified herein and grants and conveys such other rights under this environmental restrictive covenant (hereafter "Environmental Covenant") as of the 7th day of December, 2016. This instrument grants a valid and enforceable Environmental Covenant pursuant to the Washington State Uniform Environmental Covenants Act ("UECA"), Revised Code of Washington ("RCW") Chapter 64.70, to the Washington State Department of Ecology and its successors and assigns (hereafter "Ecology" or "Holder").

Grantor covenants to and with the Holder and its successors and assigns that Grantor owns the Property (as hereinafter defined) in fee simple and has the exclusive right to convey the Property or any interest therein, and that the Property is free and clear of encumbrances. Grantor will warrant and defend the title and quiet possession of the Property. The Environmental Protection Agency (hereafter "EPA") on behalf of Ecology, as the Agency, has consulted pursuant to RCW 64.70.040(5) with local land use planning authorities in the development of the land use or activity restrictions in this Environmental Covenant.

Northwest EnviroService Inc. ("NWES") operated a commercial hazardous waste management facility between 1979 and 1995 at 1500 Airport Way South in Seattle, Washington (the "NWES Facility"). NWES provided storage and treatment services to companies that generated hazardous waste. Since 1995, Emerald Recycling, Inc. has been recycling non-hazardous waste and used oil and treating industrial wastewater at the NWES Facility. A variety of contaminants remain in the soil and groundwater at the north end of the 1.25 acre site. In February 1994, NWES and the EPA entered into an Order pursuant to Section 3008(h) of RCRA. The Order requires NWES to:

- Complete a RCRA Facility Investigation ("RFI") to identify and characterize any releases of hazardous constituents from Solid Waste Management Units ("SWMUs") and Areas of Concern ("AOCs") at the NWES Facility, characterize the concentration and extent of contamination released at and from the NWES Facility, support the development of alternatives from which a corrective measure will be selected, and identify any additional SWMUs or AOCs. The April 2004 Revised Final RFI Report was approved with modifications by the EPA on June 16, 2004.

- Complete a Corrective Measures Study ("CMS") to develop and evaluate potential corrective measures to remedy any contamination at and or released from the NWES Facility which exceeds the media-specific target cleanup standards established by the EPA. The Order required NWES to identify the potential corrective measures for the containment, treatment, and/or disposal of contamination and include in the CMS the corrective measure recommended by NWES. The revised CMS is dated April 2011.

- Implement the corrective measure selected by the EPA, or exercise its right to withdraw its consent to implement the corrective measure selected by the EPA. Exercising this option would require the EPA to negotiate a new Order for remedy implementation.

As documented in the EPA's June 17, 2011, Statement of Basis for Remedy Selection, the southern portion of the NWES Facility (Western Blower parcel) contains several buildings including an administration building. In 1996, NWES requested that Ecology accept closure certification for the Western Blower parcel. In January 1997, Ecology determined that closure was not required as there were no hazardous waste management units located on the Western Blower parcel. Ecology also determined that no further action would be required so long as certain requirements were met, including a restrictive covenant. The EPA agrees that no further action is required and did not require further investigation of the southern portion of the NWES Facility during the RFI.

The EPA Remedial Action for NWES did not include the Western Blower parcel. This Environmental Covenant is a requirement of Ecology's no further action determination for the Western Blower parcel. As documented in a report of soil and concrete sample results for the Western Blower parcel, there are concentrations of arsenic, lead, benzo(a)pyrene, and total petroleum hydrocarbons ("TPH") in soil which exceed current Model Toxics Control Act ("MTCA") Method B Cleanup Level (Method A for TPH) established under WAC 173-340-705. There are also concentrations of arsenic, cadmium and TPH in concrete which exceed current MTCA Method B soil Cleanup Levels (Method A for TPH). This contamination was found in the area used to load/unload containerized hazardous waste. The two monitoring wells located on the Western Blower parcel were sampled and analyzed for 40 C.F.R. Part 260 Appendix IX groundwater monitoring constituents. Manganese was the only constituent detected above the MTCA Method B unrestricted use cleanup level for groundwater. For this reason, this Environmental Covenant also includes prohibition of groundwater use. As manganese is not a volatile contaminant, this Environmental Covenant does not include restrictions on enclosed buildings that is applicable to the other NWES parcels.

A copy of the records supporting the Western Blower parcel is on file with EPA Region 10 or its successor agency and is available for public review. In order to make arrangements for such review, a person may contact the EPA Superfund Records Center by calling telephone number (206) 553-4494. The EPA Region 10 office is located at 1200 Sixth Avenue, Seattle, Washington.

The undersigned, Western Blower Associates, LLC is the fee owner of real property (the "Property") in the County of King, State of Washington, that is subject to this Environmental Covenant. The Property is legally described in **Exhibit A** of this Environmental Covenant and made a part hereof by reference.

With this Environmental Covenant, Western Blower Associates, LLC as Grantor makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter "Owner").

Section 1. Specific Restrictions and Requirements.

1. The Property shall be used in compliance with General Industrial 2 zoning classification, consistent with City of Seattle ordinances governing nonconforming uses, with the exception of the following uses: agricultural use, outdoor recreation, outdoor sports, lodging, child care centers, community centers, family support centers, elementary or secondary schools, parks, artists dwellings, caretakers quarters.

2. No groundwater may be taken for domestic, agricultural, industrial or any other use from the Property without prior written approval from Ecology.

3. a. As discussed above, the Property contains soil and concrete with contaminants including but not limited to total arsenic and TPH that are above unrestricted use cleanup levels. The Owner shall not alter, modify, or remove the existing structures in any manner that may result in the release or exposure to the environment of that contaminated soil or concrete or create a new exposure pathway without prior written approval from Ecology.

b. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil or concrete or create a new exposure pathway, is prohibited without prior written approval from Ecology, including but not limited to: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, bulldozing or earthwork.

Section 2. General Restrictions and Requirements. Any activity on the Property that may interfere with the continued protection of human health and the environment is prohibited. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property or create a new exposure pathway, is prohibited without prior written approval from Ecology.

Section 3. Conveyance of interest. The Owner of the Property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. Such notice shall include the name and address of the proposed transferee. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued compliance with this Environmental Covenant.

Section 4. Lease restrictions and notification. The Owner must restrict leases to uses and activities consistent with this Environmental Covenant. Further, the Owner must notify all purchasers, lessees and easement holders of the restrictions set forth in this Environmental Covenant, and make compliance with this Environmental Covenant a condition of any conveyance of title, easement, lease or other interest in the Property.

Section 5. Notification to Ecology. Owner shall notify and obtain written approval from Ecology at least sixty (60) days in advance of any proposed activity or use of the Property in a manner that is inconsistent with the terms of this Environmental Covenant. Before approving any proposal, Ecology must issue a public notice and provide an opportunity for the public to comment on the proposal. If Ecology approves the proposal, this Environmental Covenant will be amended to reflect the change.

Section 6. Access. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times to determine compliance with this Environmental Covenant, to take samples, and to inspect records that are related to the Environmental Covenant. When practicable, Ecology or EPA will endeavor to provide Owner at least forty-eight (48) hours' notice prior to entering the Property.

Section 7. Agency's Interest. Pursuant to RCW 64.70.030, the rights granted to Ecology by this Environmental Covenant are not interests in real property.

Section 8. Liberal Construction. This Environmental Covenant shall be construed in favor of effectuating the purpose of this Environmental Covenant. If any provision is found to be ambiguous, an interpretation consistent with the purposes of this Environmental Covenant that would render the provision valid shall be favored over any interpretation that would render it invalid.

Section 9. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

Section 10. Recordation. Grantor shall record this instrument in the official records of King County, Washington and shall pay the costs associated with recording.

Section 11. Costs. Owner, upon request by Ecology, shall be obligated to pay for Ecology's costs to process a request for any modification or termination of this Environmental Covenant and any approval required by this Environmental Covenant.

Section 12. Termination and Modification. This Environmental Covenant may only be amended or terminated in accordance with the procedures and process contained in the amendment and termination provisions of UECA, RCW 64.70.090 and 64.70.100, and with the provisions of WAC 173-340-440. Ecology may approve inconsistent uses (as described in Section 6), and/or termination only after public notice and opportunity for comment. The Grantor reserves the right under WAC 173-340-440, if conditions at the Property requiring an institutional control no longer exist, to record an instrument that provides that this Environmental Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

By signing this Environmental Covenant, as per UECA, RCW 64.70.100, Grantor agrees to waive all rights to sign amendments to, and termination of, this Environmental Covenant.

Section 13. Enforcement. Compliance with this Environmental Covenant may be enforced pursuant to all applicable laws, including but not limited to CERCLA, UECA, and MTCA. Ecology shall have full enforcement rights. An action for equitable or injunctive relief for violation of this Environmental Covenant may also be maintained by the other persons and entities set forth in RCW 64.70.110. Failure by any party or person to enforce compliance with this Environmental Covenant in a timely manner shall not be deemed a waiver of the right to take subsequent enforcement actions.

Section 14. Signature and Acknowledgements. Grantor covenants that it is authorized to grant this Environmental Covenant and shall warrant and defend the same against all claims and demands challenging such authority. The undersigned parties represent and certify that they are authorized to execute this Environmental Covenant.

[Signature page to follow]

Grantor:

WESTERN BLOWER ASSOCIATES, LLC,
a Washington limited liability company

By: J Stephan Bowerman Jr

Name: John Stephan Bowerman Jr

Title: Manager

Dated: 11/17/17

STATE OF WASHINGTON
COUNTY OF KING

On this 17th day of November, 2017, I certify that J Stephan Bowerman Jr. personally appeared before me, acknowledged that he/she is the MANAGER of the company that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed of said company, for the uses and purposes therein mentioned, and on oath stated that he/she was authorized to execute said instrument for said company.

Notary Public in and for the State of Washington, residing at Everett, WA

My appointment expires 10-03-18

MEGAN A. COOPER
STATE OF WASHINGTON
NOTARY PUBLIC
MY COMMISSION EXPIRES
10-03-18

Approved as to form:

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Raman Iyer
Section Manager

Dated: 11/08/17

Exhibit A

LEGAL DESCRIPTION

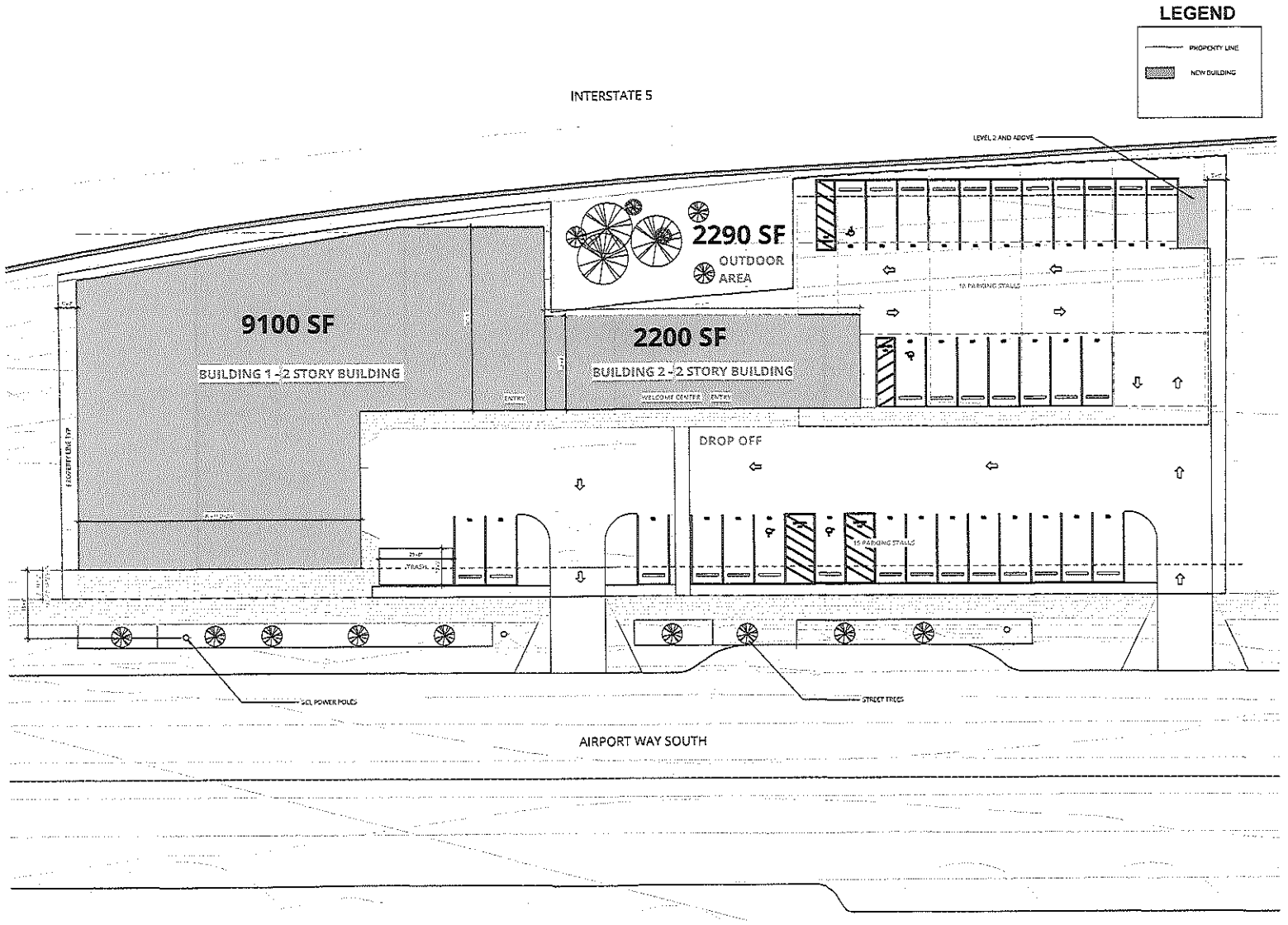
PARCEL A, CITY OF SEATTLE LOT BOUNDARY ADJUSTMENT NUMBER 3024821, RECORDED UNDER KING COUNTY RECORDING NUMBER 20161110900001, RECORDS OF KING COUNTY, WASHINGTON.

APPENDIX B

Conceptual Redevelopment Plan

EVERGREEN TREATMENT SERVICES

SITE PLAN



1 PHASE 2- LEVEL 1 - NO VACATION

Evergreen Treatment Services

1700 Airport Way South

Seattle, WA 98134

Inquiry Number: 7737352.3

August 16, 2024

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

08/16/24

Site Name:	Client Name:
Evergreen Treatment Services	Aspect Consulting LLC.
1700 Airport Way South	710 2nd Ave S. Suite 510
Seattle, WA 98134	Seattle, WA 98104
EDR Inquiry # 7737352.3	Contact: Nathan Dickey

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Aspect Consulting LLC. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 8792-425F-AA8A

PO # AS180043-02

Project Evergreen Treatment Services

Maps Provided:

1969
1950
1916
1904
1893

Sanborn® Library search results

Certification #: 8792-425F-AA8A

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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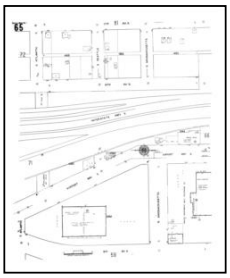
Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1969 Source Sheets



Volume 1, Sheet 66
1969

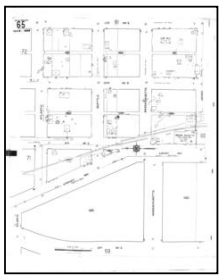


Volume 1, Sheet 65
1969

1950 Source Sheets



Volume 1, Sheet 66
1950

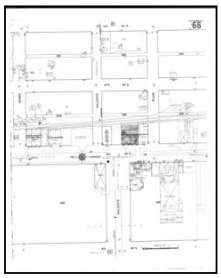


Volume 1, Sheet 65
1950

1916 Source Sheets

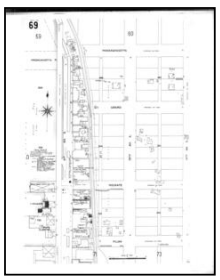


Volume 1, Sheet 65
1916

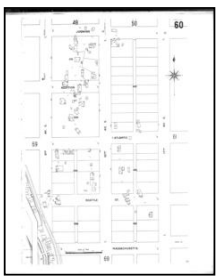


Volume 1, Sheet 66
1916

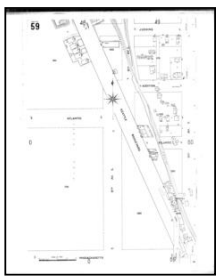
1904 Source Sheets



Volume 1, Sheet 69
1904



Volume 1, Sheet 60
1904

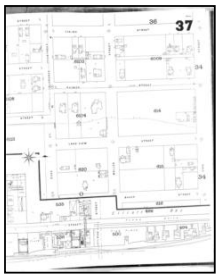


Volume 1, Sheet 59
1904

Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1893 Source Sheets

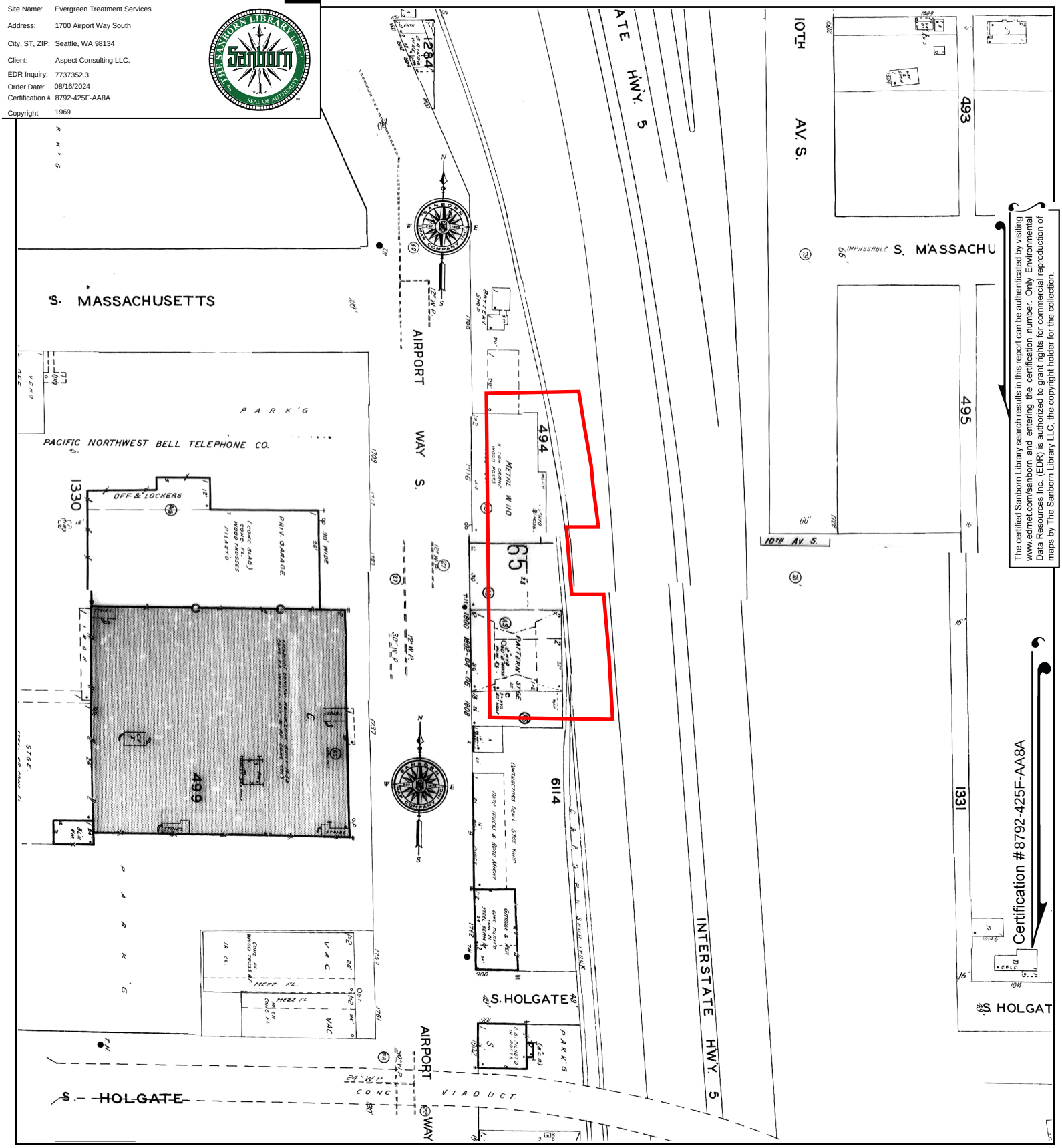


Volume 1, Sheet 37
1893

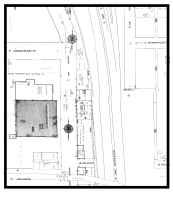
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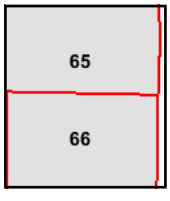
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Site Name: Evergreen Treatment Services
Address: 1700 Airport Way South
City, ST, ZIP: Seattle, WA 98134
Client: Aspect Consulting LLC.
EDR Inquiry: 7737352.3
Order Date: 08/16/2024
Certification #: 8792-425F-AA8A
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0 Feet 150 300 600

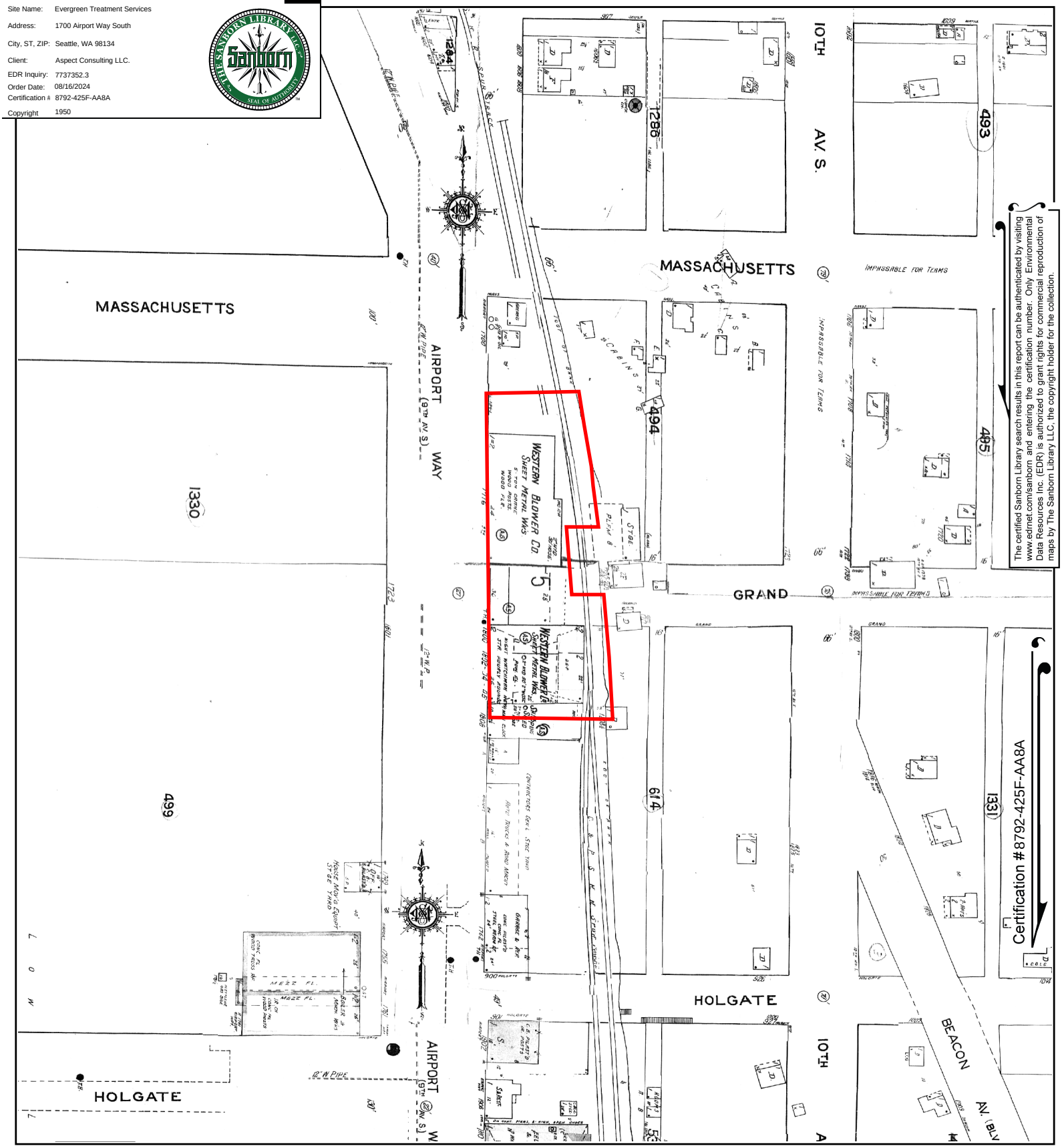
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1950

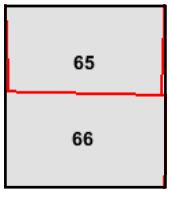
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Address: 1700 Airport Way South
City, ST, ZIP: Seattle, WA 98134
Client: Aspect Consulting LLC.
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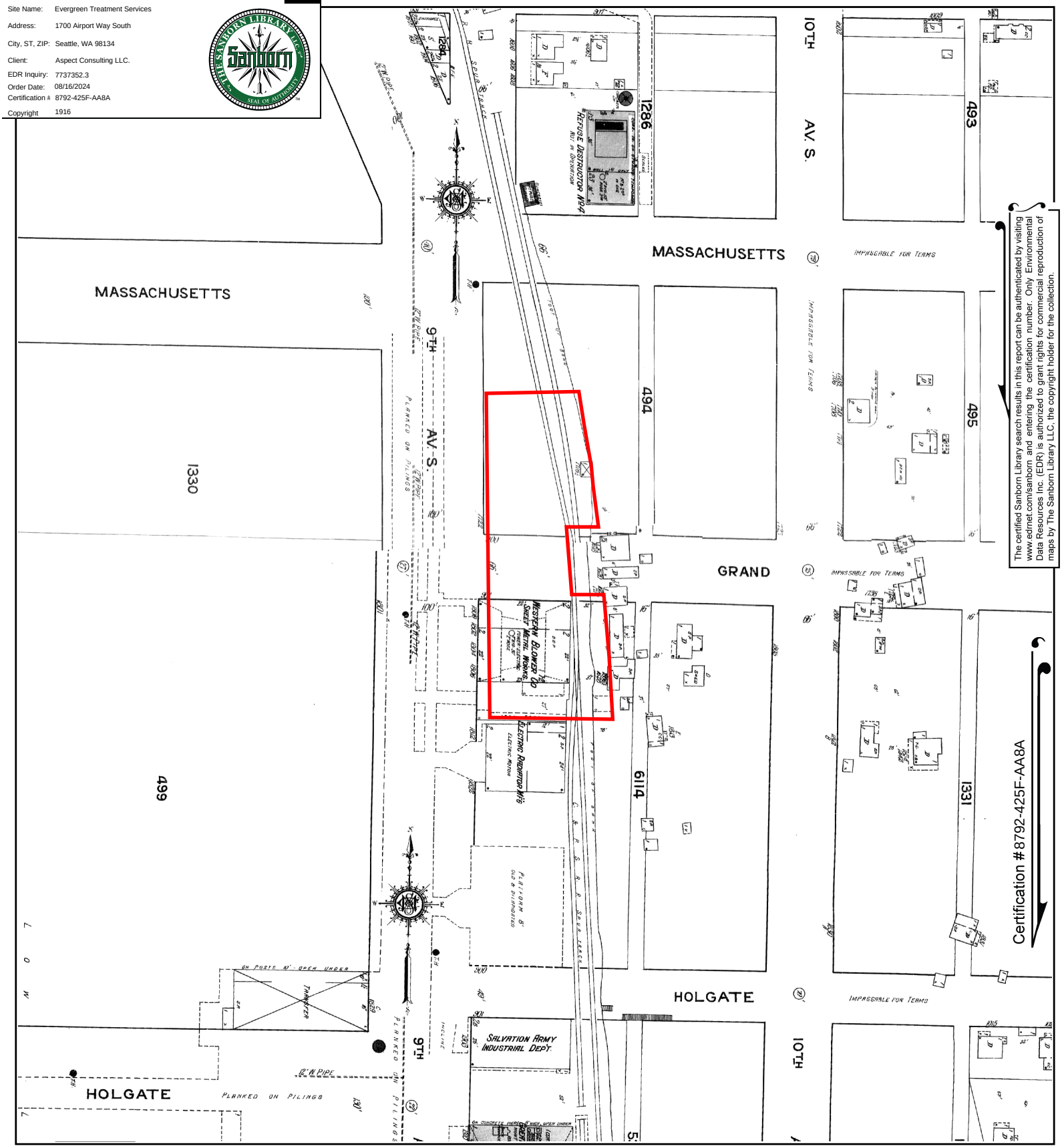
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1916

Site Name:	Evergreen Treatment Services
Address:	1700 Airport Way South
City, ST, ZIP:	Seattle, WA 98134
Client:	Aspect Consulting LLC.
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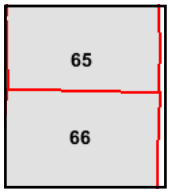


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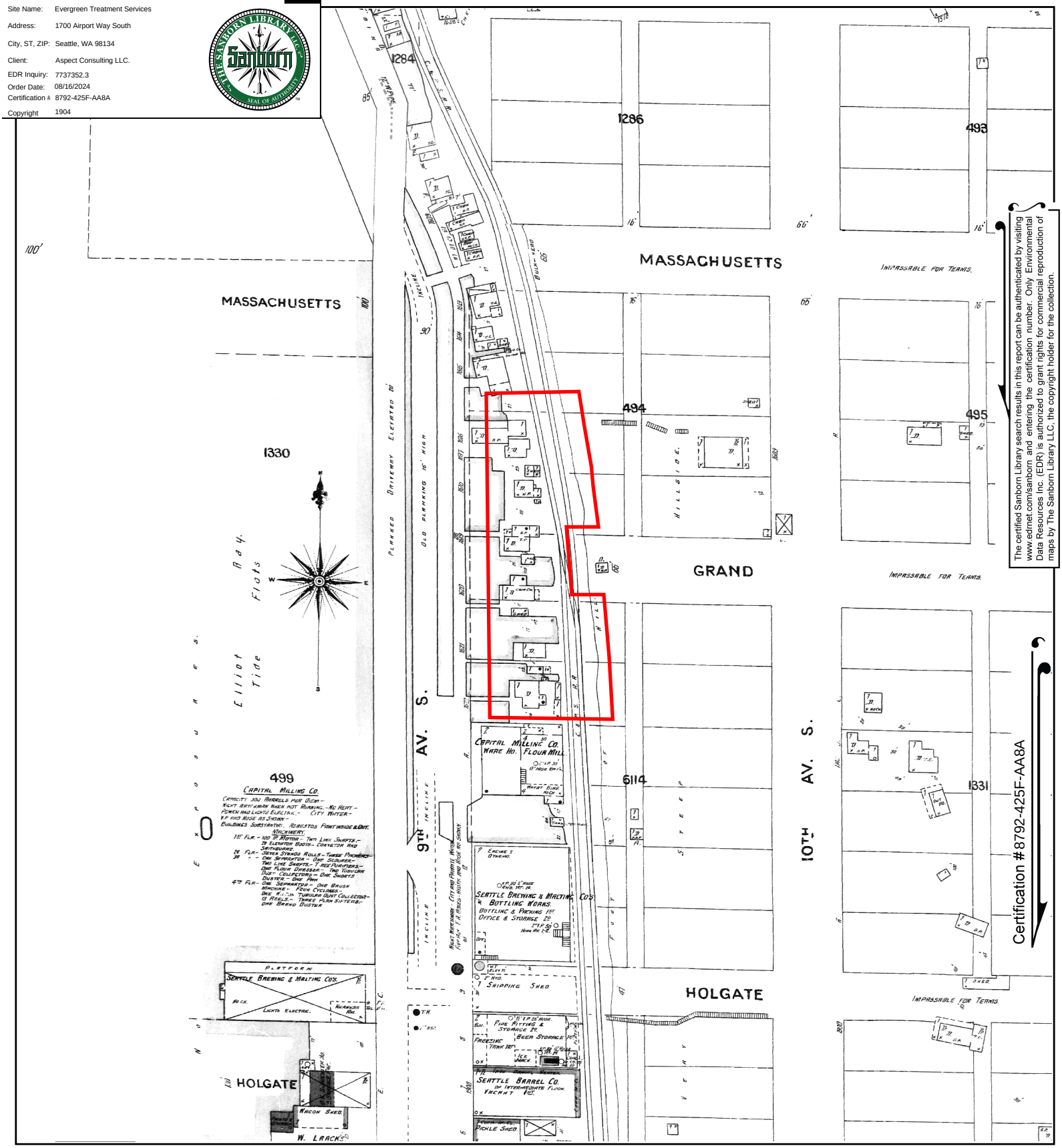
Volume 1, Sheet 66
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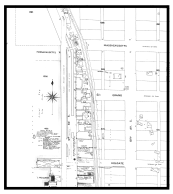
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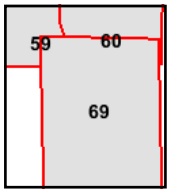
Site Name: Evergreen Treatment Services
Address: 1700 Airport Way South
City, ST, ZIP: Seattle, WA 98134
Client: Aspect Consulting LLC.
EDR Inquiry: 7737352.3
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Volume 1, Sheet 59
Volume 1, Sheet 60
Volume 1, Sheet 69

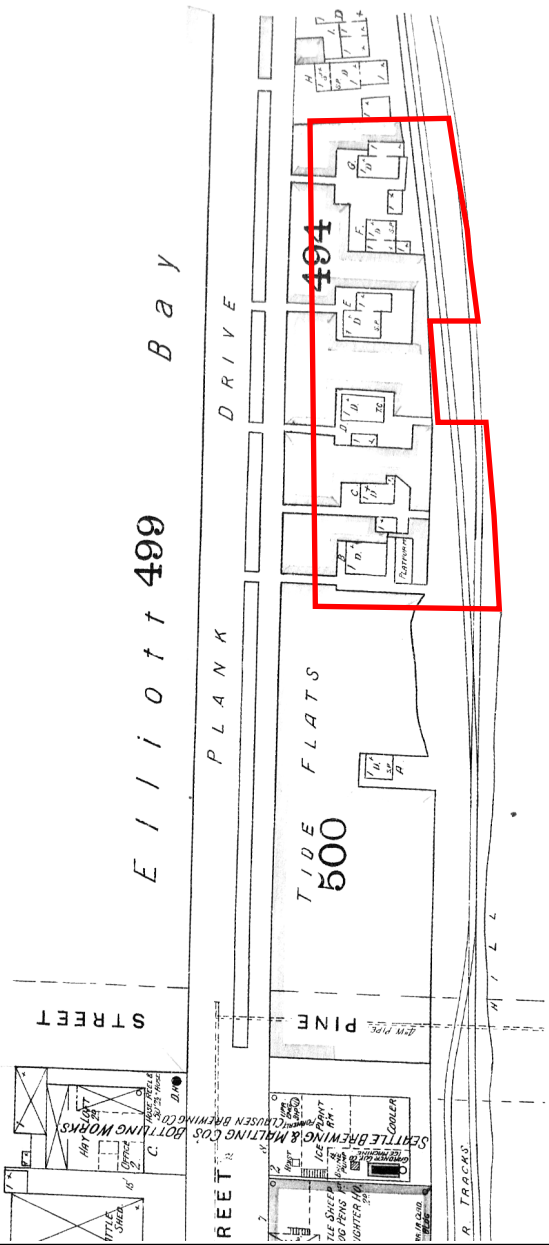
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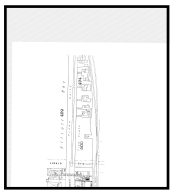
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Address: 1700 Airport Way South
City, ST, ZIP: Seattle, WA 98134
Client: Aspect Consulting LLC.
EDR Inquiry: 7737352.3
Order Date: 08/16/2024
Certification #: 8792-425F-AA8A
Copyright 1893

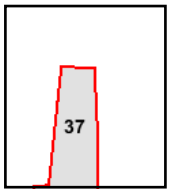
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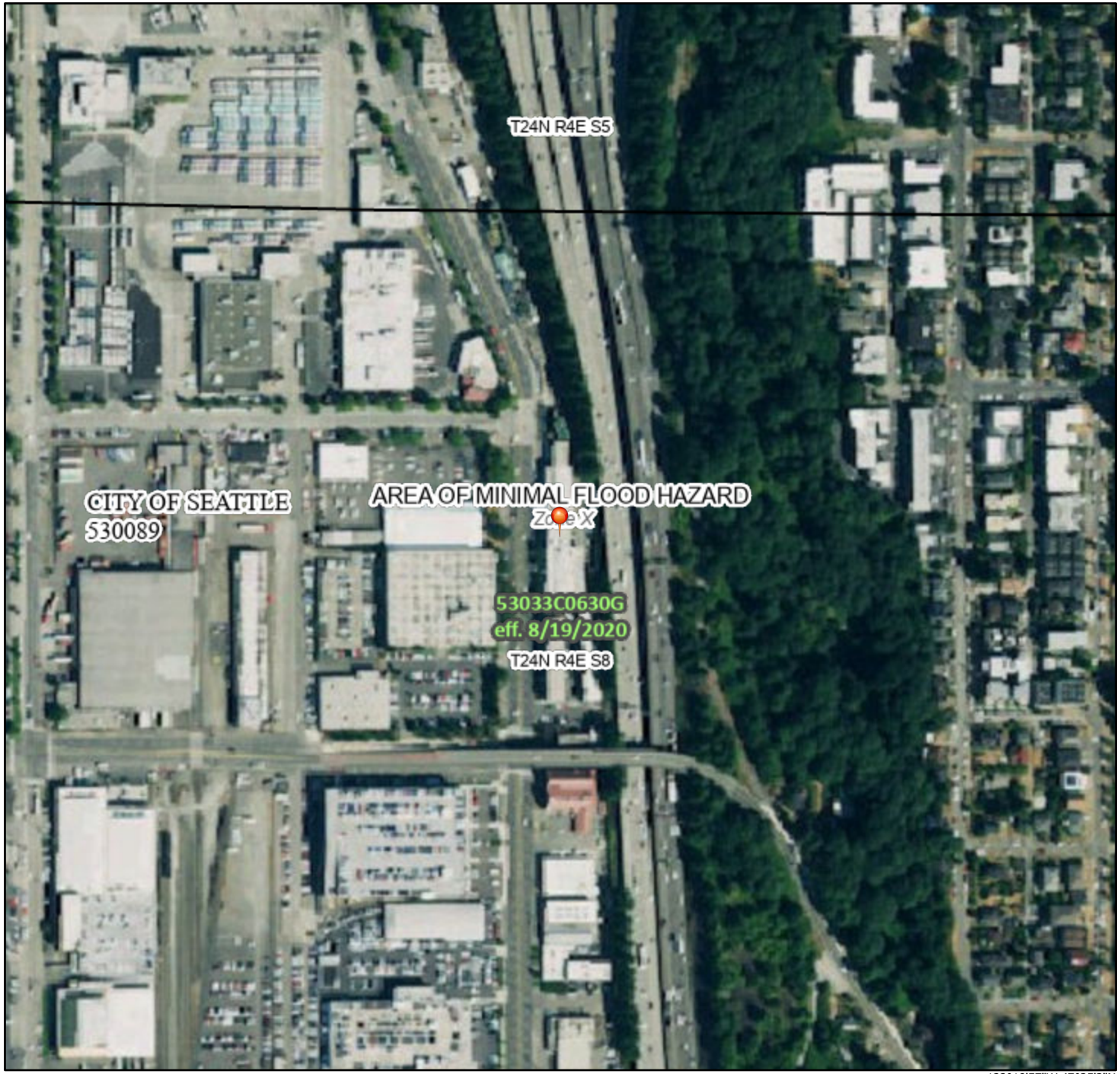
0 Feet 150 300 600

N

National Flood Hazard Layer FIRMette

FEMA

122°19'34"W 47°35'27"N



122°18'57"W 47°35'3"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/19/2025 at 6:12 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

True NORTH LAND SURVEYING, INC.
206.332.0800

JOB# 15-189.30
ASPECT CONSULTING
NATHAN DICKEY

1700 Airport Way S., Seattle, WA.

Survey Date: December 11, 2024

Monitoring Wells at 1700 Airport Way S Location

CTRL/MW	Northing	Easting	Rim Elev.	PVC Elev.	Notes	Pt #
MAGW	217899.575	1273225.439	23.933		MAG NAIL W/ TNLS CONTROL WASHER	1
MAGW	217746.745	1273222.268	24.042		MAG NAIL W/ TNLS CONTROL WASHER	3
MAG	217893.124	1273365.347	25.669		SET MAG NAIL	4
MW/AMW-1	217961.615	1273268.429	24.137	23.800	N. RIM CASE & N. 3" PVC	1002
MW/AMW-2	217877.760	1273287.486	23.813	23.398	N. RIM CASE & N. 3" PVC	1003
MW/AMW-3	217757.702	1273253.781	23.226		C/L LID	1004
MW/AMW-4	217868.285	1273354.029	25.642	25.267	N. RIM CASE & N. 3" PVC	1007
MW/AMW-5	217932.753	1273313.405	19.890	19.593	N. RIM CASE & N. 1" PVC	1010

Notes:

1. Horizontal and Vertical datums are NAD 83/11 and NAVD 88 respectively using WSDOT Mon.
2. The WSDOT Control MON# GP17005-231
3. The elevations of the lids and the 3" PVC are at the north edge, unless otherwise noted.
4. Differential levels were completed using a Leica LS10 #1
5. Monitoring Well 3, unable to level due to cars parked over it, elevations per Leica TS#16.

Select a location to view localized relative sea lev

Select County (optional)
King

Select WRIA (optional)
9, Duwamish - Green

Select RSLR Magnitude(s)

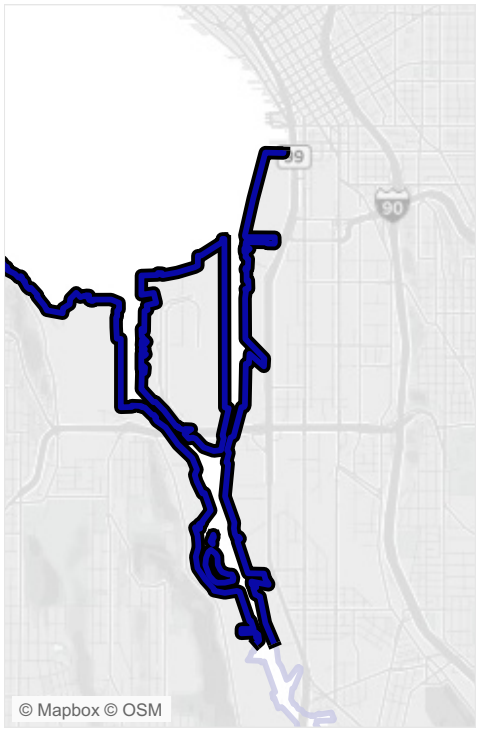
- [ ] 0 ft
- [ ] 0.5 ft
- [x] 1 ft
- [ ] 1.5 ft
- [ ] 2 ft
- [x] 2.5 ft
- [ ] 3 ft
- [ ] 4 ft
- [x] 5 ft
- [ ] 6 ft
- [ ] 7 ft
- [ ] 8 ft
- [ ] 9 ft
- [x] 10 ft

Select greer se gas scenario(s)

- [x] High (RCP 8.5)
- [x] Low (RCP 4.5)

Click for full SLR report.

CLIMATE IMPACTS GROUP



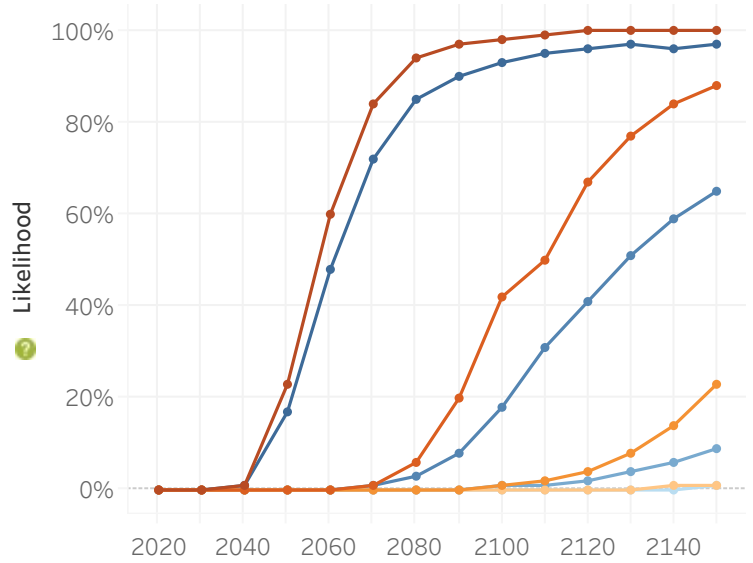
Data Estimated for **47.6°, -122.4°**
County: King
WRIA: 9, Duwamish - Green

Vertical land movement estimate and uncertainty (1 standard deviation) for this location is **-0.3 ± 0.2 ft/century** (negative when land level falls or subsides). This value is factored into these RSLR projections.

If there is a **subduction zone earthquake** this area may be subject to an additional land level change of **0.0 ft to -0.2 ft** which is NOT factored into these RSLR projections. Coastal subsidence during a subduction zone earthquake would have the effect of RAISING local relative sea level.

Likelihood of Selected RSLR(s) for This Location

Hover for details.



Scenario, RSLR

- High (RCP 8.5), 1 ft
- High (RCP 8.5), 2.5 ft
- High (RCP 8.5), 5 ft
- High (RCP 8.5), 10 ft
- Low (RCP 4.5), 1 ft
- Low (RCP 4.5), 2.5 ft
- Low (RCP 4.5), 5 ft
- Low (RCP 4.5), 10 ft

Select projections end year
2150

Likelihood Data Shown Above

	High (RCP 8.5)				Low (RCP 4.5)			
Year	1 ft	2.5 ft	5 ft	10 ft	1 ft	2.5 ft	5 ft	10 ft
2020	0%	0%	0%	0%	0%	0%	0%	0%
2030	0%	0%	0%	0%	0%	0%	0%	0%
2040	1%	0%	0%	0%	1%	0%	0%	0%
2050	23%	0%	0%	0%	17%	0%	0%	0%
2060	60%	0%	0%	0%	48%	0%	0%	0%
2070	84%	1%	0%	0%	72%	1%	0%	0%
2080	94%	6%	0%	0%	85%	3%	0%	0%
2090	97%	20%	0%	0%	90%	8%	0%	0%
2100	98%	42%	1%	0%	93%	18%	1%	0%
2110	99%	50%	2%	0%	95%	31%	1%	0%
2120	100%	67%	4%	0%	96%	41%	2%	0%
2130	100%	77%	8%	0%	97%	51%	4%	0%
2140	100%	84%	14%	1%	96%	59%	6%	0%
2150	100%	88%	23%	1%	97%	65%	9%	1%

Click here to download the full Excel data tables for this location or select "Crosstab" in the download menu below to export only the values shown here as a..

Select a location to view localized relative sea level rise (RSLR) projections.

Select County (optional)
King

Select WRIA (optional)
9, Duwamish - Green

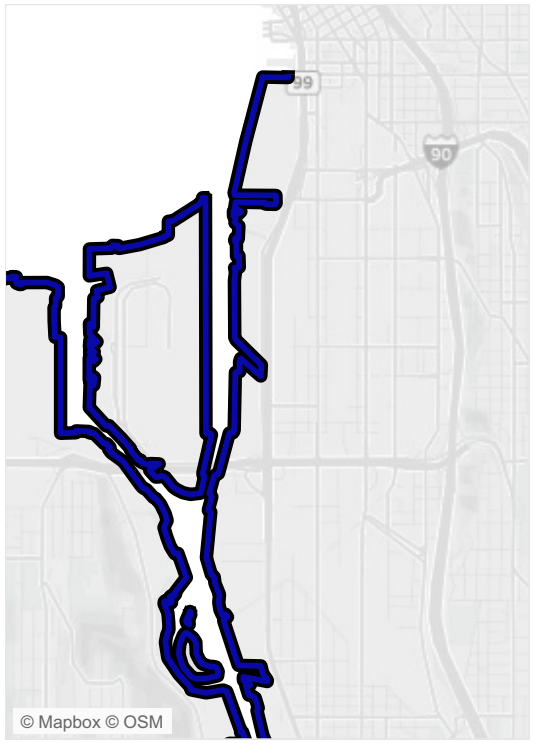
Select likelihood(s)

- [ ] 0.1%
- [x] 1%
- [x] 5%
- [ ] 10%
- [ ] 17%
- [x] 50%
- [ ] 83%
- [ ] 90%
- [x] 95%
- [ ] 99%

Select greenhouse gas scenario(s)

- [x] High (RCP 8.5)
- [x] Low (RCP 4.5)

Click for full SLR report.



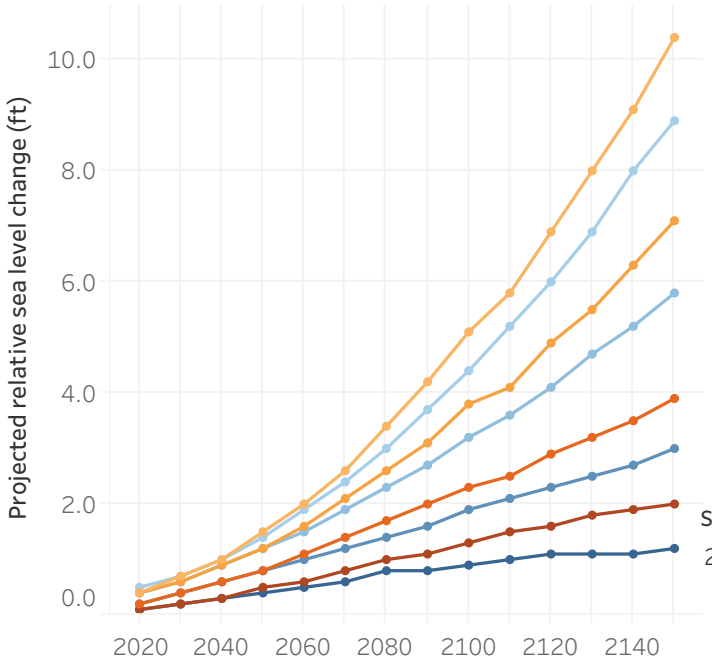
Data Estimated for **47.6°, -122.4°**
County: King
WRIA: 9, Duwamish - Green

Vertical land movement estimate and uncertainty (1 standard deviation) for this location **-0.3 ± 0.2 feet/century** (negative values represent land level fall, or subsidence). This number is factored into these RSLR projections.

If there is a **subduction zone earthquake** this area may be subject to an additional land level change of **0.0 feet to -0.2 feet** which is NOT factored into these RSLR projections. Coastal subsidence during a subduction zone earthquake would have the effect of RAISING local relative sea level.

RSLR for Selected Location

Projected changes relative to the average sea level over 1991-2009.
Hover for details.



Scenario, Likelihood

- High (RCP 8.5), 1%
- High (RCP 8.5), 5%
- High (RCP 8.5), 50%
- High (RCP 8.5), 95%
- Low (RCP 4.5), 1%
- Low (RCP 4.5), 5%
- Low (RCP 4.5), 50%
- Low (RCP 4.5), 95%

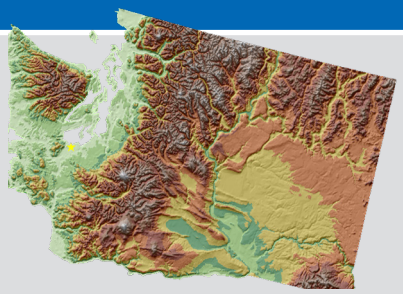
Select projections end year
2150

RSLR Projections (in feet) Shown Above

	High (RCP 8.5)				Low (RCP 4.5)			
Year	1%	5%	50%	95%	1%	5%	50%	95%
2020	0.4	0.4	0.2	0.1	0.5	0.4	0.2	0.1
2030	0.7	0.6	0.4	0.2	0.7	0.6	0.4	0.2
2040	1.0	0.9	0.6	0.3	1.0	0.9	0.6	0.3
2050	1.5	1.2	0.8	0.5	1.4	1.2	0.8	0.4
2060	2.0	1.6	1.1	0.6	1.9	1.5	1.0	0.5
2070	2.6	2.1	1.4	0.8	2.4	1.9	1.2	0.6
2080	3.4	2.6	1.7	1.0	3.0	2.3	1.4	0.8
2090	4.2	3.1	2.0	1.1	3.7	2.7	1.6	0.8
2100	5.1	3.8	2.3	1.3	4.4	3.2	1.9	0.9
2110	5.8	4.1	2.5	1.5	5.2	3.6	2.1	1.0
2120	6.9	4.9	2.9	1.6	6.0	4.1	2.3	1.1
2130	8.0	5.5	3.2	1.8	6.9	4.7	2.5	1.1
2140	9.1	6.3	3.5	1.9	8.0	5.2	2.7	1.1
2150	10.4	7.1	3.9	2.0	8.9	5.8	3.0	1.2

Click here to download the full Excel data tables for this location or select "Crosstab" in the download menu below to export only the values shown here as a .csv.

WASHINGTON



Key Messages

Temperatures in Washington have risen almost 2°F since the beginning of the 20th century. Winter warming has been evident in the below average number of freezing days and very cold nights since 1990. Under a higher emissions pathway, historically unprecedented warming is projected to continue through this century.

Rising temperatures will lead to earlier melting of the snowpack, which plays a critical role in spring and summer water supplies. The combination of this earlier melting and more precipitation falling as rain instead of snow may lead to an increase in springtime flooding.

Wildfires during the dry summer months are a particular concern for Washington, and the frequency and severity of wildfires are projected to increase.

Washington's location in the heart of the middle latitudes exposes it to frequent storm systems associated with the mid-latitude jet stream. Due to the physical barrier of the Cascade Mountains, the climate differs greatly in the western and eastern parts of the state. The Pacific Ocean provides abundant moisture, causing frequent precipitation west of the Cascade Mountains, with some locations experiencing orographic enhancement (the increase of rainfall with elevation on the upwind side of mountain ranges). The region east of the Cascades receives less precipitation due to the reduced availability of ocean moisture. Temperatures in the central and eastern portions of the state are not as strongly moderated by the ocean and exhibit a greater annual range than those in the western portion.

Since the beginning of the 20th century, temperatures in Washington have risen almost 2°F (Figure 1)**, and since 1986, all but 5 years have been above the long-term (1895–2020) average.** The hottest year on record was 2015, with a statewide average temperature of 50.0°F, which was 3.7°F above the long-term average. The overall warming trend is evident in an increased number of warm nights. Since 1990, the numbers of very cold nights in Eastern Washington and freezing days in Western Washington have both been below average (Figure 2a). However, the numbers of very warm nights in Eastern Washington and warm nights in Western Washington have both been above average since 1990 (Figure 3). The numbers of very hot days in Eastern Washington and hot days in Western Washington have been quite variable but were both generally above average during the 2015–2020 period, after below average numbers during the 2010–2014 period (Figure 2b).

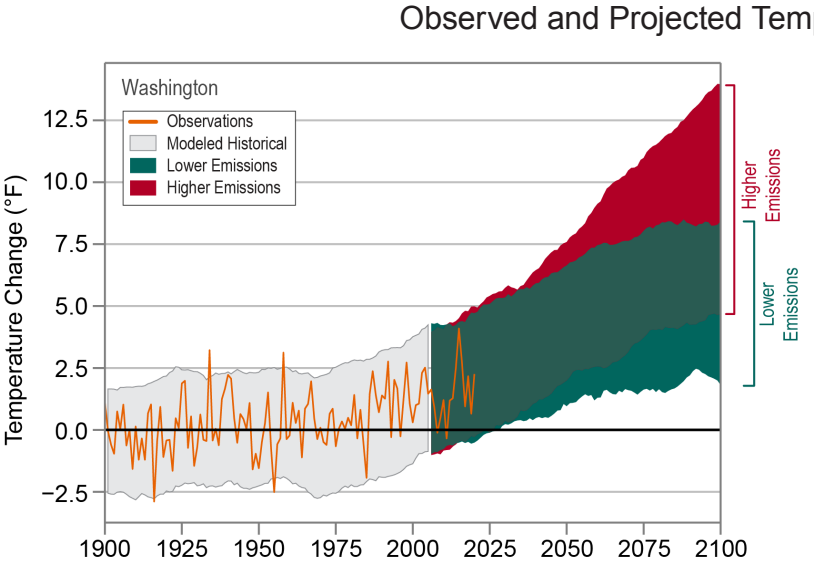
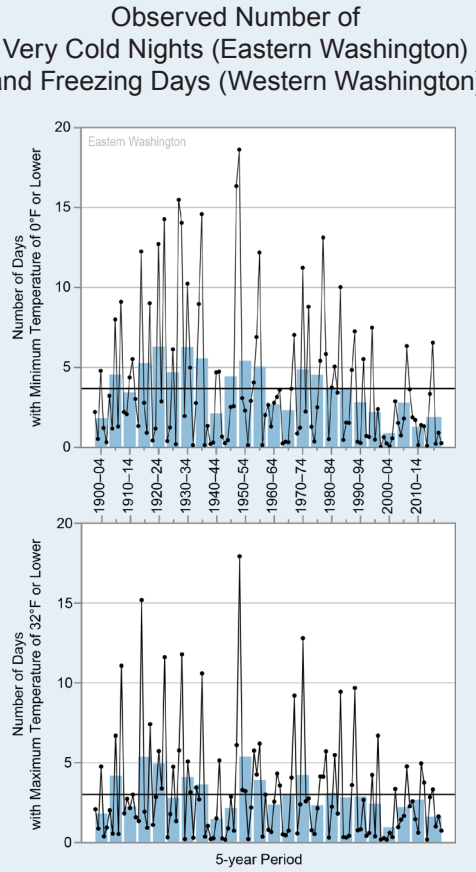
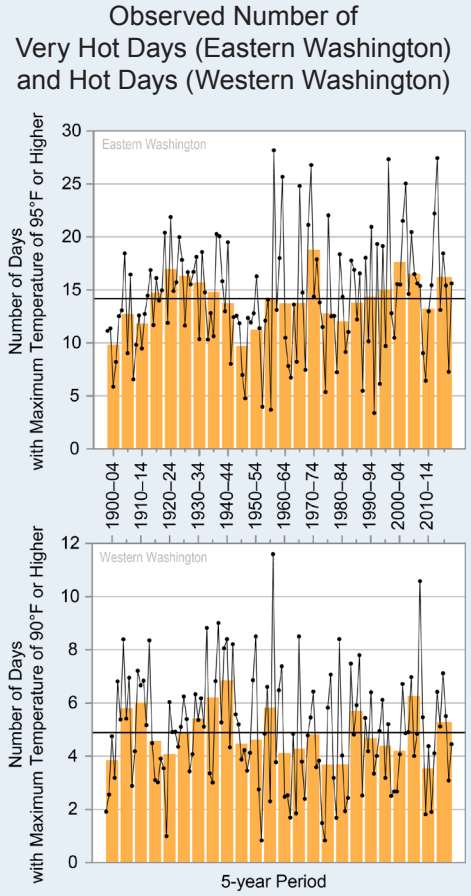


Figure 1: Observed and projected changes (compared to the 1901–1960 average) in near-surface air temperature for Washington. Observed data are for 1900–2020. Projected changes for 2006–2100 are from global climate models for two possible futures: one in which greenhouse gas emissions continue to increase (higher emissions) and another in which greenhouse gas emissions increase at a slower rate (lower emissions). Temperatures in Washington (orange line) have risen almost 2°F since the beginning of the 20th century. Shading indicates the range of annual temperatures from the set of models. Observed temperatures are generally within the envelope of model simulations of the historical period (gray shading). Historically unprecedented warming is projected to continue through this century. Less warming is expected under a lower emissions future (the coldest end-of-century projections being about 1°F warmer than the historical average; green shading) and more warming under a higher emissions future (the hottest end-of-century projections being about 10°F warmer than the hottest year in the historical record; red shading). Sources: CISESS and NOAA NCEI.

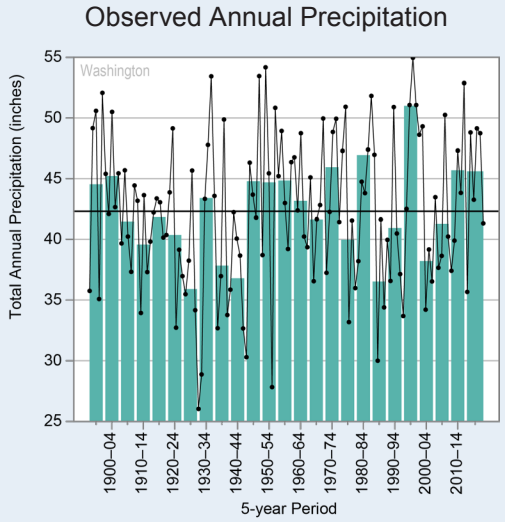
a)



b)



c)



d)

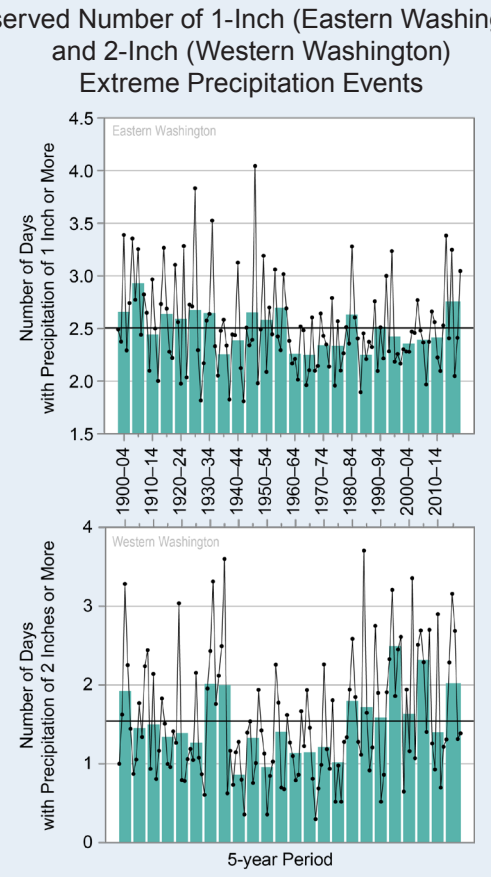


Figure 2: Observed (a) annual numbers of very cold nights (minimum temperature of 0°F or lower) for Eastern Washington (top) and freezing days (maximum temperature of 32°F or lower) for Western Washington (bottom), (b) annual numbers of very hot days (maximum temperature of 95°F or higher) for Eastern Washington (top) and hot days (maximum temperature of 90°F or higher) for Western Washington (bottom), (c) total statewide annual precipitation, and (d) annual numbers of 1-inch extreme precipitation events (days with precipitation of 1 inch or more) for Eastern Washington (top) and 2-inch extreme precipitation events (days with precipitation of 2 inches or more) for Western Washington (bottom) from (a, b, d) 1900 to 2020 and (c) 1895 to 2020. Dots show annual values. Bars show averages over 5-year periods (last bar is a 6-year average). The horizontal black lines show the long-term (entire period) averages: (a) 3.7 days (top), 3.0 days (bottom); (b) 14 days (top), 5.0 days (bottom); (c) 42.3 inches; (d) 2.5 days (top), 1.5 days (bottom). (Note that for Figures 2a, 2b, and 2d, the average for individual reporting stations varies greatly because of the state's large elevation range.) Since 1990, Eastern Washington and Western Washington have experienced below average numbers of very cold nights and freezing days, respectively, which is indicative of warming in the region. The numbers of very hot days in Eastern Washington and hot days in Western Washington have both been variable since 1990. Both annual precipitation and the number of extreme precipitation events have varied widely since the beginning of the 20th century. A typical station in Eastern Washington experiences between two and three 1-inch extreme precipitation events per year. A typical station in Western Washington experiences between one and two 2-inch events per year. Sources: CISESS and NOAA NCEI. Data: (a, b) GHCN-Daily from 17 long-term stations; (c) nClimDiv; (d) GHCN-Daily from 23 long-term stations.

Annual precipitation exhibits wide regional variations across the state. Portions of the Olympic Peninsula receive upwards of 150 inches of precipitation annually, while areas along the Columbia River in eastern interior Washington average less than 10 inches. Statewide total annual precipitation has ranged from a low of 26.0 inches in 1929 to a high of 55.0 inches in 1996. The driest multiyear periods were in the late 1920s, early 1940s, and late 1980s, and the wettest were in the early 1970s, early 1980s, and late 1990s (Figure 2c). The driest consecutive 5-year interval was 1926–1930, with an annual average of 34.6 inches, and the wettest was 1995–1999, with an annual average of 51.0 inches. Washington has not experienced any long-term trend in the number of extreme precipitation events (Figure 2d).

Most of Washington's precipitation falls during the winter months, and the Cascades can receive upwards of 400 inches of snowfall annually. **Snowpack in the mountains provides an important source of water during the drier summer months** (Figure 4)**.** Precipitation falling as rain rather than snow can have negative impacts on critical industries, such as timber and agriculture, which are also vulnerable to extreme temperatures. Wildfires during the drier summer months are a particular concern. The 2015 wildfire season was the most destructive in Washington's history, with more than 1 million acres burned (more than 6 times the average).

Under a higher emissions pathway, historically unprecedented warming is projected to continue through the end of this century (Figure 1)**.** Even under a lower emissions pathway, temperatures are projected to most likely exceed historical record levels by the middle of this century. However, a large range of temperature increases is projected under both pathways, and under the lower pathway, a few projections are only slightly warmer than historical records (Figure 1). Overall, warming will lead to increases in heat wave intensities but decreases in cold wave intensities. Unlike other locations in the United States, Seattle and other urban areas are rarely exposed to very high temperatures. Future heat waves, particularly an increase in the frequency of warm nights, could stress these communities, which are not well adapted to such events.

Temperature increases will affect basins with significant snowmelt contributions to their streamflow. Projected rising temperatures will raise the elevation of the snow line—the average lowest elevation at which snow falls. This will increase the likelihood that precipitation will fall as rain instead of snow, reducing water storage in the snowpack, particularly at those lower mountain elevations that are now on the margins of reliable snowpack accumulation. Rainfall is expected to be the dominant form of precipitation across the majority of the state by the end of this century. Higher spring temperatures will also result in earlier melting of the snowpack, with average snowpack projected to decline by up to 70% by the end of this century. This will further decrease water availability during the already dry summer months, and due to earlier spring peak flows, it will increase the risk of spring

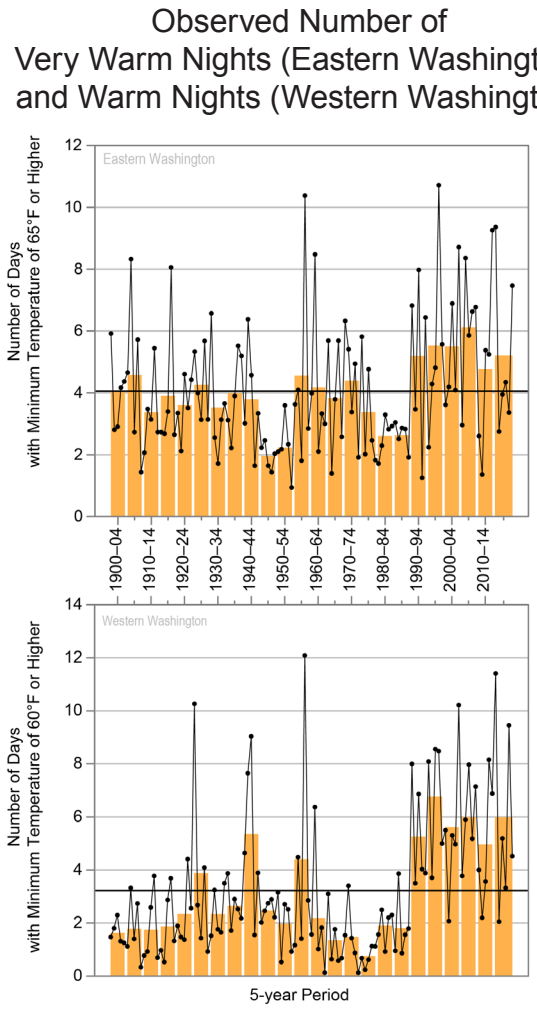


Figure 3: Observed annual numbers of very warm nights (minimum temperature of 65°F or higher) for Eastern Washington and warm nights (minimum temperature of 60°F or higher) for Western Washington from 1900 to 2020. Dots show annual values. Bars show averages over 5-year periods (last bar is a 6-year average). The horizontal black lines show the long-term (entire period) averages of 4.0 nights (top) and 2.5 nights (bottom; note that the average for individual reporting stations varies greatly because of the state's large elevation range). The numbers of very warm nights in Eastern Washington and warm nights in Western Washington have both been above average since 1900. Sources: CISESS and NOAA NCEI. Data: GHCN-Daily from 17 long-term stations.

flooding. Projected increases in heavy rainfall events by midcentury could further increase flood risk. Reductions in summer flow (projected to occur in 80% of the state's watersheds) will have important ecological implications and are a particular concern for hydropower and irrigation water supplies.

Increasing temperatures raise concerns for sea level rise in coastal areas. Since 1900, global average sea level has risen by about 7–8 inches. It is projected to rise another 1–8 feet, with a likely range of 1–4 feet, by 2100 as a result of both past and future emissions from human activities (Figure 6). Sea level rise has caused an increase in tidal floods associated with nuisance-level impacts. Nuisance floods are events in which water levels exceed the local threshold (set by NOAA's National Weather Service) for minor impacts. These events can damage infrastructure, cause road closures, and overwhelm storm drains. As sea level has risen along the Washington coastline, the number of tidal flood days has also increased at Seattle, with the greatest number (11) occurring in 1997 during a strong El Niño event (Figure 7). Some areas of the coast are rising, which has mitigated the impacts of recent sea level rise and will reduce somewhat the local projected sea level rise.

Although projections of overall annual precipitation are uncertain, summer precipitation is projected to decrease (Figure 5)**.** Drier conditions during the summer could increase reliance on diminishing snowmelt for irrigation. Additionally, the combination of drier summers, higher temperatures, and earlier melting of the snowpack would tend to increase the frequency and extent of wildfires.

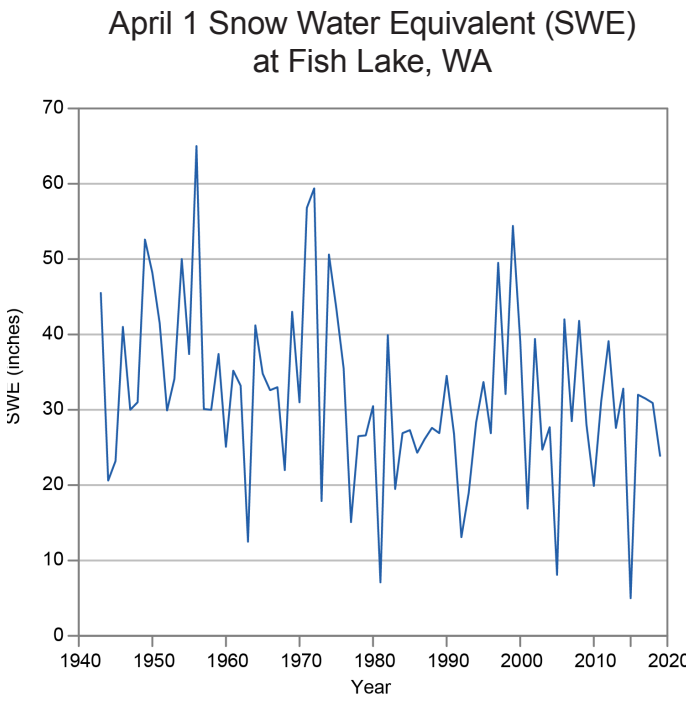


Figure 4: Variations in April 1 snow water equivalent (SWE) at the Fish Lake, Washington, snow course site from 1943 to 2019. SWE, the amount of water contained within the snowpack, varies widely from year to year, but there is a general downward trend. The extremely low snowpack levels in 2005 (third lowest) were due to below average winter precipitation and above average winter temperatures. In 2015 (record lowest), warmer than normal winter temperatures were the main driver of the drought, causing more precipitation to fall as rain rather than snow. Source: NRCS NWCC.

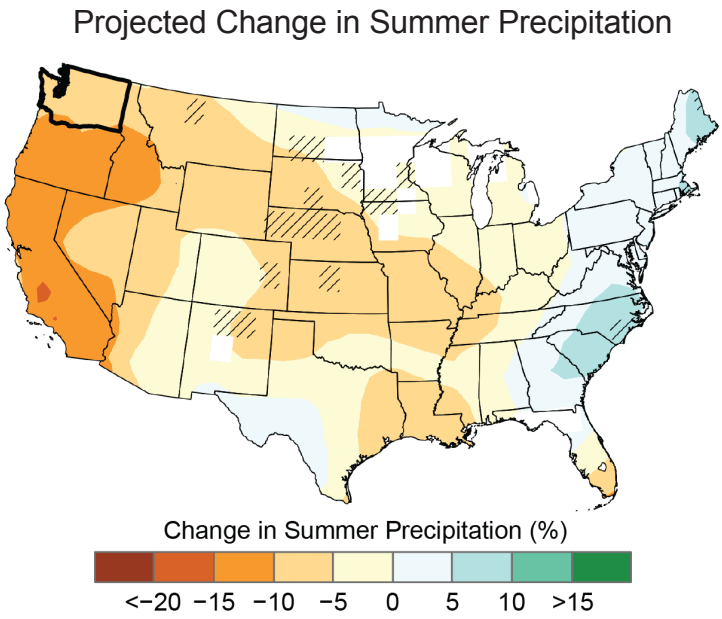


Figure 5: Projected changes in total summer (June–August) precipitation (%) for the middle of the 21st century compared to the late 20th century under a higher emissions pathway. Whited-out areas indicate that the climate models are uncertain about the direction of change. Hatching represents areas where the majority of climate models indicate a statistically significant change. Washington is projected to see a decrease in summer precipitation. Source: CISESS and NEMAC. Data: CMIP5.

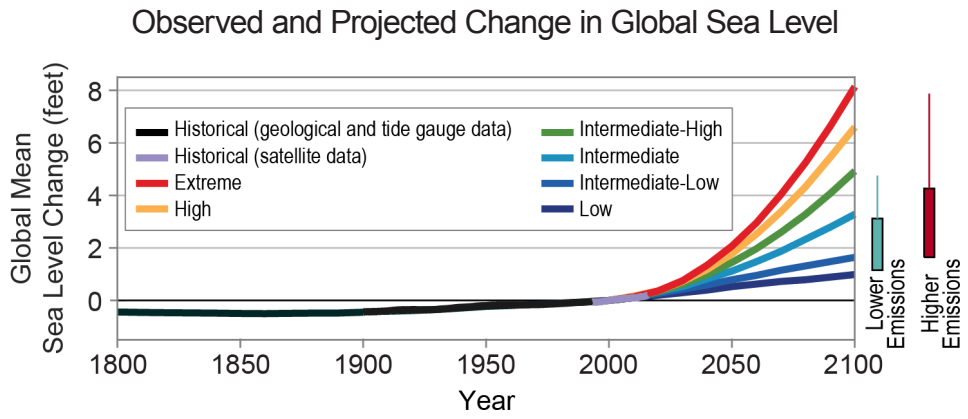


Figure 6: Global mean sea level (GMSL) change from 1800 to 2100. Projections include the six U.S. Interagency Sea Level Rise Task Force GMSL scenarios (Low, navy blue; Intermediate-Low, royal blue; Intermediate, cyan; Intermediate-High, green; High, orange; and Extreme, red curves) relative to historical geological, tide gauge, and satellite altimeter GMSL reconstructions from 1800–2015 (black and magenta lines) and the very likely ranges in 2100 under both lower and higher emissions futures (teal and dark red boxes). Global sea level rise projections range from 1 to 8 feet by 2100, with a likely range of 1 to 4 feet. Source: adapted from Sweet et al. 2017.

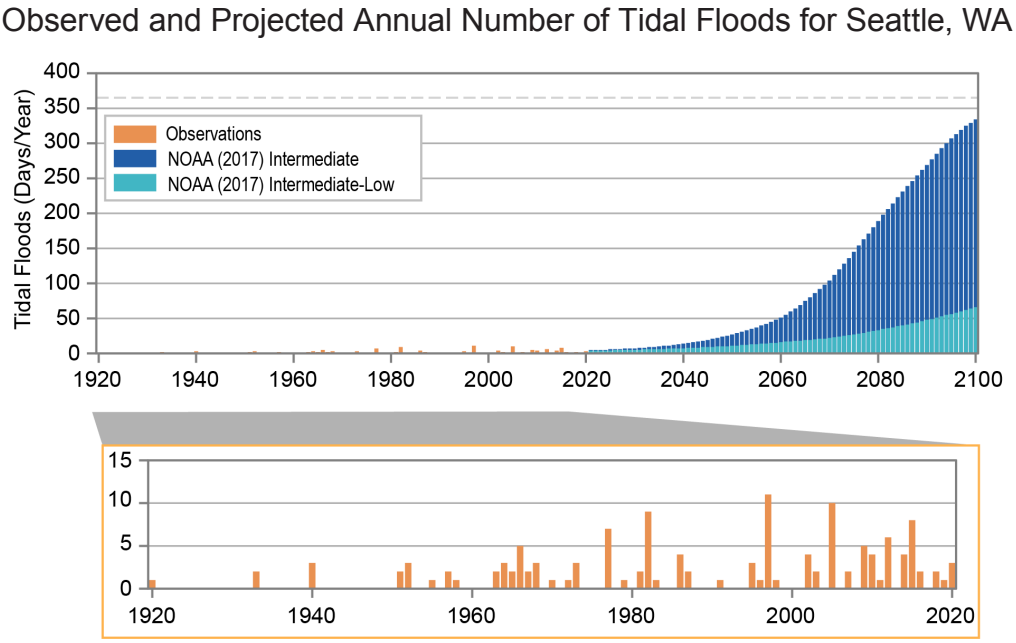


Figure 7: Number of tidal flood days per year at Seattle, Washington, for the observed record (1920–2020 orange bars) and projections for two NOAA (2017) sea level rise scenarios (2021–2100): Intermediate (dark blue bars) and Intermediate-Low (light blue bars). The NOAA (2017) scenarios are based on local projections of the GMSL scenarios shown in Figure 5. Sea level rise has caused a gradual increase in tidal floods associated with nuisance-level impacts. The greatest number of tidal flood days (all days exceeding the nuisance-level threshold) occurred in 1997 at Seattle. Projected increases are large even under the Intermediate-Low scenario. Under the Intermediate scenario, tidal flooding is projected to occur nearly every day of the year by the end of the century. Additional information on tidal flooding observations and scenarios is available online at https://statesummaries.ncics.org/technicaldetails. Sources: CISESS and NOAA NOS.

Technical details on observations and projections are available online at https://statesummaries.ncics.org/technicaldetails.

Table A-1. Summary of Projected Climate

Project No. AS180043, Evergreen Treatment Services, Seattle, WA

Site Address:	1700 Airport Way South
City	Seattle
County:	King
Census Tract:	53033009300
Washington Tracking Network (WTN) Climate Projections[1] ~2050	
Change in Annual Cooling Degree Days[2]:	460
Change in Annual Cooling Degree Days IBL Rank[3]:	8 (Moderately High)
Change in Annual Heating Degree Days[4]:	-1241
Change in Annual Heating Degree Days IBL Rank:	8 (Moderately High)
Annual Days Over 99th Percentile Historical Temperature Threshold[5]:	27
Annual Days Over 99th Percentile Historical Temperature Threshold IBL Rank:	6 (Moderate)
Change in Annual Precipitation[6]:	5.12665%
Change in Annual Precipitation IBL Rank:	9 (High)

Notes:

[1] The WTN presents statistics reflecting the projected changes under Representative Concentration Pathway 8.5 (RCP 8.5) for the 30-year period centered around 2050 (2036 to 2065) relative to a historical baseline period (1976 to 2005). This data was last updated in September 2022 (DOH Publication 334-528, May 2024).

[2] Cooling degree days are calculated using the difference between a day's average temperature and a baseline temperature of 65 degrees Fahrenheit.

[3] The Washington Tracking Network (WTN) collates data for each census tract in Washington and ranks them from 1 (low) to 10 (high) based on the relative scores tracked by the WTN.

[4] Heating degree days are calculated using the difference between a day's average temperature and a baseline temperature of 65 degrees Fahrenheit.

[5] The number of days per year in the projected period exceeding the 99th percentile average high temperature in the historical reference period.

[6] Fractional change in projected annual precipitation as a percentage of the mean annual precipitation during the historical period.

Table A-2. Cleanup Alternatives - Rough Order of Magnitude (ROM) Cost Summary

Project No. AS180043, 1700 Airport Way S, Seattle, Washington

Cleanup Element	Alternative #1: Monitored Natural Attenuation and Institutional Controls		Alternative #2: Source Excavation and Monitored Natural Attenuation		Alternative #3: Source Excavation, In Situ Treatment, and Monitored Natural Attenuation	
	Cost	Notes	Cost	Notes	Cost	Notes
Site Preparation	$ -	None.	-	None; demolition included in assumed site redevelopment.	$ -	None; demolition included in assumed site redevelopment.
Impacted and Contaminated Soil Excavation	$ -	None.	$ 205,000	Impacted soil from shallow excavation and contaminated soil from vicinity of sump to approximately 2 feet below street grade.	$ 205,000	Impacted soil from shallow excavation and contaminated soil from vicinity of sump to approximately 2 feet below street grade.
Groundwater Treatment	$ -	None.	$ -	None.	$ 172,000	Application of groundwater treatment product either at base of excavation or via direct injection.
Vapor Intrusion Mitigation	$ -	None.	$ 233,000	Chemical vapor barrier installed beneath building slab.	$ 233,000	Chemical vapor barrier installed along base and shallow sidewalls of redevelopment.
Environmental Monitoring	$ 572,000	15 years of semi-annual groundwater and soil vapor monitoring.	$ 372,000	10 years of semi-annual groundwater monitoring.	$ 259,000	2 years of quarterly groundwater monitoring followed by 3 years of semi-annual monitoring.
TOTAL	$ 572,000		$ 810,000		$ 869,000	
ROM ESTIMATE (Rounded up to nearest $10,000)	**$ 580,000**		**$ 810,000**		**$ 870,000**	

Notes and Definitions

ROM = Rough Order of Magnitude

Costs in this Table represent a Rough Order of Magnitude (ROM) remedial cost estimate presenting environmental costs for high-level project planning purposes only. All unit costs are based on Aspect's recent project experience in this area. Unit costs are not based on contract or vendor bids and need to be vetted by the general contractor.

LIMITATIONS--Work for this project was performed for Evergreen Treatment Services (Client) and this cost estimate 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 cost estimate does not represent a legal opinion. No other warranty, expressed or implied, is made. All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

Table A-3. Alternative #1: MNA - ROM Cost Estimate

Project No. AS180043, 1700 Airport Way S, Seattle, Washington

Description	Unit	Unit Cost	Overall Project Qty	Overall Project Extended Cost	Net Present Value[1]	Notes and Assumptions
GROUNDWATER AND VAPOR INTRUSION MONITORING - 15 YEARS					2.3%	
Semi-Annual Monitoring Events						
Sampling & Laboratory Analysis	Each	$ 12,000	30	$ 360,000	$ 302,000	Assumes two (2) semi-annual sampling events for 15 years (years 1 to 15), collecting 5 groundwater samples and two sub-slab soil vapor samples at each event (30 events).
Mid-Year Report	Each	$ 4,000	15	$ 60,000	$ 50,000	Assumes one mid-year report per year for 15 years.
Annual Report	Each	$ 8,000	15	$ 120,000	$ 101,000	Assumes one annual report per year for 15 years.
Closure Report	Each	$ 10,000	1	$ 10,000	$ 7,000	Occurs in year 15
Well decommissioning	Each	$ 1,000	5	$ 5,000	$ 1,000	Occurs in year 15
Contingency (20%)				$ 111,000	$ 111,000	Contingency not discounted
Subtotal				$ 666,000	$ 572,000	See Note 1. No activity assumed in year zero.
TOTAL				**$ 666,000**	**$ 572,000**	

Notes and Definitions

ROM = Rough Order of Magnitude

1. Net Present value assumes a discount rate of 2.3%, based on real interest rate on US Treasury 30-year notes and bonds, Circular A-94 Appendix C, Office of Management and Budget (Revised November 2024).

Costs in this Table represent a Rough Order of Magnitude (ROM) remedial cost estimate presenting environmental costs for high-level project planning purposes only. All unit costs are based on Aspect's recent project experience in this area. Unit costs are not based on contract or vendor bids and need to be vetted by the general contractor.

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Table A-4. Alternative #2: Source Excavation and MNA - ROM Cost Estimate

Project No. AS240184, 1520 13th Avenue, Seattle, Washington

Description	Unit	Unit Cost	Overall Project Qty	Overall Project Extended Cost	Net Present Value[1]	Notes and Assumptions
SOURCE EXCAVATION					2.30%	
Excavation Preparation						
Prepare Landfill Soil Disposal Profiles	Each	$ 1,500	2	$ 3,000	$ 3,000	Assumes two separate disposal locations for impacted soil and contaminated soil as approved by Evergreen Treatment Services and Aspect and coordinated by the General Contractor.
Impacted Soil (Metals, PAHs)						Assumed to be up to 100% of soil excavated from beyond the footprint of the North Basement; 3.5 feet deep across 5,000 square feet. Area and depth provided by ETS in Ground Disturbance Plan dated May 9, 2025; approximately 17,500 cubic feet = 648 cubic yards = 1,166 tons [1]
Excavation, Loading, and Transport	Ton	$ 35	1,166	$ 40,810	$ 40,810	Based on average of 2024 environmental contractor unit cost estimates for similar projects in Seattle, WA.
Disposal	Ton	$ 40	1,166	$ 46,640	$ 46,640	Unit cost based on disposal of as Contaminated Soil at the Heidelberg Materials Thermal Treatment facility in Everett, WA.
Contaminated Soil (Chlorinated Solvents)						Assumed to be an approximately 25-foot by 40-foot area (indicated on Figure 7) from beneath the basement slab to the top of the groundwater table approximately Elevation 18 feet NAVD88, or up to 2 feet below basement slab. Volume may be modified with additional investigation. (25 ft x 40 ft x 2 ft = 2,000 cubic feet = 74 cubic yards = 133 tons [2]).
Excavation, and Transport	Ton	$ 35	133	$ 4,655	$ 4,655	Based on average of 2024 environmental contractor unit cost estimates for similar projects in Seattle, WA.
Disposal	Ton	$ 80	133	$ 10,640	$ 10,640	Unit cost based on disposal of as Contaminated Soil at RCRA Subtitle D (non-hazardous) landfill.
Excavation Oversight & Reporting						
Oversight & Confirmation Sampling	Per Day	$ 3,500	10	$ 35,000	$ 35,000	Assumes $2,500 for field oversight and equipment; $500 for management, coordination, and communications; $500 for sample analyses. Assumes 10 days of excavation oversight.
Construction planning, oversight and regulatory support	Lump Sum	$ 10,000	1	$ 10,000	$ 10,000	Assumes construction planning, meetings, coordination and communications with Washington State Department of Ecology.
Report	Lump Sum	$ 20,000	1	$ 20,000	$ 20,000	Assumes summary report summarizing cleanup action (remedial excavation and chemical vapor barrier installation [if needed] and confirmation sampling results to be provided to the Washington State Department of Ecology.
Contingency (20%)				$ 34,149	$ 34,149	Contingency not discounted
Subtotal				$ 205,000	$ 205,000	Net Present Value assumes sump removal and contaminated soil excavation occurs in year zero.
GROUNDWATER MONITORING - 10 YEARS						
Reinstall Wells decommissioned during excavation	Each	$ 10,000	1	$ 10,000	$ 10,000	AMW-5 is expected to be decommissioned during redevelopment. A replacement well will be constructed in similar locations.
Semi-Annual Monitoring Events						
Sampling & Laboratory Analysis	Each	$ 10,000	20	$ 200,000	$ 177,000	Assumes two (2) semi-annual sampling events for 10 years (years 1 to 10), collecting 5 groundwater samples during each event (20 events)
Mid-Year Report	Each	$ 4,000	10	$ 40,000	$ 35,000	Assumes one mid-year report per year for 10 years (years 1 to 10)
Annual Report	Each	$ 8,000	10	$ 80,000	$ 71,000	Assumes one annual report per year for 10 years (years 1 to 10)
Closure Report	Each	$ 10,000	1	$ 10,000	$ 8,000	Occurs in year 10
Well decommissioning	Each	$ 1,000	5	$ 5,000	$ 4,000	Occurs in year 10
Contingency (20%)				$ 67,000	$ 67,000	Contingency not discounted.
Subtotal				$ 412,000	$ 372,000	See Note 2.
VAPOR INTRUSION MITIGATION						
Product selection support and engineering design	Lump Sum	$ 20,000	1	$ 20,000	$ 20,000	Estimate based on Aspect experience with similar projects.
Install chemical vapor barrier	Square Foot	$ 15	10,000	$ 150,000	$ 150,000	Unit cost based on typical costs for vapor barrier installation and does not include a vapor extraction system. Estimate assumes footprint is equal to proposed building footprints provided by ETS dated May 9, 2025 (approximately 10,000 sqft).
Installation oversight, consultant labor, equipment, expenses	Day	$ 3,000	8	$ 24,000	$ 24,000	Assumes $2,500 for field oversight and equipment; $500 for management, coordination, and communications. Assumes 10 days of vapor barrier construction oversight.
Contingency (20%)				$ 38,800	$ 38,800	
Subtotal				$ 233,000	$ 233,000	Net Present Value assumes vapor intrusion mitigation occurs in year zero.
TOTAL				**$ 850,000**	**$ 810,000**	

Notes and Definitions

1) One cubic yard is assumed to be equivalent to 1.8 tons.

2) Net Present value assumes a discount rate of 2.3%, based on real interest rate on US Treasury 30-year notes and bonds, Circular A-94 Appendix C, Office of Management and Budget (Revised November 2024).

Contaminated Soil is defined as soil that exceeds MTCA Method A or B cleanup levels and/or requires landfilling at Subtitle D Landfill

ft bgs = feet below ground surface

NAVD88 = North American Vertical Datum of 1988

sqft = square feet

Costs in this Table represent a Rough Order of Magnitude (ROM) remedial cost estimate presenting environmental costs for high-level project planning purposes only. All unit costs are based on Aspect's recent project experience in this area. Unit costs are not based on contract or vendor bids and need to be vetted by the general contractor. This alternative assumes an at-grade development with an underslab vapor barrier or mitigation.

LIMITATIONS--Work for this project was performed for Evergreen Treatment Services (Client) and this cost estimate 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 cost estimate does not represent a legal opinion. No other warranty, expressed or implied, is made. All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

Table A-5. Alternative #3: Source Excavation, In-Situ Treatment, and MNA - ROM Cost Estimate

Project No. AS180043, 1700 Airport Way S, Seattle, Washington

Description	Unit	Unit Cost	Overall Project Qty	Overall Project Extended Cost	Net Present Value[1]	Notes and Assumptions
SOURCE EXCAVATION					2.30%	
Excavation Preparation						
Prepare Landfill Soil Disposal Profiles	Each	$ 1,500	2	$ 3,000	$ 3,000	Assumes two separate disposal locations for impacted soil and contaminated soil as approved by Evergreen Treatment Services and Aspect and coordinated by the General Contractor.
Impacted Soil (Metals, PAHs)						Assumed to be up to 100% of soil excavated from beyond the footprint of the North Basement; 3.5 feet deep across 5,000 square feet (3.5 ft x 5,000 ft = 17,500 cu.ft.) Area and depth provided by ETS in Ground Disturbance Plan dated May 9, 2025; approximately 17,500 cubic feet = 648 cubic yards = 1,166 tons [1]
Excavation, Loading, and Transport	Ton	$ 35	1,166	$ 40,810	$ 40,810	Based on average of 2024 environmental contractor unit cost estimates for similar projects in Seattle, WA.
Disposal	Ton	$ 40	1,166	$ 46,640	$ 46,640	Unit cost based on disposal of as Contaminated Soil at the Heidelberg Materials Thermal Treatment facility in Everett, WA.
Contaminated Soil (Chlorinated Solvents)						Assumed to be an approximately 25-foot by 40-foot area (indicated on Figure 7) from beneah the basement slab to the top of the groundwater table approximately Elevation 18 feet NAVD88, or up to 2 feet below basement slab. Volume may be modified with additional investigation. (25 ft x 40 ft x 2 ft = 2,000 cubic feet = 74 cubic yards = 133 tons [2]).
Excavation, Loading, and Transport	Ton	$ 35	133	$ 4,655	$ 4,655	Based on average of 2024 environmental contractor unit cost estimates for similar projects in Seattle, WA.
Disposal	Ton	$ 80	133	$ 10,640	$ 10,640	Unit cost based on disposal of as Contaminated Soil at RCRA Subtitle D (non-hazardous) landfill.
Excavation Oversight & Reporting						
Oversight & Confirmation Sampling	Per Day	$ 3,500	10	$ 35,000	$ 35,000	Assumes $2,500 for field oversight and equipment; $500 for management, coordination, and communications; $500 for sample analyses. Assumes 10 days of excavation oversight.
Construction planning, oversight and regulatory support	Lump Sum	$ 10,000	1	$ 10,000	$ 10,000	Assumes construction planning, meetings, coordination and communciations with Washington State Department of Ecology.
Report	Lump Sum	$ 20,000	1	$ 20,000	$ 20,000	Assumes summary report summarizing cleanup action (remedial excavation and chemical vapor barrier installation [if needed] and confirmation sampling results to be provided to the Washington State Department of Ecology.
Contingency (20%)				$ 34,149	$ 34,149	
Subtotal				$ 205,000	$ 205,000	Net Present Value assumes contaminated and impacted soil excavation occurs in year zero.
IN-SITU TREATMENT AND MONITORING						
Groundwater Treatment						Occurs in year zero.
Treatment product selection support and engineering design	Lump Sum	$ 15,000	1	$ 15,000	$ 15,000	Estimate based on Aspect experience with similar projects.
Groundwater Treatment Application	Per Day	$ 8,000	5	$ 40,000	$ 40,000	Subcontractor costs based recent experience with similar sites. Assumes approximately 6 injection points around the sump area and 6 points near the Property boundary over 5 days.
Installation oversight, consultant labor, equipment, expenses	Day	$ 3,000	5	$ 15,000	$ 15,000	Assumes $2,500 for field oversight and equipment; $500 for management, coordination, and communications. Assumes 5 days of groundwater treatment oversight.
Treatment reagent	Pounds	$ 3.50	6000	$ 21,000	$ 21,000	Reagent cost based on recent quotes for persulfate-based chemical oxidant.
Contingency (20%)				$ 81,158	$ 81,158	Contingency not discounted
Subtotal				$ 172,000	$ 172,000	Net Present Value assumes groundwater treatment occurs in year zero.
GROUNDWATER MONITORING - 5 YEARS						
Reinstall Wells decommissioned during excavation	Each	$ 10,000	1	$ 10,000	$ 10,000	AMW-5 is expected to be decommissioned during redevelopment. A replacement well will be constructed in similar locations.
Groundwater Monitoring Events (5 years)						Occurs from year 1 to year 5.
Sampling & Laboratory Analysis	Each	$ 10,000	14	$ 140,000	$ 132,000	Assumes quarterly sampling events for 2 years, then semi-annual sampling events for 3 years, collecting 5 groundwater samples at each event (14 events).
Mid-Year Report	Each	$ 4,000	9	$ 36,000	$ 19,000	Assumes one report per sampling event with one event each year included in the annual report (14 - 5 = 9).
Annual Report	Each	$ 8,000	5	$ 40,000	$ 37,000	Assumes one annual report per year for 5 years.
Closure Report	Each	$ 10,000	1	$ 10,000	$ 9,000	Occurs in year 5
Well decommissioning	Each	$ 1,000	5	$ 5,000	$ 4,000	Occurs in year 5
Contingency (20%)				$ 48,200	$ 48,200	Contingency not discounted
Subtotal				$ 289,000	$ 259,000	See Note 1.
VAPOR INTRUSION MITIGATION						
Product selection support and engineering design	Lump Sum	$ 20,000	1	$ 20,000	$ 20,000	Estimate based on Aspect experience with similar projects.
Install chemical vapor barrier	Square Foot	$ 15	10,000	$ 150,000	$ 150,000	Unit cost based on typical costs for vapor barrier installation and does not include a vapor extraction system. Estimate assumes footprint is equal to proposed building footprints provided by ETS dated May 9, 2025 (approximately 10,000 sqft).
Installation oversight, consultant labor, equipment, expenses	Day	$ 3,000	8	$ 24,000	$ 24,000	Assumes $2,500 for field oversight and equipment; $500 for management, coordination, and communications. Assumes 10 days of vapor barrier construction oversight.
Contingency (20%)				$ 38,800	$ 38,800	
Subtotal				$ 233,000	$ 233,000	Net Present Value assumes vapor intrusion mitigation occurs in year zero.
TOTAL				**$ 899,000**	**$ 869,000**	

See notes on Page 2.

Table A-5. Alternative #3: Source Excavation, In-Situ Treatment, and MNA - ROM Cost Estimate

Project No. AS180043, 1700 Airport Way S, Seattle, Washington

Notes and Definitions

1) Net Present value assumes a discount rate of 2.3%, based on real interest rate on US Treasury 30-year notes and bonds, Circular A-94 Appendix C, Office of Management and Budget (Revised November 2024).

2) One cubic yard is assumed to be equivalent to 1.8 tons.

Impacted Soil is defined as soil which contains detectable concentrations of contaminants less than the applicable MTCA Method A or B cleanup levels and/or requires landfilling at Subtitle D Landfill.

Contaminated Soil is defined as soil bearing contaminants at concentration which exceed applicable MTCA Method A or B cleanup levels and/or requires landfilling at Subtitle D Landfill

ROM = Rough Order of Magnitude

PAH = Polycyclic Aromatic Hydrocarbons

ft = feet

bgs = below ground surface

NAVD88 = North American Vertical Datum of 1988

sqft = square feet

Costs in this Table represent a Rough Order of Magnitude (ROM) remedial cost estimate presenting environmental costs for high-level project planning purposes only. All unit costs are based on Aspect's recent project experience in this area. Unit costs are not based on contract or vendor bids and need to be vetted by the general contractor. This alternative assumes an 1/2 level below grade development with an underslab vapor barrier and barrier on the 4 partially below grade walls.

LIMITATIONS--Work for this project was performed for Evergreen Treatment Services (Client) and this cost estimate 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 cost estimate does not represent a legal opinion. No other warranty, expressed or implied, is made. All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

APPENDIX B

Previous Environmental Reports

APPENDIX C

Boring and Well Logs

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

AI Path: Q:_ACAD Standards\FIELD REFERENCE\MASTERS\Exploration Log Key-2018.ai // user: jinman // last saved: 09/26/2018

Subsurface Investigation - AS180043

Environmental Exploration Log

Aspect CONSULTING

Project Address & Site Specific Location	Coordinates	Exploration Number
1700 Airport Way S, Seattle, WA, Basement	NA	**AB-01**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Holocene Drilling	Geoprobe 6011 DT	Percussion hammer	20'	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
Trevor	Direct push	10/31/2024	NA	No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							CONCRETE; 8 inches.	
					PID=0.9		SAND WITH GRAVEL (SP); moist, grey; trace silt; medium sand; fine and coarse gravel; trace shards of glass, brick, and slag; no odor	
				AB-01-1.5 TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5	PID=1.2			
5	15				PID=0.8			5
					PID=0.5		SAND (SW); wet, grey; fine to coarse sand; trace silt, trace seashell fragments; no odor.	
				TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5				
10	10						Bottom of exploration at 10 ft. bgs.	10
15	5							15
20	0							20

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 4" ID
- Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: NWD
Approved by: ND, 4/17/2025

Exploration Log AB-01
Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE C:\PROJECTS\EVERGREEN CLINIC 180043.GPJ May 23, 2025

Subsurface Investigation - AS180043

Environmental Exploration Log

Aspect CONSULTING

Project Address & Site Specific Location	Coordinates	Exploration Number
1700 Airport Way S, Seattle, WA, Basement	NA	**AB-02**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Holocene Drilling	Geoprobe 6011 DT	Percussion hammer	20'	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
Trevor	Direct push	10/31/2024	NA	No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					PID=0.3		CONCRETE; 6 inches.	
							GRAVEL (GP); loose, dry, gray, concrete subbase	
				AB-02-03 TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5	PID=0.1		SAND WITH SILT (SW-SM); loose, wet, black-brown and grey; interbedded silty sand and sandy silt with gravel; fine to medium sand; fine to coarse subrounded gravel; trace artificial debris, bricks, glass; no odor	
					PID=0.2			
5	15						SILT (ML); soft, wet, gray; low plasticity; trace fine sand; no odor.	5
					PID=0.1		SAND WITH SILT (SP-SM); loose, wet, gray; fine to medium sand; nonplastic silt; no odor.	
					PID=0.2			
				AB-02-09.5 TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5				
10	10				PID=0.2		SAND (SP); soft, wet, black; coarse sand; abundant organics; no odor	10
							SILT (ML); soft, wet, dark gray; medium plasticity; trace fine sand; trace organics; no odor	
							Bottom of exploration at 12 ft. bgs.	
15	5							15
20	0							20

Legend

Sample Type
- ◯ No Soil Sample Recovery
- ▮▯ Continuous core 4" ID
- ☑ Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: NWD
Approved by: ND, 4/17/2025

Exploration Log AB-02

Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE C:\PROJECTS\EVERGREEN CLINIC 180043.GPJ May 23, 2025

Subsurface Investigation - AS180043

Environmental Exploration Log

Aspect CONSULTING

Project Address & Site Specific Location	Coordinates	Exploration Number
1700 Airport Way S, Seattle, WA, Basement	NA	**AB-03**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Holocene Drilling	Geoprobe 6011 DT	Percussion hammer	20'	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
Trevor	Direct push	10/31/2024	NA	No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	20						CONCRETE; 6 inches	0
							GRAVEL (GW); Concrete base gravel	
				AB-03-01 TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5	PID=2.6		SAND WITH SILT (SW-SM); loose, wet, gray; nonplastic silt, fine to coarse sand, fine to coarse subrounded to subangular gravel; no odor.	
					PID=9.6			
					PID=1.0			
5	15							5
				AB-03-07 TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5	PID=1.1		SAND WITH SILT (SW-SM); loose, wet, gray; low plasticity silt, fine to mediums and, fine to coarse subrounded gravel; trace seashells, no odor	
							Bottom of exploration at 8 ft. bgs.	
							Note: Refusal met at 8'.	
10	10							10
15	5							15
20	0							20

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 4" ID
- Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: NWD
Approved by: ND, 4/17/2025

Exploration Log AB-03

Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE C:\PROJECTS\EVERGREEN CLINIC 180043.GPJ May 23, 2025

Subsurface Investigation - AS180043

Environmental Exploration Log

Aspect CONSULTING

Project Address & Site Specific Location	Coordinates	Exploration Number
1700 Airport Way S, Seattle, WA, Basement	NA	**AB-04**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Holocene Drilling	Geoprobe 6011 DT	Percussion hammer	25.5'	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
Trevor	Direct push	10/31/2024	NA	No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	25				PID=0.1		CONCRETE; 6 inches	0
							GRAVEL (GW); Concrete base gravel	
					PID=0.2		SAND (SW); loose, moist, brown; non-plastic silt, fine to coarse sand, fine to coarse subangular gravel; no odor.	
				AB-04-02.5 TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5	PID=0.2		SAND WITH SILT (SP-SM); loose, moist, dark gray; non-plastic silt, fine to coarse sand, fine to coarse subrounded gravel with some cobbles less than 2" in diameter; no odor.	
5	20				PID=0.2			5
					PID=0.4		SILT (ML); soft, wet, gray-brown; low plasticity silt, no sand, no gravel; no odor.	
					PID=0.4			
				AB-04-10 TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5				
10	15				PID=4.6		SAND (SP); loose, wet, very dark gray; trace fines, fine sand, trace fine gravel; strong petroleum-like odor.	10
					PID=1.1			
15	10						Bottom of exploration at 15 ft. bgs.	15
20	5							20

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 4" ID
- Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

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Approved by: ND, 4/17/2025

Exploration Log AB-04

Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE C:\PROJECTS\EVERGREEN CLINIC 180043.GPJ May 23, 2025

Aspect CONSULTING	Subsurface Investigation - AS180043		Environmental Exploration Log	
	Project Address & Site Specific Location 1700 Airport Way S, Seattle, WA, Basement		*Coordinates* NA	*Exploration Number* **AB-05**
Contractor Holocene Drilling	*Equipment* Geoprobe 6011 DT	*Sampling Method* Percussion hammer	*Ground Surface Elev. (NAVD88)* 20'	
Operator Trevor	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 11/1/2024	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					PID=0.2		CONCRETE; 6 inches	
							GRAVEL WITH SAND (GP); loose, dry, light gray; concrete base gravel; no odor	
				AB-05-02.5 TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5	PID=0.9		SAND WITH SILT AND GRAVEL (SP-SM); loose, wet, black; nonplastic silt, fine to coarse sand, fine to coarse subangular gravel; no odor	
							SAND WITH GRAVEL (SW); loose, wet, dark gray; fine to coarse sand, fine to coarse subrounded gravel; moderate petroleum-like odor	
					PID=0.2		SAND (SW); loose, wet, gray; fine to coarse sand, no fines, no gravel; no odor	
5	15							5
					PID=0.2		SILTY SAND (SM); loose, wet, dark gray; medium plasticity silt, fine to medium sand; no odor	
					PID=0.3		SILT (ML); soft, wet, gray; nonplastic silt, trace fine sand; no odor	
							SILTY SAND (SM); loose, wet, gray; nonplastic silt, fine to coarse sand, no gravel; no odor	
10	10				PID=0.2		GRAVEL (GP); loose, wet, gray; no fines, trace sand, fine to coarse subrounded to rounded gravel; no odor; woody debris as broken sticks.	10
				AB-05-13 TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5	PID=0.3		SAND (SW); loose, wet, gray; no fines, fine to medium sand, no gravel; no odor.	
							GRAVEL (GP); loose, wet, gray; no fines, trace sand, fine to coarse subrounded to rounded gravel; no odor.	
							SAND (SW); loose, wet, gray; no fines, fine to coarse sand, trace fine gravel; no odor.	
							Bottom of exploration at 14 ft. bgs.	
15	5							15
20	0							20

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 4" ID
- Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: NWD
Approved by: ND, 4/17/2025

Exploration Log AB-05
Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE C:\PROJECTS\EVERGREEN CLINIC 180043.GPJ May 23, 2025

Subsurface Investigation - AS180043

Environmental Exploration Log

Aspect CONSULTING

Project Address & Site Specific Location	Coordinates	Exploration Number
1700 Airport Way S, Seattle, WA, Basement	NA	**AB-06**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Holocene Drilling	Geoprobe 6011 DT	Percussion hammer	20'	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
Trevor	Direct push	11/1/2024	NA	No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
				AB-06-01 TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5	PID=0.9		CONCRETE; 6 inches	
							SAND WITH GRAVEL (SW); loose, wet, gray; fine to coarse sand, fine to coarse subangular gravel; no odor.	
							WOODY DEBRIS; 24 inches vertical grain wood	
					PID=1.0		SAND WITH SILT AND GRAVEL (SW-SM); loose, wet, dark gray; nonplastic silt, fine to coarse sand, fine to coarse subrounded gravel; no odor.	
5	15				PID=1.1		SAND (SW); loose, wet, gray; some nonplastic silt, fine to coarse sand, trace organics; no odor.	5
							SILT (ML); soft, wet, gray; low plasticity, no sand; no odor.	
				AB-06-08.5 TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5	PID=0.3		SILTY SAND (SM); loose, wet, gray; low plasticity silt, fine to medium sand, no gravel, trace organics; no odor.	
							SILT (ML); soft, wet, dark gray; medium plasticity silt, fine sand, no gravel, trace organics; no odor.	
							Bottom of exploration at 8.5 ft. bgs.	
10	10						Note: Refusal met at 8.5'	10
15	5							15
20	0							20

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 4" ID
- Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: NWD
Approved by: ND, 4/17/2025

Exploration Log AB-06

Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE C:\PROJECTS\EVERGREEN CLINIC 180043.GPJ May 23, 2025

Aspect CONSULTING	Subsurface Investigation - AS180043		Monitoring Well Log	
	Project Address & Site Specific Location 1700 Airport Way S, Seattle, WA, Parking strip		*Coordinates (SPN NAD83 ft)* E:1273268.43 N:217961.62	*Exploration Number* **AMW-1**
Contractor Cascade Drilling	*Equipment* Geoprobe 7822 DT	*Sampling Method* Percussion hammer	*Ground Surface Elev. (NAVD88)* 24.137'	Ecology Well Tag No. BKF905
Operator Tim	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 12/9/2018	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 5.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Flush monument Expansion plug					GRAVEL (GP); loose, gray	
		Concrete					SAND WITH GRAVEL (SP); moist, brown; trace silt; medium sand; fine and coarse gravel; no odor	
		Bentonite chips			PID=0 Sheen=None			
		2-inch diam Sch 40 PVC casing						
	20	10x20 silica sand						
5		▽ 12/9/2018			PID=0 Sheen=None		Vacuum excavated to 5.5 feet bgs	5
							Becomes wet, gray	
		Pre-packed 2-inch diam Sch 40 PVC screen, 0.010-inch slot			PID=0		SANDY CLAY (CL); moist, gray; medium plasticity; fine sand; no odor	
	15				Sheen=Slight		SAND WITH SILT (SP-SM); wet, gray-brown; medium to coarse sand; trace fine gravel; no odor	
10				AMW-1-12.5 NWTPH-Dx, NWTPH-Gx, VOCs, Metals				10
					PID=0 Sheen=Slight		Becomes black-brown, with 50% debris (fragments of brick, glass, ceramics, seashells); no odor	
	10							
15		Threaded bottom cap			PID=0 Sheen=None		SANDY CLAY (CL); wet, gray; no odor	15
		Slough						
	5							
20							Bottom of exploration at 20 ft. bgs.	20

Legend

Sample Type
- ◯ No Soil Sample Recovery
- Grab sample
- Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: DC, 1/15/2019

Exploration Log AMW-1
Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE C:\PROJECTS\EVERGREEN CLINIC 180043.GPJ May 23, 2025

Aspect CONSULTING	Subsurface Investigation - AS180043		Monitoring Well Log	
	Project Address & Site Specific Location: 1700 Airport Way S, Seattle, WA, Between buildings		Coordinates (SPN NAD83 ft): E:1273287.49 N:217877.76	Exploration Number: **AMW-2**
Contractor: Cascade Drilling	Equipment: Geoprobe 7822 DT	Sampling Method: Percussion hammer	Ground Surface Elev. (NAVD88): 23.813'	Ecology Well Tag No. BKF906
Operator: Tim	Exploration Method(s): Direct push	Work Start/Completion Dates: 12/9/2018	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 5.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Flush monument					CONCRETE; 6 inches	
		Expansion plug					SILTY SAND (SM); moist, gray-brown,; fine to medium sand; trace gravel; no petroleum like odor	
		Concrete						
		Bentonite chips		AMW-2-2.5 NWTPH-Dx, NWTPH-Gx, Metals	PID=0 Sheen=SS			
	20	2-inch diam Sch 40 PVC casing					Wood and charcoal debris at 4 ft bgs	
		10x20 silica sand						
5		▽ 12/9/2018		AMW-2-5.5 NWTPH-Dx, NWTPH-Gx	PID=0 Sheen=None		Vacuum excavated to 5 ft	5
							Gray. No odor	
		Pre-packed 2-inch diam Sch 40 PVC screen, 0.010-inch slot					Becomes wet, black-brown; no odor Brick, glass, and ceramic debris; no odor	
	15				PID=0 Sheen=Slight			
10					PID=0 Sheen=None		Trace seashell fragments at 11 ft bgs	10
	10	Threaded bottom cap			PID=0 Sheen=None		Becomes black; with coal fragments	
15							Becomes gray; with seashell fragments	15
					PID=0 Sheen=None		Becomes black; with seashell and ceramic fragments	
		Slough						
	5						SANDY CLAY (CL); moist, gray;; medium plasticity; fine to medium sand; <4" thick saturated sandy interbed; no odor	
20					PID=0 Sheen=None		Bottom of exploration at 20 ft. bgs.	20

Legend

Sample Type
- ◯ No Soil Sample Recovery
- Grab sample
- Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: DC, 1/15/2019

Exploration Log AMW-2
Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE C:\PROJECTS\EVERGREEN CLINIC 180043.GPJ May 23, 2025

Subsurface Investigation - AS180043

Monitoring Well Log

Aspect CONSULTING

Project Address & Site Specific Location	Coordinates (SPN NAD83 ft)	Exploration Number
1700 Airport Way S, Seattle, WA, Parking lane	E:1273253.78 N:217757.70	**AMW-3**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	Ecology Well Tag No.
Cascade Drilling	Geoprobe 7822 DT	Percussion hammer	23.226'	BKF907

Operator	Exploration Method(s)	Work Start/Completion Dates	Top of Casing Elev. (NAVD88)	Depth to Water (Below GS)
Tim	Direct push	12/9/2018	NA	8.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	20	Flush monument Expansion plug Concrete Bentonite chips 2-inch diam Sch 40 PVC casing 10x20 silica sand					CONCRETE; 8 inches	
					PID=0 Sheen=None		SAND WITH SILT AND GRAVEL (SP-SM); moist, gray; medium sand; fine to coarse gravel; no odor	
							Vacuum-excavated to 5 ft	
5				AMW-3-5.0 NWTPH-Dx, NWTPH-Gx, Metals, cPAHs	PID=0 Sheen=None		SILTY SAND (SM); moist, gray; no odor	5
					PID=0 Sheen=None		SANDY CLAY (CL); moist, gray; medium to high plasticity; fine sand; interbedded with 1' beds SAND WITH GRAVEL (SW); wet, gray; no odor	
	15	▽ 12/9/2018			PID=0 Sheen=None		SILTY SAND (SM); wet, gray; medium to coarse sand; trace fine gravel; no odor	
10		Pre-packed 2-inch diam Sch 40 PVC screen, 0.010-inch slot			PID=0 Sheen=None			10
	10						Becomes fine sand	
15		Threaded bottom cap			PID=0 Sheen=None		CLAY (CL); wet, gray; medium to high plasticity; no odor	15
					PID=0 Sheen=None			
		Slough						
	5							
20							Bottom of exploration at 20 ft. bgs.	20

Legend

Sample Type
- ◯ No Soil Sample Recovery
- Grab sample
- Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: DC, 1/15/2019

Exploration Log AMW-3

Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE C:\PROJECTS\EVERGREEN CLINIC 180043.GPJ May 23, 2025

Subsurface Investigation - AS180043

Monitoring Well Log

Aspect CONSULTING	*Project Address & Site Specific Location*: 1700 Airport Way S, Seattle, WA, Back parking lot		*Coordinates (SPN NAD83 ft)*: E:1273354.03 N:217868.29	*Exploration Number*: **AMW-4**
Contractor: Cascade Drilling	*Equipment*: Geoprobe 7822 DT	*Sampling Method*: Percussion hammer	*Ground Surface Elev. (NAVD88)*: 25.642'	Ecology Well Tag No. BKF908
Operator: Tim	*Exploration Method(s)*: Direct push	*Work Start/Completion Dates*: 12/9/2018 to 12/10/2018	*Top of Casing Elev. (NAVD88)*: NA	*Depth to Water (Below GS)*: 6' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	25	Flush monument Expansion plug					CONCRETE; 6 inches	0
		Concrete					SAND WITH SILT AND GRAVEL (SP-SM); moist, brown; medium to coarse sand; fine to coarse gravel; no odor	
		Bentonite chips		AMW-4-2.5 NWTPH-Dx, NWTPH-Gx, Metals, cPAHs	PID=0 Sheen=None			
		2-inch diam Sch 40 PVC casing					SILTY SAND (SM); moist, brown; medium to coarse sand; no odor	
		10x20 silica sand						
5	20	▽ 12/9/2018			PID=0 Sheen=None		Vacuum excavated to 5 ft.	5
							SAND WITH SILT (SP-SM); wet, brown; fine to medium sand, trace coarse sand; no odor	
		Pre-packed 2-inch diam Sch 40 PVC screen, 0.010-inch slot		AMW-4-8.0 NWTPH-Dx, NWTPH-Gx, Metals	PID=0 Sheen=Slight			
10	15							10
							SILTY SAND (SM); wet, black; coarse sand; 50% coal fragments, brick fragments, seashell fragments; no odor	
		Threaded bottom cap			PID=0 Sheen=Slight			
15	10				PID=0 Sheen=Slight		Becomes gray, fine to coarse sand; trace fine gravel; no odor	15
		Slough						
					PID=0.0 Sheen=None			
20	5						Bottom of exploration at 20 ft. bgs.	20

Legend

Sample Type
- ◯ No Soil Sample Recovery
- Grab sample
- Continuous core 1.85" ID

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: KB
Approved by: DC, 1/15/2019

Exploration Log AMW-4

Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE C:\PROJECTS\EVERGREEN CLINIC 180043.GPJ May 23, 2025

Subsurface Investigation - AS180043

Monitoring Well Log

Aspect CONSULTING	*Project Address & Site Specific Location*: 1700 Airport Way S, Seattle, WA, Basement, outside sump room		*Coordinates (SPN NAD83 ft)*: E:1273313.41 N:217932.75	*Exploration Number*: **AMW-5**
Contractor: Holocene Drilling	*Equipment*: Geoprobe 6011 DT	*Sampling Method*: Percussion hammer	*Ground Surface Elev. (NAVD88)*: 19.89'	Ecology Well Tag No. BPK160
Operator: Trevor	*Exploration Method(s)*: Direct push	*Work Start/Completion Dates*: 10/31/2024 to 11/1/2024	*Top of Casing Elev. (NAVD88)*: NA	*Depth to Water (Below GS)*: 0.8' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	20	Flush monument		AMW-5-01 TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5			CONCRETE; 6 inches	0
		11/1/2024					SAND WITH SILT AND GRAVEL (SP-SM); loose, moist, gray; fine to coarse sand, fine to coarse subrounded cobbles, nonplastic silt; no odor.	
		1-inch diam Sch 40 PVC casing			PID=0.1		CONCRETE; 3 inches	
		Concrete			PID=0.2		SAND WITH SILT AND GRAVEL (SP-SM); loose, wet, gray; fine to coarse sand, fine to coarse subrounded cobbles, nonplastic silt; no odor.	
5	15	10x20 silica sand			PID=0.2			5
		Pre-packed 1-inch diam Sch 40 PVC screen, 0.010-inch slot			PID=0.1			
10	10				PID=0.2		WOODY DEBRIS; 2 inches; cedar odor	10
							GRAVEL (GW); loose, wet, gray; fine to coarse sand, fine to coarse subrounded to subangular gravel; no odor.	
				AMW-5-12 TPH-G, TPH-Dx, VOCs, SVOCs, MTCA 5			SAND WITH GRAVEL (SP); loose, wet, black; fine to medium sand, fine subrounded gravel; no odor.	
		Threaded bottom cap					SILT (ML); soft, wet, gray; low plasticity silt; no odor.	
15	5						Bottom of exploration at 12 ft. bgs.	15
20	0							20

Legend

Sample Type
- ◯ No Soil Sample Recovery
- Grab sample
- Continuous core 4" ID

Water Level
- Static Water Level

See Exploration Log Key for explanation of symbols

Logged by: NWD
Approved by: ND, 4/17/2025

Exploration Log AMW-5

Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE C:\PROJECTS\EVERGREEN CLINIC 180043.GPJ May 23, 2025

APPENDIX D

Laboratory 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.

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December 19, 2018

Dana Cannon, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Cannon:

Included are the results from the testing of material submitted on December 11, 2018 from the Evergreen Treatment Services 180043, F&BI 812130 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
ASP1219R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 11, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Evergreen Treatment Services 180043, F&BI 812130 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
812130 -01	SV-1
812130 -02	SV-2
812130 -03	SV-3
812130 -04	SV-4

The TO-15 ethanol concentration for sample SV-1, ethanol and acetone for sample SV-3, and several other compounds for sample SV-4 exceeded the calibration range. In addition, calibration standard for tetrahydrofuran did not pass the acceptance criteria. 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:	SV-1	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services 180043
Date Collected:	12/10/18	Lab ID:	812130-01 1/1.4
Date Analyzed:	12/12/18	Data File:	121120.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	BAT/MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	114	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	ug/m3	ppbv
Propene	<1	<0.56	1,2-Dichloropropane	0.90	0.19
Dichlorodifluoromethane	2.9	0.60	1,4-Dioxane	<0.5	<0.14
Chloromethane	<2.9	<1.4	2,2,4-Trimethylpentane	<6.5	<1.4
F-114	<0.98	<0.14	Methyl methacrylate	<5.7	<1.4
Vinyl chloride	<0.36	<0.14	Heptane	11	2.6
1,3-Butadiene	<0.03	<0.04	Bromodichloromethane	<0.094	<0.014
Butane	15	6.5	Trichloroethene	26	4.9
Bromomethane	<2.2	<0.56	cis-1,3-Dichloropropene	<0.64	<0.14
Chloroethane	<3.7	<1.4	4-Methyl-2-pentanone	<5.7	<1.4
Vinyl bromide	<0.61	<0.14	trans-1,3-Dichloropropene	<0.64	<0.14
Ethanol	280 ve	150 ve	Toluene	25	6.7
Acrolein	<1.3	<0.56	1,1,2-Trichloroethane	<0.15	<0.028
Pentane	12	4.2	2-Hexanone	<5.7	<1.4
Trichlorofluoromethane	<3.1	<0.56	Tetrachloroethene	<9.5	<1.4
Acetone	130	54	Dibromochloromethane	<0.12	<0.014
2-Propanol	66	27	1,2-Dibromoethane (EDB)	<0.11	<0.014
1,1-Dichloroethene	<0.56	<0.14	Chlorobenzene	<0.64	<0.14
trans-1,2-Dichloroethene	<0.56	<0.14	Ethylbenzene	5.6	1.3
Methylene chloride	<120	<35	1,1,2,2-Tetrachloroethane	<0.19	<0.028
t-Butyl alcohol (TBA)	<17	<5.6	Nonane	<7.3	<1.4
3-Chloropropene	<1.8	<0.56	Isopropylbenzene	<3.4	<0.7
CFC-113	<1.1	<0.14	2-Chlorotoluene	<7.2	<1.4
Carbon disulfide	<8.7	<2.8	Propylbenzene	<3.4	<0.7
Methyl t-butyl ether (...	<2.5	<0.7	4-Ethyltoluene	<3.4	<0.7
Vinyl acetate	<9.9	<2.8	m,p-Xylene	20	4.6
1,1-Dichloroethane	<0.57	<0.14	o-Xylene	7.0	1.6
cis-1,2-Dichloroethene	<0.56	<0.14	Styrene	<1.2	<0.28
Hexane	13	3.8	Bromoform	<2.9	<0.28
Chloroform	0.46	0.095	Benzyl chloride	<0.072	<0.014
Ethyl acetate	<10	<2.8	1,3,5-Trimethylbenzene	<3.4	<0.7
Tetrahydrofuran	21 ca	7.0 ca	1,2,4-Trimethylbenzene	<3.4	<0.7
2-Butanone (MEK)	17	5.6	1,3-Dichlorobenzene	<0.84	<0.14
1,2-Dichloroethane (EDC)	<0.057	<0.014	1,4-Dichlorobenzene	<0.34	<0.056
1,1,1-Trichloroethane	<0.76	<0.14	1,2-Dichlorobenzene	<0.84	<0.14
Carbon tetrachloride	<0.88	<0.14	1,2,4-Trichlorobenzene	<1	<0.14
Benzene	3.8	1.2	Naphthalene	<0.73	<0.14
Cyclohexane	<9.6	<2.8	Hexachlorobutadiene	<0.3	<0.028

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SV-2	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services 180043
Date Collected:	12/10/18	Lab ID:	812130-02 1/1.5
Date Analyzed:	12/12/18	Data File:	121121.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	BAT/MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	ug/m3	ppbv
Propene	<1	<0.6	1,2-Dichloropropane	0.85	0.18
Dichlorodifluoromethane	2.9	0.59	1,4-Dioxane	<0.54	<0.15
Chloromethane	<3.1	<1.5	2,2,4-Trimethylpentane	<7	<1.5
F-114	<1	<0.15	Methyl methacrylate	<6.1	<1.5
Vinyl chloride	<0.38	<0.15	Heptane	17	4.1
1,3-Butadiene	<0.03	<0.015	Bromodichloromethane	<0.1	<0.015
Butane	19	7.8	Trichloroethene	<0.4	<0.075
Bromomethane	<2.3	<0.6	cis-1,3-Dichloropropene	<0.68	<0.15
Chloroethane	<4	<1.5	4-Methyl-2-pentanone	<6.1	<1.5
Vinyl bromide	<0.66	<0.15	trans-1,3-Dichloropropene	<0.68	<0.15
Ethanol	140	75	Toluene	25	6.7
Acrolein	<1.4	<0.6	1,1,2-Trichloroethane	<0.16	<0.03
Pentane	16	5.4	2-Hexanone	<6.1	<1.5
Trichlorofluoromethane	<3.4	<0.6	Tetrachloroethene	<10	<1.5
Acetone	160	66	Dibromochloromethane	<0.13	<0.015
2-Propanol	64	26	1,2-Dibromoethane (EDB)	<0.12	<0.015
1,1-Dichloroethene	<0.59	<0.15	Chlorobenzene	<0.69	<0.15
trans-1,2-Dichloroethene	<0.59	<0.15	Ethylbenzene	5.0	1.2
Methylene chloride	<130	<37	1,1,2,2-Tetrachloroethane	<0.21	<0.03
t-Butyl alcohol (TBA)	<18	<6	Nonane	<7.9	<1.5
3-Chloropropene	<1.9	<0.6	Isopropylbenzene	<3.7	<0.75
CFC-113	<1.1	<0.15	2-Chlorotoluene	<7.8	<1.5
Carbon disulfide	<9.3	<3	Propylbenzene	<3.7	<0.75
Methyl t-butyl ether (...	<2.7	<0.75	4-Ethyltoluene	<3.7	<0.75
Vinyl acetate	<11	<3	m,p-Xylene	18	4.2
1,1-Dichloroethane	<0.61	<0.15	o-Xylene	6.2	1.4
cis-1,2-Dichloroethene	<0.59	<0.15	Styrene	<1.3	<0.3
Hexane	18	5.2	Bromoform	<3.1	<0.3
Chloroform	0.61	0.12	Benzyl chloride	<0.078	<0.015
Ethyl acetate	<11	<3	1,3,5-Trimethylbenzene	<3.7	<0.75
Tetrahydrofuran	21 ca	7.0 ca	1,2,4-Trimethylbenzene	<3.7	<0.75
2-Butanone (MEK)	13	4.4	1,3-Dichlorobenzene	<0.9	<0.15
1,2-Dichloroethane (EDC)	<0.061	<0.015	1,4-Dichlorobenzene	<0.36	<0.06
1,1,1-Trichloroethane	<0.82	<0.15	1,2-Dichlorobenzene	<0.9	<0.15
Carbon tetrachloride	<0.94	<0.15	1,2,4-Trichlorobenzene	<1.1	<0.15
Benzene	4.1	1.3	Naphthalene	<0.79	<0.15
Cyclohexane	<10	<3	Hexachlorobutadiene	<0.32	<0.03

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SV-3	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services 180043
Date Collected:	12/10/18	Lab ID:	812130-03 1/1.5
Date Analyzed:	12/12/18	Data File:	121122.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	BAT/MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	106	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	ug/m3	ppbv
Propene	52	30	1,2-Dichloropropane	0.58	0.13
Dichlorodifluoromethane	2.9	0.58	1,4-Dioxane	<0.54	<0.15
Chloromethane	<3.1	<1.5	2,2,4-Trimethylpentane	<7	<1.5
F-114	<1	<0.15	Methyl methacrylate	<6.1	<1.5
Vinyl chloride	<0.38	<0.15	Heptane	32	7.8
1,3-Butadiene	12	5.6	Bromodichloromethane	<0.1	<0.015
Butane	44	19	Trichloroethene	14	2.6
Bromomethane	<2.3	<0.6	cis-1,3-Dichloropropene	<0.68	<0.15
Chloroethane	<4	<1.5	4-Methyl-2-pentanone	<6.1	<1.5
Vinyl bromide	<0.66	<0.15	trans-1,3-Dichloropropene	<0.68	<0.15
Ethanol	450 ve	240 ve	Toluene	39	10
Acrolein	3.8	1.7	1,1,2-Trichloroethane	<0.16	<0.03
Pentane	32	11	2-Hexanone	<6.1	<1.5
Trichlorofluoromethane	<3.4	<0.6	Tetrachloroethene	<10	<1.5
Acetone	430 ve	180 ve	Dibromochloromethane	<0.13	<0.015
2-Propanol	70	28	1,2-Dibromoethane (EDB)	<0.12	<0.015
1,1-Dichloroethene	0.62	0.16	Chlorobenzene	<0.69	<0.15
trans-1,2-Dichloroethene	<0.59	<0.15	Ethylbenzene	6.7	1.5
Methylene chloride	<130	<37	1,1,2,2-Tetrachloroethane	<0.21	<0.03
t-Butyl alcohol (TBA)	<18	<6	Nonane	<7.9	<1.5
3-Chloropropene	<1.9	<0.6	Isopropylbenzene	<3.7	<0.75
CFC-113	2.1	0.28	2-Chlorotoluene	<7.8	<1.5
Carbon disulfide	<9.3	<3	Propylbenzene	<3.7	<0.75
Methyl t-butyl ether (...	<2.7	<0.75	4-Ethyltoluene	<3.7	<0.75
Vinyl acetate	<11	<3	m,p-Xylene	20	4.7
1,1-Dichloroethane	1.7	0.43	o-Xylene	7.1	1.6
cis-1,2-Dichloroethene	2.9	0.73	Styrene	1.5	0.36
Hexane	29	8.1	Bromoform	<3.1	<0.3
Chloroform	0.70	0.14	Benzyl chloride	<0.078	<0.015
Ethyl acetate	<11	<3	1,3,5-Trimethylbenzene	<3.7	<0.75
Tetrahydrofuran	16 ca	5.3 ca	1,2,4-Trimethylbenzene	<3.7	<0.75
2-Butanone (MEK)	30	10	1,3-Dichlorobenzene	<0.9	<0.15
1,2-Dichloroethane (EDC)	<0.061	<0.015	1,4-Dichlorobenzene	<0.36	<0.06
1,1,1-Trichloroethane	<0.82	<0.15	1,2-Dichlorobenzene	<0.9	<0.15
Carbon tetrachloride	<0.94	<0.15	1,2,4-Trichlorobenzene	<1.1	<0.15
Benzene	19	5.8	Naphthalene	<0.79	<0.15
Cyclohexane	12	3.5	Hexachlorobutadiene	<0.32	<0.03

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SV-4	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services 180043
Date Collected:	12/10/18	Lab ID:	812130-04 1/1.5
Date Analyzed:	12/12/18	Data File:	121123.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	BAT/MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	104	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	ug/m3	ppbv
Propene	1,700 ve	990 ve	1,2-Dichloropropane	0.57	0.12
Dichlorodifluoromethane	<0.74	<0.15	1,4-Dioxane	<0.54	<0.15
Chloromethane	<3.1	<1.5	2,2,4-Trimethylpentane	380 ve	80 ve
F-114	<1	<0.15	Methyl methacrylate	<6.1	<1.5
Vinyl chloride	320 ve	120 ve	Heptane	140	35
1,3-Butadiene	<0.03	<0.015	Bromodichloromethane	<0.1	<0.015
Butane	2,000 ve	850 ve	Trichloroethene	43	8.1
Bromomethane	<2.3	<0.6	cis-1,3-Dichloropropene	<0.68	<0.15
Chloroethane	7.9	3.0	4-Methyl-2-pentanone	<6.1	<1.5
Vinyl bromide	<0.66	<0.15	trans-1,3-Dichloropropene	<0.68	<0.15
Ethanol	250 ve	140 ve	Toluene	260	69
Acrolein	<1.4	<0.6	1,1,2-Trichloroethane	<0.16	<0.03
Pentane	850 ve	290 ve	2-Hexanone	<6.1	<1.5
Trichlorofluoromethane	<3.4	<0.6	Tetrachloroethene	<10	<1.5
Acetone	780 ve	330 ve	Dibromochloromethane	<0.13	<0.015
2-Propanol	79	32	1,2-Dibromoethane (EDB)	<0.12	<0.015
1,1-Dichloroethene	5.1	1.3	Chlorobenzene	<0.69	<0.15
trans-1,2-Dichloroethene	43	11	Ethylbenzene	11	2.5
Methylene chloride	<130	<37	1,1,2,2-Tetrachloroethane	<0.21	<0.03
t-Butyl alcohol (TBA)	<18	<6	Nonane	52	9.9
3-Chloropropene	<1.9	<0.6	Isopropylbenzene	8.8	1.8
CFC-113	<1.1	<0.15	2-Chlorotoluene	<7.8	<1.5
Carbon disulfide	<9.3	<3	Propylbenzene	<3.7	<0.75
Methyl t-butyl ether (...	<2.7	<0.75	4-Ethyltoluene	<3.7	<0.75
Vinyl acetate	<11	<3	m,p-Xylene	24	5.5
1,1-Dichloroethane	0.91	0.22	o-Xylene	18	4.2
cis-1,2-Dichloroethene	220	55	Styrene	<1.3	<0.3
Hexane	290 ve	83 ve	Bromoform	<3.1	<0.3
Chloroform	<0.074	<0.015	Benzyl chloride	<0.078	<0.015
Ethyl acetate	<11	<3	1,3,5-Trimethylbenzene	5.6	1.1
Tetrahydrofuran	16 ca	5.5 ca	1,2,4-Trimethylbenzene	5.8	1.2
2-Butanone (MEK)	24	8.0	1,3-Dichlorobenzene	<0.9	<0.15
1,2-Dichloroethane (EDC)	<0.061	<0.015	1,4-Dichlorobenzene	<0.36	<0.06
1,1,1-Trichloroethane	<0.82	<0.15	1,2-Dichlorobenzene	<0.9	<0.15
Carbon tetrachloride	<0.94	<0.15	1,2,4-Trichlorobenzene	<1.1	<0.15
Benzene	150	48	Naphthalene	1.2	0.23
Cyclohexane	150	45	Hexachlorobutadiene	<0.32	<0.03

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Evergreen Treatment Services 180043
Date Collected:	Not Applicable	Lab ID:	08-2755 mb
Date Analyzed:	12/12/18	Data File:	121111.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	BAT/MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<0.69	<0.4	1,2-Dichloropropane	<0.23	<0.05
Dichlorodifluoromethane	<0.49	<0.1	1,4-Dioxane	<0.36	<0.1
Chloromethane	<2.1	<1	2,2,4-Trimethylpentane	<4.7	<1
F-114	<0.7	<0.1	Methyl methacrylate	<4.1	<1
Vinyl chloride	<0.26	<0.1	Heptane	<4.1	<1
1,3-Butadiene	<0.022	<0.01	Bromodichloromethane	<0.067	<0.01
Butane	<2.4	<1	Trichloroethene	<0.27	<0.05
Bromomethane	<1.6	<0.4	cis-1,3-Dichloropropene	<0.45	<0.1
Chloroethane	<2.6	<1	4-Methyl-2-pentanone	<4.1	<1
Vinyl bromide	<0.44	<0.1	trans-1,3-Dichloropropene	<0.45	<0.1
Ethanol	<7.5	<4	Toluene	<0.38	<0.1
Acrolein	<0.92	<0.4	1,1,2-Trichloroethane	<0.11	<0.02
Pentane	<3	<1	2-Hexanone	<4.1	<1
Trichlorofluoromethane	<2.2	<0.4	Tetrachloroethene	<6.8	<1
Acetone	<4.8	<2	Dibromochloromethane	<0.085	<0.01
2-Propanol	<8.6	<3.5	1,2-Dibromoethane (EDB)	<0.077	<0.01
1,1-Dichloroethene	<0.4	<0.1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	<0.43	<0.1
Methylene chloride	<87	<25	1,1,2,2-Tetrachloroethane	<0.14	<0.02
t-Butyl alcohol (TBA)	<12	<4	Nonane	<5.2	<1
3-Chloropropene	<1.3	<0.4	Isopropylbenzene	<2.5	<0.5
CFC-113	<0.77	<0.1	2-Chlorotoluene	<5.2	<1
Carbon disulfide	<6.2	<2	Propylbenzene	<2.5	<0.5
Methyl t-butyl ether (MTBE)	<1.8	<0.5	4-Ethyltoluene	<2.5	<0.5
Vinyl acetate	<7	<2	m,p-Xylene	<0.87	<0.2
1,1-Dichloroethane	<0.4	<0.1	o-Xylene	<0.43	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1	Styrene	<0.85	<0.2
Hexane	<3.5	<1	Bromoform	<2.1	<0.2
Chloroform	<0.049	<0.01	Benzyl chloride	<0.052	<0.01
Ethyl acetate	<7.2	<2	1,3,5-Trimethylbenzene	<2.5	<0.5
Tetrahydrofuran	<0.29	<0.1	1,2,4-Trimethylbenzene	<2.5	<0.5
2-Butanone (MEK)	<2.9	<1	1,3-Dichlorobenzene	<0.6	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01	1,4-Dichlorobenzene	<0.24	<0.04
1,1,1-Trichloroethane	<0.55	<0.1	1,2-Dichlorobenzene	<0.6	<0.1
Carbon tetrachloride	<0.63	<0.1	1,2,4-Trichlorobenzene	<0.74	<0.1
Benzene	<0.32	<0.1	Naphthalene	<0.52	<0.1
Cyclohexane	<6.9	<2	Hexachlorobutadiene	<0.21	<0.02

Date of Report: 12/19/18
Date Received: 12/11/18
Project: Evergreen Treatment Services 180043, F&BI 812130
Date Extracted: 12/17/18
Date Analyzed: 12/17/18

RESULTS FROM THE ANALYSIS OF AIR SAMPLES FOR HELIUM USING METHOD ASTM D1946

Results Reported as % Helium

Sample ID Laboratory ID	Helium
SV-1 812130-01	<0.6
SV-2 812130-02	<0.6
SV-3 812130-03	<0.6
SV-4 812130-04	<0.6
Method Blank	<0.6

Date of Report: 12/19/18
Date Received: 12/11/18
Project: Evergreen Treatment Services 180043, F&BI 812130

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
Propene	ppbv	5	121	70-130
Dichlorodifluoromethane	ppbv	5	102	70-130
Chloromethane	ppbv	5	119	70-130
F-114	ppbv	5	99	70-130
Vinyl chloride	ppbv	5	99	70-130
1,3-Butadiene	ppbv	5	109	70-130
Butane	ppbv	5	123	70-130
Bromomethane	ppbv	5	119	70-130
Chloroethane	ppbv	5	101	70-130
Vinyl Bromide	ppbv	5	90	70-130
Ethanol	ppbv	5	113	70-130
Acrolein	ppbv	5	110	70-130
Pentane	ppbv	5	114	70-130
Trichlorofluoromethane	ppbv	5	103	70-130
Acetone	ppbv	5	107	70-130
2-Propanol	ppbv	5	117	70-130
1,1-Dichloroethene	ppbv	5	101	70-130
trans-1,2-Dichloroethene	ppbv	5	104	70-130
Methylene chloride	ppbv	5	105	70-130
t-Butyl alcohol (TBA)	ppbv	5	112	70-130
3-Chloropropene	ppbv	5	130	70-130
CFC-113	ppbv	5	100	70-130
Carbon disulfide	ppbv	5	108	70-130
Methyl t-butyl ether (MTBE)	ppbv	5	109	70-130
Vinyl acetate	ppbv	5	149 vo	70-130
1,1-Dichloroethane	ppbv	5	120	70-130
cis-1,2-Dichloroethene	ppbv	5	105	70-130
Hexane	ppbv	5	113	70-130
Chloroform	ppbv	5	117	70-130
Ethyl acetate	ppbv	5	134 vo	70-130
Tetrahydrofuran	ppbv	5	134 vo	70-130
2-Butanone (MEK)	ppbv	5	114	70-130
1,2-Dichloroethane (EDC)	ppbv	5	127	70-130
1,1,1-Trichloroethane	ppbv	5	115	70-130
Carbon tetrachloride	ppbv	5	110	70-130
Benzene	ppbv	5	112	70-130
Cyclohexane	ppbv	5	103	70-130
1,2-Dichloropropane	ppbv	5	110	70-130
1,4-Dioxane	ppbv	5	109	70-130
2,2,4-Trimethylpentane	ppbv	5	119	70-130
Methyl methacrylate	ppbv	5	137 vo	70-130

Date of Report: 12/19/18
Date Received: 12/11/18
Project: Evergreen Treatment Services 180043, F&BI 812130

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
Heptane	ppbv	5	127	70-130
Bromodichloromethane	ppbv	5	116	70-130
Trichloroethene	ppbv	5	106	70-130
cis-1,3-Dichloropropene	ppbv	5	106	70-130
4-Methyl-2-pentanone	ppbv	5	94	70-130
trans-1,3-Dichloropropene	ppbv	5	108	70-130
Toluene	ppbv	5	95	70-130
1,1,2-Trichloroethane	ppbv	5	103	70-130
2-Hexanone	ppbv	5	133 vo	70-130
Tetrachloroethene	ppbv	5	92	70-130
Dibromochloromethane	ppbv	5	104	70-130
1,2-Dibromoethane (EDB)	ppbv	5	103	70-130
Chlorobenzene	ppbv	5	97	70-130
Ethylbenzene	ppbv	5	106	70-130
1,1,2,2-Tetrachloroethane	ppbv	5	106	70-130
Nonane	ppbv	5	142 vo	70-130
Isopropylbenzene	ppbv	5	110	70-130
2-Chlorotoluene	ppbv	5	101	70-130
Propylbenzene	ppbv	5	109	70-130
4-Ethyltoluene	ppbv	5	106	70-130
m,p-Xylene	ppbv	10	99	70-130
o-Xylene	ppbv	5	102	70-130
Styrene	ppbv	5	104	70-130
Bromoform	ppbv	5	96	70-130
Benzyl chloride	ppbv	5	102	70-130
1,3,5-Trimethylbenzene	ppbv	5	101	70-130
1,2,4-Trimethylbenzene	ppbv	5	94	70-130
1,3-Dichlorobenzene	ppbv	5	90	70-130
1,4-Dichlorobenzene	ppbv	5	88	70-130
1,2-Dichlorobenzene	ppbv	5	88	70-130
1,2,4-Trichlorobenzene	ppbv	5	79	70-130
Naphthalene	ppbv	5	92	70-130
Hexachlorobutadiene	ppbv	5	80	70-130

Date of Report: 12/19/18
Date Received: 12/11/18
Project: Evergreen Treatment Services 180043, F&BI 812130

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR HELIUM USING METHOD ASTM D1946

Laboratory Code: 812130-04 (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	<0.6	<0.6	nm	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.

812130

SAMPLE CHAIN OF CUSTODY

ME 12/11/18

Page # 1 of 1

Report To Dana Cannon & Kristin Beck
Company Aspect Consulting
Address 710 Second Ave, Suite 550
City, State, ZIP Seattle, WA 98104
Phone _____ Email _____

SAMPLERS (*signature*) Kristin Beck

PROJECT NAME: Evergreen Treatment Services
PO #: 180043

REPORTING LEVEL
☐ Indoor Air ☐ Deep Soil Gas
☒ Sub Slab/Soil Gas ☐ SVE/Grab

INVOICE TO: Accts Payable

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	TO-15 BTEXN	TO-15 cVOCs	Helium	Notes
SV-1	01	2433	102	12/10/18	30	0748	4	0752	X			X	PID = 1.1 ppm
SV-2	02	3668	106	↓	30	0835	5	0839	X			X	PID = 1.4 ppm
SV-3	03	3412	257		29	0957	4	1002	X			X	PID = 2.1 ppm
SV-4	04	2299	255		30	1145	5	1149	X			X	PID = 0.1 ppm

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:	Kristin Beck	Kristin Beck	Aspect	12/11/18	0830
Received by:		Matt Langston	FBInc	12/11/18	0830
Relinquished by:					
Received by:					

Samples ~~received~~ at 17 °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 19, 2018

Dana Cannon, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Cannon:

Included are the results from the testing of material submitted on December 11, 2018 from the Evergreen Treatment Services 180043, F&BI 812129 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, Kristin Beck
ASP1219R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 11, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Evergreen Treatment Services 180043, F&BI 812129 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
812129 -01	AMW-1-2.5
812129 -02	AMW-1-12.5
812129 -03	AMW-2-2.5
812129 -04	AMW-2-5.5
812129 -05	AMW-2-19.5
812129 -06	AMW-3-5.0
812129 -07	AMW-3-10.0
812129 -08	AMW-3-15.0
812129 -09	AMW-4-2.5
812129 -10	AMW-4-8.0
812129 -11	AMW-4-14.0
812129 -12	AMW-4-19.0

A 6020A internal standard failed the acceptance criteria for sample AMW-1-12.5 due to matrix interferences. The data were flagged accordingly. The sample was diluted and reanalyzed.

All other quality control requirements were acceptable.

Date of Report: 12/19/18
Date Received: 12/11/18
Project: Evergreen Treatment Services 180043, F&BI 812129
Date Extracted: 12/12/18
Date Analyzed: 12/12/18

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
AMW-1-12.5 812129-02	<5	87
AMW-2-2.5 812129-03	<5	83
AMW-2-5.5 812129-04	<5	83
AMW-3-5.0 812129-06	<5	85
AMW-4-2.5 812129-09	<5	82
AMW-4-8.0 812129-10	<5	83
Method Blank 08-2777 MB	<5	87

Date of Report: 12/19/18
Date Received: 12/11/18
Project: Evergreen Treatment Services 180043, F&BI 812129
Date Extracted: 12/12/18
Date Analyzed: 12/12/18

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)
AMW-1-12.5 812129-02	<50	<250	83
AMW-2-2.5 812129-03	<50	<250	91
AMW-2-5.5 812129-04	<50	<250	90
AMW-3-5.0 812129-06	<50	<250	84
AMW-4-2.5 812129-09	<50	<250	83
AMW-4-8.0 812129-10	<50	<250	91
Method Blank 08-2786 MB	<50	<250	95

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-1-12.5	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services
Date Extracted:	12/14/18	Lab ID:	812129-02
Date Analyzed:	12/14/18	Data File:	812129-02.093
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	27.8
Cadmium	2.00
Chromium	22.2
Copper	404
Lead	3,740 ve J
Mercury	<1 J
Nickel	19.6
Zinc	911

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-1-12.5	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services
Date Extracted:	12/14/18	Lab ID:	812129-02 x25
Date Analyzed:	12/17/18	Data File:	812129-02 x25.033
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	4,720

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-2-2.5	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services
Date Extracted:	12/14/18	Lab ID:	812129-03
Date Analyzed:	12/14/18	Data File:	812129-03.094
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.93
Cadmium	<1
Chromium	42.6
Copper	28.7
Lead	35.3
Mercury	<1
Nickel	44.0
Zinc	66.8

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-3-5.0	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services
Date Extracted:	12/14/18	Lab ID:	812129-06
Date Analyzed:	12/14/18	Data File:	812129-06.095
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.39
Cadmium	<1
Chromium	34.1
Copper	29.8
Lead	5.21
Mercury	<1
Nickel	49.7
Zinc	48.8

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-4-2.5	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services
Date Extracted:	12/14/18	Lab ID:	812129-09
Date Analyzed:	12/14/18	Data File:	812129-09.108
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.59
Cadmium	<1
Chromium	18.2
Copper	22.0
Lead	32.1
Mercury	<1
Nickel	21.5
Zinc	71.2

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-4-8.0	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services
Date Extracted:	12/14/18	Lab ID:	812129-10
Date Analyzed:	12/14/18	Data File:	812129-10.109
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Cadmium	<1
Chromium	23.4
Copper	11.4
Lead	7.35
Mercury	<1
Nickel	35.7
Zinc	25.7

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Evergreen Treatment Services
Date Extracted:	12/14/18	Lab ID:	I8-860 mb
Date Analyzed:	12/14/18	Data File:	I8-860 mb.057
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Zinc	<5

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AMW-3-5.0	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services
Date Extracted:	12/14/18	Lab ID:	812129-06 1/5
Date Analyzed:	12/14/18	Data File:	121407.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	76	31	163
Benzo(a)anthracene-d12	73	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AMW-4-2.5	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services
Date Extracted:	12/14/18	Lab ID:	812129-09 1/5
Date Analyzed:	12/14/18	Data File:	121408.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	84	31	163
Benzo(a)anthracene-d12	89	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.013
Chrysene	0.017
Benzo(a)pyrene	0.020
Benzo(b)fluoranthene	0.028
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	0.018
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Evergreen Treatment Services
Date Extracted:	12/14/18	Lab ID:	08-2796 mb 1/5
Date Analyzed:	12/14/18	Data File:	121406.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	81	31	163
Benzo(a)anthracene-d12	83	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-1-12.5	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services
Date Extracted:	12/12/18	Lab ID:	812129-02
Date Analyzed:	12/12/18	Data File:	121208.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	103	65	139

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-4-8.0	Client:	Aspect Consulting, LLC
Date Received:	12/11/18	Project:	Evergreen Treatment Services
Date Extracted:	12/12/18	Lab ID:	812129-10
Date Analyzed:	12/12/18	Data File:	121209.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	106	65	139

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Evergreen Treatment Services
Date Extracted:	12/12/18	Lab ID:	08-2753 mb2
Date Analyzed:	12/12/18	Data File:	121207.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	97	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Date of Report: 12/19/18
Date Received: 12/11/18
Project: Evergreen Treatment Services 180043, F&BI 812129

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 812139-28 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	105	71-131

Date of Report: 12/19/18
Date Received: 12/11/18
Project: Evergreen Treatment Services 180043, F&BI 812129

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 812129-02 (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	88	100	64-133	13

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	94	58-147

Date of Report: 12/19/18
Date Received: 12/11/18
Project: Evergreen Treatment Services 180043, F&BI 812129

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 812190-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	4.23	110	107	75-125	3
Cadmium	mg/kg (ppm)	10	<1	109	104	75-125	5
Chromium	mg/kg (ppm)	50	6.42	102	101	75-125	1
Copper	mg/kg (ppm)	50	<5	97	96	75-125	1
Lead	mg/kg (ppm)	50	3.91	107	104	75-125	3
Mercury	mg/kg (ppm	5	<1	108	108	75-125	0
Nickel	mg/kg (ppm)	25	5.06	101	96	75-125	5
Zinc	mg/kg (ppm)	50	10.8	96	91	75-125	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	104	80-120
Cadmium	mg/kg (ppm)	10	107	80-120
Chromium	mg/kg (ppm)	50	110	80-120
Copper	mg/kg (ppm)	50	109	80-120
Lead	mg/kg (ppm)	50	109	80-120
Mercury	mg/kg (ppm)	5	108	80-120
Nickel	mg/kg (ppm)	25	113	80-120
Zinc	mg/kg (ppm)	50	101	80-120

Date of Report: 12/19/18
Date Received: 12/11/18
Project: Evergreen Treatment Services 180043, F&BI 812129

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PAHS BY EPA METHOD 8270D SIM

Laboratory Code: 812129-09 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Benz(a)anthracene	mg/kg (ppm)	0.17	0.012	93	23-144
Chrysene	mg/kg (ppm)	0.17	0.016	88	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	0.026	107	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	98	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	0.019	100	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	0.018	89	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	87	31-146

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	89	89	51-115	0
Chrysene	mg/kg (ppm)	0.17	92	92	55-129	0
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	101	101	56-123	0
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	99	97	54-131	2
Benzo(a)pyrene	mg/kg (ppm)	0.17	88	86	51-118	2
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	98	95	49-148	3
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	97	97	50-141	0

Date of Report: 12/19/18
Date Received: 12/11/18
Project: Evergreen Treatment Services 180043, F&BI 812129

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 812128-09 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	<0.5	26	27	10-142	4
Chloromethane	mg/kg (ppm)	2.5	<0.5	53	53	10-126	0
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	58	61	10-138	5
Bromomethane	mg/kg (ppm)	2.5	<0.5	61	67	10-163	9
Chloroethane	mg/kg (ppm)	2.5	<0.5	69	71	10-176	3
Trichlorofluoromethane	mg/kg (ppm)	2.5	<0.5	67	68	10-176	1
Acetone	mg/kg (ppm)	12.5	<0.5	85	84	10-163	1
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	76	76	10-160	0
Hexane	mg/kg (ppm)	2.5	<0.25	63	65	10-137	3
Methylene chloride	mg/kg (ppm)	2.5	<0.5	103	106	10-156	3
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	89	90	21-145	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	84	84	14-137	0
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	87	88	19-140	1
2,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	86	87	10-158	1
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	89	90	25-135	1
Chloroform	mg/kg (ppm)	2.5	<0.05	92	93	21-145	1
2-Butanone (MEK)	mg/kg (ppm)	12.5	<0.5	88	87	19-147	1
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	92	92	12-160	0
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	91	92	10-156	1
1,1-Dichloropropene	mg/kg (ppm)	2.5	<0.05	88	89	17-140	1
Carbon tetrachloride	mg/kg (ppm)	2.5	<0.05	98	99	9-164	1
Benzene	mg/kg (ppm)	2.5	<0.03	86	87	29-129	1
Trichloroethene	mg/kg (ppm)	2.5	<0.02	85	86	21-139	1
1,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	93	95	30-135	2
Bromodichloromethane	mg/kg (ppm)	2.5	<0.05	97	98	23-155	1
Dibromomethane	mg/kg (ppm)	2.5	<0.05	89	89	23-145	0
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	<0.5	96	97	24-155	1
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	94	94	28-144	0
Toluene	mg/kg (ppm)	2.5	<0.05	88	88	35-130	0
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	93	93	26-149	0
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	<0.05	91	92	10-205	1
2-Hexanone	mg/kg (ppm)	12.5	<0.5	93	93	15-166	0
1,3-Dichloropropane	mg/kg (ppm)	2.5	<0.05	94	95	31-137	1
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	86	87	20-133	1
Dibromochloromethane	mg/kg (ppm)	2.5	<0.05	103	104	28-150	1
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	91	91	28-142	0
Chlorobenzene	mg/kg (ppm)	2.5	<0.05	90	91	32-129	1
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	90	91	32-137	1
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	99	99	31-143	0
m,p-Xylene	mg/kg (ppm)	5	<0.1	88	89	34-136	1
o-Xylene	mg/kg (ppm)	2.5	<0.05	91	91	33-134	0
Styrene	mg/kg (ppm)	2.5	<0.05	91	92	35-137	1
Isopropylbenzene	mg/kg (ppm)	2.5	<0.05	92	92	31-142	0
Bromoform	mg/kg (ppm)	2.5	<0.05	107	107	21-156	0
n-Propylbenzene	mg/kg (ppm)	2.5	<0.05	94	95	23-146	1
Bromobenzene	mg/kg (ppm)	2.5	<0.05	93	94	34-130	1
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	94	95	18-149	1
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	95	97	28-140	2
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	<0.05	95	96	25-144	1
2-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	92	93	31-134	1
4-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	93	95	31-136	2
tert-Butylbenzene	mg/kg (ppm)	2.5	<0.05	92	93	30-137	1
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	92	94	10-182	2
sec-Butylbenzene	mg/kg (ppm)	2.5	<0.05	92	93	23-145	1
p-Isopropyltoluene	mg/kg (ppm)	2.5	<0.05	93	94	21-149	1
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	90	92	30-131	2
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	90	92	29-129	2
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	90	91	31-132	1
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	<0.5	95	97	11-161	2
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	86	89	22-142	3
Hexachlorobutadiene	mg/kg (ppm)	2.5	<0.25	89	90	10-142	1
Naphthalene	mg/kg (ppm)	2.5	<0.05	86	87	14-157	1
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	85	87	20-144	2

Date of Report: 12/19/18
Date Received: 12/11/18
Project: Evergreen Treatment Services 180043, F&BI 812129

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2.5	52	10-146
Chloromethane	mg/kg (ppm)	2.5	70	27-133
Vinyl chloride	mg/kg (ppm)	2.5	80	22-139
Bromomethane	mg/kg (ppm)	2.5	77	38-114
Chloroethane	mg/kg (ppm)	2.5	88	10-163
Trichlorofluoromethane	mg/kg (ppm)	2.5	90	10-196
Acetone	mg/kg (ppm)	12.5	94	52-141
1,1-Dichloroethene	mg/kg (ppm)	2.5	92	47-128
Hexane	mg/kg (ppm)	2.5	87	43-142
Methylene chloride	mg/kg (ppm)	2.5	99	42-132
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	101	60-123
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	97	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	100	68-115
2,2-Dichloropropane	mg/kg (ppm)	2.5	100	52-170
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	102	72-113
Chloroform	mg/kg (ppm)	2.5	104	66-120
2-Butanone (MEK)	mg/kg (ppm)	12.5	96	57-123
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	104	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	106	62-131
1,1-Dichloropropene	mg/kg (ppm)	2.5	102	69-128
Carbon tetrachloride	mg/kg (ppm)	2.5	115	60-139
Benzene	mg/kg (ppm)	2.5	98	68-114
Trichloroethene	mg/kg (ppm)	2.5	97	64-117
1,2-Dichloropropane	mg/kg (ppm)	2.5	104	72-127
Bromodichloromethane	mg/kg (ppm)	2.5	108	72-130
Dibromomethane	mg/kg (ppm)	2.5	100	70-120
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	106	45-145
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	103	75-136
Toluene	mg/kg (ppm)	2.5	98	66-126
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	102	72-132
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	101	75-113
2-Hexanone	mg/kg (ppm)	12.5	101	33-152
1,3-Dichloropropane	mg/kg (ppm)	2.5	105	72-130
Tetrachloroethene	mg/kg (ppm)	2.5	96	72-114
Dibromochloromethane	mg/kg (ppm)	2.5	114	74-125
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	102	74-132
Chlorobenzene	mg/kg (ppm)	2.5	101	76-111
Ethylbenzene	mg/kg (ppm)	2.5	100	64-123
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	110	69-135
m,p-Xylene	mg/kg (ppm)	5	97	78-122
o-Xylene	mg/kg (ppm)	2.5	100	77-124
Styrene	mg/kg (ppm)	2.5	102	74-126
Isopropylbenzene	mg/kg (ppm)	2.5	101	76-127
Bromoform	mg/kg (ppm)	2.5	119	56-132
n-Propylbenzene	mg/kg (ppm)	2.5	103	74-124
Bromobenzene	mg/kg (ppm)	2.5	102	72-122
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	103	76-126
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	106	56-143
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	105	61-137
2-Chlorotoluene	mg/kg (ppm)	2.5	101	74-121
4-Chlorotoluene	mg/kg (ppm)	2.5	103	75-122
tert-Butylbenzene	mg/kg (ppm)	2.5	102	73-130
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	101	76-125
sec-Butylbenzene	mg/kg (ppm)	2.5	103	71-130
p-Isopropyltoluene	mg/kg (ppm)	2.5	102	70-132
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	100	75-121
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	99	74-117
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	100	76-121
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	108	58-138
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	96	64-135
Hexachlorobutadiene	mg/kg (ppm)	2.5	98	50-153
Naphthalene	mg/kg (ppm)	2.5	96	63-140
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	95	63-138

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.

B12129

SAMPLE CHAIN OF CUSTODY

ME 12/11/18

VSS/DQ

Page # 1 of 2

Report To Dana Cannon & 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: Evergreen Treatment Services
PO #: 180043

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	cPAHs	Metals			Notes
						ANALYSES REQUESTED											(As, Cd, Cr, Cu, Hg, Pb, Ni, Zn)
AMW-1-2.5	01 A-E	12/9/18	1025	Soil	5												
~~AMW-1-8.5~~			1145												5	*	(NB) 12-11-18 Did not receive
AMW-1-12.5	02 A-E		1208				X	X		X				X			
AMW-2-2.5	03		1450				X	X						X			X - per DC
AMW-2-5.5	04		1505				X	X									12/11/18
AMW-2-19.5	05		1520														ME
AMW-3-5.0	06		0930				X	X					X	X			
AMW-3-10.0	07		0956														
AMW-3-15.0	08		1009														
AMW-4-2.5	09		1550				X	X					X	X			

Samples received at 3 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	12/11/18	0825
Received by: Matt Langston	Matt Langston	FBFri	12/11/18	0825
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

812129

SAMPLE CHAIN OF CUSTODY

ME 12/11/18

US5/003

Page # 2 of 2

Report To Dana Cannon & Kristin Beck

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature) Kat Beck

PROJECT NAME: Evergreen Treatment Services

PO #: 180043

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	cPAHs	Metals			Notes
AMW-4-8.0 10	11 A-E	12/10/18	1506	Soil	5		X	X		X				X			
AMW-4-14.0 11	12		1523														
AMW-4-19.0 12	13		1525														

(As, Cd, Cr, Cu, Hg, Pb, Ni, Zn)

Samples received at 3 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kat Beck	Kristin Beck	Aspect	12/11/18	0825
Received by:	Matt Langston	FBInc	12/11/18	0825
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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Arina Podnozova, B.S.
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(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 27, 2018

Dana Cannon, Project Manager
Aspect Consulting, LLC
401 2nd Ave S, Suite 201
Seattle, WA 98104

Dear Ms Cannon:

Included are the results from the testing of material submitted on December 18, 2018 from the Evergreen 180043, F&BI 812250 project. There are 19 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
ASP1227R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 18, 2018 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Evergreen 180043, F&BI 812250 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
812250 -01	AMW-1-121718
812250 -02	AMW-2-121718
812250 -03	AMW-3-121718
812250 -04	AMW-4-121718

The samples were sent to Fremont Analytical for cyanide analysis. The report will be forwarded upon receipt.

All quality control requirements were acceptable.

Date of Report: 12/27/18
Date Received: 12/18/18
Project: Evergreen 180043, F&BI 812250
Date Extracted: 12/18/18
Date Analyzed: 12/18/18

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 51-134)
AMW-1-121718 812250-01	<100	84
AMW-2-121718 812250-02	<100	82
AMW-3-121718 812250-03	<100	84
AMW-4-121718 812250-04	<100	83
Method Blank 08-2807 MB	<100	88

Date of Report: 12/27/18
Date Received: 12/18/18
Project: Evergreen 180043, F&BI 812250
Date Extracted: 12/19/18
Date Analyzed: 12/19/18

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-1-121718 812250-01	<50	<250	111
AMW-2-121718 812250-02	73 x	<250	121
AMW-3-121718 812250-03	<50	<250	116
AMW-4-121718 812250-04	<50	<250	119
Method Blank 08-2871 MB	<50	<250	104

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	AMW-1-121718	Client:	Aspect Consulting, LLC
Date Received:	12/18/18	Project:	Evergreen 180043, F&BI 812250
Date Extracted:	12/21/18	Lab ID:	812250-01
Date Analyzed:	12/21/18	Data File:	812250-01.063
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	11.4
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Manganese	575
Mercury	<1
Nickel	1.31
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	AMW-2-121718	Client:	Aspect Consulting, LLC
Date Received:	12/18/18	Project:	Evergreen 180043, F&BI 812250
Date Extracted:	12/21/18	Lab ID:	812250-02
Date Analyzed:	12/21/18	Data File:	812250-02.086
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	4.33
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Manganese	302
Mercury	<1
Nickel	3.80
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	AMW-3-121718	Client:	Aspect Consulting, LLC
Date Received:	12/18/18	Project:	Evergreen 180043, F&BI 812250
Date Extracted:	12/21/18	Lab ID:	812250-03
Date Analyzed:	12/21/18	Data File:	812250-03.087
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	20.3
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Manganese	680
Mercury	<1
Nickel	2.22
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	AMW-4-121718	Client:	Aspect Consulting, LLC
Date Received:	12/18/18	Project:	Evergreen 180043, F&BI 812250
Date Extracted:	12/21/18	Lab ID:	812250-04
Date Analyzed:	12/21/18	Data File:	812250-04.088
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Manganese	485
Mercury	<1
Nickel	2.24
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Evergreen 180043, F&BI 812250
Date Extracted:	12/21/18	Lab ID:	I8-879 mb
Date Analyzed:	12/21/18	Data File:	I8-879 mb.051
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Manganese	<1
Mercury	<1
Nickel	<1
Zinc	<5

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-1-121718	Client:	Aspect Consulting, LLC
Date Received:	12/18/18	Project:	Evergreen 180043, F&BI 812250
Date Extracted:	12/18/18	Lab ID:	812250-01
Date Analyzed:	12/20/18	Data File:	122012.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	2.9	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<1
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<10	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-2-121718	Client:	Aspect Consulting, LLC
Date Received:	12/18/18	Project:	Evergreen 180043, F&BI 812250
Date Extracted:	12/18/18	Lab ID:	812250-02
Date Analyzed:	12/18/18	Data File:	121822.D
Matrix:	Water	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)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<1
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<10	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-3-121718	Client:	Aspect Consulting, LLC
Date Received:	12/18/18	Project:	Evergreen 180043, F&BI 812250
Date Extracted:	12/18/18	Lab ID:	812250-03
Date Analyzed:	12/18/18	Data File:	121823.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

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)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<1
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<10	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AMW-4-121718	Client:	Aspect Consulting, LLC
Date Received:	12/18/18	Project:	Evergreen 180043, F&BI 812250
Date Extracted:	12/18/18	Lab ID:	812250-04
Date Analyzed:	12/18/18	Data File:	121824.D
Matrix:	Water	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	99	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<1
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<10	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Evergreen 180043, F&BI 812250
Date Extracted:	12/18/18	Lab ID:	08-2769 mb
Date Analyzed:	12/18/18	Data File:	121808.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<1
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<10	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Date of Report: 12/27/18
Date Received: 12/18/18
Project: Evergreen 180043, F&BI 812250

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 812240-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	94	69-134

Date of Report: 12/27/18
Date Received: 12/18/18
Project: Evergreen 180043, F&BI 812250

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	88	61-133	9

Date of Report: 12/27/18
Date Received: 12/18/18
Project: Evergreen 180043, F&BI 812250

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 812294-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	1.83	113	110	75-125	3
Cadmium	ug/L (ppb)	5	<1	103	102	75-125	1
Chromium	ug/L (ppb)	20	<1	104	103	75-125	1
Copper	ug/L (ppb)	20	<5	94	94	75-125	0
Lead	ug/L (ppb)	10	<1	92	92	75-125	0
Manganese	ug/L (ppb)	20	219	173 b	101 b	75-125	53 b
Mercury	ug/L (ppb)	5	<1	94	95	75-125	1
Nickel	ug/L (ppb)	20	<1	96	97	75-125	1
Zinc	ug/L (ppb)	50	<5	94	95	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	108	80-120
Cadmium	ug/L (ppb)	5	105	80-120
Chromium	ug/L (ppb)	20	105	80-120
Copper	ug/L (ppb)	20	105	80-120
Lead	ug/L (ppb)	10	111	80-120
Manganese	ug/L (ppb)	20	105	80-120
Mercury	ug/L (ppb)	5	104	80-120
Nickel	ug/L (ppb)	20	105	80-120
Zinc	ug/L (ppb)	50	103	80-120

Date of Report: 12/27/18
Date Received: 12/18/18
Project: Evergreen 180043, F&BI 812250

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 812231-21 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	50	<1	113	55-137
Chloromethane	ug/L (ppb)	50	<10	93	61-120
Vinyl chloride	ug/L (ppb)	50	0.57	95	61-139
Bromomethane	ug/L (ppb)	50	<1	96	20-265
Chloroethane	ug/L (ppb)	50	<1	100	55-149
Trichlorofluoromethane	ug/L (ppb)	50	<1	95	71-128
Acetone	ug/L (ppb)	250	<50	86	48-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	96	71-123
Hexane	ug/L (ppb)	50	<1	88	44-139
Methylene chloride	ug/L (ppb)	50	<5	86	61-126
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	96	68-125
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	95	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	91	79-113
2,2-Dichloropropane	ug/L (ppb)	50	<1	85	48-157
cis-1,2-Dichloroethene	ug/L (ppb)	50	39	88 b	63-126
Chloroform	ug/L (ppb)	50	<1	90	77-117
2-Butanone (MEK)	ug/L (ppb)	250	20	89	70-135
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	93	70-119
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	89	75-121
1,1-Dichloropropene	ug/L (ppb)	50	<1	95	67-121
Carbon tetrachloride	ug/L (ppb)	50	<1	89	70-132
Benzene	ug/L (ppb)	50	<0.35	90	75-114
Trichloroethene	ug/L (ppb)	50	<1	92	73-122
1,2-Dichloropropane	ug/L (ppb)	50	<1	97	80-111
Bromodichloromethane	ug/L (ppb)	50	<1	93	78-117
Dibromomethane	ug/L (ppb)	50	<1	90	73-125
4-Methyl-2-pentanone	ug/L (ppb)	250	15	110	79-140
cis-1,3-Dichloropropene	ug/L (ppb)	50	<1	94	76-120
Toluene	ug/L (ppb)	50	<1	89	73-117
trans-1,3-Dichloropropene	ug/L (ppb)	50	<1	91	75-122
1,1,2-Trichloroethane	ug/L (ppb)	50	<1	89	81-116
2-Hexanone	ug/L (ppb)	250	<10	94	74-127
1,3-Dichloropropane	ug/L (ppb)	50	<1	94	80-113
Tetrachloroethene	ug/L (ppb)	50	<1	92	72-113
Dibromochloromethane	ug/L (ppb)	50	<1	94	69-129
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	<1	95	79-120
Chlorobenzene	ug/L (ppb)	50	<1	90	75-115
Ethylbenzene	ug/L (ppb)	50	<1	93	66-124
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	<1	90	76-130
m,p-Xylene	ug/L (ppb)	100	<2	95	63-128
o-Xylene	ug/L (ppb)	50	<1	100	64-129
Styrene	ug/L (ppb)	50	<1	99	56-142
Isopropylbenzene	ug/L (ppb)	50	<1	98	74-122
Bromoform	ug/L (ppb)	50	<1	94	49-138
n-Propylbenzene	ug/L (ppb)	50	<1	93	65-129
Bromobenzene	ug/L (ppb)	50	<1	93	70-121
1,3,5-Trimethylbenzene	ug/L (ppb)	50	<1	98	60-138
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	<1	92	79-120
1,2,3-Trichloropropane	ug/L (ppb)	50	<1	88	62-125
2-Chlorotoluene	ug/L (ppb)	50	<1	92	40-159
4-Chlorotoluene	ug/L (ppb)	50	<1	91	76-122
tert-Butylbenzene	ug/L (ppb)	50	<1	99	74-125
1,2,4-Trimethylbenzene	ug/L (ppb)	50	<1	96	59-136
sec-Butylbenzene	ug/L (ppb)	50	<1	95	69-127
p-Isopropyltoluene	ug/L (ppb)	50	<1	97	64-132
1,3-Dichlorobenzene	ug/L (ppb)	50	<1	92	77-113
1,4-Dichlorobenzene	ug/L (ppb)	50	<1	86	75-110
1,2-Dichlorobenzene	ug/L (ppb)	50	<1	90	70-120
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	<10	96	69-129
1,2,4-Trichlorobenzene	ug/L (ppb)	50	<1	98	66-123
Hexachlorobutadiene	ug/L (ppb)	50	<1	91	53-136
Naphthalene	ug/L (ppb)	50	<1	99	60-145
1,2,3-Trichlorobenzene	ug/L (ppb)	50	<1	93	59-130

Date of Report: 12/27/18
Date Received: 12/18/18
Project: Evergreen 180043, F&BI 812250

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER 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)
Dichlorodifluoromethane	ug/L (ppb)	50	123	123	50-157	0
Chloromethane	ug/L (ppb)	50	99	96	62-130	3
Vinyl chloride	ug/L (ppb)	50	98	97	70-128	1
Bromomethane	ug/L (ppb)	50	97	98	62-188	1
Chloroethane	ug/L (ppb)	50	100	102	66-149	2
Trichlorofluoromethane	ug/L (ppb)	50	98	98	70-132	0
Acetone	ug/L (ppb)	250	88	87	44-145	1
1,1-Dichloroethene	ug/L (ppb)	50	100	98	75-119	2
Hexane	ug/L (ppb)	50	95	93	51-153	2
Methylene chloride	ug/L (ppb)	50	87	85	63-132	2
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	96	96	70-122	0
trans-1,2-Dichloroethene	ug/L (ppb)	50	95	95	76-118	0
1,1-Dichloroethane	ug/L (ppb)	50	92	90	77-119	2
2,2-Dichloropropane	ug/L (ppb)	50	93	93	62-141	0
cis-1,2-Dichloroethene	ug/L (ppb)	50	91	90	76-119	1
Chloroform	ug/L (ppb)	50	90	90	78-117	0
2-Butanone (MEK)	ug/L (ppb)	250	92	89	49-147	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	94	93	78-114	1
1,1,1-Trichloroethane	ug/L (ppb)	50	91	90	80-116	1
1,1-Dichloropropene	ug/L (ppb)	50	97	95	78-119	2
Carbon tetrachloride	ug/L (ppb)	50	92	91	72-128	1
Benzene	ug/L (ppb)	50	91	90	75-116	1
Trichloroethene	ug/L (ppb)	50	94	93	72-119	1
1,2-Dichloropropane	ug/L (ppb)	50	99	97	79-121	2
Bromodichloromethane	ug/L (ppb)	50	94	93	76-120	1
Dibromomethane	ug/L (ppb)	50	91	89	79-121	2
4-Methyl-2-pentanone	ug/L (ppb)	250	110	108	54-153	2
cis-1,3-Dichloropropene	ug/L (ppb)	50	98	96	76-128	2
Toluene	ug/L (ppb)	50	90	89	79-115	1
trans-1,3-Dichloropropene	ug/L (ppb)	50	95	92	76-128	3
1,1,2-Trichloroethane	ug/L (ppb)	50	91	88	78-120	3
2-Hexanone	ug/L (ppb)	250	95	92	49-147	3
1,3-Dichloropropane	ug/L (ppb)	50	95	94	81-115	1
Tetrachloroethene	ug/L (ppb)	50	95	92	78-109	3
Dibromochloromethane	ug/L (ppb)	50	96	95	63-140	1
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	97	94	82-118	3
Chlorobenzene	ug/L (ppb)	50	91	90	80-113	1
Ethylbenzene	ug/L (ppb)	50	94	93	83-111	1
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	91	89	76-125	2
m,p-Xylene	ug/L (ppb)	100	96	93	84-112	3
o-Xylene	ug/L (ppb)	50	102	100	81-117	2
Styrene	ug/L (ppb)	50	101	98	83-121	3
Isopropylbenzene	ug/L (ppb)	50	99	97	81-122	2
Bromoform	ug/L (ppb)	50	97	95	40-161	2
n-Propylbenzene	ug/L (ppb)	50	95	93	81-115	2
Bromobenzene	ug/L (ppb)	50	95	94	80-113	1
1,3,5-Trimethylbenzene	ug/L (ppb)	50	99	98	83-117	1
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	92	91	79-118	1
1,2,3-Trichloropropane	ug/L (ppb)	50	90	88	74-116	2
2-Chlorotoluene	ug/L (ppb)	50	94	93	79-112	1
4-Chlorotoluene	ug/L (ppb)	50	92	91	80-116	1
tert-Butylbenzene	ug/L (ppb)	50	100	101	81-119	1
1,2,4-Trimethylbenzene	ug/L (ppb)	50	97	96	81-121	1
sec-Butylbenzene	ug/L (ppb)	50	96	96	83-123	0
p-Isopropyltoluene	ug/L (ppb)	50	99	99	81-122	0
1,3-Dichlorobenzene	ug/L (ppb)	50	94	93	80-115	1
1,4-Dichlorobenzene	ug/L (ppb)	50	87	86	77-112	1
1,2-Dichlorobenzene	ug/L (ppb)	50	91	89	79-115	2
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	94	93	62-133	1
1,2,4-Trichlorobenzene	ug/L (ppb)	50	99	99	75-119	0
Hexachlorobutadiene	ug/L (ppb)	50	95	95	70-116	0
Naphthalene	ug/L (ppb)	50	100	99	72-131	1
1,2,3-Trichlorobenzene	ug/L (ppb)	50	93	93	74-122	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.

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
3012 16th Ave. W.
Seattle, WA 98119

RE: 812250
Work Order Number: 1812267

December 26, 2018

Attention Michael Erdahl:

Fremont Analytical, Inc. received 4 sample(s) on 12/18/2018 for the analyses presented in the following report.

Cyanide by SM 4500-CN C, E

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
Laboratory Director

Date: *12/26/2018*

CLIENT: Friedman & Bruya
Project: 812250
Work Order: 1812267

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1812267-001	AMW-1-121718	12/17/2018 2:15 PM	12/18/2018 12:20 PM
1812267-002	AMW-2-121718	12/17/2018 4:35 PM	12/18/2018 12:20 PM
1812267-003	AMW-3-121718	12/17/2018 3:25 PM	12/18/2018 12:20 PM
1812267-004	AMW-4-121718	12/17/2018 1:15 PM	12/18/2018 12:20 PM

Case Narrative

WO#: **1812267**
Date: **12/26/2018**

CLIENT: Friedman & Bruya
Project: 812250

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **1812267**
Date Reported: **12/26/2018**

CLIENT: Friedman & Bruya
Project: 812250

Lab ID: 1812267-001 **Collection Date:** 12/17/2018 2:15:00 PM
Client Sample ID: **AMW-1-121718** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Cyanide by SM 4500-CN C, E				Batch ID: 23064		Analyst: WF
Cyanide, Total	ND	0.0500		mg/L	1	12/26/2018 12:22:00 PM

Lab ID: 1812267-002 **Collection Date:** 12/17/2018 4:35:00 PM
Client Sample ID: **AMW-2-121718** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Cyanide by SM 4500-CN C, E				Batch ID: 23064		Analyst: WF
Cyanide, Total	ND	0.0500		mg/L	1	12/26/2018 12:36:00 PM

Lab ID: 1812267-003 **Collection Date:** 12/17/2018 3:25:00 PM
Client Sample ID: **AMW-3-121718** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Cyanide by SM 4500-CN C, E				Batch ID: 23064		Analyst: WF
Cyanide, Total	ND	0.0500		mg/L	1	12/26/2018 12:40:00 PM

Analytical Report

Work Order: **1812267**
Date Reported: **12/26/2018**

CLIENT: Friedman & Bruya
Project: 812250

Lab ID: 1812267-004 **Collection Date:** 12/17/2018 1:15:00 PM
Client Sample ID: **AMW-4-121718** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Cyanide by SM 4500-CN C, E				Batch ID: 23064		Analyst: WF
Cyanide, Total	ND	0.0500		mg/L	1	12/26/2018 12:43:00 PM

Work Order: 1812267
CLIENT: Friedman & Bruya
Project: 812250

QC SUMMARY REPORT

Cyanide by SM 4500-CN C, E

Sample ID **MB-23064**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **12/26/2018**		RunNo: **48552**		
Client ID: **MBLKW**	Batch ID: **23064**					Analysis Date: **12/26/2018**		SeqNo: **951593**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	ND	0.0500									

Sample ID **LCS-23064**	SampType: **LCS**			Units: **mg/L**		Prep Date: **12/26/2018**		RunNo: **48552**		
Client ID: **LCSW**	Batch ID: **23064**					Analysis Date: **12/26/2018**		SeqNo: **951594**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	0.262	0.0500	0.2500	0	105	80	120				

Sample ID **1812267-001ADUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **12/26/2018**		RunNo: **48552**		
Client ID: **AMW-1-121718**	Batch ID: **23064**					Analysis Date: **12/26/2018**		SeqNo: **951596**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	ND	0.0500						0		20	

Sample ID **1812267-001AMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **12/26/2018**		RunNo: **48552**		
Client ID: **AMW-1-121718**	Batch ID: **23064**					Analysis Date: **12/26/2018**		SeqNo: **951597**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	0.294	0.0500	0.2500	0	118	80	120				

Sample ID **1812267-001AMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **12/26/2018**		RunNo: **48552**		
Client ID: **AMW-1-121718**	Batch ID: **23064**					Analysis Date: **12/26/2018**		SeqNo: **951598**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	0.281	0.0500	0.2500	0	112	80	120	0.2941	4.63	30	

Sample Log-In Check List

Client Name:	**FB**	Work Order Number:	**1812267**
Logged by:	**Clare Griggs**	Date Received:	**12/18/2018 12:20:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	FedEx		

Log In

3.	Coolers are present?	Yes ☐	No ☑	NA ☐
		No cooler present.		
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Required ☑
6.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
		Unknown prior to recepit.		
7.	Were all items received at a temperature of >0°C to 10.0°C *	Yes ☐	No ☑	NA ☐
		Refer to item information.		
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Sample	10.7

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT SAMPLE CHAIN OF CUSTODY 1812267 1812267

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 Fremont

PROJECT NAME/NO. 812250

PO # A-663

REMARKS

Please Email Results Aspect EDD

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	Matrix	# of jars	ANALYSES REQUESTED: Total Organic Carbon	COD	BOD	Chloride	Sulfate	Sulfide	Cyanide				Notes
AMW-1-121718		12/17/18	1415	water	1							x				
AMW-2-121718		↓	1635	↓	1							x				
AMW-3-121718			1525		1							x				
AMW-4-121718		↓	1315	↓	1							x				

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	12/18/18	11:00 AM
Received by:			FAT	12/18/18	1220
Relinquished by:					
Received by:					

812250

SAMPLE CHAIN OF CUSTODY

ME 12/18/18

VW3/AI2/DO4

Page # 1 of 1

Report To Dana Cannon

Company Aspect

Address

City, State, ZIP Seattle

Phone 206-838-5887 Email dcannon@aspectconsulting.com

SAMPLERS (*signature*) Na Hyung Choi

PROJECT NAME: Evergreen

PO #: 180043

REMARKS: COOLER 1/2

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	dissolved metals	Cyanide			Notes
AMW-1-121718	01 A_I	12/17/18	1415	water	9		X	X		X			X	X			metals: As, Cd, Cr, Cu, Hg, Mn, Pb, Ni, Zn (field filtered)
AMW-2-121718	02	↓	1635	↓	↓		X	X		X			X	X			
AMW-3-121718	03	↓	1525	↓	↓		X	X		X			X	X			
AMW-4-121718	04	↓	1315	↓	↓		X	X		X			X	X			
													Samples received at 4 °C				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Na Hyung Choi	Na Hyung Choi	Aspect	12/17/18	1815
Received by:	DAVID NELSON	FED EX	12/18/18	9:39
Relinquished by:				
Received by:	Nham Pham	FEBI	12/18/18	1020

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 17, 2020

Andrew Yonkofski, Project Manager
Aspect Consulting, LLC
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on September 10, 2020 from the Evergreen Treatment Services 1700 Airport Way South, Seattle, WA PO 180043, F&BI 009183 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: Aspect Data
ASP0917R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 10, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Evergreen Treatment Services 1700 Airport Way South, Seattle, WA PO 180043, F&BI 009183 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
009183 -01	SV-3-091020

The TO-15 calibration standard failed the acceptance criteria for methylene chloride. The data were flagged accordingly.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SV-3-091020	Client:	Aspect Consulting, LLC
Date Received:	09/10/20	Project:	Evergreen Treatment Services, Seattle, WA
Date Collected:	09/10/20	Lab ID:	009183-01 1/17
Date Analyzed:	09/15/20	Data File:	091430.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	108	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	3,100
APH EC9-12 aliphatics	860
APH EC9-10 aromatics	<420

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Evergreen Treatment Services, Seattle, WA
Date Collected:	Not Applicable	Lab ID:	00-2043 MB
Date Analyzed:	09/14/20	Data File:	091421.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	110	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<40
APH EC9-12 aliphatics	<50
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SV-3-091020	Client:	Aspect Consulting, LLC
Date Received:	09/10/20	Project:	Evergreen Treatment Services, Seattle, WA
Date Collected:	09/10/20	Lab ID:	009183-01 1/17
Date Analyzed:	09/15/20	Data File:	091430.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	105	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	180	110	1,2-Dichloropropane	<3.9	<0.85
Dichlorodifluoromethane	<8.4	<1.7	1,4-Dioxane	<6.1	<1.7
Chloromethane	<63	<31	2,2,4-Trimethylpentane	<79	<17
F-114	<12	<1.7	Methyl methacrylate	<70	<17
Vinyl chloride	<4.3	<1.7	Heptane	<70	<17
1,3-Butadiene	<0.75	<0.34	Bromodichloromethane	<1.1	<0.17
Butane	400	170	Trichloroethene	40	7.4
Bromomethane	<40	<10	cis-1,3-Dichloropropene	<7.7	<1.7
Chloroethane	<45	<17	4-Methyl-2-pentanone	<70	<17
Vinyl bromide	<7.4	<1.7	trans-1,3-Dichloropropene	<7.7	<1.7
Ethanol	570	300	Toluene	<320	<85
Acrolein	<35	<15	1,1,2-Trichloroethane	<1.9	<0.34
Pentane	190	64	2-Hexanone	<70	<17
Trichlorofluoromethane	<38	<6.8	Tetrachloroethene	<120	<17
Acetone	640	270	Dibromochloromethane	<1.4	<0.17
2-Propanol	<150	<59	1,2-Dibromoethane (EDB)	<1.3	<0.17
1,1-Dichloroethene	<6.7	<1.7	Chlorobenzene	<7.8	<1.7
trans-1,2-Dichloroethene	<6.7	<1.7	Ethylbenzene	<7.4	<1.7
Methylene chloride	<590 ca	<170 ca	1,1,2,2-Tetrachloroethane	<2.3	<0.34
t-Butyl alcohol (TBA)	<210	<68	Nonane	<89	<17
3-Chloropropene	<27	<8.5	Isopropylbenzene	<42	<8.5
CFC-113	<13	<1.7	2-Chlorotoluene	<88	<17
Carbon disulfide	<110	<34	Propylbenzene	<42	<8.5
Methyl t-butyl ether (MTBE)	<31	<8.5	4-Ethyltoluene	<42	<8.5
Vinyl acetate	<120	<34	m,p-Xylene	20	4.6
1,1-Dichloroethane	<6.9	<1.7	o-Xylene	<7.4	<1.7
cis-1,2-Dichloroethene	35	8.8	Styrene	<14	<3.4
Hexane	79	22	Bromoform	<35	<3.4
Chloroform	1.7	0.36	Benzyl chloride	<0.88	<0.17
Ethyl acetate	<120	<34	1,3,5-Trimethylbenzene	<42	<8.5
Tetrahydrofuran	28	9.3	1,2,4-Trimethylbenzene	<42	<8.5
2-Butanone (MEK)	<50	<17	1,3-Dichlorobenzene	<10	<1.7
1,2-Dichloroethane (EDC)	<0.69	<0.17	1,4-Dichlorobenzene	<3.9	<0.65
1,1,1-Trichloroethane	<9.3	<1.7	1,2-Dichlorobenzene	<10	<1.7
Carbon tetrachloride	<5.3	<0.85	1,2,4-Trichlorobenzene	<13	<1.7
Benzene	29	9.2	Naphthalene	<4.5	<0.85
Cyclohexane	<120	<34	Hexachlorobutadiene	<3.6	<0.34

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Evergreen Treatment Services, Seattle, WA
Date Collected:	Not Applicable	Lab ID:	00-2043 MB
Date Analyzed:	09/14/20	Data File:	091421.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	107	70	130

Compounds:	Concentration ug/m3	ppbv	Compounds:	Concentration ug/m3	ppbv
Propene	<1.2	<0.7	1,2-Dichloropropane	<0.23	<0.05
Dichlorodifluoromethane	<0.49	<0.1	1,4-Dioxane	<0.36	<0.1
Chloromethane	<3.7	<1.8	2,2,4-Trimethylpentane	<4.7	<1
F-114	<0.7	<0.1	Methyl methacrylate	<4.1	<1
Vinyl chloride	<0.26	<0.1	Heptane	<4.1	<1
1,3-Butadiene	<0.044	<0.02	Bromodichloromethane	<0.067	<0.01
Butane	<2.4	<1	Trichloroethene	<0.11	<0.02
Bromomethane	<2.3	<0.6	cis-1,3-Dichloropropene	<0.45	<0.1
Chloroethane	<2.6	<1	4-Methyl-2-pentanone	<4.1	<1
Vinyl bromide	<0.44	<0.1	trans-1,3-Dichloropropene	<0.45	<0.1
Ethanol	<7.5	<4	Toluene	<19	<5
Acrolein	<2.1	<0.9	1,1,2-Trichloroethane	<0.11	<0.02
Pentane	<3	<1	2-Hexanone	<4.1	<1
Trichlorofluoromethane	<2.2	<0.4	Tetrachloroethene	<6.8	<1
Acetone	<4.8	<2	Dibromochloromethane	<0.085	<0.01
2-Propanol	<8.6	<3.5	1,2-Dibromoethane (EDB)	<0.077	<0.01
1,1-Dichloroethene	<0.4	<0.1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	<0.43	<0.1
Methylene chloride	<35 ca	<10 ca	1,1,2,2-Tetrachloroethane	<0.14	<0.02
t-Butyl alcohol (TBA)	<12	<4	Nonane	<5.2	<1
3-Chloropropene	<1.6	<0.5	Isopropylbenzene	<2.5	<0.5
CFC-113	<0.77	<0.1	2-Chlorotoluene	<5.2	<1
Carbon disulfide	<6.2	<2	Propylbenzene	<2.5	<0.5
Methyl t-butyl ether (MTBE)	<1.8	<0.5	4-Ethyltoluene	<2.5	<0.5
Vinyl acetate	<7	<2	m,p-Xylene	<0.87	<0.2
1,1-Dichloroethane	<0.4	<0.1	o-Xylene	<0.43	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1	Styrene	<0.85	<0.2
Hexane	<3.5	<1	Bromoform	<2.1	<0.2
Chloroform	<0.049	<0.01	Benzyl chloride	<0.052	<0.01
Ethyl acetate	<7.2	<2	1,3,5-Trimethylbenzene	<2.5	<0.5
Tetrahydrofuran	<0.29	<0.1	1,2,4-Trimethylbenzene	<2.5	<0.5
2-Butanone (MEK)	<2.9	<1	1,3-Dichlorobenzene	<0.6	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01	1,4-Dichlorobenzene	<0.23	<0.038
1,1,1-Trichloroethane	<0.55	<0.1	1,2-Dichlorobenzene	<0.6	<0.1
Carbon tetrachloride	<0.31	<0.05	1,2,4-Trichlorobenzene	<0.74	<0.1
Benzene	<0.32	<0.1	Naphthalene	<0.26	<0.05
Cyclohexane	<6.9	<2	Hexachlorobutadiene	<0.21	<0.02

Date of Report: 09/17/20
Date Received: 09/10/20
Project: Evergreen Treatment Services 1700 Airport Way South, Seattle, F&BI 009183
Date Extracted: 09/16/20
Date Analyzed: 09/16/20

RESULTS FROM THE ANALYSIS OF AIR SAMPLES FOR HELIUM USING METHOD ASTM D1946

Results Reported as % Helium

Sample ID Laboratory ID	Helium
SV-3-091020 009183-01	<0.6
Method Blank	<0.6

Date of Report: 09/17/20
Date Received: 09/10/20
Project: Evergreen Treatment Services 1700 Airport Way South, Seattle, F&BI 009183

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD MA-APH

Laboratory Code: 009222-03 1/8.3 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	370	260	35 vo
APH EC9-12 aliphatics	ug/m3	1,600	1,500	6
APH EC9-10 aromatics	ug/m3	<210	<210	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	80	70-130
APH EC9-12 aliphatics	ug/m3	67	102	70-130
APH EC9-10 aromatics	ug/m3	67	88	70-130

Date of Report: 09/17/20
Date Received: 09/10/20
Project: Evergreen Treatment Services 1700 Airport Way South, Seattle, F&BI 009183

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 009222-03 1/8.3 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Propene	ug/m3	<10	<10	nm
Dichlorodifluoromethane	ug/m3	<4.1	<4.1	nm
Chloromethane	ug/m3	<31	<31	nm
F-114	ug/m3	<5.8	<5.8	nm
Vinyl chloride	ug/m3	3.7	3.7	0
1,3-Butadiene	ug/m3	<0.37	<0.37	nm
Butane	ug/m3	<20	<20	nm
Bromomethane	ug/m3	<19	<19	nm
Chloroethane	ug/m3	<22	<22	nm
Vinyl bromide	ug/m3	<3.6	<3.6	nm
Ethanol	ug/m3	<63	<63	nm
Acrolein	ug/m3	<17	<17	nm
Pentane	ug/m3	<24	<24	nm
Trichlorofluoromethane	ug/m3	<19	<19	nm
Acetone	ug/m3	110	91	19
2-Propanol	ug/m3	<71	<71	nm
1,1-Dichloroethene	ug/m3	<3.3	<3.3	nm
trans-1,2-Dichloroethene	ug/m3	<3.3	<3.3	nm
Methylene chloride	ug/m3	<290	<290	nm
t-Butyl alcohol (TBA)	ug/m3	<100	<100	nm
3-Chloropropene	ug/m3	<13	<13	nm
CFC-113	ug/m3	<6.4	<6.4	nm
Carbon disulfide	ug/m3	<52	<52	nm
Methyl t-butyl ether (MTBE)	ug/m3	<15	<15	nm
Vinyl acetate	ug/m3	<58	<58	nm
1,1-Dichloroethane	ug/m3	<3.4	<3.4	nm
cis-1,2-Dichloroethene	ug/m3	<3.3	<3.3	nm
Hexane	ug/m3	<29	<29	nm
Chloroform	ug/m3	<0.41	<0.41	nm
Ethyl acetate	ug/m3	<60	<60	nm
Tetrahydrofuran	ug/m3	<2.4	<2.4	nm
2-Butanone (MEK)	ug/m3	45	42	7
1,2-Dichloroethane (EDC)	ug/m3	<0.34	<0.34	nm
1,1,1-Trichloroethane	ug/m3	<4.5	<4.5	nm
Carbon tetrachloride	ug/m3	<2.6	<2.6	nm
Benzene	ug/m3	<2.7	<2.7	nm
Cyclohexane	ug/m3	<57	<57	nm
1,2-Dichloropropane	ug/m3	<1.9	<1.9	nm
1,4-Dioxane	ug/m3	<3	<3	nm
2,2,4-Trimethylpentane	ug/m3	<39	<39	nm

Date of Report: 09/17/20
Date Received: 09/10/20
Project: Evergreen Treatment Services 1700 Airport Way South, Seattle, F&BI 009183

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 009222-03 1/8.3 (Duplicate, continued)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Methyl methacrylate	ug/m3	<34	<34	nm
Heptane	ug/m3	<34	<34	nm
Bromodichloromethane	ug/m3	<0.56	<0.56	nm
Trichloroethene	ug/m3	<0.89	<0.89	nm
cis-1,3-Dichloropropene	ug/m3	<3.8	<3.8	nm
4-Methyl-2-pentanone	ug/m3	<34	<34	nm
trans-1,3-Dichloropropene	ug/m3	<3.8	<3.8	nm
Toluene	ug/m3	<160	<160	nm
1,1,2-Trichloroethane	ug/m3	<0.91	<0.91	nm
2-Hexanone	ug/m3	<34	<34	nm
Tetrachloroethene	ug/m3	<56	<56	nm
Dibromochloromethane	ug/m3	<0.71	<0.71	nm
1,2-Dibromoethane (EDB)	ug/m3	<0.64	<0.64	nm
Chlorobenzene	ug/m3	<3.8	<3.8	nm
Ethylbenzene	ug/m3	<3.6	<3.6	nm
1,1,2,2-Tetrachloroethane	ug/m3	1.6	1.5	6
Nonane	ug/m3	<44	<44	nm
Isopropylbenzene	ug/m3	<20	<20	nm
2-Chlorotoluene	ug/m3	<43	<43	nm
Propylbenzene	ug/m3	<20	<20	nm
4-Ethyltoluene	ug/m3	<20	<20	nm
m,p-Xylene	ug/m3	<7.2	<7.2	nm
o-Xylene	ug/m3	<3.6	<3.6	nm
Styrene	ug/m3	<7.1	<7.1	nm
Bromoform	ug/m3	<17	<17	nm
Benzyl chloride	ug/m3	<0.43	<0.43	nm
1,3,5-Trimethylbenzene	ug/m3	<20	<20	nm
1,2,4-Trimethylbenzene	ug/m3	<20	<20	nm
1,3-Dichlorobenzene	ug/m3	<5	<5	nm
1,4-Dichlorobenzene	ug/m3	<1.9	<1.9	nm
1,2-Dichlorobenzene	ug/m3	<5	<5	nm
1,2,4-Trichlorobenzene	ug/m3	<6.2	<6.2	nm
Naphthalene	ug/m3	<2.2	<2.2	nm
Hexachlorobutadiene	ug/m3	<1.8	<1.8	nm

Date of Report: 09/17/20
Date Received: 09/10/20
Project: Evergreen Treatment Services 1700 Airport Way South, Seattle, F&BI 009183

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
Propene	ug/m3	23	102	70-130
Dichlorodifluoromethane	ug/m3	67	104	70-130
Chloromethane	ug/m3	28	103	70-130
F-114	ug/m3	94	105	70-130
Vinyl chloride	ug/m3	35	103	70-130
1,3-Butadiene	ug/m3	30	101	70-130
Butane	ug/m3	32	103	70-130
Bromomethane	ug/m3	52	110	70-130
Chloroethane	ug/m3	36	103	70-130
Vinyl bromide	ug/m3	59	108	70-130
Ethanol	ug/m3	25	95	70-130
Acrolein	ug/m3	31	99	70-130
Pentane	ug/m3	40	105	70-130
Trichlorofluoromethane	ug/m3	76	107	70-130
Acetone	ug/m3	32	106	70-130
2-Propanol	ug/m3	33	102	70-130
1,1-Dichloroethene	ug/m3	54	103	70-130
trans-1,2-Dichloroethene	ug/m3	54	102	70-130
Methylene chloride	ug/m3	94	92	70-130
t-Butyl alcohol (TBA)	ug/m3	41	101	70-130
3-Chloropropene	ug/m3	42	96	70-130
CFC-113	ug/m3	100	104	70-130
Carbon disulfide	ug/m3	42	95	70-130
Methyl t-butyl ether (MTBE)	ug/m3	49	103	70-130
Vinyl acetate	ug/m3	48	94	70-130
1,1-Dichloroethane	ug/m3	55	105	70-130
cis-1,2-Dichloroethene	ug/m3	54	104	70-130
Hexane	ug/m3	48	105	70-130
Chloroform	ug/m3	66	105	70-130
Ethyl acetate	ug/m3	49	108	70-130
Tetrahydrofuran	ug/m3	40	100	70-130
2-Butanone (MEK)	ug/m3	40	112	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	104	70-130
1,1,1-Trichloroethane	ug/m3	74	103	70-130
Carbon tetrachloride	ug/m3	85	104	70-130
Benzene	ug/m3	43	101	70-130
Cyclohexane	ug/m3	46	102	70-130
1,2-Dichloropropane	ug/m3	62	96	70-130
1,4-Dioxane	ug/m3	49	92	70-130
2,2,4-Trimethylpentane	ug/m3	63	98	70-130

Date of Report: 09/17/20
Date Received: 09/10/20
Project: Evergreen Treatment Services 1700 Airport Way South, Seattle, F&BI 009183

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample (Continued)

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Methyl methacrylate	ug/m3	55	98	70-130
Heptane	ug/m3	55	99	70-130
Bromodichloromethane	ug/m3	90	101	70-130
Trichloroethene	ug/m3	73	100	70-130
cis-1,3-Dichloropropene	ug/m3	61	105	70-130
4-Methyl-2-pentanone	ug/m3	55	106	70-130
trans-1,3-Dichloropropene	ug/m3	61	100	70-130
Toluene	ug/m3	51	98	70-130
1,1,2-Trichloroethane	ug/m3	74	102	70-130
2-Hexanone	ug/m3	55	100	70-130
Tetrachloroethene	ug/m3	92	92	70-130
Dibromochloromethane	ug/m3	120	102	70-130
1,2-Dibromoethane (EDB)	ug/m3	100	102	70-130
Chlorobenzene	ug/m3	62	100	70-130
Ethylbenzene	ug/m3	59	101	70-130
1,1,2,2-Tetrachloroethane	ug/m3	93	105	70-130
Nonane	ug/m3	71	105	70-130
Isopropylbenzene	ug/m3	66	105	70-130
2-Chlorotoluene	ug/m3	70	107	70-130
Propylbenzene	ug/m3	66	110	70-130
4-Ethyltoluene	ug/m3	66	116	70-130
m,p-Xylene	ug/m3	120	103	70-130
o-Xylene	ug/m3	59	102	70-130
Styrene	ug/m3	58	101	70-130
Bromoform	ug/m3	140	104	70-130
Benzyl chloride	ug/m3	70	105	70-130
1,3,5-Trimethylbenzene	ug/m3	66	106	70-130
1,2,4-Trimethylbenzene	ug/m3	66	108	70-130
1,3-Dichlorobenzene	ug/m3	81	104	70-130
1,4-Dichlorobenzene	ug/m3	81	98	70-130
1,2-Dichlorobenzene	ug/m3	81	98	70-130
1,2,4-Trichlorobenzene	ug/m3	100	91	70-130
Naphthalene	ug/m3	71	92	70-130
Hexachlorobutadiene	ug/m3	140	106	70-130

Date of Report: 09/17/20
Date Received: 09/10/20
Project: Evergreen Treatment Services 1700 Airport Way South, Seattle, F&BI 009183

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR HELIUM USING METHOD ASTM D1946

Laboratory Code: 009138-01 (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	<0.6	<0.6	nm	0-20

Laboratory Code: 009233-01 (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	<0.6	<0.6	nm	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 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.

009183

SAMPLE CHAIN OF CUSTODY rmc ME 09-10-20

Report To Andrew Yonkofski
Company Aspect Consulting
Address 710 2nd Ave, Ste 550
City, State, ZIP Seattle, WA 98104
Phone (206) 413-5411 Email ayonkofski@aspectconsulting.com

SAMPLERS (*signature*)

PROJECT NAME & ADDRESS: Evergreen Treatment Services, 1700 Airport Way South, Seattle, WA
PO #: 180043

NOTES:

INVOICE TO: AP

Page # 1 of 1

TURNAROUND TIME
X Standard
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Default: Clean after 3 days
☐ Archive (Fee may apply)

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
SV-3-091020	01	2294	280	IA / (SG)	09/10/20	28.5"	1532	5	1537	/			/	/		
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Rachel Cornwell	Aspect	9/10/2020	1700
Received by:	Eric Glover	FSB	9/10/20	1700
Relinquished by:				
Received by:				

KP

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COCTO-15.DOC

Samples received at 22 °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
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fbi@isomedia.com
www.friedmanandbruya.com

September 18, 2020

Andrew Yonkofski, Project Manager
Aspect Consulting, LLC
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on September 17, 2020 from the 180043, F&BI 009308 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: Aspect Data
ASP0918R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 17, 2020 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC 180043, F&BI 009308 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
009308 -01	SV-5-091720

The TO-15 calibration standard failed the acceptance criteria for methylene chloride. The data were flagged accordingly.

The APH EC5-8 aliphatics and propene concentration in sample SV-5-091720 exceeded the calibration range of the instrument. The data were flagged accordingly.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SV-5-091720	Client:	Aspect Consulting, LLC
Date Received:	09/17/20	Project:	180043, F&BI 009308
Date Collected:	09/17/20	Lab ID:	009308-01 1/42
Date Analyzed:	09/18/20	Data File:	091723.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	29,000 ve
APH EC9-12 aliphatics	22,000
APH EC9-10 aromatics	<1,000

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	180043, F&BI 009308
Date Collected:	Not Applicable	Lab ID:	00-2080 MB
Date Analyzed:	09/17/20	Data File:	091718.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	106	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<40
APH EC9-12 aliphatics	<50
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SV-5-091720	Client:	Aspect Consulting, LLC
Date Received:	09/17/20	Project:	180043, F&BI 009308
Date Collected:	09/17/20	Lab ID:	009308-01 1/42
Date Analyzed:	09/18/20	Data File:	091723.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	2,100 ve	1,200 ve	1,2-Dichloropropane	<9.7	<2.1
Dichlorodifluoromethane	<21	<4.2	1,4-Dioxane	<15	<4.2
Chloromethane	<160	<76	2,2,4-Trimethylpentane	460	99
F-114	<29	<4.2	Methyl methacrylate	<170	<42
Vinyl chloride	280	110	Heptane	<170	<42
1,3-Butadiene	<1.9	<0.84	Bromodichloromethane	<2.8	<0.42
Butane	2,000	850	Trichloroethene	61	11
Bromomethane	<98	<25	cis-1,3-Dichloropropene	<19	<4.2
Chloroethane	<110	<42	4-Methyl-2-pentanone	<170	<42
Vinyl bromide	<18	<4.2	trans-1,3-Dichloropropene	<19	<4.2
Ethanol	<320	<170	Toluene	<790	<210
Acrolein	<87	<38	1,1,2-Trichloroethane	<2.3	<0.42
Pentane	870	290	2-Hexanone	<170	<42
Trichlorofluoromethane	<94	<17	Tetrachloroethene	<280	<42
Acetone	<600	<250	Dibromochloromethane	<3.6	<0.42
2-Propanol	<360	<150	1,2-Dibromoethane (EDB)	<3.2	<0.42
1,1-Dichloroethene	<17	<4.2	Chlorobenzene	<19	<4.2
trans-1,2-Dichloroethene	110	28	Ethylbenzene	<18	<4.2
Methylene chloride	<1,500 ca	<420 ca	1,1,2,2-Tetrachloroethane	<5.8	<0.84
t-Butyl alcohol (TBA)	<510	<170	Nonane	<220	<42
3-Chloropropene	<66	<21	Isopropylbenzene	<100	<21
CFC-113	<32	<4.2	2-Chlorotoluene	<220	<42
Carbon disulfide	<260	<84	Propylbenzene	<100	<21
Methyl t-butyl ether (MTBE)	<76	<21	4-Ethyltoluene	<100	<21
Vinyl acetate	<300	<84	m,p-Xylene	<36	<8.4
1,1-Dichloroethane	<17	<4.2	o-Xylene	37	8.5
cis-1,2-Dichloroethene	70	18	Styrene	<36	<8.4
Hexane	360	100	Bromoform	<87	<8.4
Chloroform	<2.1	<0.42	Benzyl chloride	<2.2	<0.42
Ethyl acetate	<300	<84	1,3,5-Trimethylbenzene	<100	<21
Tetrahydrofuran	18	6.2	1,2,4-Trimethylbenzene	<100	<21
2-Butanone (MEK)	<120	<42	1,3-Dichlorobenzene	<25	<4.2
1,2-Dichloroethane (EDC)	<1.7	<0.42	1,4-Dichlorobenzene	<9.7	<1.6
1,1,1-Trichloroethane	<23	<4.2	1,2-Dichlorobenzene	<25	<4.2
Carbon tetrachloride	<13	<2.1	1,2,4-Trichlorobenzene	<31	<4.2
Benzene	170	54	Naphthalene	<11	<2.1
Cyclohexane	<290	<84	Hexachlorobutadiene	<9	<0.84

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	180043, F&BI 009308
Date Collected:	Not Applicable	Lab ID:	00-2080 MB
Date Analyzed:	09/17/20	Data File:	091718.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	104	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<1.2	<0.7	1,2-Dichloropropane	<0.23	<0.05
Dichlorodifluoromethane	<0.49	<0.1	1,4-Dioxane	<0.36	<0.1
Chloromethane	<3.7	<1.8	2,2,4-Trimethylpentane	<4.7	<1
F-114	<0.7	<0.1	Methyl methacrylate	<4.1	<1
Vinyl chloride	<0.26	<0.1	Heptane	<4.1	<1
1,3-Butadiene	<0.044	<0.02	Bromodichloromethane	<0.067	<0.01
Butane	<2.4	<1	Trichloroethene	<0.11	<0.02
Bromomethane	<2.3	<0.6	cis-1,3-Dichloropropene	<0.45	<0.1
Chloroethane	<2.6	<1	4-Methyl-2-pentanone	<4.1	<1
Vinyl bromide	<0.44	<0.1	trans-1,3-Dichloropropene	<0.45	<0.1
Ethanol	<7.5	<4	Toluene	<19	<5
Acrolein	<2.1	<0.9	1,1,2-Trichloroethane	<0.055	<0.01
Pentane	<3	<1	2-Hexanone	<4.1	<1
Trichlorofluoromethane	<2.2	<0.4	Tetrachloroethene	<6.8	<1
Acetone	<4.8	<2	Dibromochloromethane	<0.085	<0.01
2-Propanol	<8.6	<3.5	1,2-Dibromoethane (EDB)	<0.077	<0.01
1,1-Dichloroethene	<0.4	<0.1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	<0.43	<0.1
Methylene chloride	<35 ca	<10 ca	1,1,2,2-Tetrachloroethane	<0.14	<0.02
t-Butyl alcohol (TBA)	<12	<4	Nonane	<5.2	<1
3-Chloropropene	<1.6	<0.5	Isopropylbenzene	<2.5	<0.5
CFC-113	<0.77	<0.1	2-Chlorotoluene	<5.2	<1
Carbon disulfide	<6.2	<2	Propylbenzene	<2.5	<0.5
Methyl t-butyl ether (MTBE)	<1.8	<0.5	4-Ethyltoluene	<2.5	<0.5
Vinyl acetate	<7	<2	m,p-Xylene	<0.87	<0.2
1,1-Dichloroethane	<0.4	<0.1	o-Xylene	<0.43	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1	Styrene	<0.85	<0.2
Hexane	<3.5	<1	Bromoform	<2.1	<0.2
Chloroform	<0.049	<0.01	Benzyl chloride	<0.052	<0.01
Ethyl acetate	<7.2	<2	1,3,5-Trimethylbenzene	<2.5	<0.5
Tetrahydrofuran	<0.29	<0.1	1,2,4-Trimethylbenzene	<2.5	<0.5
2-Butanone (MEK)	<2.9	<1	1,3-Dichlorobenzene	<0.6	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01	1,4-Dichlorobenzene	<0.23	<0.038
1,1,1-Trichloroethane	<0.55	<0.1	1,2-Dichlorobenzene	<0.6	<0.1
Carbon tetrachloride	<0.31	<0.05	1,2,4-Trichlorobenzene	<0.74	<0.1
Benzene	<0.32	<0.1	Naphthalene	<0.26	<0.05
Cyclohexane	<6.9	<2	Hexachlorobutadiene	<0.21	<0.02

Date of Report: 09/18/20
Date Received: 09/17/20
Project: 180043, F&BI 009308
Date Extracted: 09/18/20
Date Analyzed: 09/18/20

RESULTS FROM THE ANALYSIS OF AIR SAMPLES FOR HELIUM USING METHOD ASTM D1946

Results Reported as % Helium

Sample ID Laboratory ID	Helium
SV-5-091720 009308-01	<0.6
Method Blank	<0.6

Date of Report: 09/18/20
Date Received: 09/17/20
Project: 180043, F&BI 009308

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD MA-APH

Laboratory Code: 009252-01 1/3.8 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	350	350	0
APH EC9-12 aliphatics	ug/m3	790	630	23
APH EC9-10 aromatics	ug/m3	<95	<95	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	87	70-130
APH EC9-12 aliphatics	ug/m3	67	116	70-130
APH EC9-10 aromatics	ug/m3	67	96	70-130

Date of Report: 09/18/20
Date Received: 09/17/20
Project: 180043, F&BI 009308

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 009252-01 1/3.8 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Propene	ug/m3	<4.6	<4.6	nm
Dichlorodifluoromethane	ug/m3	2.7	2.9	7
Chloromethane	ug/m3	<14	<14	nm
F-114	ug/m3	<2.7	<2.7	nm
Vinyl chloride	ug/m3	<0.97	<0.97	nm
1,3-Butadiene	ug/m3	<0.17	<0.17	nm
Butane	ug/m3	<9	<9	nm
Bromomethane	ug/m3	<8.9	<8.9	nm
Chloroethane	ug/m3	<10	<10	nm
Vinyl bromide	ug/m3	<1.7	<1.7	nm
Ethanol	ug/m3	280	290	4
Acrolein	ug/m3	<7.8	<7.8	nm
Pentane	ug/m3	<11	<11	nm
Trichlorofluoromethane	ug/m3	<8.5	<8.5	nm
Acetone	ug/m3	230	240	4
2-Propanol	ug/m3	51	51	0
1,1-Dichloroethene	ug/m3	<1.5	<1.5	nm
trans-1,2-Dichloroethene	ug/m3	<1.5	<1.5	nm
Methylene chloride	ug/m3	140	140	0
t-Butyl alcohol (TBA)	ug/m3	94	94	0
3-Chloropropene	ug/m3	<5.9	<5.9	nm
CFC-113	ug/m3	<2.9	<2.9	nm
Carbon disulfide	ug/m3	<24	<24	nm
Methyl t-butyl ether (MTBE)	ug/m3	<6.9	<6.9	nm
Vinyl acetate	ug/m3	<27	<27	nm
1,1-Dichloroethane	ug/m3	<1.5	<1.5	nm
cis-1,2-Dichloroethene	ug/m3	<1.5	<1.5	nm
Hexane	ug/m3	<13	<13	nm
Chloroform	ug/m3	0.37	0.35	6
Ethyl acetate	ug/m3	<27	<27	nm
Tetrahydrofuran	ug/m3	<1.1	<1.1	nm
2-Butanone (MEK)	ug/m3	15	14	7
1,2-Dichloroethane (EDC)	ug/m3	<0.15	<0.15	nm
1,1,1-Trichloroethane	ug/m3	2.7	2.7	0
Carbon tetrachloride	ug/m3	<1.2	<1.2	nm
Benzene	ug/m3	3.4	3.4	0
Cyclohexane	ug/m3	<26	<26	nm
1,2-Dichloropropane	ug/m3	<0.88	<0.88	nm
1,4-Dioxane	ug/m3	<1.4	<1.4	nm
2,2,4-Trimethylpentane	ug/m3	<18	<18	nm

Date of Report: 09/18/20
Date Received: 09/17/20
Project: 180043, F&BI 009308

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 009252-01 1/3.8 (Duplicate, continued)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Methyl methacrylate	ug/m3	<16	<16	nm
Heptane	ug/m3	<16	<16	nm
Bromodichloromethane	ug/m3	<0.25	<0.25	nm
Trichloroethene	ug/m3	<0.41	<0.41	nm
cis-1,3-Dichloropropene	ug/m3	<1.7	<1.7	nm
4-Methyl-2-pentanone	ug/m3	<16	<16	nm
trans-1,3-Dichloropropene	ug/m3	<1.7	<1.7	nm
Toluene	ug/m3	<72	<72	nm
1,1,2-Trichloroethane	ug/m3	<0.21	<0.21	nm
2-Hexanone	ug/m3	<16	<16	nm
Tetrachloroethene	ug/m3	<26	<26	nm
Dibromochloromethane	ug/m3	<0.32	<0.32	nm
1,2-Dibromoethane (EDB)	ug/m3	<0.29	<0.29	nm
Chlorobenzene	ug/m3	<1.7	<1.7	nm
Ethylbenzene	ug/m3	2.9	2.6	11
1,1,2,2-Tetrachloroethane	ug/m3	<0.52	<0.52	nm
Nonane	ug/m3	<20	<20	nm
Isopropylbenzene	ug/m3	<9.3	<9.3	nm
2-Chlorotoluene	ug/m3	<20	<20	nm
Propylbenzene	ug/m3	<9.3	<9.3	nm
4-Ethyltoluene	ug/m3	<9.3	<9.3	nm
m,p-Xylene	ug/m3	14	13	7
o-Xylene	ug/m3	5.0	4.5	11
Styrene	ug/m3	<3.2	<3.2	nm
Bromoform	ug/m3	<7.9	<7.9	nm
Benzyl chloride	ug/m3	<0.2	<0.2	nm
1,3,5-Trimethylbenzene	ug/m3	<9.3	<9.3	nm
1,2,4-Trimethylbenzene	ug/m3	<9.3	<9.3	nm
1,3-Dichlorobenzene	ug/m3	<2.3	<2.3	nm
1,4-Dichlorobenzene	ug/m3	<0.87	<0.87	nm
1,2-Dichlorobenzene	ug/m3	<2.3	<2.3	nm
1,2,4-Trichlorobenzene	ug/m3	<2.8	<2.8	nm
Naphthalene	ug/m3	<1	<1	nm
Hexachlorobutadiene	ug/m3	<0.81	<0.81	nm

Date of Report: 09/18/20
Date Received: 09/17/20
Project: 180043, F&BI 009308

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
Propene	ug/m3	23	113	70-130
Dichlorodifluoromethane	ug/m3	67	106	70-130
Chloromethane	ug/m3	28	111	70-130
F-114	ug/m3	94	108	70-130
Vinyl chloride	ug/m3	35	109	70-130
1,3-Butadiene	ug/m3	30	106	70-130
Butane	ug/m3	32	112	70-130
Bromomethane	ug/m3	52	109	70-130
Chloroethane	ug/m3	36	108	70-130
Vinyl bromide	ug/m3	59	108	70-130
Ethanol	ug/m3	25	102	70-130
Acrolein	ug/m3	31	101	70-130
Pentane	ug/m3	40	109	70-130
Trichlorofluoromethane	ug/m3	76	108	70-130
Acetone	ug/m3	32	107	70-130
2-Propanol	ug/m3	33	105	70-130
1,1-Dichloroethene	ug/m3	54	103	70-130
trans-1,2-Dichloroethene	ug/m3	54	104	70-130
Methylene chloride	ug/m3	94	95	70-130
t-Butyl alcohol (TBA)	ug/m3	41	103	70-130
3-Chloropropene	ug/m3	42	110	70-130
CFC-113	ug/m3	100	106	70-130
Carbon disulfide	ug/m3	42	97	70-130
Methyl t-butyl ether (MTBE)	ug/m3	49	105	70-130
Vinyl acetate	ug/m3	48	102	70-130
1,1-Dichloroethane	ug/m3	55	110	70-130
cis-1,2-Dichloroethene	ug/m3	54	105	70-130
Hexane	ug/m3	48	108	70-130
Chloroform	ug/m3	66	108	70-130
Ethyl acetate	ug/m3	49	115	70-130
Tetrahydrofuran	ug/m3	40	108	70-130
2-Butanone (MEK)	ug/m3	40	113	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	108	70-130
1,1,1-Trichloroethane	ug/m3	74	105	70-130
Carbon tetrachloride	ug/m3	85	106	70-130
Benzene	ug/m3	43	102	70-130
Cyclohexane	ug/m3	46	102	70-130
1,2-Dichloropropane	ug/m3	62	103	70-130
1,4-Dioxane	ug/m3	49	93	70-130
2,2,4-Trimethylpentane	ug/m3	63	105	70-130

Date of Report: 09/18/20
Date Received: 09/17/20
Project: 180043, F&BI 009308

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample (Continued)

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Methyl methacrylate	ug/m3	55	109	70-130
Heptane	ug/m3	55	111	70-130
Bromodichloromethane	ug/m3	90	107	70-130
Trichloroethene	ug/m3	73	103	70-130
cis-1,3-Dichloropropene	ug/m3	61	110	70-130
4-Methyl-2-pentanone	ug/m3	55	104	70-130
trans-1,3-Dichloropropene	ug/m3	61	100	70-130
Toluene	ug/m3	51	105	70-130
1,1,2-Trichloroethane	ug/m3	74	108	70-130
2-Hexanone	ug/m3	55	110	70-130
Tetrachloroethene	ug/m3	92	94	70-130
Dibromochloromethane	ug/m3	120	107	70-130
1,2-Dibromoethane (EDB)	ug/m3	100	106	70-130
Chlorobenzene	ug/m3	62	102	70-130
Ethylbenzene	ug/m3	59	104	70-130
1,1,2,2-Tetrachloroethane	ug/m3	93	104	70-130
Nonane	ug/m3	71	109	70-130
Isopropylbenzene	ug/m3	66	101	70-130
2-Chlorotoluene	ug/m3	70	103	70-130
Propylbenzene	ug/m3	66	106	70-130
4-Ethyltoluene	ug/m3	66	113	70-130
m,p-Xylene	ug/m3	120	99	70-130
o-Xylene	ug/m3	59	98	70-130
Styrene	ug/m3	58	97	70-130
Bromoform	ug/m3	140	101	70-130
Benzyl chloride	ug/m3	70	105	70-130
1,3,5-Trimethylbenzene	ug/m3	66	100	70-130
1,2,4-Trimethylbenzene	ug/m3	66	103	70-130
1,3-Dichlorobenzene	ug/m3	81	102	70-130
1,4-Dichlorobenzene	ug/m3	81	95	70-130
1,2-Dichlorobenzene	ug/m3	81	94	70-130
1,2,4-Trichlorobenzene	ug/m3	100	89	70-130
Naphthalene	ug/m3	71	91	70-130
Hexachlorobutadiene	ug/m3	140	102	70-130

Date of Report: 09/18/20
Date Received: 09/17/20
Project: 180043, F&BI 009308

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR HELIUM USING METHOD ASTM D1946

Laboratory Code: 009308-01 (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	<0.6	<0.6	nm	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 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.

009308

SAMPLE CHAIN OF CUSTODY

ME 09-17-20

Report To Andrew Yonkofski
Company Aspect Consulting
Address 710 2nd Ave, Ste 550
City, State, ZIP Seattle, WA 98104
Phone (206) 413-5411 Email ayonkofski@aspectconsulting.com

SAMPLERS (*signature*) Rachel C

PROJECT NAME & ADDRESS: Evergreen Treatment Services, 1700 Airport Way South, Seattle, WA
PO # 180043

NOTES:

INVOICE TO: AP

Page # 1 of 1

TURNAROUND TIME
☐ Standard
☒ RUSH 24-hr
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Default: Clean after 3 days
☐ Archive (Fee may apply)

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
SV-5-091720	01	18579	18	IA / (SG)	9/17/20	30	1031	5	1103	✓			✓	✓		
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Rachel C	Rachel Cornwell	Aspect Consulting	9/17/20	1154
Received by:	James Bruya	F&B	9/17	1154
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COCTO-15.DOC

Samples received at 2 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

November 12, 2024

Nathan Dickey, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Dickey:

Included are the results from the testing of material submitted on November 5, 2024 from the Evergreen Treatment Services AS180043, F&BI 411071 project. There are 29 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: Aspect Data
ASP1112R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 5, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting Evergreen Treatment Services AS180043, F&BI 411071 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting
411071 -01	AMW-1-20241105
411071 -02	AMW-2-20241105
411071 -03	AMW-3-20241105
411071 -04	AMW-4-20241105
411071 -05	AMW-5-20241105

The dissolved metals samples were filtered at Friedman and Bruya. The data were flagged accordingly.

The 8260D methylene chloride calibration standard did not meet the acceptance criteria. The data were flagged accordingly.

The 8260D laboratory control sample and laboratory control sample 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: 11/12/24
Date Received: 11/05/24
Project: Evergreen Treatment Services AS180043, F&BI 411071
Date Extracted: 11/07/24
Date Analyzed: 11/07/24

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)
AMW-1-20241105 411071-01	<100	106
AMW-2-20241105 411071-02	<100	104
AMW-3-20241105 411071-03	<100	108
AMW-4-20241105 411071-04	<100	108
AMW-5-20241105 411071-05	<100	108
Method Blank 04-2699 MB	<100	100

Date of Report: 11/12/24
Date Received: 11/05/24
Project: Evergreen Treatment Services AS180043, F&BI 411071
Date Extracted: 11/06/24
Date Analyzed: 11/06/24

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 50-150)
AMW-1-20241105 411071-01	<50	<250	90
AMW-2-20241105 411071-02	57 x	<250	104
AMW-3-20241105 411071-03	<50	<250	94
AMW-4-20241105 411071-04	<50	<250	88
AMW-5-20241105 411071-05	95 x	<250	107
Method Blank 04-2755 MB	<50	<250	77

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	AMW-1-20241105	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/11/24	Lab ID:	411071-01
Date Analyzed:	11/11/24	Data File:	111128.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	71	132
Toluene-d8	98	68	139
4-Bromofluorobenzene	99	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	2.4	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5 ca	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	AMW-2-20241105	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/11/24	Lab ID:	411071-02
Date Analyzed:	11/11/24	Data File:	111129.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	71	132
Toluene-d8	98	68	139
4-Bromofluorobenzene	101	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5 ca	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	AMW-3-20241105	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/11/24	Lab ID:	411071-03
Date Analyzed:	11/11/24	Data File:	111130.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	71	132
Toluene-d8	96	68	139
4-Bromofluorobenzene	102	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5 ca	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	AMW-4-20241105	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/11/24	Lab ID:	411071-04
Date Analyzed:	11/11/24	Data File:	111131.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	71	132
Toluene-d8	94	68	139
4-Bromofluorobenzene	100	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5 ca	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	AMW-5-20241105	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/11/24	Lab ID:	411071-05
Date Analyzed:	11/11/24	Data File:	111132.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	71	132
Toluene-d8	99	68	139
4-Bromofluorobenzene	99	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	23	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5 ca	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	22	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Evergreen Treatment Services
Date Extracted:	11/11/24	Lab ID:	04-2762 mb
Date Analyzed:	11/11/24	Data File:	111109.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	78	126
Toluene-d8	94	84	115
4-Bromofluorobenzene	96	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5 ca	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1 ca
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-1-20241105	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/06/24	Lab ID:	411071-01
Date Analyzed:	11/06/24	Data File:	411071-01.178
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	12
Cadmium	<1
Chromium	<1
Lead	1.9
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-2-20241105	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/06/24	Lab ID:	411071-02
Date Analyzed:	11/06/24	Data File:	411071-02.179
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	9.5
Cadmium	<1
Chromium	<1
Lead	7.4
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-3-20241105	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/06/24	Lab ID:	411071-03
Date Analyzed:	11/06/24	Data File:	411071-03.180
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	18
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-4-20241105	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/06/24	Lab ID:	411071-04
Date Analyzed:	11/06/24	Data File:	411071-04.181
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-5-20241105	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/06/24	Lab ID:	411071-05
Date Analyzed:	11/06/24	Data File:	411071-05.182
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	4.8
Cadmium	<1
Chromium	1.6
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-5-20241105	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/06/24	Lab ID:	411071-05 x10
Date Analyzed:	11/07/24	Data File:	411071-05 x10.123
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	26

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	NA	Project:	Evergreen Treatment Services
Date Extracted:	11/06/24	Lab ID:	I4-951 mb
Date Analyzed:	11/06/24	Data File:	I4-951 mb.163
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	AMW-1-20241105 f	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/06/24	Lab ID:	411071-01
Date Analyzed:	11/06/24	Data File:	411071-01.126
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	12
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	AMW-2-20241105 f	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/06/24	Lab ID:	411071-02
Date Analyzed:	11/06/24	Data File:	411071-02.129
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	2.4
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	AMW-3-20241105 f	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/06/24	Lab ID:	411071-03
Date Analyzed:	11/06/24	Data File:	411071-03.130
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	14
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	AMW-4-20241105 f	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/06/24	Lab ID:	411071-04
Date Analyzed:	11/06/24	Data File:	411071-04.131
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	AMW-5-20241105 f	Client:	Aspect Consulting
Date Received:	11/05/24	Project:	Evergreen Treatment Services
Date Extracted:	11/06/24	Lab ID:	411071-05
Date Analyzed:	11/06/24	Data File:	411071-05.132
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	4.3
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank f	Client:	Aspect Consulting
Date Received:	NA	Project:	Evergreen Treatment Services
Date Extracted:	11/06/24	Lab ID:	I4-950 mb
Date Analyzed:	11/06/24	Data File:	I4-950 mb.114
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Date of Report: 11/12/24
Date Received: 11/05/24
Project: Evergreen Treatment Services AS180043, F&BI 411071

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 411062-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	1,300	1,300	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	95	70-130

Date of Report: 11/12/24
Date Received: 11/05/24
Project: Evergreen Treatment Services AS180043, F&BI 411071

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	96	65-151	0

Date of Report: 11/12/24
Date Received: 11/05/24
Project: Evergreen Treatment Services AS180043, F&BI 411071

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 411145-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	10	<1	91	30-221
Chloromethane	ug/L (ppb)	10	<10	89	50-150
Vinyl chloride	ug/L (ppb)	10	<0.02	100	50-150
Bromomethane	ug/L (ppb)	10	<5	101	50-150
Chloroethane	ug/L (ppb)	10	<1	97	50-150
Trichlorofluoromethane	ug/L (ppb)	10	<1	104	50-150
Acetone	ug/L (ppb)	50	<50	35	18-161
1,1-Dichloroethene	ug/L (ppb)	10	<1	90	50-150
Hexane	ug/L (ppb)	10	<5	106	50-150
Methylene chloride	ug/L (ppb)	10	<5	61	50-150
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	91	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	93	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	92	50-150
2,2-Dichloropropane	ug/L (ppb)	10	<1	94	43-171
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	91	10-211
Chloroform	ug/L (ppb)	10	<1	97	50-150
2-Butanone (MEK)	ug/L (ppb)	50	<20	60	10-192
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	1.6	95	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	92	50-150
1,1-Dichloropropene	ug/L (ppb)	10	<1	95	50-150
Carbon tetrachloride	ug/L (ppb)	10	<0.5	93	50-150
Benzene	ug/L (ppb)	10	3.8	99 b	50-150
Trichloroethene	ug/L (ppb)	10	<0.5	95	35-149
1,2-Dichloropropane	ug/L (ppb)	10	<1	90	50-150
Bromodichloromethane	ug/L (ppb)	10	<0.5	96	50-150
Dibromomethane	ug/L (ppb)	10	<1	92	50-150
4-Methyl-2-pentanone	ug/L (ppb)	50	<10	95	50-150
cis-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	99	50-150
Toluene	ug/L (ppb)	10	<1	98	50-150
trans-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	88	50-150
1,1,2-Trichloroethane	ug/L (ppb)	10	<0.5	94	50-150
2-Hexanone	ug/L (ppb)	50	<10	66	50-150
1,3-Dichloropropane	ug/L (ppb)	10	<1	95	50-150
Tetrachloroethene	ug/L (ppb)	10	<1	101	50-150
Dibromochloromethane	ug/L (ppb)	10	<0.5	92	50-150
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	<0.01	98	50-150
Chlorobenzene	ug/L (ppb)	10	<1	98	50-150
Ethylbenzene	ug/L (ppb)	10	<1	98	50-150
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	<1	92	50-150
m,p-Xylene	ug/L (ppb)	20	<2	96	50-150
o-Xylene	ug/L (ppb)	10	<1	94	50-150
Styrene	ug/L (ppb)	10	<1	93	50-150
Isopropylbenzene	ug/L (ppb)	10	<1	93	50-150
Bromoform	ug/L (ppb)	10	<5	90	50-150
n-Propylbenzene	ug/L (ppb)	10	<1	86	50-150
Bromobenzene	ug/L (ppb)	10	<1	85	50-150
1,3,5-Trimethylbenzene	ug/L (ppb)	10	<1	85	50-150
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	<0.2	89	50-150
1,2,3-Trichloropropane	ug/L (ppb)	10	<1	84	50-150
2-Chlorotoluene	ug/L (ppb)	10	<1	84	50-150
4-Chlorotoluene	ug/L (ppb)	10	<1	85	50-150
tert-Butylbenzene	ug/L (ppb)	10	<1	85	50-150
1,2,4-Trimethylbenzene	ug/L (ppb)	10	<1	86	50-150
sec-Butylbenzene	ug/L (ppb)	10	<1	83	50-150
p-Isopropyltoluene	ug/L (ppb)	10	<1	84	50-150
1,3-Dichlorobenzene	ug/L (ppb)	10	<1	86	50-150
1,4-Dichlorobenzene	ug/L (ppb)	10	<1	85	50-150
1,2-Dichlorobenzene	ug/L (ppb)	10	<1	83	50-150
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	<10	79	50-150
1,2,4-Trichlorobenzene	ug/L (ppb)	10	<1	83	50-150
Hexachlorobutadiene	ug/L (ppb)	10	<0.5	79	50-150
Naphthalene	ug/L (ppb)	10	<1	81	50-150
1,2,3-Trichlorobenzene	ug/L (ppb)	10	<1	82	50-150

Date of Report: 11/12/24
Date Received: 11/05/24
Project: Evergreen Treatment Services AS180043, F&BI 411071

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	98	96	46-206	2
Chloromethane	ug/L (ppb)	10	94	94	59-132	0
Vinyl chloride	ug/L (ppb)	10	104	106	64-142	2
Bromomethane	ug/L (ppb)	10	101	102	50-197	1
Chloroethane	ug/L (ppb)	10	99	101	70-130	2
Trichlorofluoromethane	ug/L (ppb)	10	98	104	51-159	6
Acetone	ug/L (ppb)	50	22	31	10-140	34 vo
1,1-Dichloroethene	ug/L (ppb)	10	93	95	64-140	2
Hexane	ug/L (ppb)	10	105	91	54-136	14
Methylene chloride	ug/L (ppb)	10	91	73	43-134	22 vo
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	94	95	70-130	1
trans-1,2-Dichloroethene	ug/L (ppb)	10	96	97	70-130	1
1,1-Dichloroethane	ug/L (ppb)	10	97	97	70-130	0
2,2-Dichloropropane	ug/L (ppb)	10	105	108	64-148	3
cis-1,2-Dichloroethene	ug/L (ppb)	10	96	98	70-130	2
Chloroform	ug/L (ppb)	10	98	101	70-130	3
2-Butanone (MEK)	ug/L (ppb)	50	58	60	47-112	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	99	99	70-130	0
1,1,1-Trichloroethane	ug/L (ppb)	10	98	99	70-130	1
1,1-Dichloropropene	ug/L (ppb)	10	96	95	70-130	1
Carbon tetrachloride	ug/L (ppb)	10	98	99	70-130	1
Benzene	ug/L (ppb)	10	103	104	70-130	1
Trichloroethene	ug/L (ppb)	10	98	98	70-130	0
1,2-Dichloropropane	ug/L (ppb)	10	95	95	70-130	0
Bromodichloromethane	ug/L (ppb)	10	98	95	70-130	3
Dibromomethane	ug/L (ppb)	10	91	95	70-130	4
4-Methyl-2-pentanone	ug/L (ppb)	50	95	89	68-130	7
cis-1,3-Dichloropropene	ug/L (ppb)	10	96	98	69-131	2
Toluene	ug/L (ppb)	10	99	99	70-130	0
trans-1,3-Dichloropropene	ug/L (ppb)	10	96	92	70-130	4
1,1,2-Trichloroethane	ug/L (ppb)	10	95	94	70-130	1
2-Hexanone	ug/L (ppb)	50	68	68	45-138	0
1,3-Dichloropropane	ug/L (ppb)	10	92	92	70-130	0
Tetrachloroethene	ug/L (ppb)	10	102	101	70-130	1
Dibromochloromethane	ug/L (ppb)	10	93	94	60-148	1
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	100	99	70-130	1
Chlorobenzene	ug/L (ppb)	10	95	96	70-130	1
Ethylbenzene	ug/L (ppb)	10	99	99	70-130	0
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	99	100	70-130	1
m,p-Xylene	ug/L (ppb)	20	97	97	70-130	0
o-Xylene	ug/L (ppb)	10	96	96	70-130	0
Styrene	ug/L (ppb)	10	97	96	70-130	1
Isopropylbenzene	ug/L (ppb)	10	97	96	70-130	1
Bromoform	ug/L (ppb)	10	97	94	69-138	3
n-Propylbenzene	ug/L (ppb)	10	93	87	70-130	7
Bromobenzene	ug/L (ppb)	10	92	87	70-130	6
1,3,5-Trimethylbenzene	ug/L (ppb)	10	93	90	70-130	3
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	94	94	70-130	0
1,2,3-Trichloropropane	ug/L (ppb)	10	90	87	70-130	3
2-Chlorotoluene	ug/L (ppb)	10	88	88	70-130	0
4-Chlorotoluene	ug/L (ppb)	10	91	87	70-130	4
tert-Butylbenzene	ug/L (ppb)	10	94	91	70-130	3
1,2,4-Trimethylbenzene	ug/L (ppb)	10	91	91	70-130	0
sec-Butylbenzene	ug/L (ppb)	10	93	91	70-130	2
p-Isopropyltoluene	ug/L (ppb)	10	94	93	70-130	1
1,3-Dichlorobenzene	ug/L (ppb)	10	93	88	70-130	6
1,4-Dichlorobenzene	ug/L (ppb)	10	93	91	70-130	2
1,2-Dichlorobenzene	ug/L (ppb)	10	93	89	70-130	4
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	88	87	70-130	1
1,2,4-Trichlorobenzene	ug/L (ppb)	10	90	91	70-130	1
Hexachlorobutadiene	ug/L (ppb)	10	94	93	70-130	1
Naphthalene	ug/L (ppb)	10	83	87	70-130	5
1,2,3-Trichlorobenzene	ug/L (ppb)	10	93	95	70-130	2

Date of Report: 11/12/24
Date Received: 11/05/24
Project: Evergreen Treatment Services AS180043, F&BI 411071

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 411062-01 x10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<10	98	96	75-125	2
Cadmium	ug/L (ppb)	10	<10	97	96	75-125	1
Chromium	ug/L (ppb)	10	<10	95	94	75-125	1
Lead	ug/L (ppb)	10	<10	101	100	75-125	1
Mercury	ug/L (ppb)	5	<10	95	97	75-125	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	102	80-120
Cadmium	ug/L (ppb)	10	99	80-120
Chromium	ug/L (ppb)	10	104	80-120
Lead	ug/L (ppb)	10	103	80-120
Mercury	ug/L (ppb)	5	98	80-120

Date of Report: 11/12/24
Date Received: 11/05/24
Project: Evergreen Treatment Services AS180043, F&BI 411071

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 411071-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	12.1	104 b	102 b	75-125	2 b
Cadmium	ug/L (ppb)	10	<1	92	90	75-125	2
Chromium	ug/L (ppb)	10	<1	93	94	75-125	1
Lead	ug/L (ppb)	10	<1	102	102	75-125	0
Mercury	ug/L (ppb)	5	<1	104	103	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	99	80-120
Cadmium	ug/L (ppb)	10	94	80-120
Chromium	ug/L (ppb)	10	98	80-120
Lead	ug/L (ppb)	10	98	80-120
Mercury	ug/L (ppb)	5	99	80-120

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, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. 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 standard reporting limit. 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.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

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.

411071

SAMPLE CHAIN OF CUSTODY

11/05/24 F2/K3/VW4

Page # 1 of 1

Report To Nathan Dickey

Company Aspect

Address SEATTLE

City, State, ZIP

Phone Email

SAMPLERS (*signature*)

PROJECT NAME: Evergreen Treatment Services

PO #: AS180043

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	TOTAL MTCA 5	DISS. MTCA 5	GLAB Filt.		Notes
AMW-1-20241105	01A-I	11/5	1600	GW	9	X	X			X			X	X			
AMW-2-20241105	02	"	1502	"	9	X	X			X			X	X			
AMW-3-20241105	03	"	1020	"	9	X	X			X			X	X			
AMW-4-20241105	04A-G	"	1230	"	7 (10 #1)	X	X			X			X	X			
AMW-5-20241105	05A-I	"	1315	"	9	X	X			X			X	X			

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Nathan Dickey	Aspect	11/5	1639
Received by:	Eric Power	TRB	11/5/24	1639
Relinquished by:		Samples received at 4 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 411071 CLIENT Aspect INITIALS/ DATE: [illegible] 11/5/24

If custody seals are present on cooler, are they intact? ☑ NA ☐ YES ☐ NO

Cooler/Sample temperature 4 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☑ YES ☐ NO

How did samples arrive?
☑ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ Date: AP 11/06/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 1 days

Are the samples clearly identified? (explain "no" answer below) ☑ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☐ NA ☑ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

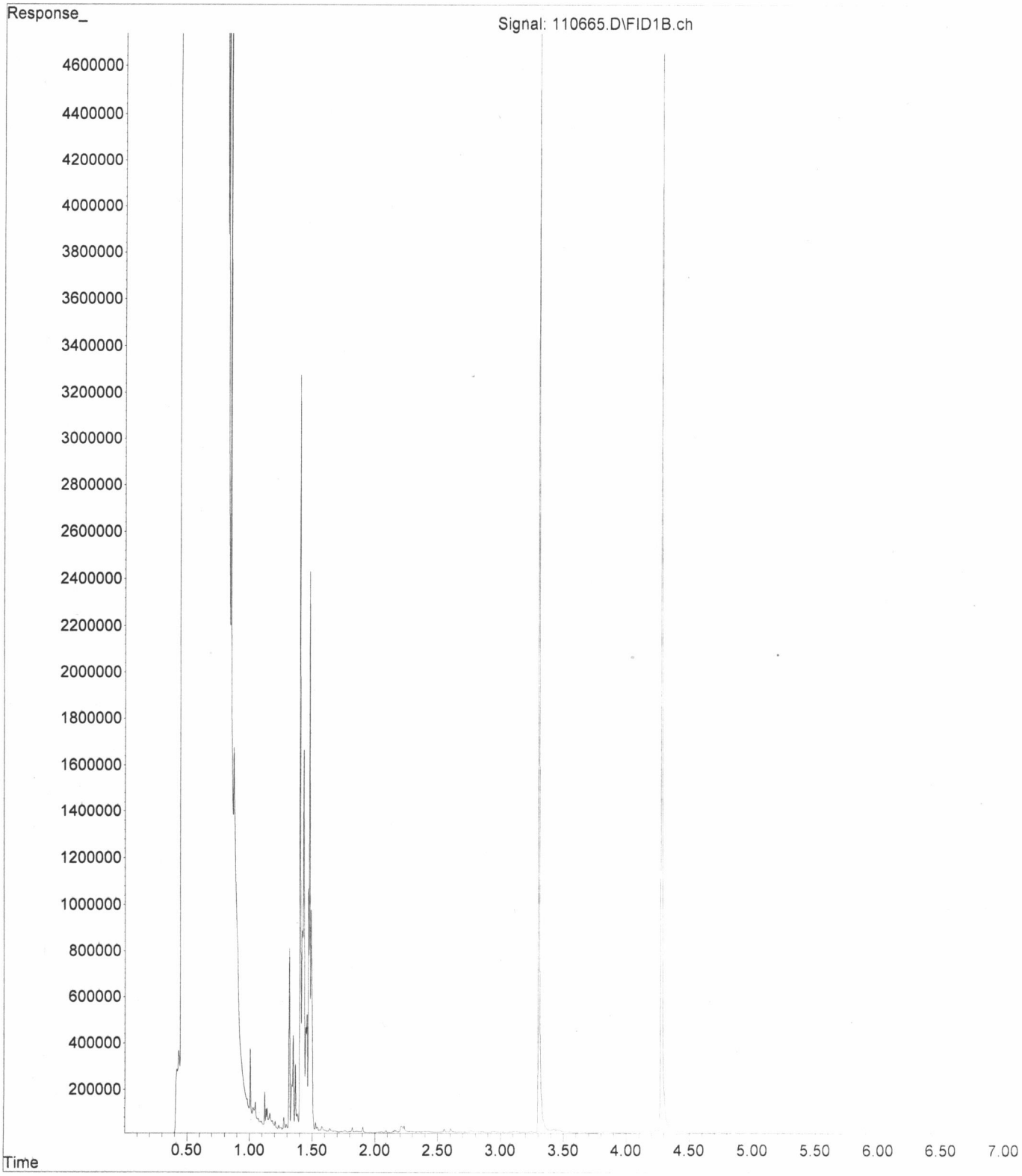
Sample ID's	☑ Yes	☐ No	☐ Not on COC/label
Date Sampled	☑ Yes	☐ No	☐ Not on COC/label
Time Sampled	☑ Yes	☐ No	☐ Not on COC/label
# of Containers	☐ Yes	☑ No	Received 7 containers for AMW-4-20241105(04)
Relinquished	☑ Yes	☐ No	
Requested analysis	☑ Yes	☐ On Hold	

Other comments (use a separate page if needed)

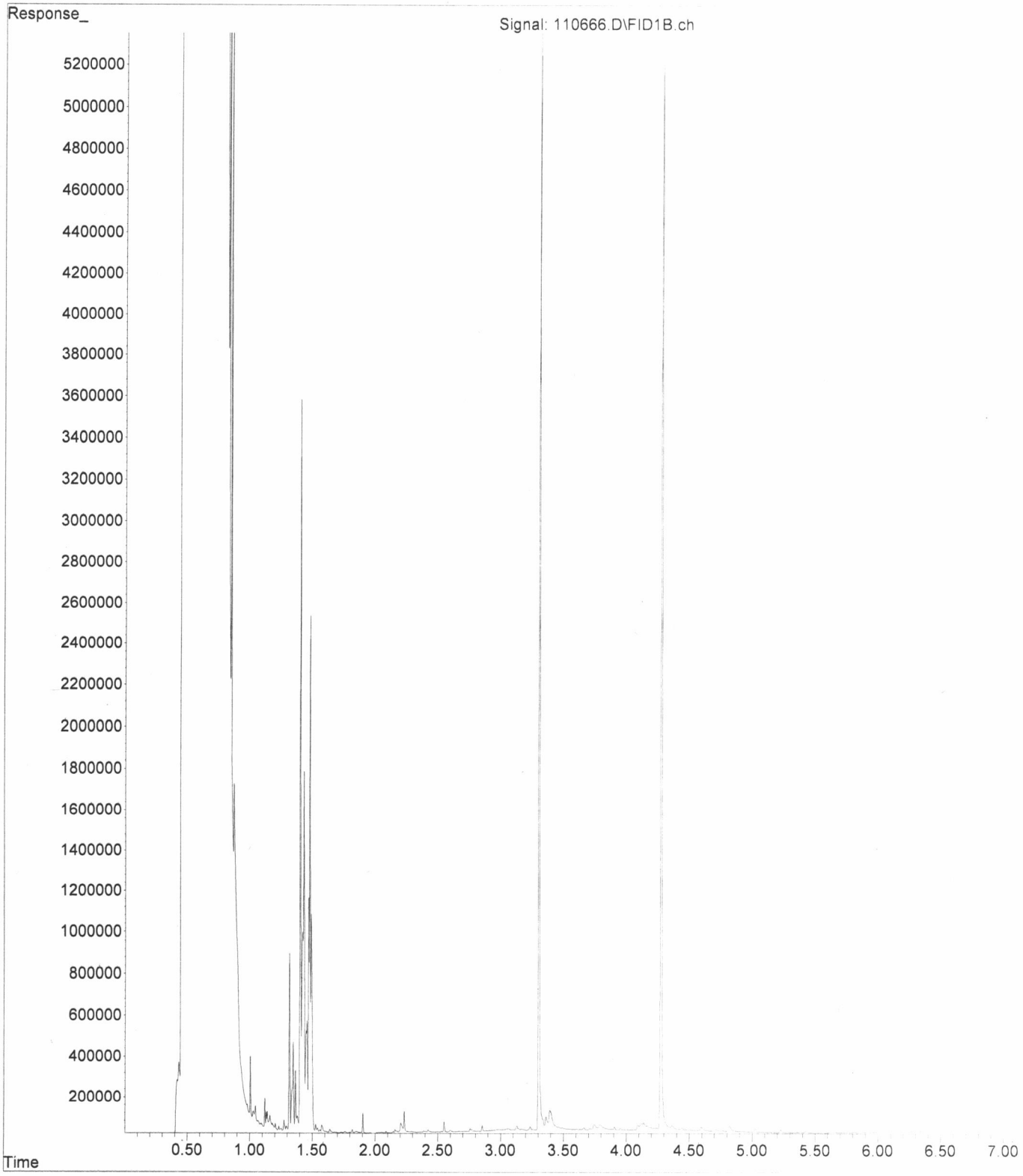
Air Samples: Were any additional canisters/tubes received? ☑ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

File :D:\GC14\GC14_Data\11-06-24\110665.D
Operator : TL
Acquired : 06 Nov 2024 10:26 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 411071-01
Misc Info : ERR
Vial Number: 49



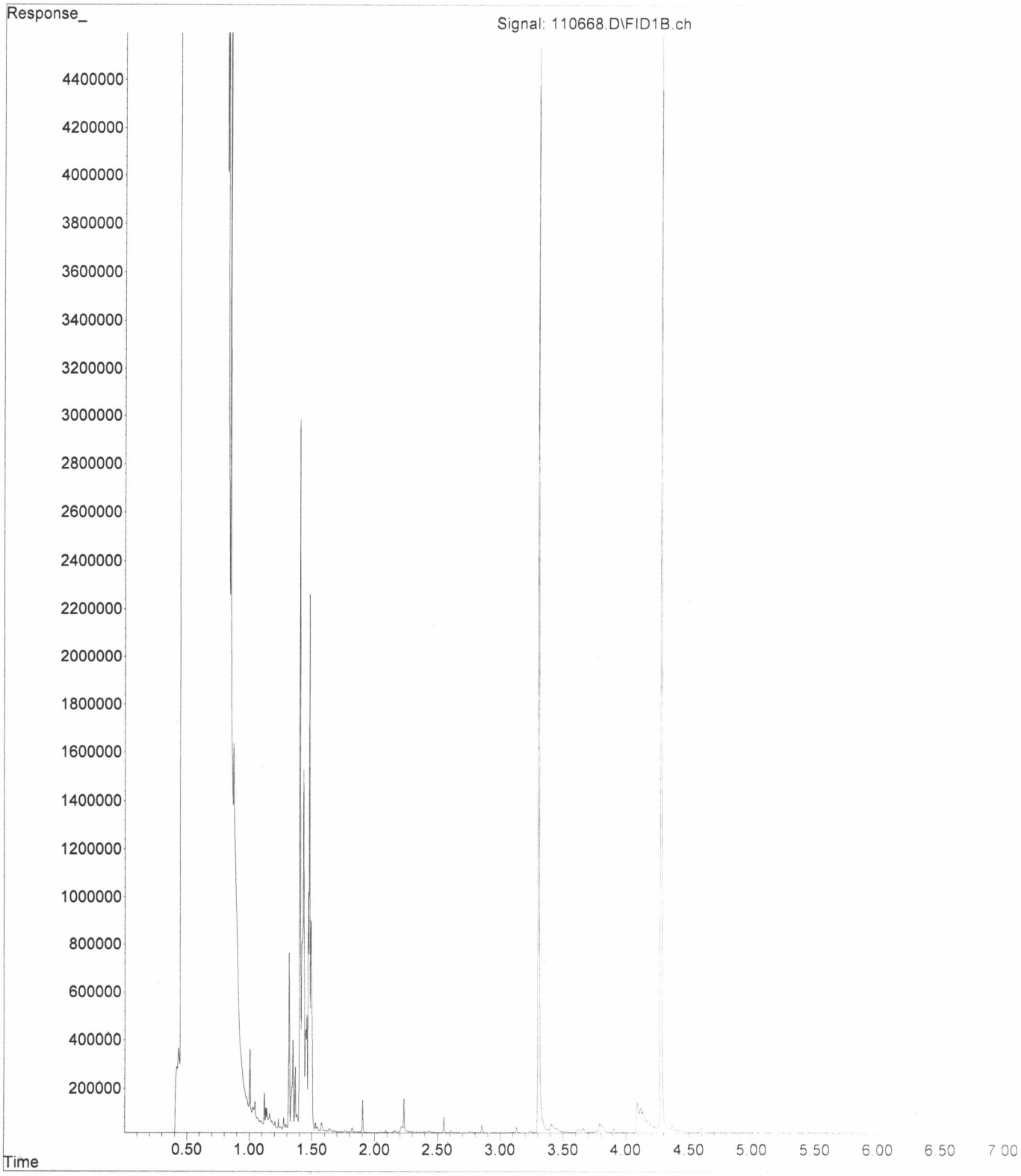
File :D:\GC14\GC14_Data\11-06-24\110666.D
Operator : TL
Acquired : 06 Nov 2024 10:38 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 411071-02
Misc Info : ERR
Vial Number: 50



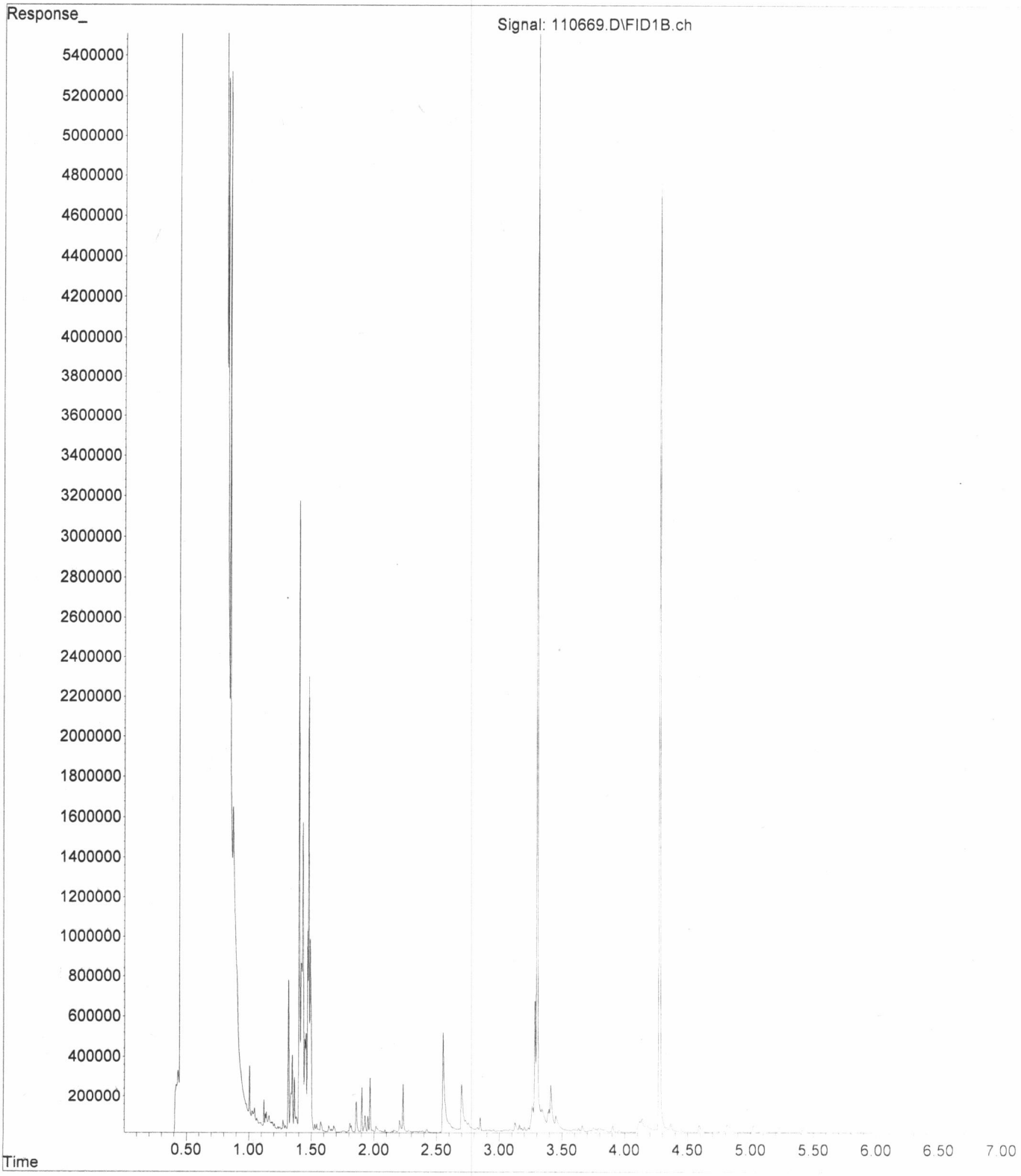
File :D:\GC14\GC14_Data\11-06-24\110667.D
Operator : TL
Acquired : 06 Nov 2024 10:50 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 411071-03
Misc Info : ERR
Vial Number: 51



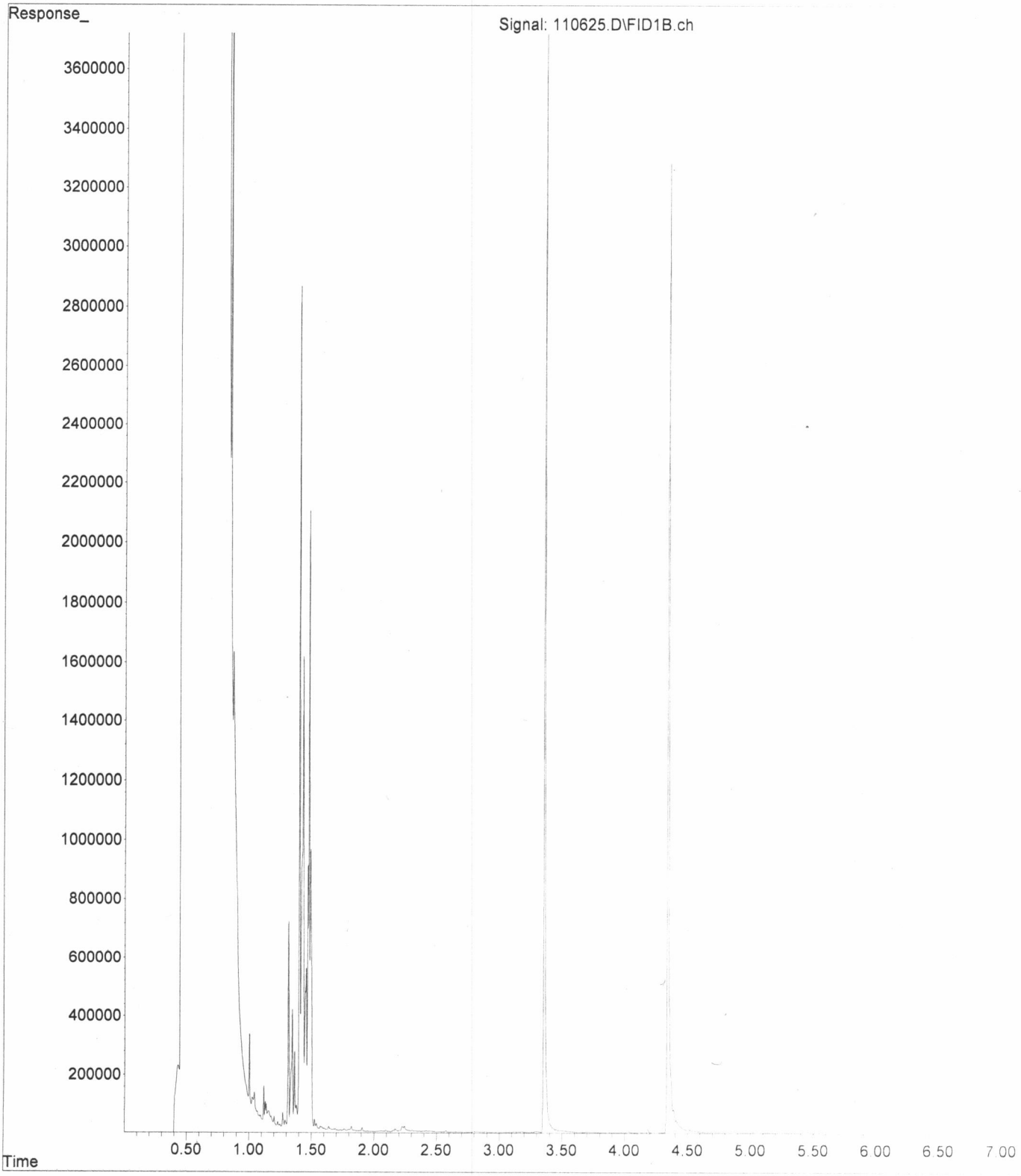
File :D:\GC14\GC14_Data\11-06-24\110668.D
Operator : TL
Acquired : 06 Nov 2024 11:02 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 411071-04
Misc Info : ERR
Vial Number: 52



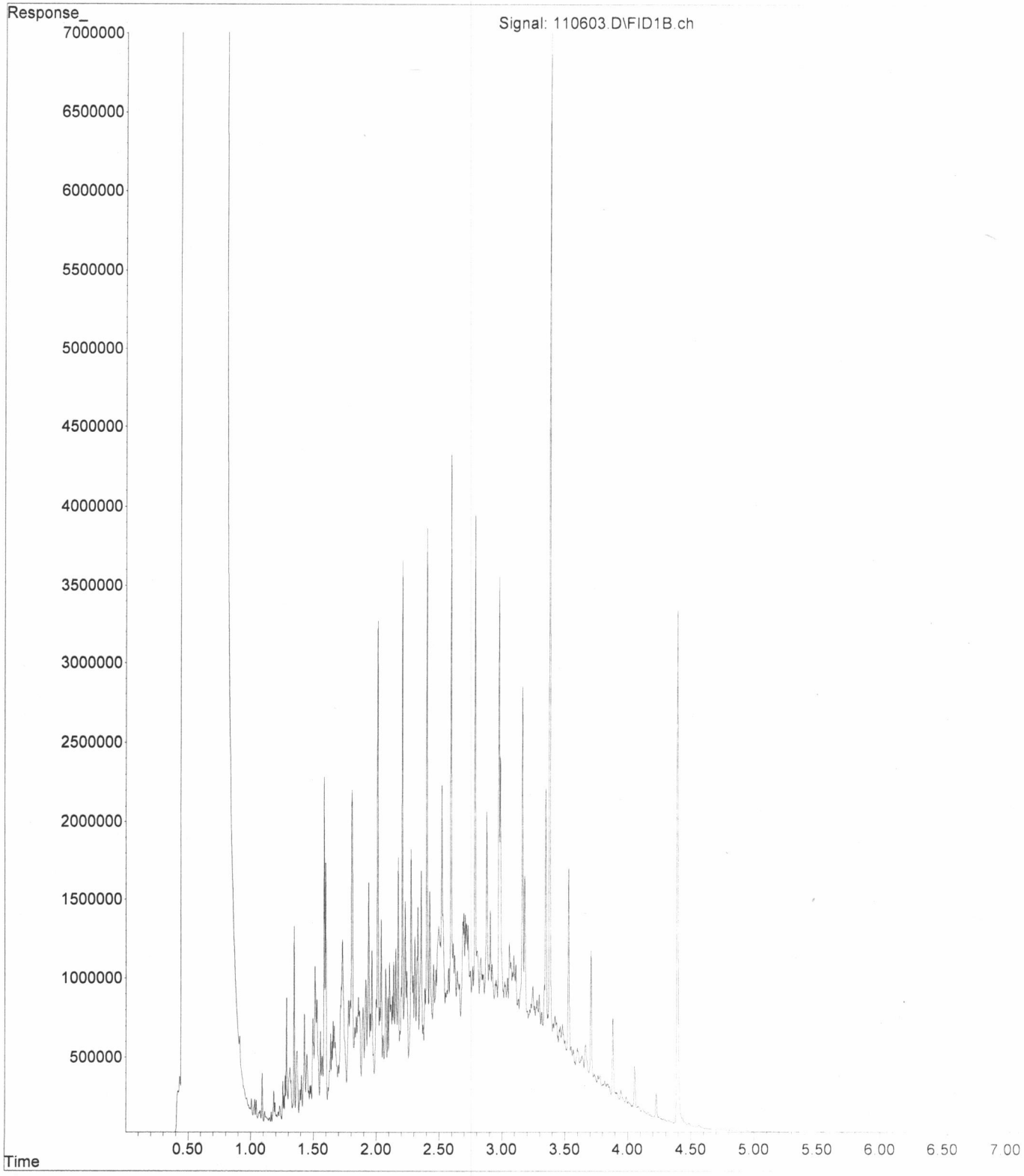
File :D:\GC14\GC14_Data\11-06-24\110669.D
Operator : TL
Acquired : 06 Nov 2024 11:14 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 411071-05
Misc Info : ERR
Vial Number: 53



File :D:\GC14\GC14_Data\11-06-24\110625.D
Operator : TL
Acquired : 06 Nov 2024 02:25 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 04-2755 mb
Misc Info : ERR
Vial Number: 17



File :D:\GC14\GC14_Data\11-06-24\110603.D
Operator : TL
Acquired : 06 Nov 2024 08:54 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 500 Dx 73-88G
Misc Info : ERR
Vial Number: 3



FRIEDMAN & BRUYA, INC.

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November 15, 2024

Nathan Dickey, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Dickey:

Included are the results from the testing of material submitted on November 4, 2024 from the ETS Subsurface Investigation PO 180043-02, F&BI 411043 project. There are 80 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: Aspect Data
ASP1115R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 4, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting ETS Subsurface Investigation PO 180043-02, F&BI 411043 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting
411043 -01	AB-01-01.5
411043 -02	AB-01-02.5
411043 -03	AB-01-06.5
411043 -04	AB-01-09
411043 -05	AB-02-01
411043 -06	AB-02-03
411043 -07	AB-02-05
411043 -08	AB-02-06.5
411043 -09	AB-02-09.5
411043 -10	AB-02-10.5
411043 -11	AB-03-01
411043 -12	AB-03-02.5
411043 -13	AB-03-05.5
411043 -14	AB-03-07
411043 -15	AB-04-02.5
411043 -16	AB-04-05.5
411043 -17	AB-04-10
411043 -18	AB-04-12.5
411043 -19	AB-05-02
411043 -20	AB-05-02.5
411043 -21	AB-05-05
411043 -22	AB-05-07
411043 -23	AB-05-09.7
411043 -24	AB-05-11
411043 -25	AB-05-13
411043 -26	AMW-5-01
411043 -27	AMW-5-02
411043 -28	AMW-5-02.5
411043 -29	AMW-5-06.5
411043 -30	AMW-5-08.5

CASE NARRATIVE (continued)

Laboratory ID	Aspect Consulting
411043 -31	AMW-5-12
411043 -32	AB-06-01
411043 -33	AB-06-04.5
411043 -34	AB-06-06.5
411043 -35	AB-06-08.5

The 8260D calibration standard did not meet the acceptance criteria for methylene chloride. The data were flagged accordingly.

An 8270E internal standard did not meet the acceptance criteria for samples AB-03-01, AB-05-02.5, AB-05-13, and AB-06-08.5. The samples were diluted and reanalyzed with acceptable results. Both data sets were reported.

All other quality control requirements were acceptable.

Date of Report: 11/15/24
Date Received: 11/04/24
Project: ETS Subsurface Investigation PO 180043-02, F&BI 411043
Date Extracted: 11/08/24
Date Analyzed: 11/11/24

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
AB-01-01.5 411043-01	<5	88
AB-01-09 411043-04	<5	97
AB-02-03 411043-06	<5	91
AB-02-09.5 411043-09	<5	85
AB-03-01 411043-11	<5	96
AB-03-07 411043-14	<5	97
AB-04-02.5 411043-15	<5	93
AB-04-10 411043-17	<5	87
AB-05-02.5 411043-20	<5	89
AB-05-13 411043-25	<5	95
AMW-5-01 411043-26	<5	89

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RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
AMW-5-12 411043-31	<5	92
AB-06-01 411043-32	8.3	100
AB-06-08.5 411043-35	<5	91
Method Blank 04-2703 MB	<5	92

Date of Report: 11/15/24
Date Received: 11/04/24
Project: ETS Subsurface Investigation PO 180043-02, F&BI 411043
Date Extracted: 11/08/24
Date Analyzed: 11/08/24

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 50-150)
AB-01-01.5 411043-01	170 x	<250	104
AB-01-09 411043-04	83 x	<250	102
AB-02-03 411043-06	<50	<250	101
AB-02-09.5 411043-09	100 x	<250	101
AB-03-01 411043-11	<50	<250	101
AB-03-07 411043-14	<50	<250	101
AB-04-02.5 411043-15	<50	<250	99
AB-04-10 411043-17	210 x	360	104
AB-05-02.5 411043-20	75 x	<250	105
AB-05-13 411043-25	<50	<250	101
AMW-5-01 411043-26	110 x	<250	104

Date of Report: 11/15/24
Date Received: 11/04/24
Project: ETS Subsurface Investigation PO 180043-02, F&BI 411043
Date Extracted: 11/08/24
Date Analyzed: 11/08/24

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 50-150)
AMW-5-12 411043-31	<50	<250	103
AB-06-01 411043-32	71 x	<250	101
AB-06-08.5 411043-35	310 x	530	102
Method Blank 04-2797 MB	<50	<250	101

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-01-01.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-01 1/0.5
Date Analyzed:	11/11/24	Data File:	111108.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	84	120
Toluene-d8	98	73	128
4-Bromofluorobenzene	96	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.0034
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	0.0064
Hexane	<0.25	o-Xylene	0.0029
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	0.0051	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	0.013	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.0054	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	0.78
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-01-09	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-04 1/0.5
Date Analyzed:	11/11/24	Data File:	111109.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	84	120
Toluene-d8	98	73	128
4-Bromofluorobenzene	97	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	0.0060
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	0.0023	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	0.016	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	0.064	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.0043	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	0.024
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-02-03	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-06 1/0.5
Date Analyzed:	11/11/24	Data File:	111110.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	84	120
Toluene-d8	99	73	128
4-Bromofluorobenzene	98	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	0.0051	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	0.0025	sec-Butylbenzene	<0.05
Trichloroethene	0.012	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.0055	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-02-09.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-09 1/0.5
Date Analyzed:	11/11/24	Data File:	111111.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	94	84	120
Toluene-d8	92	73	128
4-Bromofluorobenzene	99	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	0.51	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.0057
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	0.0090
Hexane	<0.25	o-Xylene	0.0065
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	0.31	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	0.018	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.018	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-03-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-11 1/0.5
Date Analyzed:	11/11/24	Data File:	111112.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	90	84	120
Toluene-d8	92	73	128
4-Bromofluorobenzene	98	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	0.035	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	0.058	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.041	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-03-07	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-14 1/0.5
Date Analyzed:	11/11/24	Data File:	111113.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	84	120
Toluene-d8	98	73	128
4-Bromofluorobenzene	98	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	0.017	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.015
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	0.016
Hexane	<0.25	o-Xylene	0.0038
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	0.13	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	0.14	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	0.0079	sec-Butylbenzene	<0.05
Trichloroethene	0.16	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.061	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-04-02.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-15 1/0.5
Date Analyzed:	11/11/24	Data File:	111114.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	84	120
Toluene-d8	100	73	128
4-Bromofluorobenzene	101	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.002	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-04-10	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-17 1/0.5
Date Analyzed:	11/11/24	Data File:	111115.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	84	120
Toluene-d8	98	73	128
4-Bromofluorobenzene	100	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	0.0036
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.0026
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	0.0070
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	0.0028	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	0.010	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	0.019	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.012	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-05-02.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-20 1/0.5
Date Analyzed:	11/11/24	Data File:	111116.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	84	120
Toluene-d8	99	73	128
4-Bromofluorobenzene	99	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	0.0036	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	0.011	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	0.0032	sec-Butylbenzene	<0.05
Trichloroethene	0.0037	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.0029	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-05-13	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-25 1/0.5
Date Analyzed:	11/11/24	Data File:	111117.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	84	120
Toluene-d8	101	73	128
4-Bromofluorobenzene	100	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.0029
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	0.0036	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.0075	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AMW-5-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-26 1/0.5
Date Analyzed:	11/11/24	Data File:	111118.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	84	120
Toluene-d8	97	73	128
4-Bromofluorobenzene	99	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.0066
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	0.0097
Hexane	<0.25	o-Xylene	0.0050
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	0.0024	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	0.0047	sec-Butylbenzene	<0.05
Trichloroethene	0.030	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.0080	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	0.034
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AMW-5-12	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-31 1/0.5
Date Analyzed:	11/11/24	Data File:	111119.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	84	120
Toluene-d8	99	73	128
4-Bromofluorobenzene	98	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	1.7	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.0072
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	0.0064
Hexane	<0.25	o-Xylene	0.0052
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	0.0020	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	0.95	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	0.030	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.026	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-06-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-32 1/0.5
Date Analyzed:	11/11/24	Data File:	111120.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	84	120
Toluene-d8	98	73	128
4-Bromofluorobenzene	97	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.0036
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	0.0090
Hexane	<0.25	o-Xylene	0.0028
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	0.0068	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	0.018	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	0.0024	sec-Butylbenzene	<0.05
Trichloroethene	0.11	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.0085	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	0.42
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-06-08.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	411043-35 1/0.5
Date Analyzed:	11/11/24	Data File:	111121.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	84	120
Toluene-d8	97	73	128
4-Bromofluorobenzene	98	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	0.0026	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.012
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	0.0024
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	0.038	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	0.0030	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.0090	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	0.10
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	ETS Subsurface Investigation
Date Extracted:	11/11/24	Lab ID:	04-2761 mb 1/0.5
Date Analyzed:	11/11/24	Data File:	111107.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	84	120
Toluene-d8	98	73	128
4-Bromofluorobenzene	97	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4 ca	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.002	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-01-01.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-01
Date Analyzed:	11/08/24	Data File:	110824.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	84	50	150
Benz(a)anthracene-d12	106	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.44
2-Methylnaphthalene	0.18
1-Methylnaphthalene	0.11
Acenaphthylene	0.0085
Acenaphthene	0.30
Fluorene	0.34
Phenanthrene	1.9
Anthracene	0.33
Fluoranthene	4.3
Pyrene	2.2
Benz(a)anthracene	0.88
Chrysene	1.0

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-01-01.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-01 1/10
Date Analyzed:	11/10/24	Data File:	111014.D
Matrix:	Soil	Instrument:	GCMS14
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	127 d	50	150
Benz(a)anthracene-d12	92 d	50	150

Compounds:	Concentration mg/kg (ppm)
Benzo(b)fluoranthene	0.91
Benzo(k)fluoranthene	0.25
Benzo(a)pyrene	0.46
Indeno(1,2,3-cd)pyrene	0.34
Dibenz(a,h)anthracene	0.091
Benzo(g,h,i)perylene	0.35

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-01-09	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-04
Date Analyzed:	11/08/24	Data File:	110825.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	87	50	150
Benz(a)anthracene-d12	103	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.025
2-Methylnaphthalene	0.0088
1-Methylnaphthalene	0.019
Acenaphthylene	<0.005
Acenaphthene	0.18
Fluorene	0.012
Phenanthrene	0.061
Anthracene	<0.005
Fluoranthene	0.090
Pyrene	0.070
Benz(a)anthracene	0.036
Chrysene	0.059
Benzo(b)fluoranthene	0.030
Benzo(k)fluoranthene	0.010
Benzo(a)pyrene	0.026
Indeno(1,2,3-cd)pyrene	0.017
Dibenz(a,h)anthracene	<0.005
Benzo(g,h,i)perylene	0.022

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-02-03	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-06
Date Analyzed:	11/08/24	Data File:	110826.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	99	50	150
Benz(a)anthracene-d12	104	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.0082
2-Methylnaphthalene	0.0054
1-Methylnaphthalene	<0.005
Acenaphthylene	0.0056
Acenaphthene	<0.005
Fluorene	<0.005
Phenanthrene	0.022
Anthracene	<0.005
Fluoranthene	0.058
Pyrene	0.053
Benz(a)anthracene	0.050
Chrysene	0.055
Benzo(b)fluoranthene	0.090
Benzo(k)fluoranthene	0.028
Benzo(a)pyrene	0.078
Indeno(1,2,3-cd)pyrene	0.064
Dibenz(a,h)anthracene	0.019
Benzo(g,h,i)perylene	0.079

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-02-09.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-09 1/10
Date Analyzed:	11/10/24	Data File:	111006.D
Matrix:	Soil	Instrument:	GCMS14
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93 d	50	150
Benz(a)anthracene-d12	68 d	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.15
2-Methylnaphthalene	0.13
1-Methylnaphthalene	0.085
Acenaphthylene	0.050
Acenaphthene	0.063
Fluorene	0.11
Phenanthrene	0.60
Anthracene	0.086
Fluoranthene	0.80
Pyrene	0.79
Benz(a)anthracene	0.29
Chrysene	0.36
Benzo(b)fluoranthene	0.44
Benzo(k)fluoranthene	0.12
Benzo(a)pyrene	0.30
Indeno(1,2,3-cd)pyrene	0.21
Dibenz(a,h)anthracene	0.062
Benzo(g,h,i)perylene	0.28

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-03-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-11
Date Analyzed:	11/08/24	Data File:	110828.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	101	50	150
Benz(a)anthracene-d12	103	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.0065
2-Methylnaphthalene	0.0058
1-Methylnaphthalene	<0.005
Acenaphthylene	<0.005
Acenaphthene	0.011
Fluorene	0.010
Phenanthrene	0.079
Anthracene	0.012
Fluoranthene	0.11
Pyrene	0.078
Benz(a)anthracene	0.053
Chrysene	0.058
Benzo(k)fluoranthene	0.021 J
Dibenz(a,h)anthracene	0.012 J

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-03-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-11 1/10
Date Analyzed:	11/10/24	Data File:	111007.D
Matrix:	Soil	Instrument:	GCMS14
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	121 d	50	150
Benz(a)anthracene-d12	86 d	50	150

Compounds:	Concentration mg/kg (ppm)
Benzo(b)fluoranthene	0.090
Benzo(k)fluoranthene	<0.05
Benzo(a)pyrene	0.060
Indeno(1,2,3-cd)pyrene	0.051
Dibenz(a,h)anthracene	<0.05
Benzo(g,h,i)perylene	0.057

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-03-07	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-14
Date Analyzed:	11/08/24	Data File:	110829.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	98	50	150
Benz(a)anthracene-d12	99	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.0058
2-Methylnaphthalene	<0.005
1-Methylnaphthalene	<0.005
Acenaphthylene	<0.005
Acenaphthene	<0.005
Fluorene	<0.005
Phenanthrene	0.018
Anthracene	<0.005
Fluoranthene	0.033
Pyrene	0.034
Benz(a)anthracene	0.017
Chrysene	0.021
Benzo(b)fluoranthene	0.022
Benzo(k)fluoranthene	0.0065
Benzo(a)pyrene	0.012
Indeno(1,2,3-cd)pyrene	0.010
Dibenz(a,h)anthracene	<0.005
Benzo(g,h,i)perylene	0.012

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-04-02.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-15
Date Analyzed:	11/08/24	Data File:	110830.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	96	50	150
Benz(a)anthracene-d12	99	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.014
2-Methylnaphthalene	0.0098
1-Methylnaphthalene	0.012
Acenaphthylene	0.016
Acenaphthene	0.016
Fluorene	0.012
Phenanthrene	0.32
Anthracene	0.030
Fluoranthene	0.63
Pyrene	0.54
Benz(a)anthracene	0.22
Chrysene	0.30
Benzo(b)fluoranthene	0.33
Benzo(k)fluoranthene	0.11
Benzo(a)pyrene	0.29
Indeno(1,2,3-cd)pyrene	0.27
Dibenz(a,h)anthracene	0.049
Benzo(g,h,i)perylene	0.28

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-04-10	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-17
Date Analyzed:	11/08/24	Data File:	110831.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	85	50	150
Benz(a)anthracene-d12	107	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.024
2-Methylnaphthalene	0.020
1-Methylnaphthalene	0.011
Acenaphthylene	<0.005
Acenaphthene	<0.005
Fluorene	<0.005
Phenanthrene	0.022
Anthracene	<0.005
Fluoranthene	0.031
Pyrene	0.046
Benz(a)anthracene	0.036
Chrysene	0.036
Benzo(b)fluoranthene	0.031
Benzo(k)fluoranthene	0.0089
Benzo(a)pyrene	0.022
Indeno(1,2,3-cd)pyrene	0.027
Dibenz(a,h)anthracene	0.0060
Benzo(g,h,i)perylene	0.026

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-05-02.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-20
Date Analyzed:	11/08/24	Data File:	110832.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	84	50	150
Benz(a)anthracene-d12	103	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.0051
2-Methylnaphthalene	<0.005
1-Methylnaphthalene	<0.005
Acenaphthylene	0.0051
Acenaphthene	0.025
Fluorene	0.017
Phenanthrene	0.060
Anthracene	0.017
Fluoranthene	0.33
Pyrene	0.24
Benz(a)anthracene	0.13
Chrysene	0.14
Dibenz(a,h)anthracene	0.023 J

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-05-02.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-20 1/10
Date Analyzed:	11/10/24	Data File:	111008.D
Matrix:	Soil	Instrument:	GCMS14
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	128 d	50	150
Benz(a)anthracene-d12	94 d	50	150

Compounds:	Concentration mg/kg (ppm)
Benzo(b)fluoranthene	0.24
Benzo(k)fluoranthene	0.061
Benzo(a)pyrene	0.16
Indeno(1,2,3-cd)pyrene	0.14
Dibenz(a,h)anthracene	<0.05
Benzo(g,h,i)perylene	0.17

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-05-13	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-25
Date Analyzed:	11/08/24	Data File:	110833.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	83	50	150
Benz(a)anthracene-d12	102	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.0058
2-Methylnaphthalene	0.0083
1-Methylnaphthalene	<0.005
Acenaphthylene	<0.005
Acenaphthene	<0.005
Fluorene	<0.005
Phenanthrene	0.014
Anthracene	<0.005
Fluoranthene	0.019
Pyrene	0.015
Benz(a)anthracene	0.0084
Chrysene	0.012
Benzo(b)fluoranthene	0.010 J
Benzo(k)fluoranthene	<0.005 J
Benzo(a)pyrene	0.0074 J
Indeno(1,2,3-cd)pyrene	<0.005 J
Dibenz(a,h)anthracene	<0.005 J
Benzo(g,h,i)perylene	0.0054 J

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-05-13	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-25 1/10
Date Analyzed:	11/10/24	Data File:	111009.D
Matrix:	Soil	Instrument:	GCMS14
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	111 d	50	150
Benz(a)anthracene-d12	87 d	50	150

Compounds:	Concentration mg/kg (ppm)
Benzo(b)fluoranthene	<0.05
Benzo(k)fluoranthene	<0.05
Benzo(a)pyrene	<0.05
Indeno(1,2,3-cd)pyrene	<0.05
Dibenz(a,h)anthracene	<0.05
Benzo(g,h,i)perylene	<0.05

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AMW-5-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-26
Date Analyzed:	11/08/24	Data File:	110834.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	70	50	150
Benz(a)anthracene-d12	89	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.033
2-Methylnaphthalene	0.022
1-Methylnaphthalene	0.013
Acenaphthylene	0.020
Acenaphthene	0.085
Fluorene	0.11
Phenanthrene	0.56
Anthracene	0.11
Fluoranthene	1.0
Pyrene	0.79
Benz(a)anthracene	0.36
Chrysene	0.47

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AMW-5-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-26 1/10
Date Analyzed:	11/10/24	Data File:	111010.D
Matrix:	Soil	Instrument:	GCMS14
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	117 d	50	150
Benz(a)anthracene-d12	101 d	50	150

Compounds:	Concentration mg/kg (ppm)
Benzo(b)fluoranthene	0.78
Benzo(k)fluoranthene	0.28
Benzo(a)pyrene	0.59
Indeno(1,2,3-cd)pyrene	0.49
Dibenz(a,h)anthracene	0.10
Benzo(g,h,i)perylene	0.58

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AMW-5-12	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-31
Date Analyzed:	11/08/24	Data File:	110835.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	94	50	150
Benz(a)anthracene-d12	94	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.017
2-Methylnaphthalene	0.0077
1-Methylnaphthalene	0.0072
Acenaphthylene	<0.005
Acenaphthene	<0.005
Fluorene	<0.005
Phenanthrene	0.020
Anthracene	<0.005
Fluoranthene	0.022
Pyrene	0.019
Benz(a)anthracene	0.011
Chrysene	0.011
Benzo(b)fluoranthene	0.012
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	0.010
Indeno(1,2,3-cd)pyrene	0.0051
Dibenz(a,h)anthracene	<0.005
Benzo(g,h,i)perylene	0.0074

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-06-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-32
Date Analyzed:	11/08/24	Data File:	110836.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	85	50	150
Benz(a)anthracene-d12	108	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.25
2-Methylnaphthalene	0.078
1-Methylnaphthalene	0.036
Acenaphthylene	0.0079
Acenaphthene	0.15
Fluorene	0.17
Phenanthrene	0.53
Anthracene	0.14
Fluoranthene	0.97
Pyrene	0.61
Benz(a)anthracene	0.33
Chrysene	0.51

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-06-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-32 1/10
Date Analyzed:	11/10/24	Data File:	111011.D
Matrix:	Soil	Instrument:	GCMS14
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	113 d	50	150
Benz(a)anthracene-d12	93 d	50	150

Compounds:	Concentration mg/kg (ppm)
Benzo(b)fluoranthene	0.49
Benzo(k)fluoranthene	0.12
Benzo(a)pyrene	0.33
Indeno(1,2,3-cd)pyrene	0.24
Dibenz(a,h)anthracene	0.062
Benzo(g,h,i)perylene	0.26

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-06-08.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-35
Date Analyzed:	11/09/24	Data File:	110837.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	85	50	150
Benz(a)anthracene-d12	102	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.33
2-Methylnaphthalene	0.21
1-Methylnaphthalene	0.17
Acenaphthylene	0.0053
Acenaphthene	0.014
Fluorene	0.037
Phenanthrene	0.18
Anthracene	<0.005
Fluoranthene	0.10
Pyrene	0.067
Benz(a)anthracene	0.029
Chrysene	0.057
Benzo(b)fluoranthene	0.033 J
Benzo(k)fluoranthene	0.011 J
Benzo(a)pyrene	0.024 J
Indeno(1,2,3-cd)pyrene	0.010 J
Dibenz(a,h)anthracene	<0.005 J
Benzo(g,h,i)perylene	0.015 J

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	AB-06-08.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	411043-35 1/10
Date Analyzed:	11/10/24	Data File:	111012.D
Matrix:	Soil	Instrument:	GCMS14
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	108 d	50	150
Benz(a)anthracene-d12	95 d	50	150

Compounds:	Concentration mg/kg (ppm)
Benzo(b)fluoranthene	<0.05
Benzo(k)fluoranthene	<0.05
Benzo(a)pyrene	<0.05
Indeno(1,2,3-cd)pyrene	<0.05
Dibenz(a,h)anthracene	<0.05
Benzo(g,h,i)perylene	<0.05

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	ETS Subsurface Investigation
Date Extracted:	10/08/24	Lab ID:	04-2793 mb
Date Analyzed:	11/08/24	Data File:	110823.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	85	50	150
Benz(a)anthracene-d12	93	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.005
2-Methylnaphthalene	<0.005
1-Methylnaphthalene	<0.005
Acenaphthylene	<0.005
Acenaphthene	<0.005
Fluorene	<0.005
Phenanthrene	<0.005
Anthracene	<0.005
Fluoranthene	<0.005
Pyrene	<0.005
Benz(a)anthracene	<0.005
Chrysene	<0.005
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005
Benzo(g,h,i)perylene	<0.005

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-01-01.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-01
Date Analyzed:	11/12/24	Data File:	411043-01.116
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.5
Cadmium	1.9
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-01-01.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-01 x5
Date Analyzed:	11/13/24	Data File:	411043-01 x5.061
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	32
Lead	45

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-01-09	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-04
Date Analyzed:	11/12/24	Data File:	411043-04.117
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.6
Cadmium	<1
Chromium	23
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-01-09	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-04
Date Analyzed:	11/13/24	Data File:	411043-04.067
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	46

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-02-03	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-06
Date Analyzed:	11/12/24	Data File:	411043-06.118
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.0
Cadmium	40
Chromium	16
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-02-03	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-06
Date Analyzed:	11/13/24	Data File:	411043-06.068
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	15

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-02-09.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-09
Date Analyzed:	11/12/24	Data File:	411043-09.119
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	18
Cadmium	2.2
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-02-09.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-09 x25
Date Analyzed:	11/13/24	Data File:	411043-09 x25.069
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	37
Lead	2,900

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-03-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-11
Date Analyzed:	11/12/24	Data File:	411043-11.120
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	9.2
Cadmium	220
Chromium	13
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-03-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-11
Date Analyzed:	11/13/24	Data File:	411043-11.080
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	19

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-03-07	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-14
Date Analyzed:	11/12/24	Data File:	411043-14.121
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.6
Cadmium	70
Chromium	32
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-03-07	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-14
Date Analyzed:	11/13/24	Data File:	411043-14.081
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	75

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-04-02.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-15
Date Analyzed:	11/12/24	Data File:	411043-15.124
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.8
Cadmium	<1
Chromium	19
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-04-02.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-15
Date Analyzed:	11/13/24	Data File:	411043-15.098
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	29

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-04-10	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-17
Date Analyzed:	11/12/24	Data File:	411043-17.125
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.4
Cadmium	<1
Chromium	16
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-04-10	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-17
Date Analyzed:	11/13/24	Data File:	411043-17.099
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	60

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-05-02.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-20
Date Analyzed:	11/12/24	Data File:	411043-20.126
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.6
Cadmium	1.2
Chromium	39
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-05-02.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-20
Date Analyzed:	11/13/24	Data File:	411043-20.100
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	73

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-05-13	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-25
Date Analyzed:	11/12/24	Data File:	411043-25.127
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.3
Cadmium	<1
Chromium	19
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-05-13	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-25
Date Analyzed:	11/13/24	Data File:	411043-25.101
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	46

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-5-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-26
Date Analyzed:	11/12/24	Data File:	411043-26.128
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.9
Cadmium	53
Chromium	39
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-5-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-26 x20
Date Analyzed:	11/13/24	Data File:	411043-26 x20.102
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	160

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-5-12	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-31
Date Analyzed:	11/12/24	Data File:	411043-31.129
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	16
Cadmium	1.2
Chromium	12
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-5-12	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-31 x20
Date Analyzed:	11/13/24	Data File:	411043-31 x20.141
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	1,700

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-06-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-32
Date Analyzed:	11/12/24	Data File:	411043-32.130
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.5
Cadmium	18
Chromium	24
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-06-01	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-32
Date Analyzed:	11/13/24	Data File:	411043-32.142
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	68

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-06-08.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-35
Date Analyzed:	11/12/24	Data File:	411043-35.131
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.0
Cadmium	<1
Chromium	31
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-06-08.5	Client:	Aspect Consulting
Date Received:	11/04/24	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	411043-35
Date Analyzed:	11/13/24	Data File:	411043-35.143
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	32

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	NA	Project:	ETS Subsurface Investigation
Date Extracted:	11/12/24	Lab ID:	I4-970 mb
Date Analyzed:	11/12/24	Data File:	I4-970 mb.074
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Date of Report: 11/15/24
Date Received: 11/04/24
Project: ETS Subsurface Investigation PO 180043-02, F&BI 411043

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 410568-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	40	82	70-130

Date of Report: 11/15/24
Date Received: 11/04/24
Project: ETS Subsurface Investigation PO 180043-02, F&BI 411043

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 411043-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	230	105	103	64-136	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	106	78-121

Date of Report: 11/15/24
Date Received: 11/04/24
Project: ETS Subsurface Investigation PO 180043-02, F&BI 411043

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 411043-26 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2	<0.5	50	49	10-142	2
Chloromethane	mg/kg (ppm)	2	<0.5	72	74	10-126	3
Vinyl chloride	mg/kg (ppm)	2	<0.05	79	78	10-138	1
Bromomethane	mg/kg (ppm)	2	<0.5	67	67	10-163	0
Chloroethane	mg/kg (ppm)	2	<0.5	79	78	10-176	1
Trichlorofluoromethane	mg/kg (ppm)	2	<0.5	84	81	10-176	4
Acetone	mg/kg (ppm)	10	<5	66	58	10-163	13
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	86	83	10-160	4
Hexane	mg/kg (ppm)	2	<0.25	85	84	10-137	1
Methylene chloride	mg/kg (ppm)	2	<0.5	65	63	10-156	3
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	<0.05	85	85	21-145	0
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	81	83	14-137	2
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	84	82	19-140	2
2,2-Dichloropropane	mg/kg (ppm)	2	<0.05	85	81	10-158	5
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	85	87	25-135	2
Chloroform	mg/kg (ppm)	2	<0.05	85	83	21-145	2
2-Butanone (MEK)	mg/kg (ppm)	10	<1	76	72	19-147	5
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	91	90	12-160	1
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	87	87	10-156	0
1,1-Dichloropropene	mg/kg (ppm)	2	<0.05	86	87	17-140	1
Carbon tetrachloride	mg/kg (ppm)	2	<0.05	95	96	9-164	1
Benzene	mg/kg (ppm)	2	<0.03	86	86	29-129	0
Trichloroethene	mg/kg (ppm)	2	<0.02	84	83	21-139	1
1,2-Dichloropropane	mg/kg (ppm)	2	<0.05	91	89	30-135	2
Bromodichloromethane	mg/kg (ppm)	2	<0.05	88	88	23-155	0
Dibromomethane	mg/kg (ppm)	2	<0.05	84	84	23-145	0
4-Methyl-2-pentanone	mg/kg (ppm)	10	<1	89	95	24-155	7
cis-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	89	89	28-144	0
Toluene	mg/kg (ppm)	2	<0.05	81	80	35-130	1
trans-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	85	85	26-149	0
1,1,2-Trichloroethane	mg/kg (ppm)	2	<0.05	85	81	10-205	5
2-Hexanone	mg/kg (ppm)	10	<1	81	77	15-166	5
1,3-Dichloropropane	mg/kg (ppm)	2	<0.05	86	85	31-137	1
Tetrachloroethene	mg/kg (ppm)	2	<0.025	83	82	20-133	1
Dibromochloromethane	mg/kg (ppm)	2	<0.05	83	79	28-150	5
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	<0.05	83	80	28-142	4
Chlorobenzene	mg/kg (ppm)	2	<0.05	83	81	32-129	2
Ethylbenzene	mg/kg (ppm)	2	<0.05	85	82	32-137	4
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	83	81	31-143	2
m,p-Xylene	mg/kg (ppm)	4	<0.1	83	83	34-136	0
o-Xylene	mg/kg (ppm)	2	<0.05	80	80	33-134	0
Styrene	mg/kg (ppm)	2	<0.05	82	80	35-137	2
Isopropylbenzene	mg/kg (ppm)	2	<0.05	84	82	31-142	2
Bromoform	mg/kg (ppm)	2	<0.05	85	83	21-156	2
n-Propylbenzene	mg/kg (ppm)	2	<0.05	85	87	23-146	2
Bromobenzene	mg/kg (ppm)	2	<0.05	82	83	34-130	1
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	<0.05	85	86	18-149	1
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	89	89	28-140	0
1,2,3-Trichloropropane	mg/kg (ppm)	2	<0.05	87	86	25-144	1
2-Chlorotoluene	mg/kg (ppm)	2	<0.05	81	84	31-134	4
4-Chlorotoluene	mg/kg (ppm)	2	<0.05	85	86	31-136	1
tert-Butylbenzene	mg/kg (ppm)	2	<0.05	84	88	30-137	5
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	<0.05	83	85	10-182	2
sec-Butylbenzene	mg/kg (ppm)	2	<0.05	86	86	23-145	0
p-Isopropyltoluene	mg/kg (ppm)	2	<0.05	84	87	21-149	4
1,3-Dichlorobenzene	mg/kg (ppm)	2	<0.05	84	84	30-131	0
1,4-Dichlorobenzene	mg/kg (ppm)	2	<0.05	81	83	29-129	2
1,2-Dichlorobenzene	mg/kg (ppm)	2	<0.05	79	82	31-132	4
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	<0.5	81	88	11-161	8
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	<0.25	79	81	22-142	2
Hexachlorobutadiene	mg/kg (ppm)	2	<0.25	81	80	10-142	1
Naphthalene	mg/kg (ppm)	2	<0.05	84	84	14-157	0
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	<0.25	83	85	20-144	2

Date of Report: 11/15/24
Date Received: 11/04/24
Project: ETS Subsurface Investigation PO 180043-02, F&BI 411043

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2	61	10-146
Chloromethane	mg/kg (ppm)	2	79	27-133
Vinyl chloride	mg/kg (ppm)	2	87	22-139
Bromomethane	mg/kg (ppm)	2	69	10-201
Chloroethane	mg/kg (ppm)	2	72	10-163
Trichlorofluoromethane	mg/kg (ppm)	2	99	10-196
Acetone	mg/kg (ppm)	10	90	52-141
1,1-Dichloroethene	mg/kg (ppm)	2	91	47-128
Hexane	mg/kg (ppm)	2	96	43-142
Methylene chloride	mg/kg (ppm)	2	73	10-184
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	91	60-123
trans-1,2-Dichloroethene	mg/kg (ppm)	2	93	64-132
1,1-Dichloroethane	mg/kg (ppm)	2	92	64-135
2,2-Dichloropropane	mg/kg (ppm)	2	90	52-170
cis-1,2-Dichloroethene	mg/kg (ppm)	2	94	64-135
Chloroform	mg/kg (ppm)	2	91	61-139
2-Butanone (MEK)	mg/kg (ppm)	10	99	30-197
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	100	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2	94	62-131
1,1-Dichloropropene	mg/kg (ppm)	2	93	64-136
Carbon tetrachloride	mg/kg (ppm)	2	105	60-139
Benzene	mg/kg (ppm)	2	94	65-136
Trichloroethene	mg/kg (ppm)	2	92	63-139
1,2-Dichloropropane	mg/kg (ppm)	2	99	61-145
Bromodichloromethane	mg/kg (ppm)	2	100	57-126
Dibromomethane	mg/kg (ppm)	2	95	62-123
4-Methyl-2-pentanone	mg/kg (ppm)	10	96	45-145
cis-1,3-Dichloropropene	mg/kg (ppm)	2	96	65-143
Toluene	mg/kg (ppm)	2	88	66-126
trans-1,3-Dichloropropene	mg/kg (ppm)	2	96	65-131
1,1,2-Trichloroethane	mg/kg (ppm)	2	91	62-131
2-Hexanone	mg/kg (ppm)	10	92	33-152
1,3-Dichloropropane	mg/kg (ppm)	2	95	67-128
Tetrachloroethene	mg/kg (ppm)	2	88	68-128
Dibromochloromethane	mg/kg (ppm)	2	92	55-121
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	91	66-129
Chlorobenzene	mg/kg (ppm)	2	89	67-128
Ethylbenzene	mg/kg (ppm)	2	90	64-123
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	93	64-121
m,p-Xylene	mg/kg (ppm)	4	89	68-128
o-Xylene	mg/kg (ppm)	2	88	67-129
Styrene	mg/kg (ppm)	2	88	67-129
Isopropylbenzene	mg/kg (ppm)	2	89	68-128
Bromoform	mg/kg (ppm)	2	96	56-132
n-Propylbenzene	mg/kg (ppm)	2	96	68-129
Bromobenzene	mg/kg (ppm)	2	91	69-128
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	95	69-129
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	96	56-143
1,2,3-Trichloropropane	mg/kg (ppm)	2	97	61-137
2-Chlorotoluene	mg/kg (ppm)	2	95	69-128
4-Chlorotoluene	mg/kg (ppm)	2	95	67-127
tert-Butylbenzene	mg/kg (ppm)	2	96	69-129
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	93	69-128
sec-Butylbenzene	mg/kg (ppm)	2	96	69-130
p-Isopropyltoluene	mg/kg (ppm)	2	94	69-130
1,3-Dichlorobenzene	mg/kg (ppm)	2	92	69-127
1,4-Dichlorobenzene	mg/kg (ppm)	2	91	68-126
1,2-Dichlorobenzene	mg/kg (ppm)	2	93	69-127
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	94	58-138
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	90	64-135
Hexachlorobutadiene	mg/kg (ppm)	2	91	50-153
Naphthalene	mg/kg (ppm)	2	95	62-128
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	96	61-126

Date of Report: 11/15/24
Date Received: 11/04/24
Project: ETS Subsurface Investigation PO 180043-02, F&BI 411043

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PAHS BY EPA METHOD 8270E SIM

Laboratory Code: 411043-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.5	0.38	113 b	111 b	50-150	2 b
2-Methylnaphthalene	mg/kg (ppm)	0.5	0.16	104 b	115 b	50-150	10 b
1-Methylnaphthalene	mg/kg (ppm)	0.5	0.098	97	106	50-150	9
Acenaphthylene	mg/kg (ppm)	0.5	0.0075	95	98	50-150	3
Acenaphthene	mg/kg (ppm)	0.5	0.26	100 b	114 b	50-150	13 b
Fluorene	mg/kg (ppm)	0.5	0.30	101 b	125 b	50-150	21 b
Phenanthrene	mg/kg (ppm)	0.5	1.6	164 b	241 b	50-150	38 b
Anthracene	mg/kg (ppm)	0.5	0.29	98 b	118 b	50-150	19 b
Fluoranthene	mg/kg (ppm)	0.5	3.8	109 b	292 b	50-150	91 b
Pyrene	mg/kg (ppm)	0.5	2.0	77 b	110 b	50-150	35 b
Benz(a)anthracene	mg/kg (ppm)	0.5	0.77	92 b	101 b	50-150	9 b
Chrysene	mg/kg (ppm)	0.5	0.91	82 b	83 b	50-150	1 b
Benzo(b)fluoranthene	mg/kg (ppm)	0.5	0.65	90 b	85 b J	50-150	6 b
Benzo(k)fluoranthene	mg/kg (ppm)	0.5	0.22	98 b	95 b J	50-150	3 b
Benzo(a)pyrene	mg/kg (ppm)	0.5	0.33	100 b	97 b J	50-150	3 b
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.5	0.28	92 b	89 b J	50-150	3 b
Dibenz(a,h)anthracene	mg/kg (ppm)	0.5	0.067	102	100 J	50-150	2
Benzo(g,h,i)perylene	mg/kg (ppm)	0.5	0.28	99 b	96 b J	50-150	3 b

Date of Report: 11/15/24
Date Received: 11/04/24
Project: ETS Subsurface Investigation PO 180043-02, F&BI 411043

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PAHS BY EPA METHOD 8270E SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.5	79	70-130
2-Methylnaphthalene	mg/kg (ppm)	0.5	82	70-130
1-Methylnaphthalene	mg/kg (ppm)	0.5	81	70-130
Acenaphthylene	mg/kg (ppm)	0.5	94	70-130
Acenaphthene	mg/kg (ppm)	0.5	90	70-130
Fluorene	mg/kg (ppm)	0.5	94	70-130
Phenanthrene	mg/kg (ppm)	0.5	93	70-130
Anthracene	mg/kg (ppm)	0.5	86	70-130
Fluoranthene	mg/kg (ppm)	0.5	102	70-130
Pyrene	mg/kg (ppm)	0.5	89	70-130
Benz(a)anthracene	mg/kg (ppm)	0.5	84	70-130
Chrysene	mg/kg (ppm)	0.5	92	70-130
Benzo(b)fluoranthene	mg/kg (ppm)	0.5	85	70-130
Benzo(k)fluoranthene	mg/kg (ppm)	0.5	94	70-130
Benzo(a)pyrene	mg/kg (ppm)	0.5	87	70-130
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.5	87	70-130
Dibenz(a,h)anthracene	mg/kg (ppm)	0.5	85	70-130
Benzo(g,h,i)perylene	mg/kg (ppm)	0.5	91	70-130

Date of Report: 11/15/24
Date Received: 11/04/24
Project: ETS Subsurface Investigation PO 180043-02, F&BI 411043

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 411171-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	2.31	100 b	93 b	75-125	7 b
Cadmium	mg/kg (ppm)	10	<1	90	98	75-125	9
Chromium	mg/kg (ppm)	10	17.3	113 b	79 b	75-125	35 b
Lead	mg/kg (ppm)	10	6.17	152 b	105 b	75-125	37 b
Mercury	mg/kg (ppm	10	<1	90	95	75-125	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	89	80-120
Cadmium	mg/kg (ppm)	10	94	80-120
Chromium	mg/kg (ppm)	10	103	80-120
Lead	mg/kg (ppm)	10	98	80-120
Mercury	mg/kg (ppm)	10	91	80-120

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, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. 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 standard reporting limit. 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.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

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.

411043

SAMPLE CHAIN OF CUSTODY

11-04-24 N3/D2

Page # 1 of _____

Report To NATHAN DICKEY

Company ASPECT

Address SEATTLE

City, State, ZIP _____

Phone _____ Email nathan.dickey@aspectcons...ting.com

SAMPLERS (*signature*)

PROJECT NAME: ETS Subsurface Investigation

PO #: 180043-02

REMARKS: cc: Aspect EDD

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other _____
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	MTCA 5				Notes
																	X per ND
AB-01-01.5	01 A-E	10/31	1001	S	5	X	X			X	X		X				11/7/24 ME
AB-01-02.5	02		1006		1												
AB-01-06.5	03 A-E		1020		5												
AB-01-09	04		1025		5	X	X			X	X		X				
AB-02-01	05		1115		5												
AB-02-03	06		1120		5	X	X			X	X		X				
AB-02-05	07		1123		5												
AB-02-06.5	08		1125		5												
AB-02-09.5	09		1140		5	X	X			X	X		X				
AB-02-10.5	10		1145		5												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	NWD	Aspect	11/4	800
Received by:	VINH	FBI	11-4-24	1310
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

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SAMPLE CHAIN OF CUSTODY

11-04-24 N3/D2

Page # 2 of 4

Report To _____

Company _____

Address _____

City, State, ZIP _____

Phone _____ Email _____

SAMPLERS (*signature*)	
PROJECT NAME	PO #
REMARKS Project specific RLs? - Yes / No	INVOICE TO

TURNAROUND TIME
- ☐ Standard turnaround
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other _____
- Default: Dispose after 30 days

						ANALYSES REQUESTED										
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	MTCA 5				Notes
AB-03-01	11 A-E	10/31	1220	S	5	X	X			X	X		X				
AB-03-02.5	12		1230		5												
AB-03-05.5	13		1236		5												
AB-03-07	14		1240		5	X	X			X	X		X				
AB-04-02.5	15		1340		5	X	X			X	X		X				
AB-04-05.5	16		1350		5												
AB-04-10	17		1400		5	X	X			X	X		X				Label (10) AB-04-10-5 11/04
AB-04-12.5	18		1401		5												
AB-05-02	19	11/1	1112		5												
AB-05-02.5	20	11/1	1120		5	X	X			X	X		X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[illegible]	Aspect	11/4	800
Received by:	[illegible]	FBI	11-4-24	1310
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

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SAMPLE CHAIN OF CUSTODY

11-04-24 N3/D23

Page # 4 of 4

Report To

Company

Address

City, State, ZIP

Phone Email

SAMPLERS (*signature*)

PROJECT NAME | PO #

REMARKS | INVOICE TO

Project specific RLs? - Yes / No

TURNAROUND TIME
☐ Standard turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Archive samples
☐ Other
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	MTCA 5				Notes
AB-05-05	21 A.E	11/1	1115	S	5												
AB-05-07	22		1124		5												
AB-05-09.7	23		1130		5												
AB-05-11	24		1135		5												
AB-05-13	25	11/1	1140		5	X	X			X	X		X				
AMW-5-01	26	10/31	1435		5	X	X			X	X		X				
AMW-5-02	27	11/1	0910		1												
AMW-5-02.5	28 A.E		0920		5												
AMW-5-06.5	29 V		0930		5												
AMW-5-08.5	30		0940		1												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	NED	Aspect	11/4	0800
Received by:	VINH	FBI	11-4-24	1310
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

411043

SAMPLE CHAIN OF CUSTODY

~~10/~~ 11-04-24

Page # 4 of 4

N3
D2

Report To _____

Company _____

Address _____

City, State, ZIP _____

Phone _____ Email _____

SAMPLERS (*signature*)	
PROJECT NAME	PO #
REMARKS Project specific RLs? - Yes / No	INVOICE TO

TURNAROUND TIME
- [X] Standard turnaround
- [ ] RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other _____
- Default: Dispose after 30 days

						ANALYSES REQUESTED											
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	MTCAS				Notes
AMW-5-12	31 AE	11/1	1010	S	5	X	X			X	X		X				
AB06-01	32	"	1234	"	5	X	X			X	X		X				
AB-06-04.5	33	"	1244	"	5												
AB-06-06.5	34	"	1256	"	5												
AB-06-08.5	35	11/1	1305	S	5	X	X			X	X		X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	NWD	Aspect	11/4	0800
Received by:	JINH	FBI	11-4-24	1310
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 411043 CLIENT Aspect INITIALS/ DATE: AP 11/04/24

If custody seals are present on cooler, are they intact? ☑ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☑ YES ☐ NO

How did samples arrive?
☐ Over the Counter ☑ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ Date: NP 11/04/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 3≥4 days

Are the samples clearly identified? (explain "no" answer below) ☐ YES ☑ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☑ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

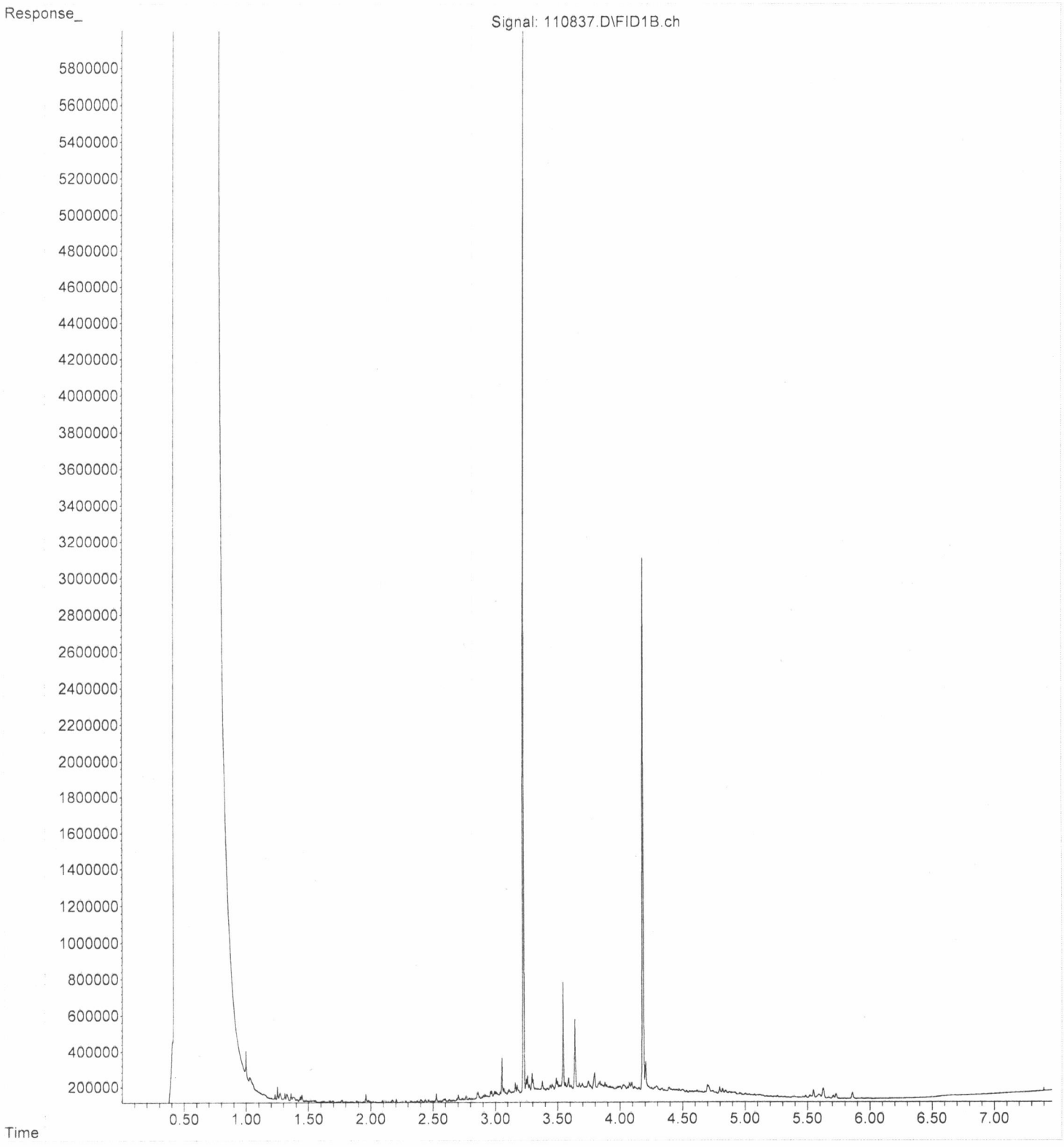
Sample ID's	☐ Yes ☑ No	☐ Not on COC/label
Date Sampled	☐ Yes ☑ No	☐ Not on COC/label
Time Sampled	☐ Yes ☑ No	☐ Not on COC/label
# of Containers	☑ Yes ☐ No	
Relinquished	☑ Yes ☐ No	
Requested analysis	☐ Yes ☑ On Hold	

Other comments (use a separate page if needed)
5035 Soil sample kit label on the Ziploc.

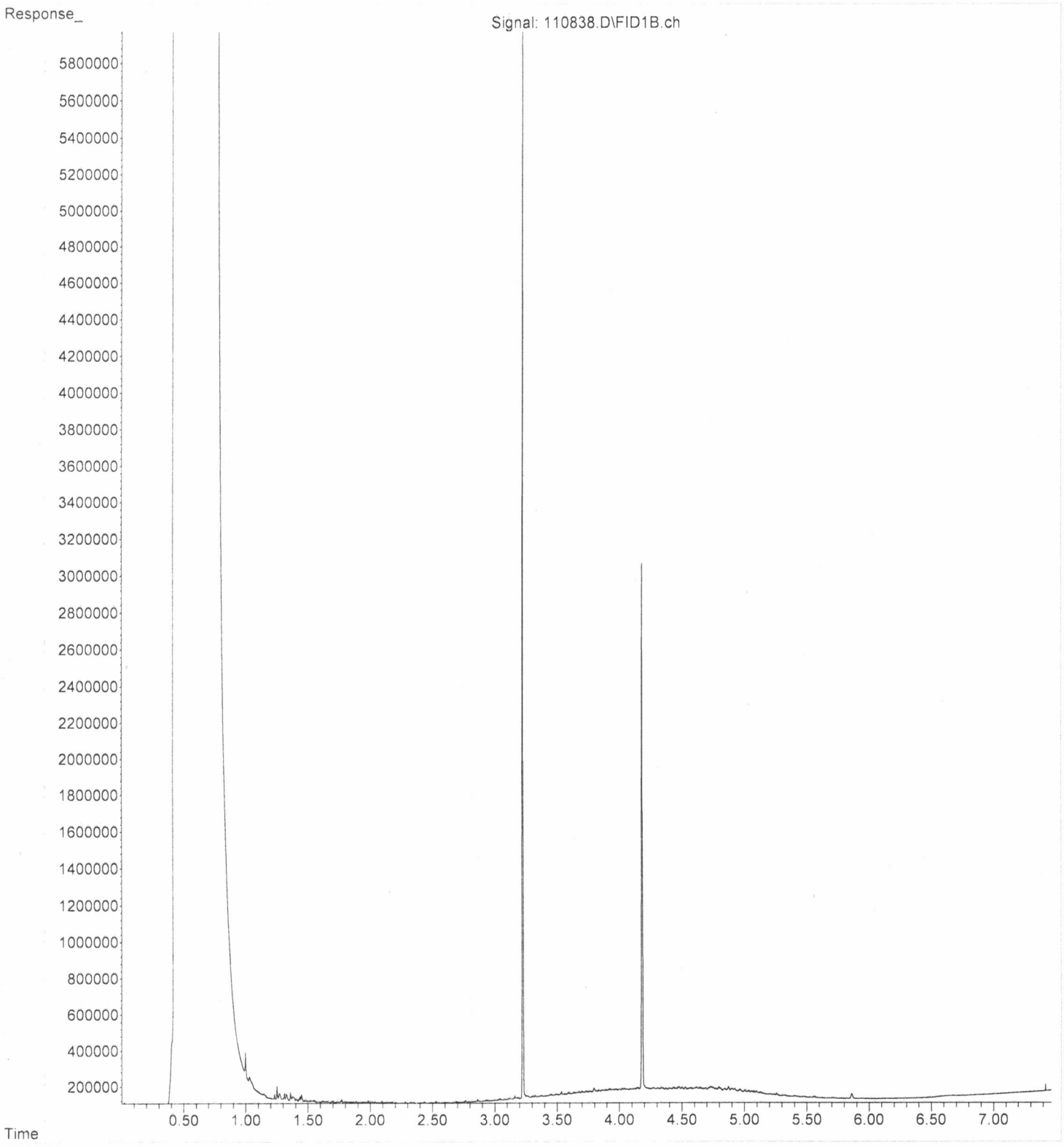
Air Samples: Were any additional canisters/tubes received? ☐ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

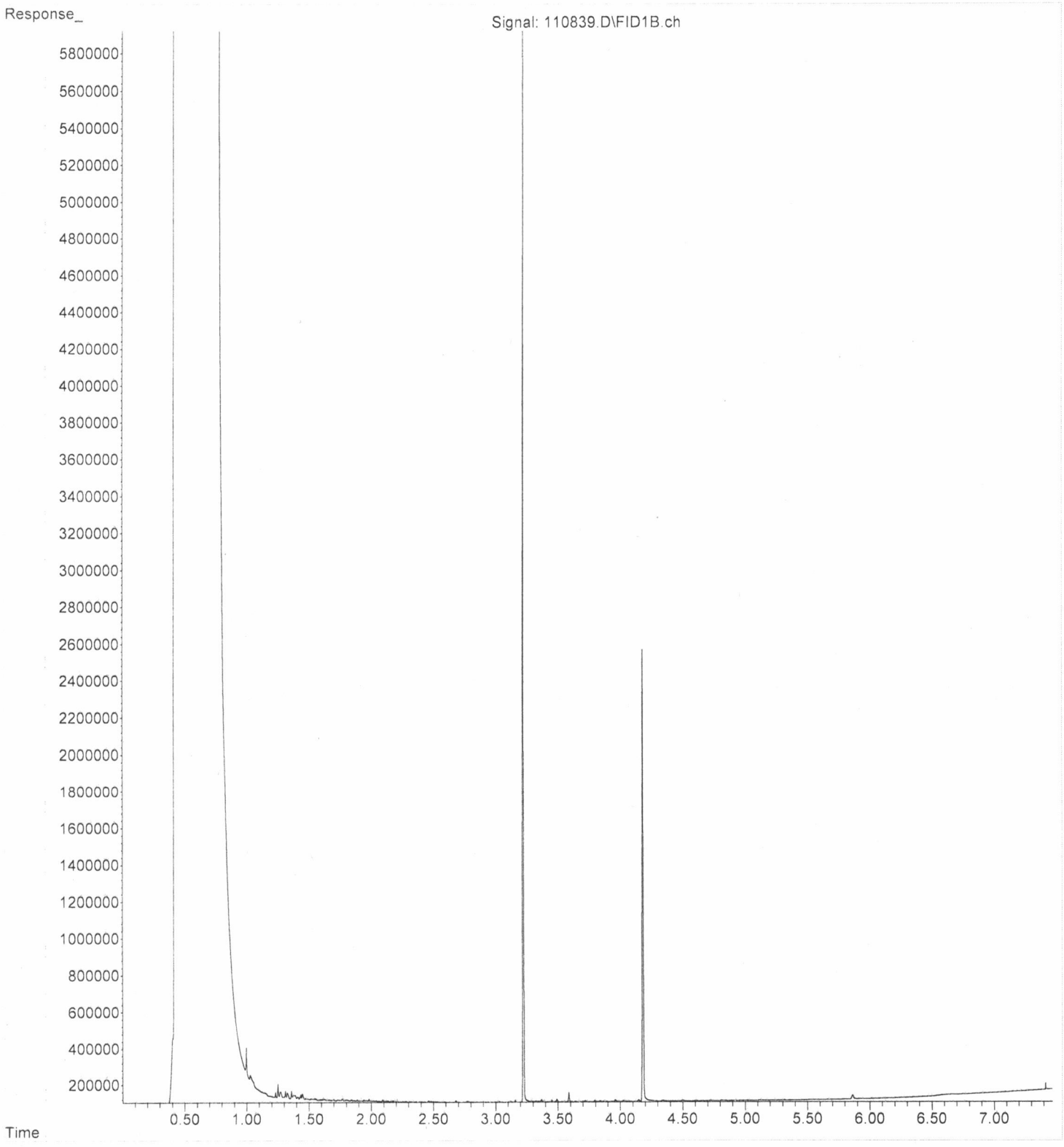
File :P:\Proc_GC13\11-08-24\110837.D
Operator : TL
Acquired : 08 Nov 2024 02:44 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 411043-01
Misc Info : ERR
Vial Number: 32



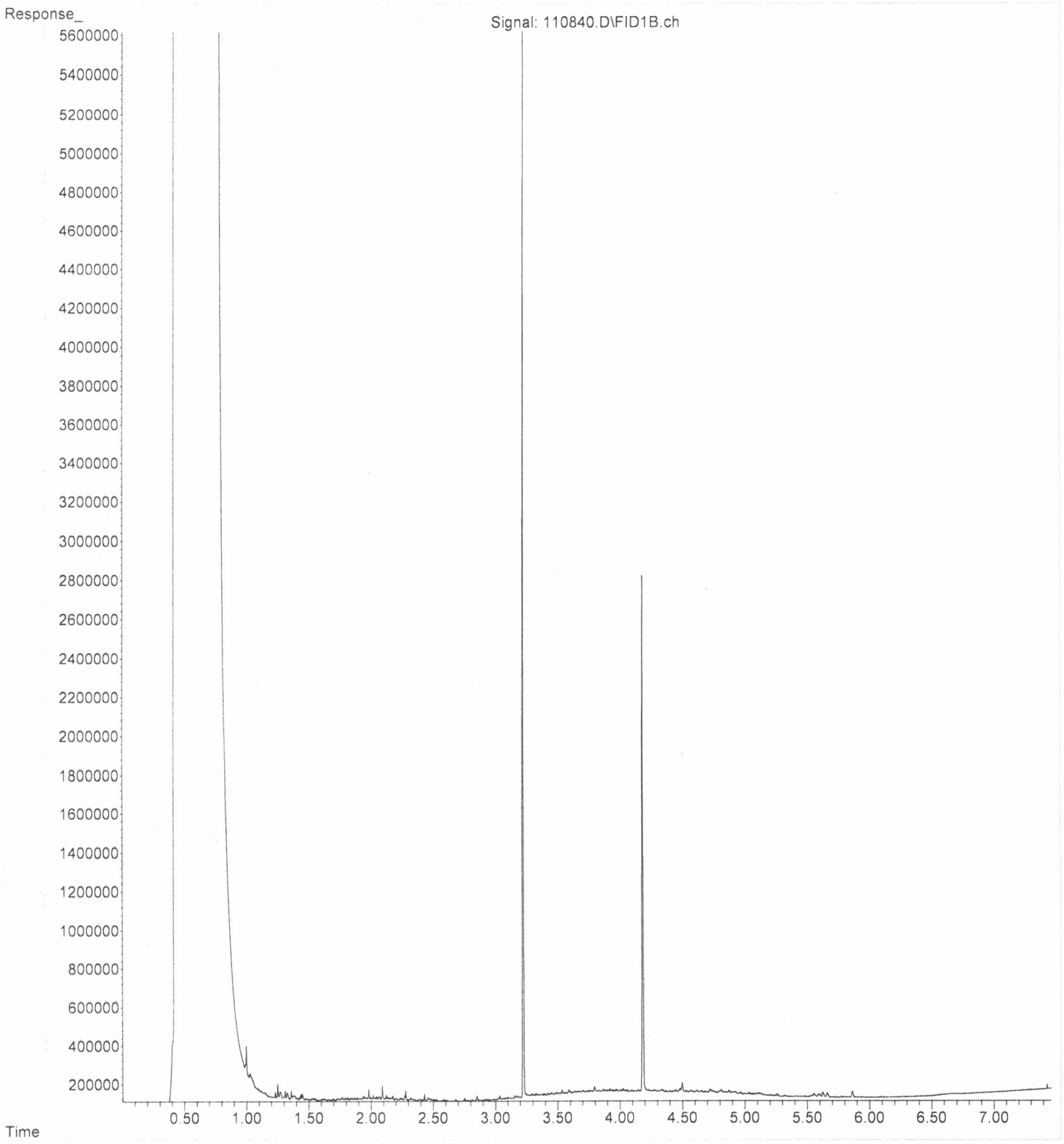
File :P:\Proc_GC13\11-08-24\110838.D
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Instrument : GC13
Sample Name: 411043-04
Misc Info : ERR
Vial Number: 33



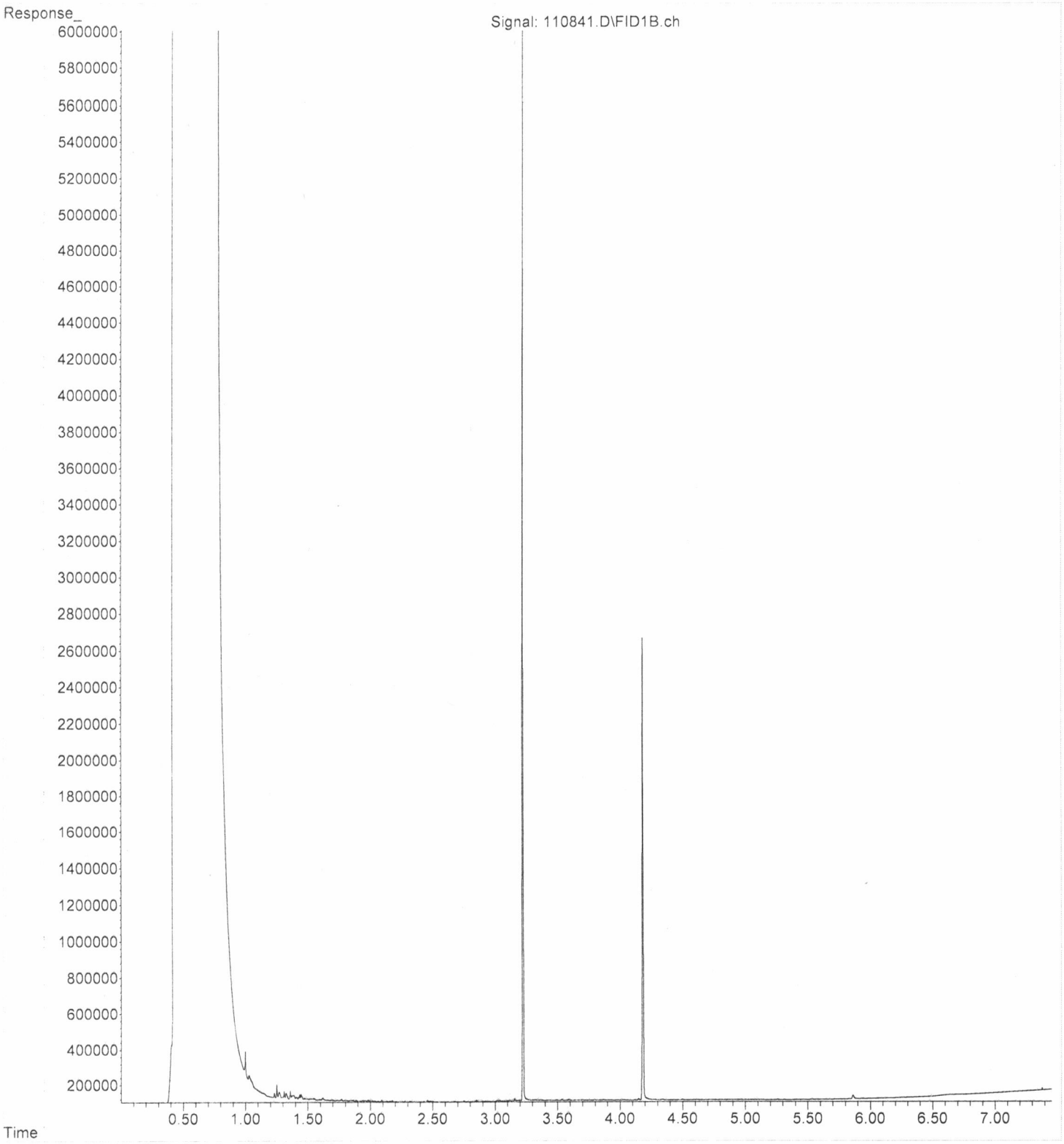
File :P:\Proc_GC13\11-08-24\110839.D
Operator : TL
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Instrument : GC13
Sample Name: 411043-06
Misc Info : ERR
Vial Number: 34



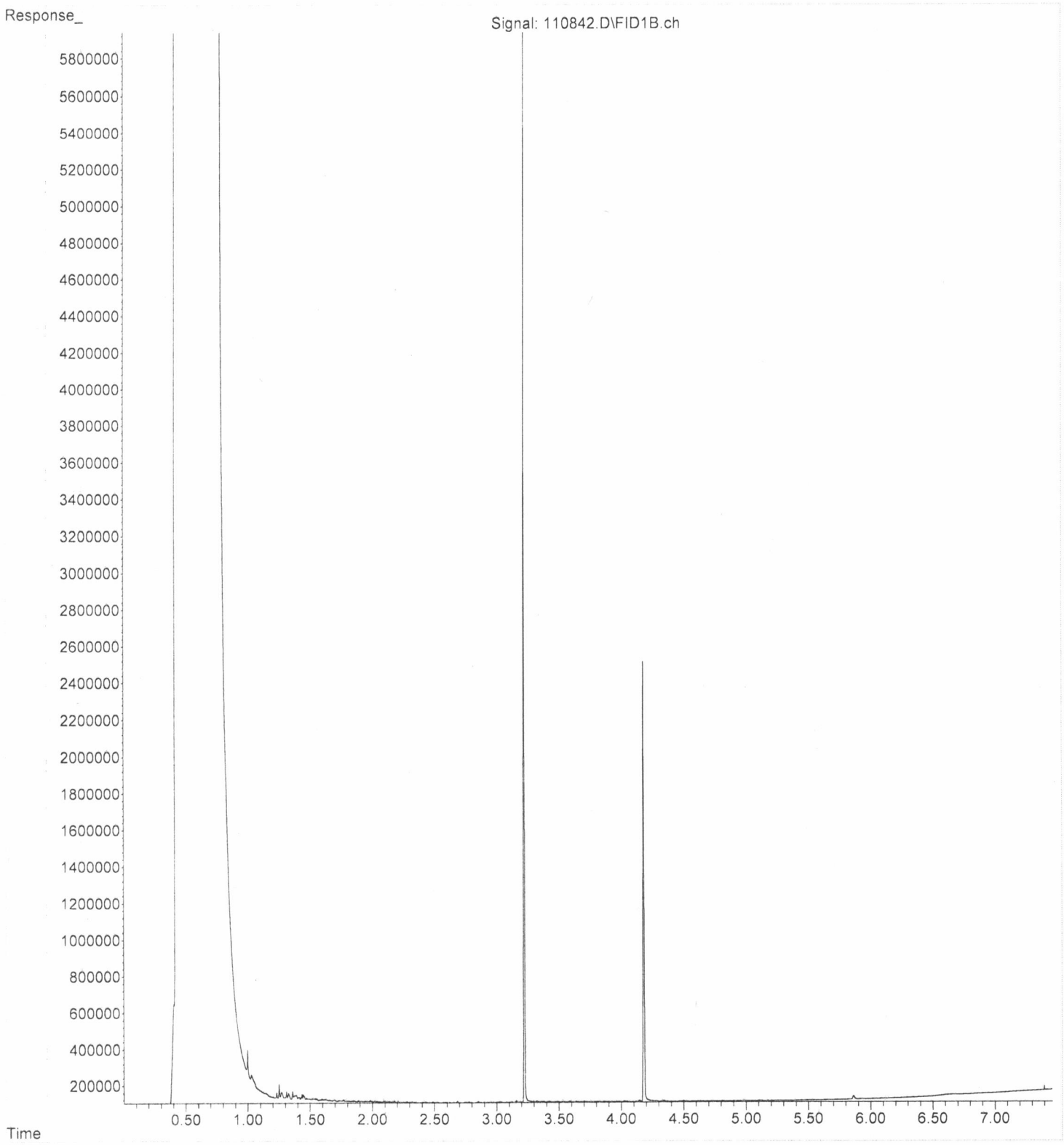
File :P:\Proc_GC13\11-08-24\110840.D
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Instrument : GC13
Sample Name: 411043-09
Misc Info : ERR
Vial Number: 35



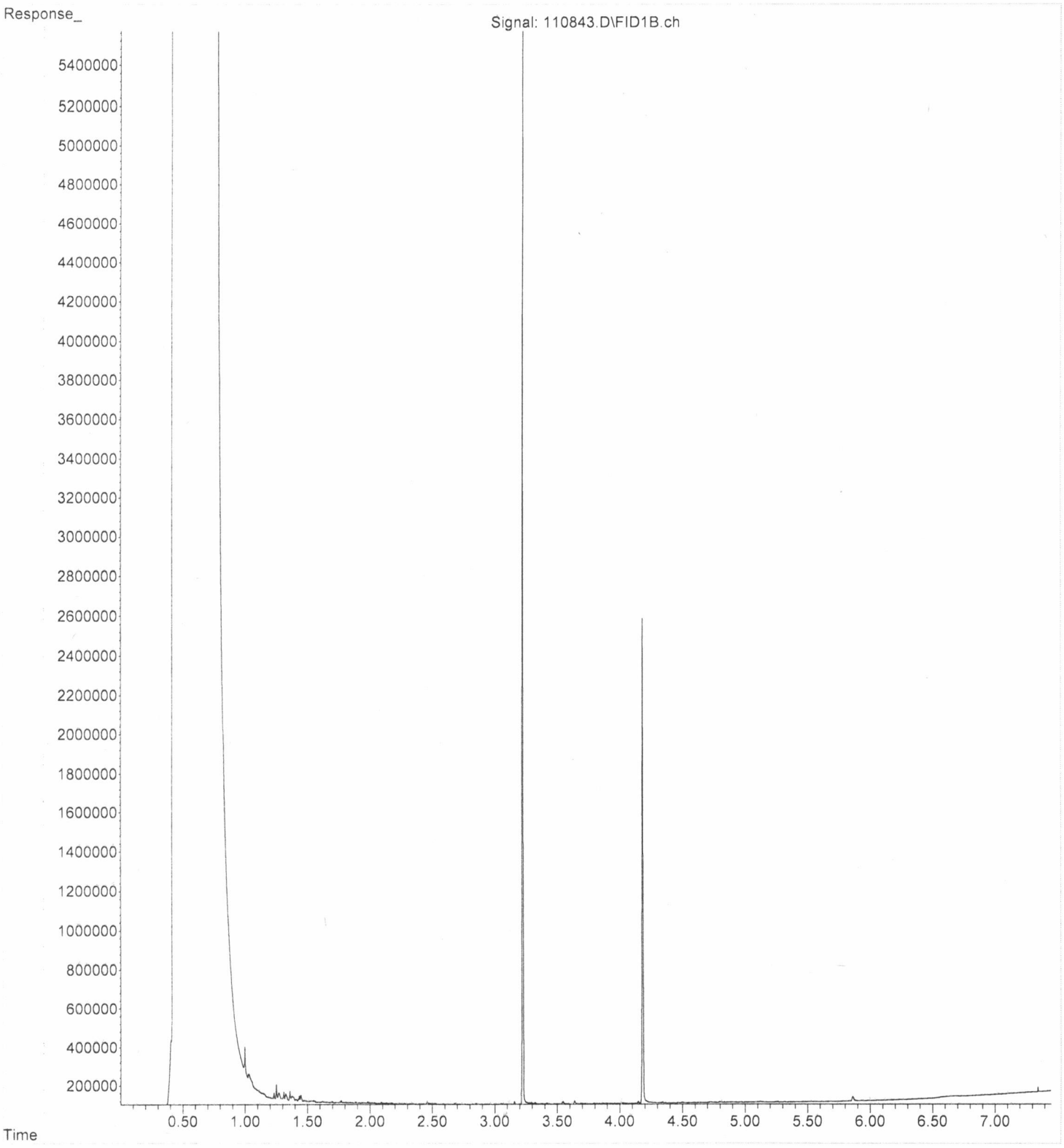
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Instrument : GC13
Sample Name: 411043-11
Misc Info : ERR
Vial Number: 36



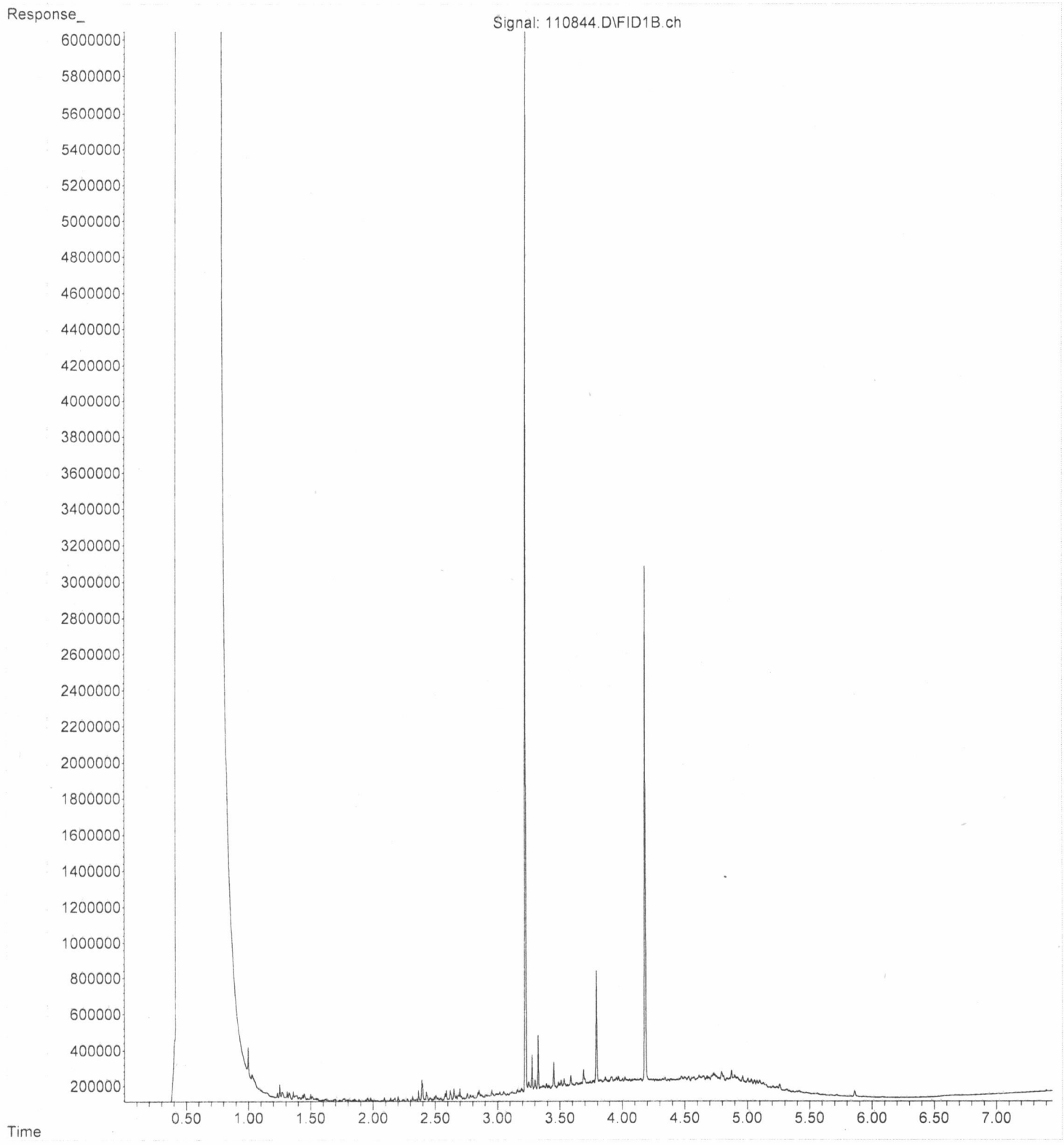
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Instrument : GC13
Sample Name: 411043-14
Misc Info : ERR
Vial Number: 37



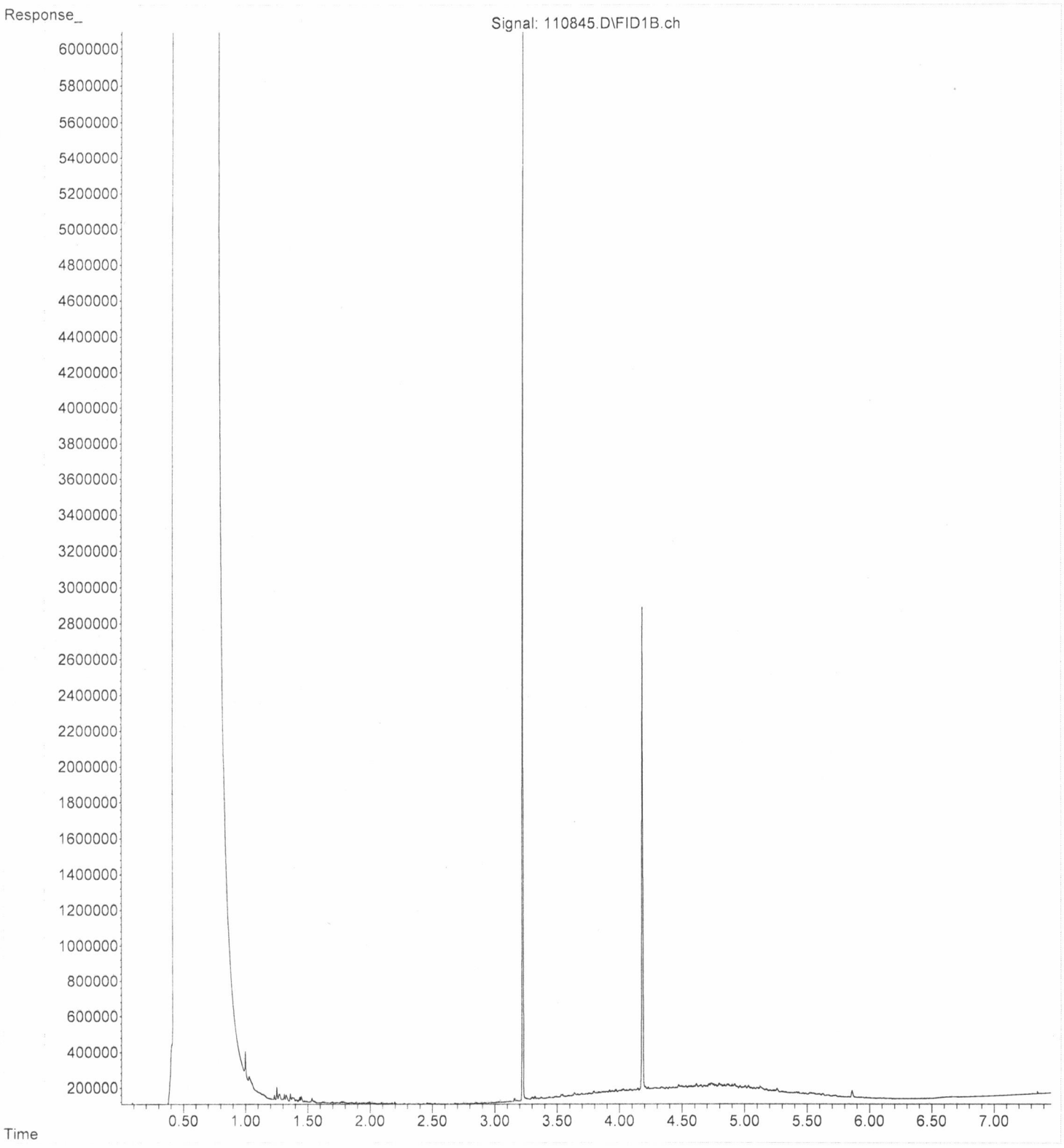
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Instrument : GC13
Sample Name: 411043-15
Misc Info : ERR
Vial Number: 38



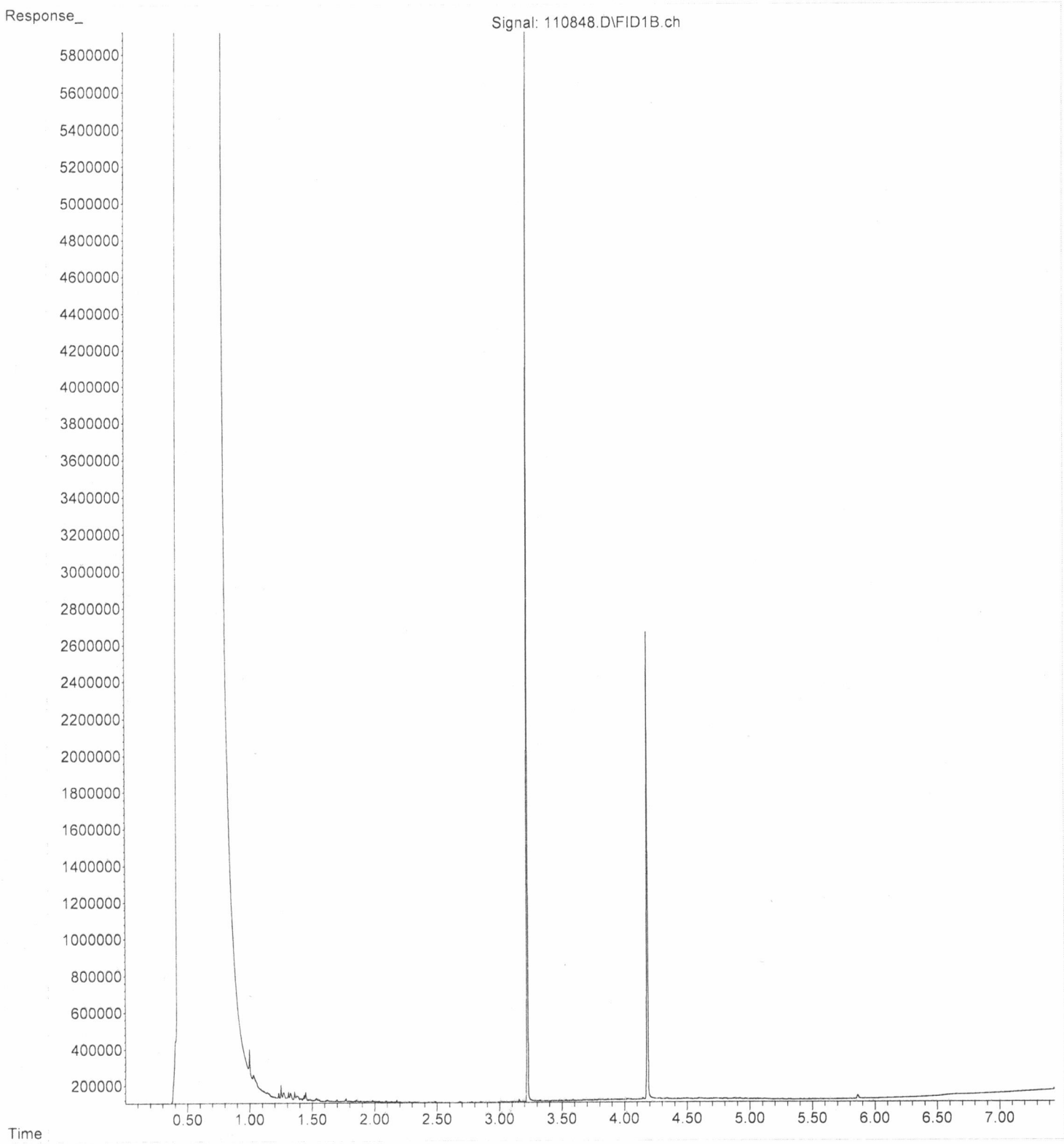
File :P:\Proc_GC13\11-08-24\110844.D
Operator : TL
Acquired : 08 Nov 2024 04:04 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 411043-17
Misc Info : ERR
Vial Number: 39



File :P:\Proc_GC13\11-08-24\110845.D
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Acquired : 08 Nov 2024 04:15 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 411043-20
Misc Info : ERR
Vial Number: 40

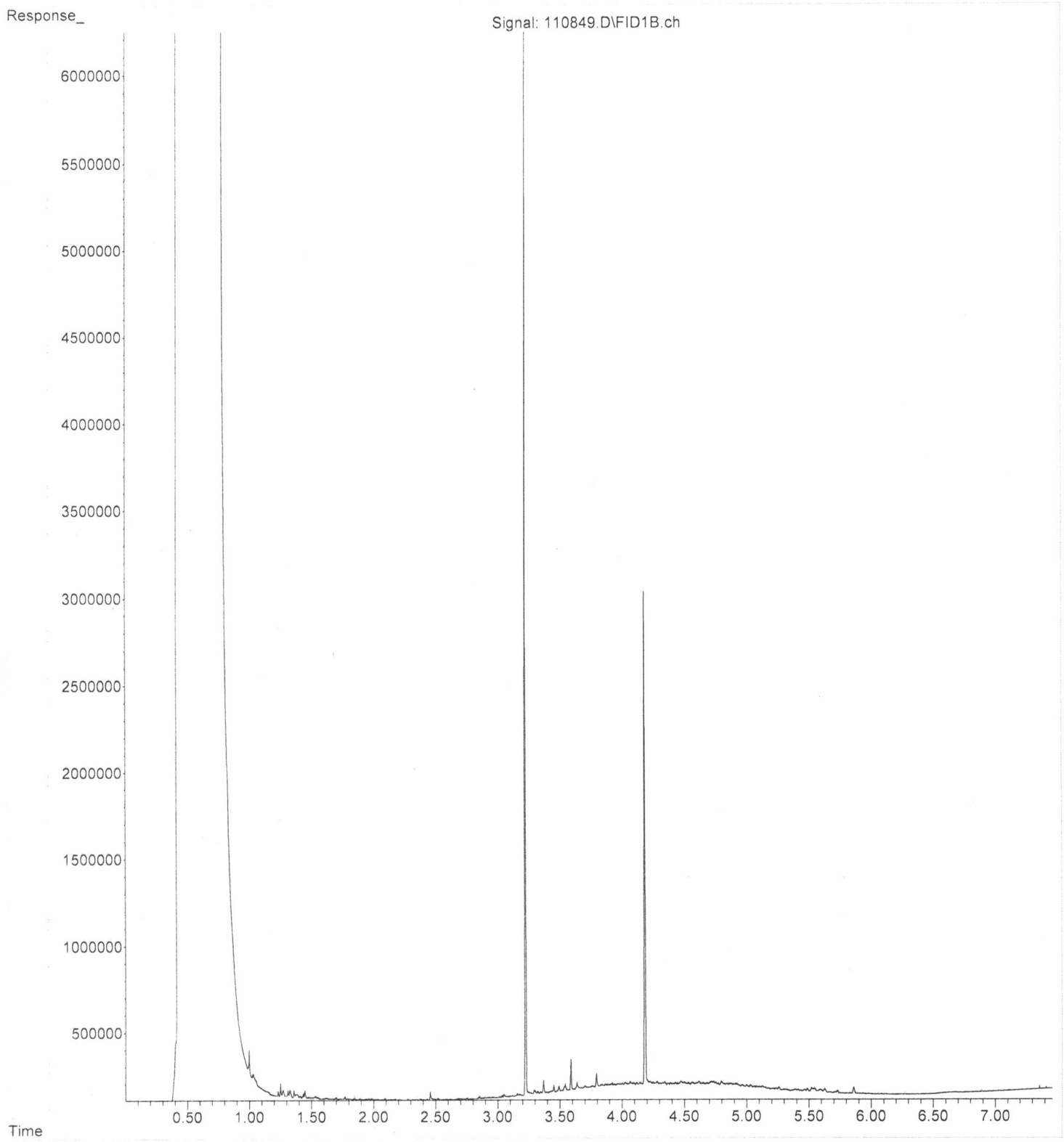


File :P:\Proc_GC13\11-08-24\110848.D
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Instrument : GC13
Sample Name: 411043-25
Misc Info : ERR
Vial Number: 41

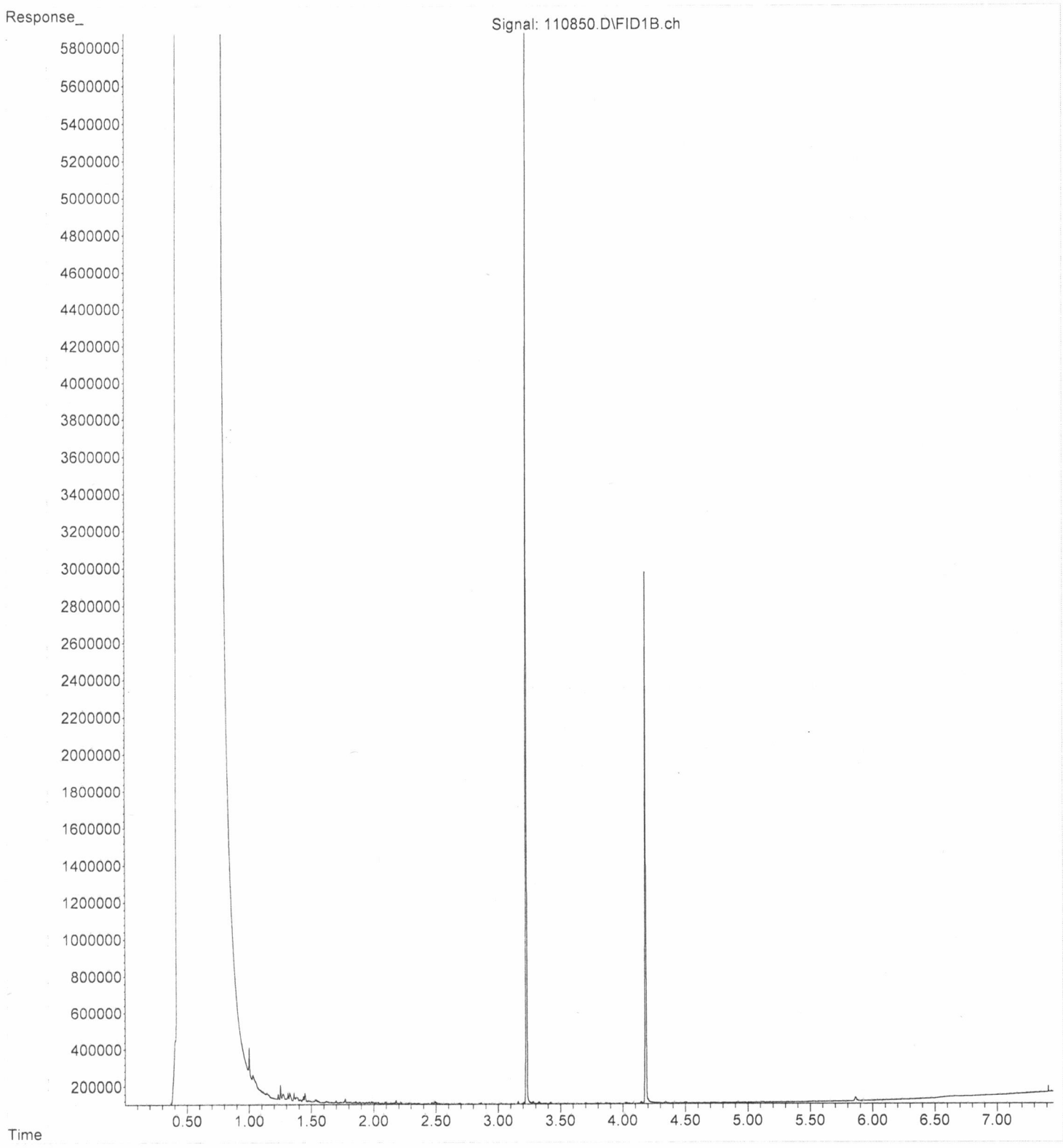


File :P:\Proc_GC13\11-08-24\110849.D
Operator : TL
Acquired : 08 Nov 2024 05:01 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 411043-26
Misc Info :
Vial Number: 42

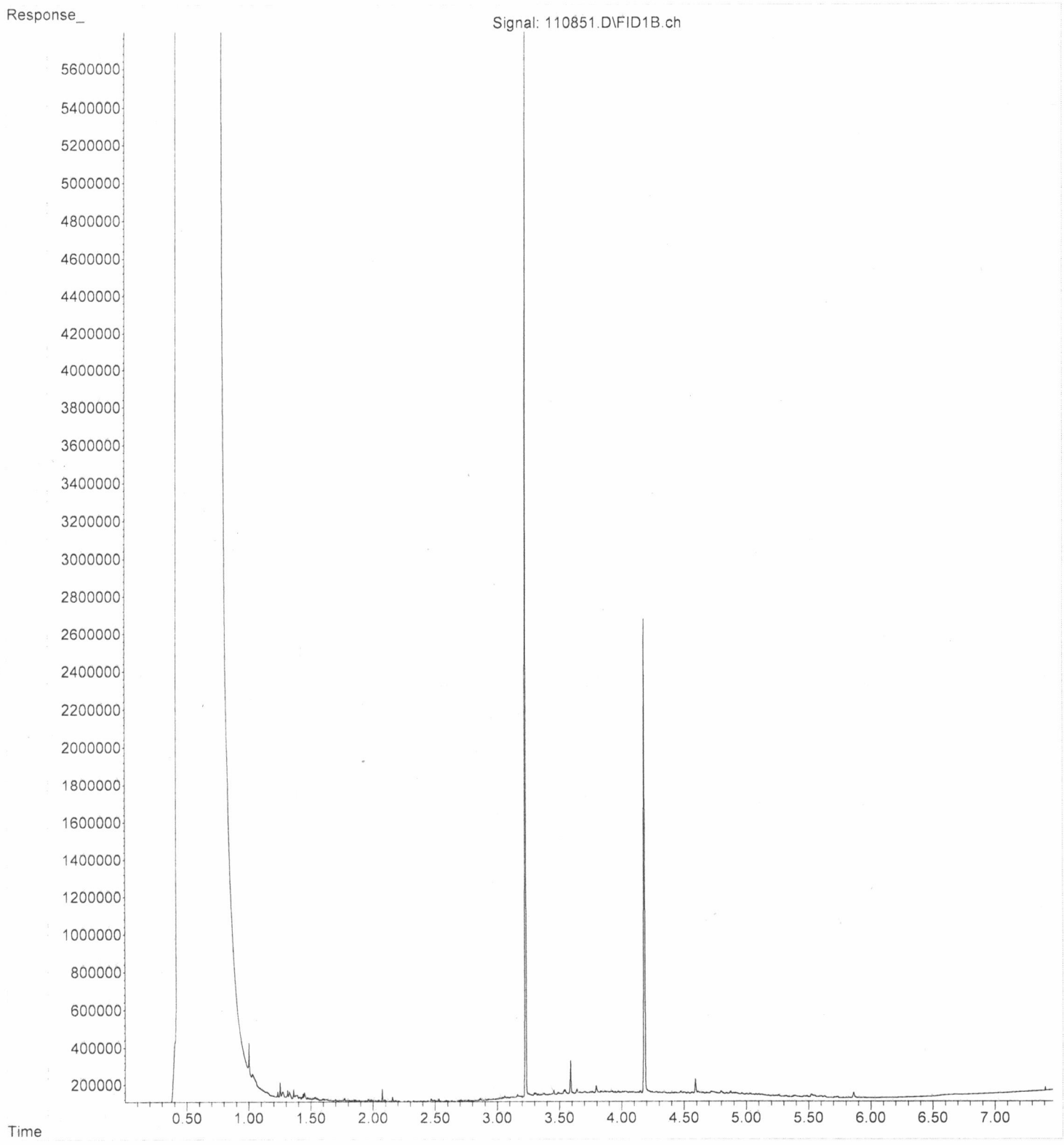
ERR



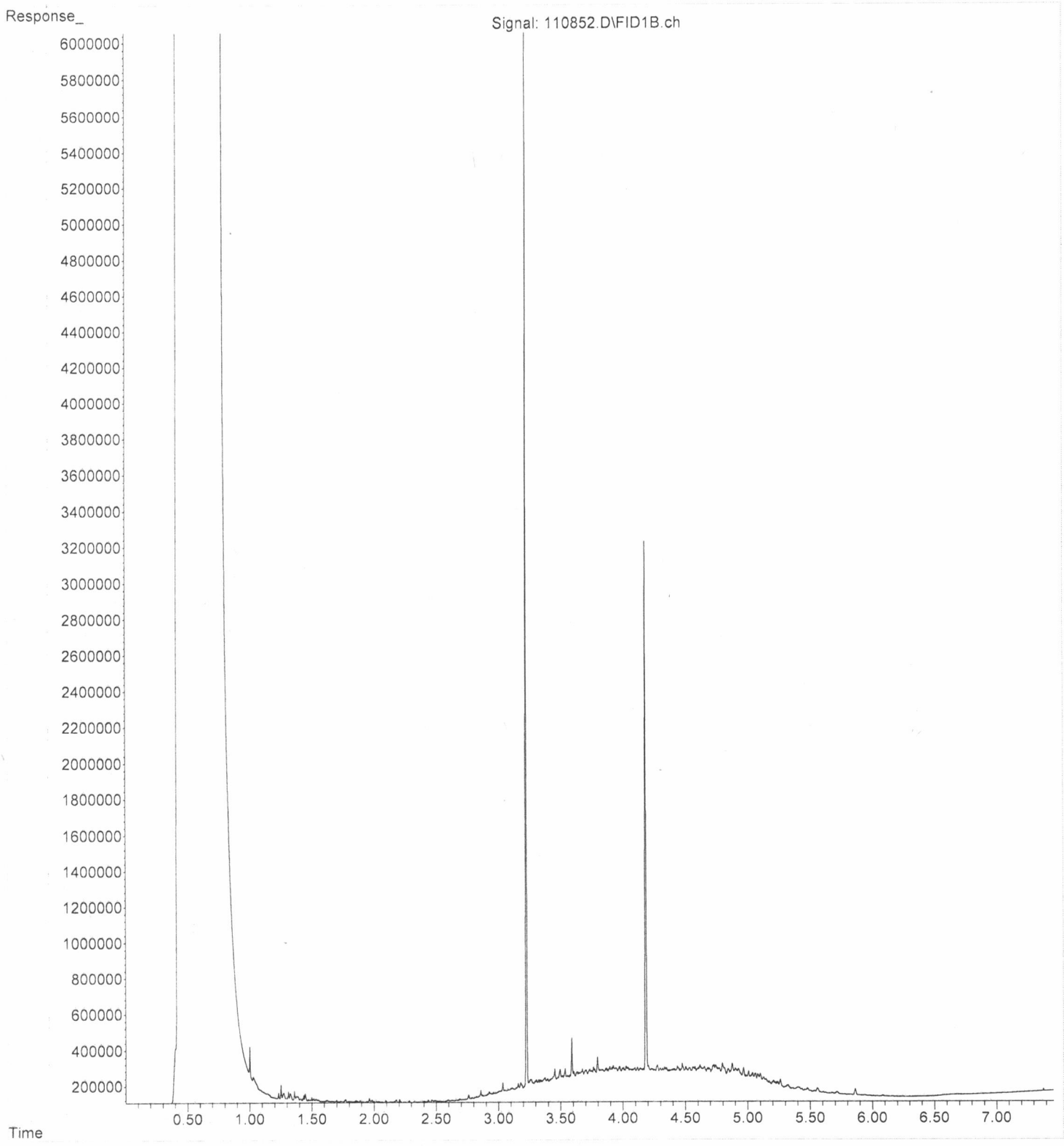
File :P:\Proc_GC13\11-08-24\110850.D
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Instrument : GC13
Sample Name: 411043-31
Misc Info : ERR
Vial Number: 43



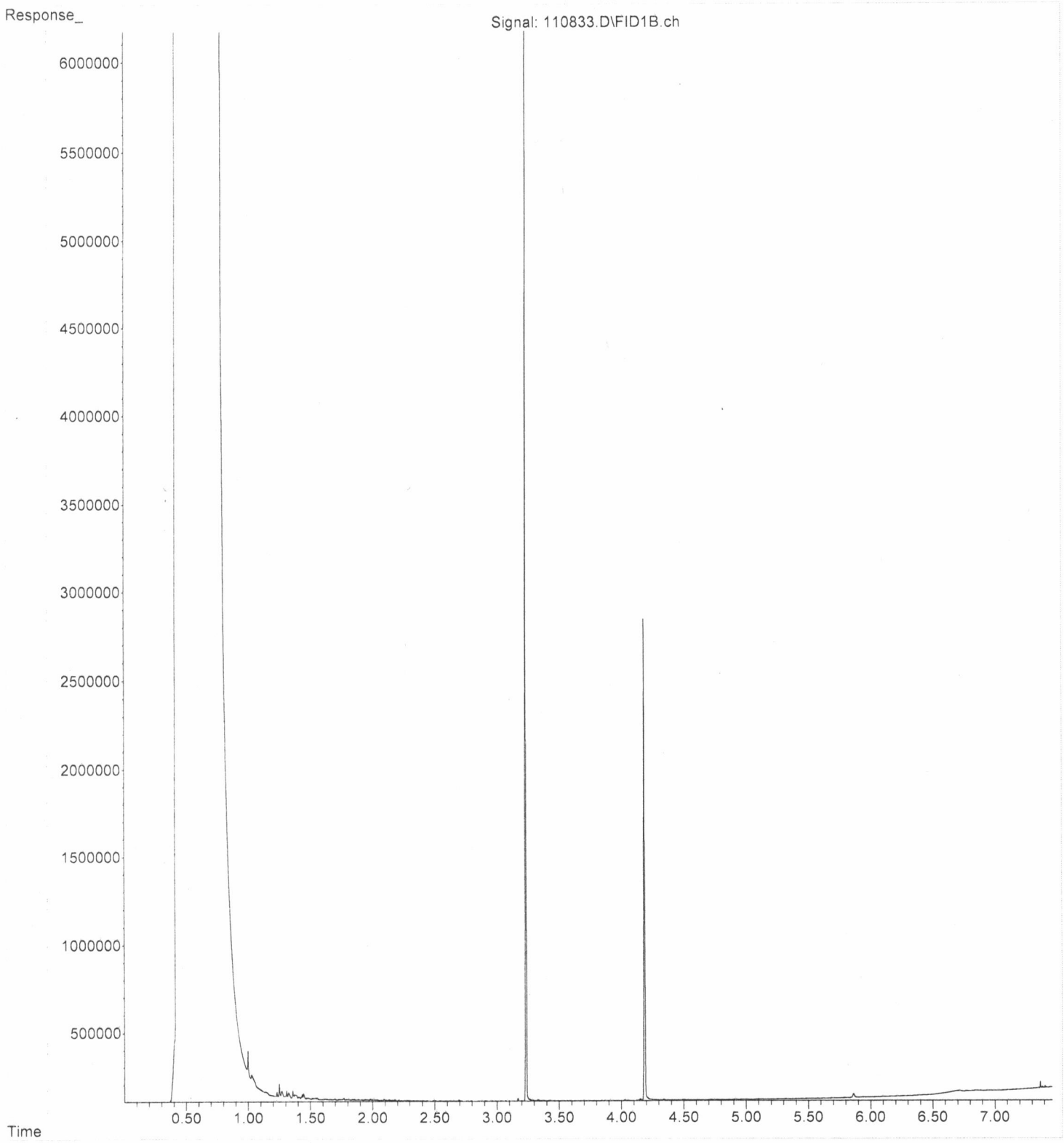
File :P:\Proc_GC13\11-08-24\110851.D
Operator : TL
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Instrument : GC13
Sample Name: 411043-32
Misc Info : ERR
Vial Number: 44



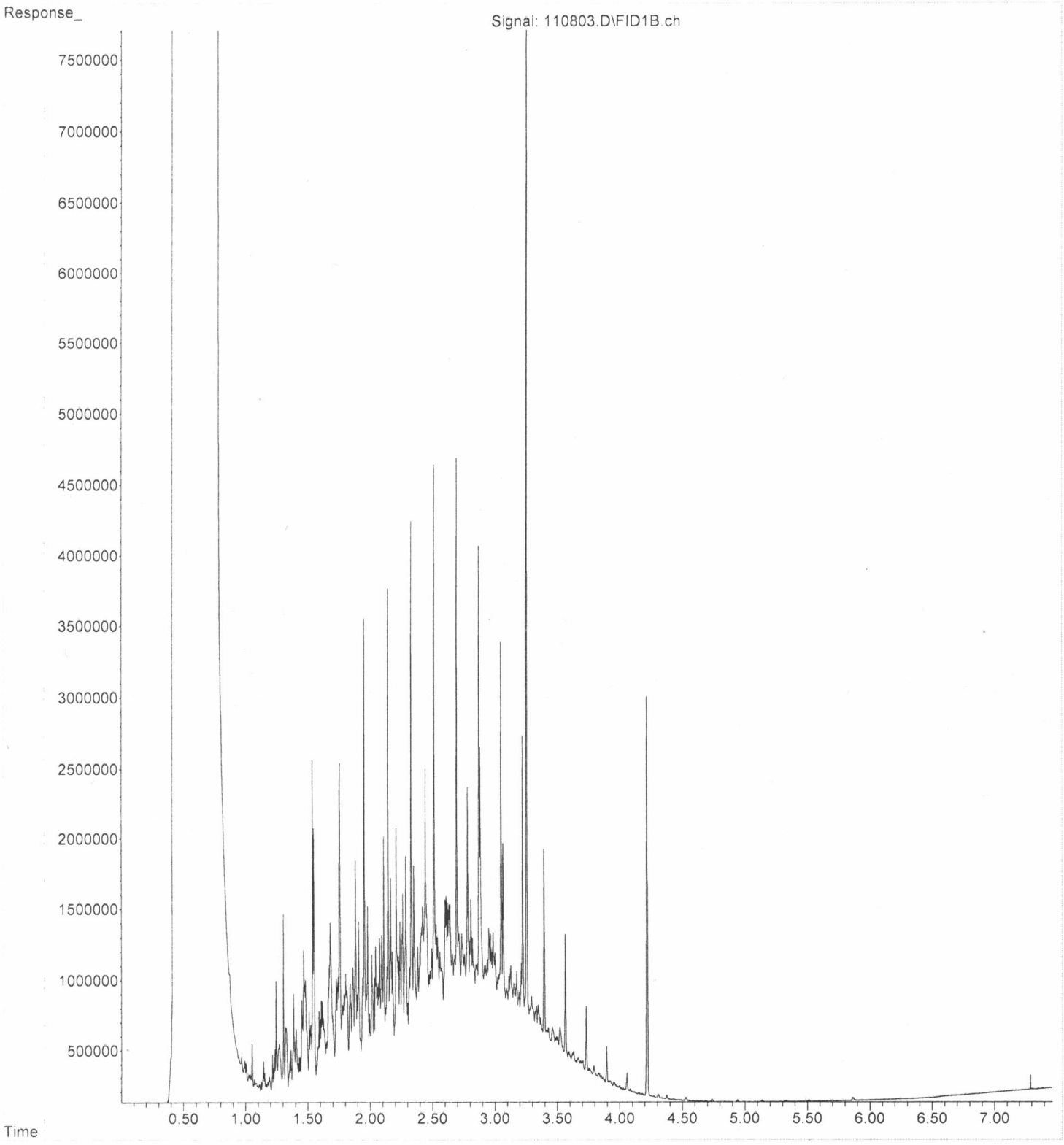
File :P:\Proc_GC13\11-08-24\110852.D
Operator : TL
Acquired : 08 Nov 2024 05:35 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 411043-35
Misc Info : ERR
Vial Number: 45



File :P:\Proc_GC13\11-08-24\110833.D
Operator : TL
Acquired : 08 Nov 2024 01:58 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 04-2797 mb
Misc Info : ERR
Vial Number: 28



File :P:\Proc_GC13\11-08-24\110803.D
Operator : TL
Acquired : 08 Nov 2024 08:14 am using AcqMethod Dx.M
Instrument : GC13
Sample Name: 500 Dx 73-88C
Misc Info : ERR
Vial Number: 3



APPENDIX E

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, a Geosyntec Company, (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 subject property. The report is not intended to make any representation concerning title or ownership to the subject property. If real property records were reviewed, they were reviewed for the sole purpose of determining the subject property'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 subject property, 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 subject property. 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 subject property, project or governmental regulatory actions

If changes are made to the project or subject property 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 subject property.

Environmental Regulations Are Not Static

Some hazardous substances or petroleum products may be present near the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, 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.

Phase I ESAs – Uncertainty Remains After Completion

Aspect has performed the services in general accordance with the scope and limitations of our Agreement and the current version of the "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", ASTM E1527, and U.S. Environmental Protection Agency (EPA)'s Federal Standard 40 CFR Part 312 "Innocent Landowners, Standards for Conducting All Appropriate Inquiries".

No ESA can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with subject property. Performance of an ESA study is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental conditions affecting the subject property. There is always a potential that areas with contamination that were not identified during this ESA exist at the subject property or in the study area. Further evaluation of such potential would require additional research, subsurface exploration, sampling and/or testing.

Historical Information Provided by Others

Aspect has relied upon information provided by others in our description of historical conditions and in our review of regulatory databases and files. The available data does not provide definitive information with regard to all past uses, operations or incidents affecting the subject property or adjacent properties. Aspect makes no warranties or guarantees regarding the accuracy or completeness of information provided or compiled by others.

Exclusion of Mold, Fungus, Radon, Lead, and HBM

Aspect's services do not include the investigation, detection, prevention or assessment of the presence of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detection, assessment, prevention or abatement of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Aspect's services also do not include the investigation or assessment of hazardous building materials (HBM) such as asbestos, polychlorinated biphenyls (PCBs) in light ballasts, lead based paint, asbestos-containing building materials, urea-formaldehyde insulation in on-site structures or debris or any other HBMs. Aspect's services do not include an evaluation of radon or lead in drinking water, unless specifically requested.