UPLAND REMEDIAL INVESTIGATION REPORT

WEYERHAEUSER SAWMILL ABERDEEN/SEAPORT LANDING

FACILITY SITE ID 1126, CLEANUP SITE ID 4987
AGREED ORDER NO. DE 15953

Prepared for
GRAYS HARBOR HISTORICAL SEAPORT AUTHORITY
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The material and data in this report were prepared under the supervision and direction of the undersigned.

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ACRONYMS AND ABBREVIATIONS

agreed order	Agreed Order DE 11224
AST	aboveground storage tank
cPAH	carcinogenic polycyclic aromatic hydrocarbon
CSM	conceptual site model
CUL	cleanup level
DNR	Department of Natural Resources (Washington)
DRO	diesel-range organics
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
FS	feasibility study
ft bgs	feet below ground surface
GHHSA	Grays Harbor Historical Seaport Authority
GRO	gasoline-range organics
HxCDD	hexachlorodibenzo-p-dioxins
IHS	indicator hazardous substance
MFA	Maul Foster & Alongi, Inc.
mg/kg	milligrams per kilogram
MTCA	Model Toxics Control Act
NAVD 88	North American Vertical Datum of 1988
ORO	oil-range organics
PCB	polychlorinated biphenyl
PCP	pentachlorophenol
pg/g	picogram per gram
PID	photoionization detector
POC	point of compliance
RAU	remedial action unit
RI	remedial investigation
RIWP	remedial investigation work plan
Sanborn maps	Sanborn Fire Insurance maps
Site	Weyerhaeuser Sawmill Aberdeen/Seaport Landing Site
TCDD	tetrachlorodibenzo-p-dioxin
TEE	terrestrial ecological evaluation
TEF	toxic equivalent factor
TEQ	toxicity equivalent quotient
TPH	total petroleum hydrocarbon
ug/L	micrograms per liter
U.S.	United States
UST	underground storage tank
VI	vapor intrusion
WAC	Washington Administrative Code
Weyerhaeuser	Weyerhaeuser Company

1 INTRODUCTION

Maul Foster & Alongi, Inc. (MFA), has prepared this remedial investigation (RI) report on behalf of the Grays Harbor Historical Seaport Authority (GHHSA) for the upland portions of the Weyerhaeuser Company (Weyerhaeuser) Sawmill Aberdeen/Seaport Landing Site (the Site). The Site includes both in-water areas and the uplands, each with a separate RI report. The Site is adjacent to the Chehalis River at 500 North Custer Street in Aberdeen, Washington (Figure 1-1). The Site is listed in the Washington State Department of Ecology (Ecology) database as Facility Site ID 1126 and Cleanup Site ID 4987. The Site includes approximately 23.6 acres of upland property, which is owned by GHHSA, and the adjacent approximately 16.9 acres of tidelands, which are leased from the Washington State Department of Natural Resources (DNR) under aquatic lands lease number 22-092275 (Figure 1-2). Historically, the Site was used as a lumber mill by Weyerhaeuser and other wood products companies. The Site is the home port for the *Lady Washington* tall ship as part of a new maritime heritage facility called Seaport Landing.

1.1 Regulatory Framework

On August 17, 2015, the GHHSA entered Agreed Order DE 11225 with Ecology. On March 28, 2019, the GHHSA entered into Agreed Order DE 15953 (agreed order) with Ecology that incorporates the remaining tasks from and supersedes the 2015 agreed order. The current agreed order requires GHHSA to conduct an RI and feasibility study (FS) and develop a draft cleanup action plan for the Site in a manner that complies with requirements of the Model Toxics Control Act (MTCA) cleanup regulations and Washington Administrative Code (WAC) 173-340.

This RI was conducted consistent with MTCA (WAC 173-340-350 through 370) and applicable guidance documents issued by Ecology. The RI sampling activities were conducted consistent with industry standard techniques in general compliance with the sampling protocols and approaches outlined in the RI work plan (RIWP) and RIWP addendum, which were approved by Ecology under the agreed order (MFA 2019, 2020). This RI report was prepared pursuant to the terms of the agreed order.

1.2 Purpose and Objectives

The objectives of the RI were to define the nature and extent of contamination in the media of concern, to evaluate the impact on human health and the environment, and to collect and evaluate sufficient information to enable selection of a cleanup action for the Site. This report describes the nature and extent of contamination at the Site, based on previous environmental investigations (i.e., in 2011, 2015, and 2017) and RI data-collection activities conducted in December 2019 and July 2020. The Site as defined in the agreed order includes both the uplands and in-water aquatic lands lease area adjacent to the uplands; however, for the purpose of this report, the Site refers to the upland portion only. The data collected during the RI informs evaluation of potential risks to human health and the environment. An assessment of potential cleanup alternatives will be discussed in the forthcoming FS.

This RI addresses characterization of the upland portion of the Site above the line of ordinary high water (+7.77 North American Vertical Datum of 1988 [NAVD 88]) (Figure 1-2). The purpose of this RI is to generate data to fulfill data objectives and characterize the nature and extent of contamination in upland environmental media to allow for risk screening and support an evaluation of potential cleanup actions in the subsequent FS.

1.3 Organization

This document is organized as follows:

- ***Section 2*** summarizes the background and physical setting of the Site, including the Site history and previous investigations.
- ***Section 3*** summarizes the environmental conditions of the Site.
- ***Section 4*** describes the field and analytical methods implemented during the RI.
- ***Section 5*** presents the applicable screening levels specific to the Site.
- ***Section 6*** presents the analytical results of sampling from previous investigations and the RI.
- ***Section 7*** presents the conceptual site model (CSM).
- ***Section 8*** defines the nature and extent of contamination at the Site.
- ***Section 9*** summarizes the findings of the RI.

2 BACKGROUND AND PHYSICAL SETTING

The background and physical setting descriptions below are summarized from previous investigations, interviews with the GHHSA, and a review of past environmental reports.

2.1 Location and Current Site Conditions

The Site is located at 500 North Custer Street in the City of Aberdeen, Washington, along the alluvial meander plain of the Chehalis River in the northwestern margins of the Willapa Hills physiographic region of southwest Washington (Figure 1-1). The Site is approximately two miles upriver from Grays Harbor. The City of Aberdeen is situated in southwestern Washington, approximately 15 miles from the Pacific Ocean and approximately 70 air miles west-southwest of Tacoma, Washington. U.S. Highways 101 and 105 are each located less than 0.25 mile south of the Site. The Site is situated in sections 9 and 10 of township 17 north, range 9 west, Willamette Base Meridian. It is bordered to the west by a former boatyard and marine service center, to the east by a former Weyerhaeuser log storage yard, to the north by the Chehalis River, and to the south by residential and commercial development. The property that makes up the upland portion of the Site consists of 20 tax parcels comprising 23.6

acres. Tax parcels and zoning designations for the upland portion of the Site and surrounding area are provided in Figures 1-2 and 2-1, respectively.

The in-water portion of the Site comprises 14.48 acres of tidelands. The aquatic lands lease area extends between the inner and outer harbor line, where use is permitted by DNR (Figure 1-2). The Grays Harbor Navigation Channel is federally maintained to 32 feet deep in the vicinity of the Site and extends to the Pacific Ocean (USACE n.d.).

2.2 Current and Future Site Use

The Site is currently used by the GHHSA as its headquarters and is the home port for the *Lady Washington* tall ship as part of a new maritime heritage facility called Seaport Landing. The future-use plan for the Site is to develop a maritime heritage center with education, public access, tourism, and commercial uses. The Site is currently zoned by the City of Aberdeen for industrial use (Figure 2-1), but a land use and zoning change to waterfront mixed use is in process. The DNR aquatic lands lease permitted uses include moorage of vessels, public access, and education activities.

2.3 Site History

The operational history of the Site is detailed in a Level I environmental site assessment (PES 2010). Historical and current site features are shown in Figure 2-2. Sawmills historically operated on both the upland and in-water portions of the Site, beginning before 1900. The south Aberdeen waterfront has been developed for and in use as commercial and industrial purposes since the early 1890s. The pilings (commonly referred to as a pile field) at the mouth of Shannon Slough mark the location of an early Aberdeen salmon cannery. In the late 1890s, the Aberdeen Lumber sawmill was constructed on the upland portion of the Site with logs rafted along the shoreline to feed the mill. Aberdeen Lumber was later sold, becoming Schafer Brothers Lumber and Door Company Mill #4. The business expanded, as did its footprint. Schafer Brothers later sold the property to Simpson Timber Company.

Weyerhaeuser acquired the Site and adjacent property to the northeast in 1955 and operated several sawmills and associated support facilities through January 2009, when the mill known as the Small Log Mill was permanently closed. The GHHSA purchased the upland portion of the Site from Weyerhaeuser on March 29, 2013, for one dollar. On April 14, 2017, the GHHSA entered into aquatic lands lease No. 22-092275 with DNR. The aquatic lands lease area borders the GHHSA-owned portions of the Site in the Chehalis River.

The portion of the Site that was conveyed to the GHHSA by Weyerhaeuser includes the DNR aquatic lands lease area, property upland of the aquatic lands lease area, and any other area where a hazardous substance from a release originating from the Site has come to be located. These areas are covered by the RI and are subject to investigation under the agreed order.

2.3.1 Shoreline Modifications and Historical Fill Events

Historical Sanborn Fire Insurance maps (Sanborn maps) of the Site from 1906, 1914, 1928, 1948, and 1989 are provided as part of the study area investigation in Appendix A. The Sanborn maps depict

the development of mill-related structures on pilings in the Chehalis River, shoreline modifications resulting from filling events, and other important details regarding the composition of fill materials. Subsurface investigations within the footprint of the filled areas identify material consisting of silty sand and sandy silt with or without gravel, as well as wood waste (see fill areas and shoreline modifications in Figure 2-3). Shoreline modifications since 1906 illustrated on the Sanborn maps provided in the study area investigation in Appendix A are summarized below.

1906: The 1906 Sanborn maps show a mill and related structures extending into the Chehalis River from Front Street between North Custer and Columbus streets. The structures are constructed on posts. These former mill structures were farther east and south than subsequent mill structures of the former Mill (also referred to as the Big Mill in some documents). The 1906 Mill and mill-related structures were in the approximate location of the present-day former Main Shipping Shed structure (Figure 2-2). Shorelines on either side of the 1906 Mill area are not fully depicted in the Sanborn maps. However, the maps do show that the shoreline along Front Street at the mouth of the Shannon Slough is undeveloped. There is another mill to the east of the Site, just east of Lawrence Street labeled as "lumber yard on saw dust fill." An overwater structure referred to as the ferry wharf is visible west of the Site. The Sanborn maps show mill-related development consisting primarily of irregular lumber piles on planked fill or planked on sawdust.

1914: The 1906 Mill is not visible in the 1914 Sanborn maps. However, the Sanborn maps show that the shoreline at the mouth of Shannon Slough has been modified to extend farther north into the Chehalis River, as it was filled in with irregular lumber piles.

1928: The 1928 Sanborn maps show further offshore development north into the Chehalis River. The 1906 Mill structures had been removed and the mill area shifted farther west between Custer and Clark streets. The structures shown are constructed on planks in the Chehalis River. The wharf that is currently present on the Site was constructed as of 1928—the wharf and mill site were built on pilings. The shoreline to the east of the current Site is relatively unchanged.

1948: As of 1948, the area between the planked overwater structures and Front Street between Clark and Custer have been filled in with refuse and planked. The overwater structures remain on planks. The shoreline to the east of the Site was relatively unchanged as of 1948.

1989: As of 1989, the entire former in-water area of the Chehalis River north of Custer Street and to the east to Shannon Slough has been filled. According to the Sanborn maps, fill material in this area consisted of earth and rock and lumber piles on filled ground. The area east of Shannon Slough is shown as fill consisting of sawdust piles.

2.3.2 Former Operations and Areas

Former facility operations with demonstrated or potential environmental impacts to the upland portion of the Site are discussed below. As shown in Figure 2-4, the Site is divided into remedial action

units (RAUs) to further delineate upland operational areas.[1] In-water facility operations are not included in this discussion but are detailed in the Level I environmental site assessment (PES 2010) and the *Draft In-Water Remedial Investigation Report–Weyerhaeuser Sawmill Aberdeen/Seaport Landing Site (Draft In-Water RI Report)* (MFA 2022). The areas of the Site identified below are shown in Figure 2-2.

2.3.2.1 RAU1

FUEL AND CHEMICAL STORAGE BUILDING

The Fuel and Chemical Storage Building is located on the central portion of the Site. Features of this building included a fueling station; fuel aboveground storage tank (AST); and concrete-lined rooms for chemical waste storage, hydraulic oil and chemical storage, and drum storage (PES 2010).

MAINTENANCE SHOP

The Maintenance Shop is located southwest of the Fuel and Chemical Storage Building on the central portion of the Site. The Maintenance Shop was constructed in 1994 and included a parts storage room, a hydraulic tank supporting a metal press, offices, and the main maintenance area. As many as seven underground storage tanks (USTs) existed historically in and around the Maintenance Shop (PES 2010).

2.3.2.2 RAU2

FORMER PLANER BUILDING AND SPRAY ROOM

The former Planer Building and Spray Room were adjacent to the Maintenance Shop on the western portion of the Site. Facilities within the former Planer Building included a raw lumber infeed, a planer machine, a transformer that did not contain polychlorinated biphenyls (PCBs), a mixing area and spray room, sorting and grading machinery, a stacker, and hydraulic pumps and reservoirs. Anti-sapstain chemicals, including pentachlorophenol (PCP), were used in the former Planer Building until 1986. A PCP dip tank was also historically located south of the former Planer Building. A UST at the south end of the former Planer Building was removed in July 1989 (PES 2010).

2.3.2.3 RAU3

STORAGE SHED

The Storage Shed is south of the former Planer Building on the western portion of the Site. This area coincides with historical facilities, including a former Oil Tank and Chemical Storage Shed and kilns.

[1] Soil and groundwater samples were collected from RAU6 (on the southeastern portion of the Site) and RAU7 (encompassing an upland area around Shannon Slough) during RI field activities. These areas do not correlate with historical operational areas and are therefore not discussed in the context of former operations.

2.3.2.4 RAU4

SMALL LOG MILL AND PEE WEE MILL

As described above, Weyerhaeuser acquired the Site in 1955 and operated several sawmills and support facilities. From 1955 until the mid-1960s, raw logs were brought to the Site in log rafts on the Chehalis River and tied up to in-river pilings. After the mid-1960s, raw logs were brought to the Site by truck and staged on log decks at various locations in and adjacent to the Site. The precursor to the Small Log Mill, called the Pee Wee Mill, was added in 1972 to cut small logs. The Pee Wee Mill was upgraded between 1972 and 2003 and eventually became the Small Log Mill.

The Small Log Mill was part of a larger Weyerhaeuser operational area, which included log debarking; whole-log chipping; sawing dimensional lumber; log sorting; planing lumber; treating planed lumber with anti-sapstain; cutting lumber to length; grading, sorting, stacking and banding lumber; end-sealing and labeling finished product; storing finished product; and loading/shipping finished product. The Small Log Mill operated on the northeast portion of the uplands through January 2009, when it was permanently closed.

MAIN SHIPPING SHED

The Main Shipping Shed is southwest of the Small Log Mill on the eastern portion of the Site. The Main Shipping Shed is open to the yard on the south side and was used for lumber staging, loading, parking, maintenance, and other general activities. Rolling stock maintenance was performed in the northwest corner of the shed, a saw grinding room for sharpening saws was on the western side of the shed, and a cut-off saw room was in the southeast corner of the shed.

2.3.2.5 RAU5

ANCILLARY SUPPORT FACILITIES

Ancillary support facilities and equipment, including the Aberdeen Transformer Pad, a Generator Shed, diesel AST, water tank, office, Guard Shed, and guard shack UST, are on the southeast portion of the Site.

2.4 Previous Investigations

Environmental data collected at and in the vicinity of the Site, dating back to 1999, are summarized in the study area investigation report prepared by MFA (Appendix A) and Section 2 of the RIWP (MFA 2019). Further, a hazardous materials survey report was prepared by MFA in 2020 (Appendix B).

3 ENVIRONMENTAL CONDITIONS

This section describes the environmental conditions at and in the vicinity of the Site, including topography and bathymetry, geology and hydrogeology, surface water, beneficial water and land uses, and climate. Aquatic environment and bottom substrate and sedimentation and hydraulic assessment are discussed in Sections 3.4 and 3.5, respectively, of the *Draft In-Water RI Report* prepared by MFA (MFA 2022).

3.1 Topography and Bathymetry

The Site upland topography and in-water area bathymetry were surveyed to NAVD 88 (Appendix C). According to the U.S. Geological Survey Aberdeen, Washington, 7.5-minute series topographic map (2020), the Site is located at elevations near sea level along the shoreline up to approximately 20 feet NAVD 88. The topography northeast of Aberdeen gradually slopes upward toward the foothills and peaks of the Olympic Mountains. The topography to the east, southeast, and south consists of rolling hills. The topography of the Site is generally flat, with elevations ranging from approximately 10 to 15 feet NAVD 88 (Figure 3-1). Steep slopes are present around the upland portion of Shannon Slough, in the southeast corner of the Site, with the top of the slope at approximately 10 feet and base at approximately 4 feet NAVD 88.

Bathymetry data indicate that the riverbank slopes steeply, with the top of the riverbank at an elevation of approximately 13 feet NAVD 88, and the base at approximately -30 feet NAVD 88. Elevations in the pocket beach area range from approximately 9 feet NAVD 88 to 6 feet NAVD 88.

3.2 Geology and Hydrogeology

The Site is in the alluvial meander plain of the Chehalis River on the northwestern margins of the Willapa Hills physiographic region of southwestern Washington. Site geology and hydrogeology are further documented in a preliminary geotechnical report prepared by Zipper Geo (Appendix D).

The Chehalis River valley is filled with variable thicknesses of recent alluvium consisting of river-deposited gravels, sands, and silts. Near the ocean, the thicknesses of these alluvial deposits can be significant (more than 100 feet) because of valley filling as rising sea levels decrease the river's ability to transport sediments downstream (Eddy 1966). Well logs from resource protection wells in the vicinity of the Site indicate that alluvium in the area of the Site is at least 60 feet thick and consists of sands, silts, and clayey silts. Logs from borings located along State Highway 12 to the north indicate that the bedrock encountered below the alluvium at depths exceeding 100 feet consists of siltstone and sandstone.

Cross sections from a 1951 map of the Site provided by Weyerhaeuser indicate that much of the area of the main mill facilities was tideland prior to, and during, the early development of the Site in the

late 1800s and early 1900s. Most of the early site structures were constructed on wood-piling support platforms.

Upland soil borings advanced upgradient of the pocket beach during the investigations in 2015 and 2019 identified silts and silty sands at depths of 8 to 9 feet below ground surface (ft bgs) in upland areas. The silts and silty sands were overlain by wood waste (up to 80 percent by volume of primarily wood and bark chips) of varying thicknesses—occasionally wood waste layers were more than 5 feet thick. Wood waste typically occurred around 4.5 to 5 ft bgs surrounding the pocket beach area. This layer of wood waste was overlain primarily by gravelly sands, comprising the layer to the ground surface. Borings advanced along the shoreline of the Site identified dark brown, sandy sawdust at approximately 4 to 5 ft bgs, overlain by light brown sawdust and woodchips, with crushed gravel at the surface (SAIC 2011).

Depth to groundwater in the upland areas of the Site is approximately 4 to 5 ft bgs. Based on a groundwater-surface water interaction study conducted as part of this RI (Appendix E), groundwater at the Site discharges to surface water. Groundwater in the northern and northwestern portion of the Site discharges directly to the Chehalis River and is tidally influenced. Groundwater in the southern and southeastern portion of the Site discharges to Shannon Slough, which flows into the Chehalis River at the northeastern corner of the Site, though does not appear to be influenced by tides. Although available data suggests that groundwater discharges to surface water on portions of the Site, there is little evidence that surface water interacts with groundwater as physical advection of surface water into groundwater is limited spatially and seasonally. Further. the 2015 study area investigation (see Appendix A) and a 2010 investigation determined that water originating from seeps in the pocket beach area had a different chemical signature than the chemical signature for Chehalis River water, suggesting that the seeps are more consistent with site groundwater and do not represent bank storage of river water inundated during high tide (Appendix A; Floyd|Snider 2010).

3.3 Surface Water

Surface water bodies in the vicinity of the Site include the Chehalis River to the north and east; the Wishkah River to the northwest; one small, unnamed drainage channel that enters the Chehalis River beyond the east end of the Site; and Shannon Slough in the southeastern portion of the Site, which enters the Chehalis River at an embayment located near the upstream portion of the Site (Figures 2-1 and 2-2). All surface water drainages in the area ultimately discharge to the Chehalis River. The Chehalis River is tidally connected to Grays Harbor and the Pacific Ocean, resulting in a mixed semidiurnal tidal regime (i.e., two different high and two different low tides per lunar day). During site investigations, MFA staff observed that the pocket beach and other beach features are fully inundated at high tide and exposed at low tide.

3.4 Beneficial Water and Land Uses

Providing protection for the highest beneficial use (i.e., the use requiring the highest quality in the resource) of water will generally also provide protection for other existing and future beneficial uses of water. Based on hydrogeological conditions observed on the Site and regional topography, the following surface water and shallow groundwater conditions are present in the area:

- Surface water in the region discharges to the Pacific Ocean.
- Shallow groundwater in the area appears to flow toward the Chehalis River.

Currently, there are no potable water wells on the Site. Shallow groundwater under the western portion of the Site discharges to the Chehalis River and appears tidally influenced. Groundwater under the eastern portion of the Site discharges to the Shannon Slough, which ultimately discharges to the Chehalis River. The current and reasonably likely future uses of the river include recreation, fishing, and fish and wildlife habitat. Grays Harbor provides habitat for a number of shellfish species, including clams, mussels, and Dungeness crab. There is limited information on the potential presence of shellfish in the Chehalis River upstream of the U.S. Highway 101 bridge. A recent field investigation conducted as part of the environmental impact statement for Washington State Route 520 pontoon construction facility, located approximately one mile downstream of the Site boundary, found softshell clams (*Mya arenaria*) in the lower intertidal zone.

MFA prepared a simplified terrestrial ecological evaluation (TEE) for the upland portions of the Site (Appendix F). The simplified TEE concluded that the Site does not pose a substantial threat to terrestrial ecological receptors and may be removed from further ecological consideration during the RI and cleanup process.

3.5 Critical Areas Report

A critical areas report was prepared for the Site by Grette Associates LLC in October 2019 (Appendix G). The report documents wetlands, fish, and wildlife habitat conservation areas at the Site in accordance with the requirements defined in Chapter 14.50 of the *City of Aberdeen Shoreline Master Program* (City of Aberdeen 2017).[2] Further, the report delineated three wetlands at the Site:

- Wetland A: a freshwater tidal wetland in the pocket beach area that receives daily river inundation with each tidal cycle. Hydrophytic vegetation (predominantly soft rush, slough sedge, and Pacific silverweed, along with cattail in some areas) and hydric soils are present.
- Wetland B-1: a freshwater tidal wetland at the mouth of Shannon Slough that receives daily river inundation with each tidal cycle. Hydrophytic vegetation (predominantly soft rush, slough sedge, and Pacific silverweed) and hydric soils are present.
- Wetland B-2: a riverine wetland along the margins of Shannon Slough, south of the road crossing and associated tidal flap gate, in areas that are permanently and/or seasonally flooded by fluctuating water depths in the slough. Hydrophytic vegetation (largely soft rush and slough sedge) and presumed hydric soils are present.

Grette Associates LLC classified all three wetlands as Category III, which are defined as wetlands with low habitat value that have generally been disturbed and are less diverse or more isolated from other natural resources in the landscape (Ecology 2014b). A buffer of 75 feet to each wetland is defined through a Category III designation, and the Aberdeen Municipal Code states that buffers do not

[2] The Shoreline Master Program is part of the Aberdeen Municipal Code (https://aberdeen.municipal.codes/AMC, Accessed: October 27, 2022).

extend through existing developments (i.e., existing developments are grandfathered in and are not required to comply with buffer requirements).

3.6 Climate

The climate in Aberdeen, Washington, is characterized by mild winters and cool summers. Between 1991 and 2020, mean monthly temperatures varied from an average minimum of 41.7 degrees Fahrenheit in December to an average maximum of 61.8 degrees Fahrenheit in August. Average monthly wind velocities range from 4.7 miles per hour in September to 7 miles per hour in January. The prevailing wind direction is to the east. Mean annual precipitation for Aberdeen is 84.94 inches. Average monthly precipitation varies from a low of 0.91 inch in July to a high of 13.93 inches in January.

Possible climate change impacts to the Site include rising sea levels, flooding due to tidal influences, wildfires, and landslides due to extreme precipitation events (Bethel and Nguyen n.d.).

4 FIELD AND ANALYTICAL METHODS

In October 2019, a geophysical survey was completed at the Site, focusing on areas that had not previously been surveyed (RAU3, RAU4, and RAU6). During RI field activities, soil and groundwater sampling was conducted to refine the lateral and vertical extent of previously identified contamination and to facilitate remedial design for the upland area of the Site. Sampling was conducted between December 2 and 6, 2019; on December 11, 2019; and between July 21 and 22, 2020, as described in the RIWP and RIWP addendum (MFA 2019, 2020). Final sample locations were generally recorded with a global positioning device and are shown in Figure 4-1.

Samples were collected and handled under standard chain-of-custody procedures, consistent with the sampling and analysis plan provided as Appendix B of the RIWP (MFA 2019). Soil boring logs are provided in Appendix H of this report. Sample documentation, field measurements, and observations were recorded on water field sampling data sheets, provided in Appendix I. Investigation-derived waste consisted of soil cuttings, decontamination liquids, and purged groundwater. Solids and liquids were drummed separately and stored in labeled 55-gallon drums located in a secure location at the Site prior to offsite disposal.

4.1 Geophysical Survey

The geophysical survey was completed by Pacific Geophysics in October 2019 (Appendix J) and the findings are detailed in Section 5.3 of the RIWP (MFA 2019). In summary, no USTs were identified in RAU3, RAU4, or RAU6. Several magnetic anomalies were identified as non-three-dimensional or small three-dimensional objects, such as surface metal, pipes, concrete pads, or small objects.

4.2 Remedial Investigation Field Methods

This section describes the soil and groundwater sample collection at the Site, characterization, and field screening methods. Borings were advanced to a maximum depth of 15 ft bgs (and borings completed as monitoring wells were advanced to a maximum depth of 20 ft bgs) using a direct-push probe drilling rig, except where limited by site conditions. Where feasible, one unsaturated soil sample and one groundwater sample were collected from each boring. Sampling and field procedures are discussed in Section 5 and Appendix B of the RIWP (MFA 2019).

4.2.1 Soil Screening and Sample Collection

Continuous soil cores were collected from the ground surface to the maximum depth explored at each boring location for visual characterization of material along the entire core length. Lithology changes were noted in boring logs either by or under the supervision of a geologist licensed in the State of Washington (see Appendix H). Sample collection proceeded as outlined in Section 2.1 of Appendix B of the RIWP (MFA 2019).

Test pit excavation proceeded as described in the RIWP until field conditions prevented advancement. One sample was collected from within the excavation where conditions permitted safe entry (e.g., excavation walls were no higher than 4 feet).

Soil cores were generally field screened for volatile organic compounds, using a photoionization detector (PID). Soil samples were placed in a Ziploc bag (filled less than half full) and allowed to warm to ambient temperatures. PID measurements were made within 30 minutes of collection by inserting the 10.2 eV PID probe into the bag. Measurements were recorded on the geologic logs (Appendix H).

4.2.2 Groundwater Sample Collection

4.2.2.1 Monitoring Well Sampling

Monitoring wells were developed no sooner than 24 hours after installation and sampled no sooner than 48 hours after development. During sampling, each monitoring well was purged with a peristaltic pump using low-flow procedures to minimize solids. Field parameters (e.g., temperature, pH, specific conductance, turbidity) were allowed to stabilize for at least three consecutive readings before a sample was collected. Samples for analysis of dissolved constituents were field-filtered with a 0.45-micron in-line filter prior to collection in laboratory-provided containers. Additional details are provided in Section 2.5 and 2.7 of Appendix B of the RIWP (MFA 2019).

4.2.2.2 Reconnaissance Groundwater Sampling

Temporary borings were advanced to encounter and sample groundwater. At each boring designated for reconnaissance groundwater sample collection, the borehole was cleared of loose soil and a 0.75-inch polyvinyl chloride temporary well casing with a 5-foot polyvinyl chloride machine-slotted screen was installed. Groundwater samples were collected from the approximate midpoint of the well screen. During sampling, each reconnaissance well was purged with a peristaltic pump using low-flow

procedures to minimize solids. Once field parameters stabilized, groundwater samples were collected directly into laboratory-provided containers using a peristaltic pump. Groundwater submitted for analysis of dissolved constituents were field-filtered with a 0.45-micron in-line filter prior to collection. Additional details are provided in Section 2.6 and 2.7 of Appendix B of the RIWP (MFA 2019).

4.3 Work Plan Deviations

The following deviations from the RIWP (MFA 2019) or RIWP Addendum (MFA 2020) were noted.

- Proposed boring locations may have been adjusted up to 10 feet based on conditions encountered in field, such as drilling refusal or the presence of utilities.
- Due to ambient moisture on December 4, 2019, PID meters were not reading properly for much of the day. Therefore, PID readings were not collected for soil in most borings drilled that day.
- RAU3-01: a test pit was attempted with an excavator and jackhammer. Equipment reached a depth of 2 feet, but only solid concrete or asphalt was present. To complete the work within the project schedule, a 10-foot boring was advanced directly off the concrete patch in place of the test pit.
- RAU3-04, RAU3-07, RAU4-03, RAU5-02, RAU6-01, and RAU6-03: each location was sampled for soils only, due to lack of sufficient groundwater. An unsaturated and a saturated soil sample were collected and analyzed from each location.
- RAU4-03: this location was not completed as a monitoring well due to a lack of groundwater in the boring to a depth of approximately 15 feet bgs. Instead, RAU4-12 was completed as a monitoring well.
- RAU4-20 and RAU4-21: these borings were advanced in the vicinity of the former Pee Wee Mill to further evaluate the extent of petroleum impacts to soil and groundwater. Only eight borings in the vicinity of the former Pee Wee Mill were proposed. These two borings were advanced in addition to the proposed borings.

5 SCREENING LEVELS AND POINTS OF COMPLIANCE

According to MTCA, the cleanup standards for a site have two primary components: chemical-specific cleanup levels (CULs) and points of compliance (POCs). The CUL is the concentration of a chemical in a specific environmental medium that will not pose unacceptable risks to human health or the environment. The POCs are the areas where the CUL must be met. The CULs for the Site will be informed by screening levels that consider human health and ecological receptor exposure pathways. Screening levels are further described in this section.

5.1 Soil

The soil screening levels for the Site are MTCA Method A values. The Method A values are protective of human health via the direct-contact pathways and are protective of groundwater via the soil-leaching-to-groundwater pathway. However, where MTCA Method A values are unavailable, the lowest available MTCA Method B cancer or non-cancer values were used.[3] When a summation is performed (e.g., total PCBs), MFA screened data against the MTCA Method A or MTCA Method B value for the summation rather than for the values for each individual analyte. MFA did not screen soil data against MTCA Method B groundwater protection levels because groundwater data exist at most sample locations. For potentially erodible riverbank soil, MFA relied on sediment screening levels developed for and presented in Table 5-3 of the *Draft In-Water RI Report* (MFA 2022).

As described in Section 3.4, the Site qualifies for a simplified TEE, which concluded that the Site does not pose a substantial potential threat to terrestrial ecological receptors and may be removed from further ecological consideration during the RI and cleanup process. Therefore, soil screening levels do not include TEE ecological indicator concentrations. The soil POC is the depth at which soil CULs shall be attained. The standard POC in soil is from the surface to 15 ft bgs.

5.2 Groundwater

In general, groundwater was screened against MTCA Method A criteria. However, where MTCA Method A values are unavailable, the lowest available MTCA Method B cancer or non-cancer values were used. When a summation is performed, MFA screened data against the MTCA Method A or MTCA Method B value for the summation rather than for the values for each individual analyte. Based on the groundwater-surface water interaction study conducted by MFA (Appendix E), contaminant concentrations measured in monitoring wells are representative of groundwater conditions, not surface water conditions. Therefore, groundwater is most appropriately compared to groundwater screening levels and not surface water screening levels.

Alternative screening levels were used for vapor intrusion from groundwater. Where applicable, the lowest of the MTCA Method B VI cancer or non-cancer screening values were used. These screening level values were applied within 30 feet from the edge of a building footprint for groundwater data with volatile subsurface petroleum contamination, or within 100 feet from the edge a building footprint for groundwater data with any volatile subsurface contamination (Ecology 2022). MFA evaluated the groundwater to soil gas pathway as it pertains to potential VI risk within enclosed structures on the Site (see Section 6.3.3).

For groundwater, the POC is the point or points where the groundwater CULs must be attained for a site to comply with the cleanup standards. Groundwater CULs shall be attained in all groundwater from the POC to the outer boundary of the hazardous-substance plume. A conditional POC may be established if it is not practicable to meet the CULs throughout the Site within a reasonable restoration

[3] Prior to 2016, MTCA Method C CULs (for industrial sites) were selected for the Site, specifically for PCP in soil. However, Site operations have since changed, and MTCA Method A or Method B CULs (for unrestricted land use) are more appropriate.

time frame (WAC 173-340-720(8)(c)). A conditional POC for groundwater is not proposed at this time.

5.3 Soil Gas

In addition to historical and RI analytical soil data, historical soil gas data also exist for the Site. For soil gas, the lowest MTCA Method B vapor intrusion (VI) subslab soil gas cancer or non-cancer values were used. Though MTCA does not define a POC for soil gas, the remedy selected during the FS must address soil contamination in a manner that mitigates or eliminates soil gas sources to ensure protection of indoor air quality in present or future buildings at the Site. Section 6.4 presents the analytical results of historical soil gas sampling conducted at the Site.

5.4 Preliminary Cleanup Standards

Preliminary cleanup standards are generally developed based on screening levels for each media type present and by identifying potential POCs. For soil, the POC is the depth at which the soil CUL must be achieved. For groundwater, the POC is the point or points where the groundwater CUL must be attained. It is not anticipated that cleanup standards will be developed for all chemicals present at the Site. The final site-specific CULs and cleanup standards are defined on a site-by-site basis by Ecology.

Cleanup standards will ultimately be developed for relevant indicator hazardous substances (IHSs) identified in this report. IHSs are those compounds that are included for further consideration during the development of the cleanup approach because of their frequency, mobility, persistence in the environment, or toxicity. Compounds can be eliminated from further consideration on a site-specific basis, using the following evaluation factors outlined in WAC 173-340-703:

- The toxicological characteristics of the hazardous substance relative to the concentration of the hazardous substances at the Site
- The chemical and physical characteristics of the hazardous substance that govern its tendency to move into and through environmental media
- The natural background concentrations of the hazardous substance
- The thoroughness of testing for the hazardous substance at the Site
- The frequency at which the hazardous substance has been detected at the Site
- Degradation by-products of the hazardous substance

IHSs for the Site are discussed in Section 8.3.

6 ANALYTICAL RESULTS

This section summarizes the soil, groundwater, and soil gas data for samples collected during upland investigations at the Site. Laboratory reports are provided in Appendix K.

Analytical data and the laboratory's internal quality assurance and quality control data were reviewed to assess whether they met project-specific data quality objectives. This review was performed consistent with accepted EPA procedures for evaluating laboratory analytical data (EPA 2017a,b) and appropriate laboratory and method-specific guidelines. Data validation memoranda summarizing data evaluation procedures, data usability, and deviations from specific field and/or laboratory methods as they relate to analytical data are provided in Appendix L. The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

6.1 Data Usability

Analytical results collected during RI activities were reviewed for usability and are qualified consistent with EPA procedures and appropriate laboratory and method-specific guidelines (Appendix L). Data validation memoranda for historical data that have been previously submitted to Ecology are available in the study area investigation in Appendix A. All validated analytical data have been uploaded to Ecology's Environmental Information Management System database.[4]

Detected concentrations of some constituents were summed for comparison to applicable screening levels, as described in Section 5. Descriptions of how the constituents were summed are as follows:

- **Total PCBs.** Total PCBs are the sum of detected Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260, 1262, and 1268, with non-detected values assigned a value of zero; where all results are non-detect, the highest reporting or detection limit is used.
- **Toxicity Equivalent Quotients (TEQs).** Consistent with WAC 173-340-708(8), mixtures of dioxins and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) are considered as single hazardous substances in evaluating compliance with preliminary CULs such that the toxicity of a particular congener is expressed relative to the most toxic dioxins or cPAH congener (i.e., 2,3,7,8-tetrachlorodibenzo-p-dioxin [TCDD] and benzo(a)pyrene, respectively). The toxicity of dioxins and cPAHs as groups was assessed using a toxic equivalent approach. Each congener in the group is assigned a toxic equivalent factor (TEF) describing the toxicity of that congener relative to the toxicity of the reference compound, TCDD or benzo(a)pyrene. Multiplying the concentration of a congener by its TEF produces the concentration of TCDD or cPAH that is equivalent in toxicity to the congener concentration of concern. Summing those values permits

[4] Available at Environmental Information Management database – Washington State Department of Ecology.

expression of all congener concentrations in terms of a total TCDD or cPAH TEQ (i.e., dioxin TEQ and cPAH TEQ, respectively):

$$\text{Dioxin TEQ} = \sum_{i=1}^{k} C_i \times TEF_i$$

$$\text{cPAH TEQ} = \sum_{i=1}^{k} C_i \times TEF_i$$

Where C_i = individual TCDD or dioxin-like compound concentration and TEF_i = TEF assigned for TCDD or dioxin-like compound.

Dioxin and cPAH TEQs were qualified and calculated as follows:

- Congeners qualified as non-detected and flagged with a "U" are used in the TEQ calculation at one-half the associated value.
- Congeners qualified as estimated and flagged with a "J" are used without modification in the TEQ calculation.
- Congeners qualified as non-detect with an estimated limit (i.e., flagged with a "UJ") are used in the TEQ calculation at one-half the associated value.
- If all congeners in a chemical group are undetected, the group sum is reported as non-detect (i.e., "ND").

The most recent effort to develop TCDD TEFs for dioxins, made at an expert meeting organized by the World Health Organization in 2005 (Van den Berg et al. 2006), used multiple lines of evidence to develop a consensus-based list of TEFs for mammal, bird, and fish receptors of dioxins. These TEFs were used to develop the dioxin TEQ. TEFs for cPAHs were used consistent with WAC 173-340-708(8)(e) and Table 708-2 of WAC.

Consistent with *Implementation Memorandum No. 4* (Ecology 2004) and *Guidance for Remediation of Petroleum Contaminated Sites* (Ecology 2016), the diesel- and oil-range hydrocarbon results were summed for a total detection value and were calculated as follows:

- Diesel- and oil-range hydrocarbon results qualified as non-detect and flagged with a "U" are used in the total calculation at one-half the associated value. When both results are non-detect, the highest detection limit is used.

Diesel- and oil-range hydrocarbon results qualified as estimated and flagged with a "J" are used in the total calculation without modification.

6.2 Soil

A summary of analytical results for data collected between 2011 and 2020, including detection frequency, minimum and maximum detected values, and exceedance frequency, is provided in Table 6-1. Section 6.2.1 summarizes upland soil analytical results and Section 6.2.2 focuses on erodible riverbank soil sample results screened against applicable in-water sediment criteria.

6.2.1 Upland Soil

Upland soil analytical results were compared against the lowest regulatory value, selected from soil MTCA Method A unrestricted land use where available, or MTCA Method B (the lower of the available cancer or non-cancer value) where MTCA Method A is not available. Results for data obtained from the upland RI conducted in December 2019 and July 2020 are summarized in Table 6-2 and results from 2011, 2015, and 2017 are summarized in Table 6-3. Screening level exceedances for all soil samples collected between 2011 and 2017 are shown in Figure 6-2a and exceedances for soil samples collected during RI field activities between 2019 and 2020 are shown in Figure 6-2b.

6.2.1.1 Metals

Though metals were generally detected at each upland soil sample location between 2011 and 2020, only six (cadmium, cobalt, iron, lead, manganese, and thallium) of the 24 metals historically analyzed for exceeded the soil screening level in at least one sample. Each of these six metals is present on the analyte list developed for the *Seaport Landing Site Targeted Brownfields Assessment, Aberdeen, Washington (Targeted Brownfields Assessment report)* (Ecology and Environment, Inc. 2018). For this RI, after communications with Ecology, metals were selected for analysis based on the criteria exceedances from the *Targeted Brownfields Assessment report*: arsenic, cadmium, copper, lead, manganese, nickel, and zinc. Mercury, which was not included in the *Targeted Brownfields Assessment report*, was included for this RI because it is a contaminant of interest for the in-water RI. In addition, chromium and chromium (hexavalent) were included to ensure potential contaminants that could be present were not missed. Cobalt and iron were not carried forward as contaminants of interest in this RI because only three samples had minor exceedances of the cobalt screening level, and only three samples exceeded the screening level for iron. Cobalt and iron are therefore not discussed further.

Arsenic, cadmium, chromium, chromium (hexavalent), copper, lead, manganese, mercury, nickel, and zinc were analyzed for the RI field sampling and analytical results for those contaminants (and thallium[5]) are discussed below.

- **Arsenic**. Arsenic did not exceed the screening level in any samples.
- **Cadmium**. The soil screening level for cadmium is 2 milligrams per kilogram (mg/kg). Cadmium was detected above 2 mg/kg in four samples collected in 2017 from locations FC03 (between the Main Shipping Shed and the Fuel and Chemical Storage Building), MS01 (between the Fuel and Chemical Storage Building and Maintenance Shop), and PB07 and PB08 (riverward of the former Planer Building), with concentrations ranging from 2.5 mg/kg to 9.3 mg/kg. However, cadmium was analyzed for and generally non-detect in RI samples collected in 2019 and 2020 and, of the limited detections, none exceeded the soil screening level.
- **Chromium**. Chromium did not exceed the screening level in any samples.

[5] Though not analyzed for in RI samples, thallium exceeds the screening level in historical samples and is therefore included.

- **Chromium (hexavalent).** Hexavalent chromium did not exceed the screening level in any samples.
- **Copper.** Copper did not exceed the screening level in any samples.
- **Lead**. Lead exceeds its soil screening level (250 mg/kg) in one sample collected in 2017 from location FC03 (between the Main Shipping Shed and Fuel and Chemical Storage Building). The sample was collected between 6 and 8 ft bgs and contained lead at a concentration of 1,110 mg/kg. In RI samples collected in 2019 and 2020, lead was generally detected at concentrations lower than the screening level, and often detected below the natural background level of 10.9 mg/kg.
- **Manganese**. Manganese exceeds its soil screening level (3,700 mg/kg) in one sample collected in 2017 from location MS01 (between the Fuel and Chemical Storage Building and Maintenance Shop). The sample was collected between 8 and 12 ft bgs and contained manganese at a concentration of 13,100 mg/kg. In RI samples collected in 2019 and 2020, manganese was often detected at concentrations an order of magnitude lower than the screening level.
- **Mercury**. Mercury did not exceed the screening level in any samples.
- **Nickel**. Nickel did not exceed the screening level in any samples.
- **Thallium**. Thallium exceeds its soil screening level (0.8 mg/kg) in most samples collected in 2017. Detected thallium concentrations range from 1.8 mg/kg to 6.2 mg/kg. The screening level for thallium (0.8 mg/kg) is less than the analytical detection limit from the 2017 soil sampling activities (2.5 mg/kg). Thallium was not analyzed for in RI samples collected from 2019 and 2020.
- **Zinc**. Zinc did not exceed the screening level in any samples.

6.2.1.2 PCBs

Total PCBs were not detected or were detected below the screening level value of 1 mg/kg in soil samples collected between 2011 and 2020.

6.2.1.3 Dioxins/Furans

Seventeen specific dioxin/furan congeners, ranging from tetra- through octachlorodibenzo-p-dioxin and octachlorodibenzofuran, were historically analyzed at the Site. However, dioxin/furan sample density is generally low at the Site; six historical sample locations were analyzed for dioxins/furans and fewer than ten RI sample locations were analyzed for dioxins/furans. Soil screening levels exist for one dioxin congener (2,3,7,8-TCDD) and two dioxin summations (total hexachlorodibenzo-p-dioxins [HxCDDs][6] and dioxin/furan TEQ).

The soil screening level for dioxin/furan TEQ is 13 pg/g. In 2015, samples collected from locations CR-20 (riverward of the former Planer Building near the shoreline) and CR-22 (riverward of the

[6] Total HxCDD is defined as the sum of the individual HxCDD constituent congeners.

Maintenance Shed) exceeded this value at concentrations of 90 pg/g and 35.8 pg/g, respectively. In 2019, samples collected from RAU1-04 and RAU1-05 (both near the former Wood Waste Burner) exceeded this value at concentrations of 57.5 pg/g and 64.6 pg/g, respectively. Additionally, a sample collected from RAU2-GA2 (on the shoreline near the Powerhouse and former Boiler) at a depth interval of 2.5 to 4 ft bgs exceeded the screening level for dioxin/furan TEQ at a concentration of 61 pg/g. Dioxin/furan TEQ concentrations from the same location at depth intervals of 5 to 6.5 ft bgs and 7.5 to 9 ft bgs were below the screening level.

6.2.1.4 Pesticides

Pesticides were historically analyzed for in the 2011 soil samples but were non-detect in all samples. Because there are no known sources of pesticides on the Site and because historical data are non-detect for pesticides, pesticides were not further investigated during the 2019 and 2020 RI field activities.

6.2.1.5 Organic Compounds

Only two organic compounds, benzene and cPAH TEQ, exceed their respective screening levels in upland soil collected between 2011 and 2020 at the Site, as discussed below.

- **Benzene**. The screening level for benzene is 0.03 mg/kg. Benzene is non-detect in nearly all samples at method detection or method reporting limits below the screening level. One sample from 2019 (collected near the Maintenance Shop at location RAU1-09) exceeded the screening level at a concentration of 0.0474 mg/kg.
- **cPAH TEQ**.[7] The screening level for cPAH TEQ is 0.1 mg/kg. There were no cPAH TEQ exceedances in soil samples collected in 2011, however the method reporting limit for approximately half of the 2011 samples exceeded the screening level, ranging from 0.14 mg/kg to 0.45 mg/kg. In 2015, cPAH TEQ exceeded this value in samples collected from B02 (0.154 mg/kg) riverward of the Maintenance Shop, CR-20 (0.237 mg/kg) riverward of the former Planer Building near the shoreline, and CR-21 (0.247 mg/kg) riverward of the Maintenance Shop.

  In 2017, cPAH TEQ exceeded the screening level in samples from the following locations:

  - FC03 (0.225 mg/kg) between the Main Shipping Shed and Fuel and Chemical Storage Building
  - MS01 (0.182 mg/kg) between the Fuel and Chemical Storage Building and Maintenance Shop
  - MS03 (0.142 mg/kg) and MS05 (0.257 mg/kg) riverward of the Maintenance Shop

[7] At several locations, benzo(a)pyrene also exceeds its screening level. However, cPAH TEQ is reported instead of individual cPAH constituents because cPAH TEQ exceeds its screening level in some locations where no individual cPAH constituents exceed their respective screening levels.

- OC01 (0.154 mg/kg) and OC02 (0.154 mg/kg) west of the Storage Shed and former Oil Tank and Chemical Storage Shed
- PB07 (0.336 mg/kg) and PB08 (0.163 mg/kg) riverward of the former Planer Building
- PW02 (2.53 mg/kg) adjacent to the southeast corner of the former Planer Building

In sampling from 2019 and 2020, cPAH TEQ exceeded the screening level in samples from the following locations:

- RAU1-02 (0.109 mg/kg) riverward of the former Mill
- RAU1-04 (0.631 mg/kg) riverward of the Maintenance Building
- RAU1-08 (0.247 mg/kg) and RAU1-09 (1.23 mg/kg) adjacent to the Maintenance Building
- RAU1-10 (0.152 mg/kg) within the Fuel and Chemical Storage Building
- RAU2-09 (0.659 mg/kg) near the shoreline riverward of the former Planer Building
- RAU2-GA1 (0.511 mg/kg) riverward of the former Planer Building near the former Mill
- RAU2-GA2 (4.15 mg/kg) on the shoreline near the Powerhouse and former Boiler
- RAU3-02 (0.187 mg/kg) near the Storage Shed (and former Oil Tank and Chemical Storage Shed)
- RAU3-05 (0.128 mg/kg) adjacent to the former Mill
- RAU6-03 (0.139 mg/kg) on the southeastern portion of the Site

6.2.1.6 Total Petroleum Hydrocarbons

Gasoline-range organics (GRO), diesel-range organics (DRO), and oil-range organics (ORO) each exceed their soil screening levels (100 mg/kg, 2,000 mg/kg, and 2,000 mg/kg, respectively) in at least one sample collected from the Site, as described below.

- **GRO**. Except for one detection two orders of magnitude below the screening level, GRO was analyzed for and not detected in soil samples collected in 2011. GRO was not analyzed for soil samples collected in 2015 or 2017. During the RI field activities, GRO was analyzed for at one location (RAU1-12, near the Fuel and Chemical Storage Building) and detected at a concentration of 118 mg/kg, exceeding the screening level of 100 mg/kg.
- **DRO**. DRO was analyzed for and either not detected or detected below the screening level in soil samples collected in 2011. One sample (from location B02, riverward of the Maintenance Shop at a concentration of 5,800 mg/kg) exceeded the screening level in 2015. One sample (from location FC02, between the Fuel and Chemical Storage Building and Maintenance Shop) exceeded the screening level in 2017 (at a concentration of 3,300

mg/kg). DRO was analyzed for and either not detected or detected below the screening level in soil samples collected during RI field activities in 2019 and 2020.

- **ORO**. ORO was analyzed for and detected above its screening level in soil samples collected in 2011, 2015, 2017, and 2019 through 2020.
  - In 2011, ORO was detected above the screening level at location SB6, at depths of 1.5 to 3 ft bgs and 3 to 5 ft bgs, and at concentrations of 2,200 mg/kg and 2,300 mg/kg, respectively.
  - In 2015, ORO was detected above the screening level at locations B02 (riverward of the Maintenance Shop), CR-20 (riverward of the former Planer Building near the shoreline), and CR-21 (riverward of the Maintenance Shop) at concentrations of 19,000 mg/kg, 2,600 mg/kg, and 3,600 mg/kg respectively.
  - In 2017, ORO was detected above the screening level at seven locations (between the Fuel and Chemical Storage Building and Maintenance Shop at FC02; riverward of the Maintenance Shop at MS03; between the Maintenance Shop and former Planer Building at MS04; riverward of the Maintenance Shop at MS05; within the western portion of the former Planer Building at PB02; and riverward of the former Planer Building at PB07 and PB08) at concentrations between 2,200 mg/kg and 170,000 mg/kg.
  - During RI field activities in 2019 and 2020, ORO was detected above the screening level at 13 locations (adjacent to the Maintenance Shop at RAU1-05, RAU1-07, RAU1-08, and RAU1-09; riverward of the former Planer Building at RAU2-09; adjacent to the Storage Shed at RAU3-01; near the former Pee Wee Mill at RAU4-05 and RAU4-06; riverward of the Small Log Mill at RAU4-08; and landward of the Small Log Mill at RAU4-16, RAU4-17, RAU4-19, and RAU4-21) at concentrations up to 37,200 mg/kg.

A subset of soil samples collected during RI field activities were also analyzed for total petroleum hydrocarbons (TPH) with silica gel cleanup to better understand how weathered the petroleum product is. These results were largely consistent with the TPH analysis without silica gel cleanup and are therefore shown for informational purposes only. Further, Ecology applies cleanup standards to samples without silica gel cleanup.

6.2.2 Erodible Riverbank Soil

MFA also screened potentially erodible riverbank soil samples against available in-water sediment criteria[8] outlined in Section 5 of the *Draft In-Water RI Report* (MFA 2022). MFA identified riverbank samples for evaluation against in-water sediment CULs based on two criteria:

- The sample location is within 10 ft landward of the line of ordinary high water

[8] Some contaminants retained in this upland RI do not have sediment screening criteria because they were not retained as contaminants of interest in the in-water RI.

- Potentially erodible material is limited to the top 2 ft of soil, as deeper soils are unlikely to erode

Data from three sample locations (RAU1-02, RAU1-03, and RAU2-09) satisfy both criteria. These sample locations and associated screening results are shown in Table 6-4 and summarized below. Screening level exceedances for riverbank soil are shown in Figure 6-3.

6.2.2.1 Metals

Of the metals with screening levels defined in the In-Water RI Report, only mercury exceeds a screening level (0.2 mg/kg) in riverbank samples at the Site. Mercury was detected in samples from RAU2-09 (riverward of the former Planer Building near the pocket beach) at a concentration of 0.252 mg/kg.

6.2.2.2 PCBs

The sediment screening level for total PCBs is 0.0035 mg/kg. Total PCB concentrations exceed this value at RAU2-09 (riverward of the former Planer Building near the pocket beach) at a concentration of 0.0134 mg/kg.

6.2.2.3 Organic Compounds

In riverbank samples from two locations (RAU1-02 and RAU2-09), cPAH TEQ exceeds the sediment screening level of 0.021 mg/kg at concentrations up to 0.659 mg/kg.

6.3 Groundwater

A summary of analytical results for data collected between 2015 and 2020, including detection frequency, minimum and maximum detected values, and exceedance frequency, is provided in Table 6-5.

Section 6.3.1 summarizes upland groundwater analytical results. In Section 6.3.2, MFA investigated potential groundwater to surface water interaction at the Site. In Section 6.3.3., MFA screened sample locations near buildings on the Site against the MTCA Method B VI screening levels to evaluate the potential for VI from contaminated groundwater.

6.3.1 Upland Groundwater

Groundwater analytical results were compared against MTCA Method A, where available, or MTCA Method B (the lowest available cancer or non-cancer value). Results for data obtained from the upland RI conducted in 2019 and 2020 are summarized in Table 6-6 and results from 2015 and 2017 are summarized in Table 6-7. Screening level exceedances for groundwater samples collected between 2015 and 2017 are shown in Figure 6-4a, and exceedances for groundwater samples collected during RI field activities between 2019 and 2020 are shown in Figure 6-4b.

6.3.1.1 Dissolved Metals

Historically at the Site, investigators analyzed six metals (arsenic, cadmium, chromium, lead, manganese, and mercury) in the dissolved phase. Of these, dissolved arsenic and dissolved manganese exceed their respective groundwater screening levels in at least one sample, described below.

- **Dissolved arsenic**. The screening level for dissolved arsenic in groundwater is 5 micrograms per liter (ug/L). One sample (collected in 2020 landward of the Small Log Mill from RAU4-21) exceeds the screening level at a concentration of 6.17 ug/L.
- **Dissolved manganese**. The screening level for dissolved manganese in groundwater is 750 ug/L. Groundwater from 12 locations (east of the Small Log Mill at RAU4-12; near the Steam Cleaning Facility at RAU1-13 and RAU1-14; riverward of the Small Log Mill at RAU4-13 and RAU4-14; near the Small Log Mill and Main Shipping Shed at RAU4-15; within the footprint of the former Pee Wee Mill at RAU4-16, RAU4-17, and RAU4-19; within the Main Shipping Shed at RAU4-18; south of the former Pee Wee Mill at RAU4-20; and south of the Main Shipping Shed at RAU5-03) exceed this value with dissolved manganese concentrations ranging from 1,260 ug/L to 12,900 ug/L.

6.3.1.2 Total Metals

Total metals, including arsenic, cadmium, chromium, chromium (hexavalent), copper, lead, manganese, mercury, nickel, and zinc, were analyzed in groundwater during RI field activities. Additionally, historical samples collected included analysis for aluminum, cobalt, iron, and vanadium, each of which exceed their groundwater screening levels in at least one sample historically. Additional metals were analyzed historically (i.e., antimony, barium, beryllium, calcium, magnesium, potassium, selenium, silver, sodium, and thallium); however, concentrations were below groundwater screening levels and are therefore not discussed in this report. Groundwater screening level exceedances for individual total metals are discussed below.

- **Aluminum**. The groundwater screening level for total aluminum is 16,000 ug/L. One sample collected from location FC01 (near the Fuel and Chemical Storage Building and former Wood Waste Burner) in 2017 exceeds this value with a concentration of 17,800 ug/L. Total aluminum was not analyzed for in groundwater during RI field activities in 2019 and 2020.
- **Arsenic**. The groundwater screening level for total arsenic is 5 ug/L. Samples from 10 locations exceed this value (with concentrations up to 56.8 ug/L):
  - RAU1-01, riverward of the Maintenance Shop
  - RAU1-09, east of the Maintenance Shop
  - RAU2-03, adjacent to the western portion of the former Planer Building
  - RAU4-06, near the former Pee Wee Mill
  - RAU4-13 and RAU4-14, riverward of the Small Log Mill

- RAU4-16, within the footprint of the former Pee Wee Mill
- RAU4-20, south of the former Pee Wee Mill
- RAU4-21, east of the former Pee Wee Mill
- RAU5-01, near the guard shack UST

- **Cadmium**. The groundwater screening level for total cadmium is 5 ug/L. One groundwater sample collected adjacent to the eastern portion of the former Planer Building from RAU2-07 slightly exceeds this value, with a concentration of 5.02 ug/L.
- **Chromium**. The groundwater screening level for total chromium is 50 ug/L. Two samples collected in 2015 from locations B02 and CR-21 (both riverward of the Maintenance Shop) exceed this value, with concentrations of 116 ug/L and 66 ug/L, respectively. Total chromium was analyzed for during RI field activities and only exceeded the screening level in one sample (collected near the former Pee Wee Mill from location RAU4-06 at a concentration of 123 ug/L).
- **Chromium (hexavalent)**. The groundwater screening level for chromium (hexavalent) is 0.046 ug/L. Chromium (hexavalent) was analyzed for in one sample collected from RAU4-06 and detected above the screening level, but the result was rejected because recovery grossly exceeded lower acceptance limits (see Appendix L).
- **Cobalt**. The groundwater screening level for cobalt is 4.8 ug/L. Samples collected in 2017 from six locations exceed this value with concentrations up to 13.4 ug/L:
  - FC01, near the Fuel and Chemical Storage Building and former Wood Waste Burner
  - FC02, west of the Fuel and Chemical Storage Building
  - MS02, east of the Maintenance Shop
  - MS06, between the Fuel and Chemical Storage Building and Maintenance Shop
  - OC03, west of the Storage Shed and former Oil Tank and Chemical Storage Shed
  - PB02, within the western portion of the former Planer Building

  Total cobalt was not analyzed for in groundwater during RI field activities in 2019 and 2020.
- **Copper**. The groundwater screening level for copper is 640 ug/L. No samples, including samples collected during RI field activities in 2019 and 2020, exceed this value.
- **Iron**. The groundwater screening level for iron is 11,000 ug/L. Samples collected in 2017 from 16 locations exceed this value, with concentrations up to 56,200 ug/L:
  - FC01, near the Fuel and Chemical Storage Building and former Wood Waste Burner
  - FC02, west of the Fuel and Chemical Storage Building

- MS01, between the Fuel and Chemical Storage Building and Maintenance Shop
- MS02, east of the Maintenance Shop
- MS03, riverward of the Maintenance Shop
- MS04, between the Maintenance Shop and former Planer Building
- MS05, riverward of the Maintenance Shop
- MS06, between the Fuel and Chemical Storage Building and Maintenance Shop
- OC01, OC02, and OC03, west of the Storage Shed and former Oil Tank and Chemical Storage Shed
- PB01, PB02, PB09, and PB10 within the western portion of the former Planer Building
- VM01, north and adjacent to the Main Shipping Shed

Total iron was not analyzed for in groundwater during RI field activities in 2019 and 2020.

- **Lead**. The groundwater screening level for lead is 15 ug/L. One sample collected in 2015 from location B02 exceeds this value at a concentration of 80 ug/L. Samples from three locations (FC01, FC03, and PB02) in 2017 exceed this value with concentrations of 53 ug/L, 18.6 ug/L, and 23.8 ug/L, respectively. During RI field activities, samples collected from the following locations exceed the screening level (at concentrations up to a maximum of 91.2 ug/L):
  - RAU1-09, east of the Maintenance Shop
  - RAU2-02 and RAU2-03, adjacent to the western portion of the former Planer Building
  - RAU2-07, adjacent to the eastern portion of the former Planer Building
  - RAU4-05 and RAU4-06, near the former Pee Wee Mill
  - RAU4-13 and RAU4-14, riverward of the Small Log Mill
  - RAU4-21, east of the former Pee Wee Mill

- **Manganese**. The groundwater screening level for manganese is 750 ug/L. Except for MS04, all locations sampled in 2017 exceed this value with total manganese concentrations up to 18,400 ug/L. During RI field activities total manganese exceeded the groundwater screening level at all locations (except for RAU1-07, RAU1-08, RAU2-08, RAU2-09, and RAU7-02), with concentrations up to 23,000 ug/L. As noted in the RIWP (MFA 2019), manganese concentrations in soils were typically within expected background concentrations, so the presence of manganese in groundwater may suggest ongoing anaerobic biodegradation.

- **Mercury**. The groundwater screening level for mercury is 2 ug/L. Two locations adjacent to the western portion of the former Planer Building, RAU2-02 and RAU2-03, exceed this value with total mercury concentrations of 11.4 ug/L and 8.48 ug/L, respectively.
- **Nickel**. The groundwater screening level for nickel is 320 ug/L. No samples, including samples collected during RI field activities in 2019 and 2020, exceed this value.
- **Vanadium**. The groundwater screening level for vanadium is 80 ug/L. In 2017, one sample collected within the western portion of the former Planer Building from location PB02 exceeds this value at a concentration of 96.8 ug/L.
- **Zinc**. The groundwater screening level for zinc is 4,800 ug/L. No samples, including samples collected during RI field activities in 2019 and 2020, exceed this value.

6.3.1.3 PCBs

Total PCBs were analyzed for in groundwater samples collected from the Site in 2015 and 2017, and all results were non-detect. Total PCBs were analyzed for at select locations (RAU2-08, RAU2-09, RAU4-04, RAU4-05, RAU4-06, and RAU5-01) during RI field activities in 2019 and results were non-detect.

6.3.1.4 Organic Compounds

Seven semivolatile organic compounds exceed their respective groundwater screening level in at least one groundwater sample collected from the Site, as described below.

- **1-methylnaphthalene**. The groundwater screening level for 1-methylnaphthalene is 1.5 ug/L. In 2015, two groundwater samples collected riverward of the Maintenance Shop from CR-22 and CR-23 exceeded this screening level at concentrations of 1.7 ug/L and 2 ug/L, respectively. During the RI, 1-methylnaphthalene exceeded the screening level at RAU1-05, RAU1-10, RAU1-12, and RAU2-07, at concentrations between 2.12 ug/L and 46.3 ug/L.
- **2-methylnaphthalene**. The groundwater screening level for 2-methylnaphthalene is 32 ug/L. During the RI, 2-methylnaphthalene exceeded the screening level adjacent to the eastern portion of the former Planer Building from location RAU2-07 at a concentration of 61.9 ug/L.
- **Bis(2-chloroethyl)ether**. The groundwater screening level for bis(2-chloroethyl)ether is 0.04 ug/L. In 2017, one sample collected in the western portion of the former Planer Building from location PB02 exceeded the screening level at a concentration of 3 ug/L.
- **Dibenzofuran**. The groundwater screening level for dibenzofuran is 8 ug/L. During the RI, dibenzofuran exceeded the screening level riverward of the Maintenance Shop at location RAU1-01 at a concentration of 16.4 ug/L.

- **Naphthalene**. The groundwater screening level for naphthalene is 160 ug/L. During the RI, naphthalene exceeded the screening level within the Fuel and Chemical Storage Building at location RAU1-10 at a concentration of 200 ug/L.
- **PCP**. The groundwater screening level for PCP is 0.22 ug/L. In 2017, this screening level was exceeded at five locations:
  - FC01 (0.3 ug/L) near the Fuel and Chemical Storage Building and former Wood Waste Burner
  - MS01 (19 ug/L) between the Fuel and Chemical Storage Building and Maintenance Shop
  - MS02 (0.96 ug/L) east of the Maintenance Shop
  - MS03 (1.5 ug/L) riverward of the Maintenance Shop
  - PB04 (1,600 ug/L) in the western portion of the former Planer Building

  During the RI, PCP exceeded the screening level at RAU2-06 (immediately riverward of the former Planer Building) at a concentration of 0.254 ug/L.
- **cPAH TEQ**. The groundwater screening level for cPAH TEQ is 0.1 ug/L. In 2015, one sample collected in the western portion of the former Planer Building from location B02 exceeded the screening level at a concentration of 15 ug/L. In 2017, a sample riverward of the Maintenance Shop from location MS03 exceeded the screening level at a concentration of 0.308 ug/L. During the RI, samples from RAU1-01 and RAU1-04 (riverward of the Maintenance Shop) as well as RAU2-07 (eastern portion of the former Planer Building) exceeded the screening level at concentrations of 0.264 ug/L, 0.242 ug/L, and 0.454 ug/L, respectively.

6.3.1.5 Total Petroleum Hydrocarbons

The groundwater screening levels for DRO and ORO are both 500 ug/L. Detections of DRO and ORO exceed this screening level in samples collected from the Site, as described below.

- **DRO**. Samples collected in 2015 from locations B02 (in the western portion of the former Planer Building), CR-20 (riverward of the former Planer Building near the shoreline), CR-21 and CR-23 (both riverward of the Maintenance Shop) exceed the screening level for DRO at concentrations of 40,000 ug/L, 1,000 ug/L, 720 ug/L, and 3,400 ug/L, respectively. One sample collected in 2017 west of the Fuel and Chemical Storage Building from location FC02 exceeds the screening level at a concentration of 2,100 ug/L. Among the RI samples collected, DRO exceeds the screening level in samples from RAU1-11 (near the Fuel and Chemical Storage Building and former Wood Waste Burner), RAU1-12 (near the Fuel and Chemical Storage Building), and RAU2-07 (eastern portion of the former Planer Building) at concentrations of 781 ug/L, 683 ug/L, and 526 ug/L, respectively.
- **ORO**. Samples collected in 2015 from B02, B03, CR-20, CR-21, CR-22, and CR-23 exceed the screening level at concentrations up to 110,000 ug/L. From the samples collected in

2017 from FC02, FC03, MS03, MS05, and PB02, ORO exceeds the screening level at concentrations up to 79,000 ug/L.

Among the RI samples, ORO exceeds the screening level at the following locations:

- RAU1-05 (958 ug/L) riverward of the Maintenance Shop
- RAU1-11 (1,990 ug/L) near the Fuel and Chemical Storage Building and former Wood Waste Burner
- RAU1-12 (1,290 ug/L) near the Fuel and Chemical Storage Building
- RAU4-05 (6,540 ug/L) and RAU4-06 (481,000 ug/L) near the former Pee Wee Mill
- RAU4-16 (83,500 ug/L) and RAU4-17 (96,500 ug/L) within the footprint of the former Pee Wee Mill
- RAU4-21 (15,000 ug/L), east of the former Pee Wee Mill
- RAU5-01 (1,840 ug/L) near the guard shack UST

A subset of groundwater samples collected during RI field activities were also analyzed for TPH with silica gel cleanup to better understand how weathered the petroleum product is. These results were largely consistent with the TPH analysis without silica gel cleanup and are therefore shown in Tables 6-5 through 6-7 for informational purposes only. Further, Ecology applies cleanup standards to samples without silica gel cleanup.

6.3.2 Groundwater—Surface Water Interaction

MFA evaluated groundwater to surface water as a potential pathway for Site contaminants to reach and discharge to the Chehalis River or Shannon Slough, including interpretation of historical groundwater transducer data and collection of conductivity data during RI field activities in 2019. Data interpretation indicates that groundwater in the northern and northwestern portion of the Site discharges to the Chehalis River, while groundwater in the southern and southeastern portions of the Site discharge to Shannon Slough. Further, multiple lines of evidence indicate that groundwater-surface water interaction is limited to three monitoring wells (RAU2-08, RAU2-09, and RAU4-12) and the physical advection of surface water into groundwater is limited spatially and seasonally. MFA documented groundwater to surface water findings in Appendix E.

In accordance with the RIWP, non-vented pressure transducers were installed in ten monitoring wells (five newly installed and five existing wells) across the Site. The pressure transducers were installed on December 27, 2019, and operated until May 3, 2021. The transducers monitored water level elevations, conductivity, and temperature in 15-minute intervals. Interpretation of transducer data is further described in Appendix E.

6.3.3 Groundwater—Vapor Intrusion Pathway

MFA evaluated the groundwater VI pathway by screening groundwater data from applicable[9] sample locations against the MTCA Method B VI screening levels. Exceedances for MTCA Method B VI screening levels for groundwater samples are shown in Figure 6-5.

First, MFA investigated petroleum hydrocarbon exceedances in groundwater samples within 30 ft of at least one enclosed building on the Site (analytical results provided in Table 6-8). Of the constituents for which environmental data exist on the Site, only naphthalene exceeded applicable MTCA Method B VI screening levels in two samples, described below:

- In a groundwater sample collected from 8.5 ft bgs from RAU1-10 (within the Fuel and Chemical Storage Building), naphthalene exceeded the screening level (8.9 ug/L) at a concentration of 200 ug/L.
- In a groundwater sample collected from 7.5 ft bgs from RAU2-07 (adjacent to the former Planer Building), naphthalene exceeded the screening level at a concentration of 149 ug/L.

As shown in Table 6-8, MFA evaluated ten volatile petroleum hydrocarbons with groundwater data from 42 sample locations on the Site. Naphthalene is the only constituent petroleum hydrocarbon[10] exceeding MTCA Method B VI screening levels at only two locations within 30 ft of a building (i.e., the former Planer Building and the Fuel and Chemical Storage Building). The Planer Building was demolished earlier in 2022 and the Fuel and Chemical Storage Building is slated for future removal to be addressed during the FS.

Next, MFA investigated groundwater exceedances for any volatile compound for which groundwater data exists within 100 ft of at least one enclosed building on the Site (analytical results provided in Table 6-9). Petroleum hydrocarbons (including naphthalene, described in the previous paragraph) also satisfy these criteria. For brevity, the petroleum hydrocarbon exceedances described in the previous paragraph are not repeated here. Naphthalene aside, only total mercury exceeded applicable MTCA Method B VI screening levels. In two samples (collected from 6 ft bgs at RAU2-02 and 7.5 bgs at RAU2-03, both west of the former Planer Building), total mercury was detected at concentrations of 11.4 and 8.48 ug/L, both exceeding the screening level of 1.1 ug/L. As stated above, the Planer Building was removed earlier in 2022.

Of the 64 volatile compounds with groundwater data within 100 ft of at least one building, only naphthalene and total mercury exceeded applicable MTCA Method B VI screening levels from four locations near the former Planer Building and Fuel and Chemical Storage Building. Because exceedances are limited and near buildings that have already been removed or are slated for future removal, the risk of VI from groundwater contamination and adverse effects on indoor air quality at

[9] Sample selection criteria from Ecology's *Guidance for Evaluating Vapor Intrusion in Washington State* (2022) is provided in Section 5.2.

[10] There are presently no groundwater data for some of the petroleum fractions (e.g., short-chain aliphatics) required to calculate a site-specific total petroleum hydrocarbon (TPH) screening level as defined in Section E-8 of Ecology's VI guidance (Ecology 2022).

existing buildings is minimal. VI will be considered during the FS and cleanup action plan as it pertains to future development and construction of new buildings at the Site.

6.4 Soil Gas

A summary of analytical results for soil gas data collected beneath the slab of the Maintenance Shop in 2017 and analyzed for a suite of contaminants including volatile organic compounds, volatile petroleum hydrocarbons, and TPH is provided in Table 6-10. Soil gas analytical results are summarized in Table 6-11.

Though some compounds were detected in soil gas samples, none exceeded the applicable screening level values. Soil gas samples were therefore not collected during the RI field activities performed in 2019 and 2020.

7 CONCEPTUAL SITE MODEL

The CSM describes potential chemical sources, release mechanisms, environmental transport processes, exposure routes, and receptors. The primary purpose of the CSM is to describe pathways by which human and ecological receptors could be exposed to site-related chemicals. A complete exposure pathway consists of four necessary elements: (1) a source and mechanism of chemical release to the environment, (2) an environmental transport medium for a released chemical, (3) a point of potential contact with the impacted medium (referred to as the exposure point), and (4) an exposure route at the exposure point.

The CSM describes potential exposure scenarios based on information collected during investigations of the Site. Elements of potentially complete exposure scenarios relevant to human health and ecological receptors are discussed below and presented in Figure 7-1. The CSM diagram focuses on site receptors and potential exposure pathways related to historical releases at the Site. The CSM and exposure scenarios for a site play a role in selection of cleanup standards.

7.1 Source Characterization

7.1.1 Sources of Contamination

Potential sources of contamination associated with historical operations at the Site were identified during previous environmental investigations, as described in the study area investigation report prepared by MFA (Appendix A) and Section 2 of the RIWP (MFA 2019). Suspected historical sources of soil and groundwater impacts at the Site include releases from the former Mill and operations related to wood processing, including the following:

- Spills from sawmill hydraulic equipment previously located on the Site.

- Releases from upland historical site operations to environmental media (soil, groundwater, and/or stormwater). Petroleum products, antifreeze, various oils and lubricants, boiler treatment chemicals, anti-sapstain mixtures (which contained PCP until approximately 1987),[11] inks, red end paint (until the early 1990s), and paints and solvents were used and/or stored on the Site during historical sawmill operations (PES 2010).
- Wood-fired boilers and two wood-refuse burners were identified at the Site. Operation of this equipment is associated with dioxin formation; historical disposition of boiler ash at the Site is unknown (PES 2010).
- Historically, PCB-containing equipment supporting operations at the Site was present. All PCB-containing transformers and light ballasts were removed from the Site between 1990 and 2001, and EPA identified no other PCB-containing equipment at the Site in 2006 (PES 2010).

7.1.2 Wood Waste

At the Site, significant quantities of wood waste from historical sawmill operations and wood waste used as fill material are present. The approximate lateral extent of wood waste used as fill at the Site is shown in Figure 2-3. Impacts from wood waste include the physical presence of wood waste and increased concentrations of wood waste decomposition products, such as sulfides, ammonia, and phenols, that can cause or contribute to toxicity. Figure 7-2 depicts the vertical extent of wood waste visually observed in soil cores logged during RI field activities, which is most extensive in soils and sediments near the pocket beach. Figure 7-3a shows three section lines for a presentation of the cross-sectional lithology of the upland portion of the Site, which are shown in Figures 7-3b, 7-3c, and 7-3d. In each cross-section figure, 25 percent or more wood waste by volume is identified as a lithological unit.

7.1.3 Background Sources

In addition to the former Mill-related sources described previously, potential offsite sources with complete transport pathways have the potential impact Site conditions. Shannon Slough, which discharges to the Chehalis River, receives stormwater input from highways and neighborhoods upgradient of the Site. MFA previously documented inconsistencies between the as-built drawings for stormwater features at the Site and field-verified locations (Appendix A; MFA 2016). In October and November 2015, MFA performed a stormwater system cleaning and evaluation (MFA 2016). Field staff observed the stormwater lines to be in poor condition, with potential leaks in the pipe network and accumulation of in-line stormwater solids. Offsite sources have the potential to impact environmental conditions at the Site via stormwater.

Further, persistent organic pollutants such as dioxins, PCBs, and polycyclic aromatic hydrocarbons are known to be widespread in the environment. Dioxins and polycyclic aromatic hydrocarbons can result from both natural and anthropogenic sources. The surrounding area is an urban environment where industrial activity has been conducted and a city has been established for over 100 years. In

[11] PCP use was prohibited indoors in 1984 and was restricted to certified applicators in 1987 (EPA 2010).

urban areas, vehicle emissions, trash burning, fires, stormwater runoff, and other common events and activities can generate these chemicals (EPA 2006). Low levels of these compounds are commonly present in environmental media owing to these natural or non-point anthropogenic activities.

PCBs are a class of persistent, bioaccumulative, and toxic compounds that historically had a wide range of uses, including electrical transformers, hydraulic systems, lubricants, surface coatings, adhesives, plasticizers, inks, insulating materials, pesticides, and consumer products (Ecology 2014a). In Puget Sound, a nearby watershed, surface runoff is the largest pathway to aquatic environments, followed by wastewater treatment plants and air deposition. PCBs are ubiquitous throughout the natural environment and are found in animal tissue throughout the food chain.

Metals, including mercury, are naturally occurring elements in the environment, and can be concentrated by human activities. The distribution of naturally occurring metals is controlled by geologic processes that occur across different physiographic regions.

7.2 Fate and Transport of Contaminants

The primary potential contaminant transport mechanisms to soil and groundwater at the Site include historical pathways, potentially complete historical and current pathways, and secondary transport mechanisms.

- **Historically complete or potentially complete pathways** include the following:
  - Spills and chemical releases directly to site soils
  - Airborne deposition (e.g., from waste burners, incinerators)
  - Leaching from wood waste to groundwater
  - Stormwater transport from offsite areas
- **Currently complete or potentially complete pathways** include the following:
  - Leaching from wood waste to groundwater
  - Stormwater transport from offsite areas

Transport pathways from the Site to Chehalis River sediments are addressed in the *Draft In-Water RI Report* (MFA 2022).

7.3 Potential Receptors and Exposure Scenarios

The primary purpose of the CSM is to identify potential receptor groups and to describe pathways by which those populations may be exposed to site-related chemicals in the environment (EPA 1989). This discussion focuses on populations that may be exposed to contaminants at a site and identifies pathways by which these populations may come into contact with contaminants.

The upland portion of the Site is part of a new maritime heritage facility called Seaport Landing. The GHHSA staff currently occupies the office building and uses other structures remaining on the Site. Public use and access to the upland portion of the Site are currently limited. The future-use plan for the Site is to develop a maritime heritage center with education, public access, tourism, and commercial uses.

The exposure pathways considered potentially complete are summarized below and presented in Figure 7-1.

Occupational Workers and Visitors—Current and future occupational workers may encounter soils at the Site through the course of daily responsibilities at the Site. Future visitors may encounter soils while touring the Site. Occupational workers and visitors may occasionally and incidentally be exposed to chemically impacted soil through the following pathway:

- Direct skin contact with, and incidental ingestion of, soil.

Construction Workers—Construction workers performing remediation activities at the Site, such as building demolition, excavating impacted material, or repairing or replacing damaged stormwater infrastructure, may be occasionally and incidentally exposed to chemically impacted environmental media through the following pathway:

- Direct skin contact with, and incidental ingestion of, soil or groundwater.

7.4 Terrestrial Ecology Evaluation

MFA prepared a simplified TEE for the upland portions of the Site, consistent with the procedures outlined in WAC 173-340-7490 through 173-340-7492 (Appendix F). The TEE process is required at all MTCA sites where releases or threatened releases of hazardous substances pose a threat to human health or the environment. The TEE procedure is structured with the intent of protecting terrestrial wildlife at industrial and commercial sites and protecting terrestrial plants, soil biota, and terrestrial wildlife at other sites, as provided under WAC 173-340-7490(3)(b).

The simplified TEE concluded that the Site does not pose a substantial threat to terrestrial ecological receptors and may be removed from further ecological consideration during the RI and cleanup process.

7.5 Beneficial Water Use

At the time of this report, a beneficial water use determination has not been made for the Site. Groundwater at the Site is not currently used and is not expected to be a potable water source in the future.

8 NATURE AND EXTENT OF CONTAMINATION

This section delineates areas of contamination based on the information presented in this RI, including RAUs with chemical screening level exceedances, the extent of wood waste used as fill, and IHSs for the Site.

8.1 Chemical Exceedances by RAU

8.1.1 RAU1

RAU1 is located on the central portion of the Site and includes the Fuel and Chemical Storage Building and the Maintenance Shop.

8.1.1.1 Upland Soil

Within RAU1, the most frequent historical chemical exceedances in upland soil include cPAH TEQ and TPH (DRO and ORO) to a maximum depth of 7 ft bgs. In isolated locations, dioxins/furans (from CR-22) and metals (cadmium and manganese from MS01) exceeded applicable screening levels historically. Based on the RI data from RAU1, the most frequent chemical exceedances in upland soil include cPAH TEQ and TPH (ORO) to a maximum depth of 7.5 ft bgs. Dioxins/furans also exceed applicable screening levels at select locations (RAU1-04 and RAU1-05). No metals exceed applicable screening levels in upland soil samples collected during RI activities within RAU1.

Taken together, cPAH and TPH contamination is widespread in upland soil within RAU1. Dioxins/furans exceed applicable screening levels at CR-22, RAU1-04, and RAU1-05. All three locations are located near the former Mill adjacent to the pocket beach and are also generally located riverward of the former Wood Waste Burner, which, along with the former Mill itself, are likely historical contaminant sources.

8.1.1.2 Riverbank Soil

Screening riverbank sample locations against in-water sediment criteria, only cPAH TEQ exceeds applicable screening levels at RAU1-02. No exceedances are observed at RAU1-03, the other RAU1 riverbank sample location.

8.1.1.3 Groundwater

Historically within RAU1, the most frequent chemical exceedances in groundwater include total metals (aluminum, chromium, cobalt, iron, lead, and manganese), organic compounds (primarily 1-methylnaphthalene, PCP, and cPAH TEQ), and TPH (DRO and ORO). Based on the RI data, the most frequent chemical exceedances in groundwater include dissolved manganese, total metals (arsenic and manganese), organic compounds (primarily 1-methylnaphthalene and cPAH TEQ), and

TPH (DRO and ORO). Within RAU1, naphthalene exceeds the groundwater vapor intrusion screening level at one location (RAU1-10) within the Fuel and Chemical Storage Building.

Select chemicals frequently appear in both the historical and RI groundwater data sets: manganese, 1-methylnaphthalene, cPAH TEQ, and TPH (DRO and ORO), confirming their widespread presence within RAU1. Further, PCP was detected above the groundwater screening level in four historical samples collected between and around the Maintenance Shop and Fuel and Chemical Storage Building. RI sampling (from locations RAU1-09, RAU1-10, RAU1-11, and RAU1-12) were non-detect for PCP, however detection limits exceed the groundwater screening level by an order of magnitude.

8.1.2 RAU2

RAU2 is located on the western portion of the Site and historically contained the former Planer Building, which contained the Spray Room and PCP dip tank.

8.1.2.1 Upland Soil

Compared to RAU1, chemical exceedances within RAU2 are less frequent overall, with no exceedances observed in several historical and RI sample locations. The most frequent chemical exceedances in upland soil at RAU2 historically include cPAH TEQ and ORO to a maximum depth of 9 ft bgs. Total PCBs and dioxin/furan TEQ exceed the soil screening levels at location CR-20, located along the riverbank near the pocket beach and near the former Mill. In the RI data set, cPAH TEQ exceeds the screening level at three of the 11 sampling locations analyzed to a maximum depth of 9 ft bgs. Dioxins/furans exceed the soil screening levels at RAU2-GA2, along the western portion of the pocket beach near the former Mill.

Taken together, chemical exceedances are generally less frequent in RAU2 compared to RAU1. cPAH TEQ is the most frequent chemical exceedance across both data sets, while isolated total PCB and dioxins/furan exceedances are observed along the riverbank near the former Mill, suggesting that operations at the former Mill may be a legacy source to site soils.

8.1.2.2 Riverbank Soil

Mercury, total PCBs, and cPAH TEQ in samples collected from RAU2-09 exceed the sediment criteria presented in the *Draft In-Water RI Report*. RAU2-09 is near the pocket beach and former Mill, suggesting that operations at the former Mill may be a legacy source to site soils.

8.1.2.3 Groundwater

In historical groundwater samples, the most frequent screening level exceedances are observed for total metals (including cobalt, iron, lead, manganese, and vanadium) and TPH (DRO and ORO), along with isolated exceedances near the former Planer Building of bis(2-chloroethyl)ether (from PB02) and PCP (from PB04). In RI samples, the most frequent screening level exceedances are observed for total metals (arsenic, cadmium, lead, manganese, and mercury). Further, multiple organic compounds exceeded screening levels at RAU2-06 (PCP) and RAU2-07 (1-methylnaphthalene, 2-methylnaphthalene, and cPAH TEQ).

Within RAU2, naphthalene exceeds the groundwater vapor intrusion screening level within 30 feet of the edge of a building footprint at one location (RAU2-07). Mercury exceeds the groundwater vapor intrusion screening level within 100 feet of the edge of a building footprint at two locations (RAU2-02 and RAU2-03). All three locations are adjacent to the former Planer Building, which was removed in 2022.

To summarize, groundwater within RAU2 is most frequently impacted by total metals, with isolated exceedances of select organic compounds (including PCP) adjacent to the former Planer Building. This is consistent with known historical operations within the former Planer Building, where PCP and other anti-sapstain chemicals were used in the Spray Room until 1986.

8.1.3 RAU3

RAU3 is located on the western portion of the Site, and includes the Storage Shed. Historical features in RAU3 also include the former Oil Tank and Chemical Storage Shed and kilns.

8.1.3.1 Upland Soil

Three locations (OC01, OC02, and OC03) were sampled historically in RAU3. From these locations, the only chemical exceedances are for thallium and cPAH TEQ to a maximum depth of 6 ft bgs. RI field activities added seven sampling locations to RAU3. Of these, cPAH TEQ from two locations and ORO from one location exceed applicable screening levels to a maximum depth of 3 ft bgs. No other exceedances were documented at the remaining four RI sample locations within RAU3.

Based on the isolated chemical exceedances, the RAU3 features (including the Storage Shed, Oil Tank and Chemical Storage Shed, and kilns) and legacy operations do not appear to be a significant source of contamination.

8.1.3.2 Groundwater

Based on historical groundwater data from RAU3, only total metals (iron and cobalt) exceed applicable groundwater screening levels. No chemicals exceed applicable screening levels in groundwater RI data from RAU3.

Based on the isolated chemical exceedances in soil and groundwater, the RAU3 features and legacy operations in this area do not appear to be a significant source of contamination.

8.1.4 RAU4

RAU4 encompasses a large eastern portion of the Site that includes the existing Main Shipping Shed and Small Log Mill, in addition to the former Pee Wee Mill and 1906 Mill.

8.1.4.1 Upland Soil

As with RAU3, three locations (SB1, SB2, and SB3) were sampled historically in RAU4 and no chemicals exceed applicable screening levels. RI field activities added 21 sampling locations to RAU4.

One chemical (ORO) exceeds applicable screening levels in samples from seven of the 21 sample locations to a maximum depth of 3.5 ft bgs. These samples are located in the vicinity of the former Pee Wee Mill. No other chemicals exceed the soil screening level in RAU4.

8.1.4.2 Groundwater

As with historical upland soil sample locations, no chemicals exceed applicable screening levels in groundwater historically. During RI field activities groundwater was analyzed at 20 additional locations. Chemical exceedances were observed in 12 of the 20 locations. The most frequent chemicals exceeding applicable criteria were dissolved manganese, total metals (including arsenic, chromium, and lead), and ORO.

The sampling locations with no observed chemical exceedances (e.g., RAU4-01, -02, -07, -09, -10, and -11) are often located riverward of the historical or current site features. Further, locations with relatively fewer or more isolated chemical exceedances (e.g., ORO at RAU4-08; dissolved manganese at RAU4-12 and -15) are also located riverward of historical or current site features. In contrast, the locations with multiple observed exceedances (e.g., RAU4-05, -06, -16, -17, -19, -20, and -21) are generally located near or around site features, including the former Pee Wee Mill and current Small Log Mill and Main Shipping Shed.

Within RAU4, upland soil exceedances are limited to ORO, while groundwater exceedances include metals and ORO. Taken together, contamination observed in soil and groundwater within RAU4 is likely associated with legacy operations, such as those conducted at the former Pee Wee Mill. Contamination is often localized to areas near historical site features, while riverward sampling locations include limited or no chemical exceedances.

8.1.5 RAU5

RAU5 is located on the southern portion of the Site and features ancillary support facilities, including the Aberdeen Transformer Pad, a Generator Shed, diesel AST, water tank, office, Guard Shed, and guard shack UST.

8.1.5.1 Upland Soil

Upland soil within RAU5 was not analyzed during historical site investigations. During RI field activities, upland soil was investigated at three locations, but no chemicals exceeded screening levels.

8.1.5.2 Groundwater

Like soil, groundwater within RAU5 was not analyzed during historical site investigations. At RAU5-01, total arsenic and ORO exceed applicable screening levels in groundwater. At RAU5-03, dissolved manganese exceeds its screening level in groundwater. Petroleum hydrocarbons may be associated with the guard shack UST located near RAU5-01. However, sources of metals in this area are generally unknown and, given the proximity of RAU5 to the southern boundary of the Site, may include contributions from offsite sources.

8.1.6 RAU6

RAU6 encompasses the rest of the southern portion of the Site not covered by RAU3 or RAU5.

8.1.6.1 Upland Soil

Upland soil within RAU6 was not analyzed during historical site investigations. Of the three locations sampled during RI activities, only one constituent (cPAH TEQ) at one location (RAU6-03, near the southern border of the Site) exceeds the screening level at a depth of 3 ft bgs. Given the lack of potential onsite sources in this area, this exceedance may be the result of unknown offsite sources.

8.1.6.2 Groundwater

As with soil, groundwater within RAU6 was not analyzed during historical site investigations. Groundwater analyzed within RAU6 during RI activities had no chemicals that exceeded applicable groundwater screening levels.

8.1.7 RAU7

RAU7 encompasses the area around Shannon Slough on the far eastern portion of the Site. Soil and groundwater within RAU7 were not analyzed during historical site investigations. Soil and groundwater analyzed within RAU7 during RI activities had no chemicals exceed applicable screening levels.

8.2 Extent of Wood Waste

The lateral extent of wood waste includes significant portions of RAU1, RAU2, RAU3, and RAU4 (Figures 2-3, 2-4, and 7-2). Greater than 75 percent wood waste by volume was observed in the following areas:

- Surface and subsurface soils near the former Mill and pocket beach
- Subsurface soils near the former Pee Wee Mill
- Surface and subsurface soils riverward of the Main Shipping Shed and Small Log Mill

As documented in the *Draft In-Water RI Report* (MFA 2022), significant wood waste deposits down to 19 feet are documented in the pocket beach, where wood was historically used as fill. Lower percentages of wood waste by volume (between 20 and 50 percent) are generally found at several in-water locations adjacent to RAU1, RAU2, and RAU4. In contrast, the southern areas of the Site generally exhibit little (less than 1 percent) or no observed wood waste.

Wood waste may be associated with elevated concentrations of sulfides, ammonia, phenols, and metals, including manganese and iron, in groundwater. As discussed previously, exceedances of manganese are present in groundwater throughout the Site, with concentrations in colocated soil samples below applicable screening criteria. Given the concentrations in soil, it does not appear that manganese in soil is leaching and resulting in elevated concentrations in groundwater at the Site.

To determine whether the manganese results observed at the Site could be attributed to elevated regional levels, MFA reviewed groundwater data collected throughout Grays Harbor County available in Ecology's Environmental Information Management database. Only two sites in Grays Harbor County exhibited elevated concentrations of manganese in groundwater: the Site and the Stafford Creek Wood Waste Landfill. Based on the significant wood waste present at both sites, there is a potential link between wood waste and elevated concentrations of manganese in groundwater. This correlation is further discussed in the research paper *Ground-Water Pollution by Wood Waste Disposal* (Sweet and Fetrow 1975). The paper states the following:

> "an increase in total acidity and a decrease in pH occurred due to the leaching of volatile organic acids from the wood waste. This caused the dissociation of some iron and manganese from the alluvial substrata through which the contaminated groundwater was passing. The presence of a reducing environment resulted in higher concentrations of iron and manganese and aided in their movement by providing a medium in which they were more soluble."

This is consistent with data from the Site, where manganese rarely exceeds soil screening criteria but frequently exceeds groundwater criteria. Further, reducing conditions are likely present in areas where hydric soils coincide with wood waste filling areas (see Section 3.5). Collectively, the elevated concentrations of manganese in groundwater at the Site may be the result of significant wood waste deposits.

8.3 Indicator Hazardous Substances

The screening approach and analysis described above supports identification of IHSs in soil and groundwater at the Site. WAC 173-340-703 states that, when cleanup requirements are defined for a site that is contaminated with many hazardous substances, those hazardous substances that contribute a small percentage of the overall threat to human health and the environment may be eliminated from consideration, and the remaining hazardous substances shall serve as IHSs for purposes of defining site cleanup requirements. The number of screening level exceedances and the frequency of exceedances are provided in Tables 6-1, 6-5, and 6-10 for soil, groundwater, and soil gas, respectively.

Owing to their widespread presence and frequent exceedances at the Site, cPAH TEQ and TPH (ORO and DRO) are considered soil IHSs and groundwater IHSs. As described previously, the extent of wood waste used as fill at the Site is significant. Wood waste is associated with iron and manganese, which frequently exceed applicable screening criteria in groundwater at the Site. Therefore, iron and manganese are also considered groundwater IHSs.

Total metals are not considered IHSs because observed exceedances are often colocated with other IHSs, including cPAH TEQ and TPH. Similarly, total PCBs, dioxin/furan TEQ, and other semivolatile organic compounds are not carried forward as IHSs because exceedances are isolated and often colocated with other IHSs. For example, 1-methylnaphthalene is frequently non-detect in

groundwater with limited exceedances. The highest magnitude exceedances are observed at RAU1-10 and RAU2-07, which also feature total manganese[12] and cPAH TEQ exceedances.

In summary, the soil IHSs at the Site include cPAH TEQ and TPH (DRO and ORO) and the groundwater IHSs at the Site include cPAH TEQ, TPH (DRO and ORO), iron, and manganese.

9 SUMMARY

This RI was conducted as part of the work to be performed under the agreed order. Suspected historical sources of environmental impacts at the Site include releases from the former Mill, wood waste used as fill, upland operations related to wood processing, and spills. Potential receptors include occupational workers, construction workers, and visitors. The purpose of the RI was to evaluate the nature and extent of contamination in the upland portion of the Site. Seven RAUs are defined for the Site. Significant widespread screening level exceedances were observed in four of the seven RAUs, as discussed below.

- **RAU1.** Within RAU1, soil and groundwater chemical exceedances are documented. The most likely sources of contamination within RAU1 are former Mill operations and wood waste used as fill. Most IHSs are present in RAU1, with widespread cPAH and TPH contamination and metals associated with wood waste present near and along the shoreline.
- **RAU2.** All IHSs are observed in RAU2. Significant wood waste is present near the pocket beach and former Mill, often colocated with iron and manganese exceedances in groundwater. As in RAU1, cPAH TEQ and TPH exceedances are widespread in soil and groundwater within RAU2.
- **RAU3.** Isolated contamination in RAU3 was observed. Though exceedances of cPAH TEQ in soil are marginal, ORO exceedances in the surface depth interval at RAU3-01 adjacent to the Storage Shed are more significant.
- **RAU4.** RAU4 encompasses a large portion of the Site, though documented soil and groundwater exceedances are localized in the vicinity of the former Pee Wee Mill and current Small Log Mill and Main Shipping Shed. Sampling locations with limited or no exceedances are observed riverward of these features, providing one line of evidence that contamination within RAU4 is potentially attributable to legacy operations with minimal potential to migrate towards Chehalis River sediments and impact them.

[12] Though no wood waste was documented in the soil core collected from RAU1-10, 100 percent wood waste was documented in cores collected from nearby locations, including RAU1-11, RAU1-12, and RAU4-02. Wood waste at these locations may have contributed manganese to groundwater.

Screening level exceedances within RAU5, RAU6, and RAU7 are limited, localized, and do not appear to impact Chehalis River sediments. The results of this RI will be used to support an evaluation of potential cleanup actions in the FS.

LIMITATIONS

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

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

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TABLES

Table 6-1
Analytical Summary of 2011–2020 Soil Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

MAUL FOSTER ALONGI

	Number of Samples	Number of Detects	Number of Non-Detects	Freqency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[(a)]	Frequency of Detected Exceedances for All Samples
Total Metals (mg/kg)								
Aluminum	40	40	0	100%	6,050	33,900	0	0%
Antimony	54	40	14	74%	1	8	0	0%
Arsenic	116	64	52	55%	1	9	0	0%
Barium	40	40	0	100%	27	812	0	0%
Beryllium	40	40	0	100%	0	1	0	0%
Cadmium	116	52	64	45%	0	9	4	8%
Calcium	40	40	0	100%	1,200	110,000	0	0%
Chromium	116	111	5	96%	4	93	0	0%
Chromium, hexavalent	7	4	3	57%	1	1	0	0%
Cobalt	40	40	0	100%	4	34	2	5%
Copper	109	108	1	99%	5	800	0	0%
Iron	40	40	0	100%	8,460	163,000	3	8%
Lead	116	105	11	91%	1	1,110	1	1%
Magnesium	40	40	0	100%	1,460	23,900	0	0%
Manganese	95	95	0	100%	140	13,100	1	1%
Mercury	82	28	54	34%	0	0	0	0%
Nickel	95	95	0	100%	5	63	0	0%
Potassium	40	40	0	100%	116	11,300	0	0%
Selenium	54	0	54	0%	NA	NA	0	NC
Silver	54	40	14	74%	1	7	0	0%
Sodium	40	40	0	100%	145	3,650	0	0%
Thallium	40	37	3	93%	2	6	37	100%
Vanadium	40	40	0	100%	27	121	0	0%
Zinc	109	109	0	100%	10	889	0	0%
PCBs (mg/kg)								
Aroclor 1016	53	0	53	0%	NA	NA	0	NC
Aroclor 1221	53	0	53	0%	NA	NA	0	NC
Aroclor 1232	53	0	53	0%	NA	NA	0	NC
Aroclor 1242	53	0	53	0%	NA	NA	0	NC

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	Number of Samples	Number of Detects	Number of Non-Detects	Freqency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[a]	Frequency of Detected Exceedances for All Samples
Aroclor 1248	53	2	51	4%	0.034	0.53	0	NC
Aroclor 1254	53	5	48	9%	0.00304	0.71	0	NC
Aroclor 1260	53	12	41	23%	0.0022	0.93	0	NC
Aroclor 1262	10	0	10	0%	NA	NA	0	NC
Aroclor 1268	14	0	14	0%	NA	NA	0	NC
Total PCBs[b]	53	13	40	25%	0.0022	2.17	1	8%
Dioxins/Furans (pg/g)								
1,2,3,4,6,7,8-HpCDD	16	14	2	88%	4.47	2,650	0	0%
1,2,3,4,6,7,8-HpCDF	16	13	3	81%	1.36	653	0	0%
1,2,3,4,7,8,9-HpCDF	16	6	10	38%	0.322	32	0	0%
1,2,3,4,7,8-HxCDD	16	5	11	31%	3.49	36.1	0	0%
1,2,3,4,7,8-HxCDF	16	10	6	63%	0.114	17	0	0%
1,2,3,6,7,8-HxCDD	16	14	2	88%	0.994	184	0	0%
1,2,3,6,7,8-HxCDF	16	3	13	19%	1.55	9.97	0	0%
1,2,3,7,8,9-HxCDD	16	10	6	63%	1.07	16.7	0	0%
1,2,3,7,8,9-HxCDF	16	3	13	19%	1.3	8.52	0	0%
1,2,3,7,8-PeCDD	16	7	9	44%	0.703	10.8	0	0%
1,2,3,7,8-PeCDF	16	3	13	19%	0.859	2.12	0	0%
2,3,4,6,7,8-HxCDF	16	7	9	44%	0.7	40	0	0%
2,3,4,7,8-PeCDF	16	6	10	38%	0.807	6.7	0	0%
2,3,7,8-TCDD	16	4	12	25%	0.24	6.42	0	0%
2,3,7,8-TCDF	16	7	9	44%	0.347	5.07	0	0%
OCDD	16	14	2	88%	20.8	30,800	0	0%
OCDF	16	14	2	88%	1.83	1,490	0	0%
Total HpCDDs	16	13	3	81%	8.74	4,760	0	0%
Total HpCDFs	16	9	7	56%	16	704	0	0%
Total HxCDDs	16	8	8	50%	6.72	435	0	NC
Total HxCDFs	16	3	13	19%	17	243	0	0%
Total PeCDDs	16	4	12	25%	3.41	140	0	0%
Total PeCDFs	16	3	13	19%	0.846	7.5	0	0%

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	Number of Samples	Number of Detects	Number of Non-Detects	Freqency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[a]	Frequency of Detected Exceedances for All Samples
Total TCDDs	16	0	16	0%	NA	NA	0	NC
Total TCDFs	16	0	16	0%	NA	NA	0	NC
Dioxin/Furan TEQ[(c)(2)]	15	15	0	100%	1.05	90	5	33%
Pesticides (mg/kg)								
Aldrin	14	0	14	0%	NA	NA	0	NC
Alpha-BHC	14	0	14	0%	NA	NA	0	NC
Beta-BHC	14	0	14	0%	NA	NA	0	NC
Delta-BHC	14	0	14	0%	NA	NA	0	NC
Lindane	14	0	14	0%	NA	NA	0	NC
cis-Chlordane	14	0	14	0%	NA	NA	0	NC
Gamma-Chlordane	14	0	14	0%	NA	NA	0	NC
Chlordane	14	0	14	0%	NA	NA	0	NC
4,4'-DDD	14	0	14	0%	NA	NA	0	NC
4,4'-DDE	14	0	14	0%	NA	NA	0	NC
4,4'-DDT	14	0	14	0%	NA	NA	0	NC
Total DDT	14	0	14	0%	NA	NA	0	NC
Dieldrin	14	0	14	0%	NA	NA	0	NC
Endosulfan I	14	0	14	0%	NA	NA	0	NC
Endosulfan II	14	0	14	0%	NA	NA	0	NC
Endosulfan Sulfate	14	0	14	0%	NA	NA	0	NC
Endrin	14	0	14	0%	NA	NA	0	NC
Endrin Aldehyde	14	0	14	0%	NA	NA	0	NC
Endrin Ketone	14	0	14	0%	NA	NA	0	NC
Heptachlor	14	0	14	0%	NA	NA	0	NC
Heptachlor Epoxide	14	0	14	0%	NA	NA	0	NC
Methoxychlor	14	0	14	0%	NA	NA	0	NC
Toxaphene	14	0	14	0%	NA	NA	0	NC
VOCs (mg/kg)								
1,1,1,2-Tetrachloroethane	29	0	29	0%	NA	NA	0	NC
1,1,1-Trichloroethane	67	0	67	0%	NA	NA	0	NC

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MAUL FOSTER ALONGI

	Number of Samples	Number of Detects	Number of Non-Detects	Freqency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[(a)]	Frequency of Detected Exceedances for All Samples
1,1,2,2-Tetrachloroethane	67	0	67	0%	NA	NA	0	NC
1,1,2-Trichloroethane	67	0	67	0%	NA	NA	0	NC
1,1-Dichloroethane	67	0	67	0%	NA	NA	0	NC
1,1-Dichloroethene	67	0	67	0%	NA	NA	0	NC
1,1-Dichloropropene	29	0	29	0%	NA	NA	0	NC
1,2,3-Trichlorobenzene	67	0	67	0%	NA	NA	0	0%
1,2,3-Trichloropropane	29	0	29	0%	NA	NA	0	NC
1,2,4-Trichlorobenzene	53	0	53	0%	NA	NA	0	0%
1,2,4-Trimethylbenzene	29	4	25	14%	0.0032	0.855	0	0%
1,2-Dibromo-3-chloropropane	67	0	67	0%	NA	NA	0	0%
1,2-Dibromoethane	67	0	67	0%	NA	NA	0	NC
1,2-Dichlorobenzene	53	0	53	0%	NA	NA	0	0%
1,2-Dichloroethane	67	0	67	0%	NA	NA	0	NC
1,2-Dichloropropane	67	0	67	0%	NA	NA	0	NC
1,3,5-Trimethylbenzene	29	2	27	7%	0.145	0.21	0	0%
1,3-Dichlorobenzene	53	0	53	0%	NA	NA	0	0%
1,3-Dichloropropane	29	0	29	0%	NA	NA	0	NC
1,4-Dichlorobenzene	53	0	53	0%	NA	NA	0	0%
2,2-Dichloropropane	29	0	29	0%	NA	NA	0	NC
2-Butanone	53	30	23	57%	0.0029	0.1	0	0%
2-Chloroethylvinyl ether	3	0	3	0%	NA	NA	0	NC
2-Chlorotoluene	29	0	29	0%	NA	NA	0	NC
2-Hexanone	53	1	52	2%	0.0072	0.0072	0	0%
4-Chlorotoluene	29	0	29	0%	NA	NA	0	NC
4-Isopropyltoluene	29	9	20	31%	0.02	0.12	0	0%
4-Methyl-2-pentanone	53	0	53	0%	NA	NA	0	NC
Acetone	53	36	17	68%	0.0057	1.5	0	0%
Acrolein	3	0	3	0%	NA	NA	0	NC
Acrylonitrile	15	0	15	0%	NA	NA	0	NC
Benzene	75	3	72	4%	0.0082	0.0474	1	33%

Table 6-1
Analytical Summary of 2011–2020 Soil Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

MAUL FOSTER ALONGI

	Number of Samples	Number of Detects	Number of Non-Detects	Freqency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[(a)]	Frequency of Detected Exceedances for All Samples
Bromobenzene	29	0	29	0%	NA	NA	0	NC
Bromodichloromethane	67	0	67	0%	NA	NA	0	NC
Bromoethane	3	0	3	0%	NA	NA	0	NC
Bromoform	67	0	67	0%	NA	NA	0	0%
Bromomethane	67	0	67	0%	NA	NA	0	NC
Carbon disulfide	53	4	49	8%	0.0013	0.018	0	0%
Carbon tetrachloride	67	0	67	0%	NA	NA	0	NC
Chlorobenzene	67	0	67	0%	NA	NA	0	NC
Chlorobromomethane	67	0	67	0%	NA	NA	0	NC
Chloroethane	67	0	67	0%	NA	NA	0	NC
Chloroform	67	1	66	1%	6.70E-04	6.70E-04	0	0%
Chloromethane	67	0	67	0%	NA	NA	0	NC
cis-1,2-Dichloroethene	67	0	67	0%	NA	NA	0	NC
cis-1,3-Dichloropropene	67	0	67	0%	NA	NA	0	NC
Cyclohexane	38	1	37	3%	0.24	0.24	0	0%
Dibromochloromethane	67	0	67	0%	NA	NA	0	NC
Dibromomethane	29	0	29	0%	NA	NA	0	NC
Dichlorodifluoromethane (Freon 12)	64	0	64	0%	NA	NA	0	NC
Ethylbenzene	75	4	71	5%	0.0076	0.37	0	0%
Freon 113	41	0	41	0%	NA	NA	0	NC
Hexachlorobutadiene	15	0	15	0%	NA	NA	0	NC
Isopropylbenzene	67	5	62	7%	0.0083	0.18	0	0%
m,p-Xylene	67	6	61	9%	0.014	0.79	0	0%
Methyl acetate	38	0	38	0%	NA	NA	0	0%
Methyl iodide	3	0	3	0%	NA	NA	0	NC
Methyl tert-butyl ether	64	0	64	0%	NA	NA	0	NC
Methylcyclohexane	38	1	37	3%	1.7	1.7	0	0%
Methylene chloride	67	0	67	0%	NA	NA	0	NA
Naphthalene	15	3	12	20%	0.005	0.204	0	0%
n-Butylbenzene	29	1	28	3%	0.113	0.113	0	0%

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	Number of Samples	Number of Detects	Number of Non-Detects	Freqency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[a]	Frequency of Detected Exceedances for All Samples
n-Propylbenzene	29	2	27	7%	0.015	0.0586	0	0%
o-Xylene	67	5	62	7%	0.005	0.72	0	0%
sec-Butylbenzene	29	2	27	7%	0.017	0.0507	0	0%
Styrene	67	0	67	0%	NA	NA	0	NA
tert-Butylbenzene	29	1	28	3%	0.0042	0.0042	0	0%
Tetrachloroethene	67	0	67	0%	NA	NA	0	NA
Toluene	75	12	63	16%	7.00E-04	0.154	0	0%
trans-1,2-Dichloroethene	67	0	67	0%	NA	NA	0	NA
trans-1,3-Dichloropropene	67	0	67	0%	NA	NA	0	NA
trans-1,4-Dichloro-2-butene	3	0	3	0%	NA	NA	0	NA
Trichloroethene	67	0	67	0%	NA	NA	0	NA
Trichlorofluoromethane (Freon 11)	67	0	67	0%	NA	NA	0	NA
Vinyl acetate	3	0	3	0%	NA	NA	0	NA
Vinyl chloride	67	0	67	0%	NA	NA	0	NA
Xylenes, total[d]	75	8	67	11%	0.0176	1.51	0	0%
SVOCs (mg/kg)								
1,1'-Biphenyl	50	0	50	0%	NA	NA	0	NA
1,2,4,5-Tetrachlorobenzene	50	0	50	0%	NA	NA	0	NA
1,2,4-Trichlorobenzene	49	0	49	0%	NA	NA	0	NA
1,2-Dichlorobenzene	49	0	49	0%	NA	NA	0	NA
1,2-Dinitrobenzene	29	0	29	0%	NA	NA	0	NA
1,3-Dichlorobenzene	49	0	49	0%	NA	NA	0	NA
1,3-Dinitrobenzene	29	0	29	0%	NA	NA	0	NA
1,4-Dichlorobenzene	49	0	49	0%	NA	NA	0	NA
1,4-Dinitrobenzene	29	0	29	0%	NA	NA	0	NA
1,4-Dioxane	50	0	50	0%	NA	NA	0	NA
1-Methylnaphthalene	68	11	57	16%	0.00415	0.626	0	0%
2,3,4,6-Tetrachlorophenol	79	2	77	3%	0.036	0.2	0	0%
2,3,5,6-Tetrachlorophenol	30	0	30	0%	NA	NA	0	NA
2,4,5-Trichlorophenol	101	0	101	0%	NA	NA	0	NA

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	Number of Samples	Number of Detects	Number of Non-Detects	Freqency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[(a)]	Frequency of Detected Exceedances for All Samples
2,4,6-Trichlorophenol	101	0	101	0%	NA	NA	0	NA
2,4-Dichlorophenol	101	0	101	0%	NA	NA	0	NA
2,4-Dimethylphenol	101	0	101	0%	NA	NA	0	NA
2,4-Dinitrophenol	101	0	101	0%	NA	NA	0	NA
2,4-Dinitrotoluene	100	0	100	0%	NA	NA	0	NA
2,6-Dinitrotoluene	100	0	100	0%	NA	NA	0	NA
2-Chloronaphthalene	100	0	100	0%	NA	NA	0	NA
2-Chlorophenol	101	0	101	0%	NA	NA	0	NA
2-Methylnaphthalene	118	51	67	43%	5.40E-04	2	0	0%
2-Methylphenol	101	0	101	0%	NA	NA	0	NA
2-Nitroaniline	100	0	100	0%	NA	NA	0	NA
2-Nitrophenol	99	0	99	0%	NA	NA	0	NA
3- & 4-Methylphenol (m,p-Cresol)	44	6	38	14%	0.14	1.29	0	0%
3,3-Dichlorobenzidine	100	0	100	0%	NA	NA	0	NA
3-Nitroaniline	100	0	100	0%	NA	NA	0	NA
4,6-Dinitro-2-methylphenol	100	0	100	0%	NA	NA	0	NA
4-Bromophenylphenyl ether	100	0	100	0%	NA	NA	0	NA
4-Chloro-3-methylphenol	101	0	101	0%	NA	NA	0	NA
4-Chloroaniline	99	0	99	0%	NA	NA	0	NA
4-Chlorophenylphenyl ether	100	0	100	0%	NA	NA	0	NA
4-Methylphenol	57	1	56	2%	0.092	0.092	0	0%
4-Nitroaniline	100	0	100	0%	NA	NA	0	NA
4-Nitrophenol	101	0	101	0%	NA	NA	0	NA
Acenaphthene	118	39	79	33%	3.40E-04	1.5	0	0%
Acenaphthylene	117	29	88	25%	3.70E-04	0.191	0	0%
Acetophenone	50	0	50	0%	NA	NA	0	NA
Aniline	29	0	29	0%	NA	NA	0	NA
Anthracene	118	29	89	25%	0.0017	3	0	0%
Atrazine	50	0	50	0%	NA	NA	0	NA
Azobenzene	29	0	29	0%	NA	NA	0	NA

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	Number of Samples	Number of Detects	Number of Non-Detects	Freqency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[(a)]	Frequency of Detected Exceedances for All Samples
Benzaldehyde	50	0	50	0%	NA	NA	0	NA
Benzo(a)anthracene	118	41	77	35%	6.90E-04	2.6	0	0%
Benzo(a)pyrene	118	56	62	47%	8.20E-04	3.23	0	NC
Benzo(b)fluoranthene	111	49	62	44%	5.00E-04	3.33	0	0%
Benzo(ghi)perylene	118	36	82	31%	5.80E-04	1.6	0	0%
Benzo(k)fluoranthene	111	23	88	21%	8.50E-04	1.34	0	0%
Benzoic acid	50	0	50	0%	NA	NA	0	NA
Benzyl alcohol	50	0	50	0%	NA	NA	0	NA
Bis(2-chloro-1-methylethyl)ether	100	0	100	0%	NA	NA	0	NA
Bis(2-chloroethoxy)methane	100	0	100	0%	NA	NA	0	NA
Bis(2-chloroethyl)ether	100	0	100	0%	NA	NA	0	NA
Bis(2-ethylhexyl)phthalate	101	8	93	8%	0.037	19	0	0%
Butylbenzylphthalate	101	0	101	0%	NA	NA	0	NA
Caprolactam	50	0	50	0%	NA	NA	0	NA
Carbazole	118	3	115	3%	0.028	0.475	0	0%
Chrysene	118	60	58	51%	6.80E-04	3.8	0	0%
Di(2-ethylhexyl)adipate	29	0	29	0%	NA	NA	0	NA
Dibenzo(a,h)anthracene	118	12	106	10%	8.00E-04	0.466	0	0%
Dibenzofuran	117	11	106	9%	0.012	0.6	0	0%
Diethyl phthalate	101	1	100	1%	0.018	0.018	0	0%
Dimethyl phthalate	101	0	101	0%	NA	NA	0	NA
Di-n-butyl phthalate	101	0	101	0%	NA	NA	0	NA
Di-n-octyl phthalate	101	0	101	0%	NA	NA	0	NA
Fluoranthene	118	65	53	55%	8.20E-04	7.4	0	0%
Fluorene	118	33	85	28%	0.0012	1.5	0	0%
Hexachlorobenzene	100	0	100	0%	NA	NA	0	NC
Hexachlorobutadiene	99	0	99	0%	NA	NA	0	NC
Hexachlorocyclopentadiene	100	0	100	0%	NA	NA	0	NC
Hexachloroethane	100	0	100	0%	NA	NA	0	NC
Indeno(1,2,3-cd)pyrene	118	27	91	23%	5.80E-04	1.73	0	0%

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	Number of Samples	Number of Detects	Number of Non-Detects	Freqency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[a]	Frequency of Detected Exceedances for All Samples
Isophorone	99	0	99	0%	NA	NA	0	NC
Naphthalene	118	33	85	28%	0.0042	0.72	0	0%
Nitrobenzene	100	0	100	0%	NA	NA	0	NC
N-Nitrosodimethylamine	29	0	29	0%	NA	NA	0	NC
N-Nitrosodiphenylamine	100	0	100	0%	NA	NA	0	NC
N-Nitrosodipropylamine	100	0	100	0%	NA	NA	0	NC
Pentachlorophenol	101	8	93	8%	0.0035	1.2	0	0%
Phenanthrene	118	67	51	57%	6.30E-04	4.9	0	0%
Phenol	101	2	99	2%	0.095	0.0967	0	0%
Pyrene	118	68	50	58%	0.0012	7.4	0	0%
Pyridine	29	0	29	0%	NA	NA	0	NC
Total Benzofluoranthenes	7	5	2	71%	0.037	0.32	0	0%
cPAH TEQ[e][l]	118	75	43	64%	0.00169	4.15	26	36%
TPH (mg/kg)								
Gasoline-Range Hydrocarbons	15	2	13	13%	8.1	118	1	50%
Diesel-Range Hydrocarbons	125	21	104	17%	11.9	5,800	2	10%
Lube Oil-Range Hydrocarbons	125	80	45	64%	24.4	170,000	22	28%
Diesel+Oil[f]	111	72	39	65%	21.8	170,000	34	41%
TPH with Silica-Gel Treatment (mg/kg)								
Diesel-Range Hydrocarbons	14	1	13	7%	173	173	0	0%
Lube Oil-Range Hydrocarbons	14	7	7	50%	57.6	16,200	4	57%
Diesel+Oil[f]	14	7	7	50%	70.1	16,500	4	57%

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Notes

cPAH = carcinogenic polycyclic aromatic hydrocarbon.

mg/kg = milligrams per kilogram.

MTCA = Model Toxics Control Act.

NA = not applicable.

NC = not calculated.

PAH = polycyclic aromatic hydrocarbons.

PCB = polychlorinated biphenyl.

pg/g = picograms per gram.

SVOC = semivolatile organic compound.

TEQ = toxicity equivalence.

TPH = total petroleum hydrocarbons.

VOC = volatile organic compound.

[a]Screening levels are the lowest regulatory criteria value for the given matrix, selected from soil MTCA Method A unrestricted land use where available, or MTCA Method B (the lowest of cancer and noncancer values) where MTCA Method A is not available. Where a summation is performed (except Diesel+Oil and total xylenes), data are not screened to MTCA values for individual analytes; data are only screened to the MTCA value for the summation.

[b]Total PCBs are the sum of all PCB Aroclors. Non-detect results are not included in the sum. When all results are non-detect, the highest reporting limit or detection limit is used.

[c]Dioxin/furan TEQ is calculated with 2005 World Health Organization mammal toxicity equivalence factors (Van den Berg et al. 2006). Non-detect results are included at one-half the detection limit. When all dioxin and furan results are non-detect, the TEQ is shown as "ND."

[d]Total xylenes are reported from the laboratory or are the sum of o-xylene and m,p-xylene. Non-detect results are summed at one-half the reporting limit or detection limit. When all results are non-detect, the highest reporting limit or detection limit is used.

[e]cPAH TEQ is calculated with toxicity equivalence factors from Washington Ecology Evaluating the Human Heath Toxicity of Carcinogenic PAHs Using Toxicity Equivalence Factors (Ecology 2015). Non-detect results are included at one-half the detection limit or reporting limit. When all cPAHs are non-detect, the highest reported detection limit or reporting limit is shown.

[f]Diesel+oil is the sum of diesel- and lube-oil-range hydrocarbon results. Non-detect results are summed at one-half the reporting limit or detection limit. When both results are non-detect, the highest reporting limit or detection limit is used.

References

[1]Ecology. 2015. *Implementation Memorandum #10: Evaluating the Human Health Toxicity of Carcinogenic PAHs (cPAHs) Using Toxicity Equivalency Factors (TEFs)*. Publication No. 15-09-049. Washington State Department of Ecology, Toxics Cleanup Program. April 20.

[2]Van den Berg, M., L. S. Birnbaum, M. Denison, M. De Vito, W. Farland, and M. Feeley. 2006. "The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds." *Toxicological Sciences* 93(2): 223–41.

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
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Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU1-01	RAU1-02	RAU1-03	RAU1-04		RAU1-05		RAU1-06		RAU1-07	RAU1-08	
Sample Name:			RAU1-01-SO-2.4	RAU1-02-SO-1	RAU1-03-SO-2.2	RAU1-04-SO-0.25	RAU1-04-SO-1.3	RAU1-05-SO-0.25	RAU1-05-SO-1.5	RAU1-06-SO-1.75	RAU1-06-SO-3.5	RAU1-07-SO-1.8	RAU1-08-SO-2.0	RAU1-08-SO-7.0
Collection Date:			12/2/2019	12/2/2019	12/3/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/3/2019	12/3/2019	12/2/2019	12/4/2019	12/4/2019
Collection Depth (ft bgs):			1.8-3	0.5-1.5	1.9-2.5	0-0.5	1-1.5	0-0.5	1-2	1.5-2	3-4	1-2.5	1.5-2.5	6.5-7.5
Total Metals (mg/kg)														
Arsenic	20	8.47	2.78	1.05 J	0.998 J	--	5.79	--	1.48	--	1.07 J	2.48	3.55	--
Cadmium	2	0.1	0.119 U	0.116 U	0.121 U	--	0.169 J	--	0.109 U	--	0.13 U	0.118 U	0.161 J	--
Chromium	2,000[b]	78.5	38.1	8.45	5.5	--	11.2	--	15.5	--	11.8	25.1	51.7	--
Chromium, hexavalent	19	NV	--	--	--	--	--	--	--	--	--	--	0.667	--
Copper	3,200	52.9	20.8	30.9	12.4	--	35.1	--	60.3	--	11.4	43.3	57	--
Lead	250	10.9	2.75	2.76	2.3	--	16.8	--	4.68	--	3.65	6.87	14.1	--
Manganese	3,700	691.8	217	290	219	--	140	--	421	--	291	351	291	--
Mercury	2	NV	0.0477 U	0.0466 U	0.0483 U	--	0.0855 J	--	0.0435 U	--	0.0518 U	0.261 J	0.0784 J	--
Nickel	1,600	54.2	22.5	11.8	4.51	--	11.6	--	23.7	--	6.12	27.6	35	--
Zinc	24,000	85.6	49.5	36.3	39.1	--	185	--	74.4	--	52.1	52.9	89.7	--
TCLP Metals (mg/L)														
Lead	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
PCBs (mg/kg)														
Aroclor 1016	NA	NA	0.00226 U	0.00233 UJ	--	--	0.00313 U	--	0.00207 U	--	--	--	--	--
Aroclor 1221	NV	NA	0.00226 U	0.00233 UJ	--	--	0.00313 U	--	0.00207 U	--	--	--	--	--
Aroclor 1232	NV	NA	0.00226 U	0.00233 UJ	--	--	0.00313 U	--	0.00207 U	--	--	--	--	--
Aroclor 1242	NV	NA	0.00226 U	0.00233 UJ	--	--	0.00313 U	--	0.00207 U	--	--	--	--	--
Aroclor 1248	NV	NA	0.00226 U	0.00233 UJ	--	--	0.00313 U	--	0.00207 U	--	--	--	--	--
Aroclor 1254	NA	NA	0.00226 U	0.00233 U	--	--	0.00313 U	--	0.00207 U	--	--	--	--	--
Aroclor 1260	NA	NA	0.00226 U	0.00233 U	--	--	0.00833	--	0.00207 U	--	--	--	--	--
Total PCBs[c]	1	NA	0.00226 U	0.00233 UJ	--	--	0.00833	--	0.00207 U	--	--	--	--	--
Dioxins/Furans (pg/g)														
1,2,3,4,6,7,8-HpCDD	NV	NA	--	--	--	764	--	62 J	--	62 U	--	--	--	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--	--	--	73.2	--	7.53 J	--	62.2 U	--	--	--	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--	--	--	4.43 J	--	64.7 U	--	62.2 U	--	--	--	--
1,2,3,4,7,8-HxCDD	NV	NA	--	--	--	5.45 UJK	--	64.7 U	--	62.2 U	--	--	--	--
1,2,3,4,7,8-HxCDF	NV	NA	--	--	--	7.3 J	--	1.16 UJK	--	62.2 U	--	--	--	--
1,2,3,6,7,8-HxCDD	NV	NA	--	--	--	27.4 J	--	2.25 J	--	62.2 U	--	--	--	--
1,2,3,6,7,8-HxCDF	NV	NA	--	--	--	3.6 UJK	--	64.7 U	--	62.2 U	--	--	--	--
1,2,3,7,8,9-HxCDD	NV	NA	--	--	--	9.85 J	--	64.7 U	--	62.2 U	--	--	--	--
1,2,3,7,8,9-HxCDF	NV	NA	--	--	--	60.8 U	--	64.7 U	--	62.2 U	--	--	--	--
1,2,3,7,8-PeCDD	NV	NA	--	--	--	60.8 U	--	64.7 U	--	62.2 U	--	--	--	--
1,2,3,7,8-PeCDF	NV	NA	--	--	--	2.12 J	--	64.7 U	--	62.2 U	--	--	--	--
2,3,4,6,7,8-HxCDF	NV	NA	--	--	--	4.55 J	--	0.957 UJK	--	62.2 U	--	--	--	--
2,3,4,7,8-PeCDF	NV	NA	--	--	--	4.11 J	--	64.7 U	--	62.2 U	--	--	--	--
2,3,7,8-TCDD	NA	NA	--	--	--	12.2 U	--	12.9 U	--	12.4 U	--	--	--	--
2,3,7,8-TCDF	NV	NA	--	--	--	2.31 UJK	--	12.9 U	--	12.4 U	--	--	--	--
OCDD	NV	NA	--	--	--	9,120	--	695	--	20.3 UJK	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
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Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU1-01	RAU1-02	RAU1-03	RAU1-04		RAU1-05		RAU1-06		RAU1-07	RAU1-08	
Sample Name:			RAU1-01-SO-2.4	RAU1-02-SO-1	RAU1-03-SO-2.2	RAU1-04-SO-0.25	RAU1-04-SO-1.3	RAU1-05-SO-0.25	RAU1-05-SO-1.5	RAU1-06-SO-1.75	RAU1-06-SO-3.5	RAU1-07-SO-1.8	RAU1-08-SO-2.0	RAU1-08-SO-7.0
Collection Date:			12/2/2019	12/2/2019	12/3/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/3/2019	12/3/2019	12/2/2019	12/4/2019	12/4/2019
Collection Depth (ft bgs):			1.8-3	0.5-1.5	1.9-2.5	0-0.5	1-1.5	0-0.5	1-2	1.5-2	3-4	1-2.5	1.5-2.5	6.5-7.5
OCDF	NV	NA	--	--	--	196	--	11.7 J	--	124 U	--	--	--	--
Total HpCDDs	NV	NA	--	--	--	1,790	--	150 J	--	62.2 U	--	--	--	--
Total HpCDFs	NV	NA	--	--	--	273 J	--	22.1 J	--	62.2 U	--	--	--	--
Total HxCDDs	NA	NA	--	--	--	159 UJK	--	22.8 J	--	62.2 U	--	--	--	--
Total HxCDFs	NV	NA	--	--	--	126 UJK	--	12.1 UJK	--	62.2 U	--	--	--	--
Total PeCDDs	NV	NA	--	--	--	6.83 UJK	--	1.89 UJK	--	62.2 U	--	--	--	--
Total PeCDFs	NV	NA	--	--	--	54.8 UJK	--	7.11 UJK	--	1.47 UJK	--	--	--	--
Total TCDDs	NV	NA	--	--	--	3.67 UJK	--	12.9 U	--	12.4 U	--	--	--	--
Total TCDFs	NV	NA	--	--	--	6.27 UJK	--	4.71 UJK	--	12.4 U	--	--	--	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--	--	--	57.5 J	--	64.6 J	--	ND	--	--	--	--
VOCs (mg/kg)														
1,1,1,2-Tetrachloroethane	38	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
1,1,1-Trichloroethane	2	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
1,1,2,2-Tetrachloroethane	5	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
1,1,2-Trichloroethane	18	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
1,1-Dichloroethane	180	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
1,1-Dichloroethene	4,000	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
1,1-Dichloropropene	NV	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
1,2,3-Trichlorobenzene	64	NA	0.137 U	0.147 U	--	--	0.313 U	--	0.155 U	--	0.232 U	0.185 U	--	--
1,2,3-Trichloropropane	0.0063	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
1,2,4-Trichlorobenzene	34	NA	0.137 U	0.147 U	--	--	0.313 U	--	0.155 U	--	0.232 U	0.185 U	--	--
1,2,4-Trimethylbenzene	800	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
1,2-Dibromo-3-chloropropane	0.23	NA	0.137 U	0.147 U	--	--	0.313 U	--	0.155 U	--	0.232 U	0.185 U	--	--
1,2-Dibromoethane	0.005	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
1,2-Dichlorobenzene	7,200	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
1,2-Dichloroethane	11	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
1,2-Dichloropropane	27	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
1,3,5-Trimethylbenzene	800	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
1,3-Dichlorobenzene	NV	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
1,3-Dichloropropane	1,600	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
1,4-Dichlorobenzene	190	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
2,2-Dichloropropane	NV	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
2-Butanone	48,000	NA	0.275 U	0.294 U	--	--	0.625 U	--	0.31 U	--	0.464 U	0.37 U	--	--
2-Chlorotoluene	1,600	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
2-Hexanone	400	NA	0.275 U	0.294 U	--	--	0.625 U	--	0.31 U	--	0.464 U	0.37 U	--	--
4-Chlorotoluene	1,600	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
4-Isopropyltoluene	NV	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
4-Methyl-2-pentanone	6,400	NA	0.275 U	0.294 U	--	--	0.625 U	--	0.31 U	--	0.464 U	0.37 U	--	--
Acetone	72,000	NA	0.549 U	0.588 U	--	--	1.25 U	--	0.62 U	--	0.929 U	0.74 U	--	--
Acrylonitrile	1.9	NA	0.0549 U	0.0588 U	--	--	0.125 U	--	0.062 U	--	0.0929 U	0.074 U	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU1-01	RAU1-02	RAU1-03	RAU1-04		RAU1-05		RAU1-06		RAU1-07	RAU1-08	
Sample Name:			RAU1-01-SO-2.4	RAU1-02-SO-1	RAU1-03-SO-2.2	RAU1-04-SO-0.25	RAU1-04-SO-1.3	RAU1-05-SO-0.25	RAU1-05-SO-1.5	RAU1-06-SO-1.75	RAU1-06-SO-3.5	RAU1-07-SO-1.8	RAU1-08-SO-2.0	RAU1-08-SO-7.0
Collection Date:			12/2/2019	12/2/2019	12/3/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/3/2019	12/3/2019	12/2/2019	12/4/2019	12/4/2019
Collection Depth (ft bgs):			1.8-3	0.5-1.5	1.9-2.5	0-0.5	1-1.5	0-0.5	1-2	1.5-2	3-4	1-2.5	1.5-2.5	6.5-7.5
Benzene	0.03	NA	0.00549 U	0.00588 U	--	--	0.0125 U	--	0.0062 U	--	0.00929 U	0.0074 U	--	--
Bromobenzene	640	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
Bromodichloromethane	16	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
Bromoform	130	NA	0.0549 U	0.0588 U	--	--	0.125 U	--	0.062 U	--	0.0929 U	0.074 U	--	--
Bromomethane	110	NA	0.549 U	0.588 U	--	--	1.25 U	--	0.62 U	--	0.929 U	0.74 U	--	--
Carbon disulfide	8,000	NA	0.275 U	0.294 U	--	--	0.625 U	--	0.31 U	--	0.464 U	0.37 U	--	--
Carbon tetrachloride	14	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
Chlorobenzene	1,600	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
Chlorobromomethane	NV	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
Chloroethane	NV	NA	0.549 UJ	0.588 UJ	--	--	0.625 U	--	0.62 UJ	--	0.929 UJ	0.74 UJ	--	--
Chloroform	32	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
Chloromethane	NV	NA	0.275 UJ	0.294 UJ	--	--	0.625 UJ	--	0.31 UJ	--	0.464 UJ	0.37 UJ	--	--
cis-1,2-Dichloroethene	160	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
cis-1,3-Dichloropropene	NV	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
Dibromochloromethane	12	NA	0.0549 U	0.0588 U	--	--	0.125 U	--	0.062 U	--	0.0929 U	0.074 U	--	--
Dibromomethane	800	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
Dichlorodifluoromethane (Freon 12)	16,000	NA	0.0549 UJ	0.0588 UJ	--	--	0.25 UJ	--	0.062 UJ	--	0.0929 UJ	0.074 UJ	--	--
Ethylbenzene	6	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
Hexachlorobutadiene	13	NA	0.0549 U	0.0588 U	--	--	0.125 U	--	0.062 U	--	0.0929 U	0.074 U	--	--
Isopropylbenzene	8,000	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
m,p-Xylene	NV	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
Methyl tert-butyl ether	0.1	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
Methylene chloride	0.02	NA	0.137 U	0.147 U	--	--	0.313 U	--	0.155 U	--	0.232 U	0.37 U	--	--
Naphthalene	5	NA	0.0549 U	0.0588 U	--	--	0.125 U	--	0.062 U	--	0.0929 U	0.074 U	--	--
n-Butylbenzene	4,000	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
n-Propylbenzene	8,000	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
o-Xylene	16,000	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
sec-Butylbenzene	8,000	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
Styrene	16,000	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
tert-Butylbenzene	8,000	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
Tetrachloroethene	0.05	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
Toluene	7	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
trans-1,2-Dichloroethene	1,600	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
trans-1,3-Dichloropropene	NV	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--
Trichloroethene	0.03	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
Trichlorofluoromethane (Freon 11)	24,000	NA	0.11 U	0.118 U	--	--	0.125 U	--	0.124 U	--	0.186 U	0.148 U	--	--
Vinyl chloride	0.67	NA	0.0137 U	0.0147 U	--	--	0.0313 U	--	0.0155 U	--	0.0232 U	0.0185 U	--	--
Xylenes, total[e]	9	NA	0.0275 U	0.0294 U	--	--	0.0625 U	--	0.031 U	--	0.0464 U	0.037 U	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU1-01	RAU1-02	RAU1-03	RAU1-04		RAU1-05		RAU1-06		RAU1-07	RAU1-08	
Sample Name:			RAU1-01-SO-2.4	RAU1-02-SO-1	RAU1-03-SO-2.2	RAU1-04-SO-0.25	RAU1-04-SO-1.3	RAU1-05-SO-0.25	RAU1-05-SO-1.5	RAU1-06-SO-1.75	RAU1-06-SO-3.5	RAU1-07-SO-1.8	RAU1-08-SO-2.0	RAU1-08-SO-7.0
Collection Date:			12/2/2019	12/2/2019	12/3/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/3/2019	12/3/2019	12/2/2019	12/4/2019	12/4/2019
Collection Depth (ft bgs):			1.8-3	0.5-1.5	1.9-2.5	0-0.5	1-1.5	0-0.5	1-2	1.5-2	3-4	1-2.5	1.5-2.5	6.5-7.5
SVOCs (mg/kg)														
1,2,4-Trichlorobenzene	34	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
1,2-Dichlorobenzene	7,200	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
1,2-Dinitrobenzene	8	NA	0.0397 U	1.5 U	0.0373 U	--	5.43 U	--	7.34 U	--	0.859 U	3.88 U	7.62 U	1.9 U
1,3-Dichlorobenzene	NV	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
1,3-Dinitrobenzene	8	NA	0.0397 U	1.5 U	0.0373 U	--	5.43 U	--	7.34 U	--	0.859 U	3.88 U	7.62 U	1.9 U
1,4-Dichlorobenzene	190	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
1,4-Dinitrobenzene	8	NA	0.0397 U	1.5 U	0.0373 U	--	5.43 U	--	7.34 U	--	0.859 U	3.88 U	7.62 U	1.9 U
1-Methylnaphthalene	34	NA	0.00318 U	0.12 U	0.00299 U	--	0.501 J	--	0.589 U	--	0.0689 U	0.311 U	0.611 U	0.152 U
2,3,4,6-Tetrachlorophenol	2,400	NA	0.00795 U	0.3 U	0.00746 U	--	1.09 U	--	1.47 U	--	0.172 U	0.777 U	1.53 U	0.381 U
2,3,5,6-Tetrachlorophenol	NV	NA	0.00795 U	0.3 U	0.00746 U	--	1.09 U	--	1.47 U	--	0.172 U	0.777 U	1.53 U	0.381 U
2,4,5-Trichlorophenol	8,000	NA	0.00795 U	0.3 U	0.00746 U	--	1.09 U	--	1.47 U	--	0.172 U	0.777 U	1.53 U	0.381 U
2,4,6-Trichlorophenol	80	NA	0.00795 U	0.3 U	0.00746 U	--	1.09 U	--	1.47 U	--	0.172 U	0.777 U	1.53 U	0.381 U
2,4-Dichlorophenol	240	NA	0.00795 U	0.3 U	0.00746 U	--	1.09 U	--	1.47 U	--	0.172 U	0.777 U	1.53 U	0.381 U
2,4-Dimethylphenol	1,600	NA	0.00795 U	0.3 U	0.00746 U	--	1.09 U	--	1.47 U	--	0.172 U	0.777 U	1.53 U	0.381 U
2,4-Dinitrophenol	160	NA	0.0397 U	1.5 U	0.0373 U	--	5.43 U	--	7.34 U	--	0.859 U	3.88 U	7.62 U	1.9 U
2,4-Dinitrotoluene	3.2	NA	0.0159 U	0.598 U	0.0149 U	--	2.17 U	--	2.93 U	--	0.343 U	1.55 U	3.04 U	0.76 U
2,6-Dinitrotoluene	0.67	NA	0.0159 U	0.598 U	0.0149 U	--	2.17 U	--	2.93 U	--	0.343 U	1.55 U	3.04 U	0.76 U
2-Chloronaphthalene	6,400	NA	0.00159 U	0.0598 U	0.00149 U	--	0.217 U	--	0.293 U	--	0.0343 U	0.155 U	0.304 U	0.076 U
2-Chlorophenol	400	NA	0.00795 U	0.3 U	0.00746 U	--	1.09 U	--	1.47 U	--	0.172 U	0.777 U	1.53 U	0.381 U
2-Methylnaphthalene	320	NA	0.00318 U	0.12 U	0.00299 U	--	0.87	--	0.589 U	--	0.0689 U	0.311 U	0.611 U	0.173 J
2-Methylphenol	4,000	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
2-Nitroaniline	800	NA	0.0318 U	1.2 U	0.0299 U	--	4.35 U	--	5.89 U	--	0.689 U	3.11 U	6.11 U	1.52 U
2-Nitrophenol	NV	NA	0.0159 U	0.598 U	0.0149 U	--	2.17 U	--	2.93 U	--	0.343 U	1.55 U	3.04 U	0.76 U
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
3,3-Dichlorobenzidine	2.2	NA	0.0318 UJ	1.2 UJ	0.0299 UJ	--	4.35 UJ	--	5.89 UJ	--	0.689 UJ	3.11 U	6.11 U	1.52 U
3-Nitroaniline	NV	NA	0.0318 U	1.2 U	0.0299 U	--	4.35 U	--	5.89 U	--	0.689 U	3.11 U	6.11 U	1.52 U
4,6-Dinitro-2-methylphenol	6.4	NA	0.0397 U	1.5 U	0.0373 U	--	5.43 U	--	7.34 U	--	0.859 U	3.88 U	7.62 U	1.9 U
4-Bromophenylphenyl ether	NV	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
4-Chloro-3-methylphenol	8,000	NA	0.0159 U	0.598 U	0.0149 U	--	2.17 U	--	2.93 U	--	0.343 U	1.55 U	3.04 U	0.76 U
4-Chloroaniline	5	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
4-Chlorophenylphenyl ether	NV	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
4-Nitroaniline	50	NA	0.0318 U	1.2 U	0.0299 U	--	4.35 U	--	5.89 U	--	0.689 U	3.11 U	6.11 U	1.52 U
4-Nitrophenol	NV	NA	0.0318 U	0.598 U	0.0299 U	--	4.35 U	--	2.93 U	--	0.343 U	1.55 U	3.04 U	0.76 U
Acenaphthene	4,800	NA	0.00187 J	0.0598 U	0.00149 U	--	1.14	--	0.293 U	--	0.0343 U	0.155 U	0.304 U	0.152 U
Acenaphthylene	NV	NA	0.00159 U	0.0598 U	0.00149 U	--	0.217 U	--	0.293 U	--	0.0343 U	0.155 U	0.304 U	0.076 U
Aniline	180	NA	0.00795 U	0.3 U	0.00746 U	--	1.09 U	--	1.47 U	--	0.172 U	0.777 U	1.53 U	0.381 U
Anthracene	24,000	NA	0.00159 U	0.0598 U	0.00299 U	--	0.258 J	--	0.293 U	--	0.0343 U	0.155 U	0.304 U	0.076 U
Azobenzene	9.1	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
Benzo(a)anthracene	NV	NA	0.00159 U	0.0598 U	0.00149 U	--	0.366 J	--	0.293 U	--	0.0343 U	0.155 U	0.304 U	0.162 J

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU1-01	RAU1-02	RAU1-03	RAU1-04		RAU1-05		RAU1-06		RAU1-07	RAU1-08	
Sample Name:			RAU1-01-SO-2.4	RAU1-02-SO-1	RAU1-03-SO-2.2	RAU1-04-SO-0.25	RAU1-04-SO-1.3	RAU1-05-SO-0.25	RAU1-05-SO-1.5	RAU1-06-SO-1.75	RAU1-06-SO-3.5	RAU1-07-SO-1.8	RAU1-08-SO-2.0	RAU1-08-SO-7.0
Collection Date:			12/2/2019	12/2/2019	12/3/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/3/2019	12/3/2019	12/2/2019	12/4/2019	12/4/2019
Collection Depth (ft bgs):			1.8-3	0.5-1.5	1.9-2.5	0-0.5	1-1.5	0-0.5	1-2	1.5-2	3-4	1-2.5	1.5-2.5	6.5-7.5
Benzo(a)pyrene	NA	NA	0.00238 U	0.18 U	0.00224 U	--	0.451 J	--	0.441 U	--	0.0516 U	0.233 U	0.458 U	0.24 U
Benzo(b)fluoranthene	NV	NA	0.00249 J	0.0899 U	0.00224 U	--	0.729	--	0.441 U	--	0.0516 U	0.233 U	0.458 U	0.36 U
Benzo(ghi)perylene	NV	NA	0.00159 U	0.0598 U	0.00149 U	--	0.217 U	--	0.293 U	--	0.0343 U	0.155 U	0.304 U	0.76 U
Benzo(k)fluoranthene	NV	NA	0.00238 U	0.0899 U	0.00224 U	--	0.424 J	--	0.441 U	--	0.0516 U	0.233 U	0.458 U	0.228 U
Benzoic acid	320,000	NA	0.199 U	7.5 U	0.187 U	--	27.2 U	--	36.8 U	--	4.31 U	19.5 U	38.2 U	9.54 U
Benzyl alcohol	8,000	NA	0.00795 U	0.3 U	0.00746 U	--	1.09 U	--	1.47 U	--	0.172 U	0.777 U	1.53 U	0.381 U
Bis(2-chloro-1-methylethyl)ether	14	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
Bis(2-chloroethoxy)methane	240	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
Bis(2-chloroethyl)ether	0.91	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
Bis(2-ethylhexyl)phthalate	71	NA	0.0238 U	0.899 U	0.0224 U	--	3.26 U	--	4.41 U	--	0.516 U	2.33 U	4.58 U	1.14 U
Butylbenzylphthalate	530	NA	0.0159 U	0.598 U	0.0149 U	--	2.17 U	--	2.93 U	--	0.343 U	1.55 U	3.04 U	0.76 U
Carbazole	NV	NA	0.00238 U	0.0899 U	0.00224 U	--	0.326 U	--	0.441 U	--	0.0516 U	0.233 U	0.458 U	0.114 U
Chrysene	NV	NA	0.00159 U	0.0623 J	0.00149 U	--	0.634	--	0.293 U	--	0.0343 U	0.155 U	0.304 U	0.551
Di(2-ethylhexyl)adipate	830	NA	0.0397 U	1.5 U	0.0373 U	--	5.43 U	--	7.34 U	--	0.859 U	3.88 U	7.62 U	1.9 U
Dibenzo(a,h)anthracene	NV	NA	0.00159 U	0.0598 U	0.00149 U	--	0.217 U	--	0.293 U	--	0.0343 U	0.155 U	0.304 U	0.76 U
Dibenzofuran	80	NA	0.00159 U	0.0598 U	0.00149 U	--	0.575	--	0.293 U	--	0.0343 U	0.155 U	0.304 U	0.076 U
Diethyl phthalate	64,000	NA	0.0318 U	0.598 U	0.0299 U	--	2.17 U	--	2.93 U	--	0.343 U	1.55 U	3.04 U	0.76 U
Dimethyl phthalate	NV	NA	0.0159 U	0.598 U	0.0149 U	--	2.17 U	--	2.93 U	--	0.343 U	1.55 U	3.04 U	0.76 U
Di-n-butyl phthalate	8,000	NA	0.0318 U	0.598 U	0.0299 U	--	2.17 U	--	2.93 U	--	0.343 U	1.55 U	3.04 U	0.76 U
Di-n-octyl phthalate	800	NA	0.0159 U	0.598 U	0.0149 U	--	2.17 U	--	2.93 U	--	0.343 U	1.55 U	3.04 U	1.52 U
Fluoranthene	3,200	NA	0.00187 J	0.0598 U	0.00149 U	--	0.787	--	0.293 U	--	0.0349 J	0.155 U	0.304 U	0.317
Fluorene	3,200	NA	0.00175 J	0.0598 U	0.00149 U	--	0.85	--	0.293 U	--	0.0343 U	0.155 U	0.304 U	0.152 U
Hexachlorobenzene	0.63	NA	0.00159 U	0.0598 U	0.00149 U	--	0.217 U	--	0.293 U	--	0.0343 U	0.155 U	0.304 U	0.076 U
Hexachlorobutadiene	13	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
Hexachlorocyclopentadiene	480	NA	0.00795 U	0.3 U	0.00746 U	--	1.09 U	--	1.47 U	--	0.172 U	0.777 U	1.53 U	0.381 U
Hexachloroethane	25	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
Indeno(1,2,3-cd)pyrene	NV	NA	0.00159 U	0.0598 U	0.00149 U	--	0.217 U	--	0.293 U	--	0.0343 U	0.155 U	0.304 U	0.76 U
Isophorone	1,100	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.417 U
Naphthalene	5	NA	0.00651	0.12 U	0.00299 U	--	0.72 J	--	0.589 U	--	0.0689 U	0.311 U	0.611 U	0.25 J
Nitrobenzene	160	NA	0.0159 U	0.598 U	0.0149 U	--	2.17 U	--	2.93 U	--	0.343 U	1.55 U	3.04 U	0.76 U
N-Nitrosodimethylamine	0.0037	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
N-Nitrosodiphenylamine	200	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.19 U
N-Nitrosodipropylamine	0.14	NA	0.00397 U	0.15 U	0.00373 U	--	0.543 U	--	0.734 U	--	0.0859 U	0.388 U	0.762 U	0.381 U
Pentachlorophenol	2.5	NA	0.0159 U	0.598 U	0.0149 U	--	2.17 U	--	2.93 U	--	0.343 U	1.55 U	3.04 U	1.52 U
Phenanthrene	NV	NA	0.00356	0.0598 U	0.00149 U	--	0.716	--	0.293 U	--	0.0536 J	0.155 U	0.304 U	0.447
Phenol	24,000	NA	0.00318 U	0.12 U	0.00596 U	--	0.435 U	--	0.589 U	--	0.0689 U	0.311 U	0.611 U	0.152 U
Pyrene	2,400	NA	0.00162 J	0.0598 U	0.00149 U	--	0.633	--	0.293 U	--	0.0343 U	0.155 U	0.304 U	0.446
Pyridine	80	NA	0.00795 U	0.3 U	0.00746 U	--	1.09 U	--	1.47 U	--	0.172 U	0.777 U	1.53 U	0.381 U
cPAH TEQ[f][5]	0.1	NA	0.0018 J	0.109 J	0.00224 U	--	0.631 J	--	0.441 U	--	0.0516 U	0.233 U	0.458 U	0.247 J

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU1-01	RAU1-02	RAU1-03	RAU1-04		RAU1-05		RAU1-06		RAU1-07	RAU1-08	
Sample Name:			RAU1-01-SO-2.4	RAU1-02-SO-1	RAU1-03-SO-2.2	RAU1-04-SO-0.25	RAU1-04-SO-1.3	RAU1-05-SO-0.25	RAU1-05-SO-1.5	RAU1-06-SO-1.75	RAU1-06-SO-3.5	RAU1-07-SO-1.8	RAU1-08-SO-2.0	RAU1-08-SO-7.0
Collection Date:			12/2/2019	12/2/2019	12/3/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/3/2019	12/3/2019	12/2/2019	12/4/2019	12/4/2019
Collection Depth (ft bgs):			1.8-3	0.5-1.5	1.9-2.5	0-0.5	1-1.5	0-0.5	1-2	1.5-2	3-4	1-2.5	1.5-2.5	6.5-7.5
Hydrocarbon Identification (Detect/Non-Detect)														
Gasoline	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
TPH (mg/kg)														
Gasoline-Range Hydrocarbons	100	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	2,000	NA	11.6 U	57.7 U	13.2 J		16.6 U		1,110 U		12.9 U	56.5 U	107 U	277 U
Lube Oil-Range Hydrocarbons	2,000	NA	30.9 J	1,280	22.5 U		1,380		8,260		483	3,270	8,890	9,950
Diesel+Oil[g]	2,000	NA	36.7 J	1,310	24.5 J	--	1,390	--	8,820	--	489	3,300	8,940	10,100
TPH with Silica-Gel Treatment (mg/kg)														
Diesel-Range Hydrocarbons	2,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil-Range Hydrocarbons	2,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel+Oil[g]	2,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon (mg/kg)														
Total Organic Carbon	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU1-09	RAU1-10	RAU1-11	RAU1-12	RAU1-13	RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	
Sample Name:			RAU1-09-SO-1.5	RAU1-10-SO-2.0	RAU1-11-SO-3.5	RAU1-12-SO-2.7	RAU1-13-SO-3.5	RAU1-14-SO-3.5	RAU2-01-SO-3.5	RAU2-02-SO-2.5	RAU2-03-SO-3	RAU2-04-SO-4.5	RAU2-05-SO-2.5	RAU2-05-SO-2.5 DUP
Collection Date:			12/3/2019	12/4/2019	12/3/2019	12/3/2019	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019
Collection Depth (ft bgs):			1-2	1.5-2.5	2.5-4.5	2-3.5	3-4	3-4	3-4	2-3	3-4	4-5	1.5-3.5	1.5-3.5
Total Metals (mg/kg)														
Arsenic	20	8.47	2.29	0.975 J	6.21	0.998 J	--	--	1.11 J	1.05 J	1.51	1.77	1.43	1.47
Cadmium	2	0.1	0.167 J	0.106 U	0.123 U	0.111 U	--	--	0.133 J	0.118 U	0.123 U	0.112 U	0.12 U	0.129 U
Chromium	2,000[b]	78.5	24.1	22	23.8	14.7	--	--	44.8	21.7	29.6	36.8	30.5	33.2
Chromium, hexavalent	19	NV	--	--	--	--	--	--	--	--	--	--	--	--
Copper	3,200	52.9	51.2	57.2	42.9 J	30.4	--	--	60	32.1	80.2	61.1	51.9	52.7
Lead	250	10.9	26.5	2.99	12.4	3.29	--	--	2.99	10.7	4.02	3.32	3.44 J	16 J
Manganese	3,700	691.8	358	272	258	323	--	--	707	275	772	545	690	764
Mercury	2	NV	0.299	0.0426 U	0.0493 U	0.0446 U	--	--	0.0527 U	0.0472 U	0.445	0.0447 U	0.048 U	0.0604 J
Nickel	1,600	54.2	29.1	24.8	24.9	13.5	--	--	31.5	19.6	31.8	31	29.3	28.8
Zinc	24,000	85.6	166	35.6	61.1	42.2	--	--	51.2	45.1	49.7	47.4	46.4	47.9
TCLP Metals (mg/L)														
Lead	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
PCBs (mg/kg)														
Aroclor 1016	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1221	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1232	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1242	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1248	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1254	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1260	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PCBs[c]	1	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dioxins/Furans (pg/g)														
1,2,3,4,6,7,8-HpCDD	NV	NA	--	21	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--	4.31 J	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--	0.409 UJK	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	NV	NA	--	4.8 U	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	NV	NA	--	0.238 UJ	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	NV	NA	--	1.26 J	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	NV	NA	--	0.169 UJ	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	NV	NA	--	0.563 UJ	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	NV	NA	--	4.8 U	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	NV	NA	--	4.8 U	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	NV	NA	--	4.8 U	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	NV	NA	--	0.227 UJK	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	NV	NA	--	4.8 U	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	NA	NA	--	0.177 UJK	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	NV	NA	--	0.961 U	--	--	--	--	--	--	--	--	--	--
OCDD	NV	NA	--	189	--	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU1-09	RAU1-10	RAU1-11	RAU1-12	RAU1-13	RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	
Sample Name:			RAU1-09-SO-1.5	RAU1-10-SO-2.0	RAU1-11-SO-3.5	RAU1-12-SO-2.7	RAU1-13-SO-3.5	RAU1-14-SO-3.5	RAU2-01-SO-3.5	RAU2-02-SO-2.5	RAU2-03-SO-3	RAU2-04-SO-4.5	RAU2-05-SO-2.5	RAU2-05-SO-2.5 DUP
Collection Date:			12/3/2019	12/4/2019	12/3/2019	12/3/2019	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019
Collection Depth (ft bgs):			1-2	1.5-2.5	2.5-4.5	2-3.5	3-4	3-4	3-4	2-3	3-4	4-5	1.5-3.5	1.5-3.5
OCDF	NV	NA	--	13.9	--	--	--	--	--	--	--	--	--	--
Total HpCDDs	NV	NA	--	38	--	--	--	--	--	--	--	--	--	--
Total HpCDFs	NV	NA	--	22.9 UJK	--	--	--	--	--	--	--	--	--	--
Total HxCDDs	NA	NA	--	6.72 J	--	--	--	--	--	--	--	--	--	--
Total HxCDFs	NV	NA	--	6.22 UJK	--	--	--	--	--	--	--	--	--	--
Total PeCDDs	NV	NA	--	0.519 UJ	--	--	--	--	--	--	--	--	--	--
Total PeCDFs	NV	NA	--	1.69 J	--	--	--	--	--	--	--	--	--	--
Total TCDDs	NV	NA	--	1.25 UJK	--	--	--	--	--	--	--	--	--	--
Total TCDFs	NV	NA	--	1.25 UJK	--	--	--	--	--	--	--	--	--	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--	4.31 J	--	--	--	--	--	--	--	--	--	--
VOCs (mg/kg)														
1,1,1,2-Tetrachloroethane	38	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	2	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	5	NA	0.0261 U	--	0.0323 U	0.058 U	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	18	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
1,1-Dichloroethane	180	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
1,1-Dichloroethene	4,000	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
1,1-Dichloropropene	NV	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	64	NA	0.13 U	--	0.161 U	0.145 U	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	0.0063	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	34	NA	0.13 U	--	0.161 U	0.145 U	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	800	NA	0.0512 J	--	0.0323 U	0.855	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.23	NA	0.13 U	--	0.161 U	0.145 U	--	--	--	--	--	--	--	--
1,2-Dibromoethane	0.005	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	7,200	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
1,2-Dichloroethane	11	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
1,2-Dichloropropane	27	NA	0.013 U	--	0.0161 U	0.058 U	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	800	NA	0.0261 U	--	0.0323 U	0.145	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
1,3-Dichloropropane	1,600	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
2,2-Dichloropropane	NV	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
2-Butanone	48,000	NA	0.261 U	--	0.323 U	0.29 U	--	--	--	--	--	--	--	--
2-Chlorotoluene	1,600	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
2-Hexanone	400	NA	0.261 U	--	0.323 U	0.29 U	--	--	--	--	--	--	--	--
4-Chlorotoluene	1,600	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NV	NA	0.0261 U	--	0.0323 U	0.0734	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	6,400	NA	0.261 U	--	0.323 U	0.29 U	--	--	--	--	--	--	--	--
Acetone	72,000	NA	0.522 U	--	0.645 U	0.58 U	--	--	--	--	--	--	--	--
Acrylonitrile	1.9	NA	0.0522 U	--	0.0645 U	0.058 U	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU1-09	RAU1-10	RAU1-11	RAU1-12	RAU1-13	RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	
Sample Name:			RAU1-09-SO-1.5	RAU1-10-SO-2.0	RAU1-11-SO-3.5	RAU1-12-SO-2.7	RAU1-13-SO-3.5	RAU1-14-SO-3.5	RAU2-01-SO-3.5	RAU2-02-SO-2.5	RAU2-03-SO-3	RAU2-04-SO-4.5	RAU2-05-SO-2.5	RAU2-05-SO-2.5 DUP
Collection Date:			12/3/2019	12/4/2019	12/3/2019	12/3/2019	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019
Collection Depth (ft bgs):			1-2	1.5-2.5	2.5-4.5	2-3.5	3-4	3-4	3-4	2-3	3-4	4-5	1.5-3.5	1.5-3.5
Benzene	0.03	NA	0.0474	--	0.00645 U	0.0111 J	--	--	--	--	--	--	--	--
Bromobenzene	640	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
Bromodichloromethane	16	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
Bromoform	130	NA	0.0522 U	--	0.0645 U	0.058 U	--	--	--	--	--	--	--	--
Bromomethane	110	NA	0.522 U	--	0.645 U	0.58 U	--	--	--	--	--	--	--	--
Carbon disulfide	8,000	NA	0.261 U	--	0.323 U	0.29 U	--	--	--	--	--	--	--	--
Carbon tetrachloride	14	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
Chlorobenzene	1,600	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
Chlorobromomethane	NV	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
Chloroethane	NV	NA	0.261 UJ	--	0.645 UJ	0.29 U	--	--	--	--	--	--	--	--
Chloroform	32	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
Chloromethane	NV	NA	0.13 UJ	--	0.323 UJ	0.145 U	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	160	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	NV	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
Dibromochloromethane	12	NA	0.0522 U	--	0.0645 U	0.058 U	--	--	--	--	--	--	--	--
Dibromomethane	800	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	16,000	NA	0.0522 UJ	--	0.0645 UJ	0.058 U	--	--	--	--	--	--	--	--
Ethylbenzene	6	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
Hexachlorobutadiene	13	NA	0.0522 U	--	0.0645 U	0.058 U	--	--	--	--	--	--	--	--
Isopropylbenzene	8,000	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
m,p-Xylene	NV	NA	0.244	--	0.0323 U	0.0531 J	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.1	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
Methylene chloride	0.02	NA	0.13 U	--	0.161 U	0.145 U	--	--	--	--	--	--	--	--
Naphthalene	5	NA	0.0522 U	--	0.103 J	0.204 J	--	--	--	--	--	--	--	--
n-Butylbenzene	4,000	NA	0.0261 U	--	0.0323 U	0.113 J	--	--	--	--	--	--	--	--
n-Propylbenzene	8,000	NA	0.013 U	--	0.0161 U	0.0586	--	--	--	--	--	--	--	--
o-Xylene	16,000	NA	0.0667	--	0.0161 U	0.058	--	--	--	--	--	--	--	--
sec-Butylbenzene	8,000	NA	0.0261 U	--	0.0323 U	0.0507 J	--	--	--	--	--	--	--	--
Styrene	16,000	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
tert-Butylbenzene	8,000	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
Tetrachloroethene	0.05	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
Toluene	7	NA	0.154	--	0.0323 U	0.0496 J	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	1,600	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	NV	NA	0.0261 U	--	0.0323 U	0.029 U	--	--	--	--	--	--	--	--
Trichloroethene	0.03	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	24,000	NA	0.0522 U	--	0.129 U	0.058 U	--	--	--	--	--	--	--	--
Vinyl chloride	0.67	NA	0.013 U	--	0.0161 U	0.0145 U	--	--	--	--	--	--	--	--
Xylenes, total[e]	9	NA	0.311	--	0.0323 U	0.111 J	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU1-09	RAU1-10	RAU1-11	RAU1-12	RAU1-13	RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	
Sample Name:			RAU1-09-SO-1.5	RAU1-10-SO-2.0	RAU1-11-SO-3.5	RAU1-12-SO-2.7	RAU1-13-SO-3.5	RAU1-14-SO-3.5	RAU2-01-SO-3.5	RAU2-02-SO-2.5	RAU2-03-SO-3	RAU2-04-SO-4.5	RAU2-05-SO-2.5	RAU2-05-SO-2.5 DUP
Collection Date:			12/3/2019	12/4/2019	12/3/2019	12/3/2019	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019
Collection Depth (ft bgs):			1-2	1.5-2.5	2.5-4.5	2-3.5	3-4	3-4	3-4	2-3	3-4	4-5	1.5-3.5	1.5-3.5
SVOCs (mg/kg)														
1,2,4-Trichlorobenzene	34	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
1,2-Dichlorobenzene	7,200	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
1,2-Dinitrobenzene	8	NA	3.52 U	1.39 U	1.45 U	0.721 U	--	--	0.0394 U	0.77 U	0.036 U	0.0377 U	0.0386 U	0.0387 U
1,3-Dichlorobenzene	NV	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
1,3-Dinitrobenzene	8	NA	3.52 U	1.39 U	1.45 U	0.721 U	--	--	0.0394 U	0.77 U	0.036 U	0.0377 U	0.0386 U	0.0387 U
1,4-Dichlorobenzene	190	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
1,4-Dinitrobenzene	8	NA	3.52 U	1.39 U	1.45 U	0.721 U	--	--	0.0394 U	0.77 U	0.036 U	0.0377 U	0.0386 U	0.0387 U
1-Methylnaphthalene	34	NA	0.282 U	0.626	0.116 U	0.0578 U	--	--	0.00415 J	0.0617 U	0.00289 U	0.00449 J	0.00309 U	0.0031 U
2,3,4,6-Tetrachlorophenol	2,400	NA	0.705 U	0.278 U	0.29 U	0.144 U	--	--	0.00789 U	0.154 U	0.00721 U	0.00755 U	0.00773 U	0.00775 U
2,3,5,6-Tetrachlorophenol	NV	NA	0.705 U	0.278 U	0.29 U	0.144 U	--	--	0.00789 U	0.154 U	0.00721 U	0.00755 U	0.00773 U	0.00775 U
2,4,5-Trichlorophenol	8,000	NA	0.705 U	0.278 U	0.29 U	0.144 U	--	--	0.00789 U	0.154 U	0.00721 U	0.00755 U	0.00773 U	0.00775 U
2,4,6-Trichlorophenol	80	NA	0.705 U	0.278 U	0.29 U	0.144 U	--	--	0.00789 U	0.154 U	0.00721 U	0.00755 U	0.00773 U	0.00775 U
2,4-Dichlorophenol	240	NA	0.705 U	0.278 U	0.29 U	0.144 U	--	--	0.00789 U	0.154 U	0.00721 U	0.00755 U	0.00773 U	0.00775 U
2,4-Dimethylphenol	1,600	NA	0.705 U	0.278 U	0.29 U	0.144 U	--	--	0.00789 U	0.154 U	0.00721 U	0.00755 U	0.00773 U	0.00775 U
2,4-Dinitrophenol	160	NA	3.52 U	1.39 U	1.45 U	0.721 U	--	--	0.0394 U	0.77 U	0.036 U	0.0377 U	0.0386 U	0.0387 U
2,4-Dinitrotoluene	3.2	NA	1.41 U	0.553 U	0.578 U	0.288 U	--	--	0.0157 U	0.308 U	0.0144 U	0.0151 U	0.0154 U	0.0155 U
2,6-Dinitrotoluene	0.67	NA	1.41 U	0.553 U	0.578 U	0.288 U	--	--	0.0157 U	0.308 U	0.0144 U	0.0151 U	0.0154 U	0.0155 U
2-Chloronaphthalene	6,400	NA	0.141 U	0.0553 U	0.0578 U	0.0288 U	--	--	0.00157 U	0.0308 U	0.00144 U	0.00151 U	0.00154 U	0.00155 U
2-Chlorophenol	400	NA	0.705 U	0.278 U	0.29 U	0.144 U	--	--	0.00789 U	0.154 U	0.00721 U	0.00755 U	0.00773 U	0.00775 U
2-Methylnaphthalene	320	NA	0.282 U	0.535	0.116 U	0.0662 J	--	--	0.00802	0.0617 U	0.00289 U	0.0054 J	0.00309 U	0.0031 U
2-Methylphenol	4,000	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
2-Nitroaniline	800	NA	2.82 U	1.11 U	1.16 U	0.578 U	--	--	0.0316 U	0.617 U	0.0289 U	0.0302 U	0.0309 U	0.031 U
2-Nitrophenol	NV	NA	1.41 U	0.553 U	0.578 U	0.288 U	--	--	0.0157 U	0.308 U	0.0144 U	0.0151 U	0.0154 U	0.0155 U
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
3,3-Dichlorobenzidine	2.2	NA	2.82 UJ	1.11 U	1.16 UJ	0.578 UJ	--	--	0.0316 U	0.617 U	0.0289 U	0.0302 U	0.0309 U	0.031 UJ
3-Nitroaniline	NV	NA	2.82 U	1.11 U	1.16 U	0.578 U	--	--	0.0316 U	0.617 U	0.0289 U	0.0302 U	0.0309 U	0.031 U
4,6-Dinitro-2-methylphenol	6.4	NA	3.52 U	1.39 U	1.45 U	0.721 U	--	--	0.0394 U	0.77 U	0.036 U	0.0377 U	0.0386 U	0.0387 U
4-Bromophenylphenyl ether	NV	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
4-Chloro-3-methylphenol	8,000	NA	1.41 U	0.553 U	0.578 U	0.288 U	--	--	0.0157 U	0.308 U	0.0144 U	0.0151 U	0.0154 U	0.0155 U
4-Chloroaniline	5	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
4-Chlorophenylphenyl ether	NV	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
4-Nitroaniline	50	NA	2.82 U	1.11 U	1.16 U	0.578 U	--	--	0.0316 U	0.617 U	0.0289 U	0.0302 U	0.0309 U	0.031 U
4-Nitrophenol	NV	NA	1.41 U	0.553 U	0.578 U	0.578 U	--	--	0.0157 U	0.308 U	0.0144 U	0.0302 U	0.0154 U	0.031 U
Acenaphthene	4,800	NA	0.141 U	0.988	0.108 J	0.0288 U	--	--	0.00471	0.0308 U	0.00144 U	0.00151 U	0.00154 U	0.00155 U
Acenaphthylene	NV	NA	0.141 U	0.0553 U	0.0578 U	0.0288 U	--	--	0.00157 U	0.0308 U	0.00144 U	0.00151 U	0.00154 U	0.00155 U
Aniline	180	NA	0.705 U	0.278 U	0.29 U	0.144 U	--	--	0.00789 U	0.154 U	0.00721 U	0.00755 U	0.00773 U	0.00775 U
Anthracene	24,000	NA	0.141 U	0.308	0.0578 U	0.0288 U	--	--	0.00177 J	0.0308 U	0.00144 U	0.00151 U	0.00154 U	0.00155 U
Azobenzene	9.1	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
Benzo(a)anthracene	NV	NA	0.587	0.157	0.0677 J	0.0288 U	--	--	0.00157 U	0.0308 U	0.00144 U	0.00151 U	0.00154 U	0.00155 U

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU1-09	RAU1-10	RAU1-11	RAU1-12	RAU1-13	RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	
Sample Name:			RAU1-09-SO-1.5	RAU1-10-SO-2.0	RAU1-11-SO-3.5	RAU1-12-SO-2.7	RAU1-13-SO-3.5	RAU1-14-SO-3.5	RAU2-01-SO-3.5	RAU2-02-SO-2.5	RAU2-03-SO-3	RAU2-04-SO-4.5	RAU2-05-SO-2.5	RAU2-05-SO-2.5 DUP
Collection Date:			12/3/2019	12/4/2019	12/3/2019	12/3/2019	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019
Collection Depth (ft bgs):			1-2	1.5-2.5	2.5-4.5	2-3.5	3-4	3-4	3-4	2-3	3-4	4-5	1.5-3.5	1.5-3.5
Benzo(a)pyrene	NA	NA	0.94	0.115 J	0.087 U	0.0433 U	--	--	0.00265 J	0.0462 U	0.00235 J	0.00226 U	0.00232 U	0.00262 J
Benzo(b)fluoranthene	NV	NA	1.09	0.107 J	0.174 U	0.0433 U	--	--	0.00236 U	0.0462 U	0.00225 J	0.00226 U	0.00232 U	0.00232 U
Benzo(ghi)perylene	NV	NA	0.549	0.0553 U	0.0578 U	0.0288 U	--	--	0.00157 U	0.0308 U	0.00144 U	0.00151 U	0.00154 U	0.00155 U
Benzo(k)fluoranthene	NV	NA	0.457 J	0.0832 U	0.087 U	0.0433 U	--	--	0.00236 U	0.0462 U	0.00216 U	0.00226 U	0.00232 U	0.00232 U
Benzoic acid	320,000	NA	17.7 U	6.95 U	7.26 U	3.61 U	--	--	0.197 U	3.86 U	0.181 U	0.189 U	0.194 U	0.194 U
Benzyl alcohol	8,000	NA	0.705 U	0.278 U	0.29 U	0.144 U	--	--	0.00789 U	0.154 U	0.00721 U	0.00755 U	0.00773 U	0.00775 U
Bis(2-chloro-1-methylethyl)ether	14	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
Bis(2-chloroethoxy)methane	240	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
Bis(2-chloroethyl)ether	0.91	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
Bis(2-ethylhexyl)phthalate	71	NA	2.12 U	0.832 U	0.87 U	0.433 U	--	--	0.0236 U	0.462 U	0.0216 U	0.0226 U	0.0232 U	0.0232 U
Butylbenzylphthalate	530	NA	1.41 U	0.553 U	0.578 U	0.288 U	--	--	0.0157 U	0.308 U	0.0144 U	0.0151 U	0.0154 U	0.0155 U
Carbazole	NV	NA	0.212 U	0.107 J	0.087 U	0.0433 U	--	--	0.00236 U	0.0462 U	0.00216 U	0.00226 U	0.00232 U	0.00232 U
Chrysene	NV	NA	0.681	0.107 J	0.169	0.0288 U	--	--	0.00157 U	0.0308 U	0.00144 U	0.00151 U	0.00154 U	0.00155 U
Di(2-ethylhexyl)adipate	830	NA	3.52 U	1.39 U	1.45 U	0.721 U	--	--	0.0394 U	0.77 U	0.036 U	0.0377 U	0.0386 U	0.0387 U
Dibenzo(a,h)anthracene	NV	NA	0.155 J	0.0553 U	0.0578 U	0.0288 U	--	--	0.00157 U	0.0308 U	0.00144 U	0.00151 U	0.00154 U	0.00155 U
Dibenzofuran	80	NA	0.141 U	0.323	0.0578 U	0.0288 U	--	--	0.00157 U	0.0308 U	0.00144 U	0.00151 U	0.00154 U	0.00155 U
Diethyl phthalate	64,000	NA	1.41 U	0.553 U	0.578 U	0.288 U	--	--	0.0157 U	0.308 U	0.0144 U	0.0151 U	0.0154 U	0.0155 U
Dimethyl phthalate	NV	NA	1.41 U	0.553 U	0.578 U	0.288 U	--	--	0.0157 U	0.308 U	0.0144 U	0.0151 U	0.0154 U	0.0155 U
Di-n-butyl phthalate	8,000	NA	1.41 U	0.553 U	0.578 U	0.288 U	--	--	0.0157 U	0.308 U	0.0144 U	0.0151 U	0.0154 U	0.031 U
Di-n-octyl phthalate	800	NA	1.41 U	0.553 U	0.578 U	0.288 U	--	--	0.0157 U	0.308 U	0.0144 U	0.0151 U	0.0154 U	0.0155 U
Fluoranthene	3,200	NA	0.434	0.591	0.0962 J	0.0288 U	--	--	0.00346	0.0308 U	0.00237 J	0.00151 U	0.00154 U	0.00155 U
Fluorene	3,200	NA	0.141 U	0.719	0.0822 J	0.0317 J	--	--	0.00221 J	0.0308 U	0.00144 U	0.0016 J	0.00154 U	0.00155 U
Hexachlorobenzene	0.63	NA	0.141 U	0.0553 U	0.0578 U	0.0288 U	--	--	0.00157 U	0.0308 U	0.00144 U	0.00151 U	0.00154 U	0.00155 U
Hexachlorobutadiene	13	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
Hexachlorocyclopentadiene	480	NA	0.705 U	0.278 U	0.29 U	0.144 U	--	--	0.00789 U	0.154 U	0.00721 U	0.00755 U	0.00773 U	0.00775 U
Hexachloroethane	25	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
Indeno(1,2,3-cd)pyrene	NV	NA	0.514	0.0553 U	0.0578 U	0.0288 U	--	--	0.00157 U	0.0308 U	0.00144 U	0.00151 U	0.00154 U	0.00155 U
Isophorone	1,100	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
Naphthalene	5	NA	0.282 U	0.124 J	0.116 U	0.0578 U	--	--	0.0335	0.0617 U	0.00663	0.00302 U	0.00309 U	0.0031 U
Nitrobenzene	160	NA	1.41 U	0.553 U	0.578 U	0.288 U	--	--	0.0157 U	0.308 U	0.0144 U	0.0151 U	0.0154 U	0.0155 U
N-Nitrosodimethylamine	0.0037	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
N-Nitrosodiphenylamine	200	NA	0.352 U	0.139 U	0.145 U	0.144 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
N-Nitrosodipropylamine	0.14	NA	0.352 U	0.139 U	0.145 U	0.0721 U	--	--	0.00394 U	0.077 U	0.0036 U	0.00377 U	0.00386 U	0.00387 U
Pentachlorophenol	2.5	NA	1.41 U	0.553 U	0.578 U	0.288 U	--	--	0.0157 U	0.308 U	0.0144 U	0.0151 U	0.0154 U	0.0155 U
Phenanthrene	NV	NA	0.31	1.65	0.261	0.0397 J	--	--	0.00994	0.0308 U	0.00335	0.00439	0.00154 U	0.00155 U
Phenol	24,000	NA	0.282 U	0.111 U	0.116 U	0.0578 U	--	--	0.00316 U	0.0617 U	0.00289 U	0.00302 U	0.00309 U	0.0031 U
Pyrene	2,400	NA	0.51	0.638	0.114 J	0.0288 U	--	--	0.00444	0.0308 U	0.00217 J	0.00151 U	0.00154 U	0.00155 U
Pyridine	80	NA	0.705 U	0.278 U	0.29 U	0.144 U	--	--	0.00789 U	0.154 U	0.00721 U	0.00755 U	0.00773 U	0.00775 U
cPAH TEQ[f][5]	0.1	NA	1.23 J	0.152 J	0.0708 J	0.0433 U	--	--	0.00313 J	0.0462 U	0.00291 J	0.00226 U	0.00232 U	0.00309 J

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU1-09	RAU1-10	RAU1-11	RAU1-12	RAU1-13	RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	
Sample Name:			RAU1-09-SO-1.5	RAU1-10-SO-2.0	RAU1-11-SO-3.5	RAU1-12-SO-2.7	RAU1-13-SO-3.5	RAU1-14-SO-3.5	RAU2-01-SO-3.5	RAU2-02-SO-2.5	RAU2-03-SO-3	RAU2-04-SO-4.5	RAU2-05-SO-2.5	RAU2-05-SO-2.5 DUP
Collection Date:			12/3/2019	12/4/2019	12/3/2019	12/3/2019	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019
Collection Depth (ft bgs):			1-2	1.5-2.5	2.5-4.5	2-3.5	3-4	3-4	3-4	2-3	3-4	4-5	1.5-3.5	1.5-3.5
Hydrocarbon Identification (Detect/Non-Detect)														
Gasoline	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
TPH (mg/kg)														
Gasoline-Range Hydrocarbons	100	NA	--	--	--	118 J	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	2,000	NA	210 U	180 J	11 U	10.5 U	25 U	25 U	11.6 U	111 U	10.3 U	10.8 U	11.9 U	11.4 U
Lube Oil-Range Hydrocarbons	2,000	NA	4,100	489 J	1,060	108	50 U	50 U	23.3 U	459	20.7 U	21.6 U	23.9 U	22.9 U
Diesel+Oil[g]	2,000	NA	4,210	669 J	1,070	113	50 U	50 U	23.3 U	515	20.7 U	21.6 U	23.9 U	22.9 U
TPH with Silica-Gel Treatment (mg/kg)														
Diesel-Range Hydrocarbons	2,000	NA	--	--	--	--	25 U	25 U	--	--	--	--	--	--
Lube Oil-Range Hydrocarbons	2,000	NA	--	--	--	--	50 U	50 U	--	--	--	--	--	--
Diesel+Oil[g]	2,000	NA	--	--	--	--	50 U	50 U	--	--	--	--	--	--
Total Organic Carbon (mg/kg)														
Total Organic Carbon	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU2-06	RAU2-07	RAU2-08	RAU2-09		RAU2-GA1			RAU2-GA2			RAU3-01
Sample Name:			RAU2-06-SO-1.3	RAU2-07-SO-1.5	RAU2-08-SO-2.0	RAU2-09-SO-1.5	RAU2-09-SO-8.0	RAU2-GA1-SO-3.25	RAU2-GA1-SO-5.75	RAU2-GA1-SO-8.25	RAU2-GA2-SO-3.25	RAU2-GA2-SO-5.75	RAU2-GA2-SO-8.25	RAU3-01-SO-2.0
Collection Date:			12/2/2019	12/5/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/5/2019
Collection Depth (ft bgs):			1-2.5	1-2	1.5-2.5	1-2	7.5-8.5	2.5-4	5-6.5	7.5-9	2.5-4	5-6.5	7.5-9	1.5-2.5
Total Metals (mg/kg)														
Arsenic	20	8.47	2.15	1.23	2.7	3.05	--	--	--	--	--	--	--	0.872 J
Cadmium	2	0.1	0.118 J	0.11 U	0.141 U	0.138 J	--	--	--	--	--	--	--	0.118 U
Chromium	2,000[b]	78.5	25.6	25	31.5	21	--	--	--	--	--	--	--	9.49
Chromium, hexavalent	19	NV	--	--	--	--	--	--	--	--	--	--	--	--
Copper	3,200	52.9	63.5	38.4	55.3	49.2	--	--	--	--	--	--	--	35.6
Lead	250	10.9	4.01	2.48	10	11.1 J	--	--	--	--	--	--	--	3.9
Manganese	3,700	691.8	826	258	887	316	--	--	--	--	--	--	--	206
Mercury	2	NV	0.0435 U	0.044 U	0.074 J	0.252 J	--	0.15	0.206	0.0898	0.259	0.182 J	0.0984 J	0.0474 U
Nickel	1,600	54.2	30.4	18.2	28.5	20.7	--	--	--	--	--	--	--	16.2
Zinc	24,000	85.6	50.6	30.6	53	86.9 J	--	--	--	--	--	--	--	48.2
TCLP Metals (mg/L)														
Lead	NV	NV	--	--	--	--	--	0.025 U	0.025 U	0.025 U	0.025 U	--	--	--
Mercury	NV	NV	--	--	--	--	--	0.0035 U	0.0035 U	0.0035 U	0.0035 U	--	--	--
PCBs (mg/kg)														
Aroclor 1016	NA	NA	--	--	0.00252 U	0.00539 U	--	0.00451 U	0.00498 U	0.00372 U	0.0106 U	0.0112 U	0.00898 UJ	--
Aroclor 1221	NV	NA	--	--	0.00252 U	0.00539 U	--	0.00451 U	0.00498 U	0.00372 U	0.0106 U	0.0112 U	0.00898 U	--
Aroclor 1232	NV	NA	--	--	0.00252 U	0.00539 U	--	0.00451 U	0.00498 U	0.00372 U	0.0106 U	0.0112 U	0.00898 U	--
Aroclor 1242	NV	NA	--	--	0.00252 U	0.00539 U	--	0.00451 U	0.00498 U	0.00372 U	0.0106 U	0.0112 U	0.00898 U	--
Aroclor 1248	NV	NA	--	--	0.00252 U	0.00539 U	--	0.00451 U	0.00498 U	0.00372 U	0.0106 U	0.0112 U	0.00898 U	--
Aroclor 1254	NA	NA	--	--	0.00304	0.00539 U	--	0.00451 U	0.00498 U	0.00372 U	0.0106 U	0.0112 U	0.00898 U	--
Aroclor 1260	NA	NA	--	--	0.00252 U	0.0134	--	0.00903 U	0.00995 U	0.00372 U	0.0601	0.0154	0.00898 U	--
Total PCBs[c]	1	NA	--	--	0.00304	0.0134	--	0.00903 U	0.00995 U	0.00372 U	0.0601	0.0154	0.00898 UJ	--
Dioxins/Furans (pg/g)														
1,2,3,4,6,7,8-HpCDD	NV	NA	--	--	--	--	--	18.5	7.57	4.47 J	1,940	148	33.1	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--	--	--	--	--	14.6	5.95	1.36 J	165	34.4	10.2	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--	--	--	--	--	0.415 UJK	0.322 J	0.103 UJK	8.3 J	1.69 J	9.76 U	--
1,2,3,4,7,8-HxCDD	NV	NA	--	--	--	--	--	4.98 U	0.162 UJ	0.111 UJ	9.26 J	15.8 U	9.76 U	--
1,2,3,4,7,8-HxCDF	NV	NA	--	--	--	--	--	0.61 J	0.772 J	0.115 UJ	10.7 J	2.14 J	0.503 UJ	--
1,2,3,6,7,8-HxCDD	NV	NA	--	--	--	--	--	1.61 J	1.13 J	0.994 J	60.4 J	7.08 J	2.21 J	--
1,2,3,6,7,8-HxCDF	NV	NA	--	--	--	--	--	0.457 UJ	0.583 UJ	0.127 UJ	72.3 U	1.18 UJK	9.76 U	--
1,2,3,7,8,9-HxCDD	NV	NA	--	--	--	--	--	0.869 UJK	0.604 UJ	1.07 J	12.9 J	3.16 J	2.06 J	--
1,2,3,7,8,9-HxCDF	NV	NA	--	--	--	--	--	0.223 UJ	0.259 UJ	4.87 U	72.3 U	15.8 U	9.76 U	--
1,2,3,7,8-PeCDD	NV	NA	--	--	--	--	--	0.566 UJ	0.703 J	0.505 UJ	6.96 J	1.21 J	9.76 U	--
1,2,3,7,8-PeCDF	NV	NA	--	--	--	--	--	4.98 U	0.183 UJ	0.119 UJ	2.86 UJK	1.16 UJK	9.76 U	--
2,3,4,6,7,8-HxCDF	NV	NA	--	--	--	--	--	0.7 J	0.887 J	0.191 UJK	7.24 UJK	1.85 J	0.57 UJK	--
2,3,4,7,8-PeCDF	NV	NA	--	--	--	--	--	1.28 J	1.78 J	0.323 UJ	6.7 J	1.59 UJK	9.76 U	--
2,3,7,8-TCDD	NA	NA	--	--	--	--	--	0.261 J	0.24 J	0.333 UJK	14.5 U	3.16 U	0.55 UJK	--
2,3,7,8-TCDF	NV	NA	--	--	--	--	--	0.347 J	0.388 J	0.37 J	3.78 J	1.34 J	0.804 UJK	--
OCDD	NV	NA	--	--	--	--	--	120	46.4	20.8	20,400	1,340	258	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU2-06	RAU2-07	RAU2-08	RAU2-09		RAU2-GA1			RAU2-GA2			RAU3-01
Sample Name:			RAU2-06-SO-1.3	RAU2-07-SO-1.5	RAU2-08-SO-2.0	RAU2-09-SO-1.5	RAU2-09-SO-8.0	RAU2-GA1-SO-3.25	RAU2-GA1-SO-5.75	RAU2-GA1-SO-8.25	RAU2-GA2-SO-3.25	RAU2-GA2-SO-5.75	RAU2-GA2-SO-8.25	RAU3-01-SO-2.0
Collection Date:			12/2/2019	12/5/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/5/2019
Collection Depth (ft bgs):			1-2.5	1-2	1.5-2.5	1-2	7.5-8.5	2.5-4	5-6.5	7.5-9	2.5-4	5-6.5	7.5-9	1.5-2.5
OCDF	NV	NA	--	--	--	--	--	14.3	6 J	1.83 J	621	68.6	15.5 J	--
Total HpCDDs	NV	NA	--	--	--	--	--	34.5	13.6	8.74 J	4,730 J	284 J	62.3 UJK	--
Total HpCDFs	NV	NA	--	--	--	--	--	36.3 UJK	17.9 J	4.3 UJK	704 J	131 J	34.2	--
Total HxCDDs	NA	NA	--	--	--	--	--	12.1 UJK	10.1 UJK	7.88 UJK	435 J	37.7 J	16.2 J	--
Total HxCDFs	NV	NA	--	--	--	--	--	17 J	15.5 UJK	2.5 UJK	260 UJK	44.6 UJK	12 UJK	--
Total PeCDDs	NV	NA	--	--	--	--	--	5.48 UJK	7.36 UJK	3.52 UJK	33.9 UJK	10.6 UJK	3.41 J	--
Total PeCDFs	NV	NA	--	--	--	--	--	19.7 UJK	26.1 UJK	3.44 UJK	150 UJK	23.7 UJK	8.46 UJK	--
Total TCDDs	NV	NA	--	--	--	--	--	3.8 UJK	3.56 UJK	3.05 UJK	3.07 UJK	3.63 UJK	3.8 UJK	--
Total TCDFs	NV	NA	--	--	--	--	--	21.7 UJK	24.3 UJK	2.72 UJK	7 UJK	18.3 UJK	7.13 UJK	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--	--	--	--	--	2.03 J	2.03 J	1.05 J	61.0 J	8.51 J	9.31 J	--
VOCs (mg/kg)														
1,1,1,2-Tetrachloroethane	38	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	2	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	5	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	18	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	180	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	4,000	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
1,1-Dichloropropene	NV	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	64	NA	--	0.145 U	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	0.0063	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	34	NA	--	0.145 U	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	800	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.23	NA	--	0.145 U	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	0.005	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	7,200	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	11	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	27	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	800	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	1,600	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
2,2-Dichloropropane	NV	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
2-Butanone	48,000	NA	--	0.291 U	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	1,600	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
2-Hexanone	400	NA	--	0.291 U	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	1,600	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NV	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	6,400	NA	--	0.291 U	--	--	--	--	--	--	--	--	--	--
Acetone	72,000	NA	--	0.582 U	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	1.9	NA	--	0.0582 U	--	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU2-06	RAU2-07	RAU2-08	RAU2-09		RAU2-GA1			RAU2-GA2			RAU3-01
Sample Name:			RAU2-06-SO-1.3	RAU2-07-SO-1.5	RAU2-08-SO-2.0	RAU2-09-SO-1.5	RAU2-09-SO-8.0	RAU2-GA1-SO-3.25	RAU2-GA1-SO-5.75	RAU2-GA1-SO-8.25	RAU2-GA2-SO-3.25	RAU2-GA2-SO-5.75	RAU2-GA2-SO-8.25	RAU3-01-SO-2.0
Collection Date:			12/2/2019	12/5/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/5/2019
Collection Depth (ft bgs):			1-2.5	1-2	1.5-2.5	1-2	7.5-8.5	2.5-4	5-6.5	7.5-9	2.5-4	5-6.5	7.5-9	1.5-2.5
Benzene	0.03	NA	--	0.00582 U	--	--	--	--	--	--	--	--	--	--
Bromobenzene	640	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	16	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
Bromoform	130	NA	--	0.0582 U	--	--	--	--	--	--	--	--	--	--
Bromomethane	110	NA	--	0.582 U	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	8,000	NA	--	0.291 U	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	14	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	1,600	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
Chlorobromomethane	NV	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
Chloroethane	NV	NA	--	0.291 UJ	--	--	--	--	--	--	--	--	--	--
Chloroform	32	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
Chloromethane	NV	NA	--	0.145 U	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	160	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	NV	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	12	NA	--	0.0582 U	--	--	--	--	--	--	--	--	--	--
Dibromomethane	800	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	16,000	NA	--	0.0582 U	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	6	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	13	NA	--	0.0582 U	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	8,000	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	NV	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.1	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
Methylene chloride	0.02	NA	--	0.145 U	--	--	--	--	--	--	--	--	--	--
Naphthalene	5	NA	--	0.0582 U	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	4,000	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	8,000	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
o-Xylene	16,000	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	8,000	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
Styrene	16,000	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
tert-Butylbenzene	8,000	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	0.05	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
Toluene	7	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	1,600	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	NV	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.03	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	24,000	NA	--	0.0582 UJ	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.67	NA	--	0.0145 U	--	--	--	--	--	--	--	--	--	--
Xylenes, total[e]	9	NA	--	0.0291 U	--	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU2-06	RAU2-07	RAU2-08	RAU2-09		RAU2-GA1			RAU2-GA2			RAU3-01
Sample Name:			RAU2-06-SO-1.3	RAU2-07-SO-1.5	RAU2-08-SO-2.0	RAU2-09-SO-1.5	RAU2-09-SO-8.0	RAU2-GA1-SO-3.25	RAU2-GA1-SO-5.75	RAU2-GA1-SO-8.25	RAU2-GA2-SO-3.25	RAU2-GA2-SO-5.75	RAU2-GA2-SO-8.25	RAU3-01-SO-2.0
Collection Date:			12/2/2019	12/5/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/5/2019
Collection Depth (ft bgs):			1-2.5	1-2	1.5-2.5	1-2	7.5-8.5	2.5-4	5-6.5	7.5-9	2.5-4	5-6.5	7.5-9	1.5-2.5
SVOCs (mg/kg)														
1,2,4-Trichlorobenzene	34	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
1,2-Dichlorobenzene	7,200	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
1,2-Dinitrobenzene	8	NA	0.0354 U	--	0.206 U	7.22 U	3.63 U	3.15 U	0.828 U	0.659 U	7.05 U	0.757 U	1.51 UJ	--
1,3-Dichlorobenzene	NV	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
1,3-Dinitrobenzene	8	NA	0.0354 U	--	0.206 U	7.22 U	3.63 U	3.15 U	0.828 U	0.659 U	7.05 U	0.757 U	1.51 UJ	--
1,4-Dichlorobenzene	190	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
1,4-Dinitrobenzene	8	NA	0.0354 U	--	0.206 U	7.22 U	3.63 U	3.15 U	0.828 U	0.659 U	7.05 U	0.757 U	1.51 UJ	--
1-Methylnaphthalene	34	NA	0.00284 U	0.00293 U	0.0165 U	0.579 U	0.291 U	0.253 U	0.0716 J	0.0529 U	0.566 U	0.0607 U	0.121 UJ	0.695 U
2,3,4,6-Tetrachlorophenol	2,400	NA	0.0071 U	--	0.0412 U	1.45 U	0.726 U	0.631 U	0.166 U	0.132 U	1.41 U	0.152 U	0.302 U	--
2,3,5,6-Tetrachlorophenol	NV	NA	0.0071 U	--	0.0412 U	1.45 U	0.726 U	0.631 U	0.166 U	0.132 U	1.41 U	0.152 U	0.302 U	--
2,4,5-Trichlorophenol	8,000	NA	0.0071 U	--	0.0412 U	1.45 U	0.726 U	0.631 U	0.166 U	0.132 U	1.41 U	0.152 U	0.302 U	--
2,4,6-Trichlorophenol	80	NA	0.0071 U	--	0.0412 U	1.45 U	0.726 U	0.631 U	0.166 U	0.132 U	1.41 U	0.152 U	0.302 U	--
2,4-Dichlorophenol	240	NA	0.0071 U	--	0.0412 U	1.45 U	0.726 U	0.631 U	0.166 U	0.132 U	1.41 U	0.152 U	0.302 U	--
2,4-Dimethylphenol	1,600	NA	0.0071 U	--	0.0412 U	1.45 U	0.726 U	0.631 U	0.166 U	0.132 U	1.41 U	0.152 U	0.302 U	--
2,4-Dinitrophenol	160	NA	0.0354 U	--	0.206 U	7.22 U	3.63 U	3.15 U	0.828 U	0.659 U	7.05 U	0.757 U	1.51 U	--
2,4-Dinitrotoluene	3.2	NA	0.0142 U	--	0.0821 U	2.89 U	1.45 U	1.26 U	0.331 U	0.263 U	2.82 U	0.302 U	0.603 UJ	--
2,6-Dinitrotoluene	0.67	NA	0.0142 U	--	0.0821 U	2.89 U	1.45 U	1.26 U	0.331 U	0.263 U	2.82 U	0.302 U	0.603 UJ	--
2-Chloronaphthalene	6,400	NA	0.00142 U	--	0.00821 U	0.289 U	0.145 U	0.126 U	0.0331 U	0.0263 U	0.282 U	0.0302 U	0.0603 UJ	--
2-Chlorophenol	400	NA	0.0071 U	--	0.0412 U	1.45 U	0.726 U	0.631 U	0.166 U	0.132 U	1.41 U	0.152 U	0.302 U	--
2-Methylnaphthalene	320	NA	0.00284 U	0.00293 U	0.0165 U	0.579 U	0.291 U	0.253 U	0.109 J	0.0529 U	0.566 U	0.0607 U	0.121 UJ	0.695 U
2-Methylphenol	4,000	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 U	--
2-Nitroaniline	800	NA	0.0284 U	--	0.165 U	5.79 U	2.91 U	2.53 U	0.664 U	0.529 U	5.66 U	0.607 U	1.21 UJ	--
2-Nitrophenol	NV	NA	0.0142 U	--	0.0821 U	2.89 U	1.45 U	1.26 U	0.331 U	0.263 U	2.82 U	0.302 U	0.603 U	--
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.377 J	1.29	0.841	0.705 U	0.14 J	0.229 J	--
3,3-Dichlorobenzidine	2.2	NA	0.0284 U	--	0.165 U	5.79 U	2.91 U	2.53 U	0.664 U	0.529 U	5.66 U	0.607 U	1.21 UJ	--
3-Nitroaniline	NV	NA	0.0284 U	--	0.165 U	5.79 U	2.91 U	2.53 U	0.664 U	0.529 U	5.66 U	0.607 U	1.21 UJ	--
4,6-Dinitro-2-methylphenol	6.4	NA	0.0354 U	--	0.206 U	7.22 U	3.63 U	3.15 U	0.828 U	0.659 U	7.05 U	0.757 U	1.51 U	--
4-Bromophenylphenyl ether	NV	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
4-Chloro-3-methylphenol	8,000	NA	0.0142 U	--	0.0821 U	2.89 U	1.45 U	1.26 U	0.331 U	0.263 U	2.82 U	0.302 U	0.603 U	--
4-Chloroaniline	5	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
4-Chlorophenylphenyl ether	NV	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
4-Nitroaniline	50	NA	0.0284 U	--	0.165 U	5.79 U	2.91 U	2.53 U	0.664 U	0.529 U	5.66 U	0.607 U	1.21 UJ	--
4-Nitrophenol	NV	NA	0.0142 U	--	0.0821 U	2.89 U	2.91 U	1.26 U	0.331 U	0.263 U	2.82 U	0.302 U	0.603 U	--
Acenaphthene	4,800	NA	0.00142 U	0.00146 U	0.00821 U	0.289 U	0.701	0.126 U	0.0572 J	0.0263 U	0.464 J	0.0302 U	0.0603 UJ	0.346 U
Acenaphthylene	NV	NA	0.00142 U	0.00146 U	0.00821 U	0.289 U	0.145 U	0.126 U	0.191	0.0597	0.282 U	0.0302 U	0.0603 UJ	0.346 U
Aniline	180	NA	0.0071 U	--	0.0412 U	1.45 U	0.726 U	0.631 U	0.166 U	0.132 U	1.41 U	0.152 U	0.302 UJ	--
Anthracene	24,000	NA	0.00142 U	0.00146 U	0.00821 U	0.289 U	0.479 U	0.126 U	0.0813	0.0263 U	0.718	0.0302 U	0.0603 UJ	0.346 U
Azobenzene	9.1	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
Benzo(a)anthracene	NV	NA	0.00142 U	0.00146 U	0.018	0.579 U	0.291 U	0.192 J	0.0672	0.0263 U	2.05	0.0419 J	0.0603 UJ	0.346 U

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU2-06	RAU2-07	RAU2-08	RAU2-09		RAU2-GA1			RAU2-GA2			RAU3-01
Sample Name:			RAU2-06-SO-1.3	RAU2-07-SO-1.5	RAU2-08-SO-2.0	RAU2-09-SO-1.5	RAU2-09-SO-8.0	RAU2-GA1-SO-3.25	RAU2-GA1-SO-5.75	RAU2-GA1-SO-8.25	RAU2-GA2-SO-3.25	RAU2-GA2-SO-5.75	RAU2-GA2-SO-8.25	RAU3-01-SO-2.0
Collection Date:			12/2/2019	12/5/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/5/2019
Collection Depth (ft bgs):			1-2.5	1-2	1.5-2.5	1-2	7.5-8.5	2.5-4	5-6.5	7.5-9	2.5-4	5-6.5	7.5-9	1.5-2.5
Benzo(a)pyrene	NA	NA	0.00213 U	0.00233 J	0.0353	0.528 J	0.566 U	0.398	0.0949 J	0.0422 J	3.23	0.069 J	0.0916 J	1.04 U
Benzo(b)fluoranthene	NV	NA	0.00213 U	0.00219 U	0.0351	0.485 J	0.653 U	0.391	0.107	0.0396 U	3.33	0.075 J	0.0907 UJ	0.521 U
Benzo(ghi)perylene	NV	NA	0.00142 U	0.00146 U	0.0152 J	0.289 U	0.348 U	0.26	0.0639 J	0.0263 U	1.6	0.0302 U	0.0603 UJ	0.346 U
Benzo(k)fluoranthene	NV	NA	0.00213 U	0.00219 U	0.0208 J	0.434 U	0.436 U	0.242 J	0.0537 J	0.0396 U	1.34 J	0.0455 U	0.0907 UJ	0.521 U
Benzoic acid	320,000	NA	0.178 U	--	1.03 U	36.2 U	18.2 U	15.8 U	4.15 U	3.31 U	35.4 U	3.8 U	7.57 U	--
Benzyl alcohol	8,000	NA	0.0071 U	--	0.0412 U	1.45 U	0.726 U	0.631 U	0.166 U	0.132 U	1.41 U	0.152 U	0.302 U	--
Bis(2-chloro-1-methylethyl)ether	14	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
Bis(2-chloroethoxy)methane	240	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
Bis(2-chloroethyl)ether	0.91	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.218 U	0.705 U	0.0757 U	0.151 UJ	--
Bis(2-ethylhexyl)phthalate	71	NA	0.0213 U	--	0.123 U	4.34 U	2.18 U	1.89 U	0.498 U	0.396 U	4.24 U	0.455 U	0.907 UJ	--
Butylbenzylphthalate	530	NA	0.0142 U	--	0.0821 U	2.89 U	1.45 U	1.26 U	0.331 U	0.263 U	2.82 U	0.302 U	0.603 UJ	--
Carbazole	NV	NA	0.00213 U	0.00219 U	0.0123 U	0.434 U	0.436 U	0.189 U	0.0498 U	0.0396 U	0.475 J	0.0455 U	0.0907 UJ	0.521 U
Chrysene	NV	NA	0.00142 U	0.00146 U	0.0215	0.579 U	1.34 U	0.23 J	0.0669	0.0263 U	2.46	0.048 J	0.0603 UJ	0.346 U
Di(2-ethylhexyl)adipate	830	NA	0.0354 U	--	0.206 U	7.22 U	3.63 U	3.15 U	0.828 U	0.659 U	7.05 U	0.757 U	1.51 UJ	--
Dibenzo(a,h)anthracene	NV	NA	0.00142 U	0.00146 U	0.00821 U	0.289 U	0.291 U	0.126 U	0.0331 U	0.0263 U	0.466 J	0.0302 U	0.0603 UJ	0.346 U
Dibenzofuran	80	NA	0.00142 U	0.00146 U	0.00821 U	0.289 U	0.329	0.126 U	0.0715	0.0263 U	0.282 U	0.0302 U	0.0603 UJ	0.346 U
Diethyl phthalate	64,000	NA	0.0142 U	--	0.0821 U	2.89 U	1.45 U	1.26 U	0.331 U	0.263 U	2.82 U	0.302 U	0.603 UJ	--
Dimethyl phthalate	NV	NA	0.0142 U	--	0.0821 U	2.89 U	1.45 U	1.26 U	0.331 U	0.263 U	2.82 U	0.302 U	0.603 UJ	--
Di-n-butyl phthalate	8,000	NA	0.0142 U	--	0.0821 U	2.89 U	1.45 U	1.26 U	0.331 U	0.263 U	2.82 U	0.302 U	0.603 UJ	--
Di-n-octyl phthalate	800	NA	0.0142 U	--	0.0821 U	2.89 U	2.91 U	1.26 U	0.331 U	0.263 U	2.82 U	0.302 U	0.603 UJ	--
Fluoranthene	3,200	NA	0.00142 U	0.00146 U	0.0219	0.289 U	0.145 U	0.614	0.241	0.0556	3.45	0.0391 J	0.0603 UJ	0.346 U
Fluorene	3,200	NA	0.00142 U	0.00146 U	0.00821 U	0.289 U	0.574	0.126 U	0.0868	0.0263 U	0.344 J	0.0302 U	0.0603 UJ	0.346 U
Hexachlorobenzene	0.63	NA	0.00142 U	--	0.00821 U	0.289 U	0.145 U	0.126 U	0.0331 U	0.0263 U	0.282 U	0.0302 U	0.0603 UJ	--
Hexachlorobutadiene	13	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
Hexachlorocyclopentadiene	480	NA	0.0071 U	--	0.0412 U	1.45 U	0.726 U	0.631 U	0.166 U	0.132 U	1.41 U	0.152 U	0.302 UJ	--
Hexachloroethane	25	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
Indeno(1,2,3-cd)pyrene	NV	NA	0.00142 U	0.00146 U	0.0177	0.289 U	0.291 U	0.217 J	0.0574 J	0.0263 U	1.73	0.0302 U	0.0603 UJ	0.346 U
Isophorone	1,100	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
Naphthalene	5	NA	0.00876	0.00293 U	0.0209 J	0.579 U	0.291 U	0.366 J	0.598	0.174	0.673 J	0.0769 J	0.121 UJ	0.695 U
Nitrobenzene	160	NA	0.0142 U	--	0.0821 U	2.89 U	1.45 U	1.26 U	0.331 U	0.263 U	2.82 U	0.302 U	0.603 UJ	--
N-Nitrosodimethylamine	0.0037	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
N-Nitrosodiphenylamine	200	NA	0.00354 U	--	0.0206 U	0.722 U	1.96 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
N-Nitrosodipropylamine	0.14	NA	0.00354 U	--	0.0206 U	0.722 U	0.363 U	0.315 U	0.0828 U	0.0659 U	0.705 U	0.0757 U	0.151 UJ	--
Pentachlorophenol	2.5	NA	0.0142 U	--	0.0821 U	2.89 U	2.91 U	1.26 U	0.331 U	0.263 U	2.82 U	0.302 U	0.603 U	--
Phenanthrene	NV	NA	0.00211 J	0.00273 J	0.00999 J	0.289 U	0.754	0.489	0.363	0.0784	2.51	0.0511 J	0.0603 UJ	0.346 U
Phenol	24,000	NA	0.00284 U	--	0.0165 U	0.579 U	0.291 U	0.253 U	0.0967 J	0.0529 U	0.566 U	0.095 J	0.121 U	--
Pyrene	2,400	NA	0.00142 U	0.00154 J	0.0291	0.289 U	1.08	0.71	0.243	0.0555	3.62	0.0463 J	0.0603 UJ	0.346 U
Pyridine	80	NA	0.0071 U	--	0.0412 U	1.45 U	0.726 U	0.631 U	0.166 U	0.132 U	1.41 U	0.152 U	0.302 UJ	--
cPAH TEQ[f][5]	0.1	NA	0.00213 U	0.00278 J	0.0451 J	0.659 J	1.34 U	0.511 J	0.126 J	0.0502 J	4.15 J	0.0865 J	0.110 J	1.04 U

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU2-06	RAU2-07	RAU2-08	RAU2-09		RAU2-GA1			RAU2-GA2			RAU3-01
Sample Name:			RAU2-06-SO-1.3	RAU2-07-SO-1.5	RAU2-08-SO-2.0	RAU2-09-SO-1.5	RAU2-09-SO-8.0	RAU2-GA1-SO-3.25	RAU2-GA1-SO-5.75	RAU2-GA1-SO-8.25	RAU2-GA2-SO-3.25	RAU2-GA2-SO-5.75	RAU2-GA2-SO-8.25	RAU3-01-SO-2.0
Collection Date:			12/2/2019	12/5/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/4/2019	12/5/2019
Collection Depth (ft bgs):			1-2.5	1-2	1.5-2.5	1-2	7.5-8.5	2.5-4	5-6.5	7.5-9	2.5-4	5-6.5	7.5-9	1.5-2.5
Hydrocarbon Identification (Detect/Non-Detect)														
Gasoline	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
TPH (mg/kg)														
Gasoline-Range Hydrocarbons	100	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	2,000	NA	11.1 U	10.9 U	12.5 U	443 U	664 U	--	--	--	--	--	--	1,060 U
Lube Oil-Range Hydrocarbons	2,000	NA	22.1 U	21.8 U	60.6	3,190	37,200	--	--	--	--	--	--	8,070
Diesel+Oil[g]	2,000	NA	22.1	21.8	66.9	3,410	37,500	--	--	--	--	--	--	8,600
TPH with Silica-Gel Treatment (mg/kg)														
Diesel-Range Hydrocarbons	2,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil-Range Hydrocarbons	2,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel+Oil[g]	2,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon (mg/kg)														
Total Organic Carbon	NV	NV	--	--	--	--	--	86,000	110,000	72,000	400,000	500,000	270,000	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU3-02	RAU3-03	RAU3-04		RAU3-05		RAU3-06	RAU3-07		RAU4-01	RAU4-02	RAU4-03
Sample Name:			RAU3-02-SO-2.5	RAU3-03-SO-2.5	RAU3-04-SO-2.5	RAU3-04-SO-6.5	RAU3-05-SO-1.6	RAU3-05-SO-3	RAU3-06-SO-3	RAU3-07-SO-2.0	RAU3-07-SO-6.0	RAU4-01-SO-2	RAU4-02-SO-2.5	RAU4-03-SO-1.2
Collection Date:			12/3/2019	12/3/2019	12/3/2019	12/3/2019	12/2/2019	12/2/2019	12/3/2019	12/4/2019	12/4/2019	12/3/2019	12/3/2019	12/4/2019
Collection Depth (ft bgs):			2-3	2-3	2-3	6-7	1.2-2	2-4	2-4	1.5-2.5	5.5-6.5	1.5-2.5	2-3	1-1.5
Total Metals (mg/kg)														
Arsenic	20	8.47	3.29	0.998 J	5.87	6.6	2.01	--	1.57	1.96	2.46	1.78	1.24	2.47
Cadmium	2	0.1	0.206 J	0.113 U	0.119 U	0.217 U	0.135 J	--	0.109 U	0.149 U	0.138 U	0.112 U	0.123 U	0.125 U
Chromium	2,000[b]	78.5	21.3	31.8	18	36.2	35.5	--	32.5	36	63.1	32.1	10.7	35
Chromium, hexavalent	19	NV	--	--	--	--	--	--	--	0.622 J	1.11 U	--	--	0.222 U
Copper	3,200	52.9	55.8	58.5	41.3	44.5	86.1	--	37.9	46.9	51	67.1	18.2	61.4
Lead	250	10.9	5.37	3.31	36	7.37	14.1	--	3.74	5.03	3.71	4.57	3.7	6.12
Manganese	3,700	691.8	534	370	394	273	566	--	255	450	506	715	326	454
Mercury	2	NV	0.0442 U	0.0453 U	0.0475 U	0.087 U	0.0956	--	0.0436 U	0.0596 U	0.0553 U	0.0447 U	0.0492 U	0.0502 U
Nickel	1,600	54.2	32.8	24.6	21.6	22.7	40.9	--	24.3	29.2	34.1	34.8	7.28	29
Zinc	24,000	85.6	86	37.6	34	70	65.9	--	37	45	45.4	52.4	45.9	60.2
TCLP Metals (mg/L)														
Lead	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
TCLP Metals (mg/L)														
Lead	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
PCBs (mg/kg)														
Aroclor 1016	NA	NA	--	--	--	--	0.00208 U	--	0.002 UJ	--	--	--	--	--
Aroclor 1221	NV	NA	--	--	--	--	0.00208 U	--	0.002 UJ	--	--	--	--	--
Aroclor 1232	NV	NA	--	--	--	--	0.00208 U	--	0.002 UJ	--	--	--	--	--
Aroclor 1242	NV	NA	--	--	--	--	0.00208 U	--	0.002 UJ	--	--	--	--	--
Aroclor 1248	NV	NA	--	--	--	--	0.00208 U	--	0.002 UJ	--	--	--	--	--
Aroclor 1254	NA	NA	--	--	--	--	0.0327 J	--	0.002 U	--	--	--	--	--
Aroclor 1260	NA	NA	--	--	--	--	0.00887 J	--	0.002 U	--	--	--	--	--
Total PCBs[c]	1	NA	--	--	--	--	0.042 J	--	0.002 UJ	--	--	--	--	--
Dioxins/Furans (pg/g)														
1,2,3,4,6,7,8-HpCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU3-02	RAU3-03	RAU3-04		RAU3-05		RAU3-06	RAU3-07		RAU4-01	RAU4-02	RAU4-03
Sample Name:			RAU3-02-SO-2.5	RAU3-03-SO-2.5	RAU3-04-SO-2.5	RAU3-04-SO-6.5	RAU3-05-SO-1.6	RAU3-05-SO-3	RAU3-06-SO-3	RAU3-07-SO-2.0	RAU3-07-SO-6.0	RAU4-01-SO-2	RAU4-02-SO-2.5	RAU4-03-SO-1.2
Collection Date:			12/3/2019	12/3/2019	12/3/2019	12/3/2019	12/2/2019	12/2/2019	12/3/2019	12/4/2019	12/4/2019	12/3/2019	12/3/2019	12/4/2019
Collection Depth (ft bgs):			2-3	2-3	2-3	6-7	1.2-2	2-4	2-4	1.5-2.5	5.5-6.5	1.5-2.5	2-3	1-1.5
OCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDDs	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
VOCs (mg/kg)														
1,1,1,2-Tetrachloroethane	38	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
1,1,1-Trichloroethane	2	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
1,1,2,2-Tetrachloroethane	5	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
1,1,2-Trichloroethane	18	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
1,1-Dichloroethane	180	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
1,1-Dichloroethene	4,000	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
1,1-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
1,2,3-Trichlorobenzene	64	NA	--	--	--	--	--	--	--	--	--	0.142 U	0.144 U	--
1,2,3-Trichloropropane	0.0063	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	--	--	--	--	--	0.142 U	0.144 U	--
1,2,4-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
1,2-Dibromo-3-chloropropane	0.23	NA	--	--	--	--	--	--	--	--	--	0.142 U	0.144 U	--
1,2-Dibromoethane	0.005	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
1,2-Dichloroethane	11	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
1,2-Dichloropropane	27	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
1,3,5-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
1,3-Dichlorobenzene	NV	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
1,3-Dichloropropane	1,600	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
1,4-Dichlorobenzene	190	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
2,2-Dichloropropane	NV	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
2-Butanone	48,000	NA	--	--	--	--	--	--	--	--	--	0.283 U	0.289 U	--
2-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
2-Hexanone	400	NA	--	--	--	--	--	--	--	--	--	0.283 U	0.289 U	--
4-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
4-Isopropyltoluene	NV	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
4-Methyl-2-pentanone	6,400	NA	--	--	--	--	--	--	--	--	--	0.283 U	0.289 U	--
Acetone	72,000	NA	--	--	--	--	--	--	--	--	--	0.567 U	0.577 U	--
Acrylonitrile	1.9	NA	--	--	--	--	--	--	--	--	--	0.0567 U	0.0577 U	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU3-02	RAU3-03	RAU3-04		RAU3-05		RAU3-06	RAU3-07		RAU4-01	RAU4-02	RAU4-03
Sample Name:			RAU3-02-SO-2.5	RAU3-03-SO-2.5	RAU3-04-SO-2.5	RAU3-04-SO-6.5	RAU3-05-SO-1.6	RAU3-05-SO-3	RAU3-06-SO-3	RAU3-07-SO-2.0	RAU3-07-SO-6.0	RAU4-01-SO-2	RAU4-02-SO-2.5	RAU4-03-SO-1.2
Collection Date:			12/3/2019	12/3/2019	12/3/2019	12/3/2019	12/2/2019	12/2/2019	12/3/2019	12/4/2019	12/4/2019	12/3/2019	12/3/2019	12/4/2019
Collection Depth (ft bgs):			2-3	2-3	2-3	6-7	1.2-2	2-4	2-4	1.5-2.5	5.5-6.5	1.5-2.5	2-3	1-1.5
Benzene	0.03	NA	--	--	--	--	0.0082 J	--	0.00541 U	--	--	0.00567 U	0.00577 U	--
Bromobenzene	640	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
Bromodichloromethane	16	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
Bromoform	130	NA	--	--	--	--	--	--	--	--	--	0.0567 U	0.0577 U	--
Bromomethane	110	NA	--	--	--	--	--	--	--	--	--	0.567 U	0.577 U	--
Carbon disulfide	8,000	NA	--	--	--	--	--	--	--	--	--	0.283 U	0.289 U	--
Carbon tetrachloride	14	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
Chlorobenzene	1,600	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
Chlorobromomethane	NV	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
Chloroethane	NV	NA	--	--	--	--	--	--	--	--	--	0.283 UJ	0.289 UJ	--
Chloroform	32	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
Chloromethane	NV	NA	--	--	--	--	--	--	--	--	--	0.142 UJ	0.144 UJ	--
cis-1,2-Dichloroethene	160	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
cis-1,3-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
Dibromochloromethane	12	NA	--	--	--	--	--	--	--	--	--	0.0567 U	0.0577 U	--
Dibromomethane	800	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
Dichlorodifluoromethane (Freon 12)	16,000	NA	--	--	--	--	--	--	--	--	--	0.0567 UJ	0.0577 UJ	--
Ethylbenzene	6	NA	--	--	--	--	0.0961		0.0135 U			0.0142 U	0.0144 U	
Hexachlorobutadiene	13	NA	--	--	--	--	--	--	--	--	--	0.0567 U	0.0577 U	--
Isopropylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
m,p-Xylene	NV	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
Methyl tert-butyl ether	0.1	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
Methylene chloride	0.02	NA	--	--	--	--	--	--	--	--	--	0.142 U	0.144 U	--
Naphthalene	5	NA	--	--	--	--	--	--	--	--	--	0.0567 U	0.0577 U	--
n-Butylbenzene	4,000	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
n-Propylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
o-Xylene	16,000	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
sec-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
Styrene	16,000	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
tert-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
Tetrachloroethene	0.05	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
Toluene	7	NA	--	--	--	--	0.118		0.027 U			0.0283 U	0.0368 J	
trans-1,2-Dichloroethene	1,600	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
trans-1,3-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--	0.0283 U	0.0289 U	--
Trichloroethene	0.03	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
Trichlorofluoromethane (Freon 11)	24,000	NA	--	--	--	--	--	--	--	--	--	0.0567 U	0.0577 U	--
Vinyl chloride	0.67	NA	--	--	--	--	--	--	--	--	--	0.0142 U	0.0144 U	--
Xylenes, total[e]	9	NA	--	--	--	--	0.794	--	0.0405 U	--	--	0.0283 U	0.0289 U	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
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Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU3-02	RAU3-03	RAU3-04		RAU3-05		RAU3-06	RAU3-07		RAU4-01	RAU4-02	RAU4-03
Sample Name:			RAU3-02-SO-2.5	RAU3-03-SO-2.5	RAU3-04-SO-2.5	RAU3-04-SO-6.5	RAU3-05-SO-1.6	RAU3-05-SO-3	RAU3-06-SO-3	RAU3-07-SO-2.0	RAU3-07-SO-6.0	RAU4-01-SO-2	RAU4-02-SO-2.5	RAU4-03-SO-1.2
Collection Date:			12/3/2019	12/3/2019	12/3/2019	12/3/2019	12/2/2019	12/2/2019	12/3/2019	12/4/2019	12/4/2019	12/3/2019	12/3/2019	12/4/2019
Collection Depth (ft bgs):			2-3	2-3	2-3	6-7	1.2-2	2-4	2-4	1.5-2.5	5.5-6.5	1.5-2.5	2-3	1-1.5
SVOCs (mg/kg)														
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dinitrobenzene	8	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	8	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	8	NA	--	--	--	--	--	--	--	--	--	--	--	--
1-Methylnaphthalene	34	NA	0.0563 U	--	--	--	0.195 J	--	0.272 U	--	--	0.00468 J	0.0147 U	--
2,3,4,6-Tetrachlorophenol	2,400	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,5,6-Tetrachlorophenol	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	80	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	240	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	160	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	3.2	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.67	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	6,400	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	400	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	320	NA	0.0563 U	--	--	--	0.445	--	0.272 U	--	--	0.0083	0.0147 U	--
2-Methylphenol	4,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	2.2	NA	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	6.4	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenylphenyl ether	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	5	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenylphenyl ether	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	50	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	4,800	NA	0.028 U	--	--	--	0.0543 U	--	0.136 U	--	--	0.00272 J	0.00731 U	--
Acenaphthylene	NV	NA	0.028 U	--	--	--	0.0543 U	--	0.136 U	--	--	0.0102	0.00731 U	--
Aniline	180	NA	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	24,000	NA	0.028 U	--	--	--	0.0543 U	--	0.136 U	--	--	0.00303	0.00731 U	--
Azobenzene	9.1	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	NV	NA	0.0984	--	--	--	0.0543 U	--	0.136 U	--	--	0.00357	0.00807 J	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU3-02	RAU3-03	RAU3-04		RAU3-05		RAU3-06	RAU3-07		RAU4-01	RAU4-02	RAU4-03
Sample Name:			RAU3-02-SO-2.5	RAU3-03-SO-2.5	RAU3-04-SO-2.5	RAU3-04-SO-6.5	RAU3-05-SO-1.6	RAU3-05-SO-3	RAU3-06-SO-3	RAU3-07-SO-2.0	RAU3-07-SO-6.0	RAU4-01-SO-2	RAU4-02-SO-2.5	RAU4-03-SO-1.2
Collection Date:			12/3/2019	12/3/2019	12/3/2019	12/3/2019	12/2/2019	12/2/2019	12/3/2019	12/4/2019	12/4/2019	12/3/2019	12/3/2019	12/4/2019
Collection Depth (ft bgs):			2-3	2-3	2-3	6-7	1.2-2	2-4	2-4	1.5-2.5	5.5-6.5	1.5-2.5	2-3	1-1.5
Benzo(a)pyrene	NA	NA	0.128	--	--	--	0.106 J	--	0.408 U	--	--	0.00707	0.0142 J	--
Benzo(b)fluoranthene	NV	NA	0.218	--	--	--	0.0898 J	--	0.204 U	--	--	0.00716	0.0158 J	--
Benzo(ghi)perylene	NV	NA	0.124	--	--	--	0.0543 U	--	0.136 U	--	--	0.00414	0.0146 U	--
Benzo(k)fluoranthene	NV	NA	0.114 J	--	--	--	0.0817 U	--	0.204 U	--	--	0.00313 J	0.011 U	--
Benzoic acid	320,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloro-1-methylethyl)ether	14	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	240	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethyl)ether	0.91	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	71	NA	--	--	--	--	--	--	--	--	--	--	--	--
Butylbenzylphthalate	530	NA	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NV	NA	0.0422 U	--	--	--	0.0817 U	--	0.204 U	--	--	0.00217 U	0.011 U	--
Chrysene	NV	NA	0.121	--	--	--	0.0555 J	--	0.136 U	--	--	0.00453	0.0104 J	--
Di(2-ethylhexyl)adipate	830	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	NV	NA	0.0337 J	--	--	--	0.0543 U	--	0.136 U	--	--	0.00145 U	0.0146 U	--
Dibenzofuran	80	NA	0.028 U	--	--	--	0.0543 U	--	0.136 U	--	--		0.00731 U	--
Diethyl phthalate	64,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	3,200	NA	0.126	--	--	--	0.0574 J	--	0.136 U	--	--	0.015	0.0167	--
Fluorene	3,200	NA	0.028 U	--	--	--	0.0543 U	--	0.136 U	--	--	0.00344	0.00731 U	--
Hexachlorobenzene	0.63	NA	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	480	NA	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	25	NA	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	NV	NA	0.118	--	--	--	0.0543 U	--	0.136 U	--	--	0.00372	0.0146 U	--
Isophorone	1,100	NA	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	5	NA	0.0563 U	--	--	--	0.272	--	0.272 U	--	--	0.043	0.0154 J	--
Nitrobenzene	160	NA	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	0.0037	NA	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	200	NA	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodipropylamine	0.14	NA	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	2.5	NA	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	NV	NA	0.048 J	--	--	--	0.0881 J	--	0.136 U	--	--	0.0231	0.0153	--
Phenol	24,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	2,400	NA	0.111	--	--	--	0.0797 J	--	0.136 U	--	--	0.0145	0.0204	--
Pyridine	80	NA	--	--	--	--	--	--	--	--	--	--	--	--
cPAH TEQ[f][5]	0.1	NA	0.187 J	--	--	--	0.128 J	--	0.408 U	--	--	0.00895 J	0.0187 J	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU3-02	RAU3-03	RAU3-04		RAU3-05		RAU3-06	RAU3-07		RAU4-01	RAU4-02	RAU4-03
Sample Name:			RAU3-02-SO-2.5	RAU3-03-SO-2.5	RAU3-04-SO-2.5	RAU3-04-SO-6.5	RAU3-05-SO-1.6	RAU3-05-SO-3	RAU3-06-SO-3	RAU3-07-SO-2.0	RAU3-07-SO-6.0	RAU4-01-SO-2	RAU4-02-SO-2.5	RAU4-03-SO-1.2
Collection Date:			12/3/2019	12/3/2019	12/3/2019	12/3/2019	12/2/2019	12/2/2019	12/3/2019	12/4/2019	12/4/2019	12/3/2019	12/3/2019	12/4/2019
Collection Depth (ft bgs):			2-3	2-3	2-3	6-7	1.2-2	2-4	2-4	1.5-2.5	5.5-6.5	1.5-2.5	2-3	1-1.5
Hydrocarbon Identification (Detect/Non-Detect)														
Gasoline	NA	NA	--	ND	ND	ND	ND	ND	ND	ND	ND	--	--	ND
Diesel	NA	NA	--	ND	ND	ND	ND	ND	ND	ND	ND	--	--	ND
Lube Oil	NA	NA	--	ND	ND	ND	DETECT	ND	DETECT	ND	ND	--	--	ND
TPH (mg/kg)														
Gasoline-Range Hydrocarbons	100	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	2,000	NA	10.6 U	--	--	--	10.1 U	--	104 U	--	--	13.3 J	10.6 U	--
Lube Oil-Range Hydrocarbons	2,000	NA	357	--	--	--	949	--	1,780	--	--	22 U	160	--
Diesel+Oil[g]	2,000	NA	362	--	--	--	954	--	1,830	--	--	24.3	165	--
TPH with Silica-Gel Treatment (mg/kg)														
Diesel-Range Hydrocarbons	2,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil-Range Hydrocarbons	2,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel+Oil[g]	2,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon (mg/kg)														
Total Organic Carbon	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU4-03	RAU4-04	RAU4-05		RAU4-06	RAU4-07	RAU4-08		RAU4-09	RAU4-10	RAU4-11	RAU4-12
Sample Name:			RAU4-03-SO-14.5	RAU4-04-SO-3.45	RAU4-05-SO-1.75	RAU4-05-SO-1.75-DUP	RAU4-06-SO-1.5	RAU4-07-SO-3.5	RAU4-08-SO-1.75	RAU4-08-SO-1.75-DUP	RAU4-09-SO-2.5	RAU4-10-SO-3.0	RAU4-11-SO-2.5	RAU4-12-SO-2.4
Collection Date:			12/4/2019	12/5/2019	12/4/2019	12/4/2019	12/5/2019	12/3/2019	12/4/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019	12/4/2019
Collection Depth (ft bgs):			14-15	2.7-4.2	1-2.5	1-2.5	1-2	3-4	1-2.5	1-2.5	2-3	2.5-3.5	2-3	2-2.8
Total Metals (mg/kg)														
Arsenic	20	8.47	7.66	1.49	1.02 J	0.923 J	1.09 J	1.94	1.02 J	0.801 J	1.83	1.58	1.63	1.1 J
Cadmium	2	0.1	0.187 U	0.116 U	0.124 U	0.118 U	0.127 U	0.228 J	0.108 U	0.103 U	0.118 U	0.132 U	0.119 U	0.119 U
Chromium	2,000[b]	78.5	37.9	20.4	33.4	27.6	35.2	93.2	17.8	15.1	8.89	31.2	15.9	16.8
Chromium, hexavalent	19	NV	1.26 J	--	--	--	--	--	--	--	--	--	--	--
Copper	3,200	52.9	57.9	29.8	60.2	53.4	72.4	78.3	66.1	61.3	17.1	37.1	38.5	26.5
Lead	250	10.9	6.95	3.5	3.01	3.25	3.84	2.42	1.17	0.958	2.89	2.63	2.13	3.61
Manganese	3,700	691.8	299	278	347	375	349	1210	392	291	668	286	525	147
Mercury	2	NV	0.0748 U	0.0465 U	0.0506 J	0.0473 U	0.0508 U	0.055 U	0.0433 U	0.0411 U	0.0473 U	0.0527 U	0.0475 U	0.0477 U
Nickel	1,600	54.2	28.4	17.8	26.4	24.4	37.9	51.2	27.1	22.9	7.82	23.2	18.3	14.5
Zinc	24,000	85.6	73.2	112	41.8	40	57.6	82.1	36.9	28.9	56.3	56.2	47	30.8
TCLP Metals (mg/L)														
Lead	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
TCLP Metals (mg/L)														
Lead	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
PCBs (mg/kg)														
Aroclor 1016	NA	NA	--	0.00217 U	0.00209 U	0.00214 U	0.00232 U	--	0.00481 U	0.0049 U	--	--	0.00204 U	--
Aroclor 1221	NV	NA	--	0.00217 U	0.00209 U	0.00214 U	0.00232 U	--	0.00481 U	0.0049 U	--	--	0.00204 U	--
Aroclor 1232	NV	NA	--	0.00217 U	0.00209 U	0.00214 U	0.00232 U	--	0.00481 U	0.0049 U	--	--	0.00204 U	--
Aroclor 1242	NV	NA	--	0.00217 U	0.00209 U	0.00214 U	0.00232 U	--	0.00481 U	0.0049 U	--	--	0.00204 U	--
Aroclor 1248	NV	NA	--	0.00217 U	0.00209 U	0.00214 U	0.00232 U	--	0.00481 U	0.0049 U	--	--	0.00204 U	--
Aroclor 1254	NA	NA	--	0.00217 U	0.00209 U	0.00214 U	0.00232 U	--	0.00481 U	0.0049 U	--	--	0.00204 U	--
Aroclor 1260	NA	NA	--	0.00217 U	0.00209 U	0.00214 U	0.00232 U	--	0.00481 U	0.0049 U	--	--	0.00204 U	--
Total PCBs[c]	1	NA	--	0.00217 U	0.00209 U	0.00214 U	0.00232 U	--	0.00481 U	0.0049 U	--	--	0.00204 U	--
Dioxins/Furans (pg/g)														
1,2,3,4,6,7,8-HpCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU4-03	RAU4-04	RAU4-05		RAU4-06	RAU4-07	RAU4-08		RAU4-09	RAU4-10	RAU4-11	RAU4-12
Sample Name:			RAU4-03-SO-14.5	RAU4-04-SO-3.45	RAU4-05-SO-1.75	RAU4-05-SO-1.75-DUP	RAU4-06-SO-1.5	RAU4-07-SO-3.5	RAU4-08-SO-1.75	RAU4-08-SO-1.75-DUP	RAU4-09-SO-2.5	RAU4-10-SO-3.0	RAU4-11-SO-2.5	RAU4-12-SO-2.4
Collection Date:			12/4/2019	12/5/2019	12/4/2019	12/4/2019	12/5/2019	12/3/2019	12/4/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019	12/4/2019
Collection Depth (ft bgs):			14-15	2.7-4.2	1-2.5	1-2.5	1-2	3-4	1-2.5	1-2.5	2-3	2.5-3.5	2-3	2-2.8
OCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDDs	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
VOCs (mg/kg)														
1,1,1,2-Tetrachloroethane	38	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	2	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	5	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	18	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	180	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	4,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	64	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	0.0063	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.23	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	0.005	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	11	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	27	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,2-Dichloropropane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	48,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	400	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	6,400	NA	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	72,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	1.9	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU4-03	RAU4-04	RAU4-05		RAU4-06	RAU4-07	RAU4-08		RAU4-09	RAU4-10	RAU4-11	RAU4-12
Sample Name:			RAU4-03-SO-14.5	RAU4-04-SO-3.45	RAU4-05-SO-1.75	RAU4-05-SO-1.75-DUP	RAU4-06-SO-1.5	RAU4-07-SO-3.5	RAU4-08-SO-1.75	RAU4-08-SO-1.75-DUP	RAU4-09-SO-2.5	RAU4-10-SO-3.0	RAU4-11-SO-2.5	RAU4-12-SO-2.4
Collection Date:			12/4/2019	12/5/2019	12/4/2019	12/4/2019	12/5/2019	12/3/2019	12/4/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019	12/4/2019
Collection Depth (ft bgs):			14-15	2.7-4.2	1-2.5	1-2.5	1-2	3-4	1-2.5	1-2.5	2-3	2.5-3.5	2-3	2-2.8
Benzene	0.03	NA	--	--	--	--	0.0053 U	--	0.00644 U	0.00639 U	--	--	0.00518 U	--
Bromobenzene	640	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	16	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	130	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	110	NA	--	--	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	14	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobromomethane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	32	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	160	NA	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	12	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dibromomethane	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	16,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	6	NA					0.0133 U		0.0161 U	0.016 U			0.013 U	
Hexachlorobutadiene	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.1	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	0.02	NA	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	5	NA	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	4,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	16,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	16,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	0.05	NA	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	7	NA					0.0265 U		0.0322 U	0.0319 U			0.0259 U	
trans-1,2-Dichloroethene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.03	NA	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	24,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.67	NA	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes, total[e]	9	NA	--	--	--	--	0.0398 U	--	0.0483 U	0.0479 U	--	--	0.0389 U	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU4-03	RAU4-04	RAU4-05		RAU4-06	RAU4-07	RAU4-08		RAU4-09	RAU4-10	RAU4-11	RAU4-12
Sample Name:			RAU4-03-SO-14.5	RAU4-04-SO-3.45	RAU4-05-SO-1.75	RAU4-05-SO-1.75-DUP	RAU4-06-SO-1.5	RAU4-07-SO-3.5	RAU4-08-SO-1.75	RAU4-08-SO-1.75-DUP	RAU4-09-SO-2.5	RAU4-10-SO-3.0	RAU4-11-SO-2.5	RAU4-12-SO-2.4
Collection Date:			12/4/2019	12/5/2019	12/4/2019	12/4/2019	12/5/2019	12/3/2019	12/4/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019	12/4/2019
Collection Depth (ft bgs):			14-15	2.7-4.2	1-2.5	1-2.5	1-2	3-4	1-2.5	1-2.5	2-3	2.5-3.5	2-3	2-2.8
SVOCs (mg/kg)														
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dinitrobenzene	8	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	8	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	8	NA	--	--	--	--	--	--	--	--	--	--	--	--
1-Methylnaphthalene	34	NA	--	0.0606 U	0.113 U	0.121 U	0.119 U	--	0.523 U	0.548 U	--	--	0.108 U	--
2,3,4,6-Tetrachlorophenol	2,400	NA	--	--	--	--	--	--	--	--	--	--	0.269 U	--
2,3,5,6-Tetrachlorophenol	NV	NA	--	--	--	--	--	--	--	--	--	--	0.269 U	--
2,4,5-Trichlorophenol	8,000	NA	--	--	--	--	--	--	--	--	--	--	0.269 U	--
2,4,6-Trichlorophenol	80	NA	--	--	--	--	--	--	--	--	--	--	0.269 U	--
2,4-Dichlorophenol	240	NA	--	--	--	--	--	--	--	--	--	--	0.269 U	--
2,4-Dimethylphenol	1,600	NA	--	--	--	--	--	--	--	--	--	--	0.269 U	--
2,4-Dinitrophenol	160	NA	--	--	--	--	--	--	--	--	--	--	1.35 U	--
2,4-Dinitrotoluene	3.2	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.67	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	6,400	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	400	NA	--	--	--	--	--	--	--	--	--	--	0.269 U	--
2-Methylnaphthalene	320	NA	--	0.0606 U	0.113 U	0.121 U	0.119 U	--	0.523 U	0.548 U	--	--	0.108 U	--
2-Methylphenol	4,000	NA	--	--	--	--	--	--	--	--	--	--	0.135 U	--
2-Nitroaniline	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NV	NA	--	--	--	--	--	--	--	--	--	--	0.537 U	--
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	--	--	--	--	--	--	--	--	--	--	0.135 U	--
3,3-Dichlorobenzidine	2.2	NA	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	6.4	NA	--	--	--	--	--	--	--	--	--	--	1.35 U	--
4-Bromophenylphenyl ether	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	8,000	NA	--	--	--	--	--	--	--	--	--	--	0.537 U	--
4-Chloroaniline	5	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenylphenyl ether	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	50	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NV	NA	--	--	--	--	--	--	--	--	--	--	0.537 U	--
Acenaphthene	4,800	NA	--	0.0302 U	0.0564 U	0.0601 U	0.0593 U	--	0.261 U	0.273 U	--	--	0.0537 U	--
Acenaphthylene	NV	NA	--	0.0302 U	0.0564 U	0.0601 U	0.0593 U	--	0.261 U	0.273 U	--	--	0.0537 U	--
Aniline	180	NA	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	24,000	NA	--	0.0302 U	0.0564 U	0.0601 U	0.0593 U	--	0.261 U	0.273 U	--	--	0.0537 U	--
Azobenzene	9.1	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	NV	NA	--	0.0302 U	0.0564 U	0.0601 U	0.0729 J	--	0.261 U	0.548 U	--	--	0.0537 U	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU4-03	RAU4-04	RAU4-05		RAU4-06	RAU4-07	RAU4-08		RAU4-09	RAU4-10	RAU4-11	RAU4-12
Sample Name:			RAU4-03-SO-14.5	RAU4-04-SO-3.45	RAU4-05-SO-1.75	RAU4-05-SO-1.75-DUP	RAU4-06-SO-1.5	RAU4-07-SO-3.5	RAU4-08-SO-1.75	RAU4-08-SO-1.75-DUP	RAU4-09-SO-2.5	RAU4-10-SO-3.0	RAU4-11-SO-2.5	RAU4-12-SO-2.4
Collection Date:			12/4/2019	12/5/2019	12/4/2019	12/4/2019	12/5/2019	12/3/2019	12/4/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019	12/4/2019
Collection Depth (ft bgs):			14-15	2.7-4.2	1-2.5	1-2.5	1-2	3-4	1-2.5	1-2.5	2-3	2.5-3.5	2-3	2-2.8
Benzo(a)pyrene	NA	NA	--	0.0454 U	0.0847 U	0.0904 U	0.0891 U	--	0.392 U	0.41 U	--	--	0.0808 U	--
Benzo(b)fluoranthene	NV	NA	--	0.0454 U	0.0847 U	0.0904 U	0.0891 U	--	0.392 U	0.41 U	--	--	0.0808 U	--
Benzo(ghi)perylene	NV	NA	--	0.0302 U	0.0564 U	0.0601 U	0.0593 U	--	0.261 U	0.273 U	--	--	0.0537 U	--
Benzo(k)fluoranthene	NV	NA	--	0.0454 U	0.0847 U	0.0904 U	0.0891 U	--	0.392 U	0.41 U	--	--	0.0808 U	--
Benzoic acid	320,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloro-1-methylethyl)ether	14	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	240	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethyl)ether	0.91	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	71	NA	--	--	--	--	--	--	--	--	--	--	0.808 U	--
Butylbenzylphthalate	530	NA	--	--	--	--	--	--	--	--	--	--	0.537 U	--
Carbazole	NV	NA	--	0.0454 U	0.0847 U	0.0904 U	0.0891 U	--	0.392 U	0.41 U	--	--	0.0808 U	--
Chrysene	NV	NA	--	0.0302 U	0.0564 U	0.0601 U	0.0675 J	--	0.261 U	0.273 U	--	--	0.0537 U	--
Di(2-ethylhexyl)adipate	830	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	NV	NA	--	0.0302 U	0.0564 U	0.0601 U	0.0593 U	--	0.261 U	0.273 U	--	--	0.0537 U	--
Dibenzofuran	80	NA	--	0.0302 U	0.0564 U	0.0601 U	0.0593 U	--	0.261 U	0.273 U	--	--	0.0537 U	--
Diethyl phthalate	64,000	NA	--	--	--	--	--	--	--	--	--	--	0.537 U	--
Dimethyl phthalate	NV	NA	--	--	--	--	--	--	--	--	--	--	0.537 U	--
Di-n-butyl phthalate	8,000	NA	--	--	--	--	--	--	--	--	--	--	0.537 U	--
Di-n-octyl phthalate	800	NA	--	--	--	--	--	--	--	--	--	--	0.537 U	--
Fluoranthene	3,200	NA	--	0.0302 U	0.0564 U	0.0601 U	0.0645 J	--	0.261 U	0.273 U	--	--	0.0537 U	--
Fluorene	3,200	NA	--	0.0302 U	0.0564 U	0.0601 U	0.0595 J	--	0.261 U	0.273 U	--	--	0.0537 U	--
Hexachlorobenzene	0.63	NA	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	480	NA	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	25	NA	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	NV	NA	--	0.0302 U	0.0564 U	0.0601 U	0.0593 U	--	0.261 U	0.273 U	--	--	0.0537 U	--
Isophorone	1,100	NA	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	5	NA	--	0.0606 U	0.113 U	0.121 U	0.119 U	--	0.523 U	0.548 U	--	--	0.108 U	--
Nitrobenzene	160	NA	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	0.0037	NA	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	200	NA	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodipropylamine	0.14	NA	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	2.5	NA	--	--	--	--	--	--	--	--	--	--	0.537 U	--
Phenanthrene	NV	NA	--	0.0302 U	0.0564 U	0.0601 U	0.255	--	0.261 U	0.364 J	--	--	0.0582 J	--
Phenol	24,000	NA	--	--	--	--	--	--	--	--	--	--	0.108 U	--
Pyrene	2,400	NA	--	0.0302 U	0.0564 U	0.0601 U	0.109 J	--	0.261 U	0.273 U	--	--	0.0537 U	--
Pyridine	80	NA	--	--	--	--	--	--	--	--	--	--	--	--
cPAH TEQ[f][5]	0.1	NA	--	0.0454 U	0.0847 U	0.0904 U	0.0674 J	--	0.392 U	0.548 U	--	--	0.0808 U	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU4-03	RAU4-04	RAU4-05		RAU4-06	RAU4-07	RAU4-08		RAU4-09	RAU4-10	RAU4-11	RAU4-12
Sample Name:			RAU4-03-SO-14.5	RAU4-04-SO-3.45	RAU4-05-SO-1.75	RAU4-05-SO-1.75-DUP	RAU4-06-SO-1.5	RAU4-07-SO-3.5	RAU4-08-SO-1.75	RAU4-08-SO-1.75-DUP	RAU4-09-SO-2.5	RAU4-10-SO-3.0	RAU4-11-SO-2.5	RAU4-12-SO-2.4
Collection Date:			12/4/2019	12/5/2019	12/4/2019	12/4/2019	12/5/2019	12/3/2019	12/4/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019	12/4/2019
Collection Depth (ft bgs):			14-15	2.7-4.2	1-2.5	1-2.5	1-2	3-4	1-2.5	1-2.5	2-3	2.5-3.5	2-3	2-2.8
Hydrocarbon Identification (Detect/Non-Detect)														
Gasoline	NA	NA	ND	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND
Diesel	NA	NA	ND	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND
Lube Oil	NA	NA	ND	--	--	--	DETECT	ND	DETECT	DETECT	ND	ND	DETECT	ND
TPH (mg/kg)														
Gasoline-Range Hydrocarbons	100	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	2,000	NA	--	11.5 U	206 U	10.9 U	113 U	--	508 U	488 U	--	--	9.99 U	--
Lube Oil-Range Hydrocarbons	2,000	NA	--	427	3,130	2,590	4,640	--	4,400	4,850	--	--	377	--
Diesel+Oil[g]	2,000	NA	--	433	3,230	2,600	4,700	--	4,650	5,090	--	--	382	--
TPH with Silica-Gel Treatment (mg/kg)														
Diesel-Range Hydrocarbons	2,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil-Range Hydrocarbons	2,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel+Oil[g]	2,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon (mg/kg)														
Total Organic Carbon	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU4-13	RAU4-14	RAU4-15	RAU4-16	RAU4-17	RAU4-18	RAU4-19	RAU4-20	RAU4-21	RAU4-21	RAU5-01	RAU5-02
Sample Name:			RAU4-13-SO-4.5	RAU4-14-SO-3.5	RAU4-15-SO-3	RAU4-16-SO-3	RAU4-17-SO-2.5	RAU4-18-SO-3	RAU4-19-SO-2.5	RAU4-20-SO-2.5	RAU4-21-SO-3.5	RAU4-21-SO-11	RAU5-01-SO-4.5	RAU5-02-SO-2
Collection Date:			7/22/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	12/3/2019
Collection Depth (ft bgs):			4-5	3-4	2.5-3.5	2.5-3.5	2-3	2.5-3.5	2-3	2-3	3-4	10.5-11.5	4-5	1.5-2.5
Total Metals (mg/kg)														
Arsenic	20	8.47	--	--	--	--	--	--	--	--	--	--	4.3	1.98
Cadmium	2	0.1	--	--	--	--	--	--	--	--	--	--	0.127 J	0.12 U
Chromium	2,000[b]	78.5	--	--	--	--	--	--	--	--	--	--	28.6	30.9
Chromium, hexavalent	19	NV	--	--	--	--	--	--	--	--	--	--	--	--
Copper	3,200	52.9	--	--	--	--	--	--	--	--	--	--	37.8	29.1
Lead	250	10.9	--	--	--	--	--	--	--	--	--	--	12.4	4.63
Manganese	3,700	691.8	--	--	--	--	--	--	--	--	--	--	267	226
Mercury	2	NV	--	--	--	--	--	--	--	--	--	--	0.049 U	0.0481 U
Nickel	1,600	54.2	--	--	--	--	--	--	--	--	--	--	18.9	24.5
Zinc	24,000	85.6	--	--	--	--	--	--	--	--	--	--	58.4	39.3
TCLP Metals (mg/L)														
Lead	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
PCBs (mg/kg)														
Aroclor 1016	NA	NA	--	--	--	--	--	--	--	--	--	--	--	0.0109 U
Aroclor 1221	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.0109 U
Aroclor 1232	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.0109 U
Aroclor 1242	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.0109 U
Aroclor 1248	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.0109 U
Aroclor 1254	NA	NA	--	--	--	--	--	--	--	--	--	--	--	0.0109 U
Aroclor 1260	NA	NA	--	--	--	--	--	--	--	--	--	--	--	0.667
Total PCBs[c]	1	NA	--	--	--	--	--	--	--	--	--	--	--	0.667
Dioxins/Furans (pg/g)														
1,2,3,4,6,7,8-HpCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU4-13	RAU4-14	RAU4-15	RAU4-16	RAU4-17	RAU4-18	RAU4-19	RAU4-20	RAU4-21	RAU4-21	RAU5-01	RAU5-02
Sample Name:			RAU4-13-SO-4.5	RAU4-14-SO-3.5	RAU4-15-SO-3	RAU4-16-SO-3	RAU4-17-SO-2.5	RAU4-18-SO-3	RAU4-19-SO-2.5	RAU4-20-SO-2.5	RAU4-21-SO-3.5	RAU4-21-SO-11	RAU5-01-SO-4.5	RAU5-02-SO-2
Collection Date:			7/22/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	12/3/2019
Collection Depth (ft bgs):			4-5	3-4	2.5-3.5	2.5-3.5	2-3	2.5-3.5	2-3	2-3	3-4	10.5-11.5	4-5	1.5-2.5
OCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDDs	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
VOCs (mg/kg)														
1,1,1,2-Tetrachloroethane	38	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	2	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	5	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	18	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	180	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	4,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	64	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	0.0063	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.23	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	0.005	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	11	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	27	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,2-Dichloropropane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	48,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	400	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	6,400	NA	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	72,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	1.9	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU4-13	RAU4-14	RAU4-15	RAU4-16	RAU4-17	RAU4-18	RAU4-19	RAU4-20	RAU4-21	RAU4-21	RAU5-01	RAU5-02
Sample Name:			RAU4-13-SO-4.5	RAU4-14-SO-3.5	RAU4-15-SO-3	RAU4-16-SO-3	RAU4-17-SO-2.5	RAU4-18-SO-3	RAU4-19-SO-2.5	RAU4-20-SO-2.5	RAU4-21-SO-3.5	RAU4-21-SO-11	RAU5-01-SO-4.5	RAU5-02-SO-2
Collection Date:			7/22/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	12/3/2019
Collection Depth (ft bgs):			4-5	3-4	2.5-3.5	2.5-3.5	2-3	2.5-3.5	2-3	2-3	3-4	10.5-11.5	4-5	1.5-2.5
Benzene	0.03	NA	--	--	--	--	--	--	--	--	--	--	--	0.0054 U
Bromobenzene	640	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	16	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	130	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	110	NA	--	--	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	14	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobromomethane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	32	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	160	NA	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	12	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dibromomethane	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	16,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	6	NA												0.027 U
Hexachlorobutadiene	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.1	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	0.02	NA	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	5	NA	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	4,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	16,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	16,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	0.05	NA	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	7	NA												0.0326 J
trans-1,2-Dichloroethene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.03	NA	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	24,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.67	NA	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes, total[e]	9	NA	--	--	--	--	--	--	--	--	--	--	--	0.0757 J

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU4-13	RAU4-14	RAU4-15	RAU4-16	RAU4-17	RAU4-18	RAU4-19	RAU4-20	RAU4-21	RAU4-21	RAU5-01	RAU5-02
Sample Name:			RAU4-13-SO-4.5	RAU4-14-SO-3.5	RAU4-15-SO-3	RAU4-16-SO-3	RAU4-17-SO-2.5	RAU4-18-SO-3	RAU4-19-SO-2.5	RAU4-20-SO-2.5	RAU4-21-SO-3.5	RAU4-21-SO-11	RAU5-01-SO-4.5	RAU5-02-SO-2
Collection Date:			7/22/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	12/3/2019
Collection Depth (ft bgs):			4-5	3-4	2.5-3.5	2.5-3.5	2-3	2.5-3.5	2-3	2-3	3-4	10.5-11.5	4-5	1.5-2.5
SVOCs (mg/kg)														
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dinitrobenzene	8	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	8	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	8	NA	--	--	--	--	--	--	--	--	--	--	--	--
1-Methylnaphthalene	34	NA	--	--	--	--	--	--	--	--	--	--	--	0.0776
2,3,4,6-Tetrachlorophenol	2,400	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,5,6-Tetrachlorophenol	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	80	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	240	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	160	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	3.2	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.67	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	6,400	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	400	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	320	NA	--	--	--	--	--	--	--	--	--	--	--	0.118
2-Methylphenol	4,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	2.2	NA	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	6.4	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenylphenyl ether	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	5	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenylphenyl ether	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	50	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	4,800	NA	--	--	--	--	--	--	--	--	--	--	--	0.0285 U
Acenaphthylene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.0582
Aniline	180	NA	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	24,000	NA	--	--	--	--	--	--	--	--	--	--	--	0.064
Azobenzene	9.1	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.0642

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU4-13	RAU4-14	RAU4-15	RAU4-16	RAU4-17	RAU4-18	RAU4-19	RAU4-20	RAU4-21	RAU4-21	RAU5-01	RAU5-02
Sample Name:			RAU4-13-SO-4.5	RAU4-14-SO-3.5	RAU4-15-SO-3	RAU4-16-SO-3	RAU4-17-SO-2.5	RAU4-18-SO-3	RAU4-19-SO-2.5	RAU4-20-SO-2.5	RAU4-21-SO-3.5	RAU4-21-SO-11	RAU5-01-SO-4.5	RAU5-02-SO-2
Collection Date:			7/22/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	12/3/2019
Collection Depth (ft bgs):			4-5	3-4	2.5-3.5	2.5-3.5	2-3	2.5-3.5	2-3	2-3	3-4	10.5-11.5	4-5	1.5-2.5
Benzo(a)pyrene	NA	NA	--	--	--	--	--	--	--	--	--	--	--	0.0662
Benzo(b)fluoranthene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.117
Benzo(ghi)perylene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.0515
Benzo(k)fluoranthene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.0459 J
Benzoic acid	320,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloro-1-methylethyl)ether	14	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	240	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethyl)ether	0.91	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	71	NA	--	--	--	--	--	--	--	--	--	--	--	--
Butylbenzylphthalate	530	NA	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.028 J
Chrysene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.0795
Di(2-ethylhexyl)adipate	830	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.0142 U
Dibenzofuran	80	NA	--	--	--	--	--	--	--	--	--	--	--	0.0449
Diethyl phthalate	64,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	3,200	NA	--	--	--	--	--	--	--	--	--	--	--	0.157
Fluorene	3,200	NA	--	--	--	--	--	--	--	--	--	--	--	0.0142 J
Hexachlorobenzene	0.63	NA	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	480	NA	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	25	NA	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.0548
Isophorone	1,100	NA	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	5	NA	--	--	--	--	--	--	--	--	--	--	--	0.111
Nitrobenzene	160	NA	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	0.0037	NA	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	200	NA	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodipropylamine	0.14	NA	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	2.5	NA	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.107
Phenol	24,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	2,400	NA	--	--	--	--	--	--	--	--	--	--	--	0.136
Pyridine	80	NA	--	--	--	--	--	--	--	--	--	--	--	--
cPAH TEQ[f][5]	0.1	NA	--	--	--	--	--	--	--	--	--	--	--	0.0959 J

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU4-13	RAU4-14	RAU4-15	RAU4-16	RAU4-17	RAU4-18	RAU4-19	RAU4-20	RAU4-21	RAU4-21	RAU5-01	RAU5-02
Sample Name:			RAU4-13-SO-4.5	RAU4-14-SO-3.5	RAU4-15-SO-3	RAU4-16-SO-3	RAU4-17-SO-2.5	RAU4-18-SO-3	RAU4-19-SO-2.5	RAU4-20-SO-2.5	RAU4-21-SO-3.5	RAU4-21-SO-11	RAU5-01-SO-4.5	RAU5-02-SO-2
Collection Date:			7/22/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	12/3/2019
Collection Depth (ft bgs):			4-5	3-4	2.5-3.5	2.5-3.5	2-3	2.5-3.5	2-3	2-3	3-4	10.5-11.5	4-5	1.5-2.5
Hydrocarbon Identification (Detect/Non-Detect)														
Gasoline	NA	NA	--	--	--	--	--	--	--	--	--	--	ND	ND
Diesel	NA	NA	--	--	--	--	--	--	--	--	--	--	ND	ND
Lube Oil	NA	NA	--	--	--	--	--	--	--	--	--	--	ND	DETECT
TPH (mg/kg)														
Gasoline-Range Hydrocarbons	100	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	2,000	NA	25 U	206 J	25 U	587 U	25 U	25 U	221 U	25 U	25.6 U	437 U	--	11 U
Lube Oil-Range Hydrocarbons	2,000	NA	50 U	769 J	50 U	15,600	2,700	88.8	4,630	50 U	652	11,000	--	129
Diesel+Oil[g]	2,000	NA	50 U	975 J	50 U	15,900	2,710	101	4,740	50 U	665	11,200	--	135
TPH with Silica-Gel Treatment (mg/kg)														
Diesel-Range Hydrocarbons	2,000	NA	25 U	173 J	25 U	587 U	109 U	25 U	221 U	25 U	25.6 U	437 U	--	--
Lube Oil-Range Hydrocarbons	2,000	NA	50 U	630 J	50 U	16,200	2,930	57.6	4,790	50 U	574	11,100	--	--
Diesel+Oil[g]	2,000	NA	50 U	803 J	50 U	16,500	2,980	70.1	4,900	50 U	587	11,300	--	--
Total Organic Carbon (mg/kg)														
Total Organic Carbon	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU5-02	RAU5-03	RAU5-03	RAU6-01	RAU6-02	RAU6-03		RAU7-01	RAU7-02
Sample Name:			RAU5-02-SO-7.5	RAU5-03-SO-2.5	RAU5-03-SO-2.5 DUP	RAU6-01-SO-2.3	RAU6-02-SO-1.5	RAU6-03-SO-2.5	RAU6-03-SO-9.5	RAU7-01-SO-1.5	RAU7-02-SO-2.5
Collection Date:			12/3/2019	7/22/2020	7/22/2020	12/4/2019	12/4/2019	12/5/2019	12/5/2019	12/5/2019	12/5/2019
Collection Depth (ft bgs):			7-8	2-3	2-3	1.8-2.8	1-2	2-3	9-10	1-2	2-3
Total Metals (mg/kg)											
Arsenic	20	8.47	8.71	--	--	1.72	1.42	4.58	6.58	1.81	1.27
Cadmium	2	0.1	0.185 U	--	--	0.121 U	0.12 U	1.44	0.221 J	0.11 U	0.107 U
Chromium	2,000[b]	78.5	38.5	--	--	26	18.1	29.8	39.5	17.6	22.5
Chromium, hexavalent	19	NV	--	--	--	--	--	--	1.14 J	--	0.223 U
Copper	3,200	52.9	52.2	--	--	32.8	28.9	114	55.7	58.7	69.4
Lead	250	10.9	7.05	--	--	11.2	4.31	225	7.29	2.95	2.63
Manganese	3,700	691.8	293	--	--	252	161	422	334	346	472
Mercury	2	NV	0.0742 U	--	--	0.0632 J	0.0479 U	0.0573 J	0.0757 U	0.0438 U	0.0429 U
Nickel	1,600	54.2	28.6	--	--	21.3	19.1	31.3	28	28.9	30.2
Zinc	24,000	85.6	77.9	--	--	50	31.6	275	77.1	45.8	46.1
TCLP Metals (mg/L)											
Lead	NV	NV	--	--	--	--	--	--	--	--	--
Mercury	NV	NV	--	--	--	--	--	--	--	--	--
PCBs (mg/kg)											
Aroclor 1016	NA	NA	--	--	--	--	--	0.00226 U	--	0.00195 U	0.002 U
Aroclor 1221	NV	NA	--	--	--	--	--	0.00226 U	--	0.00195 U	0.002 U
Aroclor 1232	NV	NA	--	--	--	--	--	0.00226 U	--	0.00195 U	0.002 U
Aroclor 1242	NV	NA	--	--	--	--	--	0.00226 U	--	0.00195 U	0.002 U
Aroclor 1248	NV	NA	--	--	--	--	--	0.00226 U	--	0.00195 U	0.002 U
Aroclor 1254	NA	NA	--	--	--	--	--	0.158 J	--	0.00195 U	0.002 U
Aroclor 1260	NA	NA	--	--	--	--	--	0.0468 J	--	0.00195 U	0.002 U
Total PCBs[c]	1	NA	--	--	--	--	--	0.205 J	--	0.00195 U	0.002 U
Dioxins/Furans (pg/g)											
1,2,3,4,6,7,8-HpCDD	NV	NA	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	NV	NA	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	NA	NA	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	NV	NA	--	--	--	--	--	--	--	--	--
OCDD	NV	NA	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU5-02	RAU5-03	RAU5-03	RAU6-01	RAU6-02	RAU6-03		RAU7-01	RAU7-02
Sample Name:			RAU5-02-SO-7.5	RAU5-03-SO-2.5	RAU5-03-SO-2.5-DUP	RAU6-01-SO-2.3	RAU6-02-SO-1.5	RAU6-03-SO-2.5	RAU6-03-SO-9.5	RAU7-01-SO-1.5	RAU7-02-SO-2.5
Collection Date:			12/3/2019	7/22/2020	7/22/2020	12/4/2019	12/4/2019	12/5/2019	12/5/2019	12/5/2019	12/5/2019
Collection Depth (ft bgs):			7-8	2-3	2-3	1.8-2.8	1-2	2-3	9-10	1-2	2-3
OCDF	NV	NA	--	--	--	--	--	--	--	--	--
Total HpCDDs	NV	NA	--	--	--	--	--	--	--	--	--
Total HpCDFs	NV	NA	--	--	--	--	--	--	--	--	--
Total HxCDDs	NA	NA	--	--	--	--	--	--	--	--	--
Total HxCDFs	NV	NA	--	--	--	--	--	--	--	--	--
Total PeCDDs	NV	NA	--	--	--	--	--	--	--	--	--
Total PeCDFs	NV	NA	--	--	--	--	--	--	--	--	--
Total TCDDs	NV	NA	--	--	--	--	--	--	--	--	--
Total TCDFs	NV	NA	--	--	--	--	--	--	--	--	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--	--	--	--	--	--	--	--	--
VOCs (mg/kg)											
1,1,1,2-Tetrachloroethane	38	NA	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	2	NA	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	5	NA	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	18	NA	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	180	NA	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	4,000	NA	--	--	--	--	--	--	--	--	--
1,1-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	64	NA	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	0.0063	NA	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.23	NA	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	0.005	NA	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	11	NA	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	27	NA	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	1,600	NA	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	--	--	--	--	--	--	--	--	--
2,2-Dichloropropane	NV	NA	--	--	--	--	--	--	--	--	--
2-Butanone	48,000	NA	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--
2-Hexanone	400	NA	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NV	NA	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	6,400	NA	--	--	--	--	--	--	--	--	--
Acetone	72,000	NA	--	--	--	--	--	--	--	--	--
Acrylonitrile	1.9	NA	--	--	--	--	--	--	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU5-02	RAU5-03	RAU5-03	RAU6-01	RAU6-02	RAU6-03		RAU7-01	RAU7-02
Sample Name:			RAU5-02-SO-7.5	RAU5-03-SO-2.5	RAU5-03-SO-2.5-DUP	RAU6-01-SO-2.3	RAU6-02-SO-1.5	RAU6-03-SO-2.5	RAU6-03-SO-9.5	RAU7-01-SO-1.5	RAU7-02-SO-2.5
Collection Date:			12/3/2019	7/22/2020	7/22/2020	12/4/2019	12/4/2019	12/5/2019	12/5/2019	12/5/2019	12/5/2019
Collection Depth (ft bgs):			7-8	2-3	2-3	1.8-2.8	1-2	2-3	9-10	1-2	2-3
Benzene	0.03	NA	--	--	--	--	--	0.00558 U	--	--	--
Bromobenzene	640	NA	--	--	--	--	--	--	--	--	--
Bromodichloromethane	16	NA	--	--	--	--	--	--	--	--	--
Bromoform	130	NA	--	--	--	--	--	--	--	--	--
Bromomethane	110	NA	--	--	--	--	--	--	--	--	--
Carbon disulfide	8,000	NA	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	14	NA	--	--	--	--	--	--	--	--	--
Chlorobenzene	1,600	NA	--	--	--	--	--	--	--	--	--
Chlorobromomethane	NV	NA	--	--	--	--	--	--	--	--	--
Chloroethane	NV	NA	--	--	--	--	--	--	--	--	--
Chloroform	32	NA	--	--	--	--	--	--	--	--	--
Chloromethane	NV	NA	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	160	NA	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--
Dibromochloromethane	12	NA	--	--	--	--	--	--	--	--	--
Dibromomethane	800	NA	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	16,000	NA	--	--	--	--	--	--	--	--	--
Ethylbenzene	6	NA						0.0139 U			
Hexachlorobutadiene	13	NA	--	--	--	--	--	--	--	--	--
Isopropylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--
m,p-Xylene	NV	NA	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.1	NA	--	--	--	--	--	--	--	--	--
Methylene chloride	0.02	NA	--	--	--	--	--	--	--	--	--
Naphthalene	5	NA	--	--	--	--	--	--	--	--	--
n-Butylbenzene	4,000	NA	--	--	--	--	--	--	--	--	--
n-Propylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--
o-Xylene	16,000	NA	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--
Styrene	16,000	NA	--	--	--	--	--	--	--	--	--
tert-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--
Tetrachloroethene	0.05	NA	--	--	--	--	--	--	--	--	--
Toluene	7	NA						0.0279 U			
trans-1,2-Dichloroethene	1,600	NA	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--
Trichloroethene	0.03	NA	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	24,000	NA	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.67	NA	--	--	--	--	--	--	--	--	--
Xylenes, total[e]	9	NA	--	--	--	--	--	0.0558 U	--	--	--

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU5-02	RAU5-03	RAU5-03	RAU6-01	RAU6-02	RAU6-03		RAU7-01	RAU7-02
Sample Name:			RAU5-02-SO-7.5	RAU5-03-SO-2.5	RAU5-03-SO-2.5-DUP	RAU6-01-SO-2.3	RAU6-02-SO-1.5	RAU6-03-SO-2.5	RAU6-03-SO-9.5	RAU7-01-SO-1.5	RAU7-02-SO-2.5
Collection Date:			12/3/2019	7/22/2020	7/22/2020	12/4/2019	12/4/2019	12/5/2019	12/5/2019	12/5/2019	12/5/2019
Collection Depth (ft bgs):			7-8	2-3	2-3	1.8-2.8	1-2	2-3	9-10	1-2	2-3
SVOCs (mg/kg)											
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	--	--	--	--	--
1,2-Dinitrobenzene	8	NA	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	--	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	8	NA	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	--	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	8	NA	--	--	--	--	--	--	--	--	--
1-Methylnaphthalene	34	NA	--	--	--	--	--	0.151 J	--	0.00268 U	0.0109 U
2,3,4,6-Tetrachlorophenol	2,400	NA	--	--	--	--	--	--	--	--	--
2,3,5,6-Tetrachlorophenol	NV	NA	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	8,000	NA	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	80	NA	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	240	NA	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	1,600	NA	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	160	NA	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	3.2	NA	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.67	NA	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	6,400	NA	--	--	--	--	--	--	--	--	--
2-Chlorophenol	400	NA	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	320	NA	--	--	--	--	--	0.26	--	0.00268 U	0.0109 U
2-Methylphenol	4,000	NA	--	--	--	--	--	--	--	--	--
2-Nitroaniline	800	NA	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NV	NA	--	--	--	--	--	--	--	--	--
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	2.2	NA	--	--	--	--	--	--	--	--	--
3-Nitroaniline	NV	NA	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	6.4	NA	--	--	--	--	--	--	--	--	--
4-Bromophenylphenyl ether	NV	NA	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	8,000	NA	--	--	--	--	--	--	--	--	--
4-Chloroaniline	5	NA	--	--	--	--	--	--	--	--	--
4-Chlorophenylphenyl ether	NV	NA	--	--	--	--	--	--	--	--	--
4-Nitroaniline	50	NA	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NV	NA	--	--	--	--	--	--	--	--	--
Acenaphthene	4,800	NA	--	--	--	--	--	0.0602 U	--	0.00133 U	0.00542 U
Acenaphthylene	NV	NA	--	--	--	--	--	0.0602 U	--	0.00133 U	0.00542 U
Aniline	180	NA	--	--	--	--	--	--	--	--	--
Anthracene	24,000	NA	--	--	--	--	--	0.0602 U	--	0.00133 U	0.00542 U
Azobenzene	9.1	NA	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	NV	NA	--	--	--	--	--	0.0602 U	--	0.00133 U	0.00542 U

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU5-02	RAU5-03	RAU5-03	RAU6-01	RAU6-02	RAU6-03		RAU7-01	RAU7-02
Sample Name:			RAU5-02-SO-7.5	RAU5-03-SO-2.5	RAU5-03-SO-2.5 DUP	RAU6-01-SO-2.3	RAU6-02-SO-1.5	RAU6-03-SO-2.5	RAU6-03-SO-9.5	RAU7-01-SO-1.5	RAU7-02-SO-2.5
Collection Date:			12/3/2019	7/22/2020	7/22/2020	12/4/2019	12/4/2019	12/5/2019	12/5/2019	12/5/2019	12/5/2019
Collection Depth (ft bgs):			7-8	2-3	2-3	1.8-2.8	1-2	2-3	9-10	1-2	2-3
Benzo(a)pyrene	NA	NA	--	--	--	--	--	0.114 J	--	0.00211 J	0.00815 U
Benzo(b)fluoranthene	NV	NA	--	--	--	--	--	0.113 J	--	0.002 U	0.00815 U
Benzo(ghi)perylene	NV	NA	--	--	--	--	--	0.0732 J	--	0.00133 U	0.00542 U
Benzo(k)fluoranthene	NV	NA	--	--	--	--	--	0.0905 U	--	0.002 U	0.00815 U
Benzoic acid	320,000	NA	--	--	--	--	--	--	--	--	--
Benzyl alcohol	8,000	NA	--	--	--	--	--	--	--	--	--
Bis(2-chloro-1-methylethyl)ether	14	NA	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	240	NA	--	--	--	--	--	--	--	--	--
Bis(2-chloroethyl)ether	0.91	NA	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	71	NA	--	--	--	--	--	--	--	--	--
Butylbenzylphthalate	530	NA	--	--	--	--	--	--	--	--	--
Carbazole	NV	NA	--	--	--	--	--	0.0905 U	--	0.002 U	0.00815 U
Chrysene	NV	NA	--	--	--	--	--	0.0602 U	--	0.00133 U	0.00542 U
Di(2-ethylhexyl)adipate	830	NA	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	NV	NA	--	--	--	--	--	0.0602 U	--	0.00133 U	0.00542 U
Dibenzofuran	80	NA	--	--	--	--	--	0.0602 U	--	0.00133 U	0.00542 U
Diethyl phthalate	64,000	NA	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	NV	NA	--	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	8,000	NA	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	800	NA	--	--	--	--	--	--	--	--	--
Fluoranthene	3,200	NA	--	--	--	--	--	0.102 J	--	0.00133 U	0.00542 U
Fluorene	3,200	NA	--	--	--	--	--	0.0602 U	--	0.00133 U	0.00542 U
Hexachlorobenzene	0.63	NA	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	13	NA	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	480	NA	--	--	--	--	--	--	--	--	--
Hexachloroethane	25	NA	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	NV	NA	--	--	--	--	--	0.0602 U	--	0.00133 U	0.00542 U
Isophorone	1,100	NA	--	--	--	--	--	--	--	--	--
Naphthalene	5	NA	--	--	--	--	--	0.266	--	0.00268 U	0.0109 U
Nitrobenzene	160	NA	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	0.0037	NA	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	200	NA	--	--	--	--	--	--	--	--	--
N-Nitrosodipropylamine	0.14	NA	--	--	--	--	--	--	--	--	--
Pentachlorophenol	2.5	NA	--	--	--	--	--	--	--	--	--
Phenanthrene	NV	NA	--	--	--	--	--	0.115 J	--	0.00133 U	0.00542 U
Phenol	24,000	NA	--	--	--	--	--	--	--	--	--
Pyrene	2,400	NA	--	--	--	--	--	0.129	--	0.00133 U	0.00542 U
Pyridine	80	NA	--	--	--	--	--	--	--	--	--
cPAH TEQ[f][5]	0.1	NA	--	--	--	--	--	0.139 J	--	0.00252 J	0.00815 U

Table 6-2
Upland RI Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	RAU5-02	RAU5-03	RAU5-03	RAU6-01	RAU6-02	RAU6-03		RAU7-01	RAU7-02
Sample Name:			RAU5-02-SO-7.5	RAU5-03-SO-2.5	RAU5-03-SO-2.5-DUP	RAU6-01-SO-2.3	RAU6-02-SO-1.5	RAU6-03-SO-2.5	RAU6-03-SO-9.5	RAU7-01-SO-1.5	RAU7-02-SO-2.5
Collection Date:			12/3/2019	7/22/2020	7/22/2020	12/4/2019	12/4/2019	12/5/2019	12/5/2019	12/5/2019	12/5/2019
Collection Depth (ft bgs):			7-8	2-3	2-3	1.8-2.8	1-2	2-3	9-10	1-2	2-3
Hydrocarbon Identification (Detect/Non-Detect)											
Gasoline	NA	NA	ND	--	--	ND	ND	ND	ND	--	--
Diesel	NA	NA	ND	--	--	ND	ND	ND	ND	--	--
Lube Oil	NA	NA	ND	--	--	ND	ND	DETECT	ND	--	--
TPH (mg/kg)											
Gasoline-Range Hydrocarbons	100	NA	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	2,000	NA	--	25 U	25 U	--	--	10.6 U	--	10.5 U	11.9 J
Lube Oil-Range Hydrocarbons	2,000	NA	--	50 U	50 U	--	--	1,140	--	24.7 J	24.4 J
Diesel+Oil[g]	2,000	NA	--	50 U	50 U	--	--	1,150	--	30.0 J	36.3 J
TPH with Silica-Gel Treatment (mg/kg)											
Diesel-Range Hydrocarbons	2,000	NA	--	25 U	25 U	--	--	--	--	--	--
Lube Oil-Range Hydrocarbons	2,000	NA	--	50 U	50 U	--	--	--	--	--	--
Diesel+Oil[g]	2,000	NA	--	50 U	50 U	--	--	--	--	--	--
Total Organic Carbon (mg/kg)											
Total Organic Carbon	NV	NV	--	--	--	--	--	--	--	--	--

Notes

Shading indicates values that exceed soil screening levels; non-detect results (U, UJ, UJK) were not compared with screening criteria.

-- = not analyzed.

cPAH = carcinogenic polycyclic aromatic hydrocarbon.

ft bgs = feet below ground surface.

J = result is estimated.

mg/kg = milligrams per kilogram.

mg/L = milligrams per liter.

MTCA = Model Toxics Control Act.

NA = not applicable.

ND = not detected.

NV = no value.

PAH = polycyclic aromatic hydrocarbon.

PCB = polychlorinated biphenyl.

pg/g = picograms per gram.

SVOC = semivolatile organic compound.

TCLP = toxicity characteristic leaching procedure.

TEQ = toxicity equivalence.

TPH = total petroleum hydrocarbon.

U = result is non-detect at the reporting limit or detection limit.

UJ = result is non-detect with an estimated reporting limit or detection limit.

UJK = result is non-detect, an estimated value, and an estimated maximum potential concentration.

VOC = volatile organic compound.

[a]Screening levels are the lowest regulatory criteria value for the given matrix, selected from soil MTCA Method A unrestricted land use where available, or MTCA Method B (the lowest of cancer and noncancer values) where MTCA Method A is not available . Where a summation is performed (except Diesel+Oil and total xylenes), data are not screened to MTCA values for individual analytes; data are only screened to the MTCA value for the summation.

[b]Screening level for trivalent chromium.

[c]Total PCBs are the sum of all PCB Aroclors. Non-detect results are not included in the sum. When all results are non-detect, the highest reporting limit or detection limit is used.

[d]Dioxin/furan TEQ is calculated with 2005 World Health Organization mammal toxicity equivalence factors. Non-detect results are included at one-half the detection limit. When all dioxin and furan results are non-detect, the TEQ is shown as "ND."

[e]Total xylenes are reported from the laboratory or are the sum of o-xylene and m,p-xylene. Non-detect results are summed at one-half the reporting limit or detection limit. When all results are non-detect, the highest reporting limit or detection limit is used.

[f]cPAH TEQ is calculated with toxicity equivalence factors from Washington Ecology Evaluating the Human Heath Toxicity of Carcinogenic PAHs Using Toxicity Equivalence Factors (Ecology 2015). Non-detect results are included at one-half the detection limit or reporting limit. When all cPAHs are non-detect, the highest reported detection limit or reporting limit is shown.

[g]Diesel+oil is the sum of diesel- and lube-oil-range hydrocarbons results. Non-detect results are summed at one-half the reporting limit or detection limit. When both results are non-detect, the highest reporting limit or detection limit is used.

References

[1]Ecology. 2022. *Cleanup Levels and Risk Calculation (CLARC) table*. Washington State Department of Ecology, Toxics Cleanup Program. July errata.

[2]Ecology. 1994. *Natural Background Soil Metals Concentrations in Washington State* . Publication 94-115. Washington State Department of Ecology. October.

[3]Ecology. 2007. *Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures Using Toxicity Equivalency Factors* . Supporting Material for CLARC. Washington State Department of Ecology.

[4]Van den Berg, M., L. S. Birnbaum, M. Denison, M. De Vito, W. Farland, and M. Feeley. 2006. "The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds." Toxicological Sciences 93(2): 223–41.

[5]Ecology. 2015. *Implementation Memorandum #10: Evaluating the Human Health Toxicity of Carcinogenic PAHs (cPAHs) Using Toxicity Equivalency Factors (TEFs)*. Publication No. 15-09-049. Washington State Department of Ecology, Toxics Cleanup Program. April 20.

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Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[(a)(1)]	Natural Background Levels[(2)]	SB1		SB2		SB3			SB1, SB2, SB3	SB4		SB5	
Sample Name:			DNR-SB1B	DNR-SB1A	DNR-SB2A	DNR-SB2B	DNR-SB3A	DNR-SB3B	DNR-SB3C	DNR-SB123B-COMP	DNR-SB4A	DNR-SB4B	DNR-SB5B	DNR-SB5A
Collection Date:			April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011
Collection Depth (ft bgs):			0-4.25	4.25-5	0-3.75	3.75-5	0-3.5	3.5-4.25	4.25-5	0-5	0-2.7	2.75-5	0-4	4-5
Total Metals (mg/kg)														
Aluminum	80,000	NV	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	32	NV	3.3 U	5.2 U	3.2 U	4.9 U	5 U	3.5 U	3.2 U	--	12 U	8.2 U	11 U	15 U
Arsenic	20	8.47	3.3 U	5.2 U	3.2 U	4.9 U	5 U	3.5 U	3.2 U	--	12 U	8.2 U	11 U	15 U
Barium	16,000	NV	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	160	0.8	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	2	0.1	0.55 UL	0.87 UL	0.54 UL	0.82 UL	0.83 UL	0.58 UL	0.53 UL	--	1.9 U	1.4 U	1.8 U	2.5 U
Calcium	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	2,000[(b)]	78.5	3.5	3.8	4	7.3	6.6	19	5.3	--	5 U	3.6 U	4.6 U	6.6 U
Cobalt	24	NV	--	--	--	--	--	--	--	--	--	--	--	--
Copper	3,200	52.9	11	8.1	11	12	14	26	10	--	12	5	3.5 U	5.7
Iron	56,000	49,170	--	--	--	--	--	--	--	--	--	--	--	--
Lead	250	10.9	2.6	3.3	2.8	5.9	5.2	5.4	4.8	--	5.8 U	4.1 U	5.3 U	7.6 U
Magnesium	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	3,700	691.8	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	2	NV	0.023	0.043	0.04	0.026 U	0.041	0.021	0.046	--	0.073 U	0.053 U	0.054 U	0.061 U
Nickel	1,600	54.2	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	400	NV	5.5 U	8.7 U	5.4 U	8.2 U	8.3 U	5.8 U	5.3 U	--	19 U	14 U	18 U	25 U
Silver	400	NV	1.6	1.7 U	1.1	1.6	1.8	2.3	1.2	--	3.9 U	2.7 U	3.5 U	5 U
Sodium	NV	NV	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	0.8	NV	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	400	NV	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	24,000	85.6	32	30	25	54	45	43	25	--	29	9.7	10	18
PCBs (mg/kg)														
Aroclor 1016	NA	NA	0.011 U	0.021 U	0.013 U	0.017 U	0.019 U	0.012 U	0.014 U	--	0.045 U	0.034 U	0.037 U	0.055 U
Aroclor 1221	NV	NA	0.011 U	0.021 U	0.013 U	0.017 U	0.019 U	0.012 U	0.014 U	--	0.045 U	0.034 U	0.037 U	0.055 U
Aroclor 1232	NV	NA	0.011 U	0.021 U	0.013 U	0.017 U	0.019 U	0.012 U	0.014 U	--	0.045 U	0.034 U	0.037 U	0.055 U
Aroclor 1242	NV	NA	0.011 U	0.021 U	0.013 U	0.017 U	0.019 U	0.012 U	0.014 U	--	0.045 U	0.034 U	0.037 U	0.055 U
Aroclor 1248	NV	NA	0.011 U	0.021 U	0.013 U	0.017 U	0.019 U	0.012 U	0.014 U	--	0.045 U	0.034 U	0.037 U	0.055 U
Aroclor 1254	NA	NA	0.011 U	0.021 U	0.013 U	0.017 U	0.019 U	0.012 U	0.014 U	--	0.045 U	0.034 U	0.037 U	0.055 U
Aroclor 1260	NA	NA	0.011 U	0.021 U	0.013 U	0.017 U	0.019 U	0.012 U	0.014 U	--	0.045 U	0.034 U	0.037 U	0.055 U
Aroclor 1262	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1268	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PCBs[(c)]	1	NA	0.011 U	0.021 U	0.013 U	0.017 U	0.019 U	0.012 U	0.014 U	--	0.045 U	0.034 U	0.037 U	0.055 U
Dioxins/Furans (pg/g)														
1,2,3,4,6,7,8-HpCDD	NV	NA	--	--	--	--	--	--	--	600	--	--	--	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--	--	--	--	--	--	--	32	--	--	--	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--	--	--	--	--	--	--	6.7 U	--	--	--	--
1,2,3,4,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	4.4 J	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	SB1		SB2		SB3			SB1, SB2, SB3	SB4		SB5	
Sample Name:			DNR-SB1B	DNR-SB1A	DNR-SB2A	DNR-SB2B	DNR-SB3A	DNR-SB3B	DNR-SB3C	DNR-SB123B-COMP	DNR-SB4A	DNR-SB4B	DNR-SB5B	DNR-SB5A
Collection Date:			April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011
Collection Depth (ft bgs):			0-4.25	4.25-5	0-3.75	3.75-5	0-3.5	3.5-4.25	4.25-5	0-5	0-2.7	2.75-5	0-4	4-5
1,2,3,4,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	4.6 J	--	--	--	--
1,2,3,6,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	19	--	--	--	--
1,2,3,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	1.7 U	--	--	--	--
1,2,3,7,8,9-HxCDD	NV	NA	--	--	--	--	--	--	--	7.8	--	--	--	--
1,2,3,7,8,9-HxCDF	NV	NA	--	--	--	--	--	--	--	1.1 U	--	--	--	--
1,2,3,7,8-PeCDD	NV	NA	--	--	--	--	--	--	--	2.1 U	--	--	--	--
1,2,3,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	0.89 U	--	--	--	--
2,3,4,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	1.5 U	--	--	--	--
2,3,4,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	1.1 U	--	--	--	--
2,3,7,8-TCDD	NA	NA	--	--	--	--	--	--	--	0.49 U	--	--	--	--
2,3,7,8-TCDF	NV	NA	--	--	--	--	--	--	--	1.5 U	--	--	--	--
OCDD	NV	NA	--	--	--	--	--	--	--	5,900	--	--	--	--
OCDF	NV	NA	--	--	--	--	--	--	--	74	--	--	--	--
Total HpCDDs	NV	NA	--	--	--	--	--	--	--	1,500	--	--	--	--
Total HpCDFs	NV	NA	--	--	--	--	--	--	--	110	--	--	--	--
Total HxCDDs	NA	NA	--	--	--	--	--	--	--	120	--	--	--	--
Total HxCDFs	NV	NA	--	--	--	--	--	--	--	73	--	--	--	--
Total PeCDDs	NV	NA	--	--	--	--	--	--	--	2.1 U	--	--	--	--
Total PeCDFs	NV	NA	--	--	--	--	--	--	--	7.5	--	--	--	--
Total TCDDs	NV	NA	--	--	--	--	--	--	--	0.49 U	--	--	--	--
Total TCDFs	NV	NA	--	--	--	--	--	--	--	1.5 U	--	--	--	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--	--	--	--	--	--	--	13	--	--	--	--
Pesticides (mg/kg)														
Aldrin	NV	NA	0.0011 U	0.0021 U	0.0013 U	0.0017 U	0.0019 U	0.0012 U	0.0014 U	--	0.0045 U	0.0034 U	0.0037 U	0.0055 U
alpha-BHC	NV	NA	0.0011 U	0.0021 U	0.0013 U	0.0017 U	0.0019 U	0.0012 U	0.0014 U	--	0.0045 U	0.0034 U	0.0037 U	0.0055 U
beta-BHC	NV	NA	0.0011 U	0.0021 U	0.0013 U	0.0017 U	0.0019 U	0.0012 U	0.0014 U	--	0.0045 U	0.0034 U	0.0037 U	0.0055 U
delta-BHC	NV	NA	0.0011 U	0.0021 U	0.0013 U	0.0017 U	0.0019 U	0.0012 U	0.0014 U	--	0.0045 U	0.0034 U	0.0037 U	0.0055 U
cis-Chlordane	NV	NA	0.0011 U	0.0021 U	0.0013 U	0.0017 U	0.0019 U	0.0012 U	0.0014 U	--	0.0045 U	0.0034 U	0.0037 U	0.0055 U
gamma-Chlordane	NV	NA	0.0011 U	0.0021 U	0.0013 U	0.0017 U	0.0019 U	0.0012 U	0.0014 U	--	0.0045 U	0.0034 U	0.0037 U	0.0055 U
Chlordane	NV	NA	0.0011 U	0.0021 U	0.0013 U	0.0017 U	0.0019 U	0.0012 U	0.0014 U	--	0.0045 U	0.0034 U	0.0037 U	0.0055 U
4,4'-DDD	NV	NA	0.0023 U	0.0042 U	0.0027 U^	0.0035 U^	0.0038 U^	0.0024 U^	0.0028 U^	--	0.009 U^	0.0068 U^	0.0074 U^	0.011 U^
4,4'-DDE	NV	NA	0.0023 U^	0.0042 U	0.0027 U^	0.0035 U	0.0038 U	0.0024 U	0.0028 U	--	0.009 U	0.0068 U	0.0074 U	0.011 U
4,4'-DDT	NV	NA	0.0023 U^	0.0042 U^	0.0027 U^	0.0035 U^	0.0038 U^	0.0024 U^	0.0028 U^	--	0.009 U^	0.0068 U^	0.0074 U^	0.011 U^
Total DDTs	NV	NA	0.0023 U	0.0042 U	0.0027 U	0.0035 U	0.0038 U	0.0024 U	0.0028 U	--	0.009 U	0.0068 U	0.0074 U	0.011 U
Dieldrin	NV	NA	0.0023 U^	0.0042 U	0.0027 U^	0.0035 U	0.0038 U	0.0024 U	0.0028 U	--	0.009 U	0.0068 U	0.0074 U	0.011 U
Endosulfan I	NV	NA	0.0011 U	0.0021 U	0.0013 U	0.0017 U	0.0019 U	0.0012 U	0.0014 U	--	0.0045 U	0.0034 U	0.0037 U	0.0055 U
Endosulfan II	NV	NA	0.0023 U^	0.0042 U	0.0027 U^	0.0035 U	0.0038 U	0.0024 U	0.0028 U	--	0.009 U	0.0068 U	0.0074 U	0.011 U
Endosulfan Sulfate	NV	NA	0.0023 U	0.0042 U	0.0027 U	0.0035 U	0.0038 U	0.0024 U	0.0028 U	--	0.009 U	0.0068 U	0.0074 U	0.011 U
Endrin	NV	NA	0.0023 U	0.0042 U	0.0027 U	0.0035 U	0.0038 U	0.0024 U	0.0028 U	--	0.009 U	0.0068 U	0.0074 U	0.011 U
Endrin Aldehyde	NV	NA	0.0023 U	0.0042 U	0.0027 U	0.0035 U	0.0038 U	0.0024 U	0.0028 U	--	0.009 U	0.0068 U	0.0074 U	0.011 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[(a)(1)]	Natural Background Levels[(2)]	SB1		SB2		SB3			SB1, SB2, SB3	SB4		SB5	
Sample Name:			DNR-SB1B	DNR-SB1A	DNR-SB2A	DNR-SB2B	DNR-SB3A	DNR-SB3B	DNR-SB3C	DNR-SB123B-COMP	DNR-SB4A	DNR-SB4B	DNR-SB5B	DNR-SB5A
Collection Date:			April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011
Collection Depth (ft bgs):			0-4.25	4.25-5	0-3.75	3.75-5	0-3.5	3.5-4.25	4.25-5	0-5	0-2.7	2.75-5	0-4	4-5
Endrin Ketone	NV	NA	0.0023 U	0.0042 U	0.0027 U	0.0035 U	0.0038 U	0.0024 U	0.0028 U	--	0.009 U	0.0068 U	0.0074 U	0.011 U
Heptachlor	NV	NA	0.0011 U	0.0021 U	0.0013 U	0.0017 U	0.0019 U	0.0012 U	0.0014 U	--	0.0045 U	0.0034 U	0.0037 U	0.0055 U
Heptachlor Epoxide	NV	NA	0.0011 U	0.0021 U	0.0013 U	0.0017 U	0.0019 U	0.0012 U	0.0014 U	--	0.0045 U	0.0034 U	0.0037 U	0.0055 U
Lindane	NV	NA	0.0011 U	0.0021 U	0.0013 U	0.0017 U	0.0019 U	0.0012 U	0.0014 U	--	0.0045 U	0.0034 U	0.0037 U	0.0055 U
Methoxychlor	NV	NA	0.011 U	0.021 U	0.013 U	0.017 U	0.019 U	0.012 U	0.014 U	--	0.045 U	0.034 U	0.037 U	0.055 U
Toxaphene	NV	NA	0.11 U^	0.21 U^	0.13 U^	0.17 U^	0.19 U^	0.12 U^	0.14 U^	--	0.45 U^	0.34 U^	0.37 U	0.55 U^
VOCs (mg/kg)														
1,1,1,2-Tetrachloroethane	38	NA	0.00096 UH	0.0044 U*	0.0027 U*	0.0026 U*	0.003 U*	0.0016 U	0.0044 U*	--	0.012 U*	0.0039 U*	0.0083 U	0.013 U*
1,1,1-Trichloroethane	2	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
1,1,2,2-Tetrachloroethane	5	NA	0.0019 UH	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.0078 U*	0.017 U	0.026 U*
1,1,2-Trichloroethane	18	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
1,1-Dichloroethane	180	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
1,1-Dichloroethene	4,000	NA	0.0048 UH	0.022 U	0.014 U	0.013 U	0.015 U	0.0082 U	0.022 U	--	0.059 U	0.019 U	0.041 U	0.064 U
1,1-Dichloropropene	NV	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
1,2,3-Trichlorobenzene	64	NA	0.0019 UH	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.0078 U*	0.017 U	0.026 U*
1,2,3-Trichloropropane	0.0063	NA	0.00096 UH	0.0044 U*	0.0027 U*	0.0026 U*	0.003 U*	0.0016 U	0.0044 U*	--	0.012 U*	0.0039 U*	0.0083 U	0.013 U*
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	800	NA	0.0032	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.0078 U*	0.017 U	0.026 U*
1,2-Dibromo-3-chloropropane	0.23	NA	0.0019 UJH	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.0078 U*	0.017 U	0.026 U*
1,2-Dibromoethane	0.005	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	11	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
1,2-Dichloropropane	27	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
1,3,5-Trimethylbenzene	800	NA	0.0048 UH	0.022 U*	0.014 U*	0.013 U*	0.015 U*	0.0082 U	0.022 U*	--	0.059 U*	0.019 U*	0.041 U	0.064 U*
1,3-Dichlorobenzene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	1,600	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
1,4-Dichlorobenzene	190	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,2-Dichloropropane	NV	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
2-Butanone	48,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethylvinyl ether	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	1,600	NA	0.0019 UH	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.0078 U*	0.017 U	0.026 U*
2-Hexanone	400	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	1,600	NA	0.0019 UH	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.0078 U*	0.017 U	0.026 U*
4-Isopropyltoluene	NV	NA	0.05	0.025 *	0.0055 U*	0.07 *	0.006 U*	0.0033 U	0.023 *	--	0.024 U*	0.042 *	0.017 U	0.026 U*
4-Methyl-2-pentanone	6,400	NA	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	72,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	40	NA	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	1.9	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	0.03	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Bromobenzene	640	NA	0.0019 UH	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.0078 U*	0.017 U	0.026 U*

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	SB1		SB2		SB3			SB1, SB2, SB3	SB4		SB5	
Sample Name:			DNR-SB1B	DNR-SB1A	DNR-SB2A	DNR-SB2B	DNR-SB3A	DNR-SB3B	DNR-SB3C	DNR-SB123B-COMP	DNR-SB4A	DNR-SB4B	DNR-SB5B	DNR-SB5A
Collection Date:			April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011
Collection Depth (ft bgs):			0-4.25	4.25-5	0-3.75	3.75-5	0-3.5	3.5-4.25	4.25-5	0-5	0-2.7	2.75-5	0-4	4-5
Bromodichloromethane	16	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Bromoethane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	130	NA	0.00096 UH	0.0044 U*	0.0027 U*	0.0026 U*	0.003 U*	0.0016 U	0.0044 U*	--	0.012 U*	0.0039 U*	0.0083 U	0.013 U*
Bromomethane	110	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Carbon disulfide	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	14	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Chlorobenzene	1,600	NA	0.00096 UH	0.0044 U*	0.0027 U*	0.0026 U*	0.003 U*	0.0016 U	0.0044 U*	--	0.012 U*	0.0039 U*	0.0083 U	0.013 U*
Chlorobromomethane	NV	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Chloroethane	NV	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Chloroform	32	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Chloromethane	NV	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
cis-1,2-Dichloroethene	160	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
cis-1,3-Dichloropropene	NV	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Cyclohexane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	12	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Dibromomethane	800	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Dichlorodifluoromethane (Freon 12)	16,000	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Ethylbenzene	6	NA	0.00096 UH	0.0044 U*	0.0027 U*	0.0026 U*	0.003 U*	0.0016 U	0.0044 U*	--	0.012 U*	0.0076 *	0.0083 U	0.013 U*
Freon 113	2,400,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	8,000	NA	0.0019 UH	0.0089 U*	0.0055 U*	0.0083 *	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.0096 *	0.017 U	0.026 U*
m,p-Xylene	NV	NA	0.0019 UH	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.014 *	0.017 U	0.026 U*
Methyl acetate	80,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methyl iodide	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.1	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Methylcyclohexane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	0.02	NA	0.014 UH	0.067 U	0.041 U	0.04 U	0.045 U	0.025 U	0.066 U	--	0.18 U	0.058 U	0.12 U	0.19 U
Naphthalene	5	NA	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	4,000	NA	0.0019 UH	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.0078 U*	0.017 U	0.026 U*
n-Propylbenzene	8,000	NA	0.00096 UH	0.0044 U*	0.0027 U*	0.0026 U*	0.003 U*	0.0016 U	0.0044 U*	--	0.012 U*	0.0039 U*	0.0083 U	0.013 U*
o-Xylene	16,000	NA	0.00096 UH	0.0044 U*	0.0027 U*	0.0026 U*	0.003 U*	0.0016 U	0.0044 U*	--	0.012 U*	0.005 *	0.0083 U	0.013 U*
sec-Butylbenzene	8,000	NA	0.0019 UH	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.0078 U*	0.017 U	0.026 U*
Styrene	16,000	NA	0.0019 UH	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.0078 U*	0.017 U	0.026 U*
tert-Butylbenzene	8,000	NA	0.0019 UH	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.0078 U*	0.017 U	0.026 U*
Tetrachloroethene	0.05	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Toluene	7	NA	0.0019 UH	0.0089 U	0.0055 U	0.0091	0.006 U	0.0033 U	0.0088 U	--	0.024 U	0.068	0.017 U	0.026 U
trans-1,2-Dichloroethene	1,600	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
trans-1,3-Dichloropropene	NV	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
trans-1,4-Dichloro-2-butene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.03	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U

Table 6-3
Historical Soil Analytical Data
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Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[(a)(1)]	Natural Background Levels[(2)]	SB1		SB2		SB3			SB1, SB2, SB3	SB4		SB5	
Sample Name:			DNR-SB1B	DNR-SB1A	DNR-SB2A	DNR-SB2B	DNR-SB3A	DNR-SB3B	DNR-SB3C	DNR-SB123B-COMP	DNR-SB4A	DNR-SB4B	DNR-SB5B	DNR-SB5A
Collection Date:			April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011
Collection Depth (ft bgs):			0-4.25	4.25-5	0-3.75	3.75-5	0-3.5	3.5-4.25	4.25-5	0-5	0-2.7	2.75-5	0-4	4-5
Trichlorofluoromethane (Freon 11)	24,000	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Vinyl acetate	80,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.67	NA	0.00096 UH	0.0044 U	0.0027 U	0.0026 U	0.003 U	0.0016 U	0.0044 U	--	0.012 U	0.0039 U	0.0083 U	0.013 U
Xylenes, total[(e)]	9	NA	0.0019 UH	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.019 *	0.017 U	0.026 U*
SVOCs (mg/kg)														
1,1'-Biphenyl	130	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4,5-Tetrachlorobenzene	24	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	34	NA	0.0019 UH	0.0089 U*	0.0055 U*	0.0053 U*	0.006 U*	0.0033 U	0.0088 U*	--	0.024 U*	0.0078 U*	0.017 U	0.026 U*
1,2-Dichlorobenzene	7,200	NA	0.00096 UH	0.0044 U*	0.0027 U*	0.0026 U*	0.003 U*	0.0016 U	0.0044 U*	--	0.012 U*	0.0039 U*	0.0083 U	0.013 U*
1,3-Dichlorobenzene	NV	NA	0.00096 UH	0.0044 U*	0.0027 U*	0.0026 U*	0.003 U*	0.0016 U	0.0044 U*	--	0.012 U*	0.0039 U*	0.0083 U	0.013 U*
1,4-Dichlorobenzene	190	NA	0.00096 UH	0.0044 U*	0.0027 U*	0.0026 U*	0.003 U*	0.0016 U	0.0044 U*	--	0.012 U*	0.0039 U*	0.0083 U	0.013 U*
1,4-Dioxane	10	NA	--	--	--	--	--	--	--	--	--	--	--	--
1-Methylnaphthalene	34	NA	0.035 U	0.064 U	0.042 U	0.053 U	0.056 U	0.037 U	0.043 U	--	0.28 U	0.21 U	0.23 U	0.34 U
2,3,4,6-Tetrachlorophenol	2,400	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	8,000	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
2,4,6-Trichlorophenol	80	NA	0.17 U	0.32 U	0.21 U	0.27 U	0.28 U	0.18 U	0.22 U	--	1.4 U	1 U	1.1 U	1.7 U
2,4-Dichlorophenol	240	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
2,4-Dimethylphenol	1,600	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
2,4-Dinitrophenol	160	NA	1.2 U	2.1 U	1.4 U	1.8 U	1.9 U	1.2 U	1.4 U	--	9.3 U	6.9 U	7.5 U	11 U
2,4-Dinitrotoluene	3.2	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
2,6-Dinitrotoluene	0.67	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
2-Chloronaphthalene	6,400	NA	0.023 U	0.043 U	0.028 U	0.035 U	0.037 U	0.024 U	0.029 U	--	0.19 U	0.14 U	0.15 U	0.22 U
2-Chlorophenol	400	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
2-Methylnaphthalene	320	NA	0.023 U	0.043 U	0.028 U	0.035 U	0.037 U	0.024 U	0.059	--	0.19 U	0.14 U	0.15 U	0.22 U
2-Methylphenol	4,000	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
2-Nitroaniline	800	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
2-Nitrophenol	NV	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	0.23 U	0.43 U	0.28 U	0.35 U	0.37 U	0.24 U	0.68	--	1.9 U	1.4 U	1.5 U	2.2 U
3,3-Dichlorobenzidine	2.2	NA	0.23 U	0.43 U	0.28 U	0.35 U	0.37 U	0.24 U	0.29 U	--	1.9 U	1.4 U	1.5 U	2.2 U
3-Nitroaniline	NV	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
4,6-Dinitro-2-methylphenol	6.4	NA	1.2 U	2.1 U	1.4 U	1.8 U	1.9 U	1.2 U	1.4 U	--	9.3 U	6.9 U	7.5 U	11 U
4-Bromophenylphenyl ether	NV	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
4-Chloro-3-methylphenol	8,000	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
4-Chloroaniline	5	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
4-Chlorophenylphenyl ether	NV	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
4-Methylphenol	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	50	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
4-Nitrophenol	NV	NA	1.2 U	2.1 U	1.4 U	1.8 U	1.9 U	1.2 U	1.4 U	--	9.3 U	6.9 U	7.5 U	11 U
Acenaphthene	4,800	NA	0.023 U	0.043 U	0.028 U	0.035 U	0.037 U	0.024 U	0.029 U	--	0.19 U	0.14 U	0.15 U	0.22 U
Acenaphthylene	NV	NA	0.023 U	0.043 U	0.028 U	0.035 U	0.037 U	0.024 U	0.029 U	--	0.19 U	0.14 U	0.15 U	0.22 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[(a)(1)]	Natural Background Levels[(2)]	SB1		SB2		SB3			SB1, SB2, SB3	SB4		SB5	
Sample Name:			DNR-SB1B	DNR-SB1A	DNR-SB2A	DNR-SB2B	DNR-SB3A	DNR-SB3B	DNR-SB3C	DNR-SB123B-COMP	DNR-SB4A	DNR-SB4B	DNR-SB5B	DNR-SB5A
Collection Date:			April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011
Collection Depth (ft bgs):			0-4.25	4.25-5	0-3.75	3.75-5	0-3.5	3.5-4.25	4.25-5	0-5	0-2.7	2.75-5	0-4	4-5
Acetophenone	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	24,000	NA	0.023 U	0.043 U	0.028 U	0.035 U	0.037 U	0.024 U	0.029 U	--	0.19 U	0.14 U	0.15 U	0.22 U
Atrazine	4.3	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde	250	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	NV	NA	0.029 U	0.053 U	0.048	0.044 U	0.046 U	0.031 U	0.036 U	--	0.23 U	0.17 U	0.19 U	0.28 U
Benzo(a)pyrene	NA	NA	0.046	0.064 U	0.058	0.053 U	0.056 U	0.037 U	0.043 U	--	0.28 U	0.21 U	0.23 U	0.34 U
Benzo(b)fluoranthene	NV	NA	0.095	0.043 U	0.11	0.035 U	0.037 U	0.024 U	0.029 U	--	0.19 U	0.14 U	0.15 U	0.22 U
Benzo(ghi)perylene	NV	NA	0.052	0.053 U	0.035 U	0.044 U	0.046 U	0.031 U	0.036 U	--	0.23 U	0.17 U	0.19 U	0.28 U
Benzo(k)fluoranthene	NV	NA	0.029 U	0.053 U	0.035 U	0.044 U	0.046 U	0.031 U	0.036 U	--	0.23 U	0.17 U	0.19 U	0.28 U
Benzoic acid	320,000	NA	2.9 U	5.3 U	3.5 U	4.4 U	4.6 U	3.1 U	3.6 U	--	23 U	17 U	19 U	28 U
Benzyl alcohol	8,000	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
Bis(2-chloro-1-methylethyl)ether	14	NA	0.17 U	0.32 U	0.21 U	0.27 U	0.28 U	0.18 U	0.22 U	--	1.4 U	1 U	1.1 U	1.7 U
Bis(2-chloroethoxy)methane	240	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
Bis(2-chloroethyl)ether	0.91	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
Bis(2-ethylhexyl)phthalate	71	NA	1.7 U	3.2 U	2.1 U	2.7 U	2.8 U	1.8 U	2.2 U	--	14 U	10 U	11 U	17 U
Butylbenzylphthalate	530	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
Caprolactam	40,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NV	NA	0.17 U	0.32 U	0.21 U	0.27 U	0.28 U	0.18 U	0.22 U	--	1.4 U	1 U	1.1 U	1.7 U
Chrysene	NV	NA	0.049	0.053 U	0.17	0.044 U	0.046 U	0.049	0.036 U	--	0.23 U	0.17 U	0.19 U	0.28 U
Dibenzo(a,h)anthracene	NV	NA	0.046 U	0.086 U	0.056 U	0.071 U	0.074 U	0.049 U	0.058 U	--	0.37 U	0.28 U	0.3 U	0.45 U
Dibenzofuran	80	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
Diethyl phthalate	64,000	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
Dimethyl phthalate	NV	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
Di-n-butyl phthalate	8,000	NA	0.23 U	0.43 U	0.28 U	0.35 U	0.37 U	0.24 U	0.29 U	--	1.9 U	1.4 U	1.5 U	2.2 U
Di-n-octyl phthalate	800	NA	0.23 U	0.43 U	0.28 U	0.35 U	0.37 U	0.24 U	0.29 U	--	1.9 U	1.4 U	1.5 U	2.2 U
Fluoranthene	3,200	NA	0.035	0.043 U	0.071	0.035 U	0.037 U	0.2	0.042	--	0.19 U	0.14 U	0.15 U	0.22 U
Fluorene	3,200	NA	0.023 U	0.043 U	0.028 U	0.035 U	0.037 U	0.024 U	0.029 U	--	0.19 U	0.14 U	0.15 U	0.22 U
Hexachlorobenzene	0.63	NA	0.058 U	0.11 U	0.069 U	0.088 U	0.093 U	0.061 U	0.072 U	--	0.46 U	0.34 U	0.38 U	0.56 U
Hexachlorobutadiene	13	NA	0.00096 UH	0.0044 U*	0.0027 U*	0.0026 U*	0.003 U*	0.0016 U	0.0044 U*	--	0.012 U*	0.0039 U*	0.0083 U	0.013 U*
Hexachlorocyclopentadiene	480	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
Hexachloroethane	25	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
Indeno(1,2,3-cd)pyrene	NV	NA	0.046 U	0.086 U	0.056 U	0.071 U	0.074 U	0.049 U	0.058 U	--	0.37 U	0.28 U	0.3 U	0.45 U
Isophorone	1,100	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
Naphthalene	5	NA	0.0048 UH	0.022 U*	0.014 U*	0.013 U*	0.015 U*	0.0082 U	0.063	--	0.059 U*	0.019 U*	0.041 U	0.064 U*
Nitrobenzene	160	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
N-Nitrosodiphenylamine	200	NA	0.058 U	0.11 U	0.069 U	0.088 U	0.093 U	0.061 U	0.072 U	--	0.46 U	0.34 U	0.38 U	0.56 U
N-Nitrosodipropylamine	0.14	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U
Pentachlorophenol	2.5	NA	0.23 U	0.43 U	0.28 U	0.35 U	0.37 U	0.24 U	0.29 U	--	1.9 U	1.4 U	1.5 U	2.2 U
Phenanthrene	NV	NA	0.023 U	0.043 U	0.062	0.035 U	0.037 U	0.024 U	0.1	--	0.19 U	0.14 U	0.15 U	0.22 U
Phenol	24,000	NA	0.12 U	0.21 U	0.14 U	0.18 U	0.19 U	0.12 U	0.14 U	--	0.93 U	0.69 U	0.75 U	1.1 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	SB1		SB2		SB3			SB1, SB2, SB3	SB4		SB5	
Sample Name:			DNR-SB1B	DNR-SB1A	DNR-SB2A	DNR-SB2B	DNR-SB3A	DNR-SB3B	DNR-SB3C	DNR-SB123B-COMP	DNR-SB4A	DNR-SB4B	DNR-SB5B	DNR-SB5A
Collection Date:			April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011	April 2011
Collection Depth (ft bgs):			0-4.25	4.25-5	0-3.75	3.75-5	0-3.5	3.5-4.25	4.25-5	0-5	0-2.7	2.75-5	0-4	4-5
Pyrene	2,400	NA	0.038	0.043 U	0.085	0.035 U	0.037 U	0.14	0.081	--	0.19 U	0.14 U	0.15 U	0.22 U
Total Benzofluoranthenes	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
cPAH TEQ[f][5]	0.1	NA	0.063	0.086 U	0.083	0.071 U	0.074 U	0.028	0.058 U	--	0.37 U	0.28 U	0.30 U	0.45 U
Hydrocarbon Identification (Detect/Non-Detect)														
Gasoline	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
TPH (mg/kg)														
Gasoline-Range Hydrocarbons	100	NA	4.7 U	11 U	5.6 U	7.1 U	11 U	7.3 U	8.1	--	31 U	14 U	15 U	31 U
Diesel-Range Hydrocarbons	2,000	NA	61 Y	1,100 Z	83 Y	230 Z	270 Z	67 Z	440 Z	--	220 U	180 U	180 U	260 U
Lube Oil-Range Hydrocarbons	2,000	NA	540	1,000 Y	940	700 Y	780 Y	190 Y	630 Y	--	440 U	1,700	560	530 U^
Diesel+Oil[g]	2,000	NA	601	2,100	1,020	930	1,050	257	1,070	--	440 U	1,790	650	530 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a](1)	Natural Background Levels[2]	SB6			SB4, SB5, SB6	B01	B02	B03	CR-20	CR-21	CR-22	CR-23	FC01
Sample Name:			DNR-SB6B	DNR-SB6A	DNR-SB6C	DNR-SB456B-COMP	B01-S-4.5	B02-S-5.0	B03-S-5.0	CR20-S-5.0	CR21-S-5.0	CR22-S-3.0	CR23-S-3.0	MJJ450
Collection Date:			April 2011	April 2011	April 2011	April 2011	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/13/2015	10/13/2015	9/26/2017
Collection Depth (ft bgs):			0-1.5	1.5-3	3-5	0-5	4-5	4-5	4.5-5.5	3.3-5	3.5-5	3-4.5	1.5-3	2-4
Total Metals (mg/kg)														
Aluminum	80,000	NV	--	--	--	--	--	--	--	--	--	--	--	13,400
Antimony	32	NV	8.2 U	5.4 U	14 U	--	--	--	--	--	--	--	--	1.3 JQ
Arsenic	20	8.47	8.2 U	5.4 U	14 U	--	20 U	10 U	10 U	10 U	10 U	10 U	6 U	2.6
Barium	16,000	NV	--	--	--	--	--	--	--	--	--	--	--	54
Beryllium	160	0.8	--	--	--	--	--	--	--	--	--	--	--	0.56
Cadmium	2	0.1	1.4 UL	0.89 U	2.4 U	--	0.6 U	0.6 U	0.5 U	0.6 U	0.5 U	0.6 U	0.2 U	1.8
Calcium	NV	NV	--	--	--	--	--	--	--	--	--	--	--	6,250 J
Chromium	2,000[b]	78.5	11	3.5	6.1 U	--	45	24	43	71 J	32 J	37	35.5	14.6 J
Cobalt	24	NV	--	--	--	--	--	--	--	--	--	--	--	23.6
Copper	3,200	52.9	35	8.3	5.2	--	--	--	--	--	--	--	--	276
Iron	56,000	49,170	--	--	--	--	--	--	--	--	--	--	--	32,800 J
Lead	250	10.9	12	2.7 U	7.1 U	--	6 U	30	5 U	6 U	5 U	6 U	3	6.7
Magnesium	NV	NV	--	--	--	--	--	--	--	--	--	--	--	7,840 J
Manganese	3,700	691.8	--	--	--	--	--	--	--	--	--	--	--	385
Mercury	2	NV	0.049 U	0.041	0.068 U	--	0.03 U	0.07	0.03 U	0.03 U	0.02	0.09	0.02 U	--
Nickel	1,600	54.2	--	--	--	--	--	--	--	--	--	--	--	30.3
Potassium	NV	NV	--	--	--	--	--	--	--	--	--	--	--	494
Selenium	400	NV	14 U	8.9 U	24 U	--	--	--	--	--	--	--	--	3.5 UJ
Silver	400	NV	7.1	1.8 U	4.7 U	--	--	--	--	--	--	--	--	1.2 J
Sodium	NV	NV	--	--	--	--	--	--	--	--	--	--	--	1,080
Thallium	0.8	NV	--	--	--	--	--	--	--	--	--	--	--	2.6
Vanadium	400	NV	--	--	--	--	--	--	--	--	--	--	--	72.8
Zinc	24,000	85.6	120	30	18	--	--	--	--	--	--	--	--	51.1
PCBs (mg/kg)														
Aroclor 1016	NA	NA	0.035 U	0.024 U	0.05 U	--	--	--	--	0.019 U	0.017 U	0.019 U	0.017 U	--
Aroclor 1221	NV	NA	0.035 U	0.024 U	0.05 U	--	--	--	--	0.019 U	0.017 U	0.019 U	0.017 U	--
Aroclor 1232	NV	NA	0.035 U	0.024 U	0.05 U	--	--	--	--	0.019 U	0.017 U	0.019 U	0.017 U	--
Aroclor 1242	NV	NA	0.035 U	0.024 U	0.05 U	--	--	--	--	0.019 U	0.017 U	0.019 U	0.017 U	--
Aroclor 1248	NV	NA	0.035 U	0.024 U	0.05 U	--	--	--	--	0.53	0.034	0.019 U	0.017 U	--
Aroclor 1254	NA	NA	0.035 U	0.024 U	0.05 U	--	--	--	--	0.71 J	0.073 J	0.019 U	0.017 U	--
Aroclor 1260	NA	NA	0.035 U	0.024 U	0.05 U	--	--	--	--	0.93	0.056	0.019 U	0.017 U	--
Aroclor 1262	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1268	NV	NA	--	--	--	--	--	--	--	0.019 U	0.017 U	0.019 U	0.017 U	--
Total PCBs[c]	1	NA	0.035 U	0.024 U	0.05 U	--	--	--	--	2.2 J	0.16 J	0.019 U	0.017 U	--
Dioxins/Furans (pg/g)														
1,2,3,4,6,7,8-HpCDD	NV	NA	--	--	--	55	--	--	--	2,650	373	1,260	26	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--	--	--	7.3 U	--	--	--	653	37.9	188	2.97	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--	--	--	0.92 U	--	--	--	32	1.48	12.5 U	0.221 U	--
1,2,3,4,7,8-HxCDD	NV	NA	--	--	--	1.6 U	--	--	--	36.1	3.49	8.65	0.193 U	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	SB6			SB4, SB5, SB6	B01	B02	B03	CR-20	CR-21	CR-22	CR-23	FC01
Sample Name:			DNR-SB6B	DNR-SB6A	DNR-SB6C	DNR-SB456B-COMP	B01-S-4.5	B02-S-5.0	B03-S-5.0	CR20-S-5.0	CR21-S-5.0	CR22-S-3.0	CR23-S-3.0	MJJ450
Collection Date:			April 2011	April 2011	April 2011	April 2011	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/13/2015	10/13/2015	9/26/2017
Collection Depth (ft bgs):			0-1.5	1.5-3	3-5	0-5	4-5	4-5	4.5-5.5	3.3-5	3.5-5	3-4.5	1.5-3	2-4
1,2,3,4,7,8-HxCDF	NV	NA	--	--	--	0.75 U	--	--	--	17	2.11	4.09 J	0.114 J	--
1,2,3,6,7,8-HxCDD	NV	NA	--	--	--	2.1 U	--	--	--	184	23.6	38.2	1.54	--
1,2,3,6,7,8-HxCDF	NV	NA	--	--	--	0.57 U	--	--	--	9.97	1.55	4.2 J	0.153 U	--
1,2,3,7,8,9-HxCDD	NV	NA	--	--	--	1.3 U	--	--	--	16.7	8.09	12.1	2.35	--
1,2,3,7,8,9-HxCDF	NV	NA	--	--	--	0.74 U	--	--	--	8.52	1.3	1.82 J	0.155 U	--
1,2,3,7,8-PeCDD	NV	NA	--	--	--	1 U	--	--	--	10.8	1.97	3.14 J	1.31	--
1,2,3,7,8-PeCDF	NV	NA	--	--	--	0.9 U	--	--	--	4.85 U	0.859 J	1.08 J	0.0558 U	--
2,3,4,6,7,8-HxCDF	NV	NA	--	--	--	0.55 U	--	--	--	40	1.58	7.81	0.133 U	--
2,3,4,7,8-PeCDF	NV	NA	--	--	--	0.95 U	--	--	--	5.51	0.727 U	0.807 J	0.0598 U	--
2,3,7,8-TCDD	NA	NA	--	--	--	0.94 U	--	--	--	6.42	0.467 U	1.41 U	1.68	--
2,3,7,8-TCDF	NV	NA	--	--	--	1.9 U	--	--	--	5.07	0.657 U	0.552 J	0.0538 U	--
OCDD	NV	NA	--	--	--	570	--	--	--	18,400	2,480	30,800 J	298	--
OCDF	NV	NA	--	--	--	23 J	--	--	--	1,490	42.8	412	4.82	--
Total HpCDDs	NV	NA	--	--	--	100	--	--	--	4,760	708	2,900	52.5	--
Total HpCDFs	NV	NA	--	--	--	16	--	--	--	3,080 U	114	695 U	10.2 U	--
Total HxCDDs	NA	NA	--	--	--	4.6 U	--	--	--	843 U	117	205	27.3 U	--
Total HxCDFs	NV	NA	--	--	--	4.3 U	--	--	--	1,340 U	95.5 U	243	5.78 U	--
Total PeCDDs	NV	NA	--	--	--	1 U	--	--	--	140	14.9 U	18.2	13.3	--
Total PeCDFs	NV	NA	--	--	--	1.5 U	--	--	--	316 U	36.3 U	48.6 U	0.846	--
Total TCDDs	NV	NA	--	--	--	1.1 U	--	--	--	79.6 U	4.89 U	13.6 U	11.4 U	--
Total TCDFs	NV	NA	--	--	--	1.9 U	--	--	--	50.9 U	7.08 U	5.25 U	0.103 U	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--	--	--	2.4	--	--	--	90	11.4 J	35.8 J	3.82 J	--
Pesticides (mg/kg)														
Aldrin	NV	NA	0.0035 U	0.0024 U	0.005 U	--	--	--	--	--	--	--	--	--
alpha-BHC	NV	NA	0.0035 U	0.0024 U	0.005 U	--	--	--	--	--	--	--	--	--
beta-BHC	NV	NA	0.0035 U	0.0024 U	0.005 U	--	--	--	--	--	--	--	--	--
delta-BHC	NV	NA	0.0035 U	0.0024 U	0.005 U	--	--	--	--	--	--	--	--	--
cis-Chlordane	NV	NA	0.0035 U	0.0024 U	0.005 U	--	--	--	--	--	--	--	--	--
gamma-Chlordane	NV	NA	0.0035 U	0.0024 U	0.005 U	--	--	--	--	--	--	--	--	--
Chlordane	NV	NA	0.0035 U	0.0024 U	0.005 U	--	--	--	--	--	--	--	--	--
4,4'-DDD	NV	NA	0.007 U^	0.0049 U^	0.01 U^	--	--	--	--	--	--	--	--	--
4,4'-DDE	NV	NA	0.007 U	0.0049 U	0.01 U	--	--	--	--	--	--	--	--	--
4,4'-DDT	NV	NA	0.007 U^	0.0049 U^	0.01 U^	--	--	--	--	--	--	--	--	--
Total DDTs	NV	NA	0.007 U	0.0049 U	0.01 U	--	--	--	--	--	--	--	--	--
Dieldrin	NV	NA	0.007 U^	0.0049 U	0.01 U	--	--	--	--	--	--	--	--	--
Endosulfan I	NV	NA	0.0035 U	0.0024 U	0.005 U	--	--	--	--	--	--	--	--	--
Endosulfan II	NV	NA	0.007 U^	0.0049 U	0.01 U	--	--	--	--	--	--	--	--	--
Endosulfan Sulfate	NV	NA	0.007 U	0.0049 U	0.01 U	--	--	--	--	--	--	--	--	--
Endrin	NV	NA	0.007 U	0.0049 U	0.01 U	--	--	--	--	--	--	--	--	--
Endrin Aldehyde	NV	NA	0.007 U	0.0049 U	0.01 U	--	--	--	--	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	SB6			SB4, SB5, SB6	B01	B02	B03	CR-20	CR-21	CR-22	CR-23	FC01
Sample Name:			DNR-SB6B	DNR-SB6A	DNR-SB6C	DNR-SB456B-COMP	B01-S-4.5	B02-S-5.0	B03-S-5.0	CR20-S-5.0	CR21-S-5.0	CR22-S-3.0	CR23-S-3.0	MJJ450
Collection Date:			April 2011	April 2011	April 2011	April 2011	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/13/2015	10/13/2015	9/26/2017
Collection Depth (ft bgs):			0-1.5	1.5-3	3-5	0-5	4-5	4-5	4.5-5.5	3.3-5	3.5-5	3-4.5	1.5-3	2-4
Endrin Ketone	NV	NA	0.007 U	0.0049 U	0.01 U	--	--	--	--	--	--	--	--	--
Heptachlor	NV	NA	0.0035 U	0.0024 U	0.005 U	--	--	--	--	--	--	--	--	--
Heptachlor Epoxide	NV	NA	0.0035 U	0.0024 U	0.005 U	--	--	--	--	--	--	--	--	--
Lindane	NV	NA	0.0035 U	0.0024 U	0.005 U	--	--	--	--	--	--	--	--	--
Methoxychlor	NV	NA	0.035 U	0.024 U	0.05 U	--	--	--	--	--	--	--	--	--
Toxaphene	NV	NA	0.35 U^	0.24 U	0.5 U	--	--	--	--	--	--	--	--	--
VOCs (mg/kg)														
1,1,1,2-Tetrachloroethane	38	NA	0.0032 U	0.005 U*	0.0052 U*	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	--
1,1,1-Trichloroethane	2	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 UJ	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
1,1,2,2-Tetrachloroethane	5	NA	0.0064 U	0.01 U*	0.01 U*	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
1,1,2-Trichloroethane	18	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 UJ	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
1,1-Dichloroethane	180	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
1,1-Dichloroethene	4,000	NA	0.016 U	0.025 U	0.026 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
1,1-Dichloropropene	NV	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	--
1,2,3-Trichlorobenzene	64	NA	0.0064 U	0.01 U*	0.01 U*	--	0.0059 U	0.0074 U	0.0053 U	--	--	--	--	0.0052 U
1,2,3-Trichloropropane	0.0063	NA	0.0032 U	0.005 U*	0.0052 U*	--	0.0023 U	0.003 U	0.0021 U	--	--	--	--	--
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	0.0059 U	0.0074 U	0.0053 U	--	--	--	--	0.0052 U
1,2,4-Trimethylbenzene	800	NA	0.0064 U	0.01 U*	0.01 U*	--	0.0012 U	0.7	0.0011 U	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.23	NA	0.0064 U	0.01 UJ*	0.01 U*	--	0.0059 U	0.0074 U	0.0053 U	--	--	--	--	0.0052 U
1,2-Dibromoethane	0.005	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
1,2-Dichloroethane	11	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
1,2-Dichloropropane	27	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 UJ	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
1,3,5-Trimethylbenzene	800	NA	0.016 U	0.025 U*	0.026 U*	--	0.0012 U	0.21	0.0011 U	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	--	--	--	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
1,3-Dichloropropane	1,600	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	--	--	--	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
2,2-Dichloropropane	NV	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	--
2-Butanone	48,000	NA	--	--	--	--	0.0082	0.037	0.0042 J	--	--	--	--	0.0054 JQ
2-Chloroethylvinyl ether	NV	NA	--	--	--	--	0.0059 UJ	0.0074 UJ	0.0053 UJ	--	--	--	--	--
2-Chlorotoluene	1,600	NA	0.0064 U	0.01 U*	0.01 U*	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	--
2-Hexanone	400	NA	--	--	--	--	0.0059 U	0.0074 U	0.0053 U	--	--	--	--	0.01 U
4-Chlorotoluene	1,600	NA	0.0064 U	0.01 U*	0.01 U*	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	--
4-Isopropyltoluene	NV	NA	0.0064 U	0.079 *	0.12 *	--	0.0012 U	0.02	0.0011 U	--	--	--	--	--
4-Methyl-2-pentanone	6,400	NA	--	--	--	--	0.0059 U	0.0074 U	0.0053 U	--	--	--	--	0.01 U
Acetone	72,000	NA	--	--	--	--	0.055	0.19	0.026	--	--	--	--	0.015
Acrolein	40	NA	--	--	--	--	0.059 U	0.074 U	0.053 U	--	--	--	--	--
Acrylonitrile	1.9	NA	--	--	--	--	0.0059 U	0.0074 U	0.0053 U	--	--	--	--	--
Benzene	0.03	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 UJ	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
Bromobenzene	640	NA	0.0064 U	0.01 U*	0.01 U*	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	SB6			SB4, SB5, SB6	B01	B02	B03	CR-20	CR-21	CR-22	CR-23	FC01
Sample Name:			DNR-SB6B	DNR-SB6A	DNR-SB6C	DNR-SB456B-COMP	B01-S-4.5	B02-S-5.0	B03-S-5.0	CR20-S-5.0	CR21-S-5.0	CR22-S-3.0	CR23-S-3.0	MJJ450
Collection Date:			April 2011	April 2011	April 2011	April 2011	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/13/2015	10/13/2015	9/26/2017
Collection Depth (ft bgs):			0-1.5	1.5-3	3-5	0-5	4-5	4-5	4.5-5.5	3.3-5	3.5-5	3-4.5	1.5-3	2-4
Bromodichloromethane	16	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 UJ	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
Bromoethane	NV	NA	--	--	--	--	0.0023 U	0.003 U	0.0021 U	--	--	--	--	--
Bromoform	130	NA	0.0032 U	0.005 U*	0.0052 U*	--	0.0012 UJ	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
Bromomethane	110	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 UJ	0.0015 UJ	0.0011 UJ	--	--	--	--	0.0052 U
Carbon disulfide	8,000	NA	--	--	--	--	0.0013	0.0088	0.0034	--	--	--	--	0.0052 U
Carbon tetrachloride	14	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 UJ	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
Chlorobenzene	1,600	NA	0.0032 U	0.005 U*	0.0052 U*	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
Chlorobromomethane	NV	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
Chloroethane	NV	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 UJ	0.0015 UJ	0.0011 UJ	--	--	--	--	0.0052 U
Chloroform	32	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
Chloromethane	NV	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
cis-1,2-Dichloroethene	160	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
cis-1,3-Dichloropropene	NV	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 UJ	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
Cyclohexane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.0052 U
Dibromochloromethane	12	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 UJ	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
Dibromomethane	800	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 UJ	0.0015 U	0.0011 U	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	16,000	NA	0.0032 U	0.005 U	0.0052 U	--	--	--	--	--	--	--	--	0.0052 U
Ethylbenzene	6	NA	0.0032 U	0.005 U*	0.035 *	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
Freon 113	2,400,000	NA	--	--	--	--	0.0023 U	0.003 U	0.0021 U	--	--	--	--	0.0052 U
Hexachlorobutadiene	13	NA	--	--	--	--	0.0059 U	0.0074 U	0.0053 U	--	--	--	--	--
Isopropylbenzene	8,000	NA	0.0064 U	0.01 U*	0.019 *	--	0.0012 U	0.019	0.0011 U	--	--	--	--	0.0052 U
m,p-Xylene	NV	NA	0.0064 U	0.01 U*	0.015 *	--	0.0012 U	0.036	0.0011 U	--	--	--	--	0.0052 U
Methyl acetate	80,000	NA	--	--	--	--	--	--	--	--	--	--	--	0.0052 U
Methyl iodide	NV	NA	--	--	--	--	0.0012 UJ	0.0015 UJ	0.0011 UJ	--	--	--	--	--
Methyl tert-butyl ether	0.1	NA	0.0032 U	0.005 U	0.0052 U	--	--	--	--	--	--	--	--	0.0052 U
Methylcyclohexane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	0.0052 U
Methylene chloride	0.02	NA	0.048 U	0.076 U	0.078 U	--	0.0023 U	0.003 U	0.0021 U	--	--	--	--	0.0052 U
Naphthalene	5	NA	--	--	--	--	0.0059 U	0.005 J	0.0053 U	--	--	--	--	--
n-Butylbenzene	4,000	NA	0.0064 U	0.01 U*	0.01 U*	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	--
n-Propylbenzene	8,000	NA	0.0032 U	0.005 U*	0.0052 U*	--	0.0012 U	0.015	0.0011 U	--	--	--	--	--
o-Xylene	16,000	NA	0.0032 U	0.005 U*	0.0052 U*	--	0.0012 U	0.11	0.0011 U	--	--	--	--	0.0052 U
sec-Butylbenzene	8,000	NA	0.0064 U	0.01 U*	0.01 U*	--	0.0012 U	0.017	0.0011 U	--	--	--	--	--
Styrene	16,000	NA	0.0064 U	0.01 U*	0.01 U*	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
tert-Butylbenzene	8,000	NA	0.0064 U	0.01 U*	0.01 U*	--	0.0012 U	0.0042	0.0011 U	--	--	--	--	--
Tetrachloroethene	0.05	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
Toluene	7	NA	0.0064 U	0.011	0.019	--	0.0007 J	0.0016	0.0011 U	--	--	--	--	0.0052 U
trans-1,2-Dichloroethene	1,600	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
trans-1,3-Dichloropropene	NV	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 UJ	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
trans-1,4-Dichloro-2-butene	NV	NA	--	--	--	--	0.0059 U	0.0074 U	0.0053 U	--	--	--	--	--
Trichloroethene	0.03	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	SB6			SB4, SB5, SB6	B01	B02	B03	CR-20	CR-21	CR-22	CR-23	FC01
Sample Name:			DNR-SB6B	DNR-SB6A	DNR-SB6C	DNR-SB456B-COMP	B01-S-4.5	B02-S-5.0	B03-S-5.0	CR20-S-5.0	CR21-S-5.0	CR22-S-3.0	CR23-S-3.0	MJJ450
Collection Date:			April 2011	April 2011	April 2011	April 2011	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/13/2015	10/13/2015	9/26/2017
Collection Depth (ft bgs):			0-1.5	1.5-3	3-5	0-5	4-5	4-5	4.5-5.5	3.3-5	3.5-5	3-4.5	1.5-3	2-4
Trichlorofluoromethane (Freon 11)	24,000	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0052 U
Vinyl acetate	80,000	NA	--	--	--	--	0.0059 U	0.0074 U	0.0053 U	--	--	--	--	--
Vinyl chloride	0.67	NA	0.0032 U	0.005 U	0.0052 U	--	0.0012 U	0.0015 U	0.0011 U	--	--	--	--	0.0031 U
Xylenes, total[e]	9	NA	0.0064 U	0.01 U*	0.0176 *	--	0.0012 U	0.146	0.0011 U	--	--	--	--	0.0052 U
SVOCs (mg/kg)														
1,1'-Biphenyl	130	NA	--	--	--	--	--	--	--	--	--	--	--	1.8 U
1,2,4,5-Tetrachlorobenzene	24	NA	--	--	--	--	--	--	--	--	--	--	--	1.8 U
1,2,4-Trichlorobenzene	34	NA	0.0064 U	--	0.01 U*	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	--
1,2-Dichlorobenzene	7,200	NA	0.0032 U	--	0.0052 U*	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	--
1,3-Dichlorobenzene	NV	NA	0.0032 U	--	0.0052 U*	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	--
1,4-Dichlorobenzene	190	NA	0.0032 U	--	0.0052 U*	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	--
1,4-Dioxane	10	NA	--	--	--	--	--	--	--	--	--	--	--	0.72 U
1-Methylnaphthalene	34	NA	0.1 U	0.14 U	0.3 U	--	0.015 J	0.17 J	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	--
2,3,4,6-Tetrachlorophenol	2,400	NA	--	--	--	--	--	--	--	--	--	--	--	1.8 U
2,4,5-Trichlorophenol	8,000	NA	0.35 U	0.48 U	0.99 U	--	0.096 U	0.96 U	0.099 U	1.4 U	0.46 U	0.19 U	0.093 U	1.8 U
2,4,6-Trichlorophenol	80	NA	0.52 U	0.72 U	1.5 U	--	0.096 U	0.96 U	0.099 U	1.4 U	0.46 U	0.19 U	0.093 U	1.8 U
2,4-Dichlorophenol	240	NA	0.35 U	0.48 U	0.99 U	--	0.096 U	0.96 U	0.099 U	1.4 U	0.46 U	0.19 U	0.093 U	1.8 U
2,4-Dimethylphenol	1,600	NA	0.35 U	0.48 U	0.99 U	--	0.096 U	0.96 U	0.099 U	1.4 U	0.46 U	0.19 U	0.093 U	1.8 U
2,4-Dinitrophenol	160	NA	3.5 U	4.8 U	9.9 U	--	0.19 U	1.9 U	0.2 U	2.8 U	0.92 U	0.38 U	0.19 U	3.5 UJ
2,4-Dinitrotoluene	3.2	NA	0.35 U	0.48 U	0.99 U	--	0.096 U	0.96 U	0.099 U	1.4 U	0.46 U	0.19 U	0.093 U	1.8 U
2,6-Dinitrotoluene	0.67	NA	0.35 U	0.48 U	0.99 U	--	0.096 U	0.96 U	0.099 U	1.4 U	0.46 U	0.19 U	0.093 U	1.8 U
2-Chloronaphthalene	6,400	NA	0.069 U	0.095 U	0.2 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
2-Chlorophenol	400	NA	0.35 U	0.48 U	0.99 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
2-Methylnaphthalene	320	NA	0.069 U	0.095 U	0.2 U	--	0.019 U	0.17 J	0.02 U	0.28 U	0.046 J	0.026 J	0.019 U	0.062
2-Methylphenol	4,000	NA	0.35 U	0.48 U	0.99 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	3.5 U
2-Nitroaniline	800	NA	0.35 U	0.48 U	0.99 U	--	0.096 U	0.96 U	0.099 U	1.4 U	0.46 U	0.19 U	0.093 U	1.8 U
2-Nitrophenol	NV	NA	0.35 U	0.48 U	0.99 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 UJ
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	0.69 U	0.95 U	2 U	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	2.2	NA	0.69 U	0.95 U	2 U	--	0.096 R	0.96 R	0.099 R	1.4 R	0.46 R	0.19 R	0.093 R	3.5 U
3-Nitroaniline	NV	NA	0.35 U	0.48 U	0.99 U	--	0.096 UJ	0.96 UJ	0.099 UJ	1.4 R	0.46 R	0.19 R	0.093 R	3.5 U
4,6-Dinitro-2-methylphenol	6.4	NA	3.5 U	4.8 U	9.9 U	--	0.19 U	1.9 U	0.2 U	2.8 U	0.92 U	0.38 U	0.19 U	3.5 UJ
4-Bromophenylphenyl ether	NV	NA	0.35 U	0.48 U	0.99 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
4-Chloro-3-methylphenol	8,000	NA	0.35 U	0.48 U	0.99 U	--	0.096 U	0.96 U	0.099 U	1.4 U	0.46 U	0.19 U	0.093 U	1.8 U
4-Chloroaniline	5	NA	0.35 U	0.48 U	0.99 U	--	0.096 U	0.96 U	0.099 U	1.4 R	0.46 R	0.19 R	0.093 R	3.5 U
4-Chlorophenylphenyl ether	NV	NA	0.35 U	0.48 U	0.99 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
4-Methylphenol	8,000	NA	--	--	--	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092	0.038 U	0.019 U	3.5 U
4-Nitroaniline	50	NA	0.35 U	0.48 U	0.99 U	--	0.096 UJ	0.96 UJ	0.099 UJ	1.4 U	0.46 U	0.19 U	0.093 U	3.5 U
4-Nitrophenol	NV	NA	3.5 U	4.8 U	9.9 U	--	0.096 U	0.96 U	0.099 U	1.4 U	0.46 U	0.19 U	0.093 U	3.5 U
Acenaphthene	4,800	NA	0.069 U	0.095 U	0.2 U	--	0.019 U	0.5	0.02 U	0.14 J	0.42	0.038 U	0.019 U	0.017 JQ
Acenaphthylene	NV	NA	0.069 U	0.095 U	0.2 U	--	0.022	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	0.0054 JQ

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a](1)	Natural Background Levels[2]	SB6			SB4, SB5, SB6	B01	B02	B03	CR-20	CR-21	CR-22	CR-23	FC01
Sample Name:			DNR-SB6B	DNR-SB6A	DNR-SB6C	DNR-SB456B-COMP	B01-S-4.5	B02-S-5.0	B03-S-5.0	CR20-S-5.0	CR21-S-5.0	CR22-S-3.0	CR23-S-3.0	MJJ450
Collection Date:			April 2011	April 2011	April 2011	April 2011	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/13/2015	10/13/2015	9/26/2017
Collection Depth (ft bgs):			0-1.5	1.5-3	3-5	0-5	4-5	4-5	4.5-5.5	3.3-5	3.5-5	3-4.5	1.5-3	2-4
Acetophenone	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	3.5 U
Anthracene	24,000	NA	0.069 U	0.095 U	0.2 U	--	0.014 J	0.29	0.02 U	0.28 U	0.15	0.038 U	0.019 U	0.016 JQ
Atrazine	4.3	NA	--	--	--	--	--	--	--	--	--	--	--	3.5 U
Benzaldehyde	250	NA	--	--	--	--	--	--	--	--	--	--	--	3.5 U
Benzo(a)anthracene	NV	NA	0.086 U	0.12 U	0.25 U	--	0.026	0.19 U	0.02 U	0.14 J	0.21	0.021 J	0.019 U	0.032 JQ
Benzo(a)pyrene	NA	NA	0.1 U	0.14 U	0.3 U	--	0.02	0.19 U	0.02 U	0.16 J	0.18	0.028 J	0.019 U	0.024 JQ
Benzo(b)fluoranthene	NV	NA	0.069 U	0.095 U	0.2 U	--	--	--	--	--	--	--	--	0.035 U
Benzo(ghi)perylene	NV	NA	0.086 U	0.12 U	0.25 U	--	0.01 J	0.19 U	0.02 U	0.28 U	0.092 U	0.032 J	0.019 U	0.02 JQ
Benzo(k)fluoranthene	NV	NA	0.086 U	0.12 U	0.25 U	--	--	--	--	--	--	--	--	0.035 U
Benzoic acid	320,000	NA	8.6 U	12 U	25 U	--	0.19 U	1.9 U	0.2 U	2.8 U	0.92 U	0.38 U	0.19 U	--
Benzyl alcohol	8,000	NA	0.35 U	0.48 U	0.99 U	--	0.019 R	0.19 R	0.02 R	0.28 U	0.092 U	0.038 U	0.019 U	--
Bis(2-chloro-1-methylethyl)ether	14	NA	0.52 U	0.72 U	1.5 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	3.5 U
Bis(2-chloroethoxy)methane	240	NA	0.35 U	0.48 U	0.99 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
Bis(2-chloroethyl)ether	0.91	NA	0.35 U	0.48 U	0.99 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	3.5 U
Bis(2-ethylhexyl)phthalate	71	NA	5.2 U	7.2 U	15 U	--	0.037 J	0.48 U	0.15	0.57 J	0.23 U	3.1	0.047 U	1.8 U
Butylbenzylphthalate	530	NA	0.35 U	0.48 U	0.99 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
Caprolactam	40,000	NA	--	--	--	--	--	--	--	--	--	--	--	3.5 U
Carbazole	NV	NA	0.52 U	0.72 U	1.5 U	--	0.019 UJ	0.19 UJ	0.02 UJ	0.28 UJ	0.092 UJ	0.038 UJ	0.019 UJ	3.5 U
Chrysene	NV	NA	0.086 U	0.12 U	0.25 U	--	0.034	0.48	0.02 U	0.47	0.48	0.075	0.019 U	0.11
Dibenzo(a,h)anthracene	NV	NA	0.14 U	0.19 U	0.4 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	0.035 U
Dibenzofuran	80	NA	0.35 U	0.48 U	0.99 U	--	0.012 J	0.33	0.02 U	0.28 U	0.1	0.038 U	0.019 U	1.8 U
Diethyl phthalate	64,000	NA	0.35 U	0.48 U	0.99 U	--	0.018 J	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
Dimethyl phthalate	NV	NA	0.35 U	0.48 U	0.99 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
Di-n-butyl phthalate	8,000	NA	0.69 U	0.95 U	2 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
Di-n-octyl phthalate	800	NA	0.69 U	0.95 U	2 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	3.5 UJ
Fluoranthene	3,200	NA	0.069 U	0.14	0.2 U	--	0.053	1.2	0.02 U	0.6	0.64	0.028 J	0.011 J	0.043
Fluorene	3,200	NA	0.069 U	0.095 U	0.2 U	--	0.01 J	0.59	0.02 U	0.16 J	0.3	0.038 U	0.019 U	0.03 JQ
Hexachlorobenzene	0.63	NA	0.17 U	0.24 U	0.5 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
Hexachlorobutadiene	13	NA	0.0032 U	--	0.0052 U*	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
Hexachlorocyclopentadiene	480	NA	0.35 U	0.48 U	0.99 U	--	0.096 U	0.96 U	0.099 U	1.4 U	0.46 U	0.19 U	0.093 U	3.5 UJ
Hexachloroethane	25	NA	0.35 U	0.48 U	0.99 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
Indeno(1,2,3-cd)pyrene	NV	NA	0.14 U	0.19 U	0.4 U	--	0.0096 J	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	0.0052 JQ
Isophorone	1,100	NA	0.35 U	0.48 U	0.99 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 UJ
Naphthalene	5	NA	0.016 U	0.025 U*	0.026 U*	--	0.083	0.19 U	0.02 U	0.28 U	0.065 J	0.27	0.019 U	0.035 U
Nitrobenzene	160	NA	0.35 U	0.48 U	0.99 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
N-Nitrosodiphenylamine	200	NA	0.17 U	0.24 U	0.5 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
N-Nitrosodipropylamine	0.14	NA	0.35 U	0.48 U	0.99 U	--	0.019 U	0.19 U	0.02 U	0.28 U	0.092 U	0.038 U	0.019 U	1.8 U
Pentachlorophenol	2.5	NA	0.69 U	0.95 U	2 U	--	0.096 U	0.96 U	0.099 U	1.4 U	0.46 U	0.19 U	0.093 U	0.072 U
Phenanthrene	NV	NA	0.069 U	0.17	0.2 U	--	0.069	1.6	0.02 U	0.51	0.92	0.023 J	0.011 J	0.11
Phenol	24,000	NA	0.35 U	0.48 U	0.99 U	--	0.019 UJ	0.19 UJ	0.02 UJ	0.28 UJ	0.092 UJ	0.038 UJ	0.019 UJ	3.5 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a](1)	Natural Background Levels[2]	SB6			SB4, SB5, SB6	B01	B02	B03	CR-20	CR-21	CR-22	CR-23	FC01
Sample Name:			DNR-SB6B	DNR-SB6A	DNR-SB6C	DNR-SB456B-COMP	B01-S-4.5	B02-S-5.0	B03-S-5.0	CR20-S-5.0	CR21-S-5.0	CR22-S-3.0	CR23-S-3.0	MJJ450
Collection Date:			April 2011	April 2011	April 2011	April 2011	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/13/2015	10/13/2015	9/26/2017
Collection Depth (ft bgs):			0-1.5	1.5-3	3-5	0-5	4-5	4-5	4.5-5.5	3.3-5	3.5-5	3-4.5	1.5-3	2-4
Pyrene	2,400	NA	0.069 U	0.12	0.2 U	--	0.069	0.93	0.02 U	0.53	0.61	0.03 J	0.011 J	0.1
Total Benzofluoranthenes	NV	NA	--	--	--	--	0.037 J	0.26 J	0.04 U	0.3 J	0.32	0.062 J	0.037 U	--
cPAH TEQ[f](5)	0.1	NA	0.14 U	0.19 U	0.40 U	--	0.0286 J	0.154	0.04 U	0.237 J	0.247	0.0409 J	0.037 U	0.0341 JQ
Hydrocarbon Identification (Detect/Non-Detect)														
Gasoline	NA	NA	--	--	--	--	ND	ND	ND	--	--	--	--	--
Diesel	NA	NA	--	--	--	--	ND	DETECT	ND	--	--	--	--	--
Lube Oil	NA	NA	--	--	--	--	ND	DETECT	DETECT	--	--	--	--	--
TPH (mg/kg)														
Gasoline-Range Hydrocarbons	100	NA	15 U	19 U	20 U	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	2,000	NA	85 U	610 Y	320 Y	--	--	5,800	64 U	480	620	120	21	41 U
Lube Oil-Range Hydrocarbons	2,000	NA	220	2,200	2,300	--	--	19,000	160	2,600	3,600	980	51	2,000
Diesel+Oil[g]	2,000	NA	263	2,810	2,620	--	--	24,800	192	3,080	4,220	1,100	72	2,020

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	FC01	FC02		FC03		MS01		MS02		MS03		MS04
Sample Name:			MJJ451	MJJ452	MJJ453	MJJ4C5	MJJ4C6	MJJ454	MJJ455	MJJ456	MJJ457	MJJ458	MJJ459	MJJ460
Collection Date:			9/26/2017	9/25/2017	9/25/2017	9/29/2017	9/29/2017	9/26/2017	9/26/2017	9/25/2017	9/25/2017	9/26/2017	9/26/2017	9/27/2017
Collection Depth (ft bgs):			5-7	2-4	4-6	2-4	6-8	1-4	8-12	2-4	6-8	2-4	5-7	2-4
Total Metals (mg/kg)														
Aluminum	80,000	NV	19,200	17,800	22,500	18,900	25,100	18,300	21,700	25,200	26,000	8,050	23,100	17,000
Antimony	32	NV	0.79 JQ	1.1 JQ	1.3 JQ	1.3 JQ	1.3 JQ	1.6 JQ	4.8 JQ	1.1 JQ	1 JQ	1.1 JQ	1.6 JQ	0.96 JQ
Arsenic	20	8.47	1.9	1 U	0.69 JQ	1 U	1.5	1 U	1 U	0.6 JQ	1 U	1 U	1 U	1 UJ
Barium	16,000	NV	127	155	112	87.2	812	106	400	126	142	66.9	64.8	73.1
Beryllium	160	0.8	0.7	0.66	0.72	0.71	0.82	0.67	1.2	0.72	0.79	0.48	0.88	0.7
Cadmium	2	0.1	0.53	1.5	1	1.4	2.5	1.7	9.3	0.91	0.95	1.7	1.6	1.1
Calcium	NV	NV	1,820 J	10,700 J	1,490 J	3,790 J	1,450 J	5,830 J	110,000 J	1,220 J	1,310 J	12,200 J	1,500 J	2,850
Chromium	2,000[b]	78.5	21.9 J	22.6 J	21 J	25.8 J	42.7 J	23.4 J	5.9 J	21.5 J	21.1 J	8.7 J	30.6 J	21.4
Cobalt	24	NV	8.8	16.1	12.4	17.9	33.8	16.6	14.4	13.6	11.9	12.7	18	17.3
Copper	3,200	52.9	33.1	56.1	32.5	56.9	51.8	78.7	800	31.7	31	38.8	183	47.2
Iron	56,000	49,170	12,700 J	28,200 J	22200 J	28,900 J	27,500 J	33,900 J	163,000 J	21,200 J	22,200 J	31,400 J	30,300 J	27,000
Lead	250	10.9	19.7	5.1	4.4	3.1	1,110	29.7	10.1	3.9	4.5	13.1	44.4	5.6
Magnesium	NV	NV	2,160 J	6,560 J	2,990 J	5,550 J	4,270 J	7,300 J	23,900 J	3,150 J	3,130 J	8,250 J	4,370 J	4,710
Manganese	3,700	691.8	165	992	291	463	240	457	13,100	507	311	289	234	314
Mercury	2	NV	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	1,600	54.2	17.5	23.9	19.3	29.2	29.1	28.5	21	19.4	18.6	14.6	30.8	29.7
Potassium	NV	NV	570	1,100	233 JQ	307 JQ	243 JQ	851	11,300	232 JQ	333 JQ	705	354 JQ	407
Selenium	400	NV	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ
Silver	400	NV	0.56 JQ	1.1 J	0.84 J	1.1 J	1 J	1.3 J	6.7 J	0.85 J	0.87 JQ	1.1 J	1.1 J	1 UJ
Sodium	NV	NV	221 JQ	760	298 JQ	300 JQ	198 JQ	468	3,650	249 JQ	220 JQ	366 JQ	216 JQ	367 JQ
Thallium	0.8	NV	2.8	2.7	3.4	3.3	4	3.2	2.5 U	3.4	3.5	2.1	4.4	4
Vanadium	400	NV	54.4	75.7	69.6	86.1	94.5	82	42.2	66.1	67.6	57.1	112	83
Zinc	24,000	85.6	98.5	93.2	37.8	47.4	777	91.4	117	38.7	41.9	53.3	101	55
PCBs (mg/kg)														
Aroclor 1016	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1221	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1232	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1242	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1248	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1254	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1260	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1262	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1268	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PCBs[c]	1	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dioxins/Furans (pg/g)														
1,2,3,4,6,7,8-HpCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	FC01	FC02		FC03		MS01		MS02		MS03		MS04
Sample Name:			MJJ451	MJJ452	MJJ453	MJJ4C5	MJJ4C6	MJJ454	MJJ455	MJJ456	MJJ457	MJJ458	MJJ459	MJJ460
Collection Date:			9/26/2017	9/25/2017	9/25/2017	9/29/2017	9/29/2017	9/26/2017	9/26/2017	9/25/2017	9/25/2017	9/26/2017	9/26/2017	9/27/2017
Collection Depth (ft bgs):			5-7	2-4	4-6	2-4	6-8	1-4	8-12	2-4	6-8	2-4	5-7	2-4
1,2,3,4,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
OCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDDs	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides (mg/kg)														
Aldrin	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
alpha-BHC	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
beta-BHC	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
cis-Chlordane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
gamma-Chlordane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chlordane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDE	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDT	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total DDTs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dieldrin	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan I	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan II	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan Sulfate	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endrin	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endrin Aldehyde	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	FC01	FC02		FC03		MS01		MS02		MS03		MS04
Sample Name:			MJJ451	MJJ452	MJJ453	MJJ4C5	MJJ4C6	MJJ454	MJJ455	MJJ456	MJJ457	MJJ458	MJJ459	MJJ460
Collection Date:			9/26/2017	9/25/2017	9/25/2017	9/29/2017	9/29/2017	9/26/2017	9/26/2017	9/25/2017	9/25/2017	9/26/2017	9/26/2017	9/27/2017
Collection Depth (ft bgs):			5-7	2-4	4-6	2-4	6-8	1-4	8-12	2-4	6-8	2-4	5-7	2-4
Endrin Ketone	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor Epoxide	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lindane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methoxychlor	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Toxaphene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
VOCs (mg/kg)														
1,1,1,2-Tetrachloroethane	38	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	2	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
1,1,2,2-Tetrachloroethane	5	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
1,1,2-Trichloroethane	18	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
1,1-Dichloroethane	180	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
1,1-Dichloroethene	4,000	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
1,1-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	64	NA	0.0059 U	0.0082 UJ	0.34 U	0.0048 UJ	0.011 U	0.0043 UJ	0.0081 UJ	0.0055 U	0.0087 U	0.0066 UJ	0.029 U	0.0059 UJ
1,2,3-Trichloropropane	0.0063	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	34	NA	0.0059 U	0.0082 UJ	0.34 U	0.0048 UJ	0.011 U	0.0043 UJ	0.0081 UJ	0.0055 U	0.0087 U	0.0066 UJ	0.029 U	0.0059 UJ
1,2,4-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.23	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 UJ	0.029 U	0.0059 U
1,2-Dibromoethane	0.005	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
1,2-Dichlorobenzene	7,200	NA	0.0059 U	0.0082 UJ	0.34 U	0.0048 UJ	0.011 U	0.0043 UJ	0.0081 UJ	0.0055 U	0.0087 U	0.0066 UJ	0.029 U	0.0059 UJ
1,2-Dichloroethane	11	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
1,2-Dichloropropane	27	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
1,3,5-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	0.0059 U	0.0082 UJ	0.34 U	0.0048 UJ	0.011 U	0.0043 UJ	0.0081 UJ	0.0055 U	0.0087 U	0.0066 UJ	0.029 U	0.0059 UJ
1,3-Dichloropropane	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	0.0059 U	0.0082 UJ	0.34 U	0.0048 UJ	0.011 U	0.0043 UJ	0.0081 UJ	0.0055 U	0.0087 U	0.0066 UJ	0.029 U	0.0059 UJ
2,2-Dichloropropane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	48,000	NA	0.0029 JQ	0.014 JQ	0.68 U	0.0035 JQ	0.022 U	0.0067 JQ	0.0076 JQ	0.0097 JQ	0.0055 JQ	0.021	0.068	0.012 U
2-Chloroethylvinyl ether	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	400	NA	0.0072 JQ	0.016 U	0.68 U	0.0095 U	0.022 U	0.0086 U	0.016 U	0.011 U	0.017 U	0.013 U	0.058 U	0.012 U
4-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	6,400	NA	0.012 U	0.016 U	0.68 U	0.0095 U	0.022 U	0.0086 U	0.016 U	0.011 U	0.017 U	0.013 U	0.058 U	0.012 U
Acetone	72,000	NA	0.016	0.041	0.68 U	0.013	0.023	0.018	0.012 JQ	0.054	0.03	0.058	0.21	0.0057 JQ
Acrolein	40	NA	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	1.9	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	0.03	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Bromobenzene	640	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	FC01	FC02		FC03		MS01		MS02		MS03		MS04
Sample Name:			MJJ451	MJJ452	MJJ453	MJJ4C5	MJJ4C6	MJJ454	MJJ455	MJJ456	MJJ457	MJJ458	MJJ459	MJJ460
Collection Date:			9/26/2017	9/25/2017	9/25/2017	9/29/2017	9/29/2017	9/26/2017	9/26/2017	9/25/2017	9/25/2017	9/26/2017	9/26/2017	9/27/2017
Collection Depth (ft bgs):			5-7	2-4	4-6	2-4	6-8	1-4	8-12	2-4	6-8	2-4	5-7	2-4
Bromodichloromethane	16	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Bromoethane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	130	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 UJ	0.029 U	0.0059 U
Bromomethane	110	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Carbon disulfide	8,000	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Carbon tetrachloride	14	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Chlorobenzene	1,600	NA	0.0059 U	0.0082 UJ	0.34 U	0.0048 UJ	0.011 U	0.0043 UJ	0.0081 UJ	0.0055 U	0.0087 U	0.0066 UJ	0.029 U	0.0059 UJ
Chlorobromomethane	NV	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Chloroethane	NV	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Chloroform	32	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Chloromethane	NV	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
cis-1,2-Dichloroethene	160	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
cis-1,3-Dichloropropene	NV	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Cyclohexane	NV	NA	0.0059 U	0.0082 U	0.24 JQ	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Dibromochloromethane	12	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Dibromomethane	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	16,000	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Ethylbenzene	6	NA	0.0059 U	0.0082 U	0.37	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Freon 113	2,400,000	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Hexachlorobutadiene	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	8,000	NA	0.0059 U	0.0082 U	0.18 JQ	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
m,p-Xylene	NV	NA	0.0059 U	0.0082 U	0.79	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Methyl acetate	80,000	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Methyl iodide	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.1	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Methylcyclohexane	NV	NA	0.0059 U	0.0082 U	1.7	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Methylene chloride	0.02	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Naphthalene	5	NA	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	4,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	16,000	NA	0.0059 U	0.0082 U	0.72	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
sec-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	16,000	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
tert-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	0.05	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Toluene	7	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
trans-1,2-Dichloroethene	1,600	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
trans-1,3-Dichloropropene	NV	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
trans-1,4-Dichloro-2-butene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.03	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	FC01	FC02		FC03		MS01		MS02		MS03		MS04
Sample Name:			MJJ451	MJJ452	MJJ453	MJJ4C5	MJJ4C6	MJJ454	MJJ455	MJJ456	MJJ457	MJJ458	MJJ459	MJJ460
Collection Date:			9/26/2017	9/25/2017	9/25/2017	9/29/2017	9/29/2017	9/26/2017	9/26/2017	9/25/2017	9/25/2017	9/26/2017	9/26/2017	9/27/2017
Collection Depth (ft bgs):			5-7	2-4	4-6	2-4	6-8	1-4	8-12	2-4	6-8	2-4	5-7	2-4
Trichlorofluoromethane (Freon 11)	24,000	NA	0.0059 U	0.0082 U	0.34 U	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
Vinyl acetate	80,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.67	NA	0.0035 U	0.0049 U	0.2 U	0.0029 U	0.0065 U	0.0026 U	0.0049 U	0.0033 U	0.0052 U	0.004 U	0.017 U	0.0036 U
Xylenes, total[e]	9	NA	0.0059 U	0.0082 U	1.51	0.0048 U	0.011 U	0.0043 U	0.0081 U	0.0055 U	0.0087 U	0.0066 U	0.029 U	0.0059 U
SVOCs (mg/kg)														
1,1'-Biphenyl	130	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
1,2,4,5-Tetrachlorobenzene	24	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	10	NA	0.089 U	0.79 U	0.081 UJ	0.073 U	0.1 U	0.77 U	0.12 U	0.08 U	0.093 U	0.76 U	0.081 UJ	0.72 U
1-Methylnaphthalene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6-Tetrachlorophenol	2,400	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
2,4,5-Trichlorophenol	8,000	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
2,4,6-Trichlorophenol	80	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
2,4-Dichlorophenol	240	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
2,4-Dimethylphenol	1,600	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
2,4-Dinitrophenol	160	NA	0.44 U	3.9 UJ	0.4 U	0.36 U	0.5 U	3.8 UJ	0.58 U	0.4 U	0.46 U	3.8 UJ	0.4 U	3.5 UJ
2,4-Dinitrotoluene	3.2	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
2,6-Dinitrotoluene	0.67	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
2-Chloronaphthalene	6,400	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
2-Chlorophenol	400	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
2-Methylnaphthalene	320	NA	0.025	0.54	2	0.0012 JQ	0.0048 JQ	0.028 JQ	0.0039 JQ	0.00094 JQ	0.00059 JQ	0.029 JQ	0.022	0.035 U
2-Methylphenol	4,000	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 U	0.4 U	3.5 U
2-Nitroaniline	800	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
2-Nitrophenol	NV	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 UJ	0.3 U	0.2 U	0.24 U	1.9 UJ	0.21 U	1.8 UJ
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	2.2	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 UJ	0.4 U	3.5 UJ
3-Nitroaniline	NV	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 U	0.4 U	3.5 U
4,6-Dinitro-2-methylphenol	6.4	NA	0.44 U	3.9 UJ	0.4 U	0.36 U	0.5 U	3.8 UJ	0.58 U	0.4 U	0.46 U	3.8 UJ	0.4 U	3.5 UJ
4-Bromophenylphenyl ether	NV	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
4-Chloro-3-methylphenol	8,000	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
4-Chloroaniline	5	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 UJ	0.4 U	3.5 UJ
4-Chlorophenylphenyl ether	NV	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
4-Methylphenol	8,000	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 U	0.4 U	3.5 U
4-Nitroaniline	50	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 U	0.4 U	3.5 U
4-Nitrophenol	NV	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 U	0.4 U	3.5 U
Acenaphthene	4,800	NA	0.0049 JQ	0.05	0.29 J	0.00034 JQ	0.013	0.025 JQ	0.0049 JQ	0.004 U	0.0076	0.14	0.1	0.035 U
Acenaphthylene	NV	NA	0.017 JQ	0.018 JQ	0.089 J	0.0017 JQ	0.028	0.026 JQ	0.0035 JQ	0.004 U	0.0046 U	0.0071 JQ	0.02 U	0.035 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	FC01	FC02		FC03		MS01		MS02		MS03		MS04
Sample Name:			MJJ451	MJJ452	MJJ453	MJJ4C5	MJJ4C6	MJJ454	MJJ455	MJJ456	MJJ457	MJJ458	MJJ459	MJJ460
Collection Date:			9/26/2017	9/25/2017	9/25/2017	9/29/2017	9/29/2017	9/26/2017	9/26/2017	9/25/2017	9/25/2017	9/26/2017	9/26/2017	9/27/2017
Collection Depth (ft bgs):			5-7	2-4	4-6	2-4	6-8	1-4	8-12	2-4	6-8	2-4	5-7	2-4
Acetophenone	8,000	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 U	0.4 U	3.5 U
Anthracene	24,000	NA	0.014 JQ	0.041	0.16 J	0.0036 U	0.032	0.052	0.0023 JQ	0.004 U	0.0046 U	0.089	0.05 J	0.035 U
Atrazine	4.3	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 U	0.4 U	3.5 U
Benzaldehyde	250	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 U	0.4 U	3.5 U
Benzo(a)anthracene	NV	NA	0.03	0.062	0.02 UJ	0.00069 JQ	0.2	0.13 J	0.006	0.004 U	0.0046 U	0.14	0.058 J	0.063
Benzo(a)pyrene	NA	NA	0.028	0.05	0.02 UJ	0.0036 U	0.17	0.13 J	0.0055 JQ	0.004 U	0.0046 U	0.086	0.023 J	0.03 JQ
Benzo(b)fluoranthene	NV	NA	0.044	0.039 U	0.033 J	0.00094 JQ	0.3	0.23 J	0.0099	0.004 U	0.0046 U	0.19	0.13 J	0.035 U
Benzo(ghi)perylene	NV	NA	0.015 JQ	0.017 JQ	0.02 UJ	0.00062 JQ	0.022 J	0.046 J	0.006	0.004 U	0.0046 U	0.013 JQ	0.02 UJ	0.016 JQ
Benzo(k)fluoranthene	NV	NA	0.018 JQ	0.039 U	0.02 UJ	0.0036 U	0.005 U	0.079 J	0.0021 JQ	0.004 U	0.0046 U	0.17	0.02 UJ	0.035 U
Benzoic acid	320,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloro-1-methylethyl)ether	14	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 U	0.4 U	3.5 U
Bis(2-chloroethoxy)methane	240	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
Bis(2-chloroethyl)ether	0.91	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 U	0.4 U	3.5 U
Bis(2-ethylhexyl)phthalate	71	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
Butylbenzylphthalate	530	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
Caprolactam	40,000	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 U	0.4 U	3.5 U
Carbazole	NV	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 U	0.4 U	3.5 U
Chrysene	NV	NA	0.041	0.25	0.01 JQ	0.0011 JQ	0.22	0.24 J	0.0092	0.004 U	0.0046 U	0.3	0.078 J	0.031 JQ
Dibenzo(a,h)anthracene	NV	NA	0.0034 JQ	0.039 U	0.02 UJ	0.0036 U	0.0062 J	0.014 JQ	0.0058 U	0.004 U	0.0046 U	0.038 U	0.02 UJ	0.035 U
Dibenzofuran	80	NA	0.23 U	2 U	0.12 JQ	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.038 JQ	1.8 U
Diethyl phthalate	64,000	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
Dimethyl phthalate	NV	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
Di-n-butyl phthalate	8,000	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
Di-n-octyl phthalate	800	NA	0.44 U	3.9 UJ	0.4 U	0.36 U	0.5 U	3.8 UJ	0.58 U	0.4 U	0.46 U	3.8 UJ	0.4 U	3.5 UJ
Fluoranthene	3,200	NA	0.082	0.026 JQ	0.029 J	0.0038	0.39	0.23 J	0.015	0.004 U	0.0046 U	0.5	0.37 J	0.035 U
Fluorene	3,200	NA	0.022 U	0.069	0.39	0.0036 U	0.023	0.033 JQ	0.0058 U	0.004 U	0.0046 U	0.13	0.17	0.035 U
Hexachlorobenzene	0.63	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
Hexachlorobutadiene	13	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
Hexachlorocyclopentadiene	480	NA	0.44 U	3.9 UJ	0.4 U	0.36 U	0.5 U	3.8 UJ	0.58 U	0.4 U	0.46 U	3.8 UJ	0.4 U	3.5 UJ
Hexachloroethane	25	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
Indeno(1,2,3-cd)pyrene	NV	NA	0.012 JQ	0.0051 JQ	0.02 UJ	0.00059 JQ	0.024 J	0.042 J	0.0042 JQ	0.004 U	0.0046 U	0.0066 JQ	0.02 UJ	0.035 U
Isophorone	1,100	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 UJ	0.3 U	0.2 U	0.24 U	1.9 UJ	0.21 U	1.8 UJ
Naphthalene	5	NA	0.051	0.039 U	0.26	0.0042	0.013	0.038 U	0.012	0.004 U	0.0046 U	0.038 U	0.02 U	0.035 U
Nitrobenzene	160	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
N-Nitrosodiphenylamine	200	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
N-Nitrosodipropylamine	0.14	NA	0.23 U	2 U	0.21 U	0.18 U	0.26 U	2 U	0.3 U	0.2 U	0.24 U	1.9 U	0.21 U	1.8 U
Pentachlorophenol	2.5	NA	0.31	0.079 U	0.04 UJ	0.0073 U	0.01 U	0.077 U	0.012 U	0.008 U	0.0093 U	0.076 U	0.041 U	0.072 U
Phenanthrene	NV	NA	0.07	0.26	0.81 J	0.0045	0.11	0.17	0.013	0.004 U	0.0046 U	0.26	0.42 J	0.035 U
Phenol	24,000	NA	0.44 U	3.9 U	0.4 U	0.36 U	0.5 U	3.8 U	0.58 U	0.4 U	0.46 U	3.8 U	0.4 U	3.5 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	FC01	FC02		FC03		MS01		MS02		MS03		MS04
Sample Name:			MJJ451	MJJ452	MJJ453	MJJ4C5	MJJ4C6	MJJ454	MJJ455	MJJ456	MJJ457	MJJ458	MJJ459	MJJ460
Collection Date:			9/26/2017	9/25/2017	9/25/2017	9/29/2017	9/29/2017	9/26/2017	9/26/2017	9/25/2017	9/25/2017	9/26/2017	9/26/2017	9/27/2017
Collection Depth (ft bgs):			5-7	2-4	4-6	2-4	6-8	1-4	8-12	2-4	6-8	2-4	5-7	2-4
Pyrene	2,400	NA	0.072	0.073	0.066 J	0.0045	0.37	0.27 J	0.019	0.004 U	0.0046 U	0.42	0.22 J	0.022 JQ
Total Benzofluoranthenes	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
cPAH TEQ[f][5]	0.1	NA	0.0392 JQ	0.0651 JQ	0.0174 J	0.00239 JQ	0.225 J	0.182 J	0.0081 JQ	0.004 U	0.0046 U	0.142	0.0456	0.0436
Hydrocarbon Identification (Detect/Non-Detect)														
Gasoline	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
TPH (mg/kg)														
Gasoline-Range Hydrocarbons	100	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	2,000	NA	50 U	44 U	3,300	44 U	55 U	46 U	59 U	46 U	47 U	46 U	46 U	42 U
Lube Oil-Range Hydrocarbons	2,000	NA	150	1,500	6,400	110 U	1,400	1,100	150 U	110 U	120 U	6,700	20,000	2,200
Diesel+Oil[g]	2,000	NA	175	1,520	9,700	110 U	1,430	1,120	150 U	110 U	120 U	6,720	20,000	2,220

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	MS04	MS05		MS06		NA01		OC01		OC02		OC03
Sample Name:			MJJ461	MJJ4B4	MJJ4B5	MJJ4C3	MJJ4C4	MJJ484	MJJ485	MJJ480	MJJ481	MJJ482	MJJ483	MJJ4C1
Collection Date:			9/27/2017	9/28/2017	9/28/2017	9/29/2017	9/29/2017	9/27/2017	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017
Collection Depth (ft bgs):			4-6	3.2-4	4-6	2-4	6-8	2-4	5-6	1-4	4-6	2-4	4-6	3-4
Total Metals (mg/kg)														
Aluminum	80,000	NV	22,900	8,670	6,050	18,900	22,500	26,300	28,100	9,770	21,900	11,300	23,000	18,300
Antimony	32	NV	1 JQ	1.4 JQ	1 JQ	0.97 JQ	0.9 JQ	1.2 JQ	1.1 JQ	2.1 JQ	1.4 JQ	1.1 JQ	0.8 JQ	0.9 JQ
Arsenic	20	8.47	1 UJ	1 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 J	1 UJ	1 UJ
Barium	16,000	NV	106	94.6	26.5 JQ	108	133	134	108	43.7	85.2	51.3	94.3	76.3
Beryllium	160	0.8	0.89	0.48	0.24 JQ	0.67	0.75	0.89	0.77	0.49	0.85	0.51	0.79	0.6
Cadmium	2	0.1	1.2	1.1	0.44 JQ	1	0.92	1.1	1.1	1.2	1.6	1.1	1	0.86
Calcium	NV	NV	3,190	5,070	4,050	1,560 J	1,460 J	1,630	2,130	6,270	4,620	7,800	2,570	2,730
Chromium	2,000[b]	78.5	34	12.9	6.5	20.8 J	18.4 J	31.6	35.9	14.1	27.7	13.4	36.1	18.7
Cobalt	24	NV	20.5	11.9	4 JQ	13.2	12.9	19	15.8	15.5	24	14.9	20.6	15.1
Copper	3,200	52.9	49.2	181	22.2	33.5	26.1	56.4	42.9	56.2	89.9	57.2	52.1	60.7
Iron	56,000	49,170	30,500	27,200	8,460	21,000 J	20,400 J	31,000	29,900	34,300	39,000	29,300	28,700	26,100
Lead	250	10.9	4.2	61.4	7.8	2.5	4.1	5.8	4.7	7.5	2.7	5.9	3.1	2.9
Magnesium	NV	NV	4,660	6,300	1,460	3,240 J	2,860 J	4,670	3,730	7,880	6,910	6,960	5,160	5,170
Manganese	3,700	691.8	175	283	157	355	308	303	380	404	538	366	463	491
Mercury	2	NV	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	1,600	54.2	30.3	20	6.2	19.9	16.9	28.4	25.2	27.6	37.9	28.2	30.8	26.1
Potassium	NV	NV	420 JQ	573	116 JQ	213 JQ	292 JQ	307 JQ	202 JQ	1,290	868	608	829	251 JQ
Selenium	400	NV	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ
Silver	400	NV	0.86 J	0.89 J	1 UJ	0.82 J	0.84 JQ	0.91 J	1 UJ	1 J	1.2 J	0.82 J	1 UJ	1 UJ
Sodium	NV	NV	305 JQ	418	145 JQ	228 JQ	250 JQ	333 JQ	327 JQ	433	277 JQ	375 JQ	232 JQ	328 JQ
Thallium	0.8	NV	5.1	3	1.8 JQ	2.8	2.9	5.2	6.2	3.2	5.9	3.1	5.1	4
Vanadium	400	NV	93.6	53.8	26.8	70.7	60.2	99.5	97.6	58.6	121	59.9	100	70.6
Zinc	24,000	85.6	50.4	63	31.3	35.4	40	47.1	47.9	53.3	65	56.4	44.3	41.2
PCBs (mg/kg)														
Aroclor 1016	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1221	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1232	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1242	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1248	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1254	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1260	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1262	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1268	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PCBs[c]	1	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dioxins/Furans (pg/g)														
1,2,3,4,6,7,8-HpCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	MS04	MS05		MS06		NA01		OC01		OC02		OC03
Sample Name:			MJJ461	MJJ4B4	MJJ4B5	MJJ4C3	MJJ4C4	MJJ484	MJJ485	MJJ480	MJJ481	MJJ482	MJJ483	MJJ4C1
Collection Date:			9/27/2017	9/28/2017	9/28/2017	9/29/2017	9/29/2017	9/27/2017	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017
Collection Depth (ft bgs):			4-6	3.2-4	4-6	2-4	6-8	2-4	5-6	1-4	4-6	2-4	4-6	3-4
1,2,3,4,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
OCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDDs	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides (mg/kg)														
Aldrin	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
alpha-BHC	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
beta-BHC	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
cis-Chlordane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
gamma-Chlordane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chlordane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDE	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDT	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total DDTs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dieldrin	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan I	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan II	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan Sulfate	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endrin	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endrin Aldehyde	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	MS04	MS05		MS06		NA01		OC01		OC02		OC03
Sample Name:			MJJ461	MJJ4B4	MJJ4B5	MJJ4C3	MJJ4C4	MJJ484	MJJ485	MJJ480	MJJ481	MJJ482	MJJ483	MJJ4C1
Collection Date:			9/27/2017	9/28/2017	9/28/2017	9/29/2017	9/29/2017	9/27/2017	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017
Collection Depth (ft bgs):			4-6	3.2-4	4-6	2-4	6-8	2-4	5-6	1-4	4-6	2-4	4-6	3-4
Endrin Ketone	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor Epoxide	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lindane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methoxychlor	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Toxaphene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
VOCs (mg/kg)														
1,1,1,2-Tetrachloroethane	38	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	2	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
1,1,2,2-Tetrachloroethane	5	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
1,1,2-Trichloroethane	18	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
1,1-Dichloroethane	180	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
1,1-Dichloroethene	4,000	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
1,1-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	64	NA	0.0053 U	0.0066 UJ	0.023 UJ	0.0052 UJ	0.0058 U	--	--	0.0051 UJ	0.0047 U	0.0047 UJ	0.0053 U	0.0058 U
1,2,3-Trichloropropane	0.0063	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	34	NA	0.0053 U	0.0066 UJ	0.023 UJ	0.0052 UJ	0.0058 U	--	--	0.0051 UJ	0.0047 U	0.0047 UJ	0.0053 U	0.0058 U
1,2,4-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.23	NA	0.0053 U	0.0066 U	0.023 UJ	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
1,2-Dibromoethane	0.005	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
1,2-Dichlorobenzene	7,200	NA	0.0053 U	0.0066 UJ	0.023 UJ	0.0052 UJ	0.0058 U	--	--	0.0051 UJ	0.0047 U	0.0047 UJ	0.0053 U	0.0058 U
1,2-Dichloroethane	11	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
1,2-Dichloropropane	27	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
1,3,5-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	0.0053 U	0.0066 UJ	0.023 UJ	0.0052 UJ	0.0058 U	--	--	0.0051 UJ	0.0047 U	0.0047 UJ	0.0053 U	0.0058 U
1,3-Dichloropropane	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	0.0053 U	0.0066 UJ	0.023 UJ	0.0052 UJ	0.0058 U	--	--	0.0051 UJ	0.0047 U	0.0047 UJ	0.0053 U	0.0058 U
2,2-Dichloropropane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	48,000	NA	0.011 U	0.013	0.044 JQ	0.0068 JQ	0.012 U	--	--	0.01 U	0.0043 JQ	0.0081 JQ	0.0032 JQ	0.0064 JQ
2-Chloroethylvinyl ether	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	400	NA	0.011 U	0.013 U	0.046 U	0.01 U	0.012 U	--	--	0.01 U	0.0093 U	0.0095 U	0.011 U	0.012 U
4-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	6,400	NA	0.011 U	0.013 U	0.046 U	0.01 U	0.012 U	--	--	0.01 U	0.0093 U	0.0095 U	0.011 U	0.012 U
Acetone	72,000	NA	0.011 U	0.036	0.1	0.042	0.013	--	--	0.01 U	0.0089 JQ	0.024	0.012	0.037
Acrolein	40	NA	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	1.9	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	0.03	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Bromobenzene	640	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	MS04	MS05		MS06		NA01		OC01		OC02		OC03
Sample Name:			MJJ461	MJJ4B4	MJJ4B5	MJJ4C3	MJJ4C4	MJJ484	MJJ485	MJJ480	MJJ481	MJJ482	MJJ483	MJJ4C1
Collection Date:			9/27/2017	9/28/2017	9/28/2017	9/29/2017	9/29/2017	9/27/2017	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017
Collection Depth (ft bgs):			4-6	3.2-4	4-6	2-4	6-8	2-4	5-6	1-4	4-6	2-4	4-6	3-4
Bromodichloromethane	16	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Bromoethane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	130	NA	0.0053 U	0.0066 U	0.023 UJ	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Bromomethane	110	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Carbon disulfide	8,000	NA	0.0053 U	0.0066 U	0.018 JQ	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Carbon tetrachloride	14	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Chlorobenzene	1,600	NA	0.0053 U	0.0066 UJ	0.023 UJ	0.0052 UJ	0.0058 U	--	--	0.0051 UJ	0.0047 U	0.0047 UJ	0.0053 U	0.0058 U
Chlorobromomethane	NV	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Chloroethane	NV	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Chloroform	32	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.00067 JQ	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Chloromethane	NV	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
cis-1,2-Dichloroethene	160	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
cis-1,3-Dichloropropene	NV	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Cyclohexane	NV	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Dibromochloromethane	12	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Dibromomethane	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	16,000	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Ethylbenzene	6	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Freon 113	2,400,000	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Hexachlorobutadiene	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	8,000	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
m,p-Xylene	NV	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Methyl acetate	80,000	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Methyl iodide	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.1	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Methylcyclohexane	NV	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Methylene chloride	0.02	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Naphthalene	5	NA	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	4,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	16,000	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
sec-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	16,000	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
tert-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	0.05	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Toluene	7	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.00087 JQ	0.0053 U	0.0058 U
trans-1,2-Dichloroethene	1,600	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
trans-1,3-Dichloropropene	NV	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
trans-1,4-Dichloro-2-butene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.03	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	MS04	MS05		MS06		NA01		OC01		OC02		OC03
Sample Name:			MJJ461	MJJ4B4	MJJ4B5	MJJ4C3	MJJ4C4	MJJ484	MJJ485	MJJ480	MJJ481	MJJ482	MJJ483	MJJ4C1
Collection Date:			9/27/2017	9/28/2017	9/28/2017	9/29/2017	9/29/2017	9/27/2017	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017
Collection Depth (ft bgs):			4-6	3.2-4	4-6	2-4	6-8	2-4	5-6	1-4	4-6	2-4	4-6	3-4
Trichlorofluoromethane (Freon 11)	24,000	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
Vinyl acetate	80,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.67	NA	0.0032 U	0.004 U	0.014 U	0.0031 U	0.0035 U	--	--	0.0031 U	0.0028 U	0.0028 U	0.0032 U	0.0035 U
Xylenes, total[e]	9	NA	0.0053 U	0.0066 U	0.023 U	0.0052 U	0.0058 U	--	--	0.0051 U	0.0047 U	0.0047 U	0.0053 U	0.0058 U
SVOCs (mg/kg)														
1,1'-Biphenyl	130	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
1,2,4,5-Tetrachlorobenzene	24	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	10	NA	0.4 U	0.78 U	1.3 U	0.076 U	0.093 U	0.076 UJ	0.082 U	0.069 U	0.077 U	0.71 U	0.08 U	0.72 U
1-Methylnaphthalene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6-Tetrachlorophenol	2,400	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U		1.8 U
2,4,5-Trichlorophenol	8,000	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
2,4,6-Trichlorophenol	80	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
2,4-Dichlorophenol	240	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
2,4-Dimethylphenol	1,600	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
2,4-Dinitrophenol	160	NA	2 UJ	3.9 UJ	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 UJ	0.38 U	3.5 UJ	0.4 U	3.6 UJ
2,4-Dinitrotoluene	3.2	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
2,6-Dinitrotoluene	0.67	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
2-Chloronaphthalene	6,400	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
2-Chlorophenol	400	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
2-Methylnaphthalene	320	NA	0.02 U	0.024 JQ	0.05 JQ	0.0037 U	0.0021 JQ	0.0029 JQ	0.001 JQ	0.017 U	0.0038 UJ	0.036 U	0.004 U	0.066
2-Methylphenol	4,000	NA	2 U	3.9 U	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 U	0.4 U	3.6 U
2-Nitroaniline	800	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
2-Nitrophenol	NV	NA	1 U	2 UJ		0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 UJ	0.2 U	
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	2.2	NA	2 U	3.9 UJ	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 UJ	0.4 U	3.6 U
3-Nitroaniline	NV	NA	2 U	3.9 U	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 U	0.4 U	3.6 U
4,6-Dinitro-2-methylphenol	6.4	NA	2 UJ	3.9 UJ	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 UJ	0.38 U	3.5 UJ	0.4 U	
4-Bromophenylphenyl ether	NV	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
4-Chloro-3-methylphenol	8,000	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
4-Chloroaniline	5	NA	2 U	3.9 UJ		0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 UJ	0.4 U	3.6 U
4-Chlorophenylphenyl ether	NV	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
4-Methylphenol	8,000	NA	2 U	3.9 U	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 U	0.4 U	3.6 U
4-Nitroaniline	50	NA	2 U	3.9 U	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 U	0.4 U	3.6 U
4-Nitrophenol	NV	NA	2 U	3.9 U	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 U	0.4 U	3.6 U
Acenaphthene	4,800	NA	0.02 U	0.039 U	0.96	0.00083 JQ	0.0029 JQ	0.08 J	0.00058 JQ	0.017 U	0.0038 U	0.036 U	0.004 U	0.0089 JQ
Acenaphthylene	NV	NA	0.02 U	0.0049 JQ	0.065 U	0.0037 U	0.0046 U	0.0012 JQ	0.00069 JQ	0.0036 JQ	0.0004 JQ	0.0048 JQ	0.004 U	0.036 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	MS04	MS05		MS06		NA01		OC01		OC02		OC03
Sample Name:			MJJ461	MJJ4B4	MJJ4B5	MJJ4C3	MJJ4C4	MJJ484	MJJ485	MJJ480	MJJ481	MJJ482	MJJ483	MJJ4C1
Collection Date:			9/27/2017	9/28/2017	9/28/2017	9/29/2017	9/29/2017	9/27/2017	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017
Collection Depth (ft bgs):			4-6	3.2-4	4-6	2-4	6-8	2-4	5-6	1-4	4-6	2-4	4-6	3-4
Acetophenone	8,000	NA	2 U	3.9 U	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 U	0.4 U	3.6 U
Anthracene	24,000	NA	0.02 U	0.017 JQ	0.31	0.0037 U	0.0046 U	0.0038 J	0.0041 U	0.013 JQ	0.0038 U	0.011 JQ	0.004 U	0.015 JQ
Atrazine	4.3	NA	2 U	3.9 U	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 U	0.4 U	3.6 U
Benzaldehyde	250	NA	2 U	3.9 U	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 U	0.4 U	3.6 U
Benzo(a)anthracene	NV	NA	0.02 U	0.058	0.27 J	0.0037 U	0.0046 U	0.0058	0.0041 U	0.14 J	0.0038 U	0.12	0.004 U	0.033 JQ
Benzo(a)pyrene	NA	NA	0.0083 JQ	0.075	0.13 J	0.0037 U	0.0046 U	0.0074	0.00082 JQ	0.099 J	0.0038 U	0.099	0.00094 JQ	0.033 JQ
Benzo(b)fluoranthene	NV	NA	0.019 JQ	0.36	0.34 J	0.0037 U	0.0046 U	0.012	0.0017 JQ	0.24 J	0.0038 U	0.26	0.004 U	0.064 J
Benzo(ghi)perylene	NV	NA	0.0051 JQ	0.039 UJ	0.041 JQ	0.0037 U	0.0046 U	0.0046	0.0013 JQ	0.043 J	0.0038 U	0.048 J	0.004 UJ	0.01 JQ
Benzo(k)fluoranthene	NV	NA	0.02 U	0.077	0.56 J	0.0037 U	0.0046 U	0.0041	0.0041 U	0.07 J	0.0038 U	0.089	0.004 U	0.036 UJ
Benzoic acid	320,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloro-1-methylethyl)ether	14	NA	2 U	3.9 U	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 U	0.4 U	3.6 U
Bis(2-chloroethoxy)methane	240	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
Bis(2-chloroethyl)ether	0.91	NA	2 U	3.9 U	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 U	0.4 U	3.6 U
Bis(2-ethylhexyl)phthalate	71	NA	1 U	2 UJ	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 UJ	0.2 U	1.8 UJ	0.2 U	1.8 U
Butylbenzylphthalate	530	NA	1 U	2 UJ	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 UJ	0.2 U	1.8 UJ	0.2 U	1.8 U
Caprolactam	40,000	NA	2 U	3.9 U	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 U	0.4 U	3.6 U
Carbazole	NV	NA	2 U	3.9 U	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 U	0.4 U	3.6 U
Chrysene	NV	NA	0.029	0.24	0.35 J	0.0037 U	0.0046 U	0.0093	0.003 JQ	0.17 J	0.0038 U	0.16	0.004 U	0.21
Dibenzo(a,h)anthracene	NV	NA	0.02 U	0.039 UJ	0.065 UJ	0.0037 U	0.0046 U	0.0015 JQ	0.0041 U	0.022 J	0.0038 U	0.021 JQ	0.004 UJ	0.025 JQ
Dibenzofuran	80	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
Diethyl phthalate	64,000	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
Dimethyl phthalate	NV	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
Di-n-butyl phthalate	8,000	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
Di-n-octyl phthalate	800	NA	2 UJ	3.9 UJ	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 UJ	0.38 U	3.5 UJ	0.4 U	3.6 U
Fluoranthene	3,200	NA	0.02 U	0.074	1.9 J	0.0037 U	0.0046 U	0.015	0.0036 JQ	0.21 J	0.0038 U	0.15	0.004 U	0.017 JQ
Fluorene	3,200	NA	0.02 U	0.039 U	0.82	0.0012 JQ	0.0043 JQ	0.022	0.0041 U	0.017 U	0.0038 U	0.036 U	0.004 U	0.036 U
Hexachlorobenzene	0.63	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
Hexachlorobutadiene	13	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
Hexachlorocyclopentadiene	480	NA	2 UJ	3.9 UJ	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 UJ	0.38 U	3.5 UJ	0.4 U	3.6 UJ
Hexachloroethane	25	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
Indeno(1,2,3-cd)pyrene	NV	NA	0.02 U	0.039 UJ	0.065 UJ	0.0037 U	0.0046 U	0.0051	0.00058 JQ	0.056 J	0.0038 U	0.043 J	0.004 UJ	0.02 JQ
Isophorone	1,100	NA	1 U	2 UJ	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 UJ	0.2 U	
Naphthalene	5	NA	0.02 U	0.039 U	0.065 U	0.0037 U	0.0046 U	0.01	0.0041 U	0.017 UJ	0.0038 U	0.036 U	0.004 U	0.036 U
Nitrobenzene	160	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
N-Nitrosodiphenylamine	200	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
N-Nitrosodipropylamine	0.14	NA	1 U	2 U	3.3 U	0.19 U	0.23 U	0.19 U	0.21 U	0.17 U	0.2 U	1.8 U	0.2 U	1.8 U
Pentachlorophenol	2.5	NA	0.04 U	0.078 UJ	0.13 UJ	0.0076 U	0.0093 U	0.0069 JQ	0.0082 U	0.034 UJ	0.0077 U	0.073 UJ	0.008 UJ	0.072 UJ
Phenanthrene	NV	NA	0.02 U	0.1	1	0.00063 JQ	0.0075	0.0037 U	0.0041 U	0.078 J	0.0038 U	0.057	0.004 U	0.17
Phenol	24,000	NA	2 U	3.9 U	6.5 U	0.37 U	0.46 U	0.37 U	0.41 U	0.34 U	0.38 U	3.5 U	0.4 U	3.6 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	MS04	MS05		MS06		NA01		OC01		OC02		OC03
Sample Name:			MJJ461	MJJ4B4	MJJ4B5	MJJ4C3	MJJ4C4	MJJ484	MJJ485	MJJ480	MJJ481	MJJ482	MJJ483	MJJ4C1
Collection Date:			9/27/2017	9/28/2017	9/28/2017	9/29/2017	9/29/2017	9/27/2017	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017
Collection Depth (ft bgs):			4-6	3.2-4	4-6	2-4	6-8	2-4	5-6	1-4	4-6	2-4	4-6	3-4
Pyrene	2,400	NA	0.01 JQ	0.13	1.4 J	0.0037 U	0.0046 U	0.019	0.0029 JQ	0.17 J	0.0039	0.13	0.004 U	0.097
Total Benzofluoranthenes	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
cPAH TEQ[f][5]	0.1	NA	0.0145	0.131	0.257	0.0037 U	0.0046 U	0.0103 JQ	0.00169 JQ	0.154 J	0.0038 U	0.154 J	0.00196 JQ	0.0511 J
Hydrocarbon Identification (Detect/Non-Detect)														
Gasoline	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
TPH (mg/kg)														
Gasoline-Range Hydrocarbons	100	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	2,000	NA	46 U	45 U	100 U	43 U	46 U	43 U	52 U	41 U	46 U	42 U	44 U	42 U
Lube Oil-Range Hydrocarbons	2,000	NA	160	6,300	90,000	110 U	120 U	110 U	130 U	210	120 U	620	110 U	1,500
Diesel+Oil[g]	2,000	NA	183	6,320	90,100	110 U	120 U	110 U	130 U	231	120 U	641	110 U	1,520

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	OC03	PB01		PB02		PB03		PB04		PB05		PB06
Sample Name:			MJJ4C2	MJJ462	MJJ463	MJJ464	MJJ465	MJJ466	MJJ467	17394236	17394237	17394239	17394240	17394242
Collection Date:			9/28/2017	9/26/2017	9/26/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/28/2017
Collection Depth (ft bgs):			5-7	2-4	6-8	0-2	7-9	0-2	4-5	2-4	6-8	2-4	4-5	2-4
Total Metals (mg/kg)														
Aluminum	80,000	NV	33,900	23,900	21,700	17,400	17,700	20,200	23,100	--	--	--	--	--
Antimony	32	NV	1.6 JQ	0.99 JQ	0.82 JQ	0.97 JQ	1.7 JQ	1.3 JQ	0.89 JQ	--	--	--	--	--
Arsenic	20	8.47	1 UJ	1 UJ	1 UJ	1 UJ	2.1 J	1 UJ	1 UJ	--	--	--	--	--
Barium	16,000	NV	155	92.8	81.6	70.7	91.3	88	122	--	--	--	--	--
Beryllium	160	0.8	1.2	0.77	0.78	0.72	0.62 JQ	0.78	0.66	--	--	--	--	--
Cadmium	2	0.1	1.7	1.1	1.1	1.4	0.69	1.3	0.62	--	--	--	--	--
Calcium	NV	NV	2,040	2,910	2,430	4,030	2,360	2,160	2,000	--	--	--	--	--
Chromium	2,000[b]	78.5	37.8	25	27.7	28.5	22.4	28.1	19.9	--	--	--	--	--
Cobalt	24	NV	26	18.4	18	22.9	13.7	17.2	11.7	--	--	--	--	--
Copper	3,200	52.9	75	55.8	54.8	80.2	44	61.2	31.2	--	--	--	--	--
Iron	56,000	49,170	46,500	32,000	32,300	35,300	23,700	33,100	19,300	--	--	--	--	--
Lead	250	10.9	2.9	3.3	1.8	2.4	14	8.5	9.1	--	--	--	--	--
Magnesium	NV	NV	7,370	5,870	5,820	7,450	3,360	5,470	3,190	--	--	--	--	--
Manganese	3,700	691.8	616	516	390	395	216	526	480	--	--	--	--	--
Mercury	2	NV	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	1,600	54.2	40.7	29.1	32.6	36.1	20.6	28.1	17.6	--	--	--	--	--
Potassium	NV	NV	563	334 JQ	368 JQ	331 JQ	301 JQ	349 JQ	332 JQ	--	--	--	--	--
Selenium	400	NV	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	--	--	--	--	--
Silver	400	NV	1.3 J	0.95 J	0.93 J	0.99 J	1 UJ	1.2 J	1 UJ	--	--	--	--	--
Sodium	NV	NV	386 JQ	363 JQ	292 JQ	321 JQ	202 JQ	304 JQ	247 JQ	--	--	--	--	--
Thallium	0.8	NV	5.6	4.7	5	4.7	5	4.3	3	--	--	--	--	--
Vanadium	400	NV	117	87.9	90.6	94.6	71.8	85.7	54.8	--	--	--	--	--
Zinc	24,000	85.6	67.3	50.8	47.7	66.2	58.4	158	71.3	--	--	--	--	--
PCBs (mg/kg)														
Aroclor 1016	NA	NA	--	0.036 U	0.041 U	0.036 U	0.06 U	0.035 U	0.044 U	--	--	--	--	--
Aroclor 1221	NV	NA	--	0.036 U	0.041 U	0.036 U	0.06 U	0.035 U	0.044 U	--	--	--	--	--
Aroclor 1232	NV	NA	--	0.036 U	0.041 U	0.036 U	0.06 U	0.035 U	0.044 U	--	--	--	--	--
Aroclor 1242	NV	NA	--	0.036 U	0.041 U	0.036 U	0.06 U	0.035 U	0.044 U	--	--	--	--	--
Aroclor 1248	NV	NA	--	0.036 U	0.041 U	0.036 U	0.06 U	0.035 U	0.044 U	--	--	--	--	--
Aroclor 1254	NA	NA	--	0.036 U	0.041 U	0.036 U	0.06 U	0.035 U	0.044 U	--	--	--	--	--
Aroclor 1260	NA	NA	--	0.036 U	0.041 U	0.0024 JQ	0.06 U	0.01 JQ	0.0022 JQ	--	--	--	--	--
Aroclor 1262	NV	NA	--	0.036 U	0.041 U	0.036 U	0.06 U	0.035 U	0.044 U	--	--	--	--	--
Aroclor 1268	NV	NA	--	0.036 U	0.041 U	0.036 U	0.06 U	0.035 U	0.044 U	--	--	--	--	--
Total PCBs[c]	1	NA	--	0.036 U	0.041 U	0.0024 JQ	0.06 U	0.01 JQ	0.0022 JQ	--	--	--	--	--
Dioxins/Furans (pg/g)														
1,2,3,4,6,7,8-HpCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	OC03	PB01		PB02		PB03		PB04		PB05		PB06
Sample Name:			MJJ4C2	MJJ462	MJJ463	MJJ464	MJJ465	MJJ466	MJJ467	17394236	17394237	17394239	17394240	17394242
Collection Date:			9/28/2017	9/26/2017	9/26/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/28/2017
Collection Depth (ft bgs):			5-7	2-4	6-8	0-2	7-9	0-2	4-5	2-4	6-8	2-4	4-5	2-4
1,2,3,4,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
OCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDDs	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides (mg/kg)														
Aldrin	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
alpha-BHC	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
beta-BHC	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
cis-Chlordane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
gamma-Chlordane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chlordane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDE	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDT	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total DDTs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dieldrin	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan I	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan II	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan Sulfate	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endrin	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endrin Aldehyde	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	OC03	PB01		PB02		PB03		PB04		PB05		PB06
Sample Name:			MJJ4C2	MJJ462	MJJ463	MJJ464	MJJ465	MJJ466	MJJ467	17394236	17394237	17394239	17394240	17394242
Collection Date:			9/28/2017	9/26/2017	9/26/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/28/2017
Collection Depth (ft bgs):			5-7	2-4	6-8	0-2	7-9	0-2	4-5	2-4	6-8	2-4	4-5	2-4
Endrin Ketone	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor Epoxide	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lindane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methoxychlor	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Toxaphene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
VOCs (mg/kg)														
1,1,1,2-Tetrachloroethane	38	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	2	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
1,1,2,2-Tetrachloroethane	5	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
1,1,2-Trichloroethane	18	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
1,1-Dichloroethane	180	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
1,1-Dichloroethene	4,000	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
1,1-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	64	NA	0.0051 UJ	--	--	--	--	--	--	0.0053 UJ	0.0054 U	0.0056 U	0.0054 U	0.005 UJ
1,2,3-Trichloropropane	0.0063	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	34	NA	0.0051 UJ	--	--	--	--	--	--	0.0053 UJ	0.0054 U	0.0056 U	0.0054 U	0.005 UJ
1,2,4-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.23	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
1,2-Dibromoethane	0.005	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
1,2-Dichlorobenzene	7,200	NA	0.0051 UJ	--	--	--	--	--	--	0.0053 UJ	0.0054 U	0.0056 U	0.0054 U	0.005 UJ
1,2-Dichloroethane	11	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
1,2-Dichloropropane	27	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
1,3,5-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	0.0051 UJ	--	--	--	--	--	--	0.0053 UJ	0.0054 U	0.0056 U	0.0054 U	0.005 UJ
1,3-Dichloropropane	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	0.0051 UJ	--	--	--	--	--	--	0.0053 UJ	0.0054 U	0.0056 U	0.0054 U	0.005 UJ
2,2-Dichloropropane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	48,000	NA	0.0051 JQ	--	--	--	--	--	--	0.011 U	0.011 U	0.0031 JQ	0.011 U	0.0043 JQ
2-Chloroethylvinyl ether	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	400	NA	0.01 U	--	--	--	--	--	--	0.011 U	0.011 U	0.011 U	0.011 U	0.01 U
4-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	6,400	NA	0.01 U	--	--	--	--	--	--	0.011 U	0.011 U	0.011 U	0.011 U	0.01 U
Acetone	72,000	NA	0.035	--	--	--	--	--	--	0.011 U	0.011 U	0.017	0.0085 JQ	0.026
Acrolein	40	NA	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	1.9	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	0.03	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Bromobenzene	640	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	OC03	PB01		PB02		PB03		PB04		PB05		PB06
Sample Name:			MJJ4C2	MJJ462	MJJ463	MJJ464	MJJ465	MJJ466	MJJ467	17394236	17394237	17394239	17394240	17394242
Collection Date:			9/28/2017	9/26/2017	9/26/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/28/2017
Collection Depth (ft bgs):			5-7	2-4	6-8	0-2	7-9	0-2	4-5	2-4	6-8	2-4	4-5	2-4
Bromodichloromethane	16	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Bromoethane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	130	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Bromomethane	110	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Carbon disulfide	8,000	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Carbon tetrachloride	14	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Chlorobenzene	1,600	NA	0.0051 UJ	--	--	--	--	--	--	0.0053 UJ	0.0054 U	0.0056 U	0.0054 U	0.005 UJ
Chlorobromomethane	NV	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Chloroethane	NV	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Chloroform	32	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Chloromethane	NV	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
cis-1,2-Dichloroethene	160	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
cis-1,3-Dichloropropene	NV	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Cyclohexane	NV	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Dibromochloromethane	12	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Dibromomethane	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	16,000	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Ethylbenzene	6	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Freon 113	2,400,000	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Hexachlorobutadiene	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	8,000	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
m,p-Xylene	NV	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Methyl acetate	80,000	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Methyl iodide	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.1	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Methylcyclohexane	NV	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Methylene chloride	0.02	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Naphthalene	5	NA	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	4,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	16,000	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
sec-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	16,000	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
tert-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	0.05	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Toluene	7	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
trans-1,2-Dichloroethene	1,600	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
trans-1,3-Dichloropropene	NV	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
trans-1,4-Dichloro-2-butene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.03	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U

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Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	OC03	PB01		PB02		PB03		PB04		PB05		PB06
Sample Name:			MJJ4C2	MJJ462	MJJ463	MJJ464	MJJ465	MJJ466	MJJ467	17394236	17394237	17394239	17394240	17394242
Collection Date:			9/28/2017	9/26/2017	9/26/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/28/2017
Collection Depth (ft bgs):			5-7	2-4	6-8	0-2	7-9	0-2	4-5	2-4	6-8	2-4	4-5	2-4
Trichlorofluoromethane (Freon 11)	24,000	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
Vinyl acetate	80,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.67	NA	0.0031 U	--	--	--	--	--	--	0.0032 U	0.0032 U	0.0034 U	0.0032 U	0.003 U
Xylenes, total[e]	9	NA	0.0051 U	--	--	--	--	--	--	0.0053 U	0.0054 U	0.0056 U	0.0054 U	0.005 U
SVOCs (mg/kg)														
1,1'-Biphenyl	130	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
1,2,4,5-Tetrachlorobenzene	24	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	10	NA	0.077 U	0.073 U	0.084 U	0.74 U	0.12 U	0.72 U	0.089 U	0.069 U	0.07 UJ	0.075 U	0.39 U	0.076 U
1-Methylnaphthalene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6-Tetrachlorophenol	2,400	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.2	0.036 JQ	0.19 U	1 U	0.19 U
2,4,5-Trichlorophenol	8,000	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
2,4,6-Trichlorophenol	80	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
2,4-Dichlorophenol	240	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
2,4-Dimethylphenol	1,600	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
2,4-Dinitrophenol	160	NA	0.38 U	0.36 U	0.41 U	3.6 UJ	0.6 U	3.5 UJ	0.44 U	0.34 U	0.35 U	0.37 U	1.9 UJ	0.37 U
2,4-Dinitrotoluene	3.2	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
2,6-Dinitrotoluene	0.67	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
2-Chloronaphthalene	6,400	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
2-Chlorophenol	400	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
2-Methylnaphthalene	320	NA	0.0019 JQ	0.0036 UJ	0.0041 UJ	0.01 JQ	0.006 JQ	0.0076 JQ	0.0056	0.00072 JQ	0.0035 U	0.0037 U	0.0037 JQ	0.00054 JQ
2-Methylphenol	4,000	NA	0.38 U	0.36 U	0.41 U	3.6 U	0.6 U	3.5 U	0.44 U	0.34 U	0.35 U	0.37 U	1.9 U	0.37 U
2-Nitroaniline	800	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
2-Nitrophenol	NV	NA	0.2 U	0.18 U	0.21 U	1.9 UJ	0.31 U	1.8 UJ	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	2.2	NA	0.38 U	0.36 U	0.41 U	3.6 UJ	0.6 U	3.5 UJ	0.44 U	0.34 U	0.35 U	0.37 U	1.9 UJ	0.37 U
3-Nitroaniline	NV	NA	0.38 U	0.36 U	0.41 U	3.6 U	0.6 U	3.5 U	0.44 U	0.34 U	0.35 U	0.37 U	1.9 U	0.37 U
4,6-Dinitro-2-methylphenol	6.4	NA	0.38 U	0.36 U	0.41 U	3.6 UJ	0.6 U	3.5 UJ	0.44 U	0.34 U	0.35 U	0.37 U	1.9 UJ	0.37 U
4-Bromophenylphenyl ether	NV	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
4-Chloro-3-methylphenol	8,000	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
4-Chloroaniline	5	NA	0.38 U	0.36 U	0.41 U	3.6 UJ	0.6 U	3.5 UJ	0.44 U	0.34 U	0.35 U	0.37 U	1.9 UJ	0.37 U
4-Chlorophenylphenyl ether	NV	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
4-Methylphenol	8,000	NA	0.38 U	0.36 U	0.41 U	3.6 U	0.6 U	3.5 U	0.44 U	0.34 U	0.35 U	0.37 U	1.9 U	0.37 U
4-Nitroaniline	50	NA	0.38 U	0.36 U	0.41 U	3.6 U	0.6 U	3.5 U	0.44 U	0.34 U	0.35 U	0.37 U	1.9 U	0.37 U
4-Nitrophenol	NV	NA	0.38 U	0.36 U	0.41 U	3.6 U	0.6 U	3.5 U	0.44 U	0.34 U	0.35 U	0.37 U	1.9 U	0.37 U
Acenaphthene	4,800	NA	0.0038 U	0.0036 U	0.00045 JQ	0.036 U	0.0061 JQ	0.035 U	0.0017 JQ	0.0034 U	0.0035 U	0.0037 U	0.019 U	0.0037 U
Acenaphthylene	NV	NA	0.0038 U	0.0036 U	0.0041 U	0.036 U	0.03 U	0.035 U	0.0086	0.00084 JQ	0.0035 U	0.00062 JQ	0.019 U	0.0037 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	OC03	PB01		PB02		PB03		PB04		PB05		PB06
Sample Name:			MJJ4C2	MJJ462	MJJ463	MJJ464	MJJ465	MJJ466	MJJ467	17394236	17394237	17394239	17394240	17394242
Collection Date:			9/28/2017	9/26/2017	9/26/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/28/2017
Collection Depth (ft bgs):			5-7	2-4	6-8	0-2	7-9	0-2	4-5	2-4	6-8	2-4	4-5	2-4
Acetophenone	8,000	NA	0.38 U	0.36 U	0.41 U	3.6 U	0.6 U	3.5 U	0.44 U	0.34 U	0.35 U	0.37 U	1.9 U	0.37 U
Anthracene	24,000	NA	0.0038 U	0.0036 U	0.0041 U	0.036 U	0.018 JQ	0.035 U	0.0042 JQ	0.0034 U	0.0035 U	0.0037 U	0.019 U	0.0037 U
Atrazine	4.3	NA	0.38 U	0.36 U	0.41 U	3.6 U	0.6 U	3.5 U	0.44 U	0.34 U	0.35 U	0.37 U	1.9 U	0.37 U
Benzaldehyde	250	NA	0.38 U	0.36 U	0.41 U	3.6 U	0.6 U	3.5 U	0.44 U	0.34 U	0.35 U	0.37 U	1.9 U	0.37 U
Benzo(a)anthracene	NV	NA	0.0038 U	0.0036 U	0.0041 U	0.036 U	0.03 U	0.035 U	0.0044 U	0.0032 JQ	0.0035 U	0.0037 U	0.019 U	0.0037 U
Benzo(a)pyrene	NA	NA	0.0013 JQ	0.0036 U	0.0041 U	0.031 JQ	0.03 U	0.015 JQ	0.0037 JQ	0.0035	0.0035 U	0.0037 U	0.005 JQ	0.0037 U
Benzo(b)fluoranthene	NV	NA	0.0034 JQ	0.0036 U	0.0041 U	0.036 U	0.17 J	0.049	0.016	0.007	0.0005 JQ	0.00068 JQ	0.012 JQ	0.0037 U
Benzo(ghi)perylene	NV	NA	0.0012 JQ	0.0036 U	0.0041 UJ	0.044 J	0.03 UJ	0.035 UJ	0.0044 UJ	0.0048	0.0035 U	0.00058 JQ	0.019 U	0.0037 U
Benzo(k)fluoranthene	NV	NA	0.0038 U	0.0036 U	0.0041 U	0.036 U	0.057 J	0.035 U	0.0044 U	0.0021 JQ	0.0035 U	0.0037 U	0.019 U	0.0037 U
Benzoic acid	320,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloro-1-methylethyl)ether	14	NA	0.38 U	0.36 U	0.41 U	3.6 U	0.6 U	3.5 U	0.44 U	0.34 U	0.35 U	0.37 U	1.9 U	0.37 U
Bis(2-chloroethoxy)methane	240	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
Bis(2-chloroethyl)ether	0.91	NA	0.38 U	0.36 U	0.41 U	3.6 U	0.6 U	3.5 U	0.44 U	0.34 U	0.35 U	0.37 U	1.9 U	0.37 U
Bis(2-ethylhexyl)phthalate	71	NA	0.2 U	0.18 U	0.21 U	1.9 UJ	0.74 J	1.8 UJ	0.22 U	0.09 JQ	0.18 U	0.19 U	1 U	0.19 U
Butylbenzylphthalate	530	NA	0.2 U	0.18 U	0.21 U	1.9 UJ	0.31 U	1.8 UJ	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
Caprolactam	40,000	NA	0.38 U	0.36 U	0.41 U	3.6 U	0.6 U	3.5 U	0.44 U	0.34 U	0.35 U	0.37 U	1.9 U	0.37 U
Carbazole	NV	NA	0.38 U	0.36 U	0.41 U	3.6 U	0.6 U	3.5 U	0.44 U	0.34 U	0.35 U	0.37 U	1.9 U	0.37 U
Chrysene	NV	NA	0.0071	0.0036 U	0.0041 U	0.075 J	0.048 J	0.11	0.0099	0.0062	0.00068 JQ	0.0037 U	0.015 JQ	0.0037 U
Dibenzo(a,h)anthracene	NV	NA	0.0038 UJ	0.0036 UJ	0.0041 UJ	0.036 UJ	0.03 UJ	0.035 UJ	0.0044 UJ	0.0008 JQ	0.0035 U	0.0037 U	0.019 U	0.0037 U
Dibenzofuran	80	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
Diethyl phthalate	64,000	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
Dimethyl phthalate	NV	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
Di-n-butyl phthalate	8,000	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
Di-n-octyl phthalate	800	NA	0.38 U	0.36 U	0.41 U	3.6 UJ	0.6 U	3.5 UJ	0.44 U	0.34 U	0.35 U	0.37 U	1.9 UJ	0.37 U
Fluoranthene	3,200	NA	0.00082 JQ	0.0036 U	0.0041 U	0.036 U	0.12 J	0.29	0.033	0.0061	0.0014 JQ	0.00095 JQ	0.0028 JQ	0.0037 U
Fluorene	3,200	NA	0.0038 U	0.0036 U	0.0041 U	0.036 U	0.03 U	0.035 U	0.0044 U	0.0034 U	0.0035 U	0.0037 U	0.019 U	0.0037 U
Hexachlorobenzene	0.63	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
Hexachlorobutadiene	13	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
Hexachlorocyclopentadiene	480	NA	0.38 U	0.36 U	0.41 U	3.6 UJ	0.6 U	3.5 UJ	0.44 U	0.34 U	0.35 U	0.37 U	1.9 UJ	0.37 U
Hexachloroethane	25	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
Indeno(1,2,3-cd)pyrene	NV	NA	0.0038 UJ	0.0036 UJ	0.0041 UJ	0.036 UJ	0.03 UJ	0.035 UJ	0.0044 UJ	0.0029 JQ	0.0035 U	0.0037 U	0.019 U	0.0037 U
Isophorone	1,100	NA	0.2 U	0.18 U	0.21 U	1.9 UJ	0.31 U	1.8 UJ	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
Naphthalene	5	NA	0.0038 U	0.0036 U	0.0041 U	0.036 U	0.03 U	0.035 U	0.021	0.0034 U	0.0035 U	0.0037 U	0.019 U	0.0037 U
Nitrobenzene	160	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
N-Nitrosodiphenylamine	200	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
N-Nitrosodipropylamine	0.14	NA	0.2 U	0.18 U	0.21 U	1.9 U	0.31 U	1.8 U	0.22 U	0.17 U	0.18 U	0.19 U	1 U	0.19 U
Pentachlorophenol	2.5	NA	0.0077 UJ	0.0073 U	0.0084 U	0.074 UJ	0.061 UJ	0.072 UJ	0.0089 UJ	0.92	0.16	0.0035 JQ	0.039 U	0.0076 U
Phenanthrene	NV	NA	0.0032 JQ	0.0036 U	0.0041 U	0.036 U	0.052	0.41	0.031	0.0034 U	0.0035 U	0.0037 U	0.019 U	0.0037 U
Phenol	24,000	NA	0.38 U	0.36 U	0.41 U	3.6 U	0.6 U	3.5 U	0.44 U	0.34 U	0.35 U	0.37 U	1.9 U	0.37 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	OC03	PB01		PB02		PB03		PB04		PB05		PB06
Sample Name:			MJJ4C2	MJJ462	MJJ463	MJJ464	MJJ465	MJJ466	MJJ467	17394236	17394237	17394239	17394240	17394242
Collection Date:			9/28/2017	9/26/2017	9/26/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/27/2017	9/28/2017
Collection Depth (ft bgs):			5-7	2-4	6-8	0-2	7-9	0-2	4-5	2-4	6-8	2-4	4-5	2-4
Pyrene	2,400	NA	0.0017 JQ	0.0036 U	0.0041 U	0.036 U	0.11 J	0.2	0.038	0.0091	0.0012 JQ	0.0014 JQ	0.019 U	0.0037 U
Total Benzofluoranthenes	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
cPAH TEQ[f][5]	0.1	NA	0.00247 JQ	0.0036 UJ	0.0041 UJ	0.0408 J	0.0427 J	0.028 JQ	0.00628 JQ	0.00516 JQ	0.00251 JQ	0.00268 JQ	0.0102 JQ	0.0037 U
Hydrocarbon Identification (Detect/Non-Detect)														
Gasoline	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
TPH (mg/kg)														
Gasoline-Range Hydrocarbons	100	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	2,000	NA	44 U	44 U	46 U	42 U	61 U	42 U	55 U	40 U	42 U	43 U	45 U	44 U
Lube Oil-Range Hydrocarbons	2,000	NA	110 U	110 U	120 U	3,100	22,000	860	140 U	100 U	110 U	110 U	340	110 U
Diesel+Oil[g]	2,000	NA	110 U	110 U	120 U	3,120	22,000	881	140 U	100 U	110 U	110 U	363	110 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	PB06	PB07	PB08	PB09		PB10	PB10	PW01		PW02		VM01
Sample Name:			17394243	MJJ474	MJJ475	MJJ4B7	MJJ4B8	MJJ4B9	MJJ4C0	17394247	17394248	17394250	17394251	MJJ486
Collection Date:			9/28/2017	9/25/2017	9/25/2017	9/27/2017	9/29/2017	9/29/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017
Collection Depth (ft bgs):			4-6	0-0.5	0-0.5	2-4	4-5.5	2.4-4	4-6.5	2-4	4-6	1.6-2.6	6-8	2-4
Total Metals (mg/kg)														
Aluminum	80,000	NV	--	10,800	6,990	26,200	26,000	20,600	22,900	--	--	--	--	24,200
Antimony	32	NV	--	8.2 JQ	7.1 JQ	1.3 JQ	1.1 JQ	1.2 JQ	1.2 JQ	--	--	--	--	1.2 JQ
Arsenic	20	8.47	--	7.7	3.9	1 UJ	1 UJ	1 U	1 U	--	--	--	--	1 U
Barium	16,000	NV	--	77.1	41.7	97.9	106	85.5	94.3	--	--	--	--	125
Beryllium	160	0.8	--	1.3	1.3	0.9	0.94	0.66	0.7	--	--	--	--	0.83
Cadmium	2	0.1	--	6.6	6.6	1.2	1.2	1.5	1.5	--	--	--	--	1.4
Calcium	NV	NV	--	11,000 J	6,720 J	3,250	1,200	2,950 J	5,910 J	--	--	--	--	1,750 J
Chromium	2,000[b]	78.5	--	56.1 J	85.4 J	32.3	35.9	24.6 J	25.2 J	--	--	--	--	27.6 J
Cobalt	24	NV	--	22.9	17.8	20.6	23.5	16.3	16.2	--	--	--	--	18.4
Copper	3,200	52.9	--	390	249	120	66.7	58.4	56.1	--	--	--	--	49.4
Iron	56,000	49,170	--	117,000 J	147,000 J	32,200	37,000	29,000 J	28,400 J	--	--	--	--	30,000 J
Lead	250	10.9	--	67.2	40	3.2	1.4	2.9	3.2	--	--	--	--	2.7
Magnesium	NV	NV	--	5,120 J	4,050 J	5,490	6,550	5,020 J	4,570 J	--	--	--	--	4,110 J
Manganese	3,700	691.8	--	880	888	239	324	515	478	--	--	--	--	530
Mercury	2	NV	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	1,600	54.2	--	62.9	59.2	33.7	33.7	28.3	24.9	--	--	--	--	27.2
Potassium	NV	NV	--	242 JQ	149 JQ	258 JQ	203 JQ	255 JQ	237 JQ	--	--	--	--	252 JQ
Selenium	400	NV	--	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	--	--	--	--	3.5 UJ
Silver	400	NV	--	4.3 J	4.9 J	0.89 J	1.1 J	1.1 J	1.6 J	--	--	--	--	1.1 J
Sodium	NV	NV	--	1720	800	273 JQ	302 JQ	321 JQ	372 JQ	--	--	--	--	531
Thallium	0.8	NV	--	2.5 U	2.5 U	5.7	5.3	3.8	3.1	--	--	--	--	4
Vanadium	400	NV	--	45.1	36.8	112	98.1	87.6	84.5	--	--	--	--	99.9
Zinc	24,000	85.6	--	889	775	53.7	45	43	46.8	--	--	--	--	42.9
PCBs (mg/kg)														
Aroclor 1016	NA	NA	--	--	--	0.037 U	0.036 U	0.036 U	0.05 U	--	--	--	--	--
Aroclor 1221	NV	NA	--	--	--	0.037 U	0.036 U	0.036 U	0.05 U	--	--	--	--	--
Aroclor 1232	NV	NA	--	--	--	0.037 U	0.036 U	0.036 U	0.05 U	--	--	--	--	--
Aroclor 1242	NV	NA	--	--	--	0.037 U	0.036 U	0.036 U	0.05 U	--	--	--	--	--
Aroclor 1248	NV	NA	--	--	--	0.037 U	0.036 U	0.036 U	0.05 U	--	--	--	--	--
Aroclor 1254	NA	NA	--	--	--	0.037 U	0.036 U	0.036 U	0.05 U	--	--	--	--	--
Aroclor 1260	NA	NA	--	--	--	0.037 U	0.036 U	0.036 U	0.05 U	--	--	--	--	--
Aroclor 1262	NV	NA	--	--	--	0.037 U	0.036 U	0.036 U	0.05 U	--	--	--	--	--
Aroclor 1268	NV	NA	--	--	--	0.037 U	0.036 U	0.036 U	0.05 U	--	--	--	--	--
Total PCBs[c]	1	NA	--	--	--	0.037 U	0.036 U	0.036 U	0.05 U	--	--	--	--	--
Dioxins/Furans (pg/g)														
1,2,3,4,6,7,8-HpCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	PB06	PB07	PB08	PB09		PB10	PB10	PW01		PW02		VM01
Sample Name:			17394243	MJJ474	MJJ475	MJJ4B7	MJJ4B8	MJJ4B9	MJJ4C0	17394247	17394248	17394250	17394251	MJJ486
Collection Date:			9/28/2017	9/25/2017	9/25/2017	9/27/2017	9/29/2017	9/29/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017
Collection Depth (ft bgs):			4-6	0-0.5	0-0.5	2-4	4-5.5	2.4-4	4-6.5	2-4	4-6	1.6-2.6	6-8	2-4
1,2,3,4,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
OCDF	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDDs	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDDs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDFs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides (mg/kg)														
Aldrin	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
alpha-BHC	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
beta-BHC	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
cis-Chlordane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
gamma-Chlordane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Chlordane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDE	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDT	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Total DDTs	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dieldrin	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan I	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan II	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan Sulfate	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endrin	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Endrin Aldehyde	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	PB06	PB07	PB08	PB09		PB10	PB10	PW01		PW02		VM01
Sample Name:			17394243	MJJ474	MJJ475	MJJ4B7	MJJ4B8	MJJ4B9	MJJ4C0	17394247	17394248	17394250	17394251	MJJ486
Collection Date:			9/28/2017	9/25/2017	9/25/2017	9/27/2017	9/29/2017	9/29/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017
Collection Depth (ft bgs):			4-6	0-0.5	0-0.5	2-4	4-5.5	2.4-4	4-6.5	2-4	4-6	1.6-2.6	6-8	2-4
Endrin Ketone	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor Epoxide	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lindane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methoxychlor	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Toxaphene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
VOCs (mg/kg)														
1,1,1,2-Tetrachloroethane	38	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	2	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
1,1,2,2-Tetrachloroethane	5	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
1,1,2-Trichloroethane	18	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
1,1-Dichloroethane	180	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
1,1-Dichloroethene	4,000	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
1,1-Dichloropropene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	64	NA	0.0053 U	0.039 R	0.0097 UJ	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
1,2,3-Trichloropropane	0.0063	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	34	NA	0.0053 U	0.039 R	0.0097 UJ	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
1,2,4-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.23	NA	0.0053 U	0.039 R	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
1,2-Dibromoethane	0.005	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
1,2-Dichlorobenzene	7,200	NA	0.0053 U	0.039 R	0.0097 UJ	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
1,2-Dichloroethane	11	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
1,2-Dichloropropane	27	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
1,3,5-Trimethylbenzene	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	0.0053 U	0.039 R	0.0097 UJ	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
1,3-Dichloropropane	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	0.0053 U	0.039 R	0.0097 UJ	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
2,2-Dichloropropane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	48,000	NA	0.0047 JQ	0.1 J	0.018 JQ	--	--	--	--	0.0069 JQ	0.011 U	0.0073 JQ	0.023	0.0096 U
2-Chloroethylvinyl ether	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	400	NA	0.011 U	0.078 UJ	0.019 U	--	--	--	--	0.0093 U	0.011 U	0.011 U	0.021 U	0.0096 U
4-Chlorotoluene	1,600	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	6,400	NA	0.011 U	0.078 UJ	0.019 U	--	--	--	--	0.0093 U	0.011 U	0.011 U	0.021 U	0.0096 U
Acetone	72,000	NA	0.0097 JQ	1.5 J	1.5 J	--	--	--	--	0.043	0.02	0.047	0.063	0.0098
Acrolein	40	NA	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	1.9	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	0.03	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Bromobenzene	640	NA	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	PB06	PB07	PB08	PB09		PB10	PB10	PW01		PW02		VM01
Sample Name:			17394243	MJJ474	MJJ475	MJJ4B7	MJJ4B8	MJJ4B9	MJJ4C0	17394247	17394248	17394250	17394251	MJJ486
Collection Date:			9/28/2017	9/25/2017	9/25/2017	9/27/2017	9/29/2017	9/29/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017
Collection Depth (ft bgs):			4-6	0-0.5	0-0.5	2-4	4-5.5	2.4-4	4-6.5	2-4	4-6	1.6-2.6	6-8	2-4
Bromodichloromethane	16	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Bromoethane	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	130	NA	0.0053 U	0.039 R	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Bromomethane	110	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Carbon disulfide	8,000	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Carbon tetrachloride	14	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Chlorobenzene	1,600	NA	0.0053 U	0.039 UJ	0.0097 UJ	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Chlorobromomethane	NV	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Chloroethane	NV	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Chloroform	32	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Chloromethane	NV	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
cis-1,2-Dichloroethene	160	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
cis-1,3-Dichloropropene	NV	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Cyclohexane	NV	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Dibromochloromethane	12	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Dibromomethane	800	NA	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	16,000	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Ethylbenzene	6	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Freon 113	2,400,000	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Hexachlorobutadiene	13	NA	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	8,000	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
m,p-Xylene	NV	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Methyl acetate	80,000	NA	0.0053 U	0.039 UJ	0.0097 R	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Methyl iodide	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.1	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Methylcyclohexane	NV	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Methylene chloride	0.02	NA	0.0053 U	0.039 U	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Naphthalene	5	NA	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	4,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	16,000	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
sec-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	16,000	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
tert-Butylbenzene	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	0.05	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Toluene	7	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
trans-1,2-Dichloroethene	1,600	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
trans-1,3-Dichloropropene	NV	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
trans-1,4-Dichloro-2-butene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.03	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U

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Historical Soil Analytical Data
Upland Remedial Investigation
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Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	PB06	PB07	PB08	PB09		PB10	PB10	PW01		PW02		VM01
Sample Name:			17394243	MJJ474	MJJ475	MJJ4B7	MJJ4B8	MJJ4B9	MJJ4C0	17394247	17394248	17394250	17394251	MJJ486
Collection Date:			9/28/2017	9/25/2017	9/25/2017	9/27/2017	9/29/2017	9/29/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017
Collection Depth (ft bgs):			4-6	0-0.5	0-0.5	2-4	4-5.5	2.4-4	4-6.5	2-4	4-6	1.6-2.6	6-8	2-4
Trichlorofluoromethane (Freon 11)	24,000	NA	0.0053 U	0.039 UJ	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
Vinyl acetate	80,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.67	NA	0.0032 U	0.023 UJ	0.0058 U	--	--	--	--	0.0028 U	0.0032 U	0.0033 U	0.0063 U	0.0029 U
Xylenes, total[e]	9	NA	0.0053 U	0.039 U	0.0097 U	--	--	--	--	0.0046 U	0.0054 U	0.0055 U	0.01 U	0.0048 U
SVOCs (mg/kg)														
1,1'-Biphenyl	130	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
1,2,4,5-Tetrachlorobenzene	24	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
1,2,4-Trichlorobenzene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	7,200	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	190	NA	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	10	NA	0.087 U	9 U	1.6 U	0.73 U	0.074 U	0.074 U	0.1 U	0.077 U	0.075 U	0.37 U	0.12 U	0.075 U
1-Methylnaphthalene	34	NA	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6-Tetrachlorophenol	2,400	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
2,4,5-Trichlorophenol	8,000	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
2,4,6-Trichlorophenol	80	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
2,4-Dichlorophenol	240	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
2,4-Dimethylphenol	1,600	NA	0.22 U	23 UJ	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
2,4-Dinitrophenol	160	NA	0.43 U	44 UJ	8 UJ	3.6 UJ	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 UJ	0.57 UJ	0.37 U
2,4-Dinitrotoluene	3.2	NA	0.22 U	23 UJ	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
2,6-Dinitrotoluene	0.67	NA	0.22 U	23 UJ	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
2-Chloronaphthalene	6,400	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
2-Chlorophenol	400	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
2-Methylnaphthalene	320	NA	0.0043 UJ	0.44 U	0.44	0.012 JQ	0.0014 JQ	0.0032 JQ	0.0015 JQ	0.00095 JQ	0.0037 U	0.015 JQ	0.0031 JQ	0.00092 JQ
2-Methylphenol	4,000	NA	0.43 U	44 UJ	8 U	3.6 U	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
2-Nitroaniline	800	NA	0.22 U	23 UJ	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
2-Nitrophenol	NV	NA	0.22 U	23 UJ	4.1 UJ	1.8 UJ	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 UJ	0.29 U	0.19 U
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	2.2	NA	0.43 U	44 UJ	8 UJ	3.6 UJ	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
3-Nitroaniline	NV	NA	0.43 U	44 UJ	8 U	3.6 U	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
4,6-Dinitro-2-methylphenol	6.4	NA	0.43 U	44 UJ	8 UJ	3.6 UJ	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 UJ	0.57 UJ	0.37 U
4-Bromophenylphenyl ether	NV	NA	0.22 U	23 UJ	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
4-Chloro-3-methylphenol	8,000	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
4-Chloroaniline	5	NA	0.43 U	44 UJ	8 UJ	3.6 UJ	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
4-Chlorophenylphenyl ether	NV	NA	0.22 U	23 UJ	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
4-Methylphenol	8,000	NA	0.43 U	44 UJ	8 U	3.6 U	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
4-Nitroaniline	50	NA	0.43 U	44 UJ	8 U	3.6 U	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
4-Nitrophenol	NV	NA	0.43 U	44 UJ	8 U	3.6 U	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
Acenaphthene	4,800	NA	0.0043 U	0.44 U	0.37	0.036 U	0.0071	0.00082 JQ	0.012	0.0038 U	0.0037 U	1.5	0.0057 U	0.00088 JQ
Acenaphthylene	NV	NA	0.0043 U	0.44 U	0.15	0.036 U	0.00037 JQ	0.0037	0.0013 JQ	0.00052 JQ	0.00063 JQ		0.0057 U	0.0037 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	PB06	PB07	PB08	PB09		PB10	PB10	PW01		PW02		VM01
Sample Name:			17394243	MJJ474	MJJ475	MJJ4B7	MJJ4B8	MJJ4B9	MJJ4C0	17394247	17394248	17394250	17394251	MJJ486
Collection Date:			9/28/2017	9/25/2017	9/25/2017	9/27/2017	9/29/2017	9/29/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017
Collection Depth (ft bgs):			4-6	0-0.5	0-0.5	2-4	4-5.5	2.4-4	4-6.5	2-4	4-6	1.6-2.6	6-8	2-4
Acetophenone	8,000	NA	0.43 U	44 UJ	8 U	3.6 U	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
Anthracene	24,000	NA	0.0043 U	0.44 U	0.08 UJ	0.036 U	0.0017 JQ	0.0037 U	0.005 U	0.0038 U	0.0037 U	3	0.0057 U	0.0037 U
Atrazine	4.3	NA	0.43 U	44 U	8 U	3.6 U	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
Benzaldehyde	250	NA	0.43 U	44 U	8 U	3.6 U	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
Benzo(a)anthracene	NV	NA	0.0043 U	0.44 UJ	0.08 UJ	0.036 U	0.0013 JQ	0.0024 JQ	0.005 U	0.0038 U	0.0058	2.6	0.0057 U	0.0037 U
Benzo(a)pyrene	NA	NA	0.0043 U	0.44 UJ	0.08 UJ	0.019 JQ	0.0036 U	0.0018 JQ	0.005 U	0.0038 U	0.0019 JQ	1.8	0.0057 U	0.0037 U
Benzo(b)fluoranthene	NV	NA	0.0043 U	0.44 UJ	1 J	0.036 U	0.00068 JQ	0.0045	0.0016 JQ	0.0038 U	0.0051	2.5	0.0057 U	0.0037 U
Benzo(ghi)perylene	NV	NA	0.0043 U	0.44 U	0.023 JQ	0.036 UJ	0.0036 U	0.0017 JQ	0.0013 JQ	0.0038 U	0.0037 UJ	0.35 J	0.0057 UJ	0.0037 U
Benzo(k)fluoranthene	NV	NA	0.0043 U	0.44 UJ	0.08 UJ	0.036 U	0.0036 U	0.0037 U	0.005 U	0.0038 U	0.001 JQ	0.97	0.00085 JQ	0.0037 U
Benzoic acid	320,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	8,000	NA	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloro-1-methylethyl)ether	14	NA	0.43 U	44 UJ	8 U	3.6 U	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
Bis(2-chloroethoxy)methane	240	NA	0.22 U	23 UJ	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
Bis(2-chloroethyl)ether	0.91	NA	0.43 U	44 UJ	8 U	3.6 U	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
Bis(2-ethylhexyl)phthalate	71	NA	0.22 U	19 JQ	5.3 J	1.8 UJ	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 UJ	0.29 UJ	0.19 U
Butylbenzylphthalate	530	NA	0.22 U	23 U	4.1 U	1.8 UJ	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 UJ	0.29 UJ	0.19 U
Caprolactam	40,000	NA	0.43 U	44 U	8 U	3.6 U	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
Carbazole	NV	NA	0.43 U	44 UJ	8 U	3.6 U	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U
Chrysene	NV	NA	0.0043 U	0.63 J	0.91 J	0.091	0.0015 JQ	0.007	0.0018 JQ	0.0038 U	0.0081	3.8	0.0057 U	0.0037 U
Dibenzo(a,h)anthracene	NV	NA	0.0043 U	0.44 UJ	0.08 UJ	0.036 UJ	0.0036 U	0.0037 U	0.005 U	0.0038 U	0.0037 UJ	0.23 J	0.0057 UJ	0.0037 U
Dibenzofuran	80	NA	0.22 U	23 UJ	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.6 JQ	0.29 U	0.19 U
Diethyl phthalate	64,000	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
Dimethyl phthalate	NV	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
Di-n-butyl phthalate	8,000	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
Di-n-octyl phthalate	800	NA	0.43 U	44 UJ	8 UJ	3.6 UJ	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 UJ	0.57 UJ	0.37 U
Fluoranthene	3,200	NA	0.0043 U	2.2 J	4.7	0.036 U	0.0092	0.0097	0.0098	0.0038 U	0.0087	7.4	0.0057 U	0.0037 U
Fluorene	3,200	NA	0.0043 U	0.44 U	0.73	0.036 U	0.006	0.0019 JQ	0.005 U	0.0038 U	0.0037 U	1.5	0.0057 U	0.0037 U
Hexachlorobenzene	0.63	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
Hexachlorobutadiene	13	NA	0.22 U	23 U	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
Hexachlorocyclopentadiene	480	NA	0.43 U	44 UJ	8 UJ	3.6 UJ	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 UJ	0.57 UJ	0.37 U
Hexachloroethane	25	NA	0.22 U	23 UJ	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
Indeno(1,2,3-cd)pyrene	NV	NA	0.0043 U	0.44 UJ	0.022 JQ	0.036 UJ	0.0036 U	0.001 JQ	0.00068 JQ	0.0038 U	0.0037 UJ	0.58 J	0.0057 UJ	0.0037 U
Isophorone	1,100	NA	0.22 U	23 UJ	4.1 UJ	1.8 UJ	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 UJ	0.29 U	0.19 U
Naphthalene	5	NA	0.0043 U	0.44 U	0.43	0.036 U	0.0054	0.0094	0.005 U	0.0038 U	0.0037 U	0.037 U	0.0057 U	0.0037 U
Nitrobenzene	160	NA	0.22 U	23 UJ	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
N-Nitrosodiphenylamine	200	NA	0.22 U	23 UJ	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
N-Nitrosodipropylamine	0.14	NA	0.22 U	23 UJ	4.1 U	1.8 U	0.19 U	0.19 U	0.26 U	0.2 U	0.19 U	0.94 U	0.29 U	0.19 U
Pentachlorophenol	2.5	NA	0.0087 U	1.2 J	0.46 J	0.073 UJ	0.0074 U	0.0074 U	0.01 U	0.0077 U	0.0075 UJ	0.074 UJ	0.008 JQ	0.0075 U
Phenanthrene	NV	NA	0.0043 U	0.44 U	4.9	0.067	0.0036	0.014	0.0056	0.0038 U	0.0037 U	4.9	0.0065	0.0037 U
Phenol	24,000	NA	0.43 U	44 U	8 U	3.6 U	0.36 U	0.37 U	0.5 U	0.38 U	0.37 U	1.8 U	0.57 U	0.37 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	PB06	PB07	PB08	PB09		PB10	PB10	PW01		PW02		VM01
Sample Name:			17394243	MJJ474	MJJ475	MJJ4B7	MJJ4B8	MJJ4B9	MJJ4C0	17394247	17394248	17394250	17394251	MJJ486
Collection Date:			9/28/2017	9/25/2017	9/25/2017	9/27/2017	9/29/2017	9/29/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017
Collection Depth (ft bgs):			4-6	0-0.5	0-0.5	2-4	4-5.5	2.4-4	4-6.5	2-4	4-6	1.6-2.6	6-8	2-4
Pyrene	2,400	NA	0.0043 U	0.98 J	2.6	0.036 U	0.011	0.015	0.005	0.0038 U	0.013	7.4	0.0057 U	0.0037 U
Total Benzofluoranthenes	NV	NA	--	--	--	--	--	--	--	--	--	--	--	--
cPAH TEQ[f][5]	0.1	NA	0.0043 U	0.336 J	0.163 J	0.0289 JQ	0.00255 JQ	0.00303 JQ	0.0035 JQ	0.0038 U	0.00354 JQ	2.53 J	0.0041 JQ	0.0037 U
Hydrocarbon Identification (Detect/Non-Detect)														
Gasoline	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--
TPH (mg/kg)														
Gasoline-Range Hydrocarbons	100	NA	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	2,000	NA	46 U	170 U	84 U	44 U	44 U	42 U	54 U	43 U	46 U	190	66 U	44 U
Lube Oil-Range Hydrocarbons	2,000	NA	120 U	170,000	25,000	400	110 U	110 U	130 U	110 U	120 U	1,000	160 U	110 U
Diesel+Oil[g]	2,000	NA	120 U	170,000	25,000	422	110 U	110 U	130 U	110 U	120 U	1,190	160 U	110 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	VM01
Sample Name:			MJJ487
Collection Date:			9/26/2017
Collection Depth (ft bgs):			6-8
Total Metals (mg/kg)			
Aluminum	80,000	NV	25,400
Antimony	32	NV	0.97 JQ
Arsenic	20	8.47	1 U
Barium	16,000	NV	111
Beryllium	160	0.8	0.78
Cadmium	2	0.1	1.2
Calcium	NV	NV	1,210 J
Chromium	2,000[b]	78.5	23.9 J
Cobalt	24	NV	17.8
Copper	3,200	52.9	45.7
Iron	56,000	49,170	26,800 J
Lead	250	10.9	3.8
Magnesium	NV	NV	3,990 J
Manganese	3,700	691.8	421
Mercury	2	NV	--
Nickel	1,600	54.2	22.3
Potassium	NV	NV	229 JQ
Selenium	400	NV	3.5 UJ
Silver	400	NV	0.97 J
Sodium	NV	NV	305 JQ
Thallium	0.8	NV	3.7
Vanadium	400	NV	80.1
Zinc	24,000	85.6	42.1
PCBs (mg/kg)			
Aroclor 1016	NA	NA	--
Aroclor 1221	NV	NA	--
Aroclor 1232	NV	NA	--
Aroclor 1242	NV	NA	--
Aroclor 1248	NV	NA	--
Aroclor 1254	NA	NA	--
Aroclor 1260	NA	NA	--
Aroclor 1262	NV	NA	--
Aroclor 1268	NV	NA	--
Total PCBs[c]	1	NA	--
Dioxins/Furans (pg/g)			
1,2,3,4,6,7,8-HpCDD	NV	NA	--
1,2,3,4,6,7,8-HpCDF	NV	NA	--
1,2,3,4,7,8,9-HpCDF	NV	NA	--
1,2,3,4,7,8-HxCDD	NV	NA	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	VM01
Sample Name:			MJJ487
Collection Date:			9/26/2017
Collection Depth (ft bgs):			6-8
1,2,3,4,7,8-HxCDF	NV	NA	--
1,2,3,6,7,8-HxCDD	NV	NA	--
1,2,3,6,7,8-HxCDF	NV	NA	--
1,2,3,7,8,9-HxCDD	NV	NA	--
1,2,3,7,8,9-HxCDF	NV	NA	--
1,2,3,7,8-PeCDD	NV	NA	--
1,2,3,7,8-PeCDF	NV	NA	--
2,3,4,6,7,8-HxCDF	NV	NA	--
2,3,4,7,8-PeCDF	NV	NA	--
2,3,7,8-TCDD	NA	NA	--
2,3,7,8-TCDF	NV	NA	--
OCDD	NV	NA	--
OCDF	NV	NA	--
Total HpCDDs	NV	NA	--
Total HpCDFs	NV	NA	--
Total HxCDDs	NA	NA	--
Total HxCDFs	NV	NA	--
Total PeCDDs	NV	NA	--
Total PeCDFs	NV	NA	--
Total TCDDs	NV	NA	--
Total TCDFs	NV	NA	--
Dioxin/Furan TEQ[d][3][4]	13	NA	--
Pesticides (mg/kg)			
Aldrin	NV	NA	--
alpha-BHC	NV	NA	--
beta-BHC	NV	NA	--
delta-BHC	NV	NA	--
cis-Chlordane	NV	NA	--
gamma-Chlordane	NV	NA	--
Chlordane	NV	NA	--
4,4'-DDD	NV	NA	--
4,4'-DDE	NV	NA	--
4,4'-DDT	NV	NA	--
Total DDTs	NV	NA	--
Dieldrin	NV	NA	--
Endosulfan I	NV	NA	--
Endosulfan II	NV	NA	--
Endosulfan Sulfate	NV	NA	--
Endrin	NV	NA	--
Endrin Aldehyde	NV	NA	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[(a)(1)]	Natural Background Levels[(2)]	VM01
Sample Name:			MJJ487
Collection Date:			9/26/2017
Collection Depth (ft bgs):			6-8
Endrin Ketone	NV	NA	--
Heptachlor	NV	NA	--
Heptachlor Epoxide	NV	NA	--
Lindane	NV	NA	--
Methoxychlor	NV	NA	--
Toxaphene	NV	NA	--
VOCs (mg/kg)			
1,1,1,2-Tetrachloroethane	38	NA	--
1,1,1-Trichloroethane	2	NA	0.0053 U
1,1,2,2-Tetrachloroethane	5	NA	0.0053 U
1,1,2-Trichloroethane	18	NA	0.0053 U
1,1-Dichloroethane	180	NA	0.0053 U
1,1-Dichloroethene	4,000	NA	0.0053 U
1,1-Dichloropropene	NV	NA	--
1,2,3-Trichlorobenzene	64	NA	0.0053 UJ
1,2,3-Trichloropropane	0.0063	NA	--
1,2,4-Trichlorobenzene	34	NA	0.0053 UJ
1,2,4-Trimethylbenzene	800	NA	--
1,2-Dibromo-3-chloropropane	0.23	NA	0.0053 U
1,2-Dibromoethane	0.005	NA	0.0053 U
1,2-Dichlorobenzene	7,200	NA	0.0053 UJ
1,2-Dichloroethane	11	NA	0.0053 U
1,2-Dichloropropane	27	NA	0.0053 U
1,3,5-Trimethylbenzene	800	NA	--
1,3-Dichlorobenzene	NV	NA	0.0053 UJ
1,3-Dichloropropane	1,600	NA	--
1,4-Dichlorobenzene	190	NA	0.0053 UJ
2,2-Dichloropropane	NV	NA	--
2-Butanone	48,000	NA	0.0066 JQ
2-Chloroethylvinyl ether	NV	NA	--
2-Chlorotoluene	1,600	NA	--
2-Hexanone	400	NA	0.011 U
4-Chlorotoluene	1,600	NA	--
4-Isopropyltoluene	NV	NA	--
4-Methyl-2-pentanone	6,400	NA	0.011 U
Acetone	72,000	NA	0.026
Acrolein	40	NA	--
Acrylonitrile	1.9	NA	--
Benzene	0.03	NA	0.0053 U
Bromobenzene	640	NA	--

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	VM01
Sample Name:			MJJ487
Collection Date:			9/26/2017
Collection Depth (ft bgs):			6-8
Bromodichloromethane	16	NA	0.0053 U
Bromoethane	NV	NA	--
Bromoform	130	NA	0.0053 U
Bromomethane	110	NA	0.0053 U
Carbon disulfide	8,000	NA	0.0053 U
Carbon tetrachloride	14	NA	0.0053 U
Chlorobenzene	1,600	NA	0.0053 UJ
Chlorobromomethane	NV	NA	0.0053 U
Chloroethane	NV	NA	0.0053 U
Chloroform	32	NA	0.0053 U
Chloromethane	NV	NA	0.0053 U
cis-1,2-Dichloroethene	160	NA	0.0053 U
cis-1,3-Dichloropropene	NV	NA	0.0053 U
Cyclohexane	NV	NA	0.0053 U
Dibromochloromethane	12	NA	0.0053 U
Dibromomethane	800	NA	--
Dichlorodifluoromethane (Freon 12)	16,000	NA	0.0053 U
Ethylbenzene	6	NA	0.0053 U
Freon 113	2,400,000	NA	0.0053 U
Hexachlorobutadiene	13	NA	--
Isopropylbenzene	8,000	NA	0.0053 U
m,p-Xylene	NV	NA	0.0053 U
Methyl acetate	80,000	NA	0.0053 U
Methyl iodide	NV	NA	--
Methyl tert-butyl ether	0.1	NA	0.0053 U
Methylcyclohexane	NV	NA	0.0053 U
Methylene chloride	0.02	NA	0.0053 U
Naphthalene	5	NA	--
n-Butylbenzene	4,000	NA	--
n-Propylbenzene	8,000	NA	--
o-Xylene	16,000	NA	0.0053 U
sec-Butylbenzene	8,000	NA	--
Styrene	16,000	NA	0.0053 U
tert-Butylbenzene	8,000	NA	--
Tetrachloroethene	0.05	NA	0.0053 U
Toluene	7	NA	0.0053 U
trans-1,2-Dichloroethene	1,600	NA	0.0053 U
trans-1,3-Dichloropropene	NV	NA	0.0053 U
trans-1,4-Dichloro-2-butene	NV	NA	--
Trichloroethene	0.03	NA	0.0053 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[(a)(1)]	Natural Background Levels[(2)]	VM01
Sample Name:			MJJ487
Collection Date:			9/26/2017
Collection Depth (ft bgs):			6-8
Trichlorofluoromethane (Freon 11)	24,000	NA	0.0053 U
Vinyl acetate	80,000	NA	--
Vinyl chloride	0.67	NA	0.0032 U
Xylenes, total[(e)]	9	NA	0.0053 U
SVOCs (mg/kg)			
1,1'-Biphenyl	130	NA	0.21 U
1,2,4,5-Tetrachlorobenzene	24	NA	0.21 U
1,2,4-Trichlorobenzene	34	NA	--
1,2-Dichlorobenzene	7,200	NA	--
1,3-Dichlorobenzene	NV	NA	--
1,4-Dichlorobenzene	190	NA	--
1,4-Dioxane	10	NA	0.085 U
1-Methylnaphthalene	34	NA	--
2,3,4,6-Tetrachlorophenol	2,400	NA	0.21 U
2,4,5-Trichlorophenol	8,000	NA	0.21 U
2,4,6-Trichlorophenol	80	NA	0.21 U
2,4-Dichlorophenol	240	NA	0.21 U
2,4-Dimethylphenol	1,600	NA	0.21 U
2,4-Dinitrophenol	160	NA	0.42 UJ
2,4-Dinitrotoluene	3.2	NA	0.21 U
2,6-Dinitrotoluene	0.67	NA	0.21 U
2-Chloronaphthalene	6,400	NA	0.21 U
2-Chlorophenol	400	NA	0.21 U
2-Methylnaphthalene	320	NA	0.0024 JQ
2-Methylphenol	4,000	NA	0.42 U
2-Nitroaniline	800	NA	0.21 U
2-Nitrophenol	NV	NA	0.21 U
3- & 4-Methylphenol (m,p-Cresol)	NV	NA	--
3,3-Dichlorobenzidine	2.2	NA	0.42 U
3-Nitroaniline	NV	NA	0.42 U
4,6-Dinitro-2-methylphenol	6.4	NA	0.42 UJ
4-Bromophenylphenyl ether	NV	NA	0.21 U
4-Chloro-3-methylphenol	8,000	NA	0.21 U
4-Chloroaniline	5	NA	0.42 U
4-Chlorophenylphenyl ether	NV	NA	0.21 U
4-Methylphenol	8,000	NA	0.42 U
4-Nitroaniline	50	NA	0.42 U
4-Nitrophenol	NV	NA	0.42 U
Acenaphthene	4,800	NA	0.0048
Acenaphthylene	NV	NA	0.0042 U

Location:	Screening Level for Soil[(a)(1)]	Natural Background Levels[(2)]	VM01
Sample Name:			MJJ487
Collection Date:			9/26/2017
Collection Depth (ft bgs):			6-8
Acetophenone	8,000	NA	0.42 U
Anthracene	24,000	NA	0.0042 U
Atrazine	4.3	NA	0.42 U
Benzaldehyde	250	NA	0.42 U
Benzo(a)anthracene	NV	NA	0.0042 U
Benzo(a)pyrene	NA	NA	0.0042 U
Benzo(b)fluoranthene	NV	NA	0.0042 U
Benzo(ghi)perylene	NV	NA	0.0042 U
Benzo(k)fluoranthene	NV	NA	0.0042 U
Benzoic acid	320,000	NA	--
Benzyl alcohol	8,000	NA	--
Bis(2-chloro-1-methylethyl)ether	14	NA	0.42 U
Bis(2-chloroethoxy)methane	240	NA	0.21 U
Bis(2-chloroethyl)ether	0.91	NA	0.42 U
Bis(2-ethylhexyl)phthalate	71	NA	0.21 U
Butylbenzylphthalate	530	NA	0.21 U
Caprolactam	40,000	NA	0.42 U
Carbazole	NV	NA	0.42 U
Chrysene	NV	NA	0.0042 U
Dibenzo(a,h)anthracene	NV	NA	0.0042 U
Dibenzofuran	80	NA	0.21 U
Diethyl phthalate	64,000	NA	0.21 U
Dimethyl phthalate	NV	NA	0.21 U
Di-n-butyl phthalate	8,000	NA	0.21 U
Di-n-octyl phthalate	800	NA	0.42 U
Fluoranthene	3,200	NA	0.0042 U
Fluorene	3,200	NA	0.0038 JQ
Hexachlorobenzene	0.63	NA	0.21 U
Hexachlorobutadiene	13	NA	0.21 U
Hexachlorocyclopentadiene	480	NA	0.42 UJ
Hexachloroethane	25	NA	0.21 U
Indeno(1,2,3-cd)pyrene	NV	NA	0.0042 U
Isophorone	1,100	NA	0.21 U
Naphthalene	5	NA	0.0042
Nitrobenzene	160	NA	0.21 U
N-Nitrosodiphenylamine	200	NA	0.21 U
N-Nitrosodipropylamine	0.14	NA	0.21 U
Pentachlorophenol	2.5	NA	0.0085 U
Phenanthrene	NV	NA	0.007
Phenol	24,000	NA	0.42 U

Table 6-3
Historical Soil Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil[a][1]	Natural Background Levels[2]	VM01
Sample Name:			MJJ487
Collection Date:			9/26/2017
Collection Depth (ft bgs):			6-8
Pyrene	2,400	NA	0.0042 U
Total Benzofluoranthenes	NV	NA	--
cPAH TEQ[f][5]	0.1	NA	0.0042 U
Hydrocarbon Identification (Detect/Non-Detect)			
Gasoline	NA	NA	--
Diesel	NA	NA	--
Lube Oil	NA	NA	--
TPH (mg/kg)			
Gasoline-Range Hydrocarbons	100	NA	--
Diesel-Range Hydrocarbons	2,000	NA	48 U
Lube Oil-Range Hydrocarbons	2,000	NA	120 U
Diesel+Oil[g]	2,000	NA	120 U

Notes

Shading indicates values that exceed soil screening levels; non-detect results (U, UJ, UL, UH, U^, UJH) and rejected results (R) were not compared with screening criteria.

Analytical results for samples collected in 2011 are from SAIC 2011. [6]

Screening levels were not developed for organochlorine pesticides because only samples collected in 2011 were analyzed for organochlorine pesticides, and all results were non-detect with reporting limits below soil MTCA A unrestricted land use, MTCA B cancer, and MTCA B non-cancer cleanup levels.

-- = not analyzed.

^ = data qualifier as shown in SAIC 2011. Data qualifier definition unavailable.

* = internal standard, laboratory control sample, or laboratory control sample duplicate exceeds control limits.

cPAH = carcinogenic polycyclic aromatic hydrocarbon.

ft bgs = feet below ground surface.

J = result is estimated.

JQ = result is estimated and detected below the method reporting limit.

mg/kg = milligrams per kilogram.

MTCA = Model Toxics Control Act.

NA = not applicable.

ND = not detected.

NV = no value.

PAH = polycyclic aromatic hydrocarbon.

PCB = polychlorinated biphenyl.

pg/g = picograms per gram.

R = result is rejected. The analyte may or may not be present in the sample.

SAIC = Science Applications International Corporation.

SVOC = semivolatile organic compound.

TEQ = toxicity equivalence.

TPH = total petroleum hydrocarbon.

U = result is non-detect at the reporting limit or detection limit.

UH = the result is non-detect and was prepared or analyzed beyond the specified holding time.

UJ = result is non-detect with an estimated reporting limit or detection limit.

UJH = result is estimated, non-detect, and was prepared or analyzed beyond the specified holding time.

UL = data qualifier as shown in 2011 SAIC Weyerhaeuser Aquatic Lands Lease Confirmatory Sampling Data Report. Data qualifier definition unavailable.

VOC = volatile organic compound.

Y = the chromatographic response resembles a typical fuel pattern.

Z = data qualifier as shown in SAIC 2011. Data qualifier definition unavailable.

[a]Screening levels are the lowest regulatory criteria value for the given matrix, selected from soil MTCA Method A unrestricted land use where available, or MTCA Method B (the lowest of cancer and noncancer values) where MTCA Method A is not available . Where a summation is performed (except Diesel+Oil and total xylenes), data are not screened to MTCA values for individual analytes; data are only screened to the MTCA value for the summation.

[b]Screening level for trivalent chromium.

[c]Total PCBs are the sum of all PCB Aroclors. Non-detect results are not included in the sum. When all results are non-detect, the highest reporting limit or detection limit is used.

[d]Dioxin/furan TEQ is calculated with 2005 World Health Organization mammal toxicity equivalence factors (Van den Berg et al. 2006). Non-detect results are included at one-half the detection limit. When all dioxin and furan results are non-detect, the TEQ is shown as "ND."

[e]Total xylenes are reported from the laboratory or are the sum of o-xylene and m,p-xylene. Non-detect results are summed at one-half the reporting limit or detection limit. When all results are non-detect, the highest reporting limit or detection limit is used.

[f]cPAH TEQ is calculated with toxicity equivalence factors from Washington Ecology Evaluating the Human Heath Toxicity of Carcinogenic PAHs Using Toxicity Equivalence Factors (Ecology 2015). Non-detect results are included at one-half the detection limit or reporting limit. When all cPAHs are non-detect, the highest reported detection limit or reporting limit is shown.

[g]Diesel+oil is the sum of diesel- and lube-oil-range hydrocarbons results. Non-detect results are summed at one-half the reporting limit or detection limit. When both results are non-detect, the highest reporting limit or detection limit is used.

References

[1]Ecology. 2022. *Cleanup Levels and Risk Calculation (CLARC) table.* Washington State Department of Ecology, Toxics Cleanup Program. July errata.

[2]Ecology. 1994. *Natural Background Soil Metals Concentrations in Washington State* . Publication 94-115. Washington State Department of Ecology. October.

[3]Ecology. 2007. *Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures Using Toxicity Equivalency Factors* . Supporting Material for CLARC. Washington State Department of Ecology.

[4]Van den Berg, M., L. S. Birnbaum, M. Denison, M. De Vito, W. Farland, and M. Feeley. 2006. "The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds." Toxicological Sciences 93(2): 223–41.

[5]Ecology. 2015. *Implementation Memorandum #10: Evaluating the Human Health Toxicity of Carcinogenic PAHs (cPAHs) Using Toxicity Equivalency Factors (TEFs).* Publication No. 15-09-049. Washington State Department of Ecology, Toxics Cleanup Program. April 20.

[6]SAIC. 2011. *Weyerhaeuser Aquatic Lands Lease Confirmation Sampling* . Science Applications International Corporation: Bothell, Washington. August 12.

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Table 6-4
Soil Analytical Results within 10 Feet of the Ordinary High Water Line
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Cleanup Standards[1]		RAU1-02	RAU1-03	RAU2-09
Sample Name:	Organic Carbon (0.5% to 3.5%)[a]	Organic Carbon (<0.5% or >3.5%)[b]	RAU1-02-SO-1	RAU1-03-SO-2.2	RAU2-09-SO-1.5
Collection Date:			12/02/2019	12/03/2019	12/04/2019
Collection Depth (ft bgs):			0.5-1.5	1.9-2.5	1-2
Total Organic Carbon (%)					
Total Organic Carbon	NV	NV	--[c]	--[c]	--[c]
Total Metals (mg/kg-dry)					
Arsenic	11	11	1.05 J	0.998 J	3.05
Cadmium	0.8	0.8	0.116 U	0.121 U	0.138 J
Chromium	72	72	8.45	5.5	21
Copper	390	390	30.9	12.4	49.2
Lead	21	21	2.76	2.3	11.1 J
Manganese	NV	NV	290	219	316
Mercury	0.2	0.2	0.0466 U	0.0483 U	0.252 J
Nickel	50	50	11.8	4.51	20.7
Zinc	410	410	36.3	39.1	86.9 J
PCBs (mg/kg-dry)					
Aroclor 1016	NV	NV	0.00233 UJ	--	0.00539 U
Aroclor 1221	NV	NV	0.00233 UJ	--	0.00539 U
Aroclor 1232	NV	NV	0.00233 UJ	--	0.00539 U
Aroclor 1242	NV	NV	0.00233 UJ	--	0.00539 U
Aroclor 1248	NV	NV	0.00233 UJ	--	0.00539 U
Aroclor 1254	NV	NV	0.00233 U	--	0.00539 U
Aroclor 1260	NV	NV	0.00233 U	--	0.0134
Aroclor 1268	NV	NV	--	--	--
Total PCBs[d]	0.0035	0.0035	0.00233 UJ	--	0.0134
VOCs (mg/kg-dry)					
1,1,1,2-Tetrachloroethane	NV	NV	0.0147 U	--	--
1,1,1-Trichloroethane	NV	NV	0.0147 U	--	--
1,1,2,2-Tetrachloroethane	NV	NV	0.0294 U	--	--
1,1,2-Trichloroethane	NV	NV	0.0147 U	--	--
1,1-Dichloroethane	NV	NV	0.0147 U	--	--
1,1-Dichloroethene	NV	NV	0.0147 U	--	--
1,1-Dichloropropene	NV	NV	0.0294 U	--	--
1,2,3-Trichlorobenzene	NV	NV	0.147 U	--	--
1,2,3-Trichloropropane	NV	NV	0.0294 U	--	--
1,2,4-Trichlorobenzene	NV	NV	0.147 U	--	--
1,2,4-Trimethylbenzene	NV	NV	0.0294 U	--	--
1,2-Dibromo-3-chloropropane	NV	NV	0.147 U	--	--
1,2-Dibromoethane	NV	NV	0.0294 U	--	--
1,2-Dichlorobenzene	NV	NV	0.0147 U	--	--
1,2-Dichloroethane	NV	NV	0.0147 U	--	--

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Table 6-4
Soil Analytical Results within 10 Feet of the Ordinary High Water Line
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Cleanup Standards[1]		RAU1-02	RAU1-03	RAU2-09
Sample Name:	Organic Carbon (0.5% to 3.5%)[a]	Organic Carbon (<0.5% or >3.5%)[b]	RAU1-02-SO-1	RAU1-03-SO-2.2	RAU2-09-SO-1.5
Collection Date:			12/02/2019	12/03/2019	12/04/2019
Collection Depth (ft bgs):			0.5-1.5	1.9-2.5	1-2
1,2-Dichloropropane	NV	NV	0.0147 U	--	--
1,3,5-Trimethylbenzene	NV	NV	0.0294 U	--	--
1,3-Dichlorobenzene	NV	NV	0.0147 U	--	--
1,3-Dichloropropane	NV	NV	0.0294 U	--	--
1,4-Dichlorobenzene	NV	NV	0.0147 U	--	--
2,2-Dichloropropane	NV	NV	0.0294 U	--	--
2-Butanone	NV	NV	0.294 U	--	--
2-Chlorotoluene	NV	NV	0.0294 U	--	--
2-Hexanone	NV	NV	0.294 U	--	--
4-Chlorotoluene	NV	NV	0.0294 U	--	--
4-Isopropyltoluene	NV	NV	0.0294 U	--	--
4-Methyl-2-pentanone	NV	NV	0.294 U	--	--
Acetone	NV	NV	0.588 U	--	--
Acrylonitrile	NV	NV	0.0588 U	--	--
Benzene	NV	NV	0.00588 U	--	--
Bromobenzene	NV	NV	0.0147 U	--	--
Bromodichloromethane	NV	NV	0.0294 U	--	--
Bromoform	NV	NV	0.0588 U	--	--
Bromomethane	NV	NV	0.588 U	--	--
Carbon disulfide	NV	NV	0.294 U	--	--
Carbon tetrachloride	NV	NV	0.0294 U	--	--
Chlorobenzene	NV	NV	0.0147 U	--	--
Chlorobromomethane	NV	NV	0.0294 U	--	--
Chloroethane	NV	NV	0.588 UJ	--	--
Chloroform	NV	NV	0.0294 U	--	--
Chloromethane	NV	NV	0.294 UJ	--	--
cis-1,2-Dichloroethene	NV	NV	0.0147 U	--	--
cis-1,3-Dichloropropene	NV	NV	0.0294 U	--	--
Dibromochloromethane	NV	NV	0.0588 U	--	--
Dibromomethane	NV	NV	0.0294 U	--	--
Dichlorodifluoromethane (Freon 12)	NV	NV	0.0588 UJ	--	--
Ethylbenzene	NV	NV	0.0147 U	--	--
Hexachlorobutadiene	NV	NV	0.0588 U	--	--
Isopropylbenzene	NV	NV	0.0294 U	--	--
m,p-Xylene	NV	NV	0.0294 U	--	--
Methyl tert-butyl ether	NV	NV	0.0294 U	--	--
Methylene chloride	NV	NV	0.147 U	--	--
Naphthalene	NV	NV	0.0588 U	--	--
n-Butylbenzene	NV	NV	0.0294 U	--	--

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Table 6-4
Soil Analytical Results within 10 Feet of the Ordinary High Water Line
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Cleanup Standards[1]		RAU1-02	RAU1-03	RAU2-09
Sample Name:	Organic Carbon (0.5% to 3.5%)[a]	Organic Carbon (<0.5% or >3.5%)[b]	RAU1-02-SO-1	RAU1-03-SO-2.2	RAU2-09-SO-1.5
Collection Date:			12/02/2019	12/03/2019	12/04/2019
Collection Depth (ft bgs):			0.5-1.5	1.9-2.5	1-2
n-Propylbenzene	NV	NV	0.0147 U	--	--
o-Xylene	NV	NV	0.0147 U	--	--
sec-Butylbenzene	NV	NV	0.0294 U	--	--
Styrene	NV	NV	0.0294 U	--	--
tert-Butylbenzene	NV	NV	0.0294 U	--	--
Tetrachloroethene	NV	NV	0.0147 U	--	--
Toluene	NV	NV	0.0294 U	--	--
trans-1,2-Dichloroethene	NV	NV	0.0147 U	--	--
trans-1,3-Dichloropropene	NV	NV	0.0294 U	--	--
Trichloroethene	NV	NV	0.0147 U	--	--
Trichlorofluoromethane (Freon 11)	NV	NV	0.118 U	--	--
Vinyl chloride	NV	NV	0.0147 U	--	--
Xylenes, total[e]	NV	NV	0.0294 U	--	--

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Table 6-4
Soil Analytical Results within 10 Feet of the Ordinary High Water Line
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Cleanup Standards[1]		RAU1-02	RAU1-03	RAU2-09
Sample Name:	Organic Carbon (0.5% to 3.5%)[a]	Organic Carbon (<0.5% or >3.5%)[b]	RAU1-02-SO-1	RAU1-03-SO-2.2	RAU2-09-SO-1.5
Collection Date:			12/02/2019	12/03/2019	12/04/2019
Collection Depth (ft bgs):			0.5-1.5	1.9-2.5	1-2
SVOCs (mg/kg-dry)					
1,2,4-Trichlorobenzene	NV	0.031	0.15 U	0.00373 U	0.722 U
1,2-Dichlorobenzene	NV	0.035	0.15 U	0.00373 U	0.722 U
1,2-Dinitrobenzene	NV	NV	1.5 U	0.0373 U	7.22 U
1,3-Dichlorobenzene	NV	NV	0.15 U	0.00373 U	0.722 U
1,3-Dinitrobenzene	NV	NV	1.5 U	0.0373 U	7.22 U
1,4-Dichlorobenzene	NV	0.11	0.15 U	0.00373 U	0.722 U
1,4-Dinitrobenzene	NV	NV	1.5 U	0.0373 U	7.22 U
1-Methylnaphthalene	NV	NV	0.12 U	0.00299 U	0.579 U
2,3,4,6-Tetrachlorophenol	NV	NV	0.3 U	0.00746 U	1.45 U
2,3,5,6-Tetrachlorophenol	NV	NV	0.3 U	0.00746 U	1.45 U
2,4,5-Trichlorophenol	NV	NV	0.3 U	0.00746 U	1.45 U
2,4,6-Trichlorophenol	NV	NV	0.3 U	0.00746 U	1.45 U
2,4-Dichlorophenol	NV	NV	0.3 U	0.00746 U	1.45 U
2,4-Dimethylphenol	0.029	0.029	0.3 U	0.00746 U	1.45 U
2,4-Dinitrophenol	NV	NV	1.5 U	0.0373 U	7.22 U
2,4-Dinitrotoluene	NV	NV	0.598 U	0.0149 U	2.89 U
2,6-Dinitrotoluene	NV	NV	0.598 U	0.0149 U	2.89 U
2-Chloronaphthalene	NV	NV	0.0598 U	0.00149 U	0.289 U
2-Chlorophenol	NV	NV	0.3 U	0.00746 U	1.45 U
2-Methylnaphthalene	NV	0.67	0.12 U	0.00299 U	0.579 U
2-Methylphenol	0.063	0.063	0.15 U	0.00373 U	0.722 U
2-Nitroaniline	NV	NV	1.2 U	0.0299 U	5.79 U
2-Nitrophenol	NV	NV	0.598 U	0.0149 U	2.89 U
3- & 4-Methylphenol (m,p-Cresol)	0.26	0.26	0.15 U	0.00373 U	0.722 U
3,3-Dichlorobenzidine	NV	NV	1.2 UJ	0.0299 UJ	5.79 U
3-Nitroaniline	NV	NV	1.2 U	0.0299 U	5.79 U
4,6-Dinitro-2-methylphenol	NV	NV	1.5 U	0.0373 U	7.22 U
4-Bromophenylphenyl ether	NV	NV	0.15 U	0.00373 U	0.722 U
4-Chloro-3-methylphenol	NV	NV	0.598 U	0.0149 U	2.89 U
4-Chloroaniline	NV	NV	0.15 U	0.00373 U	0.722 U
4-Chlorophenylphenyl ether	NV	NV	0.15 U	0.00373 U	0.722 U
4-Methylphenol	NV	NV	--	--	--
4-Nitroaniline	NV	NV	1.2 U	0.0299 U	5.79 U
4-Nitrophenol	NV	NV	0.598 U	0.0299 U	2.89 U
Acenaphthene	NV	0.5	0.0598 U	0.00149 U	0.289 U
Acenaphthylene	NV	1.3	0.0598 U	0.00149 U	0.289 U
Aniline	NV	NV	0.3 U	0.00746 U	1.45 U
Anthracene	NV	0.96	0.0598 U	0.00299 U	0.289 U

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Table 6-4
Soil Analytical Results within 10 Feet of the Ordinary High Water Line
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Cleanup Standards[1]		RAU1-02	RAU1-03	RAU2-09
Sample Name:	Organic Carbon (0.5% to 3.5%)[a]	Organic Carbon (<0.5% or >3.5%)[b]	RAU1-02-SO-1	RAU1-03-SO-2.2	RAU2-09-SO-1.5
Collection Date:			12/02/2019	12/03/2019	12/04/2019
Collection Depth (ft bgs):			0.5-1.5	1.9-2.5	1-2
Azobenzene	NV	NV	0.15 U	0.00373 U	0.722 U
Benzo(a)anthracene	NV	1.3	0.0598 U	0.00149 U	0.579 U
Benzo(a)pyrene	NV	1.6	0.18 U	0.00224 U	0.528 J
Benzo(b)fluoranthene	NV	NV	0.0899 U	0.00224 U	0.485 J
Benzo(ghi)perylene	NV	0.67	0.0598 U	0.00149 U	0.289 U
Benzo(k)fluoranthene	NV	NV	0.0899 U	0.00224 U	0.434 U
Benzoic acid	0.65	0.65	7.5 U	0.187 U	36.2 U
Benzyl alcohol	0.057	0.057	0.3 U	0.00746 U	1.45 U
Bis(2-chloro-1-methylethyl)ether	NV	NV	0.15 U	0.00373 U	0.722 U
Bis(2-chloroethoxy)methane	NV	NV	0.15 U	0.00373 U	0.722 U
Bis(2-chloroethyl)ether	NV	NV	0.15 U	0.00373 U	0.722 U
Bis(2-ethylhexyl)phthalate	0.5	0.5	0.899 U	0.0224 U	4.34 U
Butylbenzylphthalate	NV	0.063	0.598 U	0.0149 U	2.89 U
Carbazole	0.9	0.9	0.0899 U	0.00224 U	0.434 U
Chrysene	NV	1.4	0.0623 J	0.00149 U	0.579 U
Di(2-ethylhexyl)adipate	NV	NV	1.5 U	0.0373 U	7.22 U
Dibenzo(a,h)anthracene	NV	0.23	0.0598 U	0.00149 U	0.289 U
Dibenzofuran	0.2	0.2	0.0598 U	0.00149 U	0.289 U
Diethyl phthalate	NV	0.2	0.598 U	0.0299 U	2.89 U
Dimethyl phthalate	NV	0.071	0.598 U	0.0149 U	2.89 U
Di-n-butyl phthalate	0.38	0.38	0.598 U	0.0299 U	2.89 U
Di-n-octyl phthalate	0.039	0.039	0.598 U	0.0149 U	2.89 U
Fluoranthene	NV	1.7	0.0598 U	0.00149 U	0.289 U
Fluorene	NV	0.54	0.0598 U	0.00149 U	0.289 U
Hexachlorobenzene	NV	0.022	0.0598 U	0.00149 U	0.289 U
Hexachlorobutadiene	NV	0.011	0.15 U	0.00373 U	0.722 U
Hexachlorocyclopentadiene	NV	NV	0.3 U	0.00746 U	1.45 U
Hexachloroethane	NV	NV	0.15 U	0.00373 U	0.722 U
Indeno(1,2,3-cd)pyrene	NV	0.6	0.0598 U	0.00149 U	0.289 U
Isophorone	NV	NV	0.15 U	0.00373 U	0.722 U
Naphthalene	NV	2.1	0.12 U	0.00299 U	0.579 U
Nitrobenzene	NV	NV	0.598 U	0.0149 U	2.89 U
N-Nitrosodimethylamine	NV	NV	0.15 U	0.00373 U	0.722 U
N-Nitrosodiphenylamine	NV	NV	0.15 U	0.00373 U	0.722 U
N-Nitrosodipropylamine	NV	NV	0.15 U	0.00373 U	0.722 U
Pentachlorophenol	0.36	0.36	0.598 U	0.0149 U	2.89 U
Phenanthrene	NV	1.5	0.0598 U	0.00149 U	0.289 U
Phenol	0.12	0.12	0.12 U	0.00596 U	0.579 U
Pyrene	NV	2.6	0.0598 U	0.00149 U	0.289 U

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Table 6-4
Soil Analytical Results within 10 Feet of the Ordinary High Water Line
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Cleanup Standards[1]		RAU1-02	RAU1-03	RAU2-09
Sample Name:	Organic Carbon (0.5% to 3.5%)[a]	Organic Carbon (<0.5% or >3.5%)[b]	RAU1-02-SO-1	RAU1-03-SO-2.2	RAU2-09-SO-1.5
Collection Date:			12/02/2019	12/03/2019	12/04/2019
Collection Depth (ft bgs):			0.5-1.5	1.9-2.5	1-2
Pyridine	NV	NV	0.3 U	0.00746 U	1.45 U
Total benzofluoranthenes[f]	NV	3.2	0.0899 U	0.00224 U	0.702 J
cPAH TEQ[g][2]	0.021	0.021	0.109 J	0.00224 U	0.659 J
Total PAH[h]	17	17	0.0623 J	0.00299 U	1.01 J
Total LPAH[i]	NV	5.2	0.12 U	0.00299 U	0.579 U
Total HPAH[j]	NV	12	0.0623 J	0.00224 U	1.013 J
TPH (mg/kg-dry)					
Diesel-Range Hydrocarbons	340	340	57.7 U	13.2 J	443 U
Lube Oil-Range Hydrocarbons	3,600	3,600	1,280	22.5 U	3,190

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Table 6-4
Soil Analytical Results within 10 Feet of the Ordinary High Water Line
Upland Remedial Investigation
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Notes

Shading indicates values that exceed soil screening levels; non-detect results (U, UJ) were not compared with screening criteria.

Cleanup standards are applied based on sample TOC results. TOC analysis was not performed on the selected samples. Results are assumed to be within the 0.5 to 3.5 percent TOC range.

-- = not analyzed.

cPAH = carcinogenic polycyclic aromatic hydrocarbon.

ft bgs = feet below ground surface.

HPAH = high-molecular-weight PAH.

J = result is estimated.

LPAH = low-molecular-weight PAH.

mg/kg-dry = milligrams per kilogram, dry weight.

NV = no value.

PAH = polycyclic aromatic hydrocarbon.

PCB = polychlorinated biphenyl.

SVOC = semivolatile organic compound.

TEQ = toxicity equivalence.

TOC = total organic content.

TPH = total petroleum hydrocarbons.

U = result is non-detect at the reporting limit or detection limit.

UJ = result is non-detect with an estimated reporting limit or detection limit.

VOC = volatile organic compound.

[a]Cleanup standard applied to samples with TOC results within 0.5 to 3.5 percent TOC range.

[b]Cleanup standards applied to samples with TOC results outside of the 0.5 to 3.5 percent TOC range.

[c]TOC analysis not performed. Result assumed to be within the 0.5 to 3.5 percent TOC range.

[d]Total PCBs are the sum of all PCB Aroclors. Non-detect results are not included in the sum. When all results are non-detect, the highest reporting limit or detection limit is used.

[e]Total xylenes are reported from the laboratory or are the sum of o-xylene and m,p-xylene. When all results are non-detect, the highest reporting limit or detection limit is used.

[f]Total benzofluoranthenes are reported by the laboratory for samples collected in 2015. Total benzofluoranthenes are calculated as the sum of detected benzo(b)fluoranthene and benzo(k)fluoranthene for the remaining samples. Non-detect results are not included in the sum. When both analytical results are non-detect, the highest detection limit is used.

[g]cPAH TEQ is calculated as the sum of each cPAH multiplied by the corresponding toxicity equivalence factor. Non-detect results are also multiplied by one-half. When all cPAHs are non-detect, the highest detection limit or reporting limit is shown.

[h]Total PAH is the sum of detected 1-methylnaphthalene, 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluorene, fluoranthene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene. Non-detect results are not included in the sum. When all analytical results are non-detect, the highest detection limit is used.

[i]LPAH is the sum of detected acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. Non-detect results are not included in the sum. When all analytical results are non-detect, the highest detection limit is used.

[j]HPAH is the sum of detected benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, and pyrene. Non-detect results are not included in the sum. When all analytical results are non-detect, the highest detection limit is used.

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Table 6-4
Soil Analytical Results within 10 Feet of the Ordinary High Water Line
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

References

[1]MFA. 2022. Table 5-3. *In-Water Remedial Investigation Report* . Maul Foster & Alongi, Inc. August 18.

[2]Ecology. 2015. *Implementation Memorandum #10: Evaluating the Human Health Toxicity of Carcinogenic PAHs (cPAHs) Using Toxicity Equivalency Factors (TEFs)*. Publication No. 15-09-049. Washington State Department of Ecology, Toxics Cleanup Program. April 20.

Table 6-5
Analytical Summary of 2015–2020 Groundwater Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

	Number of Samples	Number of Detects	Number of Non-Detects	Frequency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[a]	Frequency of Detected Exceedances for All Samples
Anions (ug/L)								
Sulfide	3	0	3	0%	NA	NA	0	NC
Dissolved Metals (ug/L)								
Arsenic, Dissolved	20	6	14	30%	1	6	1	17%
Cadmium, Dissolved	7	0	7	0%	NA	NA	0	NC
Chromium, Dissolved	7	0	7	0%	NA	NA	0	NC
Lead, Dissolved	20	8	12	40%	0	7	0	0%
Manganese, Dissolved	13	13	0	100%	1,260	12,900	13	100%
Mercury, Dissolved	7	0	7	0%	NA	NA	0	NC
Total Metals (ug/L)								
Aluminum	18	15	3	83%	139	17,800	1	7%
Antimony	18	0	18	0%	NA	NA	0	NC
Arsenic	79	51	28	65%	1	57	10	20%
Barium	18	18	0	100%	11	288	0	0%
Beryllium	18	3	15	17%	1	1	0	0%
Cadmium	66	18	48	27%	0	5	1	6%
Calcium	18	18	0	100%	7,850	79,900	0	0%
Chromium	66	45	21	68%	1	123	3	7%
Chromium, hexavalent	1	0	1	0%	NA	NA	0	NC
Cobalt	18	6	12	33%	9	13	6	100%
Copper	59	57	2	97%	1	246	0	0%
Iron	18	18	0	100%	9,280	76,600	16	89%
Lead	79	46	33	58%	0	91	13	28%
Magnesium	18	18	0	100%	3,960	37,400	0	0%
Manganese	72	72	0	100%	269	23,000	66	92%
Mercury	48	15	33	31%	0	11	2	13%
Nickel	59	43	16	73%	1	97	0	0%
Potassium	18	13	5	72%	1,780	29,700	0	0%
Selenium	18	0	18	0%	NA	NA	0	NC

Table 6-5
Analytical Summary of 2015–2020 Groundwater Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

	Number of Samples	Number of Detects	Number of Non-Detects	Frequency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[a]	Frequency of Detected Exceedances for All Samples
Silver	18	5	13	28%	1.4	2.4	0	0%
Sodium	18	18	0	100%	4,600	60,900	0	0%
Thallium	18	0	18	0%	NA	NA	0	NC
Vanadium	18	8	10	44%	6.9	96.8	1	13%
Zinc	59	47	12	80%	2.03	1,190	0	0%
PCB Aroclors (ug/L)								
Aroclor 1016	15	0	15	0%	NA	NA	0	NC
Aroclor 1221	15	0	15	0%	NA	NA	0	NC
Aroclor 1232	15	0	15	0%	NA	NA	0	NC
Aroclor 1242	15	0	15	0%	NA	NA	0	NC
Aroclor 1248	15	0	15	0%	NA	NA	0	NC
Aroclor 1254	15	0	15	0%	NA	NA	0	NC
Aroclor 1260	15	0	15	0%	NA	NA	0	NC
Aroclor 1262	5	0	5	0%	NA	NA	0	NC
Aroclor 1268	9	0	9	0%	NA	NA	0	NC
Total PCBs[b]	15	0	15	0%	NA	NA	0	NC
VOCs (ug/L)								
1,1,1,2-Tetrachloroethane	16	0	16	0%	NA	NA	0	NC
1,1,1-Trichloroethane	34	0	34	0%	NA	NA	0	NC
1,1,2,2-Tetrachloroethane	34	0	34	0%	NA	NA	0	NC
1,1,2-Trichloroethane	34	1	33	3%	0.29	0.29	0	0%
1,1-Dichloroethane	34	2	32	6%	0.12	0.721	0	0%
1,1-Dichloroethene	34	0	34	0%	NA	NA	0	NC
1,1-Dichloropropene	16	0	16	0%	NA	NA	0	NC
1,2,3-Trichlorobenzene	34	0	34	0%	NA	NA	0	NC
1,2,3-Trichloropropane	16	0	16	0%	NA	NA	0	NC
1,2,4-Trichlorobenzene	34	0	34	0%	NA	NA	0	NC
1,2,4-Trimethylbenzene	16	3	13	19%	0.37	11.2	0	0%
1,2-Dibromo-3-chloropropane	34	0	34	0%	NA	NA	0	NC

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Analytical Summary of 2015–2020 Groundwater Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

	Number of Samples	Number of Detects	Number of Non-Detects	Frequency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[a]	Frequency of Detected Exceedances for All Samples
1,2-Dibromoethane	34	0	34	0%	NA	NA	0	NC
1,2-Dichlorobenzene	34	0	34	0%	NA	NA	0	NC
1,2-Dichloroethane	34	1	33	3%	0.27	0.27	0	0%
1,2-Dichloropropane	34	0	34	0%	NA	NA	0	NC
1,3,5-Trimethylbenzene	16	2	14	13%	0.19	2.88	0	0%
1,3-Dichlorobenzene	34	0	34	0%	NA	NA	0	NC
1,3-Dichloropropane	16	0	16	0%	NA	NA	0	NC
1,4-Dichlorobenzene	34	0	34	0%	NA	NA	0	NC
2,2-Dichloropropane	16	0	16	0%	NA	NA	0	NC
2-Butanone	34	1	33	3%	0.85	0.85	0	0%
2-Chloroethylvinyl ether	3	0	3	0%	NA	NA	0	NC
2-Chlorotoluene	16	0	16	0%	NA	NA	0	NC
2-Hexanone	34	0	34	0%	NA	NA	0	NC
4-Chlorotoluene	16	0	16	0%	NA	NA	0	NC
4-Isopropyltoluene	16	0	16	0%	NA	NA	0	NC
4-Methyl-2-pentanone	34	0	34	0%	NA	NA	0	NC
Acetone	34	5	29	15%	4	7.3	0	0%
Acrolein	3	0	3	0%	NA	NA	0	NC
Acrylonitrile	16	0	16	0%	NA	NA	0	NC
Benzene	36	3	33	8%	0.31	0.76	0	0%
Bromobenzene	16	0	16	0%	NA	NA	0	NC
Bromodichloromethane	34	0	34	0%	NA	NA	0	NC
Bromoethane	3	0	3	0%	NA	NA	0	NC
Bromoform	34	0	34	0%	NA	NA	0	NC
Bromomethane	34	0	34	0%	NA	NA	0	NC
Carbon disulfide	34	2	32	6%	0.26	0.4	0	0%
Carbon tetrachloride	34	0	34	0%	NA	NA	0	NC
Chlorobenzene	34	0	34	0%	NA	NA	0	NC
Chlorobromomethane	34	0	34	0%	NA	NA	0	NC

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	Number of Samples	Number of Detects	Number of Non-Detects	Frequency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[a]	Frequency of Detected Exceedances for All Samples
Chloroethane	34	2	32	6%	0.13	0.39	0	0%
Chloroform	34	0	34	0%	NA	NA	0	NC
Chloromethane	34	1	33	3%	0.22	0.22	0	0%
cis-1,2-Dichloroethene	34	2	32	6%	0.24	0.25	0	0%
cis-1,3-Dichloropropene	34	0	34	0%	NA	NA	0	NC
Cyclohexane	18	2	16	11%	1.3	1.5	0	0%
Dibromochloromethane	34	0	34	0%	NA	NA	0	NC
Dibromomethane	16	0	16	0%	NA	NA	0	NC
Dichlorodifluoromethane (Freon 12)	31	0	31	0%	NA	NA	0	NC
Ethylbenzene	36	5	31	14%	0.12	1.1	0	0%
Freon 113	21	0	21	0%	NA	NA	0	NC
Hexachlorobutadiene	16	0	16	0%	NA	NA	0	NC
Isopropylbenzene	34	2	32	6%	0.39	0.49	0	0%
m,p-Xylene	34	7	27	21%	0.15	5.02	0	0%
Methyl acetate	18	0	18	0%	NA	NA	0	NC
Methyl iodide	3	0	3	0%	NA	NA	0	NC
Methyl tert-butyl ether	31	0	31	0%	NA	NA	0	NC
Methylcyclohexane	18	4	14	22%	0.34	2.2	0	0%
Methylene chloride	34	1	33	3%	0.23	0.23	0	0%
Naphthalene	16	3	13	19%	2.9	149	0	0%
n-Butylbenzene	16	0	16	0%	NA	NA	0	NC
n-Propylbenzene	16	1	15	6%	0.567	0.567	0	0%
o-Xylene	34	7	27	21%	0.11	3.04	0	0%
sec-Butylbenzene	16	0	16	0%	NA	NA	0	NC
Styrene	34	0	34	0%	NA	NA	0	NC
tert-Butylbenzene	16	0	16	0%	NA	NA	0	NC
Tetrachloroethene	34	0	34	0%	NA	NA	0	NC
Toluene	36	7	29	19%	0.16	4.92	0	0%
trans-1,2-Dichloroethene	34	0	34	0%	NA	NA	0	NC

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Analytical Summary of 2015–2020 Groundwater Data
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	Number of Samples	Number of Detects	Number of Non-Detects	Frequency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[a]	Frequency of Detected Exceedances for All Samples
trans-1,3-Dichloropropene	34	0	34	0%	NA	NA	0	NC
trans-1,4-Dichloro-2-butene	3	0	3	0%	NA	NA	0	NC
Trichloroethene	34	0	34	0%	NA	NA	0	NC
Trichlorofluoromethane (Freon 11)	34	0	34	0%	NA	NA	0	NC
Vinyl Acetate	3	0	3	0%	NA	NA	0	NC
Vinyl chloride	34	0	34	0%	NA	NA	0	NC
Xylenes, total[c]	36	8	28	22%	0.25	8.06	0	0%
SVOCs (ug/L)								
1,1'-Biphenyl	23	0	23	0%	NA	NA	0	NC
1,2,4,5-Tetrachlorobenzene	23	0	23	0%	NA	NA	0	NC
1,2,4-Trichlorobenzene	28	0	28	0%	NA	NA	0	NC
1,2-Dichlorobenzene	28	0	28	0%	NA	NA	0	NC
1,2-Dinitrobenzene	21	0	21	0%	NA	NA	0	NC
1,3-Dichlorobenzene	28	1	27	4%	0.0483	0.0483	0	0%
1,3-Dinitrobenzene	21	0	21	0%	NA	NA	0	NC
1,4-Dichlorobenzene	28	1	27	4%	0.0704	0.0704	0	0%
1,4-Dinitrobenzene	21	0	21	0%	NA	NA	0	NC
1,4-Dioxane	23	0	23	0%	NA	NA	0	NC
1-Methylnaphthalene	38	12	26	32%	0.0332	46.3	6	50%
2,3,4,6-Tetrachlorophenol	44	2	42	5%	0.172	390	0	0%
2,3,5,6-Tetrachlorophenol	21	2	19	10%	0.0489	0.0586	0	0%
2,4,5-Trichlorophenol	51	1	50	2%	150	150	0	0%
2,4,6-Trichlorophenol	51	0	51	0%	NA	NA	0	NC
2,4-Dichlorophenol	51	1	50	2%	21	21	0	0%
2,4-Dimethylphenol	51	0	51	0%	NA	NA	0	NC
2,4-Dinitrophenol	51	0	51	0%	NA	NA	0	NC
2,4-Dinitrotoluene	51	0	51	0%	NA	NA	0	NC
2,6-Dinitrotoluene	51	0	51	0%	NA	NA	0	NC
2-Chloronaphthalene	51	0	51	0%	NA	NA	0	NC

Table 6-5
Analytical Summary of 2015–2020 Groundwater Data
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	Number of Samples	Number of Detects	Number of Non-Detects	Frequency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[a]	Frequency of Detected Exceedances for All Samples
2-Chlorophenol	51	1	50	2%	0.68	0.68	0	0%
2-Methylnaphthalene	61	23	38	38%	0.014	61.9	1	4%
2-Methylphenol	51	0	51	0%	NA	NA	0	NC
2-Nitroaniline	51	0	51	0%	NA	NA	0	NC
2-Nitrophenol	51	0	51	0%	NA	NA	0	NC
3- & 4-Methylphenol (m,p-Cresol)	21	5	16	24%	0.0322	2.78	0	0%
3,3-Dichlorobenzidine	51	0	51	0%	NA	NA	0	NC
3-Nitroaniline	51	0	51	0%	NA	NA	0	NC
4,6-Dinitro-2-methylphenol	51	0	51	0%	NA	NA	0	NC
4-Bromophenylphenyl ether	51	0	51	0%	NA	NA	0	NC
4-Chloro-3-methylphenol	51	0	51	0%	NA	NA	0	NC
4-Chloroaniline	51	0	51	0%	NA	NA	0	NC
4-Chlorophenylphenyl ether	51	0	51	0%	NA	NA	0	NC
4-Methylphenol	30	2	28	7%	1.4	12	0	0%
4-Nitroaniline	51	0	51	0%	NA	NA	0	NC
4-Nitrophenol	51	0	51	0%	NA	NA	0	NC
Acenaphthene	61	45	16	74%	0.013	43.9	0	0%
Acenaphthylene	61	5	56	8%	0.014	1.59	0	0%
Acetophenone	23	0	23	0%	NA	NA	0	NC
Aniline	21	0	21	0%	NA	NA	0	NC
Anthracene	61	16	45	26%	0.0104	2.53	0	0%
Atrazine	23	0	23	0%	NA	NA	0	NC
Azobenzene	21	0	21	0%	NA	NA	0	NC
Benzaldehyde	23	0	23	0%	NA	NA	0	NC
Benzo(a)anthracene	61	12	49	20%	0.0115	0.55	0	0%
Benzo(a)pyrene	61	4	57	7%	0.013	0.338	0	NC
Benzo(b)fluoranthene	54	8	46	15%	0.0178	0.27	0	0%
Benzo(ghi)perylene	61	0	61	0%	NA	NA	0	NC
Benzo(k)fluoranthene	54	3	51	6%	0.0123	0.0667	0	0%

Table 6-5
Analytical Summary of 2015–2020 Groundwater Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

	Number of Samples	Number of Detects	Number of Non-Detects	Frequency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[a]	Frequency of Detected Exceedances for All Samples
Benzoic acid	28	3	25	11%	3.2	97	0	0%
Benzyl alcohol	28	0	28	0%	NA	NA	0	NC
Bis(2-chloro-1-methylethyl)ether	51	0	51	0%	NA	NA	0	NC
Bis(2-chloroethoxy)methane	51	0	51	0%	NA	NA	0	NC
Bis(2-chloroethyl)ether	51	1	50	2%	3	3	1	100%
Bis(2-ethylhexyl)phthalate	51	3	48	6%	0.345	0.91	0	0%
Butylbenzylphthalate	51	0	51	0%	NA	NA	0	NC
Caprolactam	23	3	20	13%	1.3	2.3	0	0%
Carbazole	61	7	54	11%	0.0338	6.73	0	0%
Chrysene	61	9	52	15%	0.01	11	0	0%
Di(2-ethylhexyl)adipate	21	0	21	0%	NA	NA	0	NC
Dibenzo(a,h)anthracene	61	0	61	0%	NA	NA	0	NC
Dibenzofuran	61	8	53	13%	0.0581	16.4	1	13%
Diethyl phthalate	51	0	51	0%	NA	NA	0	NC
Dimethyl phthalate	51	0	51	0%	NA	NA	0	NC
Di-n-butyl phthalate	51	0	51	0%	NA	NA	0	NC
Di-n-octyl phthalate	51	0	51	0%	NA	NA	0	NC
Fluoranthene	61	25	36	41%	0.0104	23	0	0%
Fluorene	61	28	33	46%	0.0175	25.8	0	0%
Hexachlorobenzene	51	0	51	0%	NA	NA	0	NC
Hexachlorobutadiene	51	0	51	0%	NA	NA	0	NC
Hexachlorocyclopentadiene	51	0	51	0%	NA	NA	0	NC
Hexachloroethane	51	0	51	0%	NA	NA	0	NC
Indeno(1,2,3-cd)pyrene	61	0	61	0%	NA	NA	0	NC
Isophorone	51	0	51	0%	NA	NA	0	NC
Naphthalene	61	26	35	43%	0.017	200	1	4%
Nitrobenzene	51	0	51	0%	NA	NA	0	NC
N-Nitrosodimethylamine	21	0	21	0%	NA	NA	0	NC
N-Nitrosodiphenylamine	51	0	51	0%	NA	NA	0	NC

Table 6-5
Analytical Summary of 2015–2020 Groundwater Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

	Number of Samples	Number of Detects	Number of Non-Detects	Frequency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[a]	Frequency of Detected Exceedances for All Samples
N-Nitrosodipropylamine	51	0	51	0%	NA	NA	0	NC
Pentachlorophenol	51	12	39	24%	0.046	1600	6	50%
Phenanthrene	61	36	25	59%	0.01	13.2	0	0%
Phenol	51	1	50	2%	25	25	0	0%
Pyrene	61	19	42	31%	0.014	16	0	0%
Pyridine	21	0	21	0%	NA	NA	0	NC
Total Benzofluoranthenes	7	0	7	0%	NA	NA	0	NC
cPAH TEQ[d][1]	61	16	45	26%	0.0112	15.1	4	24%
TPH (ug/L)								
Gasoline-Range Hydrocarbons	1	1	0	100%	239	239	NA	0%
Diesel-Range Hydrocarbons	73	25	48	34%	108	40,000	NA	32%
Lube Oil-Range Hydrocarbons	73	21	52	29%	201	481,000	NA	95%
Diesel+Oil[e]	73	36	37	49%	210	484,000	NA	67%
TPH with Silica Gel Treatment (ug/L)								
Diesel-Range Hydrocarbons	13	0	13	0%	NA	NA	0	NC
Lube Oil-Range Hydrocarbons	13	3	10	23%	14,700	96,100	3	100%
Diesel+Oil[e]	13	3	10	23%	14,800	98,300	NA	100%

Table 6-5
Analytical Summary of 2015–2020 Groundwater Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Notes

cPAH = carcinogenic polycyclic aromatic hydrocarbon.

MTCA = Model Toxics Control Act.

NA = not applicable.

NC = not calculated.

ND = not detected.

PAH = polycyclic aromatic hydrocarbon.

PCB = polychlorinated biphenyl.

SVOC = semivolatile organic compound.

TEQ = toxicity equivalence.

TPH = total petroleum hydrocarbons.

ug/L = micrograms per liter.

VOC = volatile organic compound.

[a]Screening levels are the lowest regulatory criteria value for the given matrix, selected from groundwater MTCA Method A where available, or MTCA Method B (the lowest of cancer and noncancer values) where MTCA Method A is not available. The proposed screening for sulfide is the Clean Water Act chronic screening level for hydrogen sulfide. Where a summation is performed (except Diesel+Oil and total xylenes), data are not screened to MTCA values for individual analytes; data are only screened to the MTCA value for the summation.

[b]Total PCBs are the sum of all PCB Aroclors; where all results are non-detect, the highest method reporting limit or method detection limit is used.

[c]Total xylenes are reported from the laboratory or the sum of o-xylene and m,p-xylene. Non-detect results are summed at one-half the method reporting limit or method detection limit. When all results are non-detect, the highest method reporting limit or method detection limit is used.

[d]cPAH TEQ is calculated with toxicity equivalence factors from Washington Ecology Evaluating the Human Heath Toxicity of Carcinogenic PAHs Using Toxicity Equivalence Factors (Ecology 2015). Non-detect results are included at one-half the detection limit or reporting limit. When all cPAHs are non-detect, the highest reported detection limit or reporting limit is shown.

[e]Diesel+oil is the sum of diesel- and lube-oil-range hydrocarbons results. Non-detect results are summed at one-half the reporting limit or detection limit. When both results are non-detect, the highest reporting limit or detection limit is used.

Reference

[5]Ecology. 2015. *Implementation Memorandum #10: Evaluating the Human Health Toxicity of Carcinogenic PAHs (cPAHs) Using Toxicity Equivalency Factors (TEFs)*. Publication No. 15-09-049. Washington State Department of Ecology, Toxics Cleanup Program. April 20.

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU1-01	RAU1-02	RAU1-03		RAU1-04	RAU1-05	RAU1-06	RAU1-07	RAU1-08	RAU1-09	RAU1-10	RAU1-11	RAU1-12
Sample Name:		RAU1-01-GW-7.5	RAU1-02-GW-6	RAU1-03-GW-7.5	RAU1-03-GW-7.5-DUP	RAU1-04-GW-7.5	RAU1-05-GW-6.5	RAU1-06-GW-7.5	RAU1-07-GW-7.5	RAU1-08-GW-7.0	RAU1-09-GW-7.0	RAU1-10-GW-8.5	RAU1-11-GW-7.0	RAU1-12-GW-7.0
Collection Date:		12/2/2019	12/2/2019	12/3/2019	12/3/2019	12/2/2019	12/2/2019	12/3/2019	12/2/2019	12/4/2019	12/3/2019	12/4/2019	12/3/2019	12/3/2019
Collection Depth (ft bgs):		7.5	6	7.5	7.5	7.5	6.5	7.5	7.5	7	7	8.5	7	7
Anions (ug/L)														
Sulfide	2	--	--	--	--	--	--	--	--	--	--	--	--	--
Dissolved Metals (ug/L)														
Arsenic	5	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	15	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	750	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Metals (ug/L)														
Arsenic	5	5.21	12.5 U	0.5 U	0.5 U	1.07	2.14	1.68	1.2	0.5 U	5.3	1.62	1.47	1.86
Cadmium	5	0.04 U	1 U	0.04 U	0.04 U	0.4 U	0.111 J	0.04 U	0.04 U	0.04 U	0.27	0.04 U	0.04 U	0.634
Chromium	50	14.9	13.4 J	2.25 J	2.44 J	1 U	11.8	5.12 J	2.49 J	1 U	38.6	10.5	10.1	8.88
Chromium, hexavalent	0.046	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	640	13.6	26.4	4.58 J	5.79	1.83 J	23.5	8.06	4.54 J	1.78 J	59.8	21.4	15.9	17.8
Lead	15	2.66 U	9.7	2.22 U	2.53 U	1 U	8.22	1.5 U	0.843 U	1.01 U	29.6	1.97 U	3.63 U	9.06
Manganese	750	980	831	2,650	2,640	2,140	2,020	2,830	325	337	12,600	14,600	5,050	1,390
Mercury	2	0.04 U	1 U	0.08 U	0.0443 J	0.04 U	0.0523 J	0.04 U	0.04 U	0.04 U	0.116	0.04 U	0.04 U	0.04 U
Nickel	320	7.03	12.5 U	1.62	1.84	2.26	11.8	2.94	1.35	1.07	24.1	9.06	5.54	5.12
Zinc	4,800	36.7	175	15.2	17.6	7.68	46.5	9.06	3.91 J	2.34 J	101	10.6	12.3	1,190
PCB Aroclors (ug/L)														
Aroclor 1016	NA	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1221	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1232	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1242	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1248	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1254	NA	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1260	NA	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCBs[b]	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--
VOCs (ug/L)														
1,1,1,2-Tetrachloroethane	1.7	0.2 U	0.2 U	--	--	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
1,1,1-Trichloroethane	200	0.2 U	0.2 U	--	--	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
1,1,2,2-Tetrachloroethane	0.22	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
1,1,2-Trichloroethane	0.77	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
1,1-Dichloroethane	7.7	0.2 U	0.2 U	--	--	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.721	0.2 U
1,1-Dichloroethene	400	0.2 U	0.2 U	--	--	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
1,1-Dichloropropene	NV	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
1,2,3-Trichlorobenzene	6.4	1 U	1 U	--	--	1 U	1 U	1 U	1 U	--	1 U	--	1 U	1 U
1,2,3-Trichloropropane	0.00038	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
1,2,4-Trichlorobenzene	1.5	1 U	1 U	--	--	1 U	1 U	1 U	1 U	--	1 U	--	1 U	1 U
1,2,4-Trimethylbenzene	80	0.5 U	0.5 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	--	0.5 U	--	0.674 J	11.2
1,2-Dibromo-3-chloropropane	0.014	2.5 U	2.5 U	--	--	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	2.5 U	2.5 U
1,2-Dibromoethane	0.01	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

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU1-01	RAU1-02	RAU1-03		RAU1-04	RAU1-05	RAU1-06	RAU1-07	RAU1-08	RAU1-09	RAU1-10	RAU1-11	RAU1-12
Sample Name:		RAU1-01-GW-7.5	RAU1-02-GW-6	RAU1-03-GW-7.5	RAU1-03-GW-7.5-DUP	RAU1-04-GW-7.5	RAU1-05-GW-6.5	RAU1-06-GW-7.5	RAU1-07-GW-7.5	RAU1-08-GW-7.0	RAU1-09-GW-7.0	RAU1-10-GW-8.5	RAU1-11-GW-7.0	RAU1-12-GW-7.0
Collection Date:		12/2/2019	12/2/2019	12/3/2019	12/3/2019	12/2/2019	12/2/2019	12/3/2019	12/2/2019	12/4/2019	12/3/2019	12/4/2019	12/3/2019	12/3/2019
Collection Depth (ft bgs):		7.5	6	7.5	7.5	7.5	6.5	7.5	7.5	7	7	8.5	7	7
1,2-Dichlorobenzene	720	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-Dichloroethane	5	0.2 U	0.2 U	--	--	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
1,2-Dichloropropane	1.2	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
1,3,5-Trimethylbenzene	80	0.5 U	0.5 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	--	0.5 U	--	0.5 U	2.88
1,3-Dichlorobenzene	NV	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
1,3-Dichloropropane	160	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
1,4-Dichlorobenzene	8.1	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
2,2-Dichloropropane	NV	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
2-Butanone	4,800	5 U	5 U	--	--	5 U	5 U	5 U	5 U	--	5 U	--	5 U	5 U
2-Chlorotoluene	160	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
2-Hexanone	40	10 UJ	5 U	--	--	10 UJ	10 UJ	10 UJ	10 UJ	--	5 U	--	10 UJ	10 UJ
4-Chlorotoluene	160	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
4-Isopropyltoluene	NV	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
4-Methyl-2-pentanone	640	5 U	5 U	--	--	5 U	5 U	5 U	5 U	--	5 U	--	5 U	5 U
Acetone	7,200	10 U	10 U	--	--	10 U	10 U	10 U	10 U	--	10 U	--	20 UJ	20 UJ
Acrylonitrile	0.081	1 U	1 U	--	--	1 U	1 U	1 U	1 U	--	1 U	--	1 U	1 U
Benzene	5	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
Bromobenzene	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
Bromodichloromethane	0.71	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
Bromoform	5.5	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
Bromomethane	11	5 U	5 U	--	--	5 U	5 U	5 U	5 U	--	5 U	--	5 U	5 U
Carbon disulfide	800	5 U	5 U	--	--	5 U	5 U	5 U	5 U	--	5 U	--	5 U	5 U
Carbon tetrachloride	0.63	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
Chlorobenzene	160	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
Chlorobromomethane	NV	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
Chloroethane	NV	5 U	30 U	--	--	5 U	5 U	5 U	5 U	--	5 U	--	5 U	5 U
Chloroform	1.4	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
Chloromethane	NV	2.5 U	7 U	--	--	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	2.5 U	2.5 U
cis-1,2-Dichloroethene	16	0.2 U	0.2 U	--	--	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
cis-1,3-Dichloropropene	NV	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
Dibromochloromethane	0.52	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
Dibromomethane	80	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
Dichlorodifluoromethane (Freon 12)	1,600	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
Ethylbenzene	700	0.25 U	0.25 U	--	--	0.25 U	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.25 U	0.686
Hexachlorobutadiene	0.56	2.5 U	2.5 U	--	--	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	2.5 U	2.5 U
Isopropylbenzene	800	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
m,p-Xylene	NV	0.5 U	0.5 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	--	0.5 U	--	0.5 U	5.02
Methyl tert-butyl ether	20	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
Methylene chloride	5	2.5 U	2.5 U	--	--	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	1.5 U	1.5 U
Naphthalene	160	2.9	2 UJ	--	--	1 U	1 U	1 U	1 U	--	2 UJ	--	2 UJ	4.6

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU1-01	RAU1-02	RAU1-03		RAU1-04	RAU1-05	RAU1-06	RAU1-07	RAU1-08	RAU1-09	RAU1-10	RAU1-11	RAU1-12
Sample Name:		RAU1-01-GW-7.5	RAU1-02-GW-6	RAU1-03-GW-7.5	RAU1-03-GW-7.5-DUP	RAU1-04-GW-7.5	RAU1-05-GW-6.5	RAU1-06-GW-7.5	RAU1-07-GW-7.5	RAU1-08-GW-7.0	RAU1-09-GW-7.0	RAU1-10-GW-8.5	RAU1-11-GW-7.0	RAU1-12-GW-7.0
Collection Date:		12/2/2019	12/2/2019	12/3/2019	12/3/2019	12/2/2019	12/2/2019	12/3/2019	12/2/2019	12/4/2019	12/3/2019	12/4/2019	12/3/2019	12/3/2019
Collection Depth (ft bgs):		7.5	6	7.5	7.5	7.5	6.5	7.5	7.5	7	7	8.5	7	7
n-Butylbenzene	400	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
n-Propylbenzene	800	0.25 U	0.25 U	--	--	0.25 U	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.25 U	0.567
o-Xylene	1,600	0.25 U	0.25 U	--	--	0.25 U	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.292 J	3.04
sec-Butylbenzene	800	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
Styrene	1,600	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
tert-Butylbenzene	800	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
Tetrachloroethene	5	0.2 U	0.2 U	--	--	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
Toluene	1,000	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
trans-1,2-Dichloroethene	160	0.2 U	0.2 U	--	--	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
trans-1,3-Dichloropropene	NV	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
Trichloroethene	5	0.2 U	0.2 U	--	--	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
Trichlorofluoromethane (Freon 11)	2,400	1 U	1 U	--	--	1 U	1 U	1 U	1 U	--	1 U	--	1 U	1 U
Vinyl chloride	0.2	0.2 U	0.2 U	--	--	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
Xylenes, total[c]	1,000	0.5 U	0.5 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	--	0.5 U	--	0.542 J	8.06
SVOCs (ug/L)														
1,2,4-Trichlorobenzene	1.5	0.588 UJ	0.108 UJ	0.112 U	0.102 U	0.108 UJ	0.543 UJ	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
1,2-Dichlorobenzene	720	0.588 UJ	0.108 UJ	0.112 U	0.102 U	0.108 UJ	0.543 UJ	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
1,2-Dinitrobenzene	1.6	5.88 U	1.08 U	1.12 U	1.02 U	1.08 U	5.43 U	1.04 U	0.248 UJ	1.08 U	1.32 U	11.6 U	5.62 U	10.8 U
1,3-Dichlorobenzene	NV	0.588 UJ	0.108 UJ	0.112 U	0.102 U	0.108 UJ	0.543 UJ	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
1,3-Dinitrobenzene	1.6	5.88 U	1.08 U	1.12 U	1.02 U	1.08 U	5.43 U	1.04 U	0.248 UJ	1.08 U	1.32 U	11.6 U	5.62 U	10.8 U
1,4-Dichlorobenzene	8.1	0.588 UJ	0.108 UJ	0.112 U	0.102 U	0.108 UJ	0.543 UJ	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
1,4-Dinitrobenzene	1.6	5.88 U	1.08 U	1.12 U	1.02 U	1.08 U	5.43 U	1.04 U	0.248 UJ	1.08 U	1.32 U	11.6 U	5.62 U	10.8 U
1-Methylnaphthalene	1.5	0.688 J	0.086 UJ	0.0899 U	0.0816 U	0.086 UJ	2.12 J	0.0833 U	0.0198 UJ	0.086 U	0.105 U	20.4	0.609 J	8.42
2,3,4,6-Tetrachlorophenol	480	1.18 U	0.215 U	0.225 U	0.204 U	0.215 U	1.09 U	0.208 U	0.0495 U	0.215 U	0.263 U	2.33 U	1.12 U	2.15 U
2,3,5,6-Tetrachlorophenol	NV	1.18 U	0.215 U	0.225 U	0.204 U	0.215 U	1.09 U	0.208 U	0.0495 U	0.215 U	0.263 U	2.33 U	1.12 U	2.15 U
2,4,5-Trichlorophenol	1,600	1.18 U	0.215 U	0.225 U	0.204 U	0.215 U	1.09 U	0.208 U	0.0495 U	0.215 U	0.263 U	2.33 U	1.12 U	2.15 U
2,4,6-Trichlorophenol	8	1.18 U	0.215 U	0.225 U	0.204 U	0.215 U	1.09 U	0.208 U	0.0495 U	0.215 U	0.263 U	2.33 U	1.12 U	2.15 U
2,4-Dichlorophenol	48	1.18 U	0.215 U	0.225 U	0.204 U	0.215 U	1.09 U	0.208 U	0.0495 U	0.215 U	0.263 U	2.33 U	1.12 U	2.15 U
2,4-Dimethylphenol	320	1.18 U	0.215 U	0.225 U	0.204 U	0.215 U	1.09 U	0.208 U	0.0495 U	0.215 U	0.263 U	2.33 U	1.12 U	2.15 U
2,4-Dinitrophenol	32	5.88 U	1.08 U	1.12 U	1.02 U	1.08 U	5.43 U	1.04 U	0.248 U	1.08 U	1.32 U	11.6 U	5.62 U	10.8 U
2,4-Dinitrotoluene	0.28	2.35 U	0.43 U	0.449 U	0.408 U	0.43 U	2.17 U	0.417 U	0.099 UJ	0.43 U	0.526 U	4.65 U	2.25 U	4.3 U
2,6-Dinitrotoluene	0.058	2.35 U	0.43 U	0.449 U	0.408 U	0.43 U	2.17 U	0.417 U	0.099 UJ	0.43 U	0.526 U	4.65 U	2.25 U	4.3 U
2-Chloronaphthalene	640	0.235 UJ	0.043 UJ	0.0449 U	0.0408 U	0.043 UJ	0.217 UJ	0.0417 U	0.0099 UJ	0.043 U	0.0526 U	0.465 U	0.225 U	0.43 U
2-Chlorophenol	40	1.18 U	0.215 U	0.225 U	0.204 U	0.215 U	1.09 U	0.208 U	0.0495 U	0.215 U	0.263 U	2.33 U	1.12 U	2.15 U
2-Methylnaphthalene	32	0.471 UJ	0.086 UJ	0.0899 U	0.0816 U	0.086 UJ	1.75 J	0.0833 U	0.0198 UJ	0.086 U	0.105 U	19.4	0.493 J	8.6
2-Methylphenol	800	0.588 U	0.108 U	0.112 U	0.102 U	0.108 U	0.543 U	0.104 U	0.0248 U	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
2-Nitroaniline	160	4.71 U	0.86 U	0.899 U	0.816 U	0.86 U	4.35 U	0.833 U	0.198 UJ	0.86 U	1.05 U	9.3 U	4.49 U	8.6 U
2-Nitrophenol	NV	2.35 U	0.43 U	0.449 U	0.408 U	0.43 U	2.17 U	0.417 U	0.099 U	0.43 U	0.526 U	4.65 U	2.25 U	4.3 U
3- & 4-Methylphenol (m,p-Cresol)	NV	0.588 U	0.108 U	0.112 U	0.102 U	0.108 U	0.543 U	0.104 U	0.0248 U	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
3,3-Dichlorobenzidine	0.19	11.8 U	2.15 U	2.25 U	2.04 U	2.15 U	10.9 U	2.08 U	0.495 R	2.15 U	2.63 U	23.3 U	11.2 U	21.5 U

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a](1)	RAU1-01	RAU1-02	RAU1-03		RAU1-04	RAU1-05	RAU1-06	RAU1-07	RAU1-08	RAU1-09	RAU1-10	RAU1-11	RAU1-12
Sample Name:		RAU1-01-GW-7.5	RAU1-02-GW-6	RAU1-03-GW-7.5	RAU1-03-GW-7.5-DUP	RAU1-04-GW-7.5	RAU1-05-GW-6.5	RAU1-06-GW-7.5	RAU1-07-GW-7.5	RAU1-08-GW-7.0	RAU1-09-GW-7.0	RAU1-10-GW-8.5	RAU1-11-GW-7.0	RAU1-12-GW-7.0
Collection Date:		12/2/2019	12/2/2019	12/3/2019	12/3/2019	12/2/2019	12/2/2019	12/3/2019	12/2/2019	12/4/2019	12/3/2019	12/4/2019	12/3/2019	12/3/2019
Collection Depth (ft bgs):		7.5	6	7.5	7.5	7.5	6.5	7.5	7.5	7	7	8.5	7	7
3-Nitroaniline	NV	4.71 U	0.86 U	0.899 U	0.816 U	0.86 U	4.35 U	0.833 U	0.198 UJ	0.86 U	1.05 U	9.3 U	8.99 U	8.6 U
4,6-Dinitro-2-methylphenol	1.3	5.88 U	1.08 U	1.12 U	1.02 U	1.08 U	5.43 U	1.04 U	0.248 U	1.08 U	1.32 U	11.6 U	5.62 U	10.8 U
4-Bromophenylphenyl ether	NV	0.588 U	0.108 U	0.112 U	0.102 U	0.108 U	0.543 U	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
4-Chloro-3-methylphenol	1,600	2.35 U	0.43 U	0.449 U	0.408 U	0.43 U	2.17 U	0.417 U	0.099 U	0.86 U	0.526 U	4.65 U	2.25 U	4.3 U
4-Chloroaniline	0.44	0.588 U	0.108 U	0.112 U	0.102 U	0.108 U	0.543 U	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
4-Chlorophenylphenyl ether	NV	0.588 U	0.108 U	0.112 U	0.102 U	0.108 U	0.543 U	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
4-Nitroaniline	4.4	4.71 U	0.86 U	0.899 U	0.816 U	0.86 U	4.35 U	0.833 U	0.198 UJ	0.86 U	1.05 U	9.3 U	4.49 U	8.6 U
4-Nitrophenol	NV	2.35 U	0.43 U	0.449 U	0.408 U	0.43 U	2.17 U	0.417 U	0.099 U	0.43 U	0.526 U	9.3 U	7.64 U	8.6 U
Acenaphthene	480	43.9	0.0499 J	4.82	4.78	0.121	4.47	0.0417 U	0.0099 UJ	0.231	0.323	17.6	0.607	1.29 U
Acenaphthylene	NV	0.235 U	0.043 U	0.0449 U	0.0408 U	0.043 U	0.217 U	0.0417 U	0.0099 UJ	0.043 U	0.0526 U	0.465 U	0.225 U	0.43 U
Aniline	15	1.18 U	0.215 U	0.225 U	0.204 U	0.215 U	1.09 U	0.208 U	0.0495 UJ	0.215 U	0.263 U	2.33 U	1.12 U	2.15 U
Anthracene	2,400	1.44	0.043 U	0.05 J	0.0479 J	0.043 U	0.276 J	0.0417 U	0.0104 J	0.043 U	0.0526 U	0.465 U	0.225 U	0.43 U
Azobenzene	0.4	0.588 U	0.108 U	0.112 U	0.102 U	0.108 U	0.543 U	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
Benzo(a)anthracene	NV	0.274 J	0.043 U	0.0449 U	0.0408 U	0.043 U	0.239 J	0.0417 U	0.0115 J	0.043 U	0.0526 U	0.465 U	0.225 U	0.43 U
Benzo(a)pyrene	NA	0.353 U	0.0645 U	0.0674 U	0.0612 U	0.0645 U	0.326 U	0.0625 U	0.0149 UJ	0.0645 U	0.0789 U	0.698 U	0.337 U	0.645 U
Benzo(b)fluoranthene	NV	0.353 U	0.0645 U	0.0674 U	0.0612 U	0.0645 U	0.326 U	0.0625 U	0.0149 UJ	0.0645 U	0.0789 U	0.698 U	0.337 U	0.645 U
Benzo(ghi)perylene	NV	0.235 U	0.043 U	0.0449 U	0.0408 U	0.043 U	0.217 U	0.0417 U	0.0099 UJ	0.043 U	0.0526 U	0.465 U	0.225 U	0.43 U
Benzo(k)fluoranthene	NV	0.353 U	0.0645 U	0.0674 U	0.0612 U	0.0645 U	0.326 U	0.0625 U	0.0149 UJ	0.0645 U	0.0789 U	0.698 U	0.337 U	0.645 U
Benzoic acid	64,000	29.4 U	5.38 U	5.62 U	5.1 U	5.38 U	27.2 U	5.21 U	1.24 U	5.38 U	6.58 U	58.1 U	28.1 U	53.8 U
Benzyl alcohol	1,600	2.35 U	0.43 U	0.449 U	0.408 U	0.43 U	2.17 U	0.417 U	0.099 U	0.43 U	0.526 U	4.65 U	2.25 U	4.3 U
Bis(2-chloro-1-methylethyl)ether	0.63	0.588 U	0.108 U	0.112 U	0.102 U	0.108 U	0.543 U	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
Bis(2-chloroethoxy)methane	48	0.588 U	0.108 U	0.112 U	0.102 U	0.108 U	0.543 U	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
Bis(2-chloroethyl)ether	0.04	0.588 U	0.108 U	0.112 U	0.102 U	0.108 U	0.543 U	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
Bis(2-ethylhexyl)phthalate	6.3	4.71 U	0.86 U	0.899 U	0.816 U	0.86 U	4.35 U	0.833 U	0.198 UJ	0.86 U	1.05 U	9.3 U	4.49 U	8.6 U
Butylbenzylphthalate	46	4.71 U	0.86 U	0.899 U	0.816 U	0.86 U	4.35 U	0.833 U	0.198 UJ	0.86 U	1.05 U	9.3 U	4.49 U	8.6 U
Carbazole	NV	3.85	0.0645 U	0.0674 U	0.0612 U	0.0645 U	0.328 J	0.0625 U	0.0149 UJ	0.0645 U	0.0789 U	6.73	0.337 U	0.645 U
Chrysene	NV	0.235 U	0.043 U	0.0449 U	0.0408 U	0.043 U	0.217 U	0.0417 U	0.01 J	0.043 U	0.0526 U	0.465 U	0.225 U	0.43 U
Di(2-ethylhexyl)adipate	73	5.88 U	1.08 U	1.12 U	1.02 U	1.08 U	5.43 U	1.04 U	0.248 UJ	1.08 U	1.32 U	11.6 U	5.62 U	10.8 U
Dibenzo(a,h)anthracene	NV	0.235 U	0.043 U	0.0449 U	0.0408 U	0.043 U	0.217 U	0.0417 U	0.0099 UJ	0.043 U	0.0526 U	0.465 U	0.225 U	0.43 U
Dibenzofuran	8	16.4	0.043 U	0.0449 U	0.0408 U	0.043 U	1.81	0.0417 U	0.0099 UJ	0.043 U	0.0526 U	3.06	0.225 U	0.43 U
Diethyl phthalate	13,000	4.71 U	0.86 U	0.899 U	0.816 U	0.86 U	4.35 U	0.833 U	0.198 UJ	0.86 U	1.05 U	9.3 U	4.49 U	8.6 U
Dimethyl phthalate	NV	4.71 U	0.86 U	0.899 U	0.816 U	0.86 U	4.35 U	0.833 U	0.198 UJ	0.86 U	1.05 U	9.3 U	4.49 U	8.6 U
Di-n-butyl phthalate	1,600	4.71 U	0.86 U	0.899 U	0.816 U	0.86 U	4.35 U	0.833 U	0.198 UJ	0.86 U	1.05 U	9.3 U	4.49 U	8.6 U
Di-n-octyl phthalate	160	4.71 U	0.86 U	0.899 U	0.816 U	0.86 U	4.35 U	0.833 U	0.198 UJ	0.86 U	1.05 U	9.3 U	4.49 U	8.6 U
Fluoranthene	640	4.32	0.043 U	0.0514 J	0.0574 J	0.043 U	0.84	0.0417 U	0.0104 J	0.043 U	0.0526 U	0.465 U	0.225 U	0.43 U
Fluorene	320	25.8	0.043 U	1.31	1.33	0.0935	2.26	0.0417 U	0.0099 UJ	0.043 U	0.0526 U	5.66	0.556	1.37
Hexachlorobenzene	0.027	0.235 U	0.043 U	0.0449 U	0.0408 U	0.043 U	0.217 U	0.0417 U	0.0099 UJ	0.043 U	0.0526 U	0.465 U	0.225 U	0.43 U
Hexachlorobutadiene	0.56	0.588 UJ	0.108 UJ	0.112 U	0.102 U	0.108 UJ	0.543 UJ	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
Hexachlorocyclopentadiene	48	1.18 U	0.215 U	0.225 U	0.204 U	0.215 U	1.09 U	0.208 U	0.0495 UJ	0.215 U	0.263 U	2.33 U	1.12 U	2.15 U
Hexachloroethane	1.1	0.588 UJ	0.108 UJ	0.112 U	0.102 U	0.108 UJ	0.543 UJ	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU1-01	RAU1-02	RAU1-03		RAU1-04	RAU1-05	RAU1-06	RAU1-07	RAU1-08	RAU1-09	RAU1-10	RAU1-11	RAU1-12
Sample Name:		RAU1-01-GW-7.5	RAU1-02-GW-6	RAU1-03-GW-7.5	RAU1-03-GW-7.5-DUP	RAU1-04-GW-7.5	RAU1-05-GW-6.5	RAU1-06-GW-7.5	RAU1-07-GW-7.5	RAU1-08-GW-7.0	RAU1-09-GW-7.0	RAU1-10-GW-8.5	RAU1-11-GW-7.0	RAU1-12-GW-7.0
Collection Date:		12/2/2019	12/2/2019	12/3/2019	12/3/2019	12/2/2019	12/2/2019	12/3/2019	12/2/2019	12/4/2019	12/3/2019	12/4/2019	12/3/2019	12/3/2019
Collection Depth (ft bgs):		7.5	6	7.5	7.5	7.5	6.5	7.5	7.5	7	7	8.5	7	7
Indeno(1,2,3-cd)pyrene	NV	0.235 U	0.043 U	0.0449 U	0.0408 U	0.043 U	0.217 U	0.0417 U	0.0099 UJ	0.043 U	0.0526 U	0.465 U	0.225 U	0.43 U
Isophorone	92	0.588 U	0.108 U	0.112 U	0.102 U	0.108 U	0.543 U	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
Naphthalene	160	2.5 J	0.086 UJ	0.0899 U	0.0816 U	0.086 UJ	0.435 UJ	0.0833 U	0.0396 UJ	0.086 U	0.105 U	200	0.449 U	3.07
Nitrobenzene	16	2.35 U	0.43 U	0.449 U	0.408 U	0.43 U	2.17 U	0.417 U	0.099 UJ	0.43 U	0.526 U	4.65 U	2.25 U	4.3 U
N-Nitrosodimethylamine	0.00023	0.588 U	0.108 U	0.112 U	0.102 U	0.108 U	0.543 U	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
N-Nitrosodiphenylamine	18	0.588 U	0.108 U	0.112 U	0.102 U	0.108 U	0.543 U	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	2.15 U
N-Nitrosodipropylamine	0.013	0.588 U	0.108 U	0.112 U	0.102 U	0.108 U	0.543 U	0.104 U	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
Pentachlorophenol	0.22	2.35 U	0.43 U	0.449 U	0.408 U	0.43 U	2.17 U	0.417 U	0.099 U	0.43 U	0.526 U	4.65 U	2.25 U	4.3 U
Phenanthrene	NV	0.935	0.043 U	0.611	0.618	0.043 U	2.21	0.0417 U	0.0268 J	0.065 J	0.0526 U	2.76	0.541	1.19
Phenol	4,800	4.71 U	0.86 U	0.899 U	0.816 U	0.86 U	4.35 U	0.833 U	0.198 U	0.86 U	1.05 U	9.3 U	4.49 U	8.6 U
Pyrene	240	2.38	0.043 U	0.0449 U	0.0408 U	0.043 U	0.65	0.0417 U	0.014 J	0.043 U	0.0526 U	0.465 U	0.225 U	0.43 U
Pyridine	8	2.35 U	0.43 U	0.449 U	0.408 U	0.43 U	2.17 U	0.417 U	0.099 UJ	0.43 U	0.526 U	4.65 U	2.25 U	4.3 U
cPAH TEQ[d][2]	0.1	0.264 J	0.0645 U	0.0674 U	0.0612 U	0.0645 U	0.242 J	0.0625 U	0.0112 J	0.0645 U	0.0789 U	0.698 U	0.337 U	0.645 U
Hydrocarbon Identification (Detect/Non-detect)														
Gasoline	NA	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel	NA	--	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil	NA	--	--	--	--	--	--	--	--	--	--	--	--	--
TPH (ug/L)														
Gasoline-Range Hydrocarbons	1,000	--	--	--	--	--	--	--	--	--	--	--	--	239
Diesel-Range Hydrocarbons	500	204 J	108 U	189 J	133 J	108 J	110 U	105 U	106 U	104 U	205 J	340	781 J	683 J
Lube Oil-Range Hydrocarbons	500	202 U	215 U	217 U	201 J	204 U	958	211 U	213 U	208 U	238 U	222 U	1,990 J	1,290 J
Diesel+Oil[e]	500	305 J	215 U	298 J	334 J	210 J	1,010	211 U	213 U	208 U	324 J	451	2,770 J	1,970 J
TPH with Silica Gel Treatment (ug/L)														
Diesel-Range Hydrocarbons	500	--	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil-Range Hydrocarbons	500	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel+Oil[e]	500	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU1-13		RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	RAU2-06	RAU2-07	RAU2-08	RAU2-09	RAU3-03
Sample Name:		RAU1-13-GW-7	RAU1-13-GW-7-DUP	RAU1-14-GW-6.0	RAU2-01-GW-7.5	RAU2-02-GW-6	RAU2-03-GW-7.5	RAU2-04-GW-7.5	RAU2-05-GW-7.5	RAU2-06-GW-6.5	RAU2-07-GW-7.5	RAU2-08-GW-9	RAU2-09-GW-9	RAU3-03-GW-5
Collection Date:		7/22/2020	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/5/2019	12/11/2019	12/11/2019	12/11/2019
Collection Depth (ft bgs):		7	7	6	7.5	6	7.5	7.5	7.5	6.5	7.5	9	9	5
Anions (ug/L)														
Sulfide	2	--	--	--	--	--	--	--	--	--	--	--	50 U	--
Dissolved Metals (ug/L)														
Arsenic	5	1 U	1 U	1.43	--	--	--	--	--	--	--	--	--	--
Lead	15	0.2 U	0.2 U	1.16	--	--	--	--	--	--	--	--	--	--
Manganese	750	5,920	6,020	7,910	--	--	--	--	--	--	--	--	--	--
Total Metals (ug/L)														
Arsenic	5	4.45	1.02	2.07	2.96	2.43	5.92	1.45	0.896 J	1.02	2.55	10 U	1.58	0.63 J
Cadmium	5	--	--	--	0.273	0.103 J	0.365	0.126 J	0.0777 J	0.0612 J	5.02	0.04 U	0.04 U	0.2 U
Chromium	50	--	--	--	41.8	7.7	46.8	17.1	12.5	11	10.4	10 U	0.765 J	5.39
Chromium, hexavalent	0.046	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	640	--	--	--	118	27.1	150	34.4	19.8	24.2	84.9	10 U	0.919 J	12.6
Lead	15	9.24	1.1	2.26	7.73	21.5	34	5.78	2.93 U	2.1 U	24.5	0.176 J	0.1 U	1.35
Manganese	750	6,340	6,110	7,840	1,750	3,030	3,650	2,400	3,390	8,090	1,410	338	743	6,330
Mercury	2	--	--	--	0.392	11.4	8.48	0.479	0.0969	0.041 J	0.226	0.04 U	0.04 U	0.04 U
Nickel	320	--	--	--	25	5.7	37.4	10.3	6.9	6.41	8.1	10 U	2 U	3.38
Zinc	4,800	--	--	--	62.7	29.1	125	52.5	51.1	22	423	40 U	2.53 J	7.26
PCB Aroclors (ug/L)														
Aroclor 1016	NA	--	--	--	--	--	--	--	--	--	--	0.02 U	0.0211 U	--
Aroclor 1221	NV	--	--	--	--	--	--	--	--	--	--	0.04 U	0.0211 U	--
Aroclor 1232	NV	--	--	--	--	--	--	--	--	--	--	0.02 U	0.0211 U	--
Aroclor 1242	NV	--	--	--	--	--	--	--	--	--	--	0.02 U	0.0211 U	--
Aroclor 1248	NV	--	--	--	--	--	--	--	--	--	--	0.02 U	0.0211 U	--
Aroclor 1254	NA	--	--	--	--	--	--	--	--	--	--	0.02 U	0.0211 U	--
Aroclor 1260	NA	--	--	--	--	--	--	--	--	--	--	0.02 U	0.0211 U	--
Total PCBs[b]	0.10	--	--	--	--	--	--	--	--	--	--	0.04 U	0.0211 U	--
VOCs (ug/L)														
1,1,1,2-Tetrachloroethane	1.7	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--
1,1,1-Trichloroethane	200	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--
1,1,2,2-Tetrachloroethane	0.22	--	--	--	--	--	--	--	--	--	0.25 U	--	--	--
1,1,2-Trichloroethane	0.77	--	--	--	--	--	--	--	--	--	0.25 U	--	--	--
1,1-Dichloroethane	7.7	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--
1,1-Dichloroethene	400	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--
1,1-Dichloropropene	NV	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
1,2,3-Trichlorobenzene	6.4	--	--	--	--	--	--	--	--	--	1 U	--	--	--
1,2,3-Trichloropropane	0.00038	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
1,2,4-Trichlorobenzene	1.5	--	--	--	--	--	--	--	--	--	1 U	--	--	--
1,2,4-Trimethylbenzene	80	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
1,2-Dibromo-3-chloropropane	0.014	--	--	--	--	--	--	--	--	--	2.5 U	--	--	--
1,2-Dibromoethane	0.01	--	--	--	--	--	--	--	--	--	0.25 U	--	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU1-13		RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	RAU2-06	RAU2-07	RAU2-08	RAU2-09	RAU3-03
Sample Name:		RAU1-13-GW-7	RAU1-13-GW-7-DUP	RAU1-14-GW-6.0	RAU2-01-GW-7.5	RAU2-02-GW-6	RAU2-03-GW-7.5	RAU2-04-GW-7.5	RAU2-05-GW-7.5	RAU2-06-GW-6.5	RAU2-07-GW-7.5	RAU2-08-GW-9	RAU2-09-GW-9	RAU3-03-GW-5
Collection Date:		7/22/2020	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/5/2019	12/11/2019	12/11/2019	12/11/2019
Collection Depth (ft bgs):		7	7	6	7.5	6	7.5	7.5	7.5	6.5	7.5	9	9	5
1,2-Dichlorobenzene	720	--	--	--	--	--	--	--	--	--	0.25 U	--	--	--
1,2-Dichloroethane	5	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--
1,2-Dichloropropane	1.2	--	--	--	--	--	--	--	--	--	0.25 U	--	--	--
1,3,5-Trimethylbenzene	80	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
1,3-Dichlorobenzene	NV	--	--	--	--	--	--	--	--	--	0.25 U	--	--	--
1,3-Dichloropropane	160	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
1,4-Dichlorobenzene	8.1	--	--	--	--	--	--	--	--	--	0.25 U	--	--	--
2,2-Dichloropropane	NV	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
2-Butanone	4,800	--	--	--	--	--	--	--	--	--	5 U	--	--	--
2-Chlorotoluene	160	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
2-Hexanone	40	--	--	--	--	--	--	--	--	--	10 UJ	--	--	--
4-Chlorotoluene	160	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
4-Isopropyltoluene	NV	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
4-Methyl-2-pentanone	640	--	--	--	--	--	--	--	--	--	5 U	--	--	--
Acetone	7,200	--	--	--	--	--	--	--	--	--	20 UJ	--	--	--
Acrylonitrile	0.081	--	--	--	--	--	--	--	--	--	1 U	--	--	--
Benzene	5	--	--	--	--	--	--	--	--	--	0.1 U	--	--	--
Bromobenzene	64	--	--	--	--	--	--	--	--	--	0.25 U	--	--	--
Bromodichloromethane	0.71	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Bromoform	5.5	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Bromomethane	11	--	--	--	--	--	--	--	--	--	5 U	--	--	--
Carbon disulfide	800	--	--	--	--	--	--	--	--	--	5 U	--	--	--
Carbon tetrachloride	0.63	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Chlorobenzene	160	--	--	--	--	--	--	--	--	--	0.25 U	--	--	--
Chlorobromomethane	NV	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Chloroethane	NV	--	--	--	--	--	--	--	--	--	5 U	--	--	--
Chloroform	1.4	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Chloromethane	NV	--	--	--	--	--	--	--	--	--	2.5 U	--	--	--
cis-1,2-Dichloroethene	16	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--
cis-1,3-Dichloropropene	NV	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Dibromochloromethane	0.52	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Dibromomethane	80	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Dichlorodifluoromethane (Freon 12)	1,600	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Ethylbenzene	700	--	--	--	--	--	--	--	--	--	0.25 U	--	--	--
Hexachlorobutadiene	0.56	--	--	--	--	--	--	--	--	--	2.5 U	--	--	--
Isopropylbenzene	800	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
m,p-Xylene	NV	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Methyl tert-butyl ether	20	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Methylene chloride	5	--	--	--	--	--	--	--	--	--	1.5 U	--	--	--
Naphthalene	160	--	--	--	--	--	--	--	--	--	149	--	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU1-13		RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	RAU2-06	RAU2-07	RAU2-08	RAU2-09	RAU3-03
Sample Name:		RAU1-13-GW-7	RAU1-13-GW-7-DUP	RAU1-14-GW-6.0	RAU2-01-GW-7.5	RAU2-02-GW-6	RAU2-03-GW-7.5	RAU2-04-GW-7.5	RAU2-05-GW-7.5	RAU2-06-GW-6.5	RAU2-07-GW-7.5	RAU2-08-GW-9	RAU2-09-GW-9	RAU3-03-GW-5
Collection Date:		7/22/2020	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/5/2019	12/11/2019	12/11/2019	12/11/2019
Collection Depth (ft bgs):		7	7	6	7.5	6	7.5	7.5	7.5	6.5	7.5	9	9	5
n-Butylbenzene	400	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
n-Propylbenzene	800	--	--	--	--	--	--	--	--	--	0.25 U	--	--	--
o-Xylene	1,600	--	--	--	--	--	--	--	--	--	0.25 U	--	--	--
sec-Butylbenzene	800	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Styrene	1,600	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
tert-Butylbenzene	800	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Tetrachloroethene	5	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--
Toluene	1,000	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
trans-1,2-Dichloroethene	160	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--
trans-1,3-Dichloropropene	NV	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
Trichloroethene	5	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--
Trichlorofluoromethane (Freon 11)	2,400	--	--	--	--	--	--	--	--	--	1 U	--	--	--
Vinyl chloride	0.2	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--
Xylenes, total[c]	1,000	--	--	--	--	--	--	--	--	--	0.5 U	--	--	--
SVOCs (ug/L)														
1,2,4-Trichlorobenzene	1.5	--	--	--	0.099 UJ	1.01 UJ	0.0248 UJ	0.105 UJ	0.106 UJ	0.0278 UJ	--	0.0266 UJ	0.0238 UJ	--
1,2-Dichlorobenzene	720	--	--	--	0.099 UJ	1.01 UJ	0.0248 UJ	0.105 UJ	0.106 UJ	0.0278 UJ	--	0.0266 UJ	0.0238 UJ	--
1,2-Dinitrobenzene	1.6	--	--	--	0.99 U	10.1 U	0.248 U	1.05 U	1.06 U	0.278 U	--	0.266 U	0.238 U	--
1,3-Dichlorobenzene	NV	--	--	--	0.099 UJ	1.01 UJ	0.0248 UJ	0.105 UJ	0.106 UJ	0.0278 UJ	--	0.0266 UJ	0.0483 J	--
1,3-Dinitrobenzene	1.6	--	--	--	0.99 U	10.1 U	0.248 U	1.05 U	1.06 U	0.278 U	--	0.266 U	0.238 U	--
1,4-Dichlorobenzene	8.1	--	--	--	0.099 UJ	1.01 UJ	0.0248 UJ	0.105 UJ	0.106 UJ	0.0278 UJ	--	0.0266 UJ	0.0704 J	--
1,4-Dinitrobenzene	1.6	--	--	--	0.99 U	10.1 U	0.248 U	1.05 U	1.06 U	0.278 U	--	0.266 U	0.238 U	--
1-Methylnaphthalene	1.5	--	--	--	0.0792 UJ	0.808 UJ	0.0198 UJ	0.945 J	0.0851 UJ	0.0222 UJ	46.3	0.0213 UJ	0.0332 J	--
2,3,4,6-Tetrachlorophenol	480	--	--	--	0.198 U	2.02 U	0.0495 U	0.211 U	0.213 U	0.172	--	0.0532 U	0.0476 U	--
2,3,5,6-Tetrachlorophenol	NV	--	--	--	0.198 U	2.02 U	0.0495 U	0.211 U	0.213 U	0.0586 J	--	0.0532 U	0.0489 J	--
2,4,5-Trichlorophenol	1,600	--	--	--	0.198 U	2.02 U	0.0495 U	0.211 U	0.213 U	0.0556 U	--	0.0532 U	0.0476 U	--
2,4,6-Trichlorophenol	8	--	--	--	0.198 U	2.02 U	0.0495 U	0.211 U	0.213 U	0.0556 U	--	0.0532 U	0.0476 U	--
2,4-Dichlorophenol	48	--	--	--	0.198 U	2.02 U	0.0495 U	0.211 U	0.213 U	0.0556 U	--	0.0532 U	0.0476 U	--
2,4-Dimethylphenol	320	--	--	--	0.198 U	2.02 U	0.0495 U	0.211 U	0.213 U	0.0556 U	--	0.0532 U	0.0476 U	--
2,4-Dinitrophenol	32	--	--	--	0.99 U	10.1 U	0.248 U	1.05 U	1.06 U	0.278 U	--	0.266 U	0.238 U	--
2,4-Dinitrotoluene	0.28	--	--	--	0.396 U	4.04 U	0.099 U	0.421 U	0.426 U	0.111 U	--	0.106 U	0.0952 U	--
2,6-Dinitrotoluene	0.058	--	--	--	0.396 U	4.04 U	0.099 U	0.421 U	0.426 U	0.111 U	--	0.106 U	0.0952 U	--
2-Chloronaphthalene	640	--	--	--	0.0396 UJ	0.404 UJ	0.0099 UJ	0.0421 UJ	0.0426 UJ	0.0111 UJ	--	0.0106 UJ	0.00952 UJ	--
2-Chlorophenol	40	--	--	--	0.198 U	2.02 U	0.0495 U	0.211 U	0.213 U	0.0556 U	--	0.0532 U	0.0476 U	--
2-Methylnaphthalene	32	--	--	--	0.0792 UJ	0.808 UJ	0.0269 J	1.41 J	0.0851 UJ	0.0222 UJ	61.9	0.0213 UJ	0.0248 J	--
2-Methylphenol	800	--	--	--	0.099 U	1.01 U	0.0248 U	0.105 U	0.106 U	0.0278 U	--	0.0266 U	0.0238 U	--
2-Nitroaniline	160	--	--	--	0.792 U	8.08 U	0.198 U	0.842 U	0.851 U	0.222 U	--	0.213 U	0.19 U	--
2-Nitrophenol	NV	--	--	--	0.396 U	4.04 U	0.099 U	0.421 U	0.426 U	0.111 U	--	0.106 U	0.0952 U	--
3- & 4-Methylphenol (m,p-Cresol)	NV	--	--	--	0.346	1.43 J	0.0322 J	0.105 U	2.78 J	0.0278 U	--	0.0266 U	0.0733	--
3,3-Dichlorobenzidine	0.19	--	--	--	1.98 U	20.2 U	0.495 U	2.11 U	2.13 R	0.556 U	--	0.532 UJ	0.476 UJ	--

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Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU1-13		RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	RAU2-06	RAU2-07	RAU2-08	RAU2-09	RAU3-03
Sample Name:		RAU1-13-GW-7	RAU1-13-GW-7-DUP	RAU1-14-GW-6.0	RAU2-01-GW-7.5	RAU2-02-GW-6	RAU2-03-GW-7.5	RAU2-04-GW-7.5	RAU2-05-GW-7.5	RAU2-06-GW-6.5	RAU2-07-GW-7.5	RAU2-08-GW-9	RAU2-09-GW-9	RAU3-03-GW-5
Collection Date:		7/22/2020	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/5/2019	12/11/2019	12/11/2019	12/11/2019
Collection Depth (ft bgs):		7	7	6	7.5	6	7.5	7.5	7.5	6.5	7.5	9	9	5
3-Nitroaniline	NV	--	--	--	0.792 U	8.08 U	0.396 U	0.842 U	0.851 U	0.222 U	--	0.213 U	0.19 U	--
4,6-Dinitro-2-methylphenol	1.3	--	--	--	0.99 U	10.1 U	0.248 U	1.05 U	1.06 U	0.278 U	--	0.266 U	0.238 U	--
4-Bromophenylphenyl ether	NV	--	--	--	0.099 U	1.01 U	0.0248 U	0.105 U	0.106 U	0.0278 U	--	0.0266 U	0.0238 U	--
4-Chloro-3-methylphenol	1,600	--	--	--	0.396 U	4.04 U	0.297 U	0.421 U	0.426 U	0.222 U	--	0.106 U	0.19 U	--
4-Chloroaniline	0.44	--	--	--	0.099 U	1.01 U	0.0248 U	0.105 U	0.106 U	0.0278 U	--	0.0266 U	0.0238 U	--
4-Chlorophenylphenyl ether	NV	--	--	--	0.099 U	1.01 U	0.0248 U	0.105 U	0.106 U	0.0278 U	--	0.0266 UJ	0.0238 UJ	--
4-Nitroaniline	4.4	--	--	--	0.792 U	8.08 U	0.198 U	0.842 U	0.851 U	0.222 U	--	0.213 U	0.19 U	--
4-Nitrophenol	NV	--	--	--	0.396 U	4.04 U	0.198 U	0.421 U	0.426 U	0.111 U	--	0.213 U	0.19 U	--
Acenaphthene	480	--	--	--	1.58	0.404 U	0.0772	3.47	0.117	0.0662	9.75	0.0106 U	0.967	--
Acenaphthylene	NV	--	--	--	0.0396 U	0.404 U	0.0099 U	0.0421 U	0.0426 U	0.0111 U	1.59	0.0106 U	0.0164 J	--
Aniline	15	--	--	--	0.198 U	2.02 U	0.0495 U	0.211 U	0.213 U	0.0556 U	--	0.0532 U	0.0476 U	--
Anthracene	2,400	--	--	--	0.0655 J	0.404 U	0.012 J	0.14	0.0426 U	0.0111 U	2.53	0.0106 U	0.0261	--
Azobenzene	0.4	--	--	--	0.099 U	1.01 U	0.0248 U	0.105 U	0.106 U	0.0278 U	--	0.0266 U	0.0238 U	--
Benzo(a)anthracene	NV	--	--	--	0.0396 U	0.404 U	0.0119 J	0.0548 J	0.0441 J	0.0111 U	0.55	0.0106 U	0.0124 J	--
Benzo(a)pyrene	NA	--	--	--	0.0594 U	0.606 U	0.0223 J	0.0632 U	0.0638 U	0.0333 U	0.338 J	0.016 U	0.0168 J	--
Benzo(b)fluoranthene	NV	--	--	--	0.0594 U	0.606 U	0.0183 J	0.0632 U	0.0638 U	0.0167 U	0.27 J	0.0205 J	0.0178 J	--
Benzo(ghi)perylene	NV	--	--	--	0.0396 U	0.404 U	0.0396 U	0.0421 U	0.0426 U	0.0111 U	0.386 U	0.0106 U	0.00952 U	--
Benzo(k)fluoranthene	NV	--	--	--	0.0594 U	0.606 U	0.0149 U	0.0632 U	0.0667 J	0.0167 U	0.193 U	0.016 U	0.0143 U	--
Benzoic acid	64,000	--	--	--	4.95 U	50.5 U	1.24 U	5.26 U	5.32 U	1.39 U	--	2.66 U	3.2 J	--
Benzyl alcohol	1,600	--	--	--	0.396 U	4.04 U	0.099 U	0.421 U	0.426 U	0.111 U	--	0.106 U	0.0952 U	--
Bis(2-chloro-1-methylethyl)ether	0.63	--	--	--	0.099 U	1.01 U	0.0248 U	0.105 U	0.106 U	0.0278 U	--	0.0266 U	0.0238 U	--
Bis(2-chloroethoxy)methane	48	--	--	--	0.099 U	1.01 U	0.0495 U	0.105 U	0.298 U	0.0278 U	--	0.0266 U	0.0476 U	--
Bis(2-chloroethyl)ether	0.04	--	--	--	0.099 U	1.01 U	0.0495 U	0.105 U	0.106 U	0.0278 U	--	0.0532 U	0.0476 U	--
Bis(2-ethylhexyl)phthalate	6.3	--	--	--	0.792 U	8.08 U	0.198 U	0.842 U	0.851 U	0.222 U	--	0.765	0.345 J	--
Butylbenzylphthalate	46	--	--	--	0.792 U	8.08 U	0.198 U	0.842 U	0.851 U	0.222 U	--	0.213 U	0.19 U	--
Carbazole	NV	--	--	--	0.0594 U	0.606 U	0.0149 U	0.269	0.0638 U	0.0167 U	1.95	0.016 U	0.0338	--
Chrysene	NV	--	--	--	0.0534 J	0.404 U	0.01 J	0.0421 U	0.0426 U	0.0111 U	0.483	0.0106 U	0.0131 J	--
Di(2-ethylhexyl)adipate	73	--	--	--	0.99 U	10.1 U	0.248 U	1.05 U	1.06 U	0.278 U	--	0.266 U	0.238 U	--
Dibenzo(a,h)anthracene	NV	--	--	--	0.0396 U	0.404 U	0.0396 U	0.0421 U	0.0426 U	0.0111 U	0.193 U	0.0106 U	0.00952 U	--
Dibenzofuran	8	--	--	--	0.0396 U	0.404 U	0.0099 U	0.603	0.0426 U	0.0111 U	6.51	0.0106 U	0.0581	--
Diethyl phthalate	13,000	--	--	--	0.792 U	8.08 U	0.198 U	0.842 U	0.851 U	0.222 U	--	0.213 U	0.19 U	--
Dimethyl phthalate	NV	--	--	--	0.792 U	8.08 U	0.198 U	0.842 U	0.851 U	0.222 U	--	0.213 U	0.19 U	--
Di-n-butyl phthalate	1,600	--	--	--	0.792 U	8.08 U	0.198 U	0.842 U	0.851 U	0.222 U	--	0.213 U	0.19 U	--
Di-n-octyl phthalate	160	--	--	--	0.792 U	8.08 U	0.198 U	0.842 U	0.851 U	0.222 U	--	0.213 U	0.19 U	--
Fluoranthene	640	--	--	--	0.201	0.404 U	0.0253	0.568	0.0577 J	0.0131 J	2.23	0.025	0.139	--
Fluorene	320	--	--	--	0.262	0.404 U	0.0184 J	1.45	0.0426 U	0.0175 J	10.2	0.0106 U	0.0805	--
Hexachlorobenzene	0.027	--	--	--	0.0396 U	0.404 U	0.0099 U	0.0421 U	0.0426 U	0.0111 U	--	0.0106 U	0.00952 U	--
Hexachlorobutadiene	0.56	--	--	--	0.099 UJ	1.01 UJ	0.0248 UJ	0.105 UJ	0.106 UJ	0.0278 UJ	--	0.0266 UJ	0.0238 UJ	--
Hexachlorocyclopentadiene	48	--	--	--	0.198 U	2.02 U	0.0495 U	0.211 U	0.213 U	0.0556 U	--	0.0532 U	0.0476 U	--
Hexachloroethane	1.1	--	--	--	0.099 UJ	1.01 UJ	0.0248 UJ	0.105 UJ	0.106 UJ	0.0278 UJ	--	0.0266 UJ	0.0238 UJ	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
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Location:	Screening Level for Groundwater[a][1]	RAU1-13		RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	RAU2-06	RAU2-07	RAU2-08	RAU2-09	RAU3-03
Sample Name:		RAU1-13-GW-7	RAU1-13-GW-7-DUP	RAU1-14-GW-6.0	RAU2-01-GW-7.5	RAU2-02-GW-6	RAU2-03-GW-7.5	RAU2-04-GW-7.5	RAU2-05-GW-7.5	RAU2-06-GW-6.5	RAU2-07-GW-7.5	RAU2-08-GW-9	RAU2-09-GW-9	RAU3-03-GW-5
Collection Date:		7/22/2020	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/5/2019	12/11/2019	12/11/2019	12/11/2019
Collection Depth (ft bgs):		7	7	6	7.5	6	7.5	7.5	7.5	6.5	7.5	9	9	5
Indeno(1,2,3-cd)pyrene	NV	--	--	--	0.0396 U	0.404 U	0.0396 U	0.0421 U	0.0426 U	0.0111 U	0.193 U	0.0106 U	0.00952 U	--
Isophorone	92	--	--	--	0.099 U	1.01 U	0.0248 U	0.105 U	0.106 U	0.0278 U	--	0.0266 U	0.0238 U	--
Naphthalene	160	--	--	--	0.158 UJ	0.808 UJ	0.042 J	2.41 J	0.0851 UJ	0.0444 UJ	129	0.0426 UJ	0.0647 J	--
Nitrobenzene	16	--	--	--	0.396 U	4.04 U	0.099 U	0.421 U	0.426 U	0.111 U	--	0.106 U	0.0952 U	--
N-Nitrosodimethylamine	0.00023	--	--	--	0.099 U	1.01 U	0.0248 U	0.105 U	0.106 U	0.0278 U	--	0.0266 U	0.0238 U	--
N-Nitrosodiphenylamine	18	--	--	--	0.099 U	1.01 U	0.0248 U	0.105 U	0.106 U	0.0278 U	--	0.0266 U	0.0238 U	--
N-Nitrosodipropylamine	0.013	--	--	--	0.099 U	1.01 U	0.0248 U	0.105 U	0.106 U	0.0778 U	--	0.0266 U	0.0238 U	--
Pentachlorophenol	0.22	--	--	--	0.396 U	4.04 U	0.099 U	0.421 U	0.426 U	0.254	--	0.106 U	0.0952 U	--
Phenanthrene	NV	--	--	--	0.189	0.404 U	0.0471	1.54	0.0662 J	0.0299	13.2	0.0193 J	0.0661	--
Phenol	4,800	--	--	--	0.792 U	8.08 U	0.198 U	0.842 U	0.851 R	0.222 U	--	0.213 U	0.19 U	--
Pyrene	240	--	--	--	0.162	0.404 U	0.0242	0.378	0.055 J	0.0142 J	1.84	0.0197 J	0.0836	--
Pyridine	8	--	--	--	0.396 U	4.04 U	0.099 U	0.421 U	0.426 UJ	0.111 U	--	0.106 U	0.0952 U	--
cPAH TEQ[d][2]	0.1	--	--	--	0.0421 J	0.606 U	0.0301 J	0.0478 J	0.0506 J	0.0333 U	0.454 J	0.0125 J	0.0216 J	--
Hydrocarbon Identification (Detect/Non-detect)														
Gasoline	NA	--	--	--	--	--	--	--	--	--	--	--	--	ND
Diesel	NA	--	--	--	--	--	--	--	--	--	--	--	--	ND
Lube Oil	NA	--	--	--	--	--	--	--	--	--	--	--	--	ND
TPH (ug/L)														
Gasoline-Range Hydrocarbons	1,000	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	500	220 U	208 U	230 U	115 U	200 J	95.2 U	105 U	106 U	101 U	526	103 U	95.2 U	--
Lube Oil-Range Hydrocarbons	500	440 U	417 U	460 U	230 U	215 U	190 U	211 U	213 U	202 U	213 U	206 U	190 U	--
Diesel+Oil[e]	500	440 U	417 U	460 U	230 U	308 J	190 U	211 U	213 U	202 U	526	206 U	190 U	--
TPH with Silica Gel Treatment (ug/L)														
Diesel-Range Hydrocarbons	500	220 U	208 U	230 U	--	--	--	--	--	--	--	--	--	--
Lube Oil-Range Hydrocarbons	500	440 U	417 U	460 U	--	--	--	--	--	--	--	--	--	--
Diesel+Oil[e]	500	440 U	417 U	460 U	--	--	--	--	--	--	--	--	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
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Location:	Screening Level for Groundwater[a][1]	RAU3-05	RAU3-06	RAU4-01	RAU4-02		RAU4-04	RAU4-05	RAU4-06	RAU4-07	RAU4-08	RAU4-09	RAU4-10	RAU4-11
Sample Name:		RAU3-05-GW-8.0	RAU3-06-GW-6.5	RAU4-01-GW-6.5	RAU4-02-GW-7	RAU4-02-GW-7-DUP	RAU4-04-GW-7.0	RAU4-05-GW-7.5	RAU4-06-GW-4.5	RAU4-07-GW-7.0	RAU4-08-GW-7.5	RAU4-09-GW-7.0	RAU4-10-GW-8.0	RAU4-11-GW-7.0
Collection Date:		12/2/2019	12/3/2019	12/3/2019	12/3/2019	12/3/2019	12/5/2019	12/4/2019	12/5/2019	12/3/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019
Collection Depth (ft bgs):		8	6.5	6.5	7	7	7	7.5	4.5	7	7.5	7	8	7
Anions (ug/L)														
Sulfide	2	--	--	--	--	--	--	--	--	--	--	--	50 UJ	50 UJ
Dissolved Metals (ug/L)														
Arsenic	5	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	15	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	750	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Metals (ug/L)														
Arsenic	5	1.37	0.889 J	0.739 J	3.61	3.23	0.5 U	3.04 J	11.2	1.25	1.76	0.5 U	1.86	1.37
Cadmium	5	0.056 J	0.04 U	0.04 U	0.103 J	0.122 J	0.04 U	0.329 J	1.3	0.04 U	0.205	0.04 U	0.0472 J	0.04 U
Chromium	50	1.58 J	1.31 J	1.86 J	16.2	16.9	1 U	33.2	123 J	2.87 J	17.9	1.12 J	6.89	5.68 J
Chromium, hexavalent	0.046	--	--	--	--	--	--	--	0.25 R	--	--	--	--	--
Copper	640	4.48 J	5.14	3.12 J	32.1	33.1	1 U	117	246	10.6	39.4	2.68 J	13.4	5.66
Lead	15	0.64	1.56 U	0.5 U	3.84 U	3.84 U	0.265 U	20.8	29.1	0.899	3.12 U	0.378 U	1.89 U	1.23 U
Manganese	750	5,160	1,550	3,800	4,860	4,720	8,690	4,460	9,960	10,000	13,900	13,500	3,570	9,060
Mercury	2	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.2 U	0.2 U	0.04 U	0.0494 J	0.04 U	0.04 U	0.04 U
Nickel	320	2.11	1.06	1.13	7.33	9.11	2.11	21.3	96.8 J	3.02	14.6	0.842 J	6.78	2.97
Zinc	4,800	3.92 J	3.63 J	2.04 J	18.2	19.4	2.03 J	351	280	6.62	22.3	2.37 J	12.8	9.46
PCB Aroclors (ug/L)														
Aroclor 1016	NA	--	--	--	--	--	0.0217 U	0.0204 U	0.0568 UJ	--	--	--	--	--
Aroclor 1221	NV	--	--	--	--	--	0.0217 U	0.0204 U	0.0455 UJ	--	--	--	--	--
Aroclor 1232	NV	--	--	--	--	--	0.0217 U	0.0204 U	0.0682 UJ	--	--	--	--	--
Aroclor 1242	NV	--	--	--	--	--	0.0217 U	0.0204 U	0.0795 UJ	--	--	--	--	--
Aroclor 1248	NV	--	--	--	--	--	0.0217 U	0.0204 U	0.102 UJ	--	--	--	--	--
Aroclor 1254	NA	--	--	--	--	--	0.0217 U	0.0204 U	0.0568 UJ	--	--	--	--	--
Aroclor 1260	NA	--	--	--	--	--	0.0217 U	0.0204 U	0.0227 UJ	--	--	--	--	--
Total PCBs[b]	0.10	--	--	--	--	--	0.0217 U	0.0204 U	0.102 UJ	--	--	--	--	--
VOCs (ug/L)														
1,1,1,2-Tetrachloroethane	1.7	--	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	200	--	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	0.22	--	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	0.77	--	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
1,1-Dichloroethane	7.7	--	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
1,1-Dichloroethene	400	--	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
1,1-Dichloropropene	NV	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	6.4	--	--	1 U	1 U	1 U	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	0.00038	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	1.5	--	--	1 U	1 U	1 U	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	80	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.014	--	--	2.5 U	2.5 U	2.5 U	--	--	--	--	--	--	--	--
1,2-Dibromoethane	0.01	--	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
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Location:	Screening Level for Groundwater[a][1]	RAU3-05	RAU3-06	RAU4-01	RAU4-02		RAU4-04	RAU4-05	RAU4-06	RAU4-07	RAU4-08	RAU4-09	RAU4-10	RAU4-11
Sample Name:		RAU3-05-GW-8.0	RAU3-06-GW-6.5	RAU4-01-GW-6.5	RAU4-02-GW-7	RAU4-02-GW-7-DUP	RAU4-04-GW-7.0	RAU4-05-GW-7.5	RAU4-06-GW-4.5	RAU4-07-GW-7.0	RAU4-08-GW-7.5	RAU4-09-GW-7.0	RAU4-10-GW-8.0	RAU4-11-GW-7.0
Collection Date:		12/2/2019	12/3/2019	12/3/2019	12/3/2019	12/3/2019	12/5/2019	12/4/2019	12/5/2019	12/3/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019
Collection Depth (ft bgs):		8	6.5	6.5	7	7	7	7.5	4.5	7	7.5	7	8	7
1,2-Dichlorobenzene	720	--	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
1,2-Dichloroethane	5	--	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
1,2-Dichloropropane	1.2	--	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	80	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	--	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
1,3-Dichloropropane	160	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	8.1	--	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
2,2-Dichloropropane	NV	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
2-Butanone	4,800	--	--	5 U	5 U	5 U	--	--	--	--	--	--	--	--
2-Chlorotoluene	160	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
2-Hexanone	40	--	--	5 U	5 U	5 U	--	--	--	--	--	--	--	--
4-Chlorotoluene	160	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NV	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	640	--	--	5 U	5 U	5 U	--	--	--	--	--	--	--	--
Acetone	7,200	--	--	10 U	10 U	10 U	--	--	--	--	--	--	--	--
Acrylonitrile	0.081	--	--	1 U	1 U	1 U	--	--	--	--	--	--	--	--
Benzene	5	--	--	0.1 U	0.1 U	0.1 U	--	--	0.7	--	--	--	--	--
Bromobenzene	64	--	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
Bromodichloromethane	0.71	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Bromoform	5.5	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Bromomethane	11	--	--	5 U	5 U	5 U	--	--	--	--	--	--	--	--
Carbon disulfide	800	--	--	5 U	5 U	5 U	--	--	--	--	--	--	--	--
Carbon tetrachloride	0.63	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Chlorobenzene	160	--	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
Chlorobromomethane	NV	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Chloroethane	NV	--	--	5 U	5 U	5 U	--	--	--	--	--	--	--	--
Chloroform	1.4	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Chloromethane	NV	--	--	2.5 U	2.5 U	2.5 U	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	16	--	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	NV	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Dibromochloromethane	0.52	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Dibromomethane	80	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	1,600	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Ethylbenzene	700	--	--	0.25 U	0.25 U	0.25 U	--	--	0.26 J	--	--	--	--	--
Hexachlorobutadiene	0.56	--	--	2.5 U	2.5 U	2.5 U	--	--	--	--	--	--	--	--
Isopropylbenzene	800	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
m,p-Xylene	NV	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	20	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Methylene chloride	5	--	--	2.5 U	2.5 U	2.5 U	--	--	--	--	--	--	--	--
Naphthalene	160	--	--	2 UJ	2 UJ	2 UJ	--	--	--	--	--	--	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU3-05	RAU3-06	RAU4-01	RAU4-02		RAU4-04	RAU4-05	RAU4-06	RAU4-07	RAU4-08	RAU4-09	RAU4-10	RAU4-11
Sample Name:		RAU3-05-GW-8.0	RAU3-06-GW-6.5	RAU4-01-GW-6.5	RAU4-02-GW-7	RAU4-02-GW-7-DUP	RAU4-04-GW-7.0	RAU4-05-GW-7.5	RAU4-06-GW-4.5	RAU4-07-GW-7.0	RAU4-08-GW-7.5	RAU4-09-GW-7.0	RAU4-10-GW-8.0	RAU4-11-GW-7.0
Collection Date:		12/2/2019	12/3/2019	12/3/2019	12/3/2019	12/3/2019	12/5/2019	12/4/2019	12/5/2019	12/3/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019
Collection Depth (ft bgs):		8	6.5	6.5	7	7	7	7.5	4.5	7	7.5	7	8	7
n-Butylbenzene	400	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
n-Propylbenzene	800	--	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
o-Xylene	1,600	--	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
sec-Butylbenzene	800	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Styrene	1,600	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
tert-Butylbenzene	800	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Tetrachloroethene	5	--	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
Toluene	1,000	--	--	0.5 U	0.5 U	0.5 U	--	--	4.92	--	--	--	--	--
trans-1,2-Dichloroethene	160	--	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	NV	--	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Trichloroethene	5	--	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	2,400	--	--	1 U	1 U	1 U	--	--	--	--	--	--	--	--
Vinyl chloride	0.2	--	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
Xylenes, total[c]	1,000	--	--	0.5 U	0.5 U	0.5 U	--	--	0.75 U	--	--	--	--	--
SVOCs (ug/L)														
1,2,4-Trichlorobenzene	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	720	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dinitrobenzene	1.6	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	1.6	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	8.1	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	1.6	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Methylnaphthalene	1.5	--	--	0.0387 U	0.04 U	0.0756 U	0.0455 J	0.0966	37.7 U	--	--	--	--	--
2,3,4,6-Tetrachlorophenol	480	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,5,6-Tetrachlorophenol	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	8	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	48	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	320	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	32	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.058	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	640	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	40	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	32	--	--	0.0387 U	0.0875 U	0.0756 U	0.0582 J	0.0376 U	37.7 U	--	--	--	--	--
2-Methylphenol	800	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	160	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
3- & 4-Methylphenol (m,p-Cresol)	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU3-05	RAU3-06	RAU4-01	RAU4-02		RAU4-04	RAU4-05	RAU4-06	RAU4-07	RAU4-08	RAU4-09	RAU4-10	RAU4-11
Sample Name:		RAU3-05-GW-8.0	RAU3-06-GW-6.5	RAU4-01-GW-6.5	RAU4-02-GW-7	RAU4-02-GW-7-DUP	RAU4-04-GW-7.0	RAU4-05-GW-7.5	RAU4-06-GW-4.5	RAU4-07-GW-7.0	RAU4-08-GW-7.5	RAU4-09-GW-7.0	RAU4-10-GW-8.0	RAU4-11-GW-7.0
Collection Date:		12/2/2019	12/3/2019	12/3/2019	12/3/2019	12/3/2019	12/5/2019	12/4/2019	12/5/2019	12/3/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019
Collection Depth (ft bgs):		8	6.5	6.5	7	7	7	7.5	4.5	7	7.5	7	8	7
3-Nitroaniline	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	1.3	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenylphenyl ether	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	0.44	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenylphenyl ether	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	4.4	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	480	--	--	0.0266 J	0.0625 U	0.0709 U	0.0414	0.0564 U	18.9 U	--	--	--	--	--
Acenaphthylene	NV	--	--	0.0194 U	0.02 U	0.0189 U	0.0204 U	0.0188 U	18.9 U	--	--	--	--	--
Aniline	15	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	2,400	--	--	0.0194 U	0.02 U	0.0189 U	0.0204 U	0.0376 U	18.9 U	--	--	--	--	--
Azobenzene	0.4	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	NV	--	--	0.00968 U	0.01 U	0.0189 U	0.0102 U	0.106 U	9.44 U	--	--	--	--	--
Benzo(a)pyrene	NA	--	--	0.00968 U	0.01 U	0.00945 U	0.0217 U	0.0188 U	18.9 U	--	--	--	--	--
Benzo(b)fluoranthene	NV	--	--	0.00968 U	0.01 U	0.00945 U	0.0102 U	0.0094 U	18.9 U	--	--	--	--	--
Benzo(ghi)perylene	NV	--	--	0.0194 U	0.02 U	0.0189 U	0.0204 U	0.0188 U	18.9 U	--	--	--	--	--
Benzo(k)fluoranthene	NV	--	--	0.00968 U	0.01 U	0.00945 U	0.0102 U	0.0188 U	24.8 U	--	--	--	--	--
Benzoic acid	64,000	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloro-1-methylethyl)ether	0.63	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	48	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethyl)ether	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	6.3	--	--	--	--	--	--	--	--	--	--	--	--	--
Butylbenzylphthalate	46	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NV	--	--	0.0194 U	0.02 U	0.0189 U	0.0204 U	0.0587 U	18.9 U	--	--	--	--	--
Chrysene	NV	--	--	0.00968 U	0.01 U	0.00945 U	0.0102 U	0.106 U	18.9 U	--	--	--	--	--
Di(2-ethylhexyl)adipate	73	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	NV	--	--	0.0194 U	0.01 U	0.00945 U	0.0102 U	0.0094 U	18.9 U	--	--	--	--	--
Dibenzofuran	8	--	--	0.0194 U	0.02 U	0.0189 U	0.0204 U	0.0188 U	18.9 U	--	--	--	--	--
Diethyl phthalate	13,000	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	160	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	640	--	--	0.0194 U	0.02 U	0.0189 U	0.0204 U	0.0188 U	18.9 U	--	--	--	--	--
Fluorene	320	--	--	0.061	0.02 U	0.0189 U	0.0204 U	0.0408	18.9 U	--	--	--	--	--
Hexachlorobenzene	0.027	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.56	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	48	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--

Location:	Screening Level for Groundwater[a](1)	RAU3-05	RAU3-06	RAU4-01	RAU4-02		RAU4-04	RAU4-05	RAU4-06	RAU4-07	RAU4-08	RAU4-09	RAU4-10	RAU4-11
Sample Name:		RAU3-05-GW-8.0	RAU3-06-GW-6.5	RAU4-01-GW-6.5	RAU4-02-GW-7	RAU4-02-GW-7-DUP	RAU4-04-GW-7.0	RAU4-05-GW-7.5	RAU4-06-GW-4.5	RAU4-07-GW-7.0	RAU4-08-GW-7.5	RAU4-09-GW-7.0	RAU4-10-GW-8.0	RAU4-11-GW-7.0
Collection Date:		12/2/2019	12/3/2019	12/3/2019	12/3/2019	12/3/2019	12/5/2019	12/4/2019	12/5/2019	12/3/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019
Collection Depth (ft bgs):		8	6.5	6.5	7	7	7	7.5	4.5	7	7.5	7	8	7
Indeno(1,2,3-cd)pyrene	NV	--	--	0.00968 U	0.01 U	0.00945 U	0.0102 U	0.0094 U	18.9 U	--	--	--	--	--
Isophorone	92	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	160	--	--	0.0387 U	0.08 U	0.0378 U	0.0843 J	0.102 J	37.7 U	--	--	--	--	--
Nitrobenzene	16	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	0.00023	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	18	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodipropylamine	0.013	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	0.22	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	NV	--	--	0.0387 U	0.04 U	0.0378 U	0.0409 U	0.0376 U	37.7 U	--	--	--	--	--
Phenol	4,800	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	240	--	--	0.0194 U	0.02 U	0.0189 U	0.0204 U	0.0188 U	18.9 U	--	--	--	--	--
Pyridine	8	--	--	--	--	--	--	--	--	--	--	--	--	--
cPAH TEQ[d](2)	0.1	--	--	0.0194 U	0.01 U	0.0189 U	0.0217 U	0.106 U	24.8 U	--	--	--	--	--
Hydrocarbon Identification (Detect/Non-detect)														
Gasoline	NA	ND	ND	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Diesel	NA	ND	ND	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Lube Oil	NA	ND	ND	--	--	--	--	--	DETECT	ND	ND	ND	ND	ND
TPH (ug/L)														
Gasoline-Range Hydrocarbons	1,000	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	500	--	--	204 J	167 J	180 J	170 J	94.3 U	5,490 U	--	--	--	--	--
Lube Oil-Range Hydrocarbons	500	--	--	230 U	200 U	206 U	204 U	6,540	481,000	--	--	--	--	--
Diesel+Oil[e]	500	--	--	319 J	267 J	283 J	272 J	6,590	484,000	--	--	--	--	--
TPH with Silica Gel Treatment (ug/L)														
Diesel-Range Hydrocarbons	500	--	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil-Range Hydrocarbons	500	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel+Oil[e]	500	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU4-12	RAU4-13	RAU4-14	RAU4-15	RAU4-16	RAU4-17	RAU4-18	RAU4-19	RAU4-20	RAU4-21	RAU5-01	RAU5-03	RAU6-02
Sample Name:		RAU4-12-GW-9	RAU4-13-GW-6.5	RAU4-14-GW-6.0	RAU4-15-GW-5.0	RAU4-16-GW-4.0	RAU4-17-GW-4.5	RAU4-18-GW-5.0	RAU4-19-GW-5.0	RAU4-20-GW-10.5	RAU4-21-GW-13.0	RAU5-01-GW-7.0	RAU5-03-GW-6.5	RAU6-02-GW-12
Collection Date:		12/11/2019	7/22/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	7/22/2020	12/11/2019
Collection Depth (ft bgs):		9	6.5	6	5	4	4.5	5	5	10.5	13	7	6.5	12
Anions (ug/L)														
Sulfide	2	--	--	--	--	--	--	--	--	--	--	--	--	--
Dissolved Metals (ug/L)														
Arsenic	5	--	1 U	2.98	1 U	1 U	1.03	1 U	1 U	4.7	6.17	--	2.28	--
Lead	15	--	0.487	7.46	0.2 U	0.2 U	0.332	0.2 U	1.12	1.7	3.43	--	1.55	--
Manganese	750	--	7,900	11,700	3,230	7,590	10,200	12,300	11,400	1,260	12,900	--	5,230	--
Total Metals (ug/L)														
Arsenic	5	1.35	15.8	8.29	1 U	5.43	3.05	2.15	1.24	8.91	56.8	5.82	2.46	1.72
Cadmium	5	0.2 U	--	--	--	--	--	--	--	--	--	0.04 U	--	0.2 U
Chromium	50	14.1	--	--	--	--	--	--	--	--	--	4.13 J	--	2.5 U
Chromium, hexavalent	0.046	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	640	21.3	--	--	--	--	--	--	--	--	--	3.97 J	--	0.967 J
Lead	15	1.27	42.1	33.8	0.29	10.1	7.68	8.84	2.16	5.07	91.2	1 U	3.5	0.525
Manganese	750	17,600	12,000	12,500	3,240	8,140	10,600	13,100	11,400	1,310	23,000	7,410	5,220	4,000
Mercury	2	0.04 U	--	--	--	--	--	--	--	--	--	0.04 U	--	0.04 U
Nickel	320	19.2	--	--	--	--	--	--	--	--	--	3.96	--	1.43
Zinc	4,800	33.1	--	--	--	--	--	--	--	--	--	15.1	--	6.72
PCB Aroclors (ug/L)														
Aroclor 1016	NA	--	--	--	--	--	--	--	--	--	--	0.0235 U	--	--
Aroclor 1221	NV	--	--	--	--	--	--	--	--	--	--	0.0235 U	--	--
Aroclor 1232	NV	--	--	--	--	--	--	--	--	--	--	0.0235 U	--	--
Aroclor 1242	NV	--	--	--	--	--	--	--	--	--	--	0.0235 U	--	--
Aroclor 1248	NV	--	--	--	--	--	--	--	--	--	--	0.0235 U	--	--
Aroclor 1254	NA	--	--	--	--	--	--	--	--	--	--	0.0235 U	--	--
Aroclor 1260	NA	--	--	--	--	--	--	--	--	--	--	0.0235 U	--	--
Total PCBs[b]	0.10	--	--	--	--	--	--	--	--	--	--	0.0235 U	--	--
VOCs (ug/L)														
1,1,1,2-Tetrachloroethane	1.7	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	200	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	0.22	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	0.77	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	7.7	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	400	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloropropene	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	0.00038	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	80	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.014	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU4-12	RAU4-13	RAU4-14	RAU4-15	RAU4-16	RAU4-17	RAU4-18	RAU4-19	RAU4-20	RAU4-21	RAU5-01	RAU5-03	RAU6-02
Sample Name:		RAU4-12-GW-9	RAU4-13-GW-6.5	RAU4-14-GW-6.0	RAU4-15-GW-5.0	RAU4-16-GW-4.0	RAU4-17-GW-4.5	RAU4-18-GW-5.0	RAU4-19-GW-5.0	RAU4-20-GW-10.5	RAU4-21-GW-13.0	RAU5-01-GW-7.0	RAU5-03-GW-6.5	RAU6-02-GW-12
Collection Date:		12/11/2019	7/22/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	7/22/2020	12/11/2019
Collection Depth (ft bgs):		9	6.5	6	5	4	4.5	5	5	10.5	13	7	6.5	12
1,2-Dichlorobenzene	720	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	5	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	1.2	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	80	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	160	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	8.1	--	--	--	--	--	--	--	--	--	--	--	--	--
2,2-Dichloropropane	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	4,800	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	160	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	40	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	160	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	640	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	7,200	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	0.081	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	5	--	--	--	--	--	--	--	--	--	--	0.1 U	--	--
Bromobenzene	64	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	0.71	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	5.5	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	11	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	800	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	0.63	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	160	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobromomethane	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	16	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	0.52	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromomethane	80	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	700	--	--	--	--	--	--	--	--	--	--	0.25 U	--	--
Hexachlorobutadiene	0.56	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	800	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	20	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	5	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	160	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU4-12	RAU4-13	RAU4-14	RAU4-15	RAU4-16	RAU4-17	RAU4-18	RAU4-19	RAU4-20	RAU4-21	RAU5-01	RAU5-03	RAU6-02
Sample Name:		RAU4-12-GW-9	RAU4-13-GW-6.5	RAU4-14-GW-6.0	RAU4-15-GW-5.0	RAU4-16-GW-4.0	RAU4-17-GW-4.5	RAU4-18-GW-5.0	RAU4-19-GW-5.0	RAU4-20-GW-10.5	RAU4-21-GW-13.0	RAU5-01-GW-7.0	RAU5-03-GW-6.5	RAU6-02-GW-12
Collection Date:		12/11/2019	7/22/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	7/22/2020	12/11/2019
Collection Depth (ft bgs):		9	6.5	6	5	4	4.5	5	5	10.5	13	7	6.5	12
n-Butylbenzene	400	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	800	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	800	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butylbenzene	800	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	5	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	1,000	--	--	--	--	--	--	--	--	--	--	0.5 U	--	--
trans-1,2-Dichloroethene	160	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	5	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	2,400	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes, total[c]	1,000	--	--	--	--	--	--	--	--	--	--	0.75 U	--	--
SVOCs (ug/L)														
1,2,4-Trichlorobenzene	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	720	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dinitrobenzene	1.6	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dinitrobenzene	1.6	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	8.1	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dinitrobenzene	1.6	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Methylnaphthalene	1.5	--	--	--	--	--	--	--	--	--	--	0.0377 U	--	--
2,3,4,6-Tetrachlorophenol	480	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,5,6-Tetrachlorophenol	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	8	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	48	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	320	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	32	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.058	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	640	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	40	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	32	--	--	--	--	--	--	--	--	--	--	0.0377 U	--	--
2-Methylphenol	800	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	160	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
3- & 4-Methylphenol (m,p-Cresol)	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU4-12	RAU4-13	RAU4-14	RAU4-15	RAU4-16	RAU4-17	RAU4-18	RAU4-19	RAU4-20	RAU4-21	RAU5-01	RAU5-03	RAU6-02
Sample Name:		RAU4-12-GW-9	RAU4-13-GW-6.5	RAU4-14-GW-6.0	RAU4-15-GW-5.0	RAU4-16-GW-4.0	RAU4-17-GW-4.5	RAU4-18-GW-5.0	RAU4-19-GW-5.0	RAU4-20-GW-10.5	RAU4-21-GW-13.0	RAU5-01-GW-7.0	RAU5-03-GW-6.5	RAU6-02-GW-12
Collection Date:		12/11/2019	7/22/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	7/22/2020	12/11/2019
Collection Depth (ft bgs):		9	6.5	6	5	4	4.5	5	5	10.5	13	7	6.5	12
3-Nitroaniline	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	1.3	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenylphenyl ether	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	0.44	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenylphenyl ether	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	4.4	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	480	--	--	--	--	--	--	--	--	--	--	0.0189 U	--	--
Acenaphthylene	NV	--	--	--	--	--	--	--	--	--	--	0.0189 U	--	--
Aniline	15	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	2,400	--	--	--	--	--	--	--	--	--	--	0.0377 U	--	--
Azobenzene	0.4	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	NV	--	--	--	--	--	--	--	--	--	--	0.00943 U	--	--
Benzo(a)pyrene	NA	--	--	--	--	--	--	--	--	--	--	0.00943 U	--	--
Benzo(b)fluoranthene	NV	--	--	--	--	--	--	--	--	--	--	0.00943 U	--	--
Benzo(ghi)perylene	NV	--	--	--	--	--	--	--	--	--	--	0.0189 U	--	--
Benzo(k)fluoranthene	NV	--	--	--	--	--	--	--	--	--	--	0.00943 U	--	--
Benzoic acid	64,000	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloro-1-methylethyl)ether	0.63	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	48	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethyl)ether	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	6.3	--	--	--	--	--	--	--	--	--	--	--	--	--
Butylbenzylphthalate	46	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NV	--	--	--	--	--	--	--	--	--	--	0.0189 U	--	--
Chrysene	NV	--	--	--	--	--	--	--	--	--	--	0.00943 U	--	--
Di(2-ethylhexyl)adipate	73	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	NV	--	--	--	--	--	--	--	--	--	--	0.00943 U	--	--
Dibenzofuran	8	--	--	--	--	--	--	--	--	--	--	0.0189 U	--	--
Diethyl phthalate	13,000	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	160	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	640	--	--	--	--	--	--	--	--	--	--	0.0189 U	--	--
Fluorene	320	--	--	--	--	--	--	--	--	--	--	0.0189 U	--	--
Hexachlorobenzene	0.027	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.56	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	48	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU4-12	RAU4-13	RAU4-14	RAU4-15	RAU4-16	RAU4-17	RAU4-18	RAU4-19	RAU4-20	RAU4-21	RAU5-01	RAU5-03	RAU6-02
Sample Name:		RAU4-12-GW-9	RAU4-13-GW-6.5	RAU4-14-GW-6.0	RAU4-15-GW-5.0	RAU4-16-GW-4.0	RAU4-17-GW-4.5	RAU4-18-GW-5.0	RAU4-19-GW-5.0	RAU4-20-GW-10.5	RAU4-21-GW-13.0	RAU5-01-GW-7.0	RAU5-03-GW-6.5	RAU6-02-GW-12
Collection Date:		12/11/2019	7/22/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	7/22/2020	12/11/2019
Collection Depth (ft bgs):		9	6.5	6	5	4	4.5	5	5	10.5	13	7	6.5	12
Indeno(1,2,3-cd)pyrene	NV	--	--	--	--	--	--	--	--	--	--	0.0189 U	--	--
Isophorone	92	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	160	--	--	--	--	--	--	--	--	--	--	0.0754 U	--	--
Nitrobenzene	16	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	0.00023	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	18	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodipropylamine	0.013	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	0.22	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	NV	--	--	--	--	--	--	--	--	--	--	0.0377 U	--	--
Phenol	4,800	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	240	--	--	--	--	--	--	--	--	--	--	0.0189 U	--	--
Pyridine	8	--	--	--	--	--	--	--	--	--	--	--	--	--
cPAH TEQ[d][2]	0.1	--	--	--	--	--	--	--	--	--	--	0.0189 U	--	--
Hydrocarbon Identification (Detect/Non-detect)														
Gasoline	NA	ND	--	--	--	--	--	--	--	--	--	ND	--	ND
Diesel	NA	ND	--	--	--	--	--	--	--	--	--	ND	--	ND
Lube Oil	NA	ND	--	--	--	--	--	--	--	--	--	DETECT	--	ND
TPH (ug/L)														
Gasoline-Range Hydrocarbons	1,000	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-Range Hydrocarbons	500	--	222 U	320	217 U	4,710 U	4,490 U	227 U	399	304	247 U	132 U	206 U	--
Lube Oil-Range Hydrocarbons	500	--	444 U	465 U	435 U	83,500	96,500	455 U	412 U	430 U	15,000	1,840	412 U	--
Diesel+Oil[e]	500	--	444 U	553	435 U	85,900	98,700	455 U	605	519	15,100	1,910	412 U	--
TPH with Silica Gel Treatment (ug/L)														
Diesel-Range Hydrocarbons	500	--	222 U	233 U	217 U	4,710 U	4,490 U	227 U	206 U	215 U	247 U	--	206 U	--
Lube Oil-Range Hydrocarbons	500	--	444 U	465 U	435 U	82,700	96,100	455 U	412 U	430 U	14,700	--	412 U	--
Diesel+Oil[e]	500	--	444 U	465 U	435 U	85,100	98,300	455 U	412 U	430 U	14,800	--	412 U	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU7-01	RAU7-02
Sample Name:		RAU7-01-GW-8.5	RAU7-02-GW-9.5
Collection Date:		12/5/2019	12/5/2019
Collection Depth (ft bgs):		8.5	9.5
Anions (ug/L)			
Sulfide	2	--	--
Dissolved Metals (ug/L)			
Arsenic	5	--	--
Lead	15	--	--
Manganese	750	--	--
Total Metals (ug/L)			
Arsenic	5	1.95	0.5 U
Cadmium	5	0.04 U	0.04 U
Chromium	50	6.32 J	3.58 J
Chromium, hexavalent	0.046	--	--
Copper	640	14.2	8.87
Lead	15	1.45 U	0.741 U
Manganese	750	18,200	269
Mercury	2	0.04 U	0.04 U
Nickel	320	4.62	2.77
Zinc	4,800	18.3	12.8
PCB Aroclors (ug/L)			
Aroclor 1016	NA	--	--
Aroclor 1221	NV	--	--
Aroclor 1232	NV	--	--
Aroclor 1242	NV	--	--
Aroclor 1248	NV	--	--
Aroclor 1254	NA	--	--
Aroclor 1260	NA	--	--
Total PCBs[b]	0.10	--	--
VOCs (ug/L)			
1,1,1,2-Tetrachloroethane	1.7	--	--
1,1,1-Trichloroethane	200	--	--
1,1,2,2-Tetrachloroethane	0.22	--	--
1,1,2-Trichloroethane	0.77	--	--
1,1-Dichloroethane	7.7	--	--
1,1-Dichloroethene	400	--	--
1,1-Dichloropropene	NV	--	--
1,2,3-Trichlorobenzene	6.4	--	--
1,2,3-Trichloropropane	0.00038	--	--
1,2,4-Trichlorobenzene	1.5	--	--
1,2,4-Trimethylbenzene	80	--	--
1,2-Dibromo-3-chloropropane	0.014	--	--
1,2-Dibromoethane	0.01	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU7-01	RAU7-02
Sample Name:		RAU7-01-GW-8.5	RAU7-02-GW-9.5
Collection Date:		12/5/2019	12/5/2019
Collection Depth (ft bgs):		8.5	9.5
1,2-Dichlorobenzene	720	--	--
1,2-Dichloroethane	5	--	--
1,2-Dichloropropane	1.2	--	--
1,3,5-Trimethylbenzene	80	--	--
1,3-Dichlorobenzene	NV	--	--
1,3-Dichloropropane	160	--	--
1,4-Dichlorobenzene	8.1	--	--
2,2-Dichloropropane	NV	--	--
2-Butanone	4,800	--	--
2-Chlorotoluene	160	--	--
2-Hexanone	40	--	--
4-Chlorotoluene	160	--	--
4-Isopropyltoluene	NV	--	--
4-Methyl-2-pentanone	640	--	--
Acetone	7,200	--	--
Acrylonitrile	0.081	--	--
Benzene	5	--	--
Bromobenzene	64	--	--
Bromodichloromethane	0.71	--	--
Bromoform	5.5	--	--
Bromomethane	11	--	--
Carbon disulfide	800	--	--
Carbon tetrachloride	0.63	--	--
Chlorobenzene	160	--	--
Chlorobromomethane	NV	--	--
Chloroethane	NV	--	--
Chloroform	1.4	--	--
Chloromethane	NV	--	--
cis-1,2-Dichloroethene	16	--	--
cis-1,3-Dichloropropene	NV	--	--
Dibromochloromethane	0.52	--	--
Dibromomethane	80	--	--
Dichlorodifluoromethane (Freon 12)	1,600	--	--
Ethylbenzene	700	--	--
Hexachlorobutadiene	0.56	--	--
Isopropylbenzene	800	--	--
m,p-Xylene	NV	--	--
Methyl tert-butyl ether	20	--	--
Methylene chloride	5	--	--
Naphthalene	160	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	RAU7-01	RAU7-02
Sample Name:		RAU7-01-GW-8.5	RAU7-02-GW-9.5
Collection Date:		12/5/2019	12/5/2019
Collection Depth (ft bgs):		8.5	9.5
n-Butylbenzene	400	--	--
n-Propylbenzene	800	--	--
o-Xylene	1,600	--	--
sec-Butylbenzene	800	--	--
Styrene	1,600	--	--
tert-Butylbenzene	800	--	--
Tetrachloroethene	5	--	--
Toluene	1,000	--	--
trans-1,2-Dichloroethene	160	--	--
trans-1,3-Dichloropropene	NV	--	--
Trichloroethene	5	--	--
Trichlorofluoromethane (Freon 11)	2,400	--	--
Vinyl chloride	0.2	--	--
Xylenes, total[c]	1,000	--	--
SVOCs (ug/L)			
1,2,4-Trichlorobenzene	1.5	--	--
1,2-Dichlorobenzene	720	--	--
1,2-Dinitrobenzene	1.6	--	--
1,3-Dichlorobenzene	NV	--	--
1,3-Dinitrobenzene	1.6	--	--
1,4-Dichlorobenzene	8.1	--	--
1,4-Dinitrobenzene	1.6	--	--
1-Methylnaphthalene	1.5	0.0405 U	0.0468 U
2,3,4,6-Tetrachlorophenol	480	--	--
2,3,5,6-Tetrachlorophenol	NV	--	--
2,4,5-Trichlorophenol	1,600	--	--
2,4,6-Trichlorophenol	8	--	--
2,4-Dichlorophenol	48	--	--
2,4-Dimethylphenol	320	--	--
2,4-Dinitrophenol	32	--	--
2,4-Dinitrotoluene	0.28	--	--
2,6-Dinitrotoluene	0.058	--	--
2-Chloronaphthalene	640	--	--
2-Chlorophenol	40	--	--
2-Methylnaphthalene	32	0.0405 U	0.0468 U
2-Methylphenol	800	--	--
2-Nitroaniline	160	--	--
2-Nitrophenol	NV	--	--
3- & 4-Methylphenol (m,p-Cresol)	NV	--	--
3,3-Dichlorobenzidine	0.19	--	--

Location:	Screening Level for Groundwater[a][1]	RAU7-01	RAU7-02
Sample Name:		RAU7-01-GW-8.5	RAU7-02-GW-9.5
Collection Date:		12/5/2019	12/5/2019
Collection Depth (ft bgs):		8.5	9.5
3-Nitroaniline	NV	--	--
4,6-Dinitro-2-methylphenol	1.3	--	--
4-Bromophenylphenyl ether	NV	--	--
4-Chloro-3-methylphenol	1,600	--	--
4-Chloroaniline	0.44	--	--
4-Chlorophenylphenyl ether	NV	--	--
4-Nitroaniline	4.4	--	--
4-Nitrophenol	NV	--	--
Acenaphthene	480	0.279	0.248
Acenaphthylene	NV	0.0203 U	0.0234 U
Aniline	15	--	--
Anthracene	2,400	0.0203 U	0.0339 J
Azobenzene	0.4	--	--
Benzo(a)anthracene	NV	0.0101 U	0.0181 J
Benzo(a)pyrene	NA	0.0101 U	0.0234 U
Benzo(b)fluoranthene	NV	0.0101 U	0.031
Benzo(ghi)perylene	NV	0.0203 U	0.0234 U
Benzo(k)fluoranthene	NV	0.0101 U	0.0123 J
Benzoic acid	64,000	--	--
Benzyl alcohol	1,600	--	--
Bis(2-chloro-1-methylethyl)ether	0.63	--	--
Bis(2-chloroethoxy)methane	48	--	--
Bis(2-chloroethyl)ether	0.04	--	--
Bis(2-ethylhexyl)phthalate	6.3	--	--
Butylbenzylphthalate	46	--	--
Carbazole	NV	0.0203 U	0.0234 U
Chrysene	NV	0.0101 U	0.0269 J
Di(2-ethylhexyl)adipate	73	--	--
Dibenzo(a,h)anthracene	NV	0.0101 U	0.0117 U
Dibenzofuran	8	0.0203 U	0.076
Diethyl phthalate	13,000	--	--
Dimethyl phthalate	NV	--	--
Di-n-butyl phthalate	1,600	--	--
Di-n-octyl phthalate	160	--	--
Fluoranthene	640	0.0203 U	0.0631
Fluorene	320	0.0203 U	0.175
Hexachlorobenzene	0.027	--	--
Hexachlorobutadiene	0.56	--	--
Hexachlorocyclopentadiene	48	--	--
Hexachloroethane	1.1	--	--

Location:	Screening Level for Groundwater[a][1]	RAU7-01	RAU7-02
Sample Name:		RAU7-01-GW-8.5	RAU7-02-GW-9.5
Collection Date:		12/5/2019	12/5/2019
Collection Depth (ft bgs):		8.5	9.5
Indeno(1,2,3-cd)pyrene	NV	0.0101 U	0.0117 U
Isophorone	92	--	--
Naphthalene	160	0.0405 U	0.0468 U
Nitrobenzene	16	--	--
N-Nitrosodimethylamine	0.00023	--	--
N-Nitrosodiphenylamine	18	--	--
N-Nitrosodipropylamine	0.013	--	--
Pentachlorophenol	0.22	--	--
Phenanthrene	NV	0.0947	0.0836 J
Phenol	4,800	--	--
Pyrene	240	0.0203 U	0.0626
Pyridine	8	--	--
cPAH TEQ[d][2]	0.1	0.0101 U	0.0193 J
Hydrocarbon Identification (Detect/Non-detect)			
Gasoline	NA	--	--
Diesel	NA	--	--
Lube Oil	NA	--	--
TPH (ug/L)			
Gasoline-Range Hydrocarbons	1,000	--	--
Diesel-Range Hydrocarbons	500	108 J	104 U
Lube Oil-Range Hydrocarbons	500	204 U	208 U
Diesel+Oil[e]	500	210 J	208 U
TPH with Silica Gel Treatment (ug/L)			
Diesel-Range Hydrocarbons	500	--	--
Lube Oil-Range Hydrocarbons	500	--	--
Diesel+Oil[e]	500	--	--

Table 6-6
Upland RI Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Notes

Shading indicates values that exceed groundwater screening levels; non-detect results (U and UJ) and rejected results (R) were not compared with screening criteria.

-- = not analyzed.

cPAH = carcinogenic polycyclic aromatic hydrocarbon.

ft bgs = feet below ground surface.

J = result is estimated.

MTCA = Model Toxics Control Act.

NA = not applicable.

ND = not detected.

NV = no value.

PCB = polychlorinated biphenyl.

R = result is rejected. The analyte may or may not be present in the sample.

RI = remedial investigation.

SVOC = semivolatile organic compound.

TEQ = toxicity equivalence.

TPH = total petroleum hydrocarbons.

U = result is non-detect at the method reporting limit or method detection limit.

UJ = result is non-detect with an estimated reporting limit or detection limit.

ug/L = micrograms per liter.

VOC = volatile organic compound.

[a]Screening levels are the lowest regulatory criteria value for the given matrix, selected from groundwater MTCA Method A where available, or MTCA Method B (the lowest of cancer and noncancer values) where MTCA Method A is not available. The proposed screening for sulfide is the Clean Water Act chronic screening level for hydrogen sulfide. Where a summation is performed (except Diesel+Oil and total xylenes), data are not screened to MTCA values for individual analytes; data are only screened to the MTCA value for the summation.

[b]Total PCBs are the sum of all PCB Aroclors; where all results are non-detect, the highest method reporting limit or method detection limit is used.

[c]Total xylenes are reported from the laboratory or the sum of o-xylene and m,p-xylene. Non-detect results are summed at one-half the method reporting limit or method detection limit. When all results are non-detect, the highest method reporting limit or method detection limit is used.

[d]cPAH TEQ is calculated with toxicity equivalence factors from Washington Ecology Evaluating the Human Heath Toxicity of Carcinogenic PAHs Using Toxicity Equivalence Factors (Ecology 2015). Non-detect results are included at one-half the detection limit or reporting limit. When all cPAHs are non-detect, the highest reported detection limit or reporting limit is shown.

[e]Diesel+oil is the sum of diesel- and lube-oil-range hydrocarbons results. Non-detect results are summed at one-half the reporting limit or detection limit. When both results are non-detect, the highest reporting limit or detection limit is used.

References

[1]Ecology. 2022. *Cleanup Levels and Risk Calculation (CLARC) table.* Washington State Department of Ecology, Toxics Cleanup Program. July errata.

[2]Ecology. 2015. *Implementation Memorandum #10: Evaluating the Human Health Toxicity of Carcinogenic PAHs (cPAHs) Using Toxicity Equivalency Factors (TEFs).* Publication No. 15-09-049. Washington State Department of Ecology, Toxics Cleanup Program. April 20.

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	B01	B02	B03	CR-20	CR-21	CR-22	CR-23	FC01	FC02	FC03	MS01	MS02	MS03
Sample Name:		B01-GW-10.0	B02-GW-6	B03-GW-10	CR20-GW-5.0	CR21-GW-10	CR22-GW-9.0	CR23-GW-6.0	MJJ488	MJJ489	MJJ4D2	MJJ490	MJJ491	MJJ492
Collection Date:		10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/13/2015	10/13/2015	9/26/2017	9/26/2017	9/29/2017	9/26/2017	9/25/2017	9/26/2017
Collection Depth (ft bgs):		7.5	6	7.5	5.5	7.5	6.5	3.5	--	--	--	--	--	--
Dissolved Metals (ug/L)														
Arsenic	5	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	--	--	--	--	--
Cadmium	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	--	--	--	--	--	--
Chromium	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	--	--	--	--	--	--
Lead	15	20 U	20 U	20 U	20 U	20 U	20 U	20 U	--	--	--	--	--	--
Mercury	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	--	--	--	--	--	--
Total Metals (ug/L)														
Aluminum	16,000	--	--	--	--	--	--	--	17,800	139 JQ	2180	429	989	2540
Antimony	6.4	--	--	--	--	--	--	--	60 U	60 U	60 U	60 U	60 U	60 U
Arsenic	5	50 U	50 U	50 U	50 U	50 U	50 U	50 U	4.8	1 U	1 U	1 U	1 U	1 U
Barium	3,200	--	--	--	--	--	--	--	288	70.4 JQ	34.5 JQ	79.2 JQ	84.6 JQ	23.5 JQ
Beryllium	32	--	--	--	--	--	--	--	0.92 JQ	5 U	5 U	5 U	5 U	0.68 JQ
Cadmium	5	2 U	2	2 U	2 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Calcium	NV	--	--	--	--	--	--	--	79,900	38,900	12,600	43,100	11,700	35,100
Chromium	50	18	116	6	5 U	66	13	11	30.3	10 U	10 U	10 U	10 U	10 U
Cobalt	4.8	--	--	--	--	--	--	--	9.6 JQ	13.4 JQ	50 U	50 U	8.6 JQ	50 U
Copper	640	--	--	--	--	--	--	--	82.3	12.2 JQ	17.8 JQ	7.6 JQ	9.7 JQ	31.3
Iron	11,000	--	--	--	--	--	--	--	56,200	52,100	9,280	24,400	34,500	50,500
Lead	15	20 U	80	20 U	20 U	20 U	20 U	20 U	53	10 U	18.6	3.1 JQ	10 U	10.7
Magnesium	NV	--	--	--	--	--	--	--	37,400	31,400	3,960 JQ	16,300	10,300	14,800
Manganese	750	--	--	--	--	--	--	--	6,070	18,400	1,120	4,090	12,100	2,030
Mercury	2	0.1 U	0.1	0.7	0.1 U	0.1	0.1	0.1 U	--	--	--	--	--	--
Nickel	320	--	--	--	--	--	--	--	18.9 JQ	40 U	40 U	40 U	40 U	40 U
Potassium	NV	--	--	--	--	--	--	--	29,700	5,000 U	5,000 U	16,400	5,000 U	5,080
Selenium	80	--	--	--	--	--	--	--	35 U	35 U	35 U	35 U	35 U	35 U
Silver	80	--	--	--	--	--	--	--	1.9 JQ	2.4 JQ	10 UJ	1.4 JQ	2.3 JQ	10 UJ
Sodium	NV	--	--	--	--	--	--	--	38,100	60,900	4,600 JQ	18,300	28,800	23,700
Thallium	0.16	--	--	--	--	--	--	--	25 U	25 U	25 U	25 U	25 U	25 U
Vanadium	80	--	--	--	--	--	--	--	68.8	50 U	12.1 JQ	50 U	50 U	15.5 JQ
Zinc	4,800	--	--	--	--	--	--	--	232	60 U	24.8 JQ	60 U	60 U	23.7 JQ
PCB Aroclors (ug/L)														
Aroclor 1016	NA	--	--	--	1 U	1 U	1 U	1 U	--	--	--	--	--	--
Aroclor 1221	NV	--	--	--	1 U	1 U	1 U	1 U	--	--	--	--	--	--
Aroclor 1232	NV	--	--	--	1 U	1 U	1 U	1 U	--	--	--	--	--	--
Aroclor 1242	NV	--	--	--	1 U	1 U	1 U	1 U	--	--	--	--	--	--
Aroclor 1248	NV	--	--	--	1 U	1 U	1 U	1 U	--	--	--	--	--	--
Aroclor 1254	NA	--	--	--	1 U	1 U	1 U	1 U	--	--	--	--	--	--
Aroclor 1260	NA	--	--	--	1 U	1 U	1 U	1 U	--	--	--	--	--	--
Aroclor 1262	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1268	NV	--	--	--	1 U	1 U	1 U	1 U	--	--	--	--	--	--

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	B01	B02	B03	CR-20	CR-21	CR-22	CR-23	FC01	FC02	FC03	MS01	MS02	MS03
Sample Name:		B01-GW-10.0	B02-GW-6	B03-GW-10	CR20-GW-5.0	CR21-GW-10	CR22-GW-9.0	CR23-GW-6.0	MJJ488	MJJ489	MJJ4D2	MJJ490	MJJ491	MJJ492
Collection Date:		10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/13/2015	10/13/2015	9/26/2017	9/26/2017	9/29/2017	9/26/2017	9/25/2017	9/26/2017
Collection Depth (ft bgs):		7.5	6	7.5	5.5	7.5	6.5	3.5	--	--	--	--	--	--
Total PCBs[b]	0.10	--	--	--	1 U	1 U	1 U	1 U	--	--	--	--	--	--
VOCs (ug/L)														
1,1,1,2-Tetrachloroethane	1.7	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	200	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	0.22	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	0.77	0.2 U	0.2 U	0.29	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	7.7	0.2 U	0.2 U	0.12 J	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	400	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	NV	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	6.4	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
1,2,3-Trichloropropane	0.00038	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	1.5	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
1,2,4-Trimethylbenzene	80	0.2 U	0.37	0.2 U	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.014	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	0.01	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	720	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	5	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.27 JQ	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1.2	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	80	0.2 U	0.19 J	0.2 U	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropane	160	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	8.1	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,2-Dichloropropane	NV	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
2-Butanone	4,800	5 U	0.85 J	5 U	--	--	--	--	5 U	5 U	5 U	5 U	5 U	5 U
2-Chloroethylvinyl ether	NV	1 R	1 R	1 R	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	160	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
2-Hexanone	40	5 U	5 U	5 U	--	--	--	--	5 U	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	160	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NV	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	640	5 U	5 U	5 U	--	--	--	--	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	7,200	5 U	5 U	5 U	--	--	--	--	5 U	5	5 U	5 U	4 JQ	5 U
Acrolein	4	5 U	5 U	5 U	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	0.081	1 U	1 U	1 U	--	--	--	--	--	--	--	--	--	--
Benzene	5	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.31 JQ	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	64	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	0.71	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoethane	NV	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
Bromoform	5.5	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	11	1 U	1 U	1 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	800	0.2 U	0.4	0.2 U	--	--	--	--	0.5 U	0.26 JQ	0.5 U	0.5 U	0.5 U	0.5 U

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	B01	B02	B03	CR-20	CR-21	CR-22	CR-23	FC01	FC02	FC03	MS01	MS02	MS03
Sample Name:		B01-GW-10.0	B02-GW-6	B03-GW-10	CR20-GW-5.0	CR21-GW-10	CR22-GW-9.0	CR23-GW-6.0	MJJ488	MJJ489	MJJ4D2	MJJ490	MJJ491	MJJ492
Collection Date:		10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/13/2015	10/13/2015	9/26/2017	9/26/2017	9/29/2017	9/26/2017	9/25/2017	9/26/2017
Collection Depth (ft bgs):		7.5	6	7.5	5.5	7.5	6.5	3.5	--	--	--	--	--	--
Carbon tetrachloride	0.63	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	160	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobromomethane	NV	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	NV	0.2 U	0.2 U	0.39	--	--	--	--	0.5 U	0.13 JQ	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	1.4	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	NV	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-1,2-Dichloroethene	16	0.2 U	0.2 U	0.25	--	--	--	--	0.5 U	0.24 JQ	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	NV	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane	NV	--	--	--	--	--	--	--	0.5 U	1.3	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	0.52	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	80	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	1,600	--	--	--	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	700	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	1.1	0.5 U	0.5 U	0.5 U	0.5 U
Freon 113	240,000	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	0.56	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	800	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.39 JQ	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene	NV	0.27 J	0.4	0.15 J	--	--	--	--	0.5 U	2.9	0.5 U	0.5 U	0.5 U	0.5 U
Methyl acetate	8,000	--	--	--	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl iodide	NV	1 U	1 U	1 U	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	20	--	--	--	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylcyclohexane	NV	--	--	--	--	--	--	--	0.5 U	1.2	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	5	1 U	1 U	1 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	160	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	400	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	800	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
o-Xylene	1,600	0.11 J	0.57	0.2 U	--	--	--	--	0.5 U	2.8	0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	800	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
Styrene	1,600	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tert-Butylbenzene	800	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	5	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	1,000	1.2	0.34	0.2 U	--	--	--	--	0.5 U	0.44 JQ	0.5 U	0.5 U	0.16 JQ	0.5 U
trans-1,2-Dichloroethene	160	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	NV	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,4-Dichloro-2-butene	NV	1 U	1 U	1 U	--	--	--	--	--	--	--	--	--	--
Trichloroethene	5	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane (Freon 11)	2,400	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Acetate	8,000	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.2	0.2 U	0.2 U	0.2 U	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes, total[c]	1,000	0.38 J	0.97	0.25 J	--	--	--	--	0.5 U	5.7	0.5 U	0.5 U	0.5 U	0.5 U

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	B01	B02	B03	CR-20	CR-21	CR-22	CR-23	FC01	FC02	FC03	MS01	MS02	MS03
Sample Name:		B01-GW-10.0	B02-GW-6	B03-GW-10	CR20-GW-5.0	CR21-GW-10	CR22-GW-9.0	CR23-GW-6.0	MJJ488	MJJ489	MJJ4D2	MJJ490	MJJ491	MJJ492
Collection Date:		10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/13/2015	10/13/2015	9/26/2017	9/26/2017	9/29/2017	9/26/2017	9/25/2017	9/26/2017
Collection Depth (ft bgs):		7.5	6	7.5	5.5	7.5	6.5	3.5	--	--	--	--	--	--
SVOCs (ug/L)														
1,1'-Biphenyl	5.5	--	--	--	--	--	--	--	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
1,2,4,5-Tetrachlorobenzene	2.4	--	--	--	--	--	--	--	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
1,2,4-Trichlorobenzene	1.5	1 U	20 U	1 U	1 U	1 U	1 U	1 U	--	--	--	--	--	--
1,2-Dichlorobenzene	720	1 U	20 U	1 U	1 U	1 U	1 U	1 U	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	1 U	20 U	1 U	1 U	1 U	1 U	1 U	--	--	--	--	--	--
1,4-Dichlorobenzene	8.1	1 U	20 U	1 U	1 U	1 U	1 U	1 U	--	--	--	--	--	--
1,4-Dioxane	0.44	--	--	--	--	--	--	--	1.9 U	1.9 U	2 U	1.9 U	1.9 U	1.9 U
1-Methylnaphthalene	1.5	1 U	20 U	1 U	1 U	1 U	1.7	2	--	--	--	--	--	--
2,3,4,6-Tetrachlorophenol	480	--	--	--	--	--	--	--	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
2,4,5-Trichlorophenol	1,600	5 U	100 U	5 U	5 U	5 U	5 U	5 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
2,4,6-Trichlorophenol	8	3 U	60 U	3 U	3 U	3 U	3 U	3 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
2,4-Dichlorophenol	48	3 U	60 U	3 U	3 U	3 U	3 U	3 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
2,4-Dimethylphenol	320	3 U	60 U	3 U	3 U	3 U	3 U	3 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
2,4-Dinitrophenol	32	20 UJ	400 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
2,4-Dinitrotoluene	0.28	3 U	60 U	3 U	3 U	3 U	3 U	3 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
2,6-Dinitrotoluene	0.058	3 U	60 U	3 U	3 U	3 U	3 U	3 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
2-Chloronaphthalene	640	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
2-Chlorophenol	40	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
2-Methylnaphthalene	32	1 U	20 U	1 U	1 U	1 U	1.7	2	0.04 JQ	4.7 J	0.04 JQ	0.095 U	0.045 JQ	0.48 U
2-Methylphenol	800	1 U	20 U	1 U	1 U	1 U	1 U	1 U	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
2-Nitroaniline	160	3 U	60 U	3 U	3 U	3 U	3 U	3 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
2-Nitrophenol	NV	3 U	60 U	3 U	3 U	3 U	3 U	3 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
3,3-Dichlorobenzidine	0.19	5 U	100 U	5 U	5 U	5 U	5 U	5 U	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
3-Nitroaniline	NV	3 U	60 U	3 U	3 U	3 U	3 U	3 U	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
4,6-Dinitro-2-methylphenol	1.3	10 U	200 U	10 U	10 U	10 U	10 U	10 U	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
4-Bromophenylphenyl ether	NV	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
4-Chloro-3-methylphenol	1,600	3 U	60 U	3 U	3 U	3 U	3 U	3 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
4-Chloroaniline	0.44	5 U	100 U	5 U	5 U	5 U	5 U	5 U	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
4-Chlorophenylphenyl ether	NV	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
4-Methylphenol	1,600	2 U	40 U	2 U	2 U	2 U	2 U	1.4 J	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
4-Nitroaniline	4.4	3 U	60 U	3 U	3 U	3 U	3 U	3 U	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
4-Nitrophenol	NV	10 UJ	200 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
Acenaphthene	480	1 U	20 U	1 U	1 U	1 U	4.1	0.8 J	0.096	0.43 JQ	0.019 JQ	0.33 J	0.7	0.67 J
Acenaphthylene	NV	1 U	20 U	1 U	1 U	1 U	1 U	1 U	0.095 U	0.48 U	0.1 U	0.014 JQ	0.095 U	0.48 U
Acetophenone	800	--	--	--	--	--	--	--	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
Anthracene	2,400	1 U	20 U	1 U	1 U	1 U	1 U	1 U	0.095 U	0.079 JQ	0.1 U	0.095 U	0.095 U	0.14 JQ
Atrazine	0.38	--	--	--	--	--	--	--	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
Benzaldehyde	11	--	--	--	--	--	--	--	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
Benzo(a)anthracene	NV	1 U	20 U	1 U	1 U	1 U	1 U	1 U	0.016 JQ	0.48 U	0.1 U	0.095 U	0.095 U	0.076 JQ

Table 6-7
Historical Groundwater Analytical Data
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Location:	Screening Level for Groundwater[a][1]	B01	B02	B03	CR-20	CR-21	CR-22	CR-23	FC01	FC02	FC03	MS01	MS02	MS03
Sample Name:		B01-GW-10.0	B02-GW-6	B03-GW-10	CR20-GW-5.0	CR21-GW-10	CR22-GW-9.0	CR23-GW-6.0	MJJ488	MJJ489	MJJ4D2	MJJ490	MJJ491	MJJ492
Collection Date:		10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/13/2015	10/13/2015	9/26/2017	9/26/2017	9/29/2017	9/26/2017	9/25/2017	9/26/2017
Collection Depth (ft bgs):		7.5	6	7.5	5.5	7.5	6.5	3.5	--	--	--	--	--	--
Benzo(a)pyrene	NA	1 U	20 U	1 U	1 U	1 U	1 U	1 U	0.013 JQ	0.48 U	0.1 U	0.095 U	0.095 U	0.48 U
Benzo(b)fluoranthene	NV	--	--	--	--	--	--	--	0.021 JQ	0.48 U	0.1 U	0.095 U	0.095 U	0.064 JQ
Benzo(ghi)perylene	NV	1 U	20 U	1 U	1 U	1 U	1 U	1 U	0.095 U	0.48 U	0.1 UJ	0.095 U	0.095 U	0.48 U
Benzo(k)fluoranthene	NV	--	--	--	--	--	--	--	0.095 U	0.48 U	0.1 U	0.095 U	0.095 U	0.051 JQ
Benzoic acid	64,000	20 UJ	97 J	20 UJ	20 UJ	20 UJ	20 UJ	14 J	--	--	--	--	--	--
Benzyl alcohol	1,600	2 U	40 U	2 U	2 U	2 U	2 U	2 U	--	--	--	--	--	--
Bis(2-chloro-1-methylethyl)ether	0.63	1 U	20 U	1 U	1 U	1 U	1 U	1 U	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
Bis(2-chloroethoxy)methane	48	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
Bis(2-chloroethyl)ether	0.04	1 U	20 U	1 U	1 U	1 U	1 U	1 U	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
Bis(2-ethylhexyl)phthalate	6.3	3 U	60 U	3 U	3 U	3 U	3 U	3 U	4.8 U	4.8 U	5 UJ	4.8 U	4.8 U	4.8 U
Butylbenzylphthalate	46	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 UJ	4.8 U	4.8 U	4.8 U
Caprolactam	8,000	--	--	--	--	--	--	--	9.5 U	9.5 U	10 U	1.3 JQ	9.5 U	9.5 U
Carbazole	NV	1 U	20 U	1 U	1 U	1 U	0.7 J	1 U	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
Chrysene	NV	1 U	11 J	1 U	1 U	1 U	1 U	1 U	0.021 JQ	0.48 U	0.1 U	0.095 U	0.095 U	0.077 JQ
Dibenzo(a,h)anthracene	NV	1 U	20 U	1 U	1 U	1 U	1 U	1 U	0.095 U	0.48 U	0.1 U	0.095 U	0.095 U	0.48 U
Dibenzofuran	8	1 U	20 U	1 U	1 U	1 U	1.4	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
Diethyl phthalate	13,000	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
Dimethyl phthalate	NV	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
Di-n-butyl phthalate	1,600	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
Di-n-octyl phthalate	160	1 U	20 U	1 U	1 U	1 U	1 U	1 U	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
Fluoranthene	640	1 U	23	1 U	1 U	1 U	0.7 J	1 U	0.043 JQ	0.48 U	0.019 JQ	0.095 U	0.095 U	0.44 JQ
Fluorene	320	1 U	20 U	1 U	1 U	1 U	2	1 U	0.079 JQ	0.72 J	0.1 U	0.095 U	0.095 U	0.62 J
Hexachlorobenzene	0.027	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
Hexachlorobutadiene	0.56	3 U	60 U	3 U	3 U	3 U	3 U	3 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
Hexachlorocyclopentadiene	48	5 UJ	100 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
Hexachloroethane	1.1	2 U	40 U	2 U	2 U	2 U	2 U	2 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
Indeno(1,2,3-cd)pyrene	NV	1 U	20 U	1 U	1 U	1 U	1 U	1 U	0.095 U	0.48 U	0.1 U	0.095 U	0.095 U	0.48 U
Isophorone	92	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
Naphthalene	160	1 U	20 U	1 U	1 U	1 U	13	5.5	0.15	1.7 J	0.034 JQ	0.022 JQ	0.15	0.48 U
Nitrobenzene	16	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
N-Nitrosodiphenylamine	18	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
N-Nitrosodipropylamine	0.013	1 U	20 U	1 U	1 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U
Pentachlorophenol	0.22	10 UJ	200 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	0.3	0.95 U	0.2 U	19 J	0.96	1.5 J
Phenanthrene	NV	1 U	12 J	1 U	1 U	1 U	1.7	0.6 J	0.091 JQ	0.7 J	0.1 U	0.04 JQ	0.019 JQ	0.82 J
Phenol	4,800	1 U	20 U	1 U	1 U	1 U	1 U	1 U	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U
Pyrene	240	1 U	16 J	1 U	1 U	1 U	0.5 J	1 U	0.045 JQ	0.48 U	0.1 U	0.029 JQ	0.095 U	0.37 JQ
Total Benzofluoranthenes	NV	2 U	40 U	2 U	2 U	2 U	2 U	2 U	--	--	--	--	--	--
cPAH TEQ[d][2]	0.1	2 U	15 J	2 U	2 U	2 U	2 U	2 U	0.0312 JQ	0.48 U	0.1 U	0.095 U	0.095 U	0.308 JQ

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
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Location:	Screening Level for Groundwater[a][1]	B01	B02	B03	CR-20	CR-21	CR-22	CR-23	FC01	FC02	FC03	MS01	MS02	MS03
Sample Name:		B01-GW-10.0	B02-GW-6	B03-GW-10	CR20-GW-5.0	CR21-GW-10	CR22-GW-9.0	CR23-GW-6.0	MJJ488	MJJ489	MJJ4D2	MJJ490	MJJ491	MJJ492
Collection Date:		10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/13/2015	10/13/2015	9/26/2017	9/26/2017	9/29/2017	9/26/2017	9/25/2017	9/26/2017
Collection Depth (ft bgs):		7.5	6	7.5	5.5	7.5	6.5	3.5	--	--	--	--	--	--
Hydrocarbon Identification (Detect/Non-detect)														
Gasoline	NA	ND	DETECT	ND	--	--	--	--	--	--	--	--	--	--
Diesel	NA	ND	DETECT	DETECT	--	--	--	--	--	--	--	--	--	--
Lube Oil	NA	ND	DETECT	DETECT	--	--	--	--	--	--	--	--	--	--
TPH (ug/L)														
Diesel-Range Hydrocarbons	500	--	40,000 J	500 J	1,000	720	450	3,400 J	170 U	2,100	200 U	200 U	190 U	350 U
Lube Oil-Range Hydrocarbons	500	--	110,000 J	1,500 J	1,600	3,100	960	3,200 J	430 U	3,200	780	490 U	470 U	34,000
Diesel+Oil[e]	500	--	150,000 J	2,000 J	2,600	3,820	1,410	6,600 J	430 U	5,300	880	490 U	470 U	34,200

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
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Location:	Screening Level for Groundwater[a][1]	MS04	MS05	MS06	OC01	OC02	OC03	PB01	PB02	PB03	PB04	PB05	PB06	PB09
Sample Name:		MJJ493	MJJ4C7	MJJ4D1	MJJ4A2	MJJ4A3	MJJ4D0	MJJ494	MJJ495	MJJ496	17394238	17394241	17394244	MJJ4C8
Collection Date:		9/27/2017	9/28/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017	9/27/2017	9/27/2017	9/28/2017	9/27/2017	9/28/2017	9/29/2017
Collection Depth (ft bgs):		--	--	--	--	--	--	--	--	--	--	--	--	--
Dissolved Metals (ug/L)														
Arsenic	5	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	5	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	50	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	15	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	2	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Metals (ug/L)														
Aluminum	16,000	200 U	1360	269	200 U	387	1890	200 U	14,100	281	--	--	--	1,900
Antimony	6.4	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	--	--	--	60 U
Arsenic	5	1.7	1 U	1 U	1 U	1 U	3.5	1 U	4.4	1 U				1.6
Barium	3,200	11.2 JQ	34.2 JQ	24.9 JQ	20.7 JQ	19.4 JQ	116 JQ	18.5 JQ	232	13.7 JQ	--	--	--	38.4 JQ
Beryllium	32	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 JQ	5 U	--	--	--	5 U
Cadmium	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U				1 U
Calcium	NV	16,900	39,600	7,850	18,500	22,900	59,400	13,300	20,000	10,500	--	--	--	16,100
Chromium	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	19.7	10 U				10 U
Cobalt	4.8	50 U	50 U	11.3 JQ	50 U	50 U	10.5 JQ	50 U	9.5 JQ	50 U	--	--	--	50 U
Copper	640	7.5 JQ	11.8 JQ	7.1 JQ	6.3 JQ	13.4 JQ	24.2 JQ	6.3 JQ	56.5	8.4 JQ				17.6 JQ
Iron	11,000	28,000	15,500	34,600	20,500	26,000	76,600	26,800	36,100	10,700	--	--	--	24,100
Lead	15	3.7 JQ	9.6 JQ	10 U	4.2 JQ	7.3 JQ	6.6 JQ	8.3 JQ	23.8	5.1 JQ				10.4
Magnesium	NV	6,420	12,500	11,000	8,620	12,300	33,100	11,700	13,700	8,810	--	--	--	11,000
Manganese	750	563	854	5,100	2,110	2,380	10,600	3,950	2,170	1,730				2,120
Mercury	2	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	320	40 U	40 U	40 U	40 U	4.9 JQ	40 U	40 U	11 JQ	40 U				5.4 JQ
Potassium	NV	1,780 JQ	4,420 JQ	5,000 U	4,630 JQ	5,870	13,500	4,660 JQ	4,600 JQ	3,070 JQ	--	--	--	3,850 JQ
Selenium	80	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	--	--	--	35 U
Silver	80	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	--	--	--	10 UJ
Sodium	NV	10,300	17,100	29,700	16,900	22,700	25,500	31,500	35,000	26,300	--	--	--	30,700
Thallium	0.16	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	--	--	--	25 U
Vanadium	80	50 U	6.9 JQ	50 U	50 U	50 U	12.1 JQ	50 U	96.8	50 U	--	--	--	10.3 JQ
Zinc	4,800	60 U	28.1 JQ	60 U	60 U	29.6 JQ	60 U	60 U	57.2 JQ	46.8 JQ				60 U
PCB Aroclors (ug/L)														
Aroclor 1016	NA	--	--	--	--	--	--	0.95 U	0.95 U	0.95 U	--	--	--	1 U
Aroclor 1221	NV	--	--	--	--	--	--	0.95 U	0.95 U	0.95 U	--	--	--	1 U
Aroclor 1232	NV	--	--	--	--	--	--	0.95 U	0.95 U	0.95 U	--	--	--	1 U
Aroclor 1242	NV	--	--	--	--	--	--	0.95 U	0.95 U	0.95 U	--	--	--	1 U
Aroclor 1248	NV	--	--	--	--	--	--	0.95 U	0.95 U	0.95 U	--	--	--	1 U
Aroclor 1254	NA	--	--	--	--	--	--	0.95 U	0.95 U	0.95 U	--	--	--	1 U
Aroclor 1260	NA	--	--	--	--	--	--	0.95 U	0.95 U	0.95 U	--	--	--	1 U
Aroclor 1262	NV	--	--	--	--	--	--	0.95 U	0.95 U	0.95 U	--	--	--	1 U
Aroclor 1268	NV	--	--	--	--	--	--	0.95 U	0.95 U	0.95 U	--	--	--	1 U

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	MS04	MS05	MS06	OC01	OC02	OC03	PB01	PB02	PB03	PB04	PB05	PB06	PB09
Sample Name:		MJJ493	MJJ4C7	MJJ4D1	MJJ4A2	MJJ4A3	MJJ4D0	MJJ494	MJJ495	MJJ496	17394238	17394241	17394244	MJJ4C8
Collection Date:		9/27/2017	9/28/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017	9/27/2017	9/27/2017	9/28/2017	9/27/2017	9/28/2017	9/29/2017
Collection Depth (ft bgs):		--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCBs[b]	0.10	--	--	--	--	--	--	0.95 U	0.95 U	0.95 U	--	--	--	1 U
VOCs (ug/L)														
1,1,1,2-Tetrachloroethane	1.7	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	200	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	--
1,1,2,2-Tetrachloroethane	0.22	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	--
1,1,2-Trichloroethane	0.77	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	--
1,1-Dichloroethane	7.7	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	--
1,1-Dichloroethene	400	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	--
1,1-Dichloropropene	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	6.4	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	--
1,2,3-Trichloropropane	0.00038	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	1.5	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	--
1,2,4-Trimethylbenzene	80	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.014	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	0.01	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-Dichlorobenzene	720	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-Dichloroethane	5	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-Dichloropropane	1.2	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	--
1,3,5-Trimethylbenzene	80	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	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	--
1,3-Dichloropropane	160	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	8.1	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	--
2,2-Dichloropropane	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	4,800	5 U	5 U	5 U	5 U	5 U	5 U	--	--	--	5 U	5 U	5 U	--
2-Chloroethylvinyl ether	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	160	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	40	5 U	5 U	5 U	5 U	5 U	5 U	--	--	--	5 U	5 U	5 U	--
4-Chlorotoluene	160	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	640	5 U	5 U	5 U	5 U	5 U	5 U	--	--	--	5 U	5 U	5 U	--
Acetone	7,200	5 U	5 U	5 U	5 U	5 U	5 U	--	--	--	5.7	5 U	5 U	--
Acrolein	4	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	0.081	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.76	0.5 U	0.5 U	--
Bromobenzene	64	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	0.71	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	--
Bromoethane	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	5.5	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	--
Bromomethane	11	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 disulfide	800	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	--

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	MS04	MS05	MS06	OC01	OC02	OC03	PB01	PB02	PB03	PB04	PB05	PB06	PB09
Sample Name:		MJJ493	MJJ4C7	MJJ4D1	MJJ4A2	MJJ4A3	MJJ4D0	MJJ494	MJJ495	MJJ496	17394238	17394241	17394244	MJJ4C8
Collection Date:		9/27/2017	9/28/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017	9/27/2017	9/27/2017	9/28/2017	9/27/2017	9/28/2017	9/29/2017
Collection Depth (ft bgs):		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	0.63	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	--
Chlorobenzene	160	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	--
Chlorobromomethane	NV	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	--
Chloroethane	NV	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	--
Chloroform	1.4	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	--
Chloromethane	NV	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.22 JQ	0.5 U	0.5 U	--
cis-1,2-Dichloroethene	16	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	NV	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	--
Cyclohexane	NV	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	1.5	0.5 U	--
Dibromochloromethane	0.52	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	--
Dibromomethane	80	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	1,600	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	--
Ethylbenzene	700	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.22 JQ	0.12 JQ	0.5 U	--
Freon 113	240,000	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	--
Hexachlorobutadiene	0.56	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	800	0.5 U	0.5 U	0.49 JQ	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
m,p-Xylene	NV	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.51	0.53	0.5 U	--
Methyl acetate	8,000	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	--
Methyl iodide	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	20	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	--
Methylcyclohexane	NV	0.5 U	0.5 U	0.34 JQ	0.5 U	0.5 U	0.5 U	--	--	--	0.71	2.2	0.5 U	--
Methylene chloride	5	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	--
Naphthalene	160	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	400	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	800	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	1,600	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.18 JQ	0.24 JQ	0.5 U	--
sec-Butylbenzene	800	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	1,600	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	--
tert-Butylbenzene	800	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	5	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	--
Toluene	1,000	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	1.7	0.73	0.5 U	--
trans-1,2-Dichloroethene	160	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	--
trans-1,3-Dichloropropene	NV	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	--
trans-1,4-Dichloro-2-butene	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	5	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	--
Trichlorofluoromethane (Freon 11)	2,400	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	--
Vinyl Acetate	8,000	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.2	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	--
Xylenes, total[c]	1,000	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.69 JQ	0.77 JQ	0.5 U	--

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Upland Remedial Investigation
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Location:	Screening Level for Groundwater[a][1]	MS04	MS05	MS06	OC01	OC02	OC03	PB01	PB02	PB03	PB04	PB05	PB06	PB09
Sample Name:		MJJ493	MJJ4C7	MJJ4D1	MJJ4A2	MJJ4A3	MJJ4D0	MJJ494	MJJ495	MJJ496	17394238	17394241	17394244	MJJ4C8
Collection Date:		9/27/2017	9/28/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017	9/27/2017	9/27/2017	9/28/2017	9/27/2017	9/28/2017	9/29/2017
Collection Depth (ft bgs):		--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs (ug/L)														
1,1'-Biphenyl	5.5	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
1,2,4,5-Tetrachlorobenzene	2.4	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
1,2,4-Trichlorobenzene	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	720	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	8.1	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	0.44	2 U	2 UJ	2 U	2 UJ	2 U	2 UJ	2 U	2 UJ	2 U	2 UJ	2 U	2 U	2 U
1-Methylnaphthalene	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6-Tetrachlorophenol	480	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	390 J	5 U	5 U	5 U
2,4,5-Trichlorophenol	1,600	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	150 J	5 U	5 U	5 U
2,4,6-Trichlorophenol	8	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
2,4-Dichlorophenol	48	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	21 J	5 U	5 U	5 U
2,4-Dimethylphenol	320	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
2,4-Dinitrophenol	32	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
2,4-Dinitrotoluene	0.28	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
2,6-Dinitrotoluene	0.058	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
2-Chloronaphthalene	640	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
2-Chlorophenol	40	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	0.68 JQ	5 U	5 U	5 U
2-Methylnaphthalene	32	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.029 JQ	0.1 U	0.15 J	0.29	5 UJ	0.21	0.1 U	0.45
2-Methylphenol	800	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
2-Nitroaniline	160	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
2-Nitrophenol	NV	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
3,3-Dichlorobenzidine	0.19	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
3-Nitroaniline	NV	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	1.3	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
4-Bromophenylphenyl ether	NV	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
4-Chloro-3-methylphenol	1,600	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
4-Chloroaniline	0.44	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
4-Chlorophenylphenyl ether	NV	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
4-Methylphenol	1,600	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	12 J	10 U	10 U	10 U
4-Nitroaniline	4.4	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
4-Nitrophenol	NV	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
Acenaphthene	480	0.013 JQ	3.1 J	0.21	0.02 JQ	0.014 JQ	0.02 JQ	0.079 JQ	0.26 J	0.4	5 UJ	0.12	0.083 JQ	4.9
Acenaphthylene	NV	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	5 UJ	0.1 U	0.1 U	0.037 JQ
Acetophenone	800	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
Anthracene	2,400	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	5 UJ	0.1 U	0.1 U	0.24
Atrazine	0.38	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
Benzaldehyde	11	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
Benzo(a)anthracene	NV	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	5 UJ	0.1 U	0.1 U	0.031 JQ

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	MS04	MS05	MS06	OC01	OC02	OC03	PB01	PB02	PB03	PB04	PB05	PB06	PB09
Sample Name:		MJJ493	MJJ4C7	MJJ4D1	MJJ4A2	MJJ4A3	MJJ4D0	MJJ494	MJJ495	MJJ496	17394238	17394241	17394244	MJJ4C8
Collection Date:		9/27/2017	9/28/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017	9/27/2017	9/27/2017	9/28/2017	9/27/2017	9/28/2017	9/29/2017
Collection Depth (ft bgs):		--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	NA	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	5 UJ	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	NV	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.05 JQ	0.1 U	5 UJ	0.1 U	0.1 U	0.1 U
Benzo(ghi)perylene	NV	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 U	5 UJ	0.1 U	0.1 UJ	0.1 UJ
Benzo(k)fluoranthene	NV	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	5 UJ	0.1 U	0.1 U	0.1 U
Benzoic acid	64,000	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloro-1-methylethyl)ether	0.63	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
Bis(2-chloroethoxy)methane	48	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Bis(2-chloroethyl)ether	0.04	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	3 JQ	10 U	10 UJ	10 U	10 U	10 U
Bis(2-ethylhexyl)phthalate	6.3	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U	0.91 JQ	5 U	5 UJ	5 U	5 UJ	5 UJ
Butylbenzylphthalate	46	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 UJ
Caprolactam	8,000	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	2.3 JQ	10 U	10 UJ	10 U	10 U	10 U
Carbazole	NV	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
Chrysene	NV	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	5 UJ	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)anthracene	NV	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	5 UJ	0.1 U	0.1 U	0.1 U
Dibenzofuran	8	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Diethyl phthalate	13,000	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Dimethyl phthalate	NV	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Di-n-butyl phthalate	1,600	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Di-n-octyl phthalate	160	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U
Fluoranthene	640	0.1 U	0.12 J	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.027 JQ	0.03 JQ	10 UJ	0.1 U	0.1 U	0.64
Fluorene	320	0.1 U	1.1 J	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.18 J	0.25	5 UJ	0.065 JQ	0.1 U	2.5
Hexachlorobenzene	0.027	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Hexachlorobutadiene	0.56	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Hexachlorocyclopentadiene	48	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U
Hexachloroethane	1.1	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	NV	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	5 UJ	0.1 U	0.1 U	0.1 U
Isophorone	92	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Naphthalene	160	0.1 U	0.21 J	0.1	0.1 UJ	0.1 U	0.017 JQ	0.1 U	1.6 J	1.3	5 UJ	0.5	0.018 JQ	2.7
Nitrobenzene	16	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
N-Nitrosodiphenylamine	18	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
N-Nitrosodipropylamine	0.013	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Pentachlorophenol	0.22	0.2 U	0.061 JQ	0.2 U	0.18 JQ	0.2 U	0.2 UJ	0.2 U	0.091 JQ	0.06 JQ	1,600 J	0.046 JQ	0.2 U	0.2 U
Phenanthrene	NV	0.1 U	0.1 UJ	0.012 JQ	0.1 UJ	0.1 U	0.14 J	0.015 JQ	0.077 JQ	0.14	5 UJ	0.036 JQ	0.1 U	1
Phenol	4,800	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	25 J	10 U	10 U	10 U
Pyrene	240	0.1 U	0.12 J	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	5 UJ	0.1 U	0.1 U	0.6
Total Benzofluoranthenes	NV	--	--	--	--	--	--	--	--	--	--	--	--	--
cPAH TEQ[d][2]	0.1	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.0755 JQ	0.1 U	5 UJ	0.1 U	0.1 U	0.0736 JQ

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	MS04	MS05	MS06	OC01	OC02	OC03	PB01	PB02	PB03	PB04	PB05	PB06	PB09
Sample Name:		MJJ493	MJJ4C7	MJJ4D1	MJJ4A2	MJJ4A3	MJJ4D0	MJJ494	MJJ495	MJJ496	17394238	17394241	17394244	MJJ4C8
Collection Date:		9/27/2017	9/28/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017	9/27/2017	9/27/2017	9/28/2017	9/27/2017	9/28/2017	9/29/2017
Collection Depth (ft bgs):		--	--	--	--	--	--	--	--	--	--	--	--	--
Hydrocarbon Identification (Detect/Non-detect)														
Gasoline	NA	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel	NA	--	--	--	--	--	--	--	--	--	--	--	--	--
Lube Oil	NA	--	--	--	--	--	--	--	--	--	--	--	--	--
TPH (ug/L)														
Diesel-Range Hydrocarbons	500	180 U	170 U	200 U	170 U	200 U	200 U	180 U	370 U	170 U	200 U	170 U	200 U	170 U
Lube Oil-Range Hydrocarbons	500	450 U	740	500 U	420 U	500 U	500 U	450 U	79,000	430 U	500 U	430 U	500 U	420 U
Diesel+Oil[e]	500	450 U	825	500 U	420 U	500 U	500 U	450 U	79,200	430 U	500 U	430 U	500 U	420 U

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	PB10	PW01	PW02	VM01
Sample Name:		MJJ4C9	17394249	17394252	MJJ4A5
Collection Date:		9/29/2017	9/28/2017	9/29/2017	9/26/2017
Collection Depth (ft bgs):		--	--	--	--
Dissolved Metals (ug/L)					
Arsenic	5	--	--	--	--
Cadmium	5	--	--	--	--
Chromium	50	--	--	--	--
Lead	15	--	--	--	--
Mercury	2	--	--	--	--
Total Metals (ug/L)					
Aluminum	16,000	1,020	--	--	5,000
Antimony	6.4	60 U	--	--	60 U
Arsenic	5	1 U			1.4
Barium	3,200	34.3 JQ	--	--	64.5 JQ
Beryllium	32	5 U	--	--	5 U
Cadmium	5	1 U			1 U
Calcium	NV	29,200	--	--	11,300
Chromium	50	10 U			2.6 JQ
Cobalt	4.8	50 U	--	--	50 U
Copper	640	11.1 JQ			17.5 JQ
Iron	11,000	28,200	--	--	34,400
Lead	15	9.4 JQ			4.4 JQ
Magnesium	NV	16,100	--	--	8,680
Manganese	750	4,050			6,260
Mercury	2	--	--	--	--
Nickel	320	40 U			5.4 JQ
Potassium	NV	4,680 JQ	--	--	5,000 U
Selenium	80	35 U	--	--	35 U
Silver	80	10 UJ	--	--	1.7 JQ
Sodium	NV	41,700	--	--	32,900
Thallium	0.16	25 U	--	--	25 U
Vanadium	80	50 U	--	--	17.1 JQ
Zinc	4,800	60 U			60 U
PCB Aroclors (ug/L)					
Aroclor 1016	NA	1 U	--	--	--
Aroclor 1221	NV	1 U	--	--	--
Aroclor 1232	NV	1 U	--	--	--
Aroclor 1242	NV	1 U	--	--	--
Aroclor 1248	NV	1 U	--	--	--
Aroclor 1254	NA	1 U	--	--	--
Aroclor 1260	NA	1 U	--	--	--
Aroclor 1262	NV	1 U	--	--	--
Aroclor 1268	NV	1 U	--	--	--

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	PB10	PW01	PW02	VM01
Sample Name:		MJJ4C9	17394249	17394252	MJJ4A5
Collection Date:		9/29/2017	9/28/2017	9/29/2017	9/26/2017
Collection Depth (ft bgs):		--	--	--	--
Total PCBs[b]	0.10	1 U	--	--	--
VOCs (ug/L)					
1,1,1,2-Tetrachloroethane	1.7	--	--	--	--
1,1,1-Trichloroethane	200	--	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	0.22	--	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	0.77	--	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	7.7	--	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	400	--	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	NV	--	--	--	--
1,2,3-Trichlorobenzene	6.4	--	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	0.00038	--	--	--	--
1,2,4-Trichlorobenzene	1.5	--	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	80	--	--	--	--
1,2-Dibromo-3-chloropropane	0.014	--	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	0.01	--	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	720	--	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	5	--	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1.2	--	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	80	--	--	--	--
1,3-Dichlorobenzene	NV	--	0.5 U	0.5 U	0.5 U
1,3-Dichloropropane	160	--	--	--	--
1,4-Dichlorobenzene	8.1	--	0.5 U	0.5 U	0.5 U
2,2-Dichloropropane	NV	--	--	--	--
2-Butanone	4,800	--	5 U	5 U	5 U
2-Chloroethylvinyl ether	NV	--	--	--	--
2-Chlorotoluene	160	--	--	--	--
2-Hexanone	40	--	5 U	5 U	5 U
4-Chlorotoluene	160	--	--	--	--
4-Isopropyltoluene	NV	--	--	--	--
4-Methyl-2-pentanone	640	--	5 U	5 U	5 U
Acetone	7,200	--	7.3	5.2	5 U
Acrolein	4	--	--	--	--
Acrylonitrile	0.081	--	--	--	--
Benzene	5	--	0.5 U	0.5 U	0.5 U
Bromobenzene	64	--	--	--	--
Bromodichloromethane	0.71	--	0.5 U	0.5 U	0.5 U
Bromoethane	NV	--	--	--	--
Bromoform	5.5	--	0.5 U	0.5 U	0.5 U
Bromomethane	11	--	0.5 U	0.5 U	0.5 U
Carbon disulfide	800	--	0.5 U	0.5 U	0.5 U

Location:	Screening Level for Groundwater[a][1]	PB10	PW01	PW02	VM01
Sample Name:		MJJ4C9	17394249	17394252	MJJ4A5
Collection Date:		9/29/2017	9/28/2017	9/29/2017	9/26/2017
Collection Depth (ft bgs):		--	--	--	--
Carbon tetrachloride	0.63	--	0.5 U	0.5 U	0.5 U
Chlorobenzene	160	--	0.5 U	0.5 U	0.5 U
Chlorobromomethane	NV	--	0.5 U	0.5 U	0.5 U
Chloroethane	NV	--	0.5 U	0.5 U	0.5 U
Chloroform	1.4	--	0.5 U	0.5 U	0.5 U
Chloromethane	NV	--	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	16	--	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	NV	--	0.5 U	0.5 U	0.5 U
Cyclohexane	NV	--	0.5 U	0.5 U	0.5 U
Dibromochloromethane	0.52	--	0.5 U	0.5 U	0.5 U
Dibromomethane	80	--	--	--	--
Dichlorodifluoromethane (Freon 12)	1,600	--	0.5 U	0.5 U	0.5 U
Ethylbenzene	700	--	0.5 U	0.5 U	0.5 U
Freon 113	240,000	--	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	0.56	--	--	--	--
Isopropylbenzene	800	--	0.5 U	0.5 U	0.5 U
m,p-Xylene	NV	--	0.5 U	0.5 U	0.5 U
Methyl acetate	8,000	--	0.5 U	0.5 U	0.5 U
Methyl iodide	NV	--	--	--	--
Methyl tert-butyl ether	20	--	0.5 U	0.5 U	0.5 U
Methylcyclohexane	NV	--	0.5 U	0.5 U	0.5 U
Methylene chloride	5	--	0.23 JQ	0.5 U	0.5 U
Naphthalene	160	--	--	--	--
n-Butylbenzene	400	--	--	--	--
n-Propylbenzene	800	--	--	--	--
o-Xylene	1,600	--	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	800	--	--	--	--
Styrene	1,600	--	0.5 U	0.5 U	0.5 U
tert-Butylbenzene	800	--	--	--	--
Tetrachloroethene	5	--	0.5 U	0.5 U	0.5 U
Toluene	1,000	--	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	160	--	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	NV	--	0.5 U	0.5 U	0.5 U
trans-1,4-Dichloro-2-butene	NV	--	--	--	--
Trichloroethene	5	--	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane (Freon 11)	2,400	--	0.5 U	0.5 U	0.5 U
Vinyl Acetate	8,000	--	--	--	--
Vinyl chloride	0.2	--	0.5 U	0.5 U	0.5 U
Xylenes, total[c]	1,000	--	0.5 U	0.5 U	0.5 U

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	PB10	PW01	PW02	VM01
Sample Name:		MJJ4C9	17394249	17394252	MJJ4A5
Collection Date:		9/29/2017	9/28/2017	9/29/2017	9/26/2017
Collection Depth (ft bgs):		--	--	--	--
SVOCs (ug/L)					
1,1'-Biphenyl	5.5	5 U	5 U	5 UJ	4.8 U
1,2,4,5-Tetrachlorobenzene	2.4	5 U	5 U	5 UJ	4.8 U
1,2,4-Trichlorobenzene	1.5	--	--	--	--
1,2-Dichlorobenzene	720	--	--	--	--
1,3-Dichlorobenzene	NV	--	--	--	--
1,4-Dichlorobenzene	8.1	--	--	--	--
1,4-Dioxane	0.44	2 U	2 U	2 UJ	1.9 U
1-Methylnaphthalene	1.5	--	--	--	--
2,3,4,6-Tetrachlorophenol	480	5 U	5 U	5 UJ	4.8 U
2,4,5-Trichlorophenol	1,600	5 U	5 U	5 UJ	4.8 U
2,4,6-Trichlorophenol	8	5 U	5 U	5 UJ	4.8 U
2,4-Dichlorophenol	48	5 U	5 U	5 UJ	4.8 U
2,4-Dimethylphenol	320	5 U	5 U	5 UJ	4.8 U
2,4-Dinitrophenol	32	10 U	10 U	10 UJ	9.5 U
2,4-Dinitrotoluene	0.28	5 U	5 U	5 UJ	4.8 U
2,6-Dinitrotoluene	0.058	5 U	5 U	5 UJ	4.8 U
2-Chloronaphthalene	640	5 U	5 U	5 UJ	4.8 U
2-Chlorophenol	40	5 U	5 U	5 UJ	4.8 U
2-Methylnaphthalene	32	0.048 JQ	0.041 JQ	0.1 UJ	0.014 JQ
2-Methylphenol	800	10 U	10 U	10 UJ	9.5 U
2-Nitroaniline	160	5 U	5 U	5 UJ	4.8 U
2-Nitrophenol	NV	5 U	5 U	5 UJ	4.8 U
3,3-Dichlorobenzidine	0.19	10 U	10 U	10 UJ	9.5 U
3-Nitroaniline	NV	10 U	10 U	10 UJ	9.5 U
4,6-Dinitro-2-methylphenol	1.3	10 U	10 U	10 UJ	9.5 U
4-Bromophenylphenyl ether	NV	5 U	5 U	5 UJ	4.8 U
4-Chloro-3-methylphenol	1,600	5 U	5 U	5 UJ	4.8 U
4-Chloroaniline	0.44	10 U	10 U	10 UJ	9.5 U
4-Chlorophenylphenyl ether	NV	5 U	5 U	5 UJ	4.8 U
4-Methylphenol	1,600	10 U	10 U	10 UJ	9.5 U
4-Nitroaniline	4.4	10 U	10 U	10 UJ	9.5 U
4-Nitrophenol	NV	10 U	10 U	10 UJ	9.5 U
Acenaphthene	480	0.8	0.11	0.036 JQ	0.21
Acenaphthylene	NV	0.031 JQ	0.1 U	0.1 UJ	0.095 U
Acetophenone	800	10 U	10 U	10 UJ	9.5 U
Anthracene	2,400	0.031 JQ	0.061 JQ	0.1 UJ	0.095 U
Atrazine	0.38	10 U	10 U	10 UJ	9.5 U
Benzaldehyde	11	10 U	10 U	10 UJ	9.5 U
Benzo(a)anthracene	NV	0.1 U	0.1 U	0.1 UJ	0.095 U

Location:	Screening Level for Groundwater[a][1]	PB10	PW01	PW02	VM01
Sample Name:		MJJ4C9	17394249	17394252	MJJ4A5
Collection Date:		9/29/2017	9/28/2017	9/29/2017	9/26/2017
Collection Depth (ft bgs):		--	--	--	--
Benzo(a)pyrene	NA	0.1 U	0.1 U	0.1 UJ	0.095 U
Benzo(b)fluoranthene	NV	0.1 U	0.1 U	0.1 UJ	0.095 U
Benzo(ghi)perylene	NV	0.1 UJ	0.1 UJ	0.1 UJ	0.095 U
Benzo(k)fluoranthene	NV	0.1 U	0.1 U	0.1 UJ	0.095 U
Benzoic acid	64,000	--	--	--	--
Benzyl alcohol	1,600	--	--	--	--
Bis(2-chloro-1-methylethyl)ether	0.63	10 U	10 U	10 UJ	9.5 U
Bis(2-chloroethoxy)methane	48	5 U	5 U	5 UJ	4.8 U
Bis(2-chloroethyl)ether	0.04	10 U	10 U	10 UJ	9.5 U
Bis(2-ethylhexyl)phthalate	6.3	5 UJ	5 UJ	5 UJ	4.8 U
Butylbenzylphthalate	46	5 UJ	5 UJ	5 UJ	4.8 U
Caprolactam	8,000	10 U	10 U	10 UJ	1.4 JQ
Carbazole	NV	10 U	10 U	10 UJ	9.5 U
Chrysene	NV	0.1 U	0.1 U	0.1 UJ	0.095 U
Dibenzo(a,h)anthracene	NV	0.1 U	0.1 U	0.1 UJ	0.095 U
Dibenzofuran	8	5 U	5 U	5 UJ	4.8 U
Diethyl phthalate	13,000	5 U	5 U	5 UJ	4.8 U
Dimethyl phthalate	NV	5 U	5 U	5 UJ	4.8 U
Di-n-butyl phthalate	1,600	5 U	5 U	5 UJ	4.8 U
Di-n-octyl phthalate	160	10 U	10 U	10 UJ	9.5 U
Fluoranthene	640	0.028 JQ	0.021 JQ	0.1 UJ	0.095 U
Fluorene	320	0.37	0.083 JQ	0.1 UJ	0.095 U
Hexachlorobenzene	0.027	5 U	5 U	5 UJ	4.8 U
Hexachlorobutadiene	0.56	5 U	5 U	5 UJ	4.8 U
Hexachlorocyclopentadiene	48	10 UJ	10 UJ	10 UJ	9.5 U
Hexachloroethane	1.1	5 U	5 U	5 UJ	4.8 U
Indeno(1,2,3-cd)pyrene	NV	0.1 U	0.1 U	0.1 UJ	0.095 U
Isophorone	92	5 U	5 U	5 UJ	4.8 U
Naphthalene	160	0.41	0.29	0.1 UJ	0.095 U
Nitrobenzene	16	5 U	5 U	5 UJ	4.8 U
N-Nitrosodiphenylamine	18	5 U	5 U	5 UJ	4.8 U
N-Nitrosodipropylamine	0.013	5 U	5 U	5 UJ	4.8 U
Pentachlorophenol	0.22	0.2 U	0.2 U	0.2 UJ	0.075 JQ
Phenanthrene	NV	0.11	0.1 U	0.01 JQ	0.095 U
Phenol	4,800	10 U	10 U	10 UJ	9.5 U
Pyrene	240	0.1 U	0.1 U	0.1 UJ	0.095 U
Total Benzofluoranthenes	NV	--	--	--	--
cPAH TEQ[d][2]	0.1	0.1 U	0.1 U	0.1 UJ	0.095 U

Table 6-7
Historical Groundwater Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Groundwater[a][1]	PB10	PW01	PW02	VM01
Sample Name:		MJJ4C9	17394249	17394252	MJJ4A5
Collection Date:		9/29/2017	9/28/2017	9/29/2017	9/26/2017
Collection Depth (ft bgs):		--	--	--	--
Hydrocarbon Identification (Detect/Non-detect)					
Gasoline	NA	--	--	--	--
Diesel	NA	--	--	--	--
Lube Oil	NA	--	--	--	--
TPH (ug/L)					
Diesel-Range Hydrocarbons	500	200 U	170 U	200 U	170 U
Lube Oil-Range Hydrocarbons	500	500 U	420 U	500 U	430 U
Diesel+Oil[e]	500	500 U	420 U	500 U	430 U

Notes

Shading indicates values that exceed groundwater screening levels; non-detect results (U and UJ) and rejected results (R) were not compared with screening criteria.

-- = not analyzed or not measured.

cPAH = carcinogenic polycyclic aromatic hydrocarbon.

ft bgs = feet below ground surface.

J = result is estimated.

JQ = result is estimated and detected below the method reporting limit.

MTCA = Model Toxics Control Act.

NA = not applicable.

ND = not detected.

NV = no value.

PCB = polychlorinated biphenyl.

R = result is rejected. The analyte may or may not be present in the sample.

SVOC = semivolatile organic compound.

TEQ = toxicity equivalence.

TPH = total petroleum hydrocarbon.

U = result is non-detect at the method reporting limit or method detection limit.

UJ = result is non-detect with an estimated reporting limit or detection limit.

ug/L = micrograms per liter.

VOC = volatile organic compound.

[a]Screening levels are the lowest regulatory criteria value for the given matrix, selected from groundwater MTCA Method A where available, or MTCA Method B (the lowest of cancer and noncancer values) where MTCA Method A is not available. Historical data are screened to the most up-to-date MTCA Method A/B screening values. Where a summation is performed (except Diesel+Oil and total xylenes), data are not screened to MTCA values for individual analytes; data are only screened to the MTCA value for the summation.

[b]Total PCBs are the sum of all PCB Aroclors; where all results are non-detect, the highest method reporting limit or method detection limit is used.

[c]Total xylenes are reported from the laboratory or the sum of o-xylene and m,p-xylene. Non-detect results are summed at one-half the method reporting limit or method detection limit. When all results are non-detect, the highest method reporting limit or method detection limit is used.

[d]cPAH TEQ is calculated with toxicity equivalence factors from Washington Ecology Evaluating the Human Heath Toxicity of Carcinogenic PAHs Using Toxicity Equivalence Factors (Ecology 2015). Non-detect results are included at one-half the detection limit or reporting limit. When all cPAHs are non-detect, the highest reported detection limit or reporting limit is shown.

[e]Diesel+oil is the sum of diesel- and lube-oil-range hydrocarbons results. Non-detect results are summed at one-half the reporting limit or detection limit. When both results are non-detect, the highest reporting limit or detection limit is used.

References

[1]Ecology. 2022. *Cleanup Levels and Risk Calculation (CLARC) table.* Washington State Department of Ecology, Toxics Cleanup Program. July errata.

[2]Ecology. 2015. *Implementation Memorandum #10: Evaluating the Human Health Toxicity of Carcinogenic PAHs (cPAHs) Using Toxicity Equivalency Factors (TEFs).* Publication No. 15-09-049. Washington State Department of Ecology, Toxics Cleanup Program. April 20.

Table 6-8
Selected 30-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	B01	B02	B03	FC01	FC02	MS01	MS02	MS03	MS04	MS05	OC01	OC02
Sample Name:		B01-GW-10.0	B02-GW-6	B03-GW-10	MJJ488	MJJ489	MJJ490	MJJ491	MJJ492	MJJ493	MJJ4C7	MJJ4A2	MJJ4A3
Collection Date:		10/12/2015	10/12/2015	10/12/2015	9/26/2017	9/26/2017	9/26/2017	9/25/2017	9/26/2017	9/27/2017	9/28/2017	9/28/2017	9/28/2017
Collection Depth (ft bgs):		7.5	6	7.5	--	--	--	--	--	--	--	--	--
VOCs (ug/L)													
1,2-Dibromoethane	0.3	0.2 U	0.2 U	0.2 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-Dichloroethane	3.5	0.2 U	0.2 U	0.2 U	0.5 U	0.27 JQ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	2.4	0.2 U	0.2 U	0.2 U	0.5 U	0.31 JQ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	2,800	0.2 U	0.2 U	0.2 U	0.5 U	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene	NV	0.27 J	0.4	0.15 J	0.5 U	2.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl tert-butyl ether	860	--	--	--	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
Naphthalene	8.9	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--	--
o-Xylene	NV	0.11 J	0.57	0.2 U	0.5 U	2.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	15,000	1.2	0.34	0.2 U	0.5 U	0.44 JQ	0.5 U	0.16 JQ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes (total)[b]	320	0.38 J	0.97	0.25 J	0.5 U	5.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
SVOCs (ug/L)													
Naphthalene	8.9	1 U	20 U	1 U	0.15	1.7 J	0.022 JQ	0.15	0.48 U	0.1 U	0.21 J	0.1 UJ	0.1 U

Table 6-8
Selected 30-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	PB01	PB02	PB03	PB04	PB05	PB06	PB09	PB10	PW01	PW02	VM01	RAU1-07
Sample Name:		MJJ494	MJJ495	MJJ496	17394238	17394241	17394244	MJJ4C8	MJJ4C9	17394249	17394252	MJJ4A5	RAU1-07-GW-7.5
Collection Date:		9/26/2017	9/27/2017	9/27/2017	9/28/2017	9/27/2017	9/28/2017	9/29/2017	9/29/2017	9/28/2017	9/29/2017	9/26/2017	12/2/2019
Collection Depth (ft bgs):		--	--	--	--	--	--	--	--	--	--	--	7.5
VOCs (ug/L)													
1,2-Dibromoethane	0.3	--	--	--	0.5 U	0.5 U	0.5 U	--	--	0.5 U	0.5 U	0.5 U	0.25 U
1,2-Dichloroethane	3.5	--	--	--	0.5 U	0.5 U	0.5 U	--	--	0.5 U	0.5 U	0.5 U	0.2 U
Benzene	2.4	--	--	--	0.76	0.5 U	0.5 U	--	--	0.5 U	0.5 U	0.5 U	0.1 U
Ethylbenzene	2,800	--	--	--	0.22 JQ	0.12 JQ	0.5 U	--	--	0.5 U	0.5 U	0.5 U	0.25 U
m,p-Xylene	NV	--	--	--	0.51	0.53	0.5 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U
Methyl tert-butyl ether	860	--	--	--	0.5 U	0.5 U	0.5 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	8.9	--	--	--	--	--	--	--	--	--	--	--	1 U
o-Xylene	NV	--	--	--	0.18 JQ	0.24 JQ	0.5 U	--	--	0.5 U	0.5 U	0.5 U	0.25 U
Toluene	15,000	--	--	--	1.7	0.73	0.5 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes (total)[b]	320	--	--	--	0.69 JQ	0.77 JQ	0.5 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U
SVOCs (ug/L)													
Naphthalene	8.9	0.1 U	1.6 J	1.3	5 UJ	0.5	0.018 JQ	2.7	0.41	0.29	0.1 UJ	0.095 U	0.0396 UJ

Table 6-8
Selected 30-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	RAU1-08	RAU1-09	RAU1-10	RAU1-11	RAU1-12	RAU1-13		RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-06
Sample Name:		RAU1-08-GW-7.0	RAU1-09-GW-7.0	RAU1-10-GW-8.5	RAU1-11-GW-7.0	RAU1-12-GW-7.0	RAU1-13-GW-7	RAU1-13-GW-7-DUP	RAU1-14-GW-6.0	RAU2-01-GW-7.5	RAU2-02-GW-6	RAU2-03-GW-7.5	RAU2-06-GW-6.5
Collection Date:		12/4/2019	12/3/2019	12/4/2019	12/3/2019	12/3/2019	7/22/2020	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019
Collection Depth (ft bgs):		7	7	8.5	7	7	7	7	6	7.5	6	7.5	6.5
VOCs (ug/L)													
1,2-Dibromoethane	0.3	--	0.25 U	--	0.25 U	0.25 U	--	--	--	--	--	--	--
1,2-Dichloroethane	3.5	--	0.2 U	--	0.2 U	0.2 U	--	--	--	--	--	--	--
Benzene	2.4	--	0.1 U	--	0.1 U	0.1 U	--	--	--	--	--	--	--
Ethylbenzene	2,800	--	0.25 U	--	0.25 U	0.686	--	--	--	--	--	--	--
m,p-Xylene	NV	--	0.5 U	--	0.5 U	5.02	--	--	--	--	--	--	--
Methyl tert-butyl ether	860	--	0.5 U	--	0.5 U	0.5 U	--	--	--	--	--	--	--
Naphthalene	8.9	--	2 UJ	--	2 UJ	4.6	--	--	--	--	--	--	--
o-Xylene	NV	--	0.25 U	--	0.292 J	3.04	--	--	--	--	--	--	--
Toluene	15,000	--	0.5 U	--	0.5 U	0.5 U	--	--	--	--	--	--	--
Xylenes (total)[b]	320	--	0.5 U	--	0.542 J	8.06	--	--	--	--	--	--	--
SVOCs (ug/L)													
Naphthalene	8.9	0.086 U	0.105 U	200	0.449 U	3.07	--	--	--	0.158 UJ	0.808 UJ	0.042 J	0.0444 UJ

Table 6-8
Selected 30-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	RAU2-07	RAU2-08	RAU4-04	RAU4-14	RAU4-15	RAU4-16	RAU7-01
Sample Name:		RAU2-07-GW-7.5	RAU2-08-GW-9	RAU4-04-GW-7.0	RAU4-14-GW-6.0	RAU4-15-GW-5.0	RAU4-16-GW-4.0	RAU7-01-GW-8.5
Collection Date:		12/5/2019	12/11/2019	12/5/2019	7/21/2020	7/21/2020	7/21/2020	12/5/2019
Collection Depth (ft bgs):		7.5	9	7	6	5	4	8.5
VOCs (ug/L)								
1,2-Dibromoethane	0.3	0.25 U	--	--	--	--	--	--
1,2-Dichloroethane	3.5	0.2 U	--	--	--	--	--	--
Benzene	2.4	0.1 U	--	--	--	--	--	--
Ethylbenzene	2,800	0.25 U	--	--	--	--	--	--
m,p-Xylene	NV	0.5 U	--	--	--	--	--	--
Methyl tert-butyl ether	860	0.5 U	--	--	--	--	--	--
Naphthalene	8.9	149	--	--	--	--	--	--
o-Xylene	NV	0.25 U	--	--	--	--	--	--
Toluene	15,000	0.5 U	--	--	--	--	--	--
Xylenes (total)[b]	320	0.5 U	--	--	--	--	--	--
SVOCs (ug/L)								
Naphthalene	8.9	129	0.0426 UJ	0.0843 J	--	--	--	0.0405 U

Table 6-8
Selected 30-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Notes

Selected data includes only groundwater samples collected within 30 feet of any existing, enclosed structure on the site, and the associated compounds referenced in section E-6 and E-7 of Ecology's 2022 Vapor Intrusion Guidance (Ecology 2022b). Aliphatic and aromatic carbon fraction results were not available.

Shading indicates values that exceed MTCA Method B screening values; non-detect results (U and UJ) were not compared with screening criteria.

-- = not analyzed or no data available.

ft bgs = feet below ground surface.

J = result is estimated.

JQ = result is estimated and detected below the method reporting limit.

MTCA = Model Toxics Control Act.

NV = no value.

SVOC = semivolatile organic compound.

U = result is non-detect to method reporting limit or method detection limit.

ug/L = micrograms per liter.

UJ = result is non-detect with an estimated reporting limit or detection limit.

VOC = volatile organic compound.

[a]The lowest of cancer and noncancer values are shown.

[b]Total xylenes are reported from the laboratory or the sum of o-xylene and m,p-xylene. Non-detect results are summed at one-half the method reporting limit or method detection limit. When all results are non-detect, the highest reporting limit or detection limit is used.

References

[1]Ecology. 2022a. *Cleanup Levels and Risk Calculation (CLARC) table* . Washington State Department of Ecology, Toxics Cleanup Program. July errata.

[2]Ecology. 2022b. *Guidance for Evaluating Vapor Intrusion in Washington State* . Publication No. 09-09-047. Washington State Department of Ecology, Toxics Cleanup Program, Olympia, Washington. March.

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	B01	B02	B03	CR-20	CR-21	FC01	FC02	FC03	MS01	MS02	MS03	MS04
Sample Name:		B01-GW-10.0	B02-GW-6	B03-GW-10	CR20-GW-5.0	CR21-GW-10	MJJ488	MJJ489	MJJ4D2	MJJ490	MJJ491	MJJ492	MJJ493
Collection Date:		10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	9/26/2017	9/26/2017	9/29/2017	9/26/2017	9/25/2017	9/26/2017	9/27/2017
Collection Depth (ft bgs):		7.5	6	7.5	5.5	7.5	--	--	--	--	--	--	--
Dissolved Metals (ug/L)													
Mercury	1.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	--	--	--	--	--	--	--
Total Metals (ug/L)													
Mercury	1.1	0.1 U	0.1	0.7	0.1 U	0.1	--	--	--	--	--	--	--
VOCs (ug/L)													
1,1,1,2-Tetrachloroethane	7.1	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	5,400	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5.9	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	5.1	0.2 U	0.2 U	0.29	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	11	0.2 U	0.2 U	0.12 J	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	130	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Difluoroethane[b]	29,000	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	21	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene[b]	410	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	39	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
1,2,4-Trimethylbenzene	240	0.2 U	0.37	0.2 U	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.16	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	0.3	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	2,500	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	3.5	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.27 JQ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	10	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Butadiene[b]	0.038	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropene[b]	8	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	170	0.2 U	0.19 J	0.2 U	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	5	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	1,700,000	5 U	0.85 J	5 U	--	--	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Chloro-1,3-butadiene[b]	0.0065	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	7,300	5 U	5 U	5 U	--	--	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitropropane[b]	1.7	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	470,000	5 U	5 U	5 U	--	--	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetaldehyde[b]	620	--	--	--	--	--	--	--	--	--	--	--	--
Acetonitrile[b]	33,000	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	2.9	5 U	5 U	5 U	--	--	--	--	--	--	--	--	--
Acrylonitrile	12	1 U	1 U	1 U	--	--	--	--	--	--	--	--	--
Allyl chloride[b]	1.5	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	2.4	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.31 JQ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzyl chloride[b]	6.2	--	--	--	--	--	--	--	--	--	--	--	--
Bromobenzene	630	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--
Bromodichloromethane	1.4	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	220	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	B01	B02	B03	CR-20	CR-21	FC01	FC02	FC03	MS01	MS02	MS03	MS04
Sample Name:		B01-GW-10.0	B02-GW-6	B03-GW-10	CR20-GW-5.0	CR21-GW-10	MJJ488	MJJ489	MJJ4D2	MJJ490	MJJ491	MJJ492	MJJ493
Collection Date:		10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	9/26/2017	9/26/2017	9/29/2017	9/26/2017	9/25/2017	9/26/2017	9/27/2017
Collection Depth (ft bgs):		7.5	6	7.5	5.5	7.5	--	--	--	--	--	--	--
Bromomethane	11	1 U	1 U	1 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	840	0.2 U	0.4	0.2 U	--	--	0.5 U	0.26 JQ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	0.62	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	340	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorodifluoromethane[b]	18,000	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	15,000	0.2 U	0.2 U	0.39	--	--	0.5 U	0.13 JQ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	1.2	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	150	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
Cyclohexane	750	--	--	--	--	--	0.5 U	1.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexanone[b]	2,100,000	--	--	--	--	--	--	--	--	--	--	--	--
Dibromomethane	97	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	4.2	--	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethyl acetate[b]	10,000	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl acrylate[b]	500	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	2,800	0.2 U	0.2 U	0.2 U	--	--	0.5 U	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethyl methacrylate[b]	14,000	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene oxide[b]	0.053	--	--	--	--	--	--	--	--	--	--	--	--
Freon 113	170	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Heptane[b]	4	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.64	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--	--
Hydrogen sulfide[b]	3.3	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	910	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.39 JQ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene	NV	0.27 J	0.4	0.15 J	--	--	0.5 U	2.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methacrylonitrile[b]	2,400	--	--	--	--	--	--	--	--	--	--	--	--
Methanol[b]	91,000,000	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	860	--	--	--	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	780	1 U	1 U	1 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl methacrylate[b]	50,000	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	8.9	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--	--
n-Hexane[b]	7.2	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	2,300	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--
o-Xylene	NV	0.11 J	0.57	0.2 U	--	--	0.5 U	2.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Phosgene[b]	0.32	--	--	--	--	--	--	--	--	--	--	--	--
Propionaldehyde[b]	2,000	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	8,200	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tert-Butyl ethyl ether[b]	780	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	25	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrahydrofuran[b]	520,000	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	15,000	1.2	0.34	0.2 U	--	--	0.5 U	0.44 JQ	0.5 U	0.5 U	0.16 JQ	0.5 U	0.5 U
trans-1,2-Dichloroethene	77	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	B01	B02	B03	CR-20	CR-21	FC01	FC02	FC03	MS01	MS02	MS03	MS04
Sample Name:		B01-GW-10.0	B02-GW-6	B03-GW-10	CR20-GW-5.0	CR21-GW-10	MJJ488	MJJ489	MJJ4D2	MJJ490	MJJ491	MJJ492	MJJ493
Collection Date:		10/12/2015	10/12/2015	10/12/2015	10/12/2015	10/12/2015	9/26/2017	9/26/2017	9/29/2017	9/26/2017	9/25/2017	9/26/2017	9/27/2017
Collection Depth (ft bgs):		7.5	6	7.5	5.5	7.5	--	--	--	--	--	--	--
Trichloroethene	1.4	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane (Freon 11)	120	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Triethylamine[b]	980	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	7,800	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--	--
Vinyl bromide[b]	0.47	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.33	0.2 U	0.2 U	0.2 U	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylenes (total)[c]	320	0.38 J	0.97	0.25 J	--	--	0.5 U	5.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
SVOCs (ug/L)													
1,2,4-Trichlorobenzene	39	1 U	20 U	1 U	1 U	1 U	--	--	--	--	--	--	--
1,2-Dichlorobenzene	2,500	1 U	20 U	1 U	1 U	1 U	--	--	--	--	--	--	--
1,4-Dichlorobenzene	5	1 U	20 U	1 U	1 U	1 U	--	--	--	--	--	--	--
1,4-Dioxane	4,700	--	--	--	--	--	1.9 U	1.9 U	2 U	1.9 U	1.9 U	1.9 U	2 U
Hexachlorobenzene	0.24	1 U	20 U	1 U	1 U	1 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U	5 U
Hexachlorobutadiene	0.64	3 U	60 U	3 U	3 U	3 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U	5 U
Hexachlorocyclopentadiene	4.2	5 UJ	100 UJ	5 UJ	5 UJ	5 UJ	9.5 U	9.5 U	10 U	9.5 U	9.5 U	9.5 U	10 U
Hexachloroethane	3.8	2 U	40 U	2 U	2 U	2 U	4.8 U	4.8 U	5 U	4.8 U	4.8 U	4.8 U	5 U
Naphthalene	8.9	1 U	20 U	1 U	1 U	1 U	0.15	1.7 J	0.034 JQ	0.022 JQ	0.15	0.48 U	0.1 U
Organochlorine Pesticides (ug/L)													
Heptachlor[b]	0.51	--	--	--	--	--	--	--	--	--	--	--	--
Mirex[b]	0.015	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	MS05	MS06	OC01	OC02	OC03	PB01	PB02	PB03	PB04	PB05	PB06	PB09
Sample Name:		MJJ4C7	MJJ4D1	MJJ4A2	MJJ4A3	MJJ4D0	MJJ494	MJJ495	MJJ496	17394238	17394241	17394244	MJJ4C8
Collection Date:		9/28/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017	9/27/2017	9/27/2017	9/28/2017	9/27/2017	9/28/2017	9/29/2017
Collection Depth (ft bgs):		--	--	--	--	--	--	--	--	--	--	--	--
Dissolved Metals (ug/L)													
Mercury	1.1	--	--	--	--	--	--	--	--	--	--	--	--
Total Metals (ug/L)													
Mercury	1.1	--	--	--	--	--	--	--	--	--	--	--	--
VOCs (ug/L)													
1,1,1,2-Tetrachloroethane	7.1	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	5,400	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
1,1,2,2-Tetrachloroethane	5.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
1,1,2-Trichloroethane	5.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
1,1-Dichloroethane	11	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
1,1-Dichloroethene	130	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
1,1-Difluoroethane[b]	29,000	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	21	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene[b]	410	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	39	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
1,2,4-Trimethylbenzene	240	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.16	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	0.3	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-Dichlorobenzene	2,500	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-Dichloroethane	3.5	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-Dichloropropane	10	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
1,3-Butadiene[b]	0.038	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropene[b]	8	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	170	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
2-Butanone	1,700,000	5 U	5 U	5 U	5 U	5 U	--	--	--	5 U	5 U	5 U	--
2-Chloro-1,3-butadiene[b]	0.0065	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	7,300	5 U	5 U	5 U	5 U	5 U	--	--	--	5 U	5 U	5 U	--
2-Nitropropane[b]	1.7	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	470,000	5 U	5 U	5 U	5 U	5 U	--	--	--	5 U	5 U	5 U	--
Acetaldehyde[b]	620	--	--	--	--	--	--	--	--	--	--	--	--
Acetonitrile[b]	33,000	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	2.9	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	12	--	--	--	--	--	--	--	--	--	--	--	--
Allyl chloride[b]	1.5	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	2.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.76	0.5 U	0.5 U	--
Benzyl chloride[b]	6.2	--	--	--	--	--	--	--	--	--	--	--	--
Bromobenzene	630	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	1.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
Bromoform	220	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	MS05	MS06	OC01	OC02	OC03	PB01	PB02	PB03	PB04	PB05	PB06	PB09
Sample Name:		MJJ4C7	MJJ4D1	MJJ4A2	MJJ4A3	MJJ4D0	MJJ494	MJJ495	MJJ496	17394238	17394241	17394244	MJJ4C8
Collection Date:		9/28/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017	9/27/2017	9/27/2017	9/28/2017	9/27/2017	9/28/2017	9/29/2017
Collection Depth (ft bgs):		--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	11	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 disulfide	840	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	0.62	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
Chlorobenzene	340	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
Chlorodifluoromethane[b]	18,000	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	15,000	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
Chloroform	1.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
Chloromethane	150	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.22 JQ	0.5 U	0.5 U	--
Cyclohexane	750	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	1.5	0.5 U	--
Cyclohexanone[b]	2,100,000	--	--	--	--	--	--	--	--	--	--	--	--
Dibromomethane	97	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	4.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
Ethyl acetate[b]	10,000	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl acrylate[b]	500	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	2,800	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.22 JQ	0.12 JQ	0.5 U	--
Ethyl methacrylate[b]	14,000	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene oxide[b]	0.053	--	--	--	--	--	--	--	--	--	--	--	--
Freon 113	170	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
Heptane[b]	4	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.64	--	--	--	--	--	--	--	--	--	--	--	--
Hydrogen sulfide[b]	3.3	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	910	0.5 U	0.49 JQ	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
m,p-Xylene	NV	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.51	0.53	0.5 U	--
Methacrylonitrile[b]	2,400	--	--	--	--	--	--	--	--	--	--	--	--
Methanol[b]	91,000,000	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	860	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
Methylene chloride	780	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
Methyl methacrylate[b]	50,000	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	8.9	--	--	--	--	--	--	--	--	--	--	--	--
n-Hexane[b]	7.2	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	2,300	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	NV	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.18 JQ	0.24 JQ	0.5 U	--
Phosgene[b]	0.32	--	--	--	--	--	--	--	--	--	--	--	--
Propionaldehyde[b]	2,000	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	8,200	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
tert-Butyl ethyl ether[b]	780	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	25	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
Tetrahydrofuran[b]	520,000	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	15,000	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	1.7	0.73	0.5 U	--
trans-1,2-Dichloroethene	77	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	MS05	MS06	OC01	OC02	OC03	PB01	PB02	PB03	PB04	PB05	PB06	PB09
Sample Name:		MJJ4C7	MJJ4D1	MJJ4A2	MJJ4A3	MJJ4D0	MJJ494	MJJ495	MJJ496	17394238	17394241	17394244	MJJ4C8
Collection Date:		9/28/2017	9/29/2017	9/28/2017	9/28/2017	9/28/2017	9/26/2017	9/27/2017	9/27/2017	9/28/2017	9/27/2017	9/28/2017	9/29/2017
Collection Depth (ft bgs):		--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	1.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
Trichlorofluoromethane (Freon 11)	120	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
Triethylamine[b]	980	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	7,800	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl bromide[b]	0.47	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.33	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.5 U	0.5 U	0.5 U	--
Xylenes (total)[c]	320	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--	0.69 JQ	0.77 JQ	0.5 U	--
SVOCs (ug/L)													
1,2,4-Trichlorobenzene	39	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	2,500	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	5	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	4,700	2 UJ	2 U	2 UJ	2 U	2 UJ	2 U	2 UJ	2 U	2 UJ	2 U	2 U	2 U
Hexachlorobenzene	0.24	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Hexachlorobutadiene	0.64	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Hexachlorocyclopentadiene	4.2	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U
Hexachloroethane	3.8	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Naphthalene	8.9	0.21 J	0.1	0.1 UJ	0.1 U	0.017 JQ	0.1 U	1.6 J	1.3	5 UJ	0.5	0.018 JQ	2.7
Organochlorine Pesticides (ug/L)													
Heptachlor[b]	0.51	--	--	--	--	--	--	--	--	--	--	--	--
Mirex[b]	0.015	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	PB10	PW01	PW02	VM01	RAU1-04	RAU1-05	RAU1-07	RAU1-08	RAU1-09	RAU1-10	RAU1-11	RAU1-12
Sample Name:		MJJ4C9	17394249	17394252	MJJ4A5	RAU1-04-GW-7.5	RAU1-05-GW-6.5	RAU1-07-GW-7.5	RAU1-08-GW-7.0	RAU1-09-GW-7.0	RAU1-10-GW-8.5	RAU1-11-GW-7.0	RAU1-12-GW-7.0
Collection Date:		9/29/2017	9/28/2017	9/29/2017	9/26/2017	12/2/2019	12/2/2019	12/2/2019	12/4/2019	12/3/2019	12/4/2019	12/3/2019	12/3/2019
Collection Depth (ft bgs):		--	--	--	--	7.5	6.5	7.5	7	7	8.5	7	7
Dissolved Metals (ug/L)													
Mercury	1.1	--	--	--	--	--	--	--	--	--	--	--	--
Total Metals (ug/L)													
Mercury	1.1	--	--	--	--	0.04 U	0.0523 J	0.04 U	0.04 U	0.116	0.04 U	0.04 U	0.04 U
VOCs (ug/L)													
1,1,1,2-Tetrachloroethane	7.1	--	--	--	--	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
1,1,1-Trichloroethane	5,400	--	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
1,1,2,2-Tetrachloroethane	5.9	--	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.25 U	0.25 U
1,1,2-Trichloroethane	5.1	--	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.25 U	0.25 U
1,1-Dichloroethane	11	--	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.721	0.2 U
1,1-Dichloroethene	130	--	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
1,1-Difluoroethane[b]	29,000	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	21	--	--	--	--	0.5 U	0.5 U	0.5 U	--	0.5 U	--	0.5 U	0.5 U
1,2,3-Trimethylbenzene[b]	410	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	39	--	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U	--	1 U	--	1 U	1 U
1,2,4-Trimethylbenzene	240	--	--	--	--	0.5 U	0.5 U	0.5 U	--	0.5 U	--	0.674 J	11.2
1,2-Dibromo-3-chloropropane	0.16	--	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	2.5 U	2.5 U
1,2-Dibromoethane	0.3	--	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.25 U	0.25 U
1,2-Dichlorobenzene	2,500	--	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.25 U	0.25 U
1,2-Dichloroethane	3.5	--	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
1,2-Dichloropropane	10	--	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.25 U	0.25 U
1,3-Butadiene[b]	0.038	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropene[b]	8	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	170	--	--	--	--	0.5 U	0.5 U	0.5 U	--	0.5 U	--	0.5 U	2.88
1,4-Dichlorobenzene	5	--	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.25 U	0.25 U
2-Butanone	1,700,000	--	5 U	5 U	5 U	5 U	5 U	5 U	--	5 U	--	5 U	5 U
2-Chloro-1,3-butadiene[b]	0.0065	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	7,300	--	5 U	5 U	5 U	10 UJ	10 UJ	10 UJ	--	5 U	--	10 UJ	10 UJ
2-Nitropropane[b]	1.7	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	470,000	--	5 U	5 U	5 U	5 U	5 U	5 U	--	5 U	--	5 U	5 U
Acetaldehyde[b]	620	--	--	--	--	--	--	--	--	--	--	--	--
Acetonitrile[b]	33,000	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	2.9	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	12	--	--	--	--	1 U	1 U	1 U	--	1 U	--	1 U	1 U
Allyl chloride[b]	1.5	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	2.4	--	0.5 U	0.5 U	0.5 U	0.1 U	0.1 U	0.1 U	--	0.1 U	--	0.1 U	0.1 U
Benzyl chloride[b]	6.2	--	--	--	--	--	--	--	--	--	--	--	--
Bromobenzene	630	--	--	--	--	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.25 U	0.25 U
Bromodichloromethane	1.4	--	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
Bromoform	220	--	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

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	PB10	PW01	PW02	VM01	RAU1-04	RAU1-05	RAU1-07	RAU1-08	RAU1-09	RAU1-10	RAU1-11	RAU1-12
Sample Name:		MJJ4C9	17394249	17394252	MJJ4A5	RAU1-04-GW-7.5	RAU1-05-GW-6.5	RAU1-07-GW-7.5	RAU1-08-GW-7.0	RAU1-09-GW-7.0	RAU1-10-GW-8.5	RAU1-11-GW-7.0	RAU1-12-GW-7.0
Collection Date:		9/29/2017	9/28/2017	9/29/2017	9/26/2017	12/2/2019	12/2/2019	12/2/2019	12/4/2019	12/3/2019	12/4/2019	12/3/2019	12/3/2019
Collection Depth (ft bgs):		--	--	--	--	7.5	6.5	7.5	7	7	8.5	7	7
Bromomethane	11	--	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	--	5 U	--	5 U	5 U
Carbon disulfide	840	--	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	--	5 U	--	5 U	5 U
Carbon tetrachloride	0.62	--	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
Chlorobenzene	340	--	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.25 U	0.25 U
Chlorodifluoromethane[b]	18,000	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	15,000	--	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	--	5 U	--	5 U	5 U
Chloroform	1.2	--	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
Chloromethane	150	--	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	2.5 U	2.5 U
Cyclohexane	750	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Cyclohexanone[b]	2,100,000	--	--	--	--	--	--	--	--	--	--	--	--
Dibromomethane	97	--	--	--	--	0.5 U	0.5 U	0.5 U	--	0.5 U	--	0.5 U	0.5 U
Dichlorodifluoromethane (Freon 12)	4.2	--	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
Ethyl acetate[b]	10,000	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl acrylate[b]	500	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	2,800	--	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.25 U	0.686
Ethyl methacrylate[b]	14,000	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene oxide[b]	0.053	--	--	--	--	--	--	--	--	--	--	--	--
Freon 113	170	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Heptane[b]	4	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.64	--	--	--	--	2.5 U	2.5 U	2.5 U	--	2.5 U	--	2.5 U	2.5 U
Hydrogen sulfide[b]	3.3	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	910	--	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
m,p-Xylene	NV	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	0.5 U	--	0.5 U	5.02
Methacrylonitrile[b]	2,400	--	--	--	--	--	--	--	--	--	--	--	--
Methanol[b]	91,000,000	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	860	--	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
Methylene chloride	780	--	0.23 JQ	0.5 U	0.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	1.5 U	1.5 U
Methyl methacrylate[b]	50,000	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	8.9	--	--	--	--	1 U	1 U	1 U	--	2 UJ	--	2 UJ	4.6
n-Hexane[b]	7.2	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	2,300	--	--	--	--	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.25 U	0.567
o-Xylene	NV	--	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	--	0.25 U	--	0.292 J	3.04
Phosgene[b]	0.32	--	--	--	--	--	--	--	--	--	--	--	--
Propionaldehyde[b]	2,000	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	8,200	--	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
tert-Butyl ethyl ether[b]	780	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	25	--	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
Tetrahydrofuran[b]	520,000	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	15,000	--	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
trans-1,2-Dichloroethene	77	--	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	PB10	PW01	PW02	VM01	RAU1-04	RAU1-05	RAU1-07	RAU1-08	RAU1-09	RAU1-10	RAU1-11	RAU1-12
Sample Name:		MJJ4C9	17394249	17394252	MJJ4A5	RAU1-04-GW-7.5	RAU1-05-GW-6.5	RAU1-07-GW-7.5	RAU1-08-GW-7.0	RAU1-09-GW-7.0	RAU1-10-GW-8.5	RAU1-11-GW-7.0	RAU1-12-GW-7.0
Collection Date:		9/29/2017	9/28/2017	9/29/2017	9/26/2017	12/2/2019	12/2/2019	12/2/2019	12/4/2019	12/3/2019	12/4/2019	12/3/2019	12/3/2019
Collection Depth (ft bgs):		--	--	--	--	7.5	6.5	7.5	7	7	8.5	7	7
Trichloroethene	1.4	--	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
Trichlorofluoromethane (Freon 11)	120	--	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U	--	1 U	--	1 U	1 U
Triethylamine[b]	980	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	7,800	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl bromide[b]	0.47	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.33	--	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	--	0.2 U	--	0.2 U	0.2 U
Xylenes (total)[c]	320	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	0.5 U	--	0.542 J	8.06
SVOCs (ug/L)													
1,2,4-Trichlorobenzene	39	--	--	--	--	0.108 UJ	0.543 UJ	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
1,2-Dichlorobenzene	2,500	--	--	--	--	0.108 UJ	0.543 UJ	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
1,4-Dichlorobenzene	5	--	--	--	--	0.108 UJ	0.543 UJ	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
1,4-Dioxane	4,700	2 U	2 U	2 UJ	1.9 U	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.24	5 U	5 U	5 UJ	4.8 U	0.043 U	0.217 U	0.0099 UJ	0.043 U	0.0526 U	0.465 U	0.225 U	0.43 U
Hexachlorobutadiene	0.64	5 U	5 U	5 UJ	4.8 U	0.108 UJ	0.543 UJ	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
Hexachlorocyclopentadiene	4.2	10 UJ	10 UJ	10 UJ	9.5 U	0.215 U	1.09 U	0.0495 UJ	0.215 U	0.263 U	2.33 U	1.12 U	2.15 U
Hexachloroethane	3.8	5 U	5 U	5 UJ	4.8 U	0.108 UJ	0.543 UJ	0.0248 UJ	0.108 U	0.132 U	1.16 U	0.562 U	1.08 U
Naphthalene	8.9	0.41	0.29	0.1 UJ	0.095 U	0.086 UJ	0.435 UJ	0.0396 UJ	0.086 U	0.105 U	200	0.449 U	3.07
Organochlorine Pesticides (ug/L)													
Heptachlor[b]	0.51	--	--	--	--	--	--	--	--	--	--	--	--
Mirex[b]	0.015	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	RAU1-13		RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	RAU2-06	RAU2-07	RAU2-08	RAU2-09
Sample Name:		RAU1-13-GW-7	RAU1-13-GW-7-DUP	RAU1-14-GW-6.0	RAU2-01-GW-7.5	RAU2-02-GW-6	RAU2-03-GW-7.5	RAU2-04-GW-7.5	RAU2-05-GW-7.5	RAU2-06-GW-6.5	RAU2-07-GW-7.5	RAU2-08-GW-9	RAU2-09-GW-9
Collection Date:		7/22/2020	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/5/2019	12/11/2019	12/11/2019
Collection Depth (ft bgs):		7	7	6	7.5	6	7.5	7.5	7.5	6.5	7.5	9	9
Dissolved Metals (ug/L)													
Mercury	1.1	--	--	--	--	--	--	--	--	--	--	--	--
Total Metals (ug/L)													
Mercury	1.1	--	--	--	0.392	11.4	8.48	0.479	0.0969	0.041 J	0.226	0.04 U	0.04 U
VOCs (ug/L)													
1,1,1,2-Tetrachloroethane	7.1	--	--	--	--	--	--	--	--	--	0.2 U	--	--
1,1,1-Trichloroethane	5,400	--	--	--	--	--	--	--	--	--	0.2 U	--	--
1,1,2,2-Tetrachloroethane	5.9	--	--	--	--	--	--	--	--	--	0.25 U	--	--
1,1,2-Trichloroethane	5.1	--	--	--	--	--	--	--	--	--	0.25 U	--	--
1,1-Dichloroethane	11	--	--	--	--	--	--	--	--	--	0.2 U	--	--
1,1-Dichloroethene	130	--	--	--	--	--	--	--	--	--	0.2 U	--	--
1,1-Difluoroethane[b]	29,000	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	21	--	--	--	--	--	--	--	--	--	0.5 U	--	--
1,2,3-Trimethylbenzene[b]	410	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	39	--	--	--	--	--	--	--	--	--	1 U	--	--
1,2,4-Trimethylbenzene	240	--	--	--	--	--	--	--	--	--	0.5 U	--	--
1,2-Dibromo-3-chloropropane	0.16	--	--	--	--	--	--	--	--	--	2.5 U	--	--
1,2-Dibromoethane	0.3	--	--	--	--	--	--	--	--	--	0.25 U	--	--
1,2-Dichlorobenzene	2,500	--	--	--	--	--	--	--	--	--	0.25 U	--	--
1,2-Dichloroethane	3.5	--	--	--	--	--	--	--	--	--	0.2 U	--	--
1,2-Dichloropropane	10	--	--	--	--	--	--	--	--	--	0.25 U	--	--
1,3-Butadiene[b]	0.038	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropene[b]	8	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	170	--	--	--	--	--	--	--	--	--	0.5 U	--	--
1,4-Dichlorobenzene	5	--	--	--	--	--	--	--	--	--	0.25 U	--	--
2-Butanone	1,700,000	--	--	--	--	--	--	--	--	--	5 U	--	--
2-Chloro-1,3-butadiene[b]	0.0065	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	7,300	--	--	--	--	--	--	--	--	--	10 UJ	--	--
2-Nitropropane[b]	1.7	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	470,000	--	--	--	--	--	--	--	--	--	5 U	--	--
Acetaldehyde[b]	620	--	--	--	--	--	--	--	--	--	--	--	--
Acetonitrile[b]	33,000	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	2.9	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	12	--	--	--	--	--	--	--	--	--	1 U	--	--
Allyl chloride[b]	1.5	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	2.4	--	--	--	--	--	--	--	--	--	0.1 U	--	--
Benzyl chloride[b]	6.2	--	--	--	--	--	--	--	--	--	--	--	--
Bromobenzene	630	--	--	--	--	--	--	--	--	--	0.25 U	--	--
Bromodichloromethane	1.4	--	--	--	--	--	--	--	--	--	0.5 U	--	--
Bromoform	220	--	--	--	--	--	--	--	--	--	0.5 U	--	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	RAU1-13		RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	RAU2-06	RAU2-07	RAU2-08	RAU2-09
Sample Name:		RAU1-13-GW-7	RAU1-13-GW-7-DUP	RAU1-14-GW-6.0	RAU2-01-GW-7.5	RAU2-02-GW-6	RAU2-03-GW-7.5	RAU2-04-GW-7.5	RAU2-05-GW-7.5	RAU2-06-GW-6.5	RAU2-07-GW-7.5	RAU2-08-GW-9	RAU2-09-GW-9
Collection Date:		7/22/2020	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/5/2019	12/11/2019	12/11/2019
Collection Depth (ft bgs):		7	7	6	7.5	6	7.5	7.5	7.5	6.5	7.5	9	9
Bromomethane	11	--	--	--	--	--	--	--	--	--	5 U	--	--
Carbon disulfide	840	--	--	--	--	--	--	--	--	--	5 U	--	--
Carbon tetrachloride	0.62	--	--	--	--	--	--	--	--	--	0.5 U	--	--
Chlorobenzene	340	--	--	--	--	--	--	--	--	--	0.25 U	--	--
Chlorodifluoromethane[b]	18,000	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	15,000	--	--	--	--	--	--	--	--	--	5 U	--	--
Chloroform	1.2	--	--	--	--	--	--	--	--	--	0.5 U	--	--
Chloromethane	150	--	--	--	--	--	--	--	--	--	2.5 U	--	--
Cyclohexane	750	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexanone[b]	2,100,000	--	--	--	--	--	--	--	--	--	--	--	--
Dibromomethane	97	--	--	--	--	--	--	--	--	--	0.5 U	--	--
Dichlorodifluoromethane (Freon 12)	4.2	--	--	--	--	--	--	--	--	--	0.5 U	--	--
Ethyl acetate[b]	10,000	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl acrylate[b]	500	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	2,800	--	--	--	--	--	--	--	--	--	0.25 U	--	--
Ethyl methacrylate[b]	14,000	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene oxide[b]	0.053	--	--	--	--	--	--	--	--	--	--	--	--
Freon 113	170	--	--	--	--	--	--	--	--	--	--	--	--
Heptane[b]	4	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.64	--	--	--	--	--	--	--	--	--	2.5 U	--	--
Hydrogen sulfide[b]	3.3	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	910	--	--	--	--	--	--	--	--	--	0.5 U	--	--
m,p-Xylene	NV	--	--	--	--	--	--	--	--	--	0.5 U	--	--
Methacrylonitrile[b]	2,400	--	--	--	--	--	--	--	--	--	--	--	--
Methanol[b]	91,000,000	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	860	--	--	--	--	--	--	--	--	--	0.5 U	--	--
Methylene chloride	780	--	--	--	--	--	--	--	--	--	1.5 U	--	--
Methyl methacrylate[b]	50,000	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	8.9	--	--	--	--	--	--	--	--	--	149	--	--
n-Hexane[b]	7.2	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	2,300	--	--	--	--	--	--	--	--	--	0.25 U	--	--
o-Xylene	NV	--	--	--	--	--	--	--	--	--	0.25 U	--	--
Phosgene[b]	0.32	--	--	--	--	--	--	--	--	--	--	--	--
Propionaldehyde[b]	2,000	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	8,200	--	--	--	--	--	--	--	--	--	0.5 U	--	--
tert-Butyl ethyl ether[b]	780	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	25	--	--	--	--	--	--	--	--	--	0.2 U	--	--
Tetrahydrofuran[b]	520,000	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	15,000	--	--	--	--	--	--	--	--	--	0.5 U	--	--
trans-1,2-Dichloroethene	77	--	--	--	--	--	--	--	--	--	0.2 U	--	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	RAU1-13		RAU1-14	RAU2-01	RAU2-02	RAU2-03	RAU2-04	RAU2-05	RAU2-06	RAU2-07	RAU2-08	RAU2-09
Sample Name:		RAU1-13-GW-7	RAU1-13-GW-7-DUP	RAU1-14-GW-6.0	RAU2-01-GW-7.5	RAU2-02-GW-6	RAU2-03-GW-7.5	RAU2-04-GW-7.5	RAU2-05-GW-7.5	RAU2-06-GW-6.5	RAU2-07-GW-7.5	RAU2-08-GW-9	RAU2-09-GW-9
Collection Date:		7/22/2020	7/22/2020	7/22/2020	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/2/2019	12/5/2019	12/11/2019	12/11/2019
Collection Depth (ft bgs):		7	7	6	7.5	6	7.5	7.5	7.5	6.5	7.5	9	9
Trichloroethene	1.4	--	--	--	--	--	--	--	--	--	0.2 U	--	--
Trichlorofluoromethane (Freon 11)	120	--	--	--	--	--	--	--	--	--	1 U	--	--
Triethylamine[b]	980	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	7,800	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl bromide[b]	0.47	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.33	--	--	--	--	--	--	--	--	--	0.2 U	--	--
Xylenes (total)[c]	320	--	--	--	--	--	--	--	--	--	0.5 U	--	--
SVOCs (ug/L)													
1,2,4-Trichlorobenzene	39	--	--	--	0.099 UJ	1.01 UJ	0.0248 UJ	0.105 UJ	0.106 UJ	0.0278 UJ	--	0.0266 UJ	0.0238 UJ
1,2-Dichlorobenzene	2,500	--	--	--	0.099 UJ	1.01 UJ	0.0248 UJ	0.105 UJ	0.106 UJ	0.0278 UJ	--	0.0266 UJ	0.0238 UJ
1,4-Dichlorobenzene	5	--	--	--	0.099 UJ	1.01 UJ	0.0248 UJ	0.105 UJ	0.106 UJ	0.0278 UJ	--	0.0266 UJ	0.0704 J
1,4-Dioxane	4,700	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.24	--	--	--	0.0396 U	0.404 U	0.0099 U	0.0421 U	0.0426 U	0.0111 U	--	0.0106 U	0.00952 U
Hexachlorobutadiene	0.64	--	--	--	0.099 UJ	1.01 UJ	0.0248 UJ	0.105 UJ	0.106 UJ	0.0278 UJ	--	0.0266 UJ	0.0238 UJ
Hexachlorocyclopentadiene	4.2	--	--	--	0.198 U	2.02 U	0.0495 U	0.211 U	0.213 U	0.0556 U	--	0.0532 U	0.0476 U
Hexachloroethane	3.8	--	--	--	0.099 UJ	1.01 UJ	0.0248 UJ	0.105 UJ	0.106 UJ	0.0278 UJ	--	0.0266 UJ	0.0238 UJ
Naphthalene	8.9	--	--	--	0.158 UJ	0.808 UJ	0.042 J	2.41 J	0.0851 UJ	0.0444 UJ	129	0.0426 UJ	0.0647 J
Organochlorine Pesticides (ug/L)													
Heptachlor[b]	0.51	--	--	--	--	--	--	--	--	--	--	--	--
Mirex[b]	0.015	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	RAU3-03	RAU4-01	RAU4-02		RAU4-04	RAU4-05	RAU4-06	RAU4-08	RAU4-09	RAU4-12	RAU4-13	RAU4-14
Sample Name:		RAU3-03-GW-5	RAU4-01-GW-6.5	RAU4-02-GW-7	RAU4-02-GW-7-DUP	RAU4-04-GW-7.0	RAU4-05-GW-7.5	RAU4-06-GW-4.5	RAU4-08-GW-7.5	RAU4-09-GW-7.0	RAU4-12-GW-9	RAU4-13-GW-6.5	RAU4-14-GW-6.0
Collection Date:		12/11/2019	12/3/2019	12/3/2019	12/3/2019	12/5/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019	12/11/2019	7/22/2020	7/21/2020
Collection Depth (ft bgs):		5	6.5	7	7	7	7.5	4.5	7.5	7	9	6.5	6
Dissolved Metals (ug/L)													
Mercury	1.1	--	--	--	--	--	--	--	--	--	--	--	--
Total Metals (ug/L)													
Mercury	1.1	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.2 U	0.2 U	0.0494 J	0.04 U	0.04 U	--	--
VOCs (ug/L)													
1,1,1,2-Tetrachloroethane	7.1	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	5,400	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	5.9	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	5.1	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
1,1-Dichloroethane	11	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
1,1-Dichloroethene	130	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
1,1-Difluoroethane[b]	29,000	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	21	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene[b]	410	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	39	--	1 U	1 U	1 U	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	240	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.16	--	2.5 U	2.5 U	2.5 U	--	--	--	--	--	--	--	--
1,2-Dibromoethane	0.3	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	2,500	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
1,2-Dichloroethane	3.5	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
1,2-Dichloropropane	10	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
1,3-Butadiene[b]	0.038	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropene[b]	8	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	170	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	5	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
2-Butanone	1,700,000	--	5 U	5 U	5 U	--	--	--	--	--	--	--	--
2-Chloro-1,3-butadiene[b]	0.0065	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	7,300	--	5 U	5 U	5 U	--	--	--	--	--	--	--	--
2-Nitropropane[b]	1.7	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	470,000	--	5 U	5 U	5 U	--	--	--	--	--	--	--	--
Acetaldehyde[b]	620	--	--	--	--	--	--	--	--	--	--	--	--
Acetonitrile[b]	33,000	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	2.9	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	12	--	1 U	1 U	1 U	--	--	--	--	--	--	--	--
Allyl chloride[b]	1.5	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	2.4	--	0.1 U	0.1 U	0.1 U	--	--	0.7	--	--	--	--	--
Benzyl chloride[b]	6.2	--	--	--	--	--	--	--	--	--	--	--	--
Bromobenzene	630	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
Bromodichloromethane	1.4	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Bromoform	220	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	RAU3-03	RAU4-01	RAU4-02		RAU4-04	RAU4-05	RAU4-06	RAU4-08	RAU4-09	RAU4-12	RAU4-13	RAU4-14
Sample Name:		RAU3-03-GW-5	RAU4-01-GW-6.5	RAU4-02-GW-7	RAU4-02-GW-7-DUP	RAU4-04-GW-7.0	RAU4-05-GW-7.5	RAU4-06-GW-4.5	RAU4-08-GW-7.5	RAU4-09-GW-7.0	RAU4-12-GW-9	RAU4-13-GW-6.5	RAU4-14-GW-6.0
Collection Date:		12/11/2019	12/3/2019	12/3/2019	12/3/2019	12/5/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019	12/11/2019	7/22/2020	7/21/2020
Collection Depth (ft bgs):		5	6.5	7	7	7	7.5	4.5	7.5	7	9	6.5	6
Bromomethane	11	--	5 U	5 U	5 U	--	--	--	--	--	--	--	--
Carbon disulfide	840	--	5 U	5 U	5 U	--	--	--	--	--	--	--	--
Carbon tetrachloride	0.62	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Chlorobenzene	340	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
Chlorodifluoromethane[b]	18,000	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	15,000	--	5 U	5 U	5 U	--	--	--	--	--	--	--	--
Chloroform	1.2	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Chloromethane	150	--	2.5 U	2.5 U	2.5 U	--	--	--	--	--	--	--	--
Cyclohexane	750	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexanone[b]	2,100,000	--	--	--	--	--	--	--	--	--	--	--	--
Dibromomethane	97	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	4.2	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Ethyl acetate[b]	10,000	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl acrylate[b]	500	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	2,800	--	0.25 U	0.25 U	0.25 U	--	--	0.26 J	--	--	--	--	--
Ethyl methacrylate[b]	14,000	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene oxide[b]	0.053	--	--	--	--	--	--	--	--	--	--	--	--
Freon 113	170	--	--	--	--	--	--	--	--	--	--	--	--
Heptane[b]	4	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.64	--	2.5 U	2.5 U	2.5 U	--	--	--	--	--	--	--	--
Hydrogen sulfide[b]	3.3	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	910	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
m,p-Xylene	NV	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Methacrylonitrile[b]	2,400	--	--	--	--	--	--	--	--	--	--	--	--
Methanol[b]	91,000,000	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	860	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
Methylene chloride	780	--	2.5 U	2.5 U	2.5 U	--	--	--	--	--	--	--	--
Methyl methacrylate[b]	50,000	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	8.9	--	2 UJ	2 UJ	2 UJ	--	--	--	--	--	--	--	--
n-Hexane[b]	7.2	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	2,300	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
o-Xylene	NV	--	0.25 U	0.25 U	0.25 U	--	--	--	--	--	--	--	--
Phosgene[b]	0.32	--	--	--	--	--	--	--	--	--	--	--	--
Propionaldehyde[b]	2,000	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	8,200	--	0.5 U	0.5 U	0.5 U	--	--	--	--	--	--	--	--
tert-Butyl ethyl ether[b]	780	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	25	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
Tetrahydrofuran[b]	520,000	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	15,000	--	0.5 U	0.5 U	0.5 U	--	--	4.92	--	--	--	--	--
trans-1,2-Dichloroethene	77	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	RAU3-03	RAU4-01	RAU4-02		RAU4-04	RAU4-05	RAU4-06	RAU4-08	RAU4-09	RAU4-12	RAU4-13	RAU4-14
Sample Name:		RAU3-03-GW-5	RAU4-01-GW-6.5	RAU4-02-GW-7	RAU4-02-GW-7-DUP	RAU4-04-GW-7.0	RAU4-05-GW-7.5	RAU4-06-GW-4.5	RAU4-08-GW-7.5	RAU4-09-GW-7.0	RAU4-12-GW-9	RAU4-13-GW-6.5	RAU4-14-GW-6.0
Collection Date:		12/11/2019	12/3/2019	12/3/2019	12/3/2019	12/5/2019	12/4/2019	12/5/2019	12/4/2019	12/5/2019	12/11/2019	7/22/2020	7/21/2020
Collection Depth (ft bgs):		5	6.5	7	7	7	7.5	4.5	7.5	7	9	6.5	6
Trichloroethene	1.4	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	120	--	1 U	1 U	1 U	--	--	--	--	--	--	--	--
Triethylamine[b]	980	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	7,800	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl bromide[b]	0.47	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.33	--	0.2 U	0.2 U	0.2 U	--	--	--	--	--	--	--	--
Xylenes (total)[c]	320	--	0.5 U	0.5 U	0.5 U	--	--	0.75 U	--	--	--	--	--
SVOCs (ug/L)													
1,2,4-Trichlorobenzene	39	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	2,500	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	5	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	4,700	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.24	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.64	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	4.2	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	3.8	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	8.9	--	0.0387 U	0.08 U	0.0378 U	0.0843 J	0.102 J	37.7 U	--	--	--	--	--
Organochlorine Pesticides (ug/L)													
Heptachlor[b]	0.51	--	--	--	--	--	--	--	--	--	--	--	--
Mirex[b]	0.015	--	--	--	--	--	--	--	--	--	--	--	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	RAU4-15	RAU4-16	RAU4-17	RAU4-21	RAU5-01	RAU5-03	RAU7-01	RAU7-02
Sample Name:		RAU4-15-GW-5.0	RAU4-16-GW-4.0	RAU4-17-GW-4.5	RAU4-21-GW-13.0	RAU5-01-GW-7.0	RAU5-03-GW-6.5	RAU7-01-GW-8.5	RAU7-02-GW-9.5
Collection Date:		7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	7/22/2020	12/5/2019	12/5/2019
Collection Depth (ft bgs):		5	4	4.5	13	7	6.5	8.5	9.5
Dissolved Metals (ug/L)									
Mercury	1.1	--	--	--	--	--	--	--	--
Total Metals (ug/L)									
Mercury	1.1	--	--	--	--	0.04 U	--	0.04 U	0.04 U
VOCs (ug/L)									
1,1,1,2-Tetrachloroethane	7.1	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	5,400	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	5.9	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	5.1	--	--	--	--	--	--	--	--
1,1-Dichloroethane	11	--	--	--	--	--	--	--	--
1,1-Dichloroethene	130	--	--	--	--	--	--	--	--
1,1-Difluoroethane[b]	29,000	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	21	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene[b]	410	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	39	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	240	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.16	--	--	--	--	--	--	--	--
1,2-Dibromoethane	0.3	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	2,500	--	--	--	--	--	--	--	--
1,2-Dichloroethane	3.5	--	--	--	--	--	--	--	--
1,2-Dichloropropane	10	--	--	--	--	--	--	--	--
1,3-Butadiene[b]	0.038	--	--	--	--	--	--	--	--
1,3-Dichloropropene[b]	8	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	170	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	5	--	--	--	--	--	--	--	--
2-Butanone	1,700,000	--	--	--	--	--	--	--	--
2-Chloro-1,3-butadiene[b]	0.0065	--	--	--	--	--	--	--	--
2-Hexanone	7,300	--	--	--	--	--	--	--	--
2-Nitropropane[b]	1.7	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	470,000	--	--	--	--	--	--	--	--
Acetaldehyde[b]	620	--	--	--	--	--	--	--	--
Acetonitrile[b]	33,000	--	--	--	--	--	--	--	--
Acrolein	2.9	--	--	--	--	--	--	--	--
Acrylonitrile	12	--	--	--	--	--	--	--	--
Allyl chloride[b]	1.5	--	--	--	--	--	--	--	--
Benzene	2.4	--	--	--	--	0.1 U	--	--	--
Benzyl chloride[b]	6.2	--	--	--	--	--	--	--	--
Bromobenzene	630	--	--	--	--	--	--	--	--
Bromodichloromethane	1.4	--	--	--	--	--	--	--	--
Bromoform	220	--	--	--	--	--	--	--	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	RAU4-15	RAU4-16	RAU4-17	RAU4-21	RAU5-01	RAU5-03	RAU7-01	RAU7-02
Sample Name:		RAU4-15-GW-5.0	RAU4-16-GW-4.0	RAU4-17-GW-4.5	RAU4-21-GW-13.0	RAU5-01-GW-7.0	RAU5-03-GW-6.5	RAU7-01-GW-8.5	RAU7-02-GW-9.5
Collection Date:		7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	7/22/2020	12/5/2019	12/5/2019
Collection Depth (ft bgs):		5	4	4.5	13	7	6.5	8.5	9.5
Bromomethane	11	--	--	--	--	--	--	--	--
Carbon disulfide	840	--	--	--	--	--	--	--	--
Carbon tetrachloride	0.62	--	--	--	--	--	--	--	--
Chlorobenzene	340	--	--	--	--	--	--	--	--
Chlorodifluoromethane[b]	18,000	--	--	--	--	--	--	--	--
Chloroethane	15,000	--	--	--	--	--	--	--	--
Chloroform	1.2	--	--	--	--	--	--	--	--
Chloromethane	150	--	--	--	--	--	--	--	--
Cyclohexane	750	--	--	--	--	--	--	--	--
Cyclohexanone[b]	2,100,000	--	--	--	--	--	--	--	--
Dibromomethane	97	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	4.2	--	--	--	--	--	--	--	--
Ethyl acetate[b]	10,000	--	--	--	--	--	--	--	--
Ethyl acrylate[b]	500	--	--	--	--	--	--	--	--
Ethylbenzene	2,800	--	--	--	--	0.25 U	--	--	--
Ethyl methacrylate[b]	14,000	--	--	--	--	--	--	--	--
Ethylene oxide[b]	0.053	--	--	--	--	--	--	--	--
Freon 113	170	--	--	--	--	--	--	--	--
Heptane[b]	4	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.64	--	--	--	--	--	--	--	--
Hydrogen sulfide[b]	3.3	--	--	--	--	--	--	--	--
Isopropylbenzene	910	--	--	--	--	--	--	--	--
m,p-Xylene	NV	--	--	--	--	--	--	--	--
Methacrylonitrile[b]	2,400	--	--	--	--	--	--	--	--
Methanol[b]	91,000,000	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	860	--	--	--	--	--	--	--	--
Methylene chloride	780	--	--	--	--	--	--	--	--
Methyl methacrylate[b]	50,000	--	--	--	--	--	--	--	--
Naphthalene	8.9	--	--	--	--	--	--	--	--
n-Hexane[b]	7.2	--	--	--	--	--	--	--	--
n-Propylbenzene	2,300	--	--	--	--	--	--	--	--
o-Xylene	NV	--	--	--	--	--	--	--	--
Phosgene[b]	0.32	--	--	--	--	--	--	--	--
Propionaldehyde[b]	2,000	--	--	--	--	--	--	--	--
Styrene	8,200	--	--	--	--	--	--	--	--
tert-Butyl ethyl ether[b]	780	--	--	--	--	--	--	--	--
Tetrachloroethene	25	--	--	--	--	--	--	--	--
Tetrahydrofuran[b]	520,000	--	--	--	--	--	--	--	--
Toluene	15,000	--	--	--	--	0.5 U	--	--	--
trans-1,2-Dichloroethene	77	--	--	--	--	--	--	--	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	MTCA Method B, Vapor Intrusion, Groundwater[a][1]	RAU4-15	RAU4-16	RAU4-17	RAU4-21	RAU5-01	RAU5-03	RAU7-01	RAU7-02
Sample Name:		RAU4-15-GW-5.0	RAU4-16-GW-4.0	RAU4-17-GW-4.5	RAU4-21-GW-13.0	RAU5-01-GW-7.0	RAU5-03-GW-6.5	RAU7-01-GW-8.5	RAU7-02-GW-9.5
Collection Date:		7/21/2020	7/21/2020	7/21/2020	7/21/2020	12/3/2019	7/22/2020	12/5/2019	12/5/2019
Collection Depth (ft bgs):		5	4	4.5	13	7	6.5	8.5	9.5
Trichloroethene	1.4	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	120	--	--	--	--	--	--	--	--
Triethylamine[b]	980	--	--	--	--	--	--	--	--
Vinyl acetate	7,800	--	--	--	--	--	--	--	--
Vinyl bromide[b]	0.47	--	--	--	--	--	--	--	--
Vinyl chloride	0.33	--	--	--	--	--	--	--	--
Xylenes (total)[c]	320	--	--	--	--	0.75 U	--	--	--
SVOCs (ug/L)									
1,2,4-Trichlorobenzene	39	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	2,500	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	5	--	--	--	--	--	--	--	--
1,4-Dioxane	4,700	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.24	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.64	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	4.2	--	--	--	--	--	--	--	--
Hexachloroethane	3.8	--	--	--	--	--	--	--	--
Naphthalene	8.9	--	--	--	--	0.0754 U	--	0.0405 U	0.0468 U
Organochlorine Pesticides (ug/L)									
Heptachlor[b]	0.51	--	--	--	--	--	--	--	--
Mirex[b]	0.015	--	--	--	--	--	--	--	--

Table 6-9
Selected 100-Foot Buffer Zone Groundwater Analytical Results
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Notes

Selected data includes only groundwater samples collected within 100 feet of any existing, enclosed structure on the site, and only the compounds with MTCA Method B vapor intrusion groundwater screening levels, including those with screening levels but no associated sample results.

Shading indicates values that exceed MTCA Method B screening values; non-detect results (U and UJ) were not compared with screening criteria.
-- = not analyzed or no data available.
ft bgs = feet below ground surface.
J = result is estimated.
JQ = result is estimated and detected below the method reporting limit.
MTCA = Model Toxics Control Act.
NV = no value.
SVOC = semivolatile organic compound.
U = result is non-detect to method reporting limit or method detection limit.
UJ = result is non-detect with an estimated reporting limit or detection limit.
ug/L = micrograms per liter.
VOC = volatile organic compound.
[a]The lowest of cancer and noncancer values are shown.
[b]MTCA Method B groundwater vapor intrusion screening value present; however, no analytical results are available.
[c]Total xylenes are reported from the laboratory or the sum of o-xylene and m,p-xylene. Non-detect results are summed at one-half the method reporting limit or method detection limit. When all results are non-detect, the highest reporting limit or detection limit is used.

Reference

[1]Ecology. 2022. *Cleanup Levels and Risk Calculation (CLARC) table* . Washington State Department of Ecology, Toxics Cleanup Program. July errata.

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Table 6-10
Analytical Summary of 2017 Soil Gas Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

	Number of Samples	Number of Detects	Number of Non-Detects	Frequency of Detection	Minimum Detected Value	Maximum Detected Value	Number of Screening Level Exceedances[(a)]	Frequency of Detected Exceedances for All Samples
VOCs (ug/m^3)								
1,1,1,2-Tetrachloroethane	6	0	6	0%	NA	NA	0	0%
1,1,1-Trichloroethane	6	1	5	17%	3	3	0	0%
1,1,2,2-Tetrachloroethane	6	0	6	0%	NA	NA	0	0%
1,1,2-Trichloroethane	6	0	6	0%	NA	NA	0	0%
1,1-Dichloroethane	6	0	6	0%	NA	NA	0	0%
1,1-Dichloroethene	6	0	6	0%	NA	NA	0	0%
1,2,4-Trichlorobenzene	6	0	6	0%	NA	NA	0	0%
1,2,4-Trimethylbenzene	6	6	0	100%	1	140	0	0%
1,2-Dibromoethane	6	0	6	0%	NA	NA	0	0%
1,2-Dichlorobenzene	6	0	6	0%	NA	NA	0	0%
1,2-Dichloroethane	6	0	6	0%	NA	NA	0	0%
1,2-Dichloropropane	6	0	6	0%	NA	NA	0	0%
1,3-Butadiene	6	0	6	0%	NA	NA	0	0%
2-Butanone	6	6	0	100%	3	9	0	0%
4-Methyl-2-pentanone	6	3	3	50%	1	1	0	0%
Acetonitrile	5	0	5	0%	NA	NA	0	0%
Acrylonitrile	5	0	5	0%	NA	NA	0	0%
Benzene	6	2	4	33%	1	2	0	0%
Benzyl Chloride	6	0	6	0%	NA	NA	0	0%
Bromodichloromethane	6	0	6	0%	NA	NA	0	0%
Bromoform	6	0	6	0%	NA	NA	0	0%
Bromomethane	6	0	6	0%	NA	NA	0	0%
Carbon disulfide	6	0	6	0%	NA	NA	0	0%
Carbon tetrachloride	6	0	6	0%	NA	NA	0	0%
Chlorobenzene	6	0	6	0%	NA	NA	0	0%
Chloroethane	6	0	6	0%	NA	NA	0	0%
Chloroform	6	0	6	0%	NA	NA	0	0%
Chloromethane	6	0	6	0%	NA	NA	0	0%

Table 6-10
Analytical Summary of 2017 Soil Gas Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Dibromochloromethane	6	0	6	0%	NA	NA	NA	NC
Dichlorodifluoromethane (Freon 12)	6	6	0	100%	1.9	3.1	0	0%
Ethylbenzene	6	5	1	83%	0.65	9.2	0	0%
Freon 113	6	0	6	0%	NA	NA	0	0%
Hexachlorobutadiene	6	0	6	0%	NA	NA	0	0%
Hexachloroethane	5	0	5	0%	NA	NA	0	0%
Isopropylbenzene	6	1	5	17%	2	2	0	0%
m,p-Xylene	6	6	0	100%	2	41	NA	NC
Methyl tert-butyl ether	6	0	6	0%	NA	NA	0	0%
Methylene chloride	6	0	6	0%	NA	NA	0	0%
Naphthalene	6	0	6	0%	NA	NA	0	0%
n-Hexane	6	4	2	67%	0.52	4.5	0	0%
o-Xylene	6	6	0	100%	0.72	15	NA	NC
Styrene	6	1	5	17%	1.6	1.6	0	0%
Tetrachloroethene	6	6	0	100%	1.3	36	0	0%
Toluene	6	6	0	100%	2.2	31	0	0%
Trichloroethene	6	0	6	0%	NA	NA	0	0%
Trichlorofluoromethane (Freon 11)	6	4	2	67%	1.2	1.2	0	0%
Vinyl acetate	6	0	6	0%	NA	NA	0	0%
Vinyl chloride	6	0	6	0%	NA	NA	0	0%
Xylenes, total	6	6	0	100%	2.72	56	0	0%
VPH (ug/m3)								
C5-C6 Aliphatic Hydrocarbons	5	1	4	20%	68	68	NA	NC
C6-C8 Aliphatic Hydrocarbons	5	1	4	20%	250	250	NA	NC
C8-C10 Aliphatic Hydrocarbons	5	0	5	0%	NA	NA	NA	NC
C8-C10 Aromatic Hydrocarbons	5	1	4	20%	320	320	NA	NC
C10-C12 Aliphatic Hydrocarbons	5	0	5	0%	NA	NA	NA	NC
C10-C12 Aromatic Hydrocarbons	5	0	5	0%	NA	NA	NA	NC
TPH (ug/m^3)								
Diesel-Range Hydrocarbons	5	0	5	0%	NA	NA	NA	NC
Generic TPH	5	5	0	100%	190	490	0	0%

Table 6-10
Analytical Summary of 2017 Soil Gas Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Notes

NA = not applicable.

NC = not calculated.

TPH = total petroleum hydrocarbons.

ug/m^3 = micrograms per cubic meter.

VOC = volatile organic compound.

VPH = volatile petroleum hydrocarbon.

[a]Screening levels are selected from MTCA Method B vapor intrusion for sub-slab soil gas, the lowest of cancer and noncancer values. Historical data are screened to the most up-to-date MTCA Method B screening values.

MAUL FOSTER ALONGI

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Table 6-11
Historical Soil Gas Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil Gas[a][1]	SS-1	SS-2	SS-3	SS-4	SS-5	SS-5A
Sample Name:		SS-1	SS-2	SS-3	SS-4	SS-5	SS-5A
Collection Date:		07/26/2017	07/26/2017	07/26/2017	07/26/2017	07/26/2017	09/07/2017
Sample Depth (inches bgs):		14	12	8	12	8	8
VOCs (ug/m^3)							
1,1,1,2-Tetrachloroethane	11	4.9 U	5.2 UJ	5 U	4.9 UJ	12 UJ	5 U
1,1,1-Trichloroethane	76,000	0.78 U	2.5 J	0.8 U	0.78 UJ	2 UJ	0.79 U
1,1,2,2-Tetrachloroethane	1.4	0.98 U	1 UJ	1 U	0.99 UJ	2.5 UJ	1 U
1,1,2-Trichloroethane	3	0.78 U	0.83 UJ	0.8 U	0.78 UJ	2 UJ	0.79 U
1,1-Dichloroethane	52	0.58 U	0.62 UJ	0.59 U	0.58 UJ	1.4 UJ	0.59 U
1,1-Dichloroethene	3,000	0.57 U	0.6 UJ	0.58 U	0.57 UJ	1.4 UJ	0.57 U
1,2,4-Trichlorobenzene	30	5.3 U	5.6 UJ	5.4 U	5.3 UJ	13 UJ	5.4 U
1,2,4-Trimethylbenzene	910	1	1.5 J	1.9	0.72 J	140 J	18
1,2-Dibromoethane	0.14	1.1 U	1.2 UJ	1.1 U	1.1 UJ	2.8 UJ	1.1 U
1,2-Dichlorobenzene	3,000	0.86 U	0.91 UJ	0.88 U	0.86 UJ	2.2 UJ	0.87 U
1,2-Dichloroethane	3.2	0.58 U	0.62 UJ	0.59 U	0.58 UJ	1.4 UJ	0.59 U
1,2-Dichloropropane	23	0.66 U	0.7 UJ	0.67 U	0.66 UJ	1.7 UJ	0.67 U
1,3-Butadiene	2.8	0.32 U	0.34 UJ	0.32 U	0.32 UJ	0.8 UJ	0.32 U
2-Butanone	76,000	7.5	8.6 J	5.3	5.6 J	7.9 J	2.7
4-Methyl-2-pentanone	46,000	0.71	0.95 J	0.7	0.59 UJ	1.5 UJ	0.59 U
Acetonitrile	910	1.2 U	1.3 UJ	1.2 U	1.2 UJ	3 UJ	--
Acrylonitrile	1.2	1.6 U	1.6 UJ	1.6 U	1.6 UJ	3.9 UJ	--
Benzene	11	0.46 U	0.9 J	0.47 U	0.46 UJ	1.2 UJ	1.7
Benzyl Chloride	1.7	0.74 U	0.79 UJ	0.76 U	0.74 UJ	1.9 UJ	0.75 U
Bromodichloromethane	2.3	0.96 U	1 UJ	0.98 U	0.96 UJ	2.4 UJ	0.97 U
Bromoform	76	1.5 U	1.6 UJ	1.5 U	1.5 UJ	3.7 UJ	1.5 U
Bromomethane	76	2.8 U	3 UJ	2.8 U	2.8 UJ	7 UJ	2.8 U
Carbon disulfide	11,000	2.2 U	2.4 UJ	2.3 U	2.2 UJ	5.6 UJ	2.2 U
Carbon tetrachloride	14	0.9 U	0.96 UJ	0.92 U	0.91 UJ	2.3 UJ	0.91 UJ
Chlorobenzene	760	0.66 U	0.7 UJ	0.67 U	0.66 UJ	1.6 UJ	0.67 U
Chloroethane	150,000	1.9 U	2 UJ	1.9 U	1.9 UJ	4.7 UJ	1.9 U

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Table 6-11
Historical Soil Gas Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil Gas[a][1]	SS-1	SS-2	SS-3	SS-4	SS-5	SS-5A
Sample Name:		SS-1	SS-2	SS-3	SS-4	SS-5	SS-5A
Collection Date:		07/26/2017	07/26/2017	07/26/2017	07/26/2017	07/26/2017	09/07/2017
Sample Depth (inches bgs):		14	12	8	12	8	8
Chloroform	3.6	0.7 U	0.74 UJ	0.71 U	0.7 UJ	1.8 UJ	0.71 U
Chloromethane	1,400	1.5 U	1.6 UJ	1.5 U	1.5 UJ	3.7 UJ	1.5 U
Dibromochloromethane	NV	1.2 U	1.3 UJ	1.2 U	1.2 UJ	3.1 UJ	1.2 U
Dichlorodifluoromethane (Freon 12)	1,500	2.1	2.1 J	2.2	2 J	1.9 J	3.1
Ethylbenzene	15,000	0.65	0.83 J	1.2	0.62 UJ	2 J	9.2
Freon 113	76,000	1.1 U	1.2 UJ	1.1 U	1.1 UJ	2.8 UJ	1.1 U
Hexachlorobutadiene	3.8	7.6 U	8.1 UJ	7.8 U	7.7 UJ	19 UJ	7.7 U
Hexachloroethane	7.6	6.9 U	7.4 UJ	7.1 U	7 UJ	17 UJ	--
Isopropylbenzene	6,100	0.7 U	0.75 UJ	0.72 U	0.71 UJ	2 J	0.71 U
m,p-Xylene	NV	2.5	3.1 J	4.8	2 J	6.3 J	41
Methyl tert-butyl ether	320	0.52 U	0.55 UJ	0.53 U	0.52 UJ	1.3 UJ	0.52 U
Methylene chloride	2,200	0.99 U	1 UJ	1 U	1 UJ	2.5 UJ	1 U
Naphthalene	2.5	3.7 U	4 UJ	3.8 U	3.8 UJ	9.4 UJ	3.8 U
n-Hexane	11,000	0.5 U	4.5 J	0.8	0.52 J	1.3 UJ	1.9
o-Xylene	NV	0.94	1.2 J	1.8	0.72 J	4.9 J	15
Styrene	15,000	0.61 U	0.65 UJ	0.62 U	0.61 UJ	1.5 UJ	1.6
Tetrachloroethene	320	2	36 J	1.5	1.3 J	5.4 J	7.8
Toluene	76,000	2.6	9.1 J	4.5	2.2 J	4.2 J	31
Trichloroethene	11	0.77 U	0.82 UJ	0.78 U	0.77 UJ	1.9 UJ	0.78 U
Trichlorofluoromethane (Freon 11)	11,000	1.2	1.2 J	0.82 U	1.2 J	2 UJ	1.2
Vinyl acetate	3,000	2.5 U	2.7 UJ	2.6 U	2.5 UJ	6.3 UJ	2.6 U
Vinyl chloride	9.5	0.36 U	0.39 UJ	0.37 U	0.37 UJ	0.92 UJ	0.37 U
Xylenes, total[b]	1,500	3.4	4.3 J	6.6	2.7 J	11 J	56
VPH (ug/m^3)							
C5-C6 Aliphatic Hydrocarbons	NV	46 U	68 J	47 U	47 UJ	47 UJ	--
C6-C8 Aliphatic Hydrocarbons	NV	59 U	250 J	60 U	59 UJ	59 UJ	--
C8-C10 Aliphatic Hydrocarbons	NV	83 U	88 UJ	85 U	84 UJ	84 UJ	--

Table 6-11
Historical Soil Gas Analytical Data
Upland Remedial Investigation
Grays Harbor Historical Seaport Authority

Location:	Screening Level for Soil Gas[a][1]	SS-1	SS-2	SS-3	SS-4	SS-5	SS-5A
Sample Name:		SS-1	SS-2	SS-3	SS-4	SS-5	SS-5A
Collection Date:		07/26/2017	07/26/2017	07/26/2017	07/26/2017	07/26/2017	09/07/2017
Sample Depth (inches bgs):		14	12	8	12	8	8
C8-C10 Aromatic Hydrocarbons	NV	70 U	75 UJ	72 U	71 UJ	320 J	--
C10-C12 Aliphatic Hydrocarbons	NV	100 U	100 UJ	100 U	100 UJ	100 UJ	--
C10-C12 Aromatic Hydrocarbons	NV	78 U	83 UJ	80 U	79 UJ	79 UJ	--
TPH (ug/m^3)							
Diesel-Range Organics	NV	2,000 U	2,000 U	2,000 U	2,000 U	2,000 U	--
Generic TPH[c]	1,500	190	470	200	190	490	--

Notes

Detected results were compared with soil gas screening levels; non-detects (U and UJ) were not compared with screening criteria. There were no exceedances.

-- = not analyzed.

bgs = below ground surface.

J = result is estimated.

MTCA = Model Toxics Control Act.

NV = no value.

TPH = total petroleum hydrocarbon.

U = result is non-detect at the method reporting limit.

UJ = result is non-detect with an estimated method reporting limit.

ug/m^3 = micrograms per cubic meter.

VOC = volatile organic compound.

VPH = volatile petroleum hydrocarbons.

[a]Screening levels are selected from MTCA Method B vapor intrusion for sub-slab soil gas, the lowest of cancer and noncancer values. Historical data are screened to the most up-to-date MTCA Method B screening values.

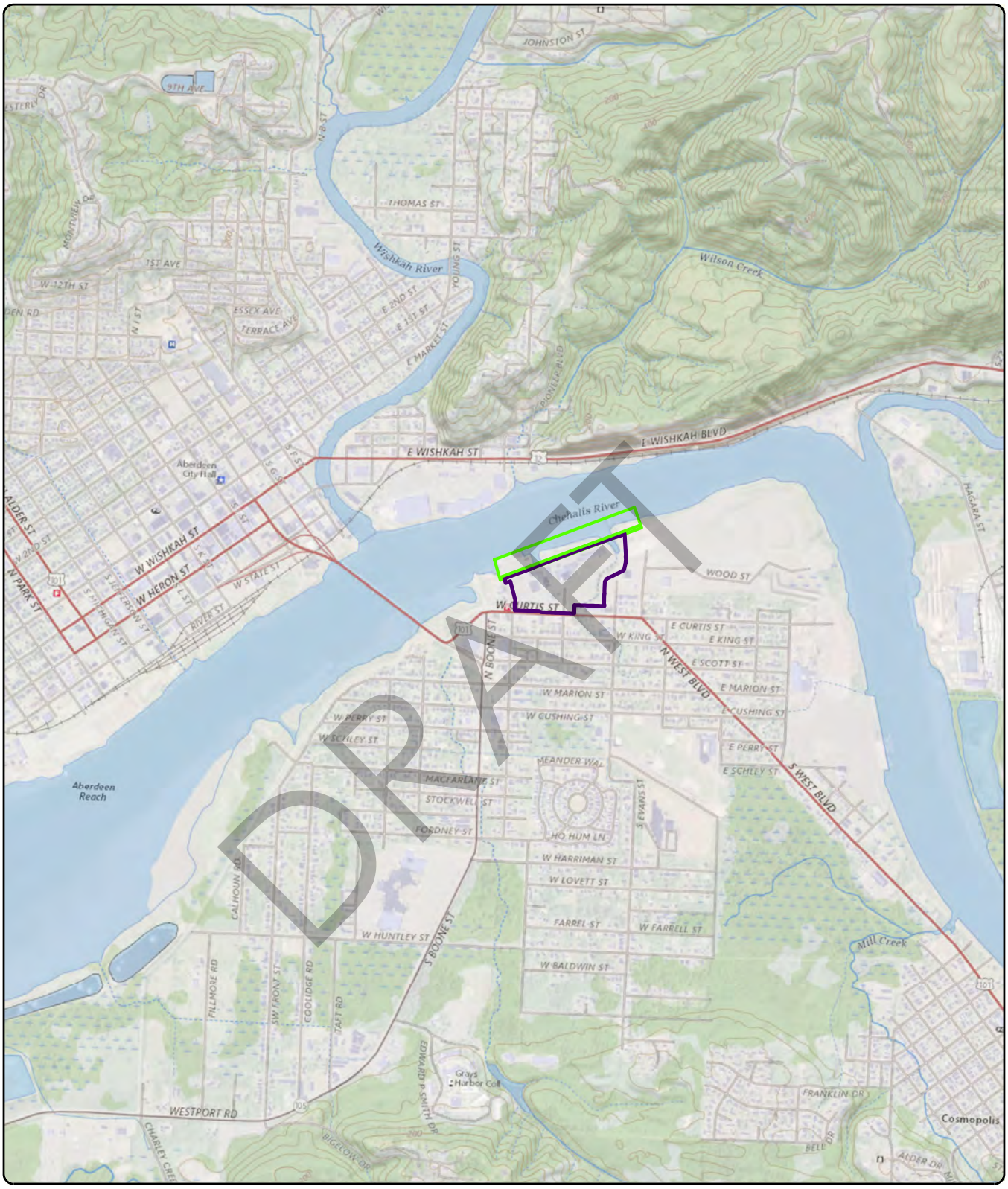
[b]Total xylenes are reported from the lab or the sum of o-xylene and m,p-xylene. Non-detect results are summed at one-half the method reporting limit.

[c]Generic TPH is the sum of benzene, ethylbenzene, toluene, total xylenes, naphthalene, C5-C6 aliphatic hydrocarbons, C6-C8 aliphatic hydrocarbons, C8-C10 aliphatic hydrocarbons, C10-C12 aliphatic hydrocarbons, and C8-C10 aromatic hydrocarbons. Non-detect results are summed at one-half the method reporting limit.

Reference

[1]Ecology. 2022. *Cleanup Levels and Risk Calculation (CLARC) table* . Washington State Department of Ecology, Toxics Cleanup Program. July errata.

FIGURES



Notes:
Site Address: 500 N Custer Street, Aberdeen, Washington.
U.S. Geological Survey (1990) 7.5-minute topographic quadrangle: Aberdeen.
Township 17 north, range 9 west, sections 9 and 10.

Legend

- The Site
- Approximate Aquatic Lands Lease Area

Figure 1-1
Site Location

Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington

0 1,000 2,000
Feet

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Reviewed by: mpollock
Produced By: sturner
Project: M1044.02.013

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Print Date: 10/27/2022

Reviewed By: mpollock

Produced By: sturner

Project: M1044.02.013

Figure 1-2
Site Vicinity and In-Water Lease Area

Weyerhaeuser Sawmill
Aberdeen/Seaport
Landing Site
Aberdeen, Washington

Legend

- Approximate Line of Ordinary High Water
- The Site
- Approximate Aquatic Lands Lease Area
- Tax Lot

0 100 200
Feet

Data Sources:
Aerial photograph obtained from Esri; tax lot data obtained from Grays Harbor County.

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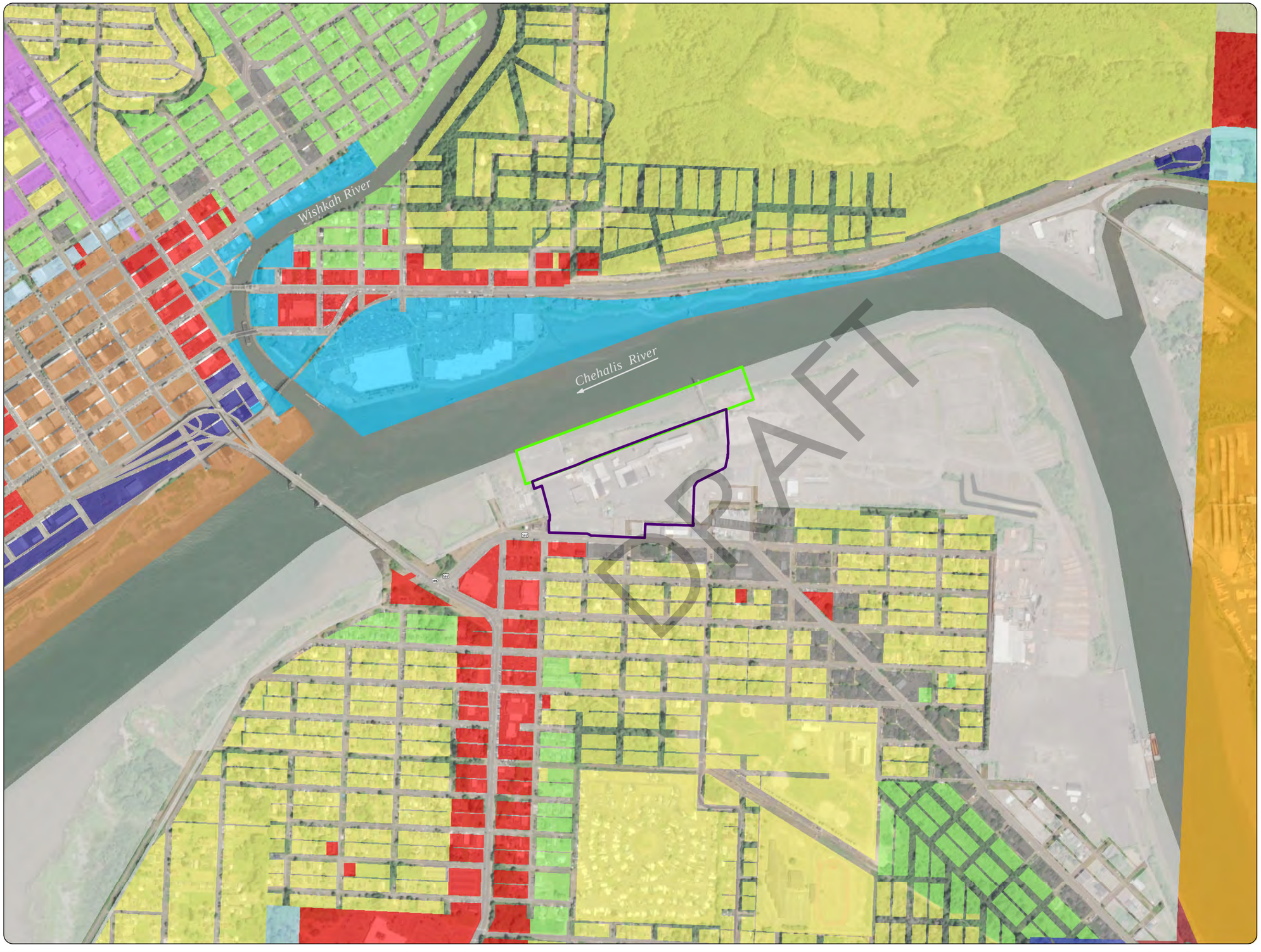

Figure 2-1
Zoning Designations

Weyerhaeuser Sawmill
Aberdeen/Seaport
Landing Site
Aberdeen, Washington

Legend

- The Site
- Approximate Aquatic Lands Lease Area

Zoning Designation

- Aberdeen CD Downtown Commercial
- Aberdeen CG General Commercial
- Aberdeen CR Commercial/Residential
- Aberdeen I Industrial
- Aberdeen LI Light Industrial
- Aberdeen MI Major Institutional
- Aberdeen RM Multiple Family Residential
- Aberdeen RP Residential Professional
- Aberdeen RS Single Family Residential
- Aberdeen WD Waterfront Development
- Cosmopolis MU Mixed Use
- Cosmopolis WA Waterfront Use
- County C2 General Commercial
- County G5 General Development Five
- County I2 Industrial
- County R2 General Residential

Notes:
Aberdeen = City of Aberdeen.
Cosmopolis = City of Cosmopolis.
County = Grays Harbor County.

0 500 1,000
Feet

Data Sources:
Aerial photograph obtained from Mapbox; zoning data obtained from Grays Harbor County.

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Print Date: 10/27/2022
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Produced By: sturner
Project: M1044.02.013

Wharf Area
Chehalis River
Wood Oil Tank
Boiler
Lumber Shed
Powerhouse
Transformer
Oil House
Beach Area
Historical Aberdeen Salmon Cannery
Chip Area Blower Building
Pocket Beach
Spray Room
Compressor Building
Wood Waste Burner
Fuel & Chemical Storage Building
Maintenance Shop
Chip Lift Truck
Diesel AST
Kilns
Small Log Mill
Main Shipping Shed
Oil Tank & Chemical Storage Shed
Shannon Slough
Former Pee Wee Mill
Planer Building
Steam Cleaning Facility
Storage Shed
Generator Shed & Diesel AST
Water Treatment System
1906 Mill
101
Aberdeen Pad Transformer
Guard Shack UST
W. Curtis St.
Water Tank
Office
Guard Shed
N. Boone St.

Notes:
Aquatic lands lease areas were digitized from print maps of Aberdeen tidelands dated March 22, 2001, and January 15, 1907, on file with the Office of the Commissioner of Public Lands in Olympia, Washington, and should be considered approximate.
AST = aboveground storage tank.
UST = underground storage tank.

Data Sources:
Aerial photograph obtained from Esri; tax lots and roads obtained from Grays Harbor County; harbor lines obtained from Washington Department of Natural Resources; former features obtained from Level I Environmental Site Assessment, PES Environmental; August 13, 2010.

Legend

- Approximate Line of Ordinary High Water
- Former Mill
- Former Wharf Extension
- Existing Buildings/Features
- Former Buildings/Features
- Inner Harbor Line
- Outer Harbor Line
- The Site
- Approximate Aquatic Lands Lease Area

Figure 2-2
Historical and Current Site Features

Weyerhaeuser Sawmill Aberdeen/
Seaport Landing Site
Aberdeen, Washington

0 100 200
Feet

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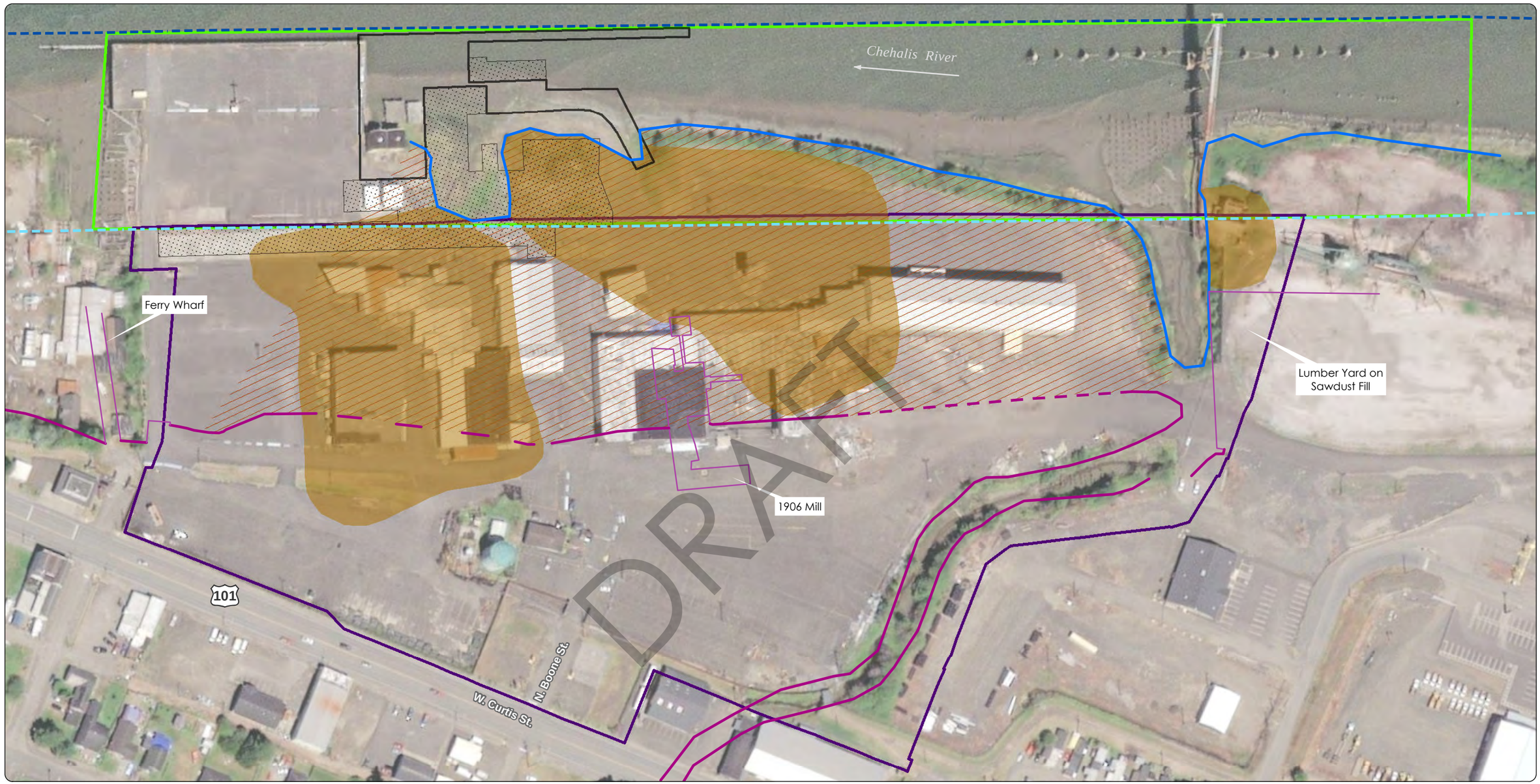
Approved By: mpollock
Produced By: sturner
Project: M1044.02.013



Note:
Sanborn = Sanborn Fire Insurance map.

Data Sources:
Aerial photograph obtained from Esri; parcels and roads obtained from Grays Harbor County; shoreline boundaries are approximate and derived from Sanborn Fire Insurance maps; harbor lines obtained from Washington Department of Natural Resources; extent of wood waste is approximate and derived from geographic logs.

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Legend

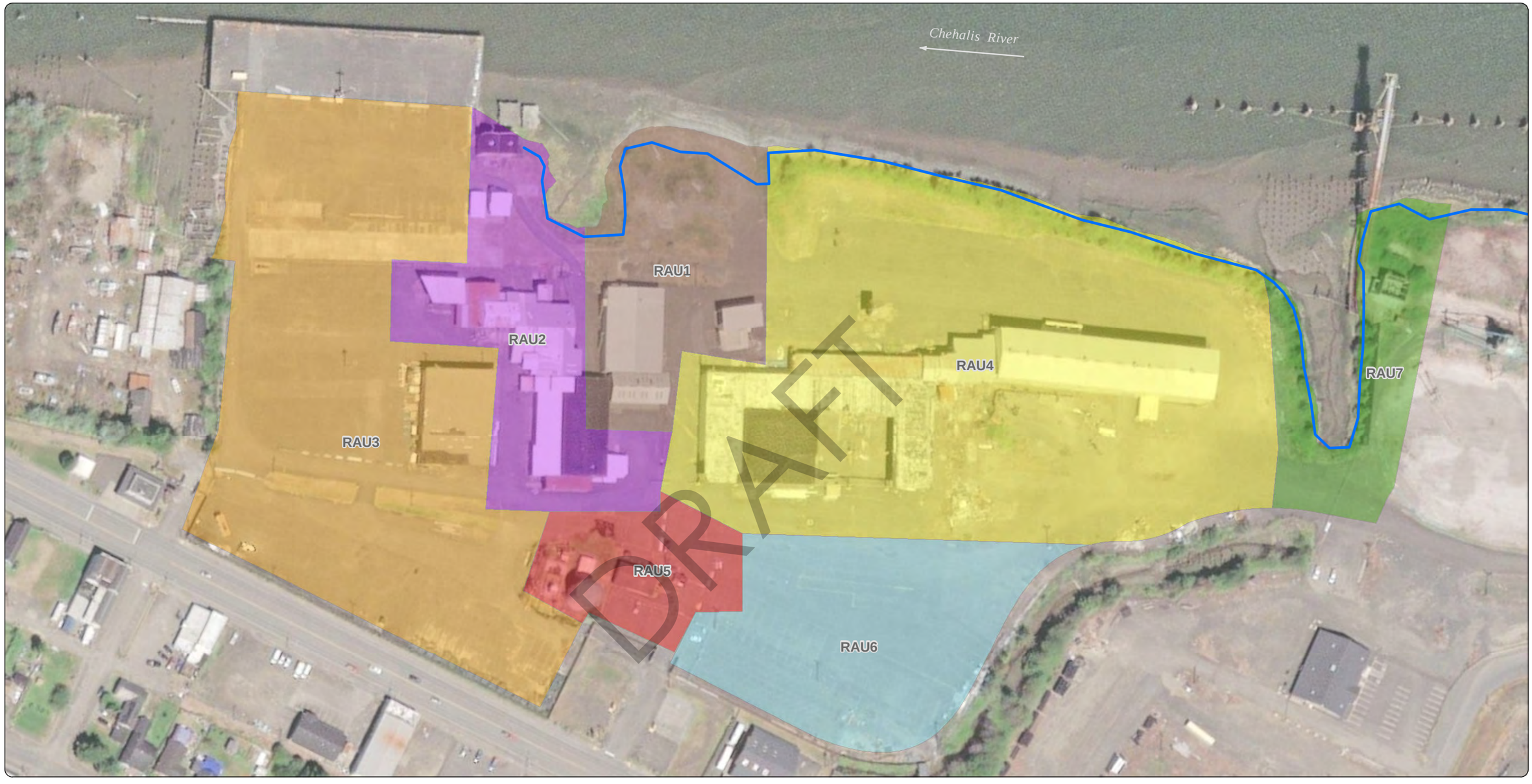
- Extent of Wood Waste
- The Site
- Approximate Aquatic Lands Lease Area
- Inner Harbor Line
- Outer Harbor Line
- Approximate Line of Ordinary High Water
- Former Wharf Extension
- Former Mill
- Fill

Sanborn Boundaries, 1906 (approximate)

- Shoreline/Slough
- Built Structure

Figure 2-3
Historical Fill Events and Shoreline Changes
Weyerhaeuser Sawmill
Aberdeen/Seaport
Landing Site
Aberdeen, Washington

0 100 200
Feet



Notes:
RAU = remedial action unit.

Data Source:
Aerial photograph obtained from Esri.

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Legend

Approximate Line of Ordinary High Water

Remedial Action Unit Boundaries

- RAU1
- RAU2
- RAU3
- RAU4
- RAU5
- RAU6
- RAU7

Figure 2-4
Remedial Action Units

Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, WA

0 100 200
Feet

Path: X:\1044_02_13\04\Fig2-4_Remedial Action Units.mxd
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Reviewed by: ddomenighini
Produced By: stumer
Project: M1044.02.013

Notes:
Aquatic lands lease areas were digitized from print maps of Aberdeen tidelands dated March 22, 2001, and January 15, 1907, on file with the Office of the Commissioner of Public Lands in Olympia, Washington, and should be considered approximate.
LiDAR = Light detection and ranging.
NAVD 88 = North American Vertical Datum of 1988.

Data Sources:
Bathymetric survey performed in 2016; LiDAR survey performed in 2009; aerial photograph obtained from Esri; navigation channel obtained from Gray's Harbor GIS.

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Legend

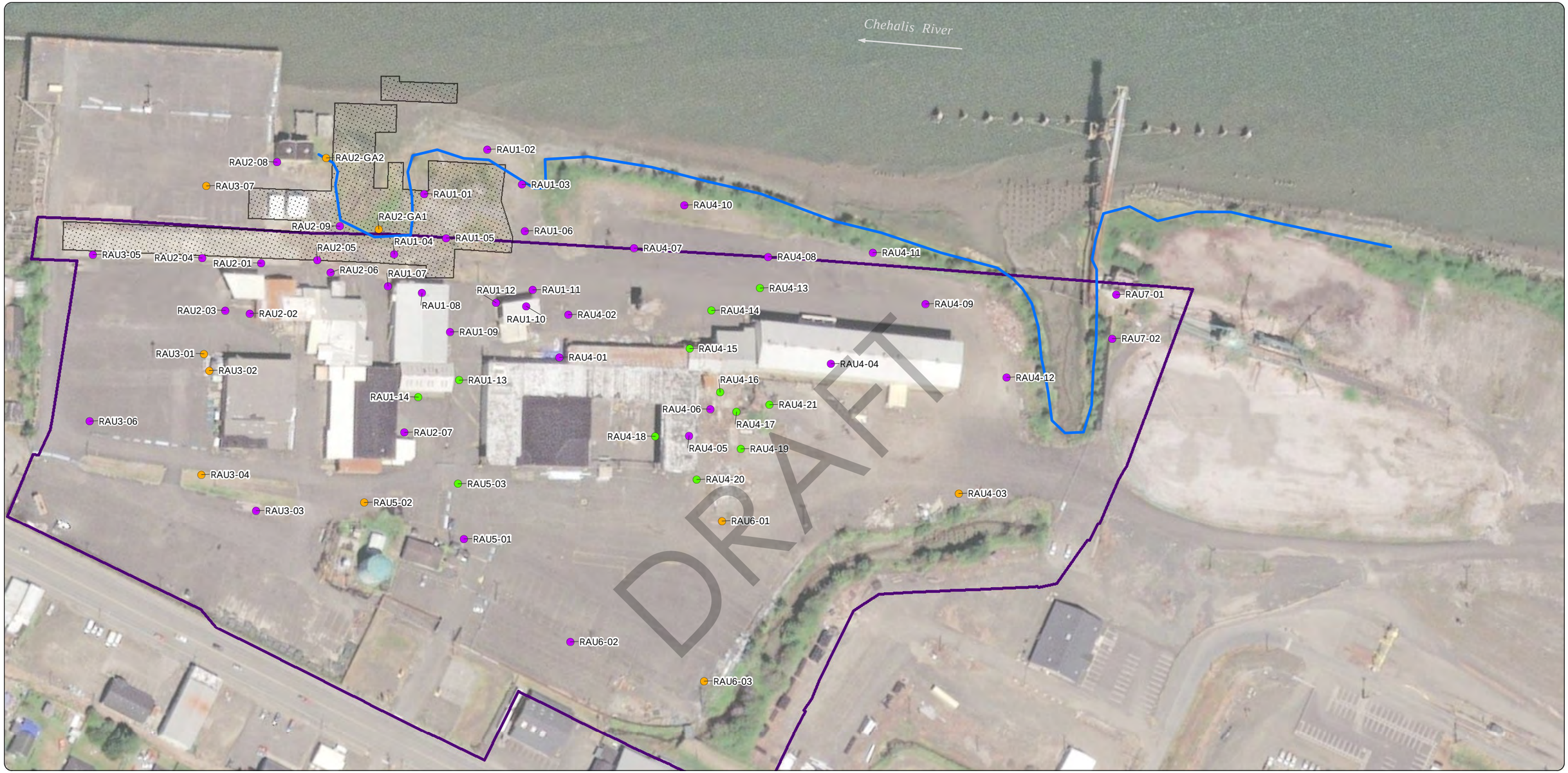
- Approximate Line of Ordinary High Water
- Inner Harbor Line
- Outer Harbor Line
- Approximate Aquatic Lands Lease Area
- The Site
- One-Foot Contour Bathymetry (NAVD 88)
- One-Foot Contour LiDAR (NAVD 88)
- Navigation Channel

Figure 3-1
Topography and Bathymetry

Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington

0 100 200
Feet

Project: M1044 02 013 Produced By: sturner Reviewed by: mpollock Print Date: 10/27/2022



Legend

Remedial Investigation
- 2019 Soil Sample Location
- 2019 Soil and Groundwater Sample Location
- 2020 Soil and Groundwater Sample Location

- Approximate Line of Ordinary High Water
- Former Mill
- The Site

Figure 4-1
Remedial Investigation Sample Locations

Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington

0 100 200
Feet

Data Sources:
Aerial photograph obtained from Esri; line of ordinary high water determined determined from Grays Harbor Historical Seaport Authority Critical Areas Report (Grette Associates LLC, dated October 2019).

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Data Sources:
Aerial photograph obtained from Esri; Line of ordinary high water determined from Grays Harbor Historical Seaport Authority Critical Areas Report (Grette Associates LLC, dated October 2019).
Sample locations obtained from:
E&E. 2018. Seaport Landing Site Targeted Brownfields Assessment. Ecology and Environment, Inc. May.
MFA. 2016. Focused Investigation Report. Maul Foster Alongi. July 14.
MFA. 2017. Study Area Investigation-Aquatic Lands Lease. Maul Foster Alongi. April 11.
SAIC. 2011. Weyerhaeuser Aquatic Lands Lease Confirmatory Sampling, Aberdeen, WA. Data Report Final. Submitted to Washington Department of Natural Resources. August 12.

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Legend

- Approximate Line of Ordinary High
- Former Mill
- The Site

Previous Investigations

- 2011 Soil Sample Location
- 2015 Soil Sample Location
- 2017 Soil Sample Location
- 2017 Soil and Groundwater Sample

Figure 6-1
Historical Sample Locations

Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington

0 100 200
Feet

PB01		
Depth	2-4	6-8
Thallium	**4.7**	**5**

PB09		
Depth	2-4	4-5.5
Thallium	**5.7**	**5.3**

PB02		
Depth	0-2	7-9
Thallium	**4.7**	**5**
Diesel+Oil[a]	**3,120**	**22,000**

PB10		
Depth	2.4-4	4-6.5
Thallium	**3.8**	**3.1**

PB03		
Depth	0-2	4-5
Thallium	**4.3**	**3**

OC03		
Depth	3-4	5-7
Cobalt	--	**26**
Thallium	**4**	**5.6**

CR-22	
Depth	3-4.5
Dioxins/Furans TEQ[d]	**35.8 J**

OC01		
Depth	1-4	4-6
Thallium	**3.2**	**5.9**
cPAH TEQ[b]	**0.154 J**	--

PB07	
Depth	0-0.5
Cadmium	**6.6**
Iron	**117,000 J**
cPAH TEQ[b]	**0.336 J**
Diesel+Oil[a]	**170,000**

PB08	
Depth	0-0.5
Cadmium	**6.6**
Iron	**147,000 J**
cPAH TEQ[b]	**0.163 J**
Diesel+Oil[a]	**25,000**

CR-20	
Depth	3.3-5
Total PCBs[c]	**2.2 J**
Dioxins/Furans TEQ[d]	**90**
cPAH TEQ[b]	**0.237 J**
Diesel+Oil	**3,080**

MS04		
Depth	2-4	4-6
Thallium	**4**	**5.1**
Diesel+Oil[a]	**2,220**	--

PW02	
Depth	1.6-2.6
cPAH TEQ[b]	**2.53 J**

NA01		
Depth	2-4	5-6
Thallium	**5.2**	**6.2**

MS05		
Depth	3.2-4	4-6
Thallium	**3**	**1.8 JQ**
cPAH TEQ[b]	**0.131**	**0.257**
Diesel+Oil[a]	**6,320**	**90,100**

CR-22	
Depth	3-4.5
Dioxins/Furans TEQ[d]	**35.8 J**

CR-21	
Depth	3.5-5
cPAH TEQ[b]	**0.247**
Diesel+Oil[a]	**4,220**

B02	
Depth	4-5
cPAH TEQ[b]	**0.154**
Diesel+Oil[a]	**24,800**

SB01	
Depth	4.25-5
Diesel+Oil[a]	**2,100**

MS03		
Depth	2-4	5-7
Thallium	**2.1**	**4.4**
cPAH TEQ[b]	**0.142**	--
Diesel+Oil[a]	**6,720**	**20,000**

MS01		
Depth	1-4	8-12
Cadmium	--	**9.3**
Iron	--	**163,000 J**
Manganese	--	**13,100**
Thallium	**3.2**	--
cPAH TEQ[b]	**0.182 J**	--

SB6		
Depth	1.5-3	3-5
Diesel+Oil[a]	**2,810**	**2,620**

FC01		
Depth	2-4	5-7
Thallium	**2.6**	**2.8**
Diesel+Oil[a]	**2,020**	--

FC02		
Depth	2-4	4-6
Thallium	**2.7**	**3.4**
Diesel+Oil[a]	--	**9,700**

FC03		
Depth	2-4	6-8
Cadmium	--	**2.5**
Cobalt	--	**33.8**
Lead	--	**1,110**
Thallium	**3.3**	**4**
cPAH TEQ[b]	--	**0.225 J**

MS02		
Depth	2-4	6-8
Thallium	**3.4**	**3.5**

MS06		
Depth	2-4	6-8
Thallium	**2.8**	**2.9**

VM01		
Depth	2-4	6-8
Thallium	**4**	**3.7**

Data Sources:
Aerial photograph obtained from Esri; line of ordinary high water determined from Grette Associates LLC critical areas report dated October 2019; sample locations obtained from:
E&E. 2018. Seaport Landing Site Targeted Brownfields Assessment. Ecology and Environment, Inc. May.
MFA. 2016. Focused Investigation Report. Maul Foster Alongi. July 14.
MFA. 2017. Study Area Investigation-Aquatic Lands Lease. Maul Foster Alongi. April 11.
SAIC. 2011. Weyerhaeuser Aquatic Lands Lease Confirmatory Sampling, Aberdeen, WA. Data Report Final. Submitted to Washington Department of Natural Resources. August 12.

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Notes:
All concentrations represented as mg/kg except for dioxins/furans, which are pg/g.
All depths represented as feet below ground surface.
Detected values are bolded.
cPAH = carcinogenic polycyclic aromatic hydrocarbons.
Dioxins/Furans = polychlorinated dibenzo-p-dioxins and dibenzofurans.
J = result is estimated.
mg/kg = milligrams per kilogram.
pg/g = picograms per gram.
PCB = polychlorinated biphenyl.
TEQ = toxicity equivalent quotient.

[a] Diesel+oil is the sum of diesel- and lube-oil-range hydrocarbon results. Non-detect results are summed at one-half the reporting limit or detection limit. When both results are non-detect, the highest reporting limit or detection limit is used.
[b] cPAH TEQ is calculated with toxicity equivalence factors from Washington Ecology Evaluating the Human Heath Toxicity of Carcinogenic PAHs Using Toxicity Equivalence Factors. Non-detect results are included at one-half the detection limit or reporting limit. When all cPAHs are non-detect, the highest reported detection limit or reporting limit is shown.
[c] Total PCBs are the sum of all PCB Aroclors. Non-detect results are not included in the sum. When all results are non-detect, the highest reporting limit or detection limit is used.
[d] Dioxin/furan TEQ is calculated with 2005 World Health Organization mammal toxicity equivalence factors. Non-detect results are included at one-half the detection limit. When all dioxin and furan results are non-detect, the TEQ is shown as "ND."

Legend

- Soil Sample Location
- Approximate Line of Ordinary High Water
- Existing Buildings/Features
- Former Buildings/Features
- Former Mill
- The Site

Figure 6-2a
Historical Soil Cleanup Level Exceedances

Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington

0 100 200
Feet

RAU2-09		
Depth	1-2	7.5-8.5
cPAH TEQ[b]	**0.659 J**	--
Diesel+Oil[a]	**3,410**	**37,500**

RAU2-GA1		
Depth	2.5-4	5-6.5
cPAH TEQ[b]	**0.511 J**	**0.126 J**

RAU1-04		
Depth	0-0.5	1-1.5
Dioxins/Furans TEQ[c]	**57.5 J**	--
cPAH TEQ[b]	--	**0.631 J**

RAU1-02	
Depth	0.5-1.5
cPAH TEQ[b]	**0.109 J**

RAU1-05		
Depth	0-0.5	1-2
Dioxins/Furans TEQ[c]	**64.6 J**	--
Diesel+Oil[a]	--	**8,820**

RAU1-08		
Depth	1.5-2.5	6.5-7.5
cPAH TEQ[b]	--	**0.247 J**
Diesel+Oil[a]	**8,940**	**10,100**

RAU2-GA2		
Depth	2.5-4	7.5-9
Dioxins/Furans TEQ[c]	**61.0 J**	--
cPAH TEQ[b]	**4.15 J**	**0.110 J**

RAU1-12	
Depth	2-3.5
GRO	**118 J**

RAU1-10	
Depth	1.5-2.5
cPAH TEQ[b]	**0.152 J**

RAU3-05	
Depth	1.2-2
cPAH TEQ[b]	**0.128 J**

RAU4-08	
Depth	1-2.5
Diesel+Oil[a]	**5,090**

RAU3-01	
Depth	1.5-2.5
Diesel+Oil[a]	**8,600**

RAU4-16	
Depth	2.5-3.5
Diesel+Oil[a]	**15,900**

RAU3-02	
Depth	2-3
cPAH TEQ[b]	**0.187 J**

RAU4-21	
Depth	10.5-11.5
Diesel+Oil[a]	**11,200**

RAU1-07	
Depth	1-2.5
Diesel+Oil[a]	**3,300**

RAU4-17	
Depth	2-3
Diesel+Oil[a]	**2,710**

RAU1-09	
Depth	1-2
Benzene	**0.0474**
cPAH TEQ[b]	**1.23 J**
Diesel+Oil[a]	**4,210**

RAU4-05	
Depth	1-2.5
Diesel+Oil[a]	**3,230**

RAU6-03	
Depth	2-3
cPAH TEQ[b]	**0.139 J**

RAU4-19	
Depth	2-3
Diesel+Oil[a]	**4,740**

RAU4-06	
Depth	1-2
Diesel+Oil[a]	**4,700**

Chehalis River
RAU2-08
RAU2-GA2
RAU3-07
Oil House
Pocket Beach
RAU1-03
RAU1-01
RAU1-06
RAU4-10
RAU4-07
RAU4-11
Compressor Building
RAU2-04
RAU2-05
RAU2-06
Wood Waste Burner
Spray Room
RAU1-11
RAU4-13
RAU7-01
RAU2-03
RAU2-02
Maintenance Shop
RAU4-02
Fuel and Chemical Storage
RAU4-14
RAU4-09
RAU4-15
Small Log Mill
RAU7-02
Shannon Slough
RAU4-01
RAU4-04
RAU4-12
RAU1-13
RAU1-14
Storage Shed
RAU3-06
Planer Building
RAU2-07
Main Shipping Shed
RAU4-18
Pee Wee Mill
RAU3-04
RAU4-20
RAU5-02
RAU5-03
RAU4-03
RAU3-03
RAU6-01
RAU5-01
Aberdeen Pad Transformer
RAU6-02

DRAFT

Data Sources:
Aerial photograph obtained from Esri; line of ordinary high water determined from Grette Associates LLC critical areas report dated October 2019.

Notes:
All concentrations represented as mg/kg except for dioxins/furans, which are pg/g.
All depths represented as feet below ground surface.
Detected values are bolded.
cPAH = carcinogenic polycyclic aromatic hydrocarbons.
Dioxins/Furans = polychlorinated dibenzo-p-dioxins and dibenzofurans.
GRO = gasoline-range hydrpcarbons.
J = result is estimated.
mg/kg = milligrams per kilogram.
pg/g = picograms per gram.
TEQ = toxicity equivalent quotient.

[a] Diesel+oil is the sum of diesel- and lube-oil-range hydrocarbon results. Non-detect results are summed at one-half the reporting limit or detection limit. When both results are non-detect, the highest reporting limit or detection limit is used.
[b] cPAH TEQ is calculated with toxicity equivalence factors from Washington Ecology Evaluating the Human Heath Toxicity of Carcinogenic PAHs Using Toxicity Equivalence Factors. Non-detect results are included at one-half the detection limit or reporting limit. When all cPAHs are non-detect, the highest reported detection limit or reporting limit is shown.
[c] Dioxin/furan TEQ is calculated with 2005 World Health Organization mammal toxicity equivalence factors. Non-detect results are included at one-half the detection limit. When all dioxin and furan results are non-detect, the TEQ is shown as "ND."

Legend

- Soil Sample Location
- Approximate Line of Ordinary High Water
- Existing Buildings/Features
- Former Buildings/Features
- Former Mill
- The Site

Figure 6-2b
Remedial Investigation Soil Cleanup Level Exceedances

Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington

0 100 200
Feet

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RAU1-02	
Depth	0.5-1.5
cPAH TEQ[b]	**0.109 J**

RAU2-09	
Depth	1-2
Mercury	**0.252 J**
Total PCBs[a]	**0.0134**
cPAH TEQ[b]	**0.659 J**

RAU1-03

Compressor Building
Oil House
Pocket Beach
Wood Waste Burner
Spray Room
Maintenance Shop
Fuel and Chemical Storage
Small Log Mill
Shannon Slough
Planer Building
Storage Shed
Main Shipping Shed
Pee Wee Mill
Aberdeen Pad Transformer

Data Sources:
Aerial photograph obtained from Esri; line of ordinary high water determined from Grette Associates LLC critical areas report dated October 2019; sample locations obtained from:
MFA. 2016. Focused Investigation Report. Maul Foster & Alongi, Inc. July 14.

Notes:
All concentrations represented as mg/kg.
All depths represented as feet below ground surface.
Detected values are bolded.
RAU1-03 is shown as a riverbank sample location, though no contaminants exceed sediment cleanup levels.
BFA = benzofluoranthene.
cPAH = carcinogenic polycyclic aromatic hydrocarbons.
J = result is estimated.
mg/kg = milligrams per kilogram.
PCB = polychlorinated biphenyl.
TEQ = toxicity equivalent quotient.

[a]Total PCBs are the sum of all PCB Aroclors. Non-detect results are not included in the sum. When all results are non-detect, the highest reporting limit or detection limit is used.
[b]cPAH TEQ is calculated with toxicity equivalence factors from Washington Ecology Evaluating the Human Heath Toxicity of Carcinogenic PAHs Using Toxicity Equivalence Factors. Non-detect results are included at one-half the detection limit or reporting limit. When all cPAHs are non-detect, the highest reported detection limit or reporting limit is shown.

Legend

- Soil Sample Location
- Approximate Line of Ordinary High Water
- Existing Buildings/Features
- Former Buildings/Features
- Former Mill
- The Site

Figure 6-3
Sediment Cleanup Level Exceedances in Riverbank Soil Samples

Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington

0 100 200
Feet

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PB01	
Depth	--
T-Iron	26,800
T-Manganese	3,950

CR-20	
Depth	5.5
Diesel+Oil[b]	2,600

CR-22	
Depth	6.5
1-MN	1.7
Diesel+Oil[b]	1,410

CR-23	
Depth	3.5
1-MN	2
Diesel+Oil[b]	6,600 J

CR-21	
Depth	7.5
T-Chromium	66
Diesel+Oil[b]	3,820

B02	
Depth	6
T-Chromium	116
T-Lead	80
cPAH TEQ[a]	15 J
Diesel+Oil[b]	150,000 J

PB09	
Depth	--
T-Iron	24,100
T-Manganese	2,120

MS03	
Depth	--
T-Iron	50,500
T-Manganese	2,030
PCP	1.5 J
cPAH TEQ[a]	0.308 JQ
Diesel+Oil[b]	34,200

PB02	
Depth	--
T-Cobalt	9.5 JQ
T-Iron	36,100
T-Lead	23.8
T-Manganese	2,170
T-Vanadium	96.8
BCEE	3 JQ
Diesel+Oil[b]	79,200

MS01	
Depth	--
T-Iron	24,400
T-Manganese	4,090
PCP	19 J

PB10	
Depth	--
T-Iron	28,200
T-Manganese	4,050

PB03	
Depth	--
T-Manganese	1,730

FC01	
Depth	--
T-Aluminum	17,800
T-Cobalt	9.6 JQ
T-Iron	56,200
T-Lead	53
T-Manganese	6,070
PCP	0.3

OC03	
Depth	--
T-Cobalt	10.5 JQ
T-Iron	76,600
T-Manganese	10,600

OC02	
Depth	--
T-Iron	26,000
T-Manganese	2,380

FC02	
Depth	--
T-Cobalt	13.4 JQ
T-Iron	52,100
T-Manganese	18,400
Diesel+Oil[b]	5,300

OC01	
Depth	--
T-Iron	20,500
T-Manganese	2,110

PB04	
Depth	--
PCP	1,600 J

FC03	
Depth	--
T-Lead	18.6
T-Manganese	1,120
Diesel+Oil[b]	880

MS04	
Depth	--
T-Iron	28,000

B03	
Depth	7.5
Diesel+Oil[b]	2,000 J

MS05	
Depth	--
T-Iron	15,500
T-Manganese	854
Diesel+Oil[b]	825

MS02	
Depth	--
T-Cobalt	8.6 JQ
T-Iron	34,500
T-Manganese	12,100
PCP	0.96

VM01	
Depth	--
T-Iron	34,400
T-Manganese	6,260

MS06	
Depth	--
T-Cobalt	11.3 JQ
T-Iron	34,600
T-Manganese	5,100

Chehalis River
Compressor Building
Oil House
Pocket Beach
Spray Room
PB06
Maintenance Shop
Wood Waste Burner
Fuel and Chemical Storage
Small Log Mill
Shannon Slough
PB05
B01
Storage Shed
Planer Building
PW01
PW02
Main Shipping Shed
Pee Wee Mill
Aberdeen Pad Transformer
DRAFT

Data Sources:
Aerial photograph obtained from Esri; line of ordinary high water determined from Grette Associates LLC critical areas report dated October 2019; sample locations obtained from:
E&E. 2018. Seaport Landing Site Targeted Brownfields Assessment.
Ecology and Environment, Inc. May.
MFA. 2016. Focused Investigation Report. Maul Foster Alongi. July 14.
MFA. 2017. Study Area Investigation-Aquatic Lands Lease. Maul Foster Alongi. April 11.
SAIC. 2011. Weyerhaeuser Aquatic Lands Lease Confirmatory Sampling, Aberdeen, WA. Data Report Final. Submitted to Washington Department of Natural Resources. August 12.

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Notes:
All concentrations represented as ug/L.
All depths represented as feet below ground surface.
Detected values are bolded.
Depth not measured or reported in historical data is noted as --.
1-MN = 1-methylnaphthalene.
BCEE = bis(2-chloroethyl)ether.
cPAH = carcinogenic polycyclic aromatic hydrocarbons.
J = result is estimated.
JQ = result is estimated and detected below the method reporting limit.
PAH = polycyclic aromatic hydrocarbons.
PCP = pentachlorophenol.
T- = total fraction.
TEQ = toxicity equivalent quotient.
ug/L = micrograms per liter.

[a]cPAH TEQ is calculated with toxicity equivalence factors from Washington Ecology Evaluating the Human Heath Toxicity of Carcinogenic PAHs Using Toxicity Equivalence Factors. Non-detect results are included at one-half the detection limit or reporting limit. When all cPAHs are non-detect, the highest reported detection limit or reporting limit is shown.
[b]Diesel+oil is the sum of diesel- and lube-oil-range hydrocarbon results. Non-detect results are summed at one-half the reporting limit or detection limit. When both results are non-detect, the highest reporting limit or detection limit is used.

Legend
- Groundwater Sample Location
- Approximate Line of Ordinary High Water
- Existing Buildings/Features
- Former Buildings/Features
- Former Mill
- The Site

Figure 6-4a
Historical Groundwater Cleanup Level Exceedances
Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington

0 100 200
Feet

RAU1-01	
Depth	7.5
T-Arsenic	**5.21**
T-Manganese	**980**
Dibenzofuran	**16.4**
cPAH TEQ[a]	**0.264 J**

RAU1-04	
Depth	7.5
T-Manganese	**2,140**

RAU2-05	
Depth	7.5
T-Manganese	**3,390**

RAU2-06	
Depth	6.5
T-Manganese	**8,090**
PCP	**0.254**

RAU2-04	
Depth	7.5
T-Manganese	**2,400**

RAU3-05	
Depth	8
T-Manganese	**5,160**

RAU1-05	
Depth	6.5
T-Manganese	**2,020**
1-MN	**2.12 J**
cPAH TEQ[a]	**0.242 J**
Diesel+Oil[b]	**1,010**

RAU1-02	
Depth	6
T-Manganese	**831**

RAU1-10	
Depth	8.5
T-Manganese	**14,600**
1-MN	**20.4**
Naphthalene	**200**

RAU1-03	
Depth	7.5
T-Manganese	**2,650**

RAU1-06	
Depth	7.5
T-Manganese	**2,830**

RAU1-11	
Depth	7
T-Manganese	**5,050**
Diesel+Oil[b]	**2,770 J**

RAU4-02	
Depth	7
T-Manganese	**4,860**

RAU4-07	
Depth	7
T-Manganese	**10,000**

RAU4-10	
Depth	8
T-Manganese	**3,570**

RAU4-08	
Depth	7.5
T-Manganese	**13,900**

RAU4-13	
Depth	6.5
D-Manganese	**7,900**
T-Manganese	**12,000**
T-Arsenic	**15.8**
T-Lead	**42.1**

RAU4-11	
Depth	7
T-Manganese	**9,060**

RAU4-14	
Depth	6
D-Manganese	**11,700**
T-Manganese	**12,500**
T-Arsenic	**8.29**
T-Lead	**33.8**
Diesel+Oil[b]	**553**

RAU4-09	
Depth	7
T-Manganese	**13,500**

RAU7-01	
Depth	8.5
T-Manganese	**18,200**

RAU4-15	
Depth	5
D-Manganese	**3,230**
T-Manganese	**3,240**

RAU4-04	
Depth	7
T-Manganese	**8,690**

RAU4-12	
Depth	9
T-Manganese	**17,600**

RAU4-16	
Depth	4
D-Manganese	**7,590**
T-Manganese	**8,140**
T-Arsenic	**5.43**
Diesel+Oil[b]	**85,900**

RAU4-21	
Depth	13
D-Arsenic	**6.17**
T-Arsenic	**56.8**
T-Lead	**91.2**
D-Manganese	**12,900**
T-Manganese	**23,000**
Diesel+Oil[b]	**15,100**

RAU4-17	
Depth	4.5
D-Manganese	**10,200**
T-Manganese	**10,600**
Diesel+Oil[b]	**98,700**

RAU4-06	
Depth	4.5
T-Arsenic	**11.2**
T-Chromium	**123 J**
T-Lead	**29.1**
T-Manganese	**9,960**
Diesel+Oil[b]	**484,000**

RAU2-03	
Depth	7.5
T-Arsenic	**5.92**
T-Lead	**34**
T-Manganese	**3,650**
T-Mercury	**8.48**

RAU2-02	
Depth	6
T-Lead	**21.5**
T-Manganese	**3,030**
T-Mercury	**11.4**

RAU1-12	
Depth	7
T-Manganese	**1,390**
1-MN	**8.42**
Diesel+Oil[b]	**1,970 J**

RAU3-06	
Depth	6.5
T-Manganese	**1,550**

RAU1-09	
Depth	7
T-Arsenic	**5.3**
T-Lead	**29.6**
T-Manganese	**12,600**

RAU1-14	
Depth	6
D-Manganese	**7,910**
T-Manganese	**7,840**

RAU1-13	
Depth	7
D-Manganese	**6,020**
T-Manganese	**6,340**

RAU3-03	
Depth	5
T-Manganese	**6,330**

RAU2-01	
Depth	7.5
T-Manganese	**1,750**

RAU2-07	
Depth	7.5
T-Cadmium	**5.02**
T-Lead	**24.5**
T-Manganese	**1,410**
1-MN	**46.3**
2-MN	**61.9**
cPAH TEQ[a]	**0.454 J**
Diesel+Oil[b]	**526**

RAU5-03	
Depth	6.5
D-Manganese	**5,230**
T-Manganese	**5,220**

RAU5-01	
Depth	7
T-Arsenic	**5.82**
T-Manganese	**7,410**
Diesel+Oil[b]	**1,910**

RAU4-01	
Depth	6.5
T-Manganese	**3,800**

RAU4-18	
Depth	5
D-Manganese	**12,300**
T-Manganese	**13,100**

RAU6-02	
Depth	12
T-Manganese	**4,000**

RAU4-20	
Depth	10.5
D-Manganese	**1,260**
T-Manganese	**1,310**
T-Arsenic	**8.91**
Diesel+Oil[b]	**519**

RAU4-05	
Depth	7.5
T-Lead	**20.8**
T-Manganese	**4,460**
Diesel+Oil[b]	**6,590**

RAU4-19	
Depth	5
D-Manganese	**11,400**
T-Manganese	**11,400**
Diesel+Oil[b]	**605**

Data Sources:
Aerial photograph obtained from Esri; line of ordinary high water determined from Grette Associates LLC critical areas report dated October 2019.

Notes:
All concentrations represented as ug/L.
All depths represented as feet below ground surface.
1-MN = 1-methylnaphthalene.
2-MN = 2-methylnaphthalene.
cPAH = carcinogenic polycyclic aromatic hydrocarbons.
D- = dissolved metals fraction.
J = result is estimated.
PAH = polycyclic aromatic hydrocarbons.
PCP = pentachlorophenol.
T- = total metals fraction.
TEQ = toxicity equivalent quotient.
ug/L = micrograms per liter.

[a] cPAH TEQ is calculated with toxicity equivalence factors from Washington Ecology Evaluating the Human Heath Toxicity of Carcinogenic PAHs Using Toxicity Equivalence Factors. Non-detect results are included at one-half the detection limit or reporting limit. When all cPAHs are non-detect, the highest reported detection limit or reporting limit is shown.

[b] Diesel+oil is the sum of diesel- and lube-oil-range hydrocarbon results. Non-detect results are summed at one-half the reporting limit or detection limit. When both results are non-detect, the highest reporting limit or detection limit is used.

Legend

- Groundwater Sample Location
- Approximate Line of Ordinary High Water
- Existing Buildings/Features
- Former Buildings/Features
- Former Mill
- The Site

Figure 6-4b
Remedial Investigation Groundwater Cleanup Level Exceedances

Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington

0 100 200
Feet

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RAU1-10	
Depth	8.5
Naphthalene	**200**

RAU2-03	
Depth	7.5
T-Mercury	**8.48**

RAU2-02	
Depth	6
T-Mercury	**11.4**

RAU2-07	
Depth	7.5
Naphthalene	**149**

RAU2-08, RAU2-09, CR-20, CR-21, RAU1-05, RAU2-04, RAU2-01, RAU2-05, RAU1-04, RAU4-08, PB09, PB01, RAU2-06, MS05, B02, PB10, PB02, RAU1-07, MS03, RAU4-13, PB06, RAU1-08, MS01, FC01, RAU1-11, RAU7-01, MS04, RAU1-12, RAU4-09, RAU4-02, RAU4-14, PB03, PB04, MS06, FC02, OC03, RAU1-09, MS02, FC03, RAU7-02, RAU4-15, PB05, B03, B01, VM01, RAU4-01, RAU4-04, OC02, RAU1-13, RAU4-12, OC01, RAU4-16, RAU1-14, RAU4-21, RAU4-06, RAU4-17, PW01, RAU4-05, PW02, RAU5-03, RAU3-03, RAU5-01

Data Sources:
Aerial photograph obtained from Esri; line of ordinary high water determined from Grette Associates LLC critical areas report dated October 2019.

Notes:
All depths represented as feet below ground surface.
All concentrations are represented as ug/L.
Detected values are bolded.
T- = total metals fraction.
ug/L = micrograms per liter.

Legend

- Groundwater Sample Location
- Approximate Line of Ordinary High Water
- Existing Buildings/Features
- Former Buildings/Features
- Former Mill
- The Site

Figure 6-5
Groundwater-Vapor Intrusion Exceedances in Samples within 100 Feet of a Building

Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington

0 100 200
Feet

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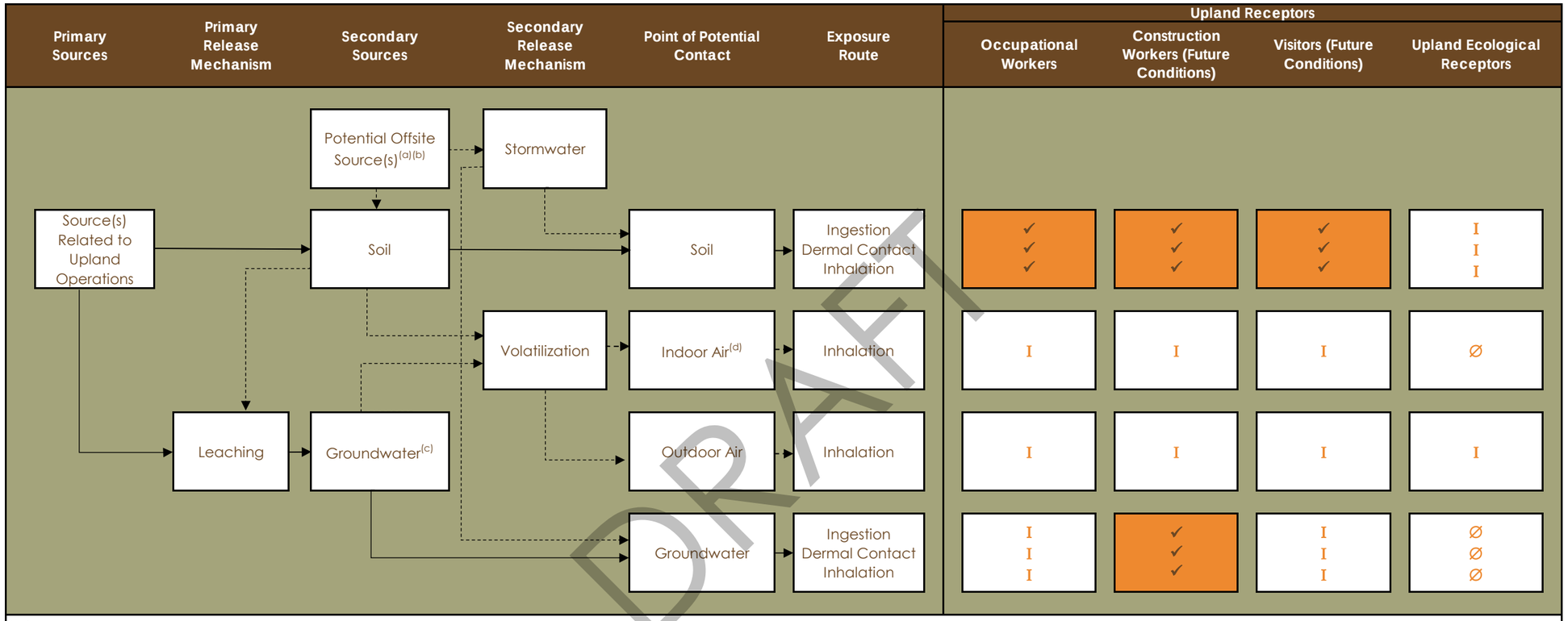
Figure 7-1
Conceptual Site Model
Upland Remedial Investigation
Weyerhaeuser Sawmill Aberdeen/Seaport Landing Site
Aberdeen, Washington



Notes

→ Primary pathway

- - → Potential pathway

✓ Potentially complete exposure route

∅ Incomplete exposure route

I Insignificant exposure route

Transport pathways from the Site to the Chehalis River and river sediments are discussed in the ***Draft In-Water RI Report*** (MFA 2022), and are not included here.

[a]Transport pathways from potential offsite sources include stormwater discharge to Shannon Slough and airborne deposition to soil.

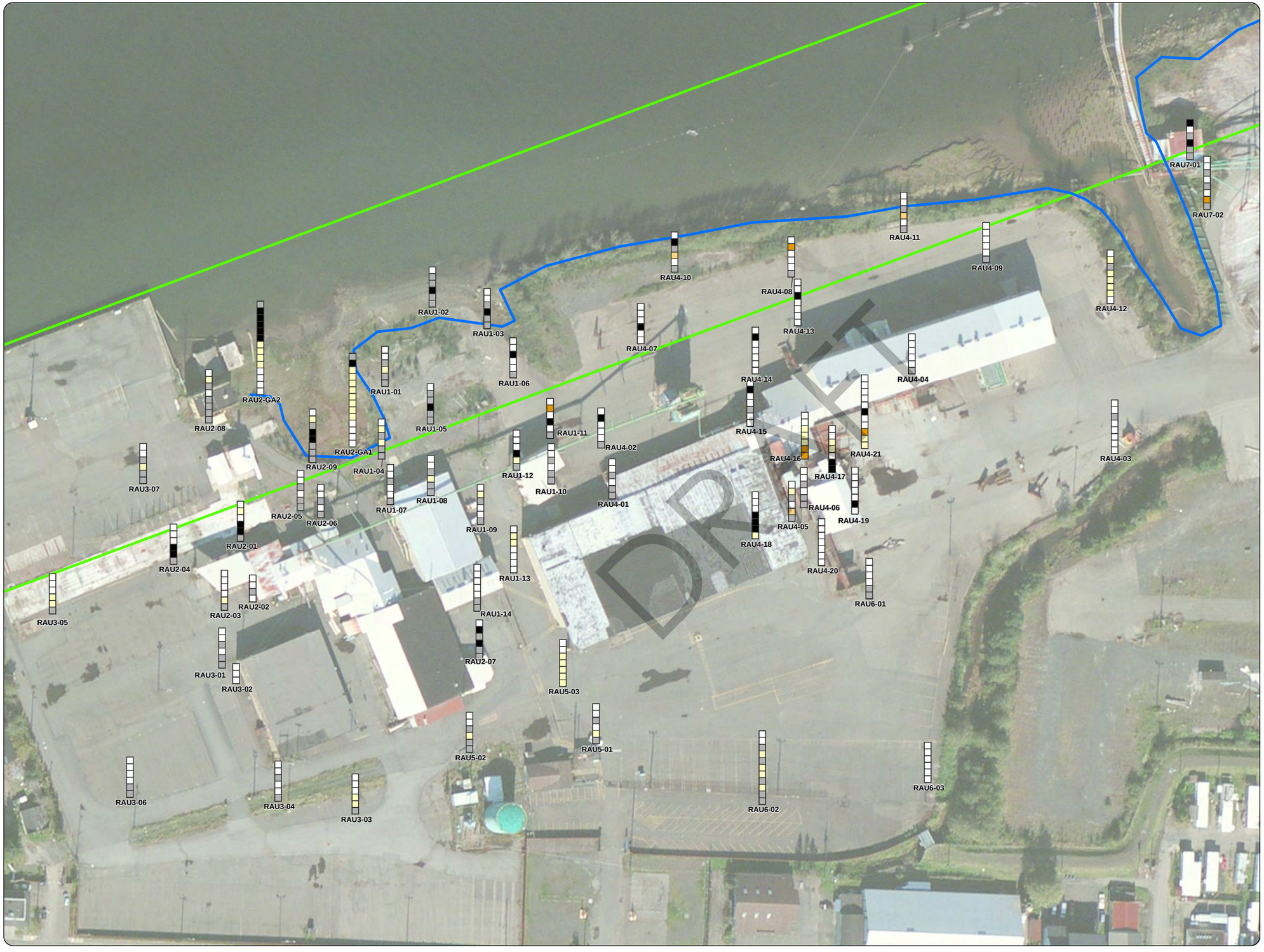
[b]Potential offsite sources transported via stormwater may come into contact with soil due to the damaged and/or degraded stormwater infrastructure observed during a stormwater system investigation at the Site (MFA 2016).

[c]Site groundwater is not currently used as drinking water, and future use as drinking water is unlikely. However, the pathway is shown because demonstrations (e.g., beneficial use determination) and/or controls (e.g., institutional controls) are not

[d]Potential impacts to indoor air quality from vapor intrusion are addressed in the RI report main text.

Figure 7-2
Visible Percent Wood Waste in Soil

Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington



Legend

- Approximate Line of Ordinary High Water
- Approximate Aquatic Land Lease Area

Total Percent Wood Content

- Not sampled
- No wood observed at depth interval
- <0.5%
- 5.1 to 10%
- 10.1 to 20%
- 20.1 to 50%
- >75%

Collected Sample Depth Interval

- < 1 foot
- 1-3 feet
- 3-5 feet
- 5-7 feet
- 7-9 feet
- 9-11 feet
- 11-13 feet
- 13-15 feet
- 15-17 feet
- 17-19 feet
- 19-21 feet
- 21-23 feet
- 23-25 feet
- 25-27 feet

Notes:
Each sample location shown to the approximate depth sampled.
Wood waste content estimated during visual inspection.
Field staff did not document any intervals between 50.1 and 75% wood waste.

0 100 200
Feet

Data Source:
Aerial photograph obtained from Esri.

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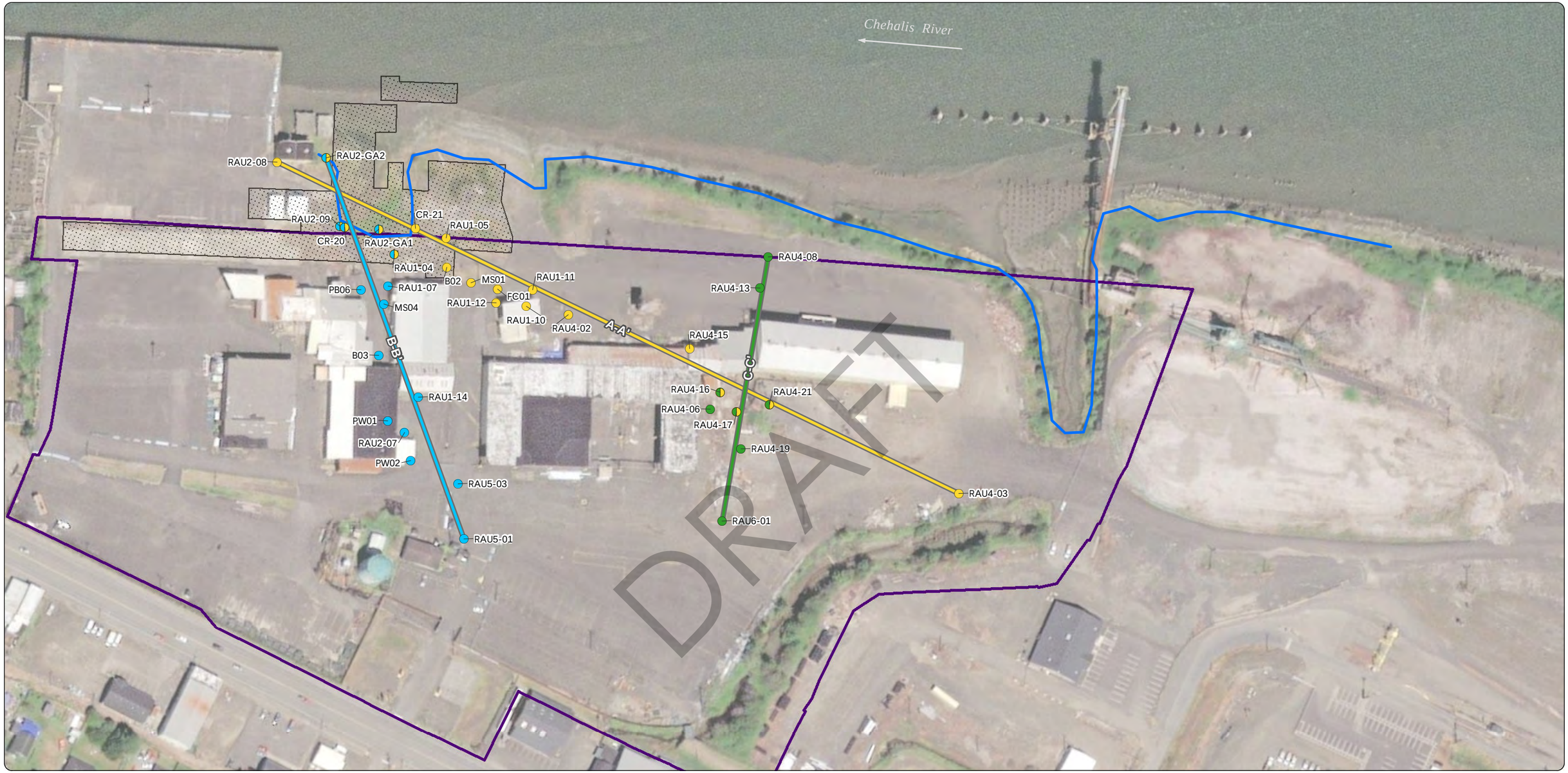
Path: X:\1044.02.13\04\Fig7.2_Visible_Percent_Wood_Waste_in_Soil.mxd
Print Date: 9/30/2022
Reviewed By: ddomenighini
Produced By: sturner
Project: M1044.02.013



Data Sources:
Aerial photograph obtained from Esri; line of ordinary high water determined from Grette Associates LLC critical areas report dated October 2019.

Legend

Cross Sections
- A-A' (see Figure 7-3b)
- B-B' (see Figure 7-3c)
- C-C' (see Figure 7-3d)

Remedial Investigation Locations
- A-A'
- A-A' and B-B'
- A-A' and C-C'
- B-B'
- C-C'

- Approximate Line of Ordinary High Water
- Former Mill
- The Site

Figure 7-3a
Cross Section Transect Lines

Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington

0 100 200
Feet

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Print Date: 10/31/2022
Reviewed by: ilenahansen
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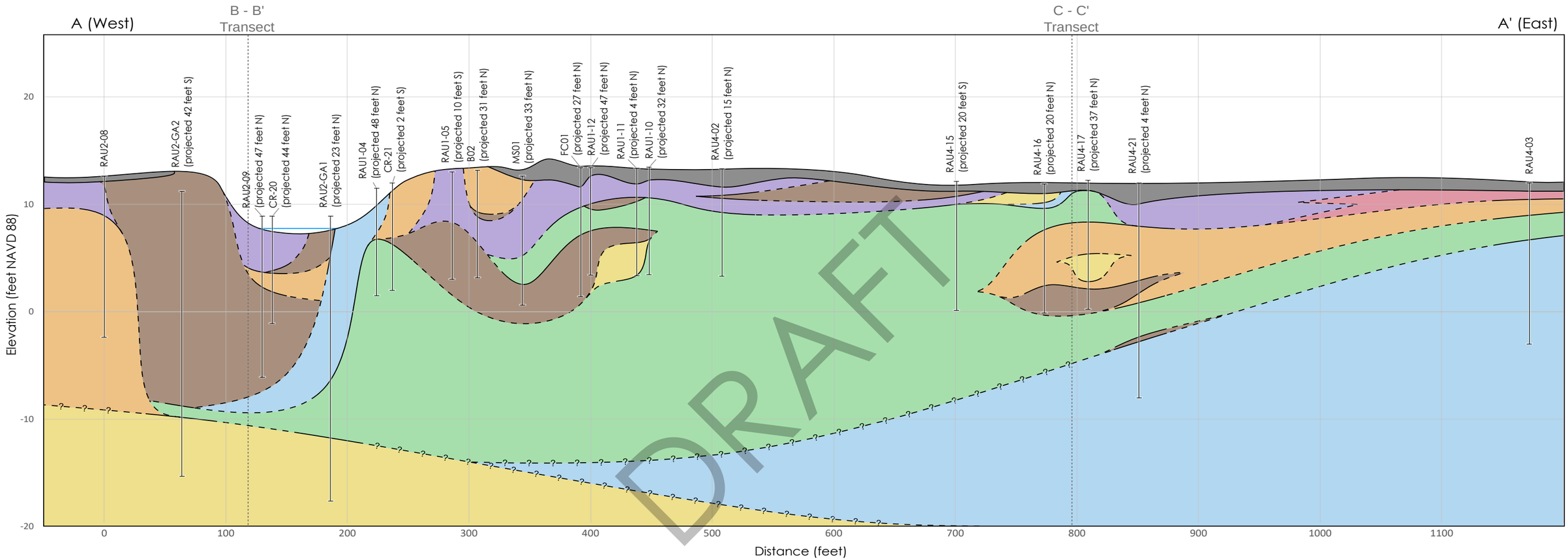
Project: M1044.02.013

Figure 7-3b
Geologic Cross Section A to A'
Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington



Notes:
All feature locations are approximate.
Contacts are dashed where inferred.
Contacts are queried where uncertain.
Projected boring elevations are shown at surveyed elevation of boring location rather than surface elevation of transect line.
Soils containing greater than 25% wood waste are considered wood waste.
Vertical exaggeration is 10x.
N = north.
NAVD 88 = North American Vertical Datum of 1988.
S = south.

Legend
- Gravel
- Sandy Gravel / Gravelly Sand
- Sand
- Silty Sand / Sandy Silt
- Silt
- Silty Gravel / Gravelly Silt
- Wood Waste
- Concrete / Asphalt
- Cross Section Intersection
- Borehole Location
- Ordinary High Water

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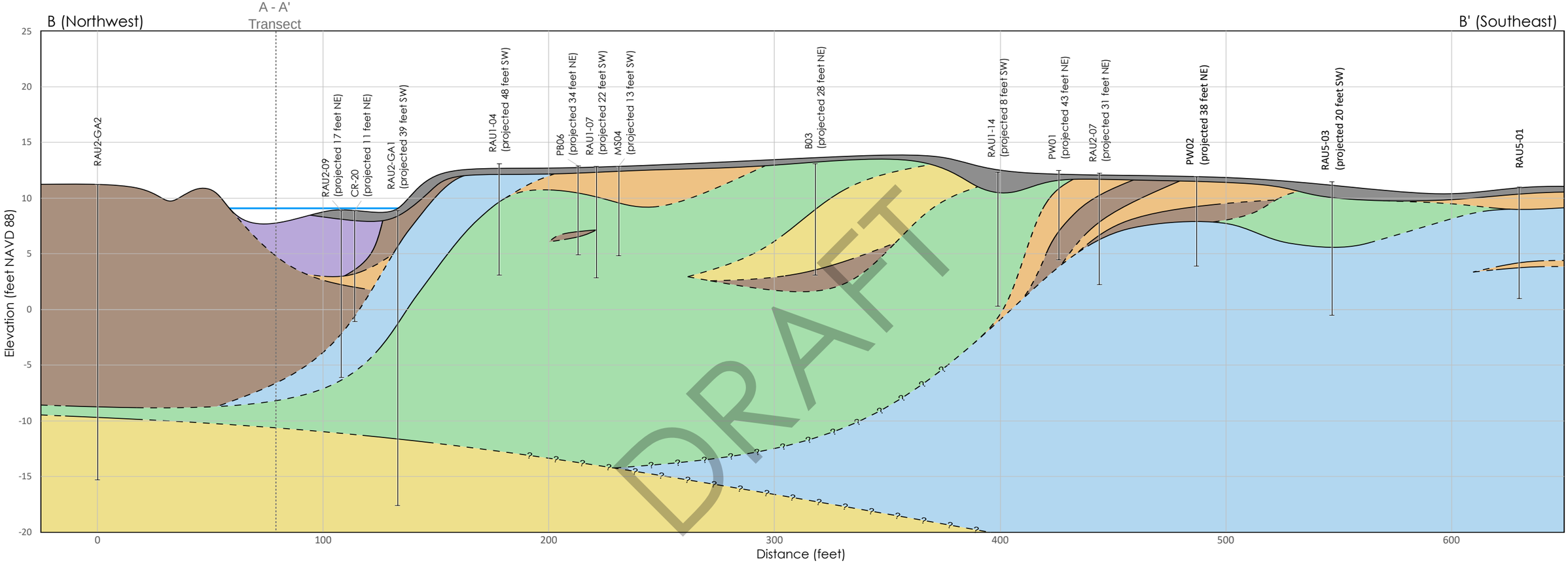
Figure 7-3c
Geologic Cross Section B to B'
Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington



Notes:
All feature locations are approximate.
Contacts are dashed where inferred.
Contacts are queried where uncertain.
Projected boring elevations are shown at surveyed elevation of boring location rather than surface elevation of transect line.
Soils containing greater than 25% wood waste are considered wood waste.
Vertical exaggeration is 5x.
NE = northeast.
NAVD 88 = North American Vertical Datum of 1988.
SW = southwest.

Legend
- Gravel
- Sandy Gravel / Gravelly Sand
- Sand
- Silty Sand / Sandy Silt
- Silt
- Silty Gravel / Gravelly Silt
- Wood Waste
- Concrete / Asphalt
- Cross Section Intersection
- Borehole Location
- Ordinary High Water

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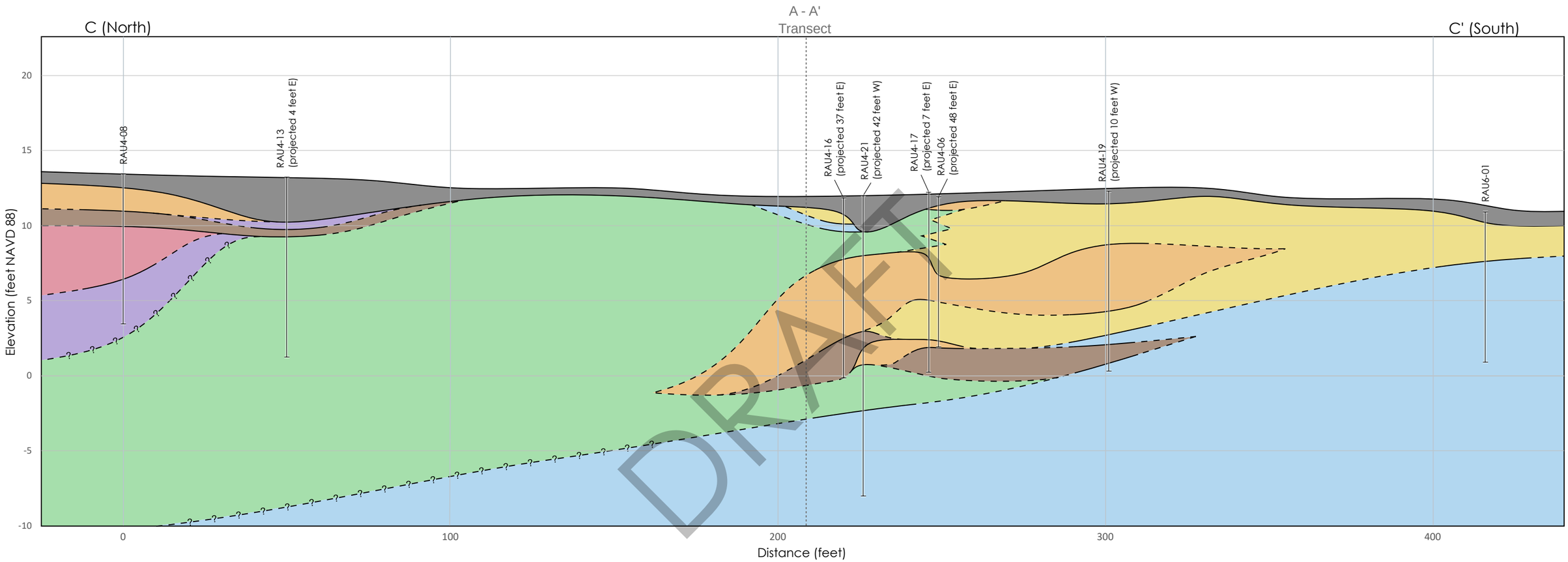
Figure 7-3d
Geologic Cross Section C to C'
Weyerhaeuser Sawmill
Aberdeen/Seaport Landing Site
Aberdeen, Washington



Notes:
All feature locations are approximate.
Contacts are dashed where inferred.
Contacts are queried where uncertain.
Projected boring elevations are shown at surveyed elevation of boring location rather than surface elevation of transect line.
Soils containing greater than 25% wood waste are considered wood waste.
Vertical exaggeration is 5x.
E = east.
NAVD 88 = North American Vertical Datum of 1988.
W = west.

Legend
- Gravel
- Sandy Gravel / Gravelly Sand
- Sand
- Silty Sand / Sandy Silt
- Silt
- Silty Gravel / Gravelly Silt
- Wood Waste
- Concrete / Asphalt
- Cross Section Intersection
- Borehole Location
- Ordinary High Water