Cleanup Action Plan

The Hungry Whale Site

Washington State Department of Ecology
Toxics Cleanup Program
Olympia, Washington

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Table of Contents

EXECUTIVE SUMMARY ..... **III**

ABBREVIATIONS ..... **IV**

1.0 INTRODUCTION **1**
1.1 PURPOSE 1
1.2 PREVIOUS STUDIES 1
1.3 REGULATORY FRAMEWORK 5

2.0 SITE DESCRIPTION **6**
2.1 SITE HISTORY 6
2.2 HUMAN HEALTH AND ENVIRONMENTAL CONCERNS 7
2.3 CLEANUP STANDARDS 7
2.3.1 Chemicals of Concern (COCs) 8
2.3.2 Cleanup Levels and Site-Specific Remediation Levels 8

3.0 CLEANUP ACTION ALTERNATIVES AND ANALYSIS **8**
3.1 CLEANUP ACTION ALTERNATIVES 8
3.2 INITIAL SCREENING OF ALTERNATIVES 8
3.3 DETAILED EVALUATION OF ALTERNATIVES 9

4.0 DESCRIPTION OF SELECTED REMEDY **9**
4.1 SITE DESCRIPTION 9
4.2 DESCRIPTION OF SELECTED REMEDIAL ALTERNATIVE 10
4.3 CLEANUP STANDARDS AND POINTS OF COMPLIANCE 11
4.4 APPLICABLE, RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) 12
4.5 REASONABLE RESTORATION TIMEFRAME 12
4.6 SCHEDULE FOR IMPLEMENTATION 13
4.7 INSTITUTIONAL/ENGINEERING CONTROLS AND COMPLIANCE MONITORING 14
4.8 PUBLIC PARTICIPATION AND COMMUNITY ACCEPTANCE 14

5.0 REFERENCES **15**

LIST OF TABLES

TABLE 1 – SUMMARY OF CURRENT AND HISTORICAL GROUNDWATER IMPACTS

LIST OF FIGURES

LIST OF APPENDICES

(FOR ECOLOGY USE ONLY)

Executive Summary

This document presents the Cleanup Action Plan (CAP) for the Hungry Whale Site near Westport, Washington. This CAP was prepared by the Washington State Department of Ecology (Ecology) in collaboration with the Port of Grays Harbor. This CAP has been prepared to meet the requirements of the Model Toxics Control Cleanup Act (MTCA) administered by Ecology under Chapter 173-340 of the Washington Administrative Code (WAC). This CAP describes Ecology's proposed cleanup action for this site and sets forth the requirements that the cleanup must meet.

The Hungry Whale is an operating convenience store and fuel dispensing facility in Westport, WA (the Site). The facility was constructed in the mid-1970s and since then has always operated as a convenience and fuel dispensing facility. Historical releases to the subsurface from the fuel storage and dispensing infrastructure have resulted in gasoline contamination of the soil and groundwater beneath the Site. There have been several attempts throughout the years by the Port of Grays Harbor under Ecology's direction to remediate the contaminated soil and groundwater beneath the Site, none of which have been successful. Currently, the soil and groundwater remain contaminated with gasoline constituents above the Ecology clean-up levels. The subsurface contamination represents a potential future risk to human health and the environment as long as contaminant concentrations remain above the clean-up levels.

This CAP describes actions to remediate the subsurface contamination in the most effective manner. Ecology regulations stipulate that multiple remedial approaches for Site clean-up be considered before choosing the most effective remedial action as part of a Cleanup Action. This analysis was completed, and each approach was evaluated for its technical viability and cost effectiveness. The approach selected as the most likely to effectively remediate subsurface contamination is a combination of soil excavation and groundwater removal. This approach includes removing all existing infrastructure including the convenience store and the fuel storage and distribution equipment. Following these infrastructure removal activities, contaminated soil beneath the Site will be excavated and disposed off-Site at an appropriate waste disposal facility. Concurrent with contaminated soil excavation and as part of the Cleanup Action, groundwater entering the excavation will be pumped out of the excavation. The pumped water will be treated through an on-property temporary water treatment facility. Once treated, the water will be tested to confirm it meets discharge levels. Upon confirmation that the water meets discharge levels, it will be managed as stormwater and directed to the City of Westport's stormwater ditches.

Following the soil excavation and groundwater pumping activities, the open excavation will be backfilled with clean soils. Groundwater monitoring wells will be installed to confirm contaminant levels in the groundwater have been reduced. Following remedial action, the site will be suitable for redevelopment.

Abbreviations

AO	Agreed Order
BGS	Below Ground Surface
CAP	Corrective Action Plan
COC	Chemical of Concern
cPAH	Carcinogenic Polycyclic Aromatic Hydrocarbons
CUL	Cleanup Level
dCAP	Draft Corrective Action Plan
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
Ft	Feet
HBU	Highest Beneficial Use
IHS	Indicator Hazardous Substance
mg/kg	Milligrams per kilogram
MNR	Monitored Natural Recovery
MTCA	Model Toxics Control Act
ng/kg	nanograms per kilogram
ORP	Oxidation Reduction Potential
PCB	Polychlorinated Biphenyl
PLP	Potentially Liable Party
Port	Port of Grays Harbor
RI/FS	Remedial Investigation/Feasibility Study
RME	Reasonable Maximum Exposure
SMS	Sediment Management Standards
SVOC	Semi-Volatile Organic Compound

TEE	Terrestrial Ecological Investigation
TPH	Total Petroleum Hydrocarbons
µg/L	micrograms per liter
UCL	Upper Confidence Limit
UST	Underground Storage Tank
VCP	Voluntary Cleanup Program
VOC	Volatile Organic Compound
WAC	Washington Administrative Code

1.0 INTRODUCTION

1.1 PURPOSE

This document is the Cleanup Action Plan (CAP) for the Hungry Whale Site located near Westport, Washington. The general location of the Site is shown in Figure 1. A CAP is required as part of the Site cleanup process under Chapter 173-340 WAC, Model Toxics Control Act (MTCA) Cleanup Regulations. The purpose of the CAP is to identify the proposed cleanup action for the Site and to provide an explanatory document for public review. More specifically, this plan:

- Describes the Site
- Summarizes current site conditions
- Summarizes the cleanup action alternatives considered in the remedy selection process
- Describes the selected cleanup action for the Site and the rational for selecting this alternative
- Identifies site-specific cleanup levels and points of compliance for each hazardous substance and medium of concern for the proposed cleanup action
- Identifies applicable state and federal laws for the proposed cleanup action
- Identifies residual contamination remaining on the site after cleanup and restrictions on future uses and activities at the site to ensure continued protection of human health and the environment
- Discusses compliance monitoring requirements; and
- Presents the schedule for implementing the CAP.

Ecology has made a preliminary determination that a cleanup conducted in conformance with this CAP will comply with the requirements for selection of a remedy under WAC 173-340-360.

1.2 PREVIOUS STUDIES

In March 1991, two former USTs were decommissioned by Olympus Environmental: one 2,000-gallon gasoline UST was decommissioned by removal and one 6,000-gallon gasoline UST was decommissioned in-place (the UST interior was cleaned and filled with sand-and-concrete slurry). Both USTs were reportedly located immediately to the south/southwest of the convenience store building. A preliminary site assessment was also conducted, and soil samples collected during that assessment revealed impacts above MTCA Method A CULs. Several test pits were excavated on the property at this time and a thin layer of SPH was found floating on the water table at a location close to the abandoned USTs. A test pit (located immediately east of the station building) revealed no petroleum hydrocarbon impacts. Ecology UST online summary records indicate that a third UST (closed-in-place) may exist at the property; however, there is no further information regarding the size, location, or former tank contents of this possible third UST. Following the UST abandonment activities, one UST (the current UST) was installed at a new location in the southern portion of the property.

In November 1991, following the UST removal/in-place closure activities at the property, Ecology contracted with Science Applications International Corporation (SAIC) to conduct a remedial investigation/feasibility study (RI/FS). SAIC initially installed six groundwater monitoring wells to determine the extent of groundwater impacts. Laboratory analysis of groundwater samples identified TPH-G and BTEX at concentrations exceeding MTCA Method A CULs. SAIC installed three additional monitoring wells in May 1992 to further characterize subsurface conditions beneath the property and to collect data to aid in remedial system design. At that time, separate phase hydrocarbon (SPH) was observed on the water table.

Four groundwater monitoring events were conducted by Development, Planning Research and Analysis (DPRA) and SAIC between 1991 and 1993 (DPRA and SAIC 1993). Groundwater samples collected from the groundwater monitoring well network contained concentrations of TPH-G and BTEX above applicable CULs for unrestricted land use (MTCA Method A concentrations). Measurable SPH was reportedly observed in groundwater monitoring wells located in the central and northwestern portions of the property, and in a well located near the north corner of the property's storage building. The thickest SPH was measured in the central portion of the property.

In August 1993, Ecology requested that the Port of Grays Harbor assume responsibility for Site cleanup, resulting in the initial Agreed Order 94-S388 (dated March 21, 1995). It appears that an early Corrective Action Plan (CAP; undated) was prepared and submitted to Ecology.

Agreed Order No. DE 94-S388 became effective March 29, 1995 and was written to facilitate the implementation of the remedy selected in the cleanup action plan – enhanced bioremediation (biosparging). The biosparging technology is a closed loop process which circulates soil vapors and ground water through a pressurized bioreactor before returning the newly cleansed vapor and groundwater (with bio surfactants and nutrients added) to the center of the contamination using a sparge well. The biosparging system began operation in August 1997 and was shut down in October 1999. One year of quarterly groundwater monitoring was then performed to see if natural attenuation mechanisms would cause Site concentrations to decrease to levels below the MTCA. The results of groundwater sampling and testing indicated that the contaminant concentrations decreased significantly during the operation of the remediation system. But after the treatment system was shutdown, quarterly monitoring for an additional year indicated concentrations of TPH-G and Benzene rebounded to their pre-treatment levels.

Based on the November 2000 contaminant rebound noted above, in 2004 Ecology requested an additional investigation to establish baseline concentrations of TPH-G and BTEX in both soil and groundwater. In January 2005, Urban Redevelopment, LLC (UR) advanced approximately 7 soil borings/groundwater monitoring wells at and in the vicinity of the property: MW-01(UR) through MW-03(UR) on the property and four off-property, including MW-05(UR), MW-06 (UR), MW-13(UR), and MW-14(UR). A metal culvert located near the southwest corner of the property was punctured during advancement of well MW-13(UR). SPH was noted floating on the water within the culvert; however, the thickness of the SPH was not specified. According to Sound Environmental Strategies (SES') review of UR's data, the highest concentrations of TPH-G and BTEX in groundwater were detected in samples collected from the southwestern portion of the property near the current USTs.

Between April and October 2007, SES conducted a remedial investigation at and in the vicinity of the property to identify the source(s) of the contamination beneath the site; more fully assess the vertical and lateral extent of the contamination; and assist in the development of a remedial action. SES' 2007 field activities consisted of:

- Late April 2007 - sampling and analysis of soil and groundwater "grab" samples from eight (8) on-property direct-push soil borings (P01 through P06, P08 and P09, and nearby off-property P07 immediately south of the property). Most of these borings were drilled to depths of 12 to 15 feet below ground surface (bgs). Impacted soil (TPH-G, BTEX, and/or naphthalene above MTCA Method A CULs) was detected in the on-property borings but not at off-property boring P07 (see Table 1). TPH-G and benzene isoconcentration contour maps are provided as Figures 3 and 4. Off-property test pits along the culvert south of the property were excavated to evaluate potential off-property contamination within or around the culvert.
- Recovery of SPH within a nearby culvert and off-property test pits to the southeast along the culvert to control possible further off-property SPH migration (this was follow-up work performed because of UR's January 2005 inadvertent puncturing of a culvert).
- Early June 2007 - drilling and installation of six additional on- and off-property soil borings, all of which were completed as groundwater monitoring wells: on-property B-20/MW-20 through B-23/MW-23; off-property B-24/MW-24 located west of the intersection of Wilson Avenue and N. Montesano Street; and off-property B-25/MW-25 located south of the property and across N. Montesano Street. B-21/MW-21 through B-25/MW-25 were drilled to depths of approximately 15 feet, completed with 10 feet of lower well screen and 5 feet of upper blank casing at the top of each well. B-20/MW-20 was drilled to a depth of 30 feet and completed as a single-cased well with screen from 25-30 feet bgs and again from 3-13 feet bgs.
- Late June 2007 - collection and analysis of groundwater samples from 16 of the 18 on- and off-property monitoring wells (including the six new wells; two pre-existing wells contained sheen or less than 0.1 feet of SPH and were not sampled);
- Early October 2007 - advancement of 11 additional direct-push soil borings (P10 through P21) located off-property within public rights-of-way in North Montesano Street and Wilson Avenue. Most of these borings were drilled to depths of approximately 8 feet bgs. Soil samples were collected from all 11 borings and groundwater "grab" samples were collected from P11, P14, and P18 through P20. The purpose of these off-property borings was to delineate the extent of petroleum-contaminated soil (PCS) previously identified along northern and western property boundaries. Impacted soil (TPH-G and/or BTEX at concentrations above MTCA Method A CULs) was encountered at off-property Borings P11, P12, P13, P14, P15 and P16; and,
- Early May 2007 - collection of water samples from cold- and hot-water faucets at a nearby residence, performed with Ecology's approval resulting from the resident telling SES' field staff that the residential tap water had an odor of chlorine following rainstorms. Information from public records reviewed by others shows that water for residential and commercial uses is provided by the City of Westport, not domestic wells.

SES noted that laboratory analysis identified TPH-G and benzene in one or more soil samples collected from all on-property borings at concentrations above their respective MTCA Method A CULs. Soil

contamination was also found to extend beneath the North Montesano Street and Wilson Avenue rights-of-way at distances of approximately 15 to 20 feet to the west and north of the property but was not encountered in borings advanced further west and north of (beyond) North Montesano Street and Wilson Avenue. According to SES, off-property test pits that were excavated southeast of the January 2005 culvert puncture location did not show evidence of petroleum-hydrocarbon subsurface impacts.

During the late June 2007 groundwater monitoring event, thin layers of SPH were recorded in wells MW-04 and MW-09. In addition, concentrations of TPH-G and one or more of the BTEX constituents were detected above their respective MTCA Method A CULs in groundwater samples collected from seven of the remaining 16 wells. The contaminant distribution in groundwater monitoring wells closely resembled the distribution of the soil contamination, except for the northwest portion of the active UST area (SES' boring P05).

Impacted groundwater (collected as "grab" samples via temporary stainless steel "hydropunch" and/or PVC screens placed inside the direct-push borings) was encountered in all on-property borings and several of the off-property borings located in North Montesano Street and Wilson Avenue; however, SES notes that the groundwater "grab" samples showed high turbidity and are more reflective of saturated soil impacts rather than groundwater.

On December 12, 2011, Stantec supervised the installation of seven shallow soil gas probes (SG-1 through SG-7) to depths 4.5 feet bgs at the property to evaluate the possible presence of subsurface soil gas impacted by petroleum hydrocarbons. Soil gas samples were collected from the shallow probes on December 20, 2011. Laboratory analysis of shallow soil vapor samples indicated that no VOCs were detected at concentrations at or above Table B-1 Screening Levels (in Washington Department of Ecology Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action, Review Draft, October 2009) in samples from SG-1 or SG-7 only, located in the north portion of the property and approximately 40 feet south of Wilson Avenue. Concentrations of BTEX, 1,2,4-Trimethylbenzene, and 1,3,5-Trimethylbenzene exceeded their respective Table B-1 Screening Levels in the remaining five vapor samples SG-2 through SG-6, located in the central and southern portions of the property where impacted soil and shallow groundwater are present.

Due to elevated concentrations of volatile organic compounds (VOCs) detected in the soil gas samples collected near the building (SG-2 and SG-3), Ecology recommended collecting indoor air samples to evaluate vapor intrusion. On March 21, 2012, Stantec collected two indoor and two outdoor ambient air samples. Laboratory analysis of ambient air samples indicated that none of the VOCs analyzed were detected at concentrations at or above the Method B indoor air screening levels presented in Table B-1 (referenced above) and that results of the indoor and outdoor ambient samples were not discernably different. Based on the data, vapor intrusion did not appear to be occurring and as such, the vapor exposure pathway was determined to be incomplete. Results of the ambient air sampling event are presented in Table 3b.

Stantec has conducted nine groundwater monitoring and sampling events since SES' 2007 assessment work during the following times: Fourth Quarter 2011; First through Third Quarters 2012; Second Quarter 2013; Second Quarter 2016; January 2018; June 2019, and May 2021. Field parameters of dissolved

oxygen (DO), oxidation-reduction potential (ORP), pH, temperature, and/or conductivity have been measured at the wellheads during low-flow purging and sampling with pump intakes placed at depths of approximately 9 to 11 feet (varies depending on the depth to water each quarter but equivalent to 4 to 6 feet below the surface of shallow groundwater; mid-screen interval for SES' 2007 wells and upper screen interval for the earlier wells). The three 2012 quarterly events were only performed at selected on-property groundwater monitoring wells whereas the subsequent events were conducted at all on- and off-property wells. The January 2018 event included three on-Site wells (MW-10, MW-21, and MW-22) and one off-Site well (MW-25).

1.3 REGULATORY FRAMEWORK

Cleanup activities at the Hungry Whale are under the Department of Ecology's Model Toxics Control Act (MTCA). MTCA was passed into law in 1989 and is intended to provide a clear and efficient process to clean up contaminated sites to standards that are safe for both human health and the environment. Under MTCA, a current or past owner or operator may be held responsible for the cleanup.

Ecology is responsible for implementing and enforcing the provisions of MTCA and its accompanying administrative regulations. Ecology investigates reports of property contamination and determines if a significant threat exists to human health, the environment, or both. If a significant threat exists, the site is placed on the Hazardous Sites List and a cleanup process begins.

Ecology entered into an Agreed Order with the Port of Grays Harbor in 1995 to complete additional sampling and implement the selected cleanup remedy (identified during the Feasibility Study). A remediation (cleanup) system was installed and operated from 1997 to 1999. Testing after the system was shut down confirmed that contamination remained present in groundwater above state cleanup standards.

In 2006, Ecology entered into a new Agreed Order with the Port of Grays Harbor to complete another Remedial Investigation to summarize findings to date. The Agreed Order also required The Port of Grays Harbor to conduct a Feasibility Study to determine new and more effective method for cleanup.

The Site is further identified by Ecology as Facility #1127 and Cleanup Site #4988 with Agreed Order #3812.

Implementation of the CAP requires the following permits and/or notifications:

- State Environmental Protection Act (SEPA) Environmental Checklist
- Olympic Region Clean Air Agency (ORCAA) Notification of Demolition
- Ecology General Construction Stormwater Permit
- City of Westport Demolition Permit
- City of Westport Sewer and Water Permit

- City of Westport Fill and Grade Permit
- Ecology Underground Storage Tank (UST) closure forms/permits (30-day notice and Permanent Closure Notice)

2.0 SITE DESCRIPTION

The Hungry Whale property is owned by the Port and is currently leased as a convenience store and fuel dispensing facility. The property is a small portion of the much larger, Port-owned APN No. 616120142001 and is situated in the western-most corner of APN No. 616120142001. The property is located at the east corner of the intersection of North Montesano Street and Wilson Avenue in Westport, Grays Harbor County, Washington (**Figure 1**). A copy of the legal description of the property (including the Port-provided Hungry Whale leasehold boundaries; a nearly square shaped parcel with sides of approximately 150, 151, 155, and 173 feet in length) is contained in Appendix A. The Property is in the northeast quarter of the southeast quarter of Section 1, Township 16 North, Range 12 West.

2.1 SITE HISTORY

The current facility was constructed in the mid-1970s and since then has always operated as a convenience store and fuel dispensing facility. The original underground storage tanks (UST) consisted of one decommissioned-by-removal 2,000 gallon UST and, one abandoned-in-place 6,000 gallon UST, located in the central portion of the property. These USTs were replaced with one, 20,000 gallon three-compartment UST currently situated in the southwest portion of the property. The surface of the property has historically comprised asphalt and/or concrete – these surfaces are now weathered and cracked. A storage building and a residence are in the eastern portion of the property. A generalized layout of the property (including an approximation of the property boundaries and the locations of the current UST and former USTs) is provided on Figure 2.

Historical releases to the subsurface from the fuel storage and dispensing infrastructure have resulted in gasoline contamination of the soil and groundwater beneath the Site. There have been several attempts throughout the years by the Port of Grays Harbor and under Ecology's direction to remediate the contaminated soil and groundwater beneath the Site, none of which have been successful. Currently, the soil and groundwater remain contaminated with gasoline constituents above the Ecology clean-up levels. Site Cleanup activities are being conducted under an Agreed Order between the Port of Grays Harbor and Ecology.

The contaminated subsurface soil and groundwater extend off-property and therefore the Site boundary extends beyond the property limits. The known or inferred extent of the Site limits is documented in subsequent sections and Figures 3 and 4 (SES 2008) in this report.

2.2 HUMAN HEALTH AND ENVIRONMENTAL CONCERNS

The extent of impacts to soil and groundwater from chemicals of concern are predominantly on the property and within short distances (approximately 35 feet) beyond the property to the north, west and south beneath Wilson Avenue and N. Montesano Street.

Elevated contaminant concentrations in soil have been encountered during subsurface environmental investigations from depths extending from near ground surface to approximately 13 to 14 feet bgs in various portions of the Site (SES 2008). However, areas exhibiting elevated concentrations of COCs are generally limited to portions of the Site which are paved with asphalt or concrete. A change in property use, redevelopment or construction activities may result in human exposure to petroleum contaminants in soils.

Elevated concentrations of COCs have been detected in shallow groundwater beneath the Site. The groundwater plume is generally confined beneath areas of the Site paved with asphalt or concrete; however, because the historical depths to groundwater are relatively shallow (4 to 8 feet), direct contact with groundwater (dermal contact, incidental ingestion and inhalation of VOCs partitioning from groundwater) may occur to construction and excavation worker.

There is no documented use of shallow groundwater as domestic or municipal water supply at or within 0.5-mile of the Site and potable water is provided to the site by the City of Westport. No municipal supply wells are in the vicinity of the Site.

Unless an exclusion applies to a site, a terrestrial ecological evaluation (TEE) is required. A TEE determines whether a release of hazardous substances to soil may pose a threat to the terrestrial environment; characterizes threats to terrestrial plants or animals; and establishes site-specific cleanup standards for the protection of terrestrial plants and animals. Stantec completed a Simplified Terrestrial Ecological Evaluation (TEE) in April 2019. The Site is covered almost entirely with asphalt, concrete, gravel or occupied by buildings. Following the clean-up action, the site will be a vacant lot covered with gravel and suitable for redevelopment. The April 2019 Simplified TEE Form was approved by Ecology. The Site is subject to commercial and industrial use and is within a Mixed-Use Tourist Commercial 1 (MUTC-1) zoning district. Based on the TEE, Ecology has determined that the cleanup standards for the Site do not include any terrestrial ecological considerations.

2.3 CLEANUP STANDARDS

Washington MTCA regulations define Cleanup Standards for contaminated groundwater and soil in WAC 173-240-700 and 173-340-720. A Cleanup Standard consists of three distinct elements:

- Cleanup Levels, expressed as allowable concentrations of hazardous substances present in Site soil and groundwater
- Point of Compliance, the location(s) where soil and groundwater quality is monitored to determine the need for, and effectiveness of, any cleanup action; and,
- Any other applicable state and federal laws.

2.3.1 Chemicals of Concern (COCs)

The primary COCs include TPH-G, BTEX and naphthalene constituents (benzene is the primary risk driver). These COCs have been selected based on the historical use of the property as a fuel dispensing facility, as well as on exceedances of CULs based on the results of the subsurface investigations.

2.3.2 Cleanup Levels and Site-Specific Remediation Levels

Ecology has determined that residential land use is generally the property use requiring the most protective cleanup levels and that exposure to hazardous substances under unrestricted land use conditions represents the reasonable maximum exposure (RME) scenario. While residential development of the property is unlikely, hospitality services (restaurant), public access, and office space are present in the vicinity of the property and current zoning does not prohibit residential use. Therefore, the MTCA Method A soil and groundwater CULs for TPHg has been selected for application to the property based on the requirements under WAC 173-340-720 for unrestricted (residential) land use.

3.0 CLEANUP ACTION ALTERNATIVES AND ANALYSIS

3.1 CLEANUP ACTION ALTERNATIVES

The following cleanup alternatives were considered:

- In-situ Treatment
- Air Sparging and Soil Vapor Extraction
- Groundwater Extraction and Treatment
- Interim Monitoring and Source Removal
- Interim Monitoring and Soil Excavation
- Institutional Controls.

3.2 INITIAL SCREENING OF ALTERNATIVES

Initial cleanup alternatives were screened against the following minimum criteria set forth in (WAC 173-340-360(2)(a) and (b) which indicate an alternative must:

- Be protective of human health and the environment.
- Comply with cleanup standards.
- Comply with applicable state and federal laws.
- Provide for compliance monitoring.
- Use permanent solutions to the maximum extent practicable.
- Provide for a reasonable restoration timeframe; and,
- Consider public concerns.

3.3 DETAILED EVALUATION OF ALTERNATIVES

The following cleanup measures were considered but were not selected based on the reasons noted:

- In-situ Treatment: Fairly new technology without the track record of more traditional remedial approaches. Carbon-based petroleum degradation product must be in direct contact with the contaminant to be effective, which can prove challenging if the exact location of the contamination is not fully known, resulting in untreated areas; for sites with substantial and high concentration vadose or smear zone contamination, in-situ treatment may not be effective and re-contamination of groundwater may occur. Costs associated with purchasing and injection of the product can be high if multiple injections are required

- Air Sparging and Soil Vapor Extraction (AS/SVE): The effectiveness of an AS/SVE system is highly dependent upon the permeability of soil; soil structure and stratification; soil moisture; and the depth to groundwater. On-Site AS/SVE was reportedly tried previously but the reason for discontinuing is unknown. The high groundwater levels make it challenging to operate the SVE component of the system.

- Groundwater Extraction and Treatment (GWET): In general, a GWET (aka pump and treat) system is designed to remove contaminated groundwater through a series of extraction wells, pass extracted groundwater through a treatment device (e.g. granulated activated carbon), then discharge the treated groundwater to surface water, storm sewer or publicly owned treatment works (POTW). This cleanup alternative was evaluated but was not selected since attainment of cleanup levels is estimated to take approximately five years, this is greater than soil excavation and removal approach; pumping depresses the groundwater level leaving residual contaminants sorbed to soil. When groundwater level returns to a normal static level, contaminants sorbed to soil may become dissolved (resulting in a rebound of contaminant concentrations in groundwater).

- Interim Monitoring and Source Removal: Interim Monitoring and Soil Excavation includes interim groundwater monitoring with Institutional Controls and removal of the existing UST and those abandoned in place, with soil excavation (approximately 2,800 cubic yards) to remove a large volume of contaminated soils. Impacted soils beneath the convenience store and other structures would remain in place and serve as a reservoir for continued groundwater contamination. Due to partial impacted soil removal and recontamination potential this alternative is not considered permanent.

4.0 DESCRIPTION OF SELECTED REMEDY

4.1 SITE DESCRIPTION

The Site (as defined in MTCA) is the extent of subsurface contamination and therefore the Site extends outside of the property into the public rights of way to the northwest under Wilson Avenue and the

southwest under Montesano Street. This CAP applies to the Site where property related contamination is present above CULs. Figure 2 presents the Site Plan with proposed remedial excavation limits.

4.2 DESCRIPTION OF SELECTED REMEDIAL ALTERNATIVE

The Interim Monitoring and Soil Excavation (FS Alternative 4) comprises interim groundwater monitoring with Institutional Controls and soil excavation to remove a large volume of contaminated soils situated on the property.

The selected cleanup action was evaluated to determine whether it meets the minimum requirements to be compliant with MTCA regulations as specified in WAC 173-340-360(2). The MTCA minimum requirements include threshold and other requirements. The threshold requirements are:

- Protection of human health and the environment
- Compliance with cleanup standards
- Compliance with applicable state and federal laws
- Provision for compliance monitoring.

In addition to threshold requirements, the selected cleanup action must also meet the following requirements:

- Use of permanent solutions to the maximum extent practicable
- A reasonable restoration timeframe
- Consider public concerns.

Site remediation will consist of removal of the convenience store, all fuel storage tanks and distribution infrastructure. Soil remedial activities will consist of removing UST backfill materials to the limits of the UST cavity and soils associated with the fuel islands and distribution lines. In addition, contaminated soils beyond the fueling infrastructure will be removed including soils beneath the former location of the convenience store and potentially extending to the property limits. The intent of the soil excavation will be to remove all soils containing contaminant concentrations greater than MTCA Method A Clean-up Levels. The extent of the excavation will be driven by field observation of contaminated soil, field-screening soil samples with a photo-ionizing detector and previously collected soil samples indicating concentrations of contaminants above MTCA Method A Clean-up Levels. Based on the estimated horizontal extent of excavation and the targeted excavation zone between approximately 2 feet and 12 feet below ground surface, the estimated volume of soil to be excavated is 5,200 cubic yards. During soil removal activities, contaminated groundwater will be pumped from the excavation, and disposed. Removing source soils and pumping contaminated groundwater will eliminate a large portion of contaminant mass (the source material) and should result in a substantial decrease in concentrations of dissolved petroleum in groundwater beneath the Site. Pumped contaminated groundwater will be treated to remove contaminants prior to discharge to the appropriate conveyance. Once the contaminated soils are

removed, contaminant concentrations in the groundwater will decrease through natural attenuation. The monitoring wells removed during excavation activities will be replaced to allow Monitored Natural Attenuation (MNA) as part of the remedy.

In accordance with WAC 173-340-740(6) the point of compliance for the Hungry Whale soils is defined as the point or points where cleanup levels must be met. Soils throughout the Property to a depth of 15 feet below ground surface will be the point of compliance. It is currently assumed that contaminated soil extends to beneath the adjacent rights of way. These soils will not be removed as part of the remedy.

4.3 CLEANUP STANDARDS AND POINTS OF COMPLIANCE

In accordance with WAC 173-340-704, MTCA Method A has been selected as the cleanup standard for the Site groundwater since the Site has a limited number of hazardous substances and will undergo a routine cleanup action as defined by WAC 173-340-200.

MTCA Method A includes cleanup levels (CULs) presented in the following table.

COPC	Soil (mg/kg)	Basis	Groundwater (ug/L)	Basis
TPH-G	30	Protection of groundwater as drinking water source	800	WAC 246-290-310 and 40 CFR 141.61
Benzene	0.03	Protection of groundwater as drinking water source	5	WAC 246-290-310 and 40 CFR 141.61
Toluene	7	Protection of groundwater as drinking water source	1,000	WAC 246-290-310 and 40 CFR 141.61
Ethylbenzene	6	Protection of groundwater as drinking water source	700	WAC 246-290-310 and 40 CFR 141.61
Xylenes	9	Protection of groundwater as	1,000	WAC 246-290-310 and 40 CFR 141.61

		drinking water source		

For soil, a Point of Compliance (POC) is defined in accordance with WAC 173-340-740(8) and will include soils throughout the property. At this time, it is anticipated that CULs for soil will initially be based on either a) human exposure due to direct contact with soils extending to a depth from the surface to 15 feet below the ground surface and/or b) protection of groundwater since ecological receptors have not been identified previously (see Simplified Terrestrial Ecological Evaluation Form, SES 2008).

The standard POC for groundwater is typically throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the Site. Newly installed groundwater monitoring wells at the property limits will comprise the point of compliance. If it is demonstrated that residual contamination associated with the Site remains, the issue will be addressed with an Environmental Covenant.

4.4 APPLICABLE, RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS)

The following most significant potential ARARs apply to the selected remedy but may be refined during the design process:

- Model Toxics Control Act (Chapter 173.105D RCW), and Model Toxics Control Act Regulation (Chapter 173-340 WAC).
- Washington State Hazardous Waste Management Act (Chapter 70.105 RCW, and State Dangerous Waste Regulation (Chapter 173-303).
- Solid Waste Management-Reduction and Recycling (Chapter 70.95 RCW).
- Minimum Standards for Construction and Maintenance of Wells (Chapter 173-160 RCW).
- Occupational Safety and Health Act (OSHA), 29 CFR Subpart 1910.120
- Washington Industrial Safety and Health Act (WISHA).

4.5 REASONABLE RESTORATION TIMEFRAME

The MTCA [WAC 173-340-360(4)(a)] specifies that the following factors be considered in establishing a reasonable timeframe:

- Potential risks to human health and the environment
- Practicability of achieving a shorter restoration timeframe

- Current use of the Site, surrounding areas, and associated resources that are, or may be, affected by releases from the Site
- Potential future use of the Site, surrounding areas, and associated resources that are, or may be, affected by releases from the Site
- Availability of alternate water supplies
- Likely effectiveness and reliability of institutional controls
- Ability to control and monitor migration of hazardous substances from the Site
- Toxicity of the hazardous substances at the Site
- Natural processes that reduce concentrations of hazardous substances and have been documented to occur at the Site or under similar Site conditions.

The selected cleanup action described in this CAP is consistent with or meets the above factors from WAC 173-340-360 and will address potential risks to human health and the environment. The selected cleanup action will be compatible with potential future use of the Site. The primary considerations for future land use will be the proper management of extracted groundwater if construction dewatering is required and the management of residual soil impacts if any, excavated during Site redevelopment. The City of Westport provides municipal water to the Site, and Site groundwater is not considered a potable water supply, so availability of an alternate water supply is not an issue. Site institutional controls will be largely limited to requirements for management of extracted groundwater, which can be easily and reliably implemented.

Thus, the cleanup action provides for a reasonable restoration time frame, as is outlined in WAC 173-340-360(4), and achieving a shorter restoration timeframe is not practicable.

4.6 SCHEDULE FOR IMPLEMENTATION

The following reporting and remedial action implementation activities will occur according to the following schedule. This schedule is subject to change based on Ecology's review schedule, Port coordination, and other conditions not foreseen. A public comment period for the Draft CAP (dCAP) was completed in June 2022. No comments were received and this CAP contains no substantive modifications from the dCAP.

Document or Event	Date
Final CAP	Following joint public comment and responsiveness summary.
Draft schedule-for Implementation of CAP	Within 60 days of the effective date of the Order
Final schedule-for Implementation of CAP	Within 30 days of receipt of Ecology comments
Draft Engineering Design Report (EDR)	120 days following effective date of the Order.
Finalize EDR and submit permit applications	60 days following receipt of Ecology comments

Draft Operations & Monitoring Plan (OM&MP)	120 days following approval of Final EDR
Finalize OM&MP	Within 90 days of receipt of Ecology comments
Implementation of Remedial Action (site work)	Dry period following finalization of permits
Draft Contaminated Media Management Plan	Within 90 days of the effective date of the Order
Final Contaminated Media Management Plan	Within 30 days of receipt of Ecology comments
Draft Remedial Action Report	Within 60 days of receipt of final validated data
Final Remedial Action Report	Within 60 days of receipt of Ecology comments
Draft Environmental Covenant	Within 30 days of final remedial action report.
Record Final Environmental Covenant (EC)	Within 15 days following finalizing the EC

4.7 INSTITUTIONAL/ENGINEERING CONTROLS AND COMPLIANCE MONITORING

Institutional Controls will be employed to restrict groundwater use and exposure to contaminated soil and may include:

- A restriction on installation of drinking water wells in the shallow aquifer on-Site while contaminant concentrations in groundwater exceed applicable Federal Maximum Contaminant Levels (MCLs)
- A requirement to limit property zoning and use to commercial/industrial activities consistent with the current zoning and uses
- A requirement for development and implementation of a contaminated media management plan for use during any construction activities involving disturbance of the subsurface (excavation, trenching).

Environmental covenants (EC) for the soil and groundwater beneath the adjacent public right of ways (ROWs) will be sought from the City of Westport and the Washington State Department of Transportation (WSDOT). The ECs will be submitted to Ecology for review and once approved will be recorded at the Grays Harbor County Auditor's Office. The purpose of the ECs is to notify construction or utility workers of the presence of residual contamination within the public ROWs.

The standard point of compliance for groundwater is throughout the Site and groundwater monitoring to demonstrate contaminant attenuation in groundwater will be implemented. Monitoring will continue following source removal to track anticipated decreasing contaminant concentrations. For planning purposes, annual monitoring over a period of five years is anticipated.

4.8 PUBLIC PARTICIPATION AND COMMUNITY ACCEPTANCE

A public comment period was held in June 2022 to allow the public and parties affected by the cleanup action an opportunity to provide comment on this CAP. No public comments were received and therefore this CAP contains no substantive modifications from the dCAP.

5.0 REFERENCES

Sound Environmental Strategies Corporation, *Remedial Investigation Report, The Hungry Whale*, March 26, 2008.

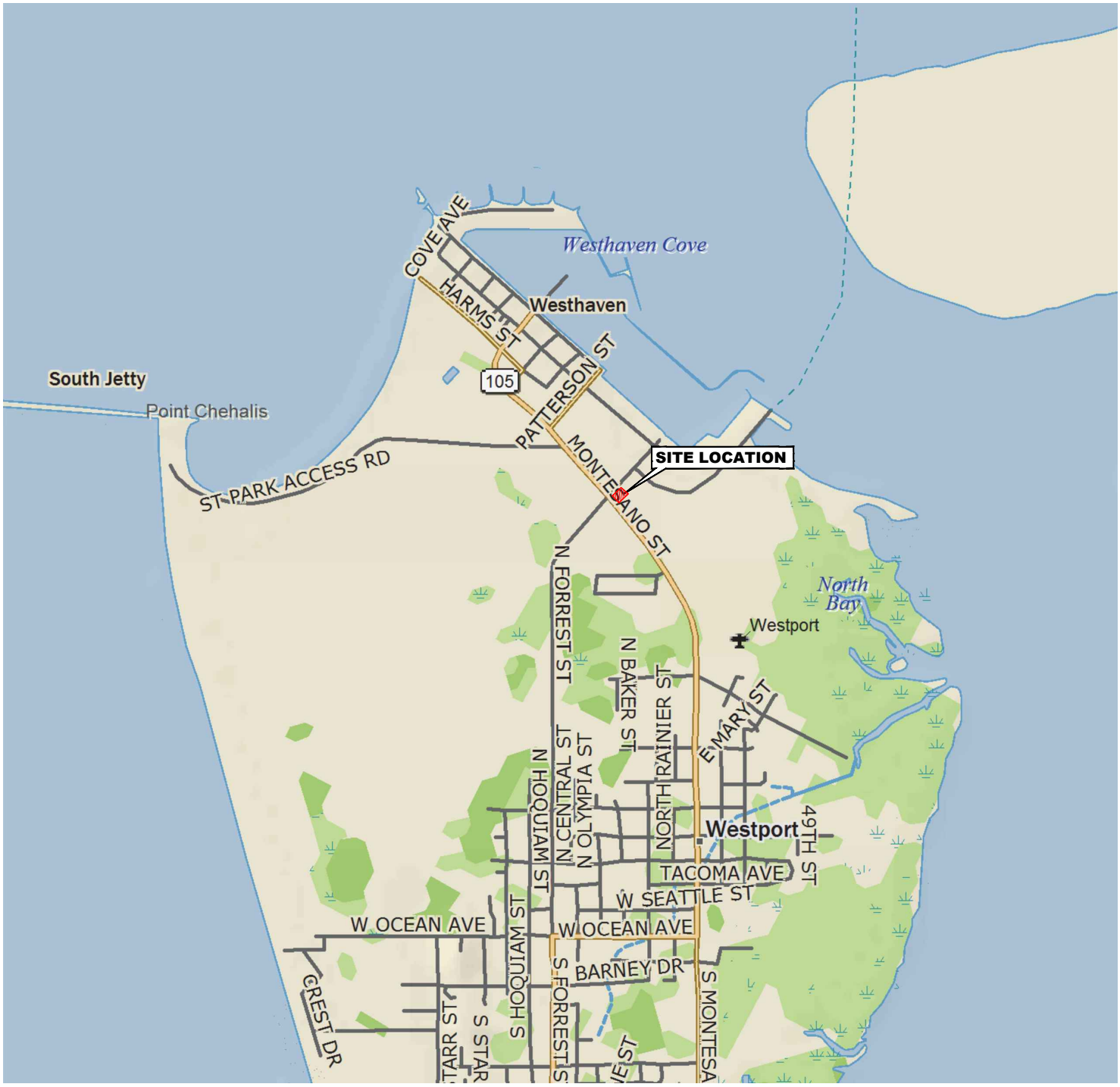
Stantec Consulting Services Inc., *Indoor/Outdoor Air Sampling Report, The Hungry Whale,* April 25, 2012.

Stantec Consulting Services Inc., *Focused Feasibility Study, The Hungry Whale*, August 2013.

Stantec Consulting Services Inc., *Remedial Investigation/Feasibility Study, The Hungry Whale, 1680 North Montesano Street, Westport, Washington 98595, April 22, 2020.*

Washington State Department of Ecology, *Guidance for Evaluation Soil Vapor Intrusion in Washington State: Investigation and Remedial Action*, October 2009.

FIGURES



North

1/2 0 1

SCALE (MILES)

1000 0 1000 2000 3000 4000 5000

SCALE (FEET)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, WESTPORT, WASHINGTON

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

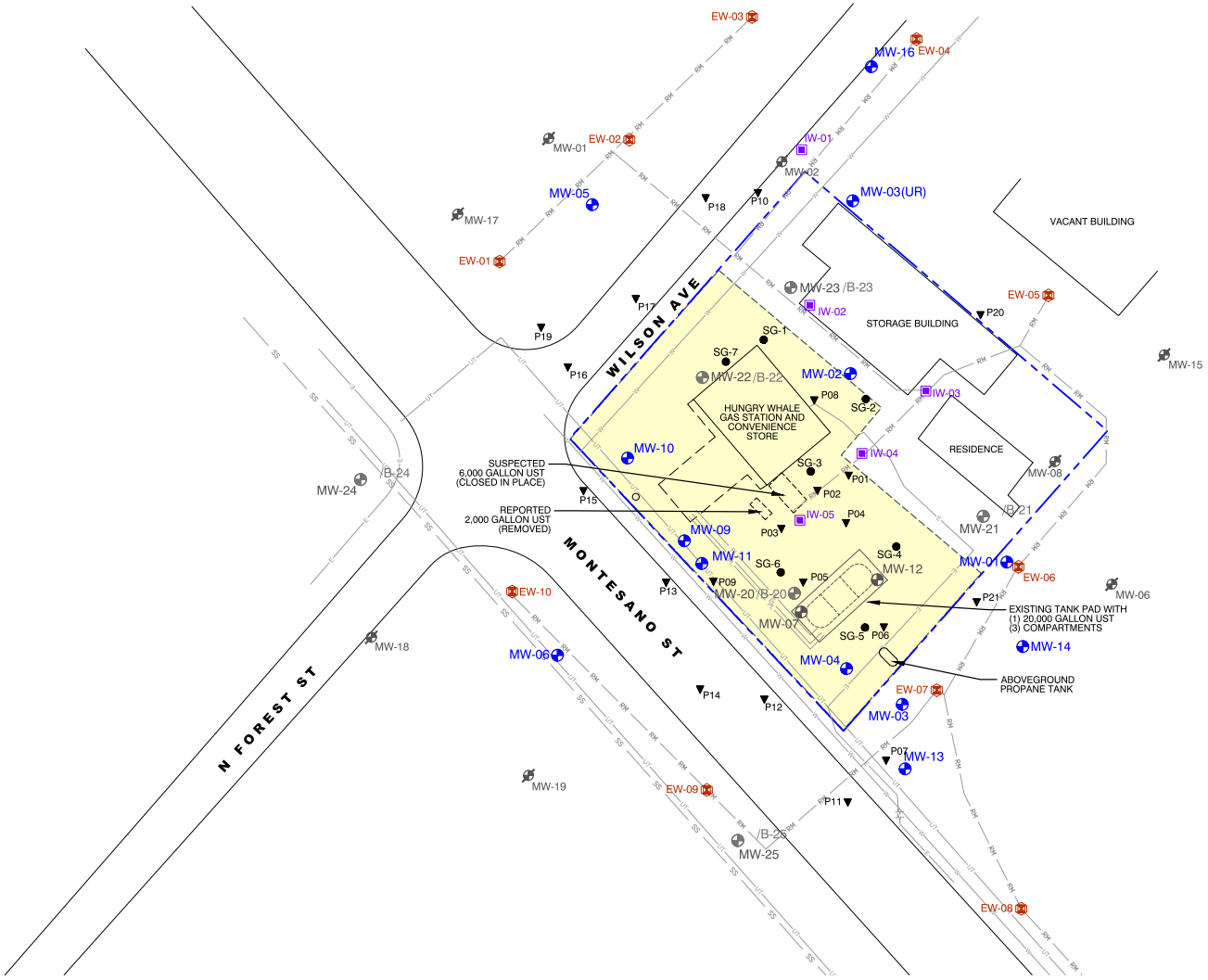
FOR:
THE HUNGRY WHALE
1680 NORTH MONTESANO STREET
WESPORT, WASHINGTON

SITE LOCATION MAP

FIGURE: **1**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185703328	MDR	DH	--	SEPT 2016

FILEPATH:M:_00 OTHER OFFICES\01-REDMOND\HUNGRY WHALE\FIG-1_SITE LOC.dwg | Layout Tab: Layout1 | Drafter: miramirez | Sep 21, 2016 at 15:06



LEGEND

- MW-1 — MONITORING WELL (pre-2007)
- MW-1 — MONITORING WELL/BORING (2007)
- EW-01 — EXTRACTION WELL (OPERATED 7/1997-10/1999)
- IW-01 — INJECTION WELL (OPERATED 7/1997-10/1999)
- SG-1 — SOIL GAS POINT (2011)
- P01 — SOIL BORING (DIRECT PUSH, 2007)
- DESTROYED/ABANDONED WELL
- POWER POLE
- LEASEHOLD BOUNDARY (APPROXIMATE)
- E — ELECTRIC LINE
- SS — SANITARY SEWER LINE
- UT — UNDERGROUND TELEPHONE LINE
- W — WATER LINE
- RM — REMEDIATION SYSTEM PIPING
- PL — STATION FUEL/PRODUCT LINE
- PROPOSED BOTTOM OF REMEDIAL EXCAVATION (APPROXIMATE)

PROPOSED REMEDIAL EXCAVATION NOTE:

APPROXIMATE VOLUME UP TO A MAXIMUM OF 5,200 cu.yd. INCLUDING REMOVAL OF CONVENIENCE STORE.

NOTE:

MW-07 AND MW-12 ARE 4" DIAMETER WELLS LIKELY INSTALLED IN UST BACKFILL

N

0 50 100

APPROXIMATE SCALE IN FEET

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

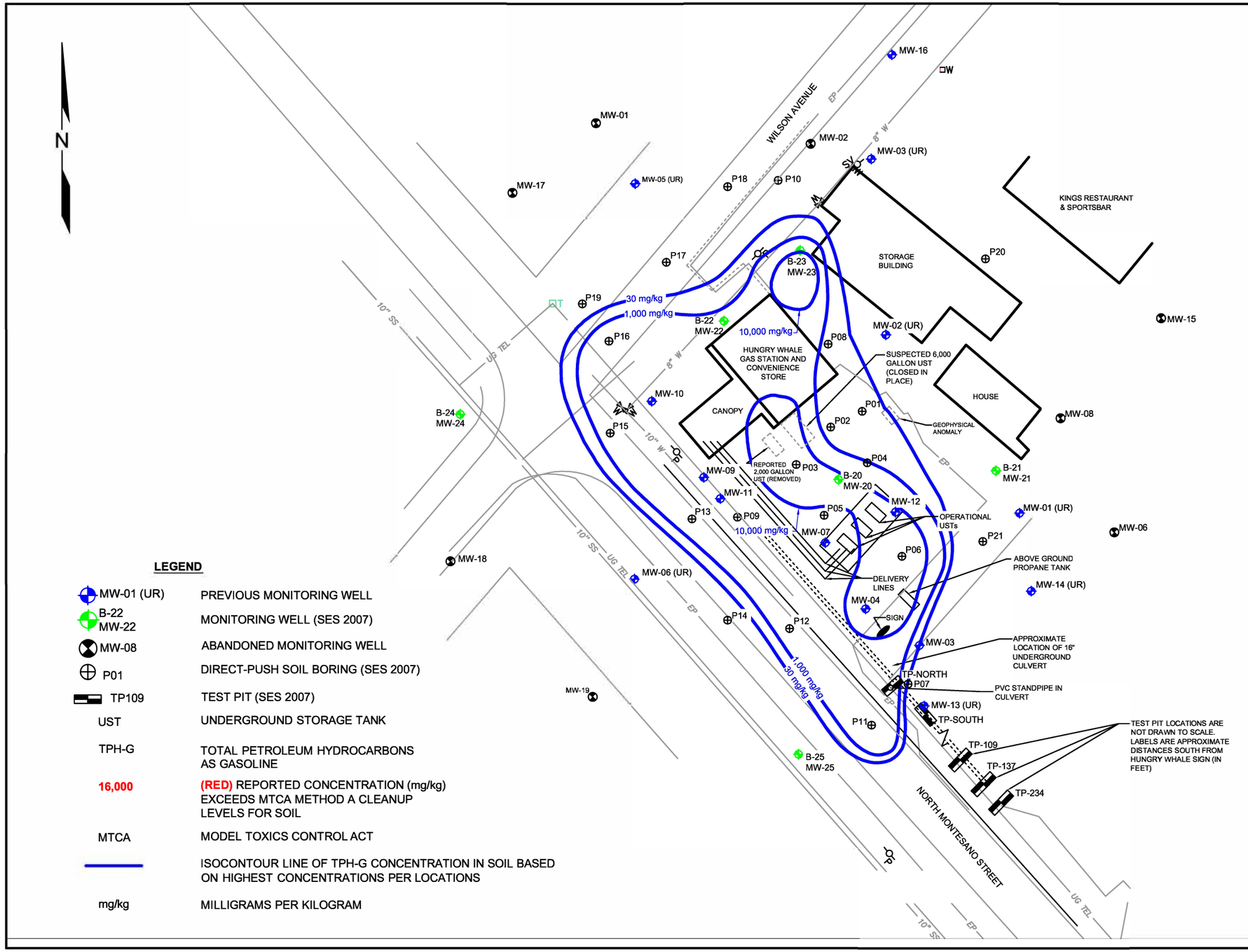
FOR: THE HUNGRY WHALE
1680 NORTH MONTESANO STREET
WESTPORT, WASHINGTON

SITE PLAN

FIGURE: **2**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185703328	MDR/JBL	MS	MS	07/07/21

FILEPATH:M:\00_OTHER OFFICES\Bellevue, WA\185751446\HungryWhale-2021 GWE.dwg | Layout Tab: FIG-2 SITE PLAN | Drafter: JLieberman | Jul 07, 2021 at 14:49



Location	Depth (feet)	TPH-G (mg/kg)
P01	3.5	150
	6	280
	12	200
P02	1.5	26
	6.5	76
	12	25
P03	3	4,300
	6	16,000
	12	57
P04	3.5	1,000
	6	340
	12	13
	16	6
P05	3	2,000
	5	4,600
	9	2,900
	12	90
P06	3	1,700
	6	12,000
	12	42
P07	4	<2
	8	4
P08	3	<2
	5.5	210
	9	660
P09	5	1,700
	8	6,100
P10	7	<2
	10	4
	12	<2
P11	4	550
	7	2,200
	10	11
P12	3	5,100
	6	7,300
	8	100
P13	3	1,500
	6	5,200
	10	11
P14	7	<2
P15	3	1,600
	6	2,300
	8	8
P16	3	8
	6	5,300
	8	7
P17	7	5
P18	8	<2
P19	3	<2
	6	<2
P20	7	<2
P21	6	<2
TP-South	4.5	<2
TP-North	4.5	8,000
TP-109	4.5	<2
B-20	3	5,600
	7	12,000
	17	76
	28.5	7
B-21	7.5	<2
B-22	5	<2
	9	2,000
	12	4
	15.5	5
B-23	4.5	<2
	7.5	10,000
	11	20
	15	<2
B-24	4.5	<2
B-25	6	<2
MTCA Method A		100/30

LEGEND

MW-01 (UR)	PREVIOUS MONITORING WELL
B-22 MW-22	MONITORING WELL (SES 2007)
MW-08	ABANDONED MONITORING WELL
P01	DIRECT-PUSH SOIL BORING (SES 2007)
TP109	TEST PIT (SES 2007)
UST	UNDERGROUND STORAGE TANK
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
16,000	(RED) REPORTED CONCENTRATION (mg/kg) EXCEEDS MTCA METHOD A CLEANUP LEVELS FOR SOIL
MTCA	MODEL TOXICS CONTROL ACT
	ISOCONTOUR LINE OF TPH-G CONCENTRATION IN SOIL BASED ON HIGHEST CONCENTRATIONS PER LOCATIONS
mg/kg	MILLIGRAMS PER KILOGRAM

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 01/09/08
DRAWN BY: BLR
CHECKED BY: RKB
CAD FILE: 0461-001-02 FIG10 SD TPHG

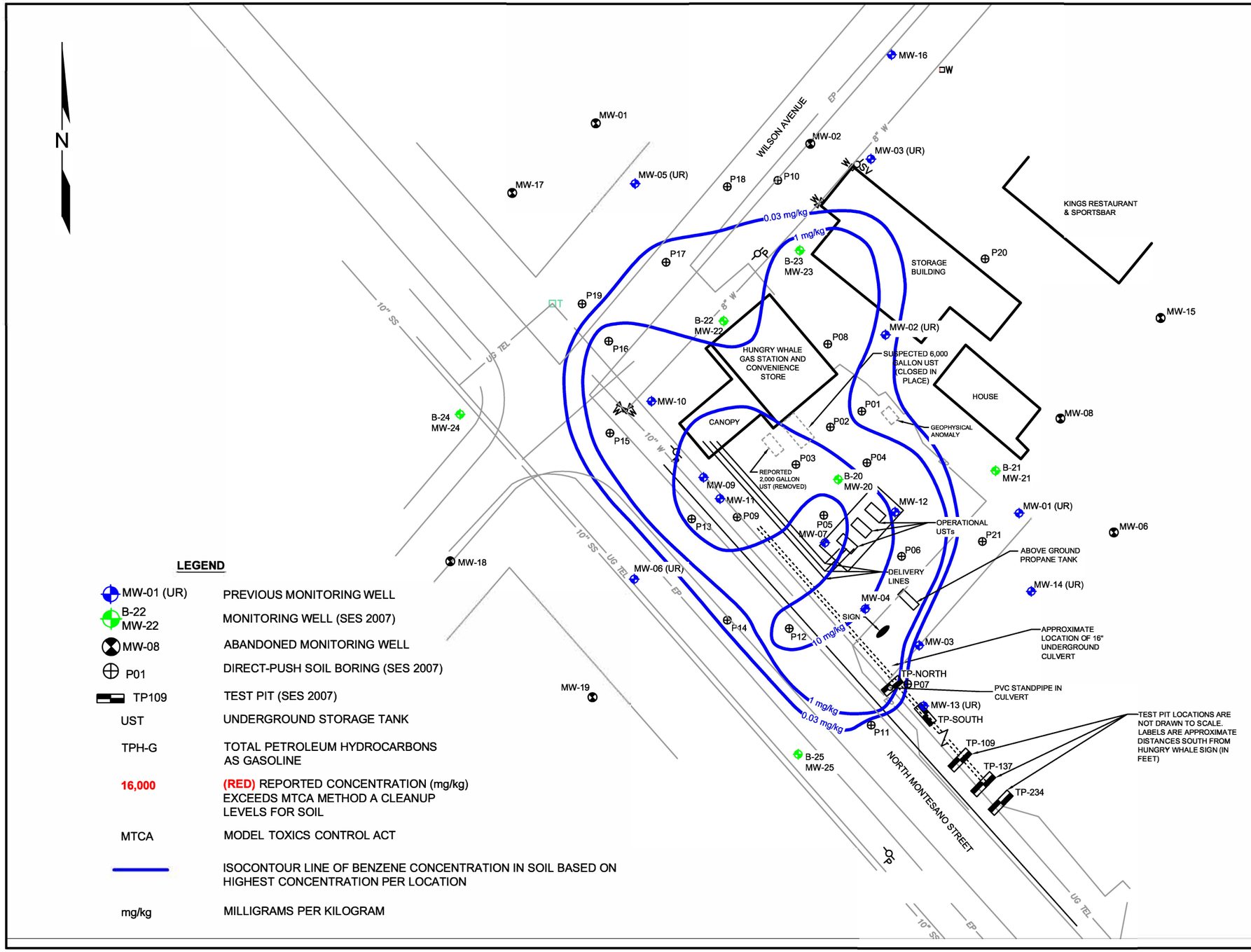
PROJECT NAME: THE HUNGRY WHALE
SES PROJECT NUMBER: 0461-001-02
STREET ADDRESS: 1680 NORTH MONTESANO STREET
CITY, STATE: WESTPORT, WASHINGTON

REGION:

0 25 50 100
APPROXIMATE SCALE IN FEET 1" = 50'

FIGURE 3
ISOCONCENTRATON MAP
FOR TPH-G IN SOIL

1/16/2008
I:\Sound-dsk\esdirectory\SES CURRENT PROJECTS\0461-001 Port of Grays Harbor\0461-001-02 Hungry Whale\Miscellaneous\dmb\0461-001-02 FIG10 SD TPHG.dwg
SOUNDENVIRONMENTAL.COM



LEGEND

MW-01 (UR)	PREVIOUS MONITORING WELL
B-22 MW-22	MONITORING WELL (SES 2007)
MW-08	ABANDONED MONITORING WELL
P01	DIRECT-PUSH SOIL BORING (SES 2007)
TP109	TEST PIT (SES 2007)
UST	UNDERGROUND STORAGE TANK
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
16,000	(RED) REPORTED CONCENTRATION (mg/kg) EXCEEDS MTCA METHOD A CLEANUP LEVELS FOR SOIL
MTCA	MODEL TOXICS CONTROL ACT
	ISOCONTOUR LINE OF BENZENE CONCENTRATION IN SOIL BASED ON HIGHEST CONCENTRATION PER LOCATION
mg/kg	MILLIGRAMS PER KILOGRAM

Location	Depth (feet)	Benzene (mg/kg)
P01	3.5	<0.02
	6	0.73
	12	0.13
P02	1.5	0.05
	6.5	4.2
	12	0.85
P03	3	9
	6	74
	12	1.8
P04	3.5	6.9
	6	6.4
	12	0.4
	16	0.06
P05	3	<1
	5	2.2
	9	7
	12	1.4
P06	3	0.8
	6	6.7
	12	1.5
P07	4	<0.02
	8	<0.03
P08	3	<0.02
	5.5	2.9
	9	4.4
P09	5	29
	8	44
P10	7	<0.02
	10	<0.02
	12	<0.02
P11	4	<1
	7	<2
	10	<0.02
P12	3	11
	6	20
	8	0.61
P13	3	0.55
	6	14
	10	3.2
P14	7	0.61
P15	3	2.2
	6	0.30
	8	1.5
P16	3	0.13
	6	1.6
	8	0.14
P17	7	0.07
P18	8	<0.02
P19	3	<0.02
	6	<0.02
P20	7	<0.02
P21	6	<0.02
TP-South	4.5	<0.02
TP-North	4.5	1.6
TP-109	4.5	<0.02
B-20	3	2.4
	7	27
	17	0.11
	28.5	0.54
B-21	7.5	<0.02
B-22	5	<0.02
	9	<1
	12	<0.02
	15.5	<0.02
B-23	4.5	<0.02
	7.5	2.5
	11	0.45
	15	<0.02
B-24	4.5	<0.02
B-25	6	<0.02
MTCA Method A		0.03

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 01/09/08
DRAWN BY:.....BLR
CHECKED BY: .....RKB
CAD FILE: .....0461-001-02 FIG11 SD BENZ

PROJECT NAME: .....THE HUNGRY WHALE
SES PROJECT NUMBER:.....0461-001-02
STREET ADDRESS:.....1680 NORTH MONTESANO STREET
CITY, STATE:.....WESTPORT, WASHINGTON

REGION:

0 25 50 100
APPROXIMATE SCALE IN FEET 1" = 50'

FIGURE 4
ISOCONCENTRATION MAP
FOR BENZENE IN SOIL

1/16/2008
\\Sound-dc\sesdirectory\SES CURRENT PROJECTS\0461-001 Port of Grays Harbor\0461-001-02 Hungry Whale\Miscellaneous\dmb\0461-001-02 FIG11 SD BENZ.dwg
SOUNDENVIRONMENTAL.COM

TABLES

Table 1. Cumulative Summary (2007 - 2021) of Groundwater Analytical Results - TPH, VOCs, and Geochemical Parameters The Hungry Whale
1680 North Montesano Street Westport, Washington

Well Number (TOC in feet)	Sample Date	Depth to Groundwater (feet)	SPH Thickness (feet)	Groundwater Elevation (feet)	TPH-G[1] (µg/L)	Volatile Organic Compounds[2] (VOCs)				Geochemical Parameters							
						Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	Dissolved Oxygen[3] (mg/L)	Oxygen Reduction Potential (ORP)[4] (mV)	Ferrous Iron[5] (mg/L)	Nitrate[6] as NO_3 (mg/L)	Sulfate[6] as SO_4(mg/L)	Methane[7] (µg/L)	Total Alkalinity[8] as $CaCO_3$ (mg/L)	Manganese[9], Dissolved (µg/L)
MW-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(13.72)	4/12/16	5.81	0.00	7.91	<100	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--	--	--	--
(13.72)	6/19/19	7.81	0.00	5.91	<50	<1	<1	<1	<1	--	--	--	--	--	--	--	--
	5/24/21	Unable to Locate															
MW-02	6/27/07	7.51	0.00	92.49	**44,000**	**5,400**	**5,900**	**1,300**	**5,200**	--	--	--	--	--	--	--	--
	11/30/11	4.55	0.00	95.45	**43,000**	**3,700**	**5,800**	**1,600**	**6,100**	4.90 H	-196	5.6 H	<0.100	11.0	--	--	--
(100.00)	3/6/12	4.61	0.00	95.39	**6,200**	**1,400**	68	250	230	0.79	-92	17.4	0.141	6.8	642	246	--
	6/13/12	5.60	0.00	94.40	**14,000**	**1,400**	**1,800**	550	**1,500**	3.36	-88.2	16 H	<0.50	3.6	817	228	--
	10/4/12	8.30	0.00	91.70	**51,500**	**5,990**	**5,100**	**1,780**	**6,810**	2.88	-120.4	27.2	<0.20	<1.0	3,320	297	257
	6/4/13	5.98	0.00	94.02	**21,000**	**1,600**	**2,800**	**750**	**2,500**	--	--	--	--	--	--	--	--
(13.69)	4/12/16	5.28	0.00	8.41	**5,340**	**211**	16.1	73.1	106	1.0	-103	21,500	<0.250	15.5	--	146	209
(13.69)	6/20/19	7.52	0.00	6.17	**10,600**	**1,160**	474	410	**1,101**	--	--	--	--	--	--	--	--
(13.69)	6/20/2019 DUP	7.52	0.00	6.17	**12,100**	**1,370**	627	452	**1,283**	--	--	--	--	--	--	--	--
(13.69)	5/25/2021	7.12	0.00	6.57	**3,500**	**227**	26.5	116	**102**	0.46	-285.4	--	--	--	--	--	--
MW-03 (UR)	6/27/07	7.91	0.00	92.49	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	12/1/11	4.74	0.00	95.66	<250	<0.50	<0.50	<0.50	<0.50	--	-121	--	--	--	--	146	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(100.40)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	7.00	0.00	93.40	<50	<1.0	<1.0	<1.0	<3.0	2.30	-30.8	0.21	<0.20	2.4	<6.6	17.3	35.0
	6/4/13	6.28	0.00	94.12	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(14.07)	4/12/16	5.65	0.00	8.42	<100	<0.200	<1.00	<0.500	<1.50	6.4	67	4,220	0.488	14.8	--	66.0	12.4
(14.07)	6/26/19	8.10	0.00	5.97	<50	<1	<1	<1	<1	--	--	--	--	--	--	--	--
	5/24/21																
MW-04	6/27/07	6.90	0.02	92.29	**SPH (0.02')**	**SPH (0.02')**	**SPH (0.02')**	**SPH (0.02')**	**SPH (0.02')**	--	--	--	--	--	--	--	--
	12/1/11	4.20	0.10	95.05	**SPH (0.10')**	**SPH (0.10')**	**SPH (0.10')**	**SPH (0.10')**	**SPH (0.10')**	--	--	--	--	--	--	66.0	--
	3/6/12	4.16	0.01	95.02	**74,000/SPH**	**4,700/SPH**	**5,800/SPH**	**2,300/SPH**	**16,000/SPH**	0.26	-80	--	--	--	--	--	--
(99.17)	6/13/12	5.10	0.00	94.07	**75,000**	**6,900**	**9,700**	**2,000**	**13,000**	1.64	-19.0	--	--	--	--	--	--
	10/4/12	7.60	0.15	91.69	**116,000/SPH**	**13,800/SPH**	**13,200/SPH**	**2,570/SPH**	**14,900/SPH**	3.79	-39.4	39.6	<0.20	<1.0	13,000	283	1,130
	6/4/13	5.51	0.00	93.66	**120,000/sheen**	**7,000/sheen**	**6,400/sheen**	**2,400/sheen**	**19,000/sheen**	--	--	--	--	--	--	--	--
(12.85)	4/14/16	4.51	0.01	8.35	**106,000/SPH**	**3,170/SPH**	748/SPH	**1,740/SPH**	**9,130/SPH**	1.3	-100	45,200	<0.250	<1.00	--	112	714
(12.85)	6/20/19	6.97	0.01	5.89	**66,000/SPH**	**8,310/SPH**	**5,910/SPH**	**1,620/SPH**	**6,890/SPH**	--	--	--	--	--	--	--	--
(12.85)	5/25/21	6.32	0.00	6.53	**91,500**	**4750**	**5980**	**1510**	**8800**	0.22	-359.9	--	--	--	--	--	--
MW-05	6/27/07	6.79	0.00	92.81	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/30/11	3.55	0.00	96.05	<250	<0.50	<0.50	<0.50	<0.50	10.1 H	-113	0.15 H	0.104	5.26	--	74.8	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(99.60)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	7.80	0.00	91.80	704	**314**	2.5	77.0	12.7	4.79	-114.2	2.5	0.30	19.1	293	150	92.2
	6/4/13	5.14	0.00	94.46	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(13.30)	4/12/16	4.53	0.00	8.77	<100	<0.200	<1.00	<0.500	<1.50	6.2	89	3,540	0.271	12.7	--	74.8	<1.00
(13.30)	6/20/19	6.91	0.00	6.39	64.7	<1	3.63	3.56	21.27	--	--	--	--	--	--	--	--
(13.30)	5/26/21	6.25	0.00	7.05	<100	<0.200	<1.00	<0.500	<1.50	#	-168.2	--	--	--	--	--	--
MW-06	6/27/07	5.98	0.00	92.54	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	12/1/11	3.14	0.00	95.38	<250	<0.50	<0.50	<0.50	<0.50	--	-137	--	--	--	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(98.52)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	4.46	0.00	94.06	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
	4/12/16	Unable to Locate															
	6/19/19	Unable to Locate															
	5/24/21	Unable to Locate															
MW-07	6/27/07	7.29	0.00	92.44	**110,000**	**15,000**	**13,000**	**2,600**	**18,000**	--	--	--	--	--	--	--	--
	11/29/11	4.48	0.00	95.25	**110,000**	**6,200**	**15,000**	**2,400**	**23,000**	7.70 H	-114	5.1 H	<0.100 H	2.10 H	--	--	--
	3/6/12	4.50	0.00	95.23	**100,000**	**4,300**	**13,000**	**1,800**	**18,000**	0.29	25	10.0	<0.100	0.60	692	53.0	--
(99.73)	6/13/12	5.40	0.00	94.33	**71,000**	**6,600**	**13,000**	**2,100**	**19,000**	8.60	-24.8	31	<0.50	<0.50	1,490	160	--
	10/4/12	8.05	0.05	91.72	**129,000/SPH**	**9,350/SPH**	**12,600/SPH**	**2,320/SPH**	**22,100/SPH**	14.02	98.7	39.3	<0.20	<1.0	4,730	230	1,250
	6/4/13	5.80	0.00	93.93	**140,000/sheen**	**8,200/sheen**	**14,000/sheen**	**2,200/sheen**	**23,000/sheen**	--	--	--	--	--	--	--	--
(13.41)	4/14/16	4.97	0.00	8.44	**214,000**	**5,730**	**12,500**	**2,400**	**24,900**	1.4	-44	44,200	<0.250	<1.00	--	129	743
(13.41)	6/20/19	7.63	0.00	5.78	**105,000**	**8,440**	**8,820**	**2,160**	**15,470**	--	--	--	--	--	--	--	--
(13.41)	5/26/21	6.90	0.00	6.51	**164,000**	**8,700**	**9,500**	**2,170**	**24,000**	0.38	-161	--	--	--	--	--	--
MW-09	6/27/07	6.50	0.08	92.57	**SPH (0.08')**	**SPH (0.08')**	**SPH (0.08')**	**SPH (0.08')**	**SPH (0.08')**	--	--	--	--	--	--	--	--
	12/1/11	3.57	0.01	95.45	**1,000**	**110**	26	21	84	--	636	--	--	--	--	--	--
	3/6/12	3.55	0.01	95.47	**1,800**	**460**	8.8	36	55	0.14	-135	--	--	--	--	--	--
(99.01)	6/13/12	4.50	0.00	94.51	**7,200**	**1,600**	460	200	810	1.10	-79.90	--	--	--	--	--	--
	10/4/12	7.28	0.00	91.73	**22,200**	**4,630**	**1,340**	603	**3,600**	1.14	-13.8	26.4	<0.20	<1.0	7,190	164	466
	6/4/13	4.92	0.00	94.09	**8,300**	**1,800**	180	120	270	--	--	--	--	--	--	--	--
(12.69)	4/14/16	4.06	0.00	8.63	**36,500**	**4,250**	**1,030**	455	**2,620**	1.1	-141	63,100	<0.250	<1.00	--	228	1,290
(12.69)	6/20/19	6.54	0.00	6.15	**16,500**	**4,390**	60.5	436	778.8	--	--	--	--	--	--	--	--
(12.69)	5/26/21	6.02	0.00	6.67	**15,100**	**2,450**	<50.0	209	503	0.4	-155.9	--	--	--	--	--	--
MW-10	6/27/07	6.51	0.00	92.67	**50,000**	**1,300**	**2,200**	**1,200**	**6,700**	--	--	--	--	--	--	--	--
	11/30/11	3.59	0.00	95.59	**6,200**	**610**	53	390	390	4.80 H	-103	7.0 H	<0.100	9.99	--	--	--

	3/6/12	3.53	0.00	95.65	**2,200**	**150**	13	43	140	0.00	-125	9.10	<0.100	4.0	1,330	105	--
	3/6/12 DUP	3.53	0.00	95.65	**2,100**	**180**	20	68	210	--	--	--	--	--	--	--	--
(99.18)	6/13/12	4.50	0.00	94.68	**6,900**	**640**	440	330	**1,400**	0.92	-82.4	30 H	<0.50	<0.50	1,450	185	--
	10/4/12	7.44	0.00	91.74	**16,900**	**1,340**	464	**930**	**2,620**	1.60	32.4	40.1	<0.20	4.3	7,750	250	1,460
	6/4/13	4.94	0.00	94.24	**15,000**	**1,300**	360	500	**1,400**	--	--	--	--	--	--	--	--
(12.86)	4/13/16	4.23	0.00	8.63	**22,800**	**1,390**	63.9	555	**2,300**	1.10	-153.0	72,200	<0.250	<1.00	--	256	1,230
(12.86)	4/13/16 DUP	4.23	0.00	8.63	**21,600**	**1,340**	<100	457	**1,730**	--	--	--	--	--	--	--	--
(12.86)	6/21/19	6.68	0.00	6.18	**5,640**	**296**	11.4	312	293.6	--	--	--	--	--	--	--	--
(12.86)	5/25/21	5.97	0.00	6.89	**4,480**	**238**	11.5	211	57.4	0.28	-263.8	--	--	--	--	--	--
MW-11	6/27/07	6.89	0.00	92.08	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/30/11	4.37	0.00	94.60	<250	**20**	27	3.7	16	5.70 H	128	0.090 H	<0.100	6.63	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(98.97)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	5.73	0.00	93.24	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(12.77)	4/14/16	4.48	0.00	8.29	<100	<0.200	<1.00	<0.500	<1.50	3.3	-77	140	<0.250	5.05	--	78	1.12
(12.77)	6/20/19	7.32	0.00	5.45	<50	<1	<1	<1	2.50	--	--	--	--	--	--	--	--
(12.77)	5/26/21	6.37	0.00	6.40	<100	<0.200	<1.00	<0.500	<1.50	7.6	-134	--	--	--	--	--	--
MW-12	6/27/07	7.82	0.00	92.35	**20,000**	**14,000**	**28,000**	**1,700**	**21,000**	--	--	--	--	--	--	--	--
	11/29/11	5.01	0.00	95.16	**130,000**	**9,000**	**20,000**	**2,700**	**20,000**	2.90 H	627	5.8 H	<0.100 H	0.447 H	--	--	--
	3/6/12	5.12	0.00	95.05	**100,000**	**8,900**	**24,000**	**2,700**	**22,000**	0.54	-139	--	--	--	--	--	--
(100.17)	6/13/12	6.20	0.00	93.97	**100,000**	**6,800**	**19,000**	**2,500**	**21,000**	2.74	-105.8	--	--	--	--	--	--
	10/4/12	9.00	0.88	91.85	**SPH**	**SPH**	**SPH**	**SPH**	**SPH**	--	--	--	--	--	--	--	--
	6/4/13	6.40	0.00	93.77	**160,000/sheen**	**8,600/sheen**	**21,000/sheen**	**2,400/sheen**	**22,000/sheen**	--	--	--	--	--	--	--	--
(13.87)	4/14/16	5.61	0.00	8.26	**252,000/sheen**	**5,020/sheen**	**16,300/sheen**	**2,650/sheen**	**29,600/sheen**	1.1	-118	46,800	<0.250	169	--	273	2,770
(13.87)	6/19/19	7.82	0.00	6.05	**98,900**	**3,360**	**10,800**	**2,470**	**17,890**	--	--	--	--	--	--	--	--
(13.87)	6/19/16 DUP	7.82	0.00	6.05	**109,000**	**3,440**	**13,200**	**2,600**	**19,240**	--	--	--	--	--	--	--	--
(13.87)	5/25/21	7.43	0.00	6.44	**180,000/sheen**	**2,340**	**12,700**	**2,090**	**28,800**	0.14	-252.9	--	--	--	--	--	--
MW-13	6/27/07	6.49	0.00	92.21	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/30/11	5.55	0.00	93.15	<250	<0.50	<0.50	<0.50	<0.50	10.6 H	-105	0.070 H	<0.100	1.81	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(98.70)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	4.99	0.00	93.71	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(12.36)	4/14/16	3.79	0.00	8.57	<100	<0.200	<1.00	<0.500	<1.50	8.9	56	1,680	<0.250	1.75	--	<20.0	1.24
(12.36)	6/19/19	6.50	0.00	5.86	<50	<1	<1	<1	1.44	--	--	--	--	--	--	--	--
(12.36)	5/24/21	5.59	0.00	6.77	<100	<0.200	<1.00	<0.500	<1.50	8.41	-91.2	--	--	--	--	--	--
MW-14	6/27/07	7.36	0.00	92.17	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/30/11	4.44	0.00	95.09	<250	<0.50	<0.50	<0.50	<0.50	--	76	--	--	--	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(99.53)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	5.91	0.00	93.62	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(13.24)	4/12/16	5.22	0.00	8.02	<100	<0.200	<1.00	<0.500	<1.50	0.9	22.3	369	0.867	3.55	--	64.6	<1.00
(13.24)	6/19/19	7.41	0.00	5.83	<50	<1	<1	<1	<1	--	--	--	--	--	--	--	--
(13.24)	5/24/21	6.75	0.00	6.49	<100	<0.200	<1.00	<0.500	<1.50	2.63	-86.5	--	--	--	--	--	--
MW-16 No elevation	Not Located																
MW-20	6/27/07	7.82	0.00	92.27	**130,000**	**6,900**	**14,000**	**2,800**	**15,000**	--	--	--	--	--	--	--	--
(100.09)	Not Located																
	6/4/13	6.21	0.00	93.88	**100,000/sheen**	**8,800/sheen**	**9,800/sheen**	**2,600/sheen**	**11,000/sheen**	--	--	--	--	--	--	--	--
(13.66)	4/13/16	5.44	0.00	8.22	**184,000**	**6,500**	**14,500**	**3,240**	**19,400**	1.5	-137	64,500	<0.250	8.7	--	379	968
(13.66)	6/20/19	7.61	0.00	6.05	**88,400**	**7,550**	**9,040**	**3,440**	**11,460**	--	--	--	--	--	--	--	--
(13.66)	5/25/21	7.24	0.00	6.42	**90,500**	**4,550**	**5,850**	**3,220**	**9,610**	0.34	-310.2	--	--	--	--	--	--
MW-21	6/27/07	7.62	0.00	92.26	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/30/11	4.82	0.00	95.06	<250	<0.50	<0.50	<0.50	<0.50	--	138	--	--	--	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(99.88)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	6.22	0.00	93.66	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(13.57)	4/12/16	5.63	0.00	7.94	<100	<0.200	<1.00	<0.500	<1.50	8.3	127	368	<.250	3.12	--	31.1	2.30
(13.57)	6/19/19	7.58	0.00	5.99	<50	<1	<1	<1	<1	--	--	--	--	--	--	--	--
	5/24/2021	Not Located															
MW-22	6/27/07	7.45	0.00	92.64	**7,100**	**78**	42	57	520	--	--	--	--	--	--	--	--
	11/30/11	4.50	0.00	95.59	**3,000**	<2.00	17	47	160	6.10 H	125	4.4 H	<0.100	9.30	--	--	--
	3/6/12	4.50	0.00	95.59	<250	0.90	2.2	1.6	9.3	0.57	-31	--	--	--	--	--	--
(100.09)	6/13/12	5.45	0.00	94.64	**1,500**	0.92	4.9	61	43	2.38	-209.7	--	--	--	--	--	--
	10/4/12	8.34	0.00	91.75	**3,230**	**8.8**	21.2	118	121	2.52	-158.3	1.5	<0.20	5.2	1,910	230	136
	6/4/13	5.82	0.00	94.27	730	0.23	1.2	6.1	33	--	--	--	--	--	--	--	--
(13.77)	4/13/16	5.16	0.00	8.61	**2,010**	<0.200	1.15	7.08	19.1	1.1	12	2,870	<0.250	95	--	306	136
(13.77)	4/13/16 DUP	5.16	0.00	8.61	**1,890**	0.349	1.06	6.31	18.0	--	--	--	--	--	--	--	--
(13.77)	6/21/19	7.59	0.00	6.18	**1,490**	1.78	1.87	15.30	47.78	--	--	--	--	--	--	--	--
(13.77)	5/25/21	6.98	0.00	6.79	**1,370**	0.920	<1.00	27.6	16.5	0.34	-321.3	--	--	--	--	--	--
MW-23	6/27/07	7.01	0.00	92.56	**92,000**	**1,500**	**9,300**	**2,000**	**14,000**	--	--	--	--	--	--	--	--
	11/30/11	3.92	0.00	95.65	**51,000**	**470**	**3,700**	**1,100**	**7,100**	--	-121	--	--	--	--	35.6	--
(99.57)	11/30/11 DUP	3.92	0.00	95.65	**47,000**	**560**	**4,000**	**1,200**	**7,700**	--	--	--	--	--	--	--	--
	3/6/12	3.95	0.00	95.62	**55,000**	**630**	**5,700**	**2,200**	**12,000**	0.56	-107	12.6	<0.100	6.6	527	136	--
	6/13/12	4.95	0.00	94.62	**56,000**	**830**	**5,600**	**2,300**	**15,000**	1.28	-103.7	15 H	<0.50	12	387	169	--
	10/4/12	7.95	0.15	91.74	**70,500**	**1,320**	**6,850**	**1,580**	**10,000**	3.86	-112.8	13.5	<0.20	1.6	2,170	176	219
	6/4/13	5.40	0.00	94.17	**88,000/sheen**	**770/sheen**	**5,200/sheen**	**2,800/sheen**	**17,000/sheen**	--	--	--	--	--	--	--	--

(13.23)	4/13/16	4.84	0.00	8.39	**158,000/sheen**	**280/sheen**	**4,860/sheen**	**3,230/sheen**	**21,700/sheen**	1.1	-105	16,600	<0.250	1.32	--	96.1	128
(13.23)	6/20/19	7.10	0.00	6.13	**52,100**	**374**	**4,350**	**1,840**	**10,450**	--	--	--	--	--	--	--	--
(13.23)	5/25/21	6.78	0.00	6.45	**82,500**	**194**	**4,450**	**2,080**	**11,700**	0.40	-252.1	--	--	--	--	--	--
(13.23)	5/25/21 DUP	6.78	0.00	6.45	**88,000**	**214**	**4,650**	**2,200**	**12,400**	--	--	--	--	--	--	--	--
MW-24	6/27/07	5.15	0.00	92.78	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	12/1/11	2.14	0.00	95.79	<250	<0.50	<0.50	<0.50	<0.50	--	-133	--	--	--	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(97.93)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	3.47	0.00	94.46	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(11.61)	4/12/16	2.74	0.00	8.87	<100	<0.200	<1.00	<0.500	<1.50	1.4	99	5,170	<0.250	<1.00	--	35.6	105
(11.61)	6/26/19	5.51	0.00	6.10	<50	<1	<1	<1	<1	--	--	--	--	--	--	--	--
MW-25	6/27/07	6.45	0.00	92.29	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	12/1/11	3.68	0.00	95.06	<250	<0.50	<0.50	<0.50	<0.50	--	123	--	--	--	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(98.74)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	5.02	0.00	93.72	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
	4/13/16	4.25	0.00	8.16	**2,820**	**76.3**	<1.00	45.5	101	1.2	25	9,690	<0.250	6.24	--	65.0	235
(12.41)	5/20/16	5.77	0.00	6.64	94.4	<1.00	<1.00	1.10	1.08	--	--	--	--	--	--	--	--
(12.41)	1/9/18	3.36	0.00	9.05	123	2.15	<1.00	<1.00	33.7	--	--	--	--	--	--	--	--
(12.41)	6/19/19	6.52	0.00	5.89	<50	<1	<1	<1	1.60	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Levels [10]		N/A	N/A	N/A	800/1,000 [11]	5	1,000	700	1,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

[3] Dissolved Oxygen analysis collected as a field parameter, except samples collected November 2011, which were analyzed by laboratory

[4] Oxygen Reduction Potential collected as a field parameter

[5] Ferrous Iron analysis by Method SM3500-Fe B

[6] Nitrate and Sulfate analysis by Ion Chromatography by EPA Method 300.0

[7] Methane analysis by Method RSK-175M

[8] Total Alkalinity analysis by Method SM 2320B

[9] Manganese analysis bu EPA Method 6010

[10] Washington State Department of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Level for groundwater. November 2007.

[11] MTCA Method A Cleanup Level for TPH-G in groundwater is 800 µg/L if benzene is detected; but is 1,000 µg/L if benzene is not detected. SPH = Separate Phase Hydrocarbons

Groundwater Elevation calculated using "Groundwater Elevation = TOC-(Depth to Water -(SPH thickness*0.77))" where 0.77 is a generic density of gasoline.

Table 1. Cumulative Summary (2007 - 2021) of Groundwater Analytical Results - TPH, VOCs, and Geochemical Parameters The Hungry Whale
1680 North Montesano Street Westport, Washington

Well Number (TOC in feet)	Sample Date	Depth to Groundwater (feet)	SPH Thickness (feet)	Groundwater Elevation (feet)	TPH-G[1] (µg/L)	Volatile Organic Compounds[2] (VOCs)				Geochemical Parameters							
						Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	Dissolved Oxygen[3] (mg/L)	Oxygen Reduction Potential (ORP)[4] (mV)	Ferrous Iron[5] (mg/L)	Nitrate[6] as NO_3 (mg/L)	Sulfate[6] as SO_4(mg/L)	Methane[7] (µg/L)	Total Alkalinity[8] as $CaCO_3$ (mg/L)	Manganese[9], Dissolved (µg/L)
MW-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(13.72)	4/12/16	5.81	0.00	7.91	<100	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--	--	--	--
(13.72)	6/19/19	7.81	0.00	5.91	<50	<1	<1	<1	<1	--	--	--	--	--	--	--	--
	5/24/21	Unable to Locate															
MW-02	6/27/07	7.51	0.00	92.49	**44,000**	**5,400**	**5,900**	**1,300**	**5,200**	--	--	--	--	--	--	--	--
	11/30/11	4.55	0.00	95.45	**43,000**	**3,700**	**5,800**	**1,600**	**6,100**	4.90 H	-196	5.6 H	<0.100	11.0	--	--	--
(100.00)	3/6/12	4.61	0.00	95.39	**6,200**	**1,400**	68	250	230	0.79	-92	17.4	0.141	6.8	642	246	--
	6/13/12	5.60	0.00	94.40	**14,000**	**1,400**	**1,800**	550	**1,500**	3.36	-88.2	16 H	<0.50	3.6	817	228	--
	10/4/12	8.30	0.00	91.70	**51,500**	**5,990**	**5,100**	**1,780**	**6,810**	2.88	-120.4	27.2	<0.20	<1.0	3,320	297	257
	6/4/13	5.98	0.00	94.02	**21,000**	**1,600**	**2,800**	**750**	**2,500**	--	--	--	--	--	--	--	--
(13.69)	4/12/16	5.28	0.00	8.41	**5,340**	**211**	16.1	73.1	106	1.0	-103	21,500	<0.250	15.5	--	146	209
(13.69)	6/20/19	7.52	0.00	6.17	**10,600**	**1,160**	474	410	**1,101**	--	--	--	--	--	--	--	--
(13.69)	6/20/2019 DUP	7.52	0.00	6.17	**12,100**	**1,370**	627	452	**1,283**	--	--	--	--	--	--	--	--
(13.69)	5/25/2021	7.12	0.00	6.57	**3,500**	**227**	26.5	116	**102**	0.46	-285.4	--	--	--	--	--	--
MW-03 (UR)	6/27/07	7.91	0.00	92.49	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	12/1/11	4.74	0.00	95.66	<250	<0.50	<0.50	<0.50	<0.50	--	-121	--	--	--	--	146	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(100.40)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	7.00	0.00	93.40	<50	<1.0	<1.0	<1.0	<3.0	2.30	-30.8	0.21	<0.20	2.4	<6.6	17.3	35.0
	6/4/13	6.28	0.00	94.12	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(14.07)	4/12/16	5.65	0.00	8.42	<100	<0.200	<1.00	<0.500	<1.50	6.4	67	4,220	0.488	14.8	--	66.0	12.4
(14.07)	6/26/19	8.10	0.00	5.97	<50	<1	<1	<1	<1	--	--	--	--	--	--	--	--
	5/24/21																
MW-04	6/27/07	6.90	0.02	92.29	**SPH (0.02')**	**SPH (0.02')**	**SPH (0.02')**	**SPH (0.02')**	**SPH (0.02')**	--	--	--	--	--	--	--	--
	12/1/11	4.20	0.10	95.05	**SPH (0.10')**	**SPH (0.10')**	**SPH (0.10')**	**SPH (0.10')**	**SPH (0.10')**	--	--	--	--	--	--	66.0	--
	3/6/12	4.16	0.01	95.02	**74,000/SPH**	**4,700/SPH**	**5,800/SPH**	**2,300/SPH**	**16,000/SPH**	0.26	-80	--	--	--	--	--	--
(99.17)	6/13/12	5.10	0.00	94.07	**75,000**	**6,900**	**9,700**	**2,000**	**13,000**	1.64	-19.0	--	--	--	--	--	--
	10/4/12	7.60	0.15	91.69	**116,000/SPH**	**13,800/SPH**	**13,200/SPH**	**2,570/SPH**	**14,900/SPH**	3.79	-39.4	39.6	<0.20	<1.0	13,000	283	1,130
	6/4/13	5.51	0.00	93.66	**120,000/sheen**	**7,000/sheen**	**6,400/sheen**	**2,400/sheen**	**19,000/sheen**	--	--	--	--	--	--	--	--
(12.85)	4/14/16	4.51	0.01	8.35	**106,000/SPH**	**3,170/SPH**	748/SPH	**1,740/SPH**	**9,130/SPH**	1.3	-100	45,200	<0.250	<1.00	--	112	714
(12.85)	6/20/19	6.97	0.01	5.89	**66,000/SPH**	**8,310/SPH**	**5,910/SPH**	**1,620/SPH**	**6,890/SPH**	--	--	--	--	--	--	--	--
(12.85)	5/25/21	6.32	0.00	6.53	**91,500**	**4750**	**5980**	**1510**	**8800**	0.22	-359.9	--	--	--	--	--	--
MW-05	6/27/07	6.79	0.00	92.81	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/30/11	3.55	0.00	96.05	<250	<0.50	<0.50	<0.50	<0.50	10.1 H	-113	0.15 H	0.104	5.26	--	74.8	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(99.60)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	7.80	0.00	91.80	704	**314**	2.5	77.0	12.7	4.79	-114.2	2.5	0.30	19.1	293	150	92.2
	6/4/13	5.14	0.00	94.46	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(13.30)	4/12/16	4.53	0.00	8.77	<100	<0.200	<1.00	<0.500	<1.50	6.2	89	3,540	0.271	12.7	--	74.8	<1.00
(13.30)	6/20/19	6.91	0.00	6.39	64.7	<1	3.63	3.56	21.27	--	--	--	--	--	--	--	--
(13.30)	5/26/21	6.25	0.00	7.05	<100	<0.200	<1.00	<0.500	<1.50	#	-168.2	--	--	--	--	--	--
MW-06	6/27/07	5.98	0.00	92.54	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	12/1/11	3.14	0.00	95.38	<250	<0.50	<0.50	<0.50	<0.50	--	-137	--	--	--	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(98.52)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	4.46	0.00	94.06	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
	4/12/16	Unable to Locate															
	6/19/19	Unable to Locate															
	5/24/21	Unable to Locate															
MW-07	6/27/07	7.29	0.00	92.44	**110,000**	**15,000**	**13,000**	**2,600**	**18,000**	--	--	--	--	--	--	--	--
	11/29/11	4.48	0.00	95.25	**110,000**	**6,200**	**15,000**	**2,400**	**23,000**	7.70 H	-114	5.1 H	<0.100 H	2.10 H	--	--	--
	3/6/12	4.50	0.00	95.23	**100,000**	**4,300**	**13,000**	**1,800**	**18,000**	0.29	25	10.0	<0.100	0.60	692	53.0	--
(99.73)	6/13/12	5.40	0.00	94.33	**71,000**	**6,600**	**13,000**	**2,100**	**19,000**	8.60	-24.8	31	<0.50	<0.50	1,490	160	--
	10/4/12	8.05	0.05	91.72	**129,000/SPH**	**9,350/SPH**	**12,600/SPH**	**2,320/SPH**	**22,100/SPH**	14.02	98.7	39.3	<0.20	<1.0	4,730	230	1,250
	6/4/13	5.80	0.00	93.93	**140,000/sheen**	**8,200/sheen**	**14,000/sheen**	**2,200/sheen**	**23,000/sheen**	--	--	--	--	--	--	--	--
(13.41)	4/14/16	4.97	0.00	8.44	**214,000**	**5,730**	**12,500**	**2,400**	**24,900**	1.4	-44	44,200	<0.250	<1.00	--	129	743
(13.41)	6/20/19	7.63	0.00	5.78	**105,000**	**8,440**	**8,820**	**2,160**	**15,470**	--	--	--	--	--	--	--	--
(13.41)	5/26/21	6.90	0.00	6.51	**164,000**	**8,700**	**9,500**	**2,170**	**24,000**	0.38	-161	--	--	--	--	--	--
MW-09	6/27/07	6.50	0.08	92.57	**SPH (0.08')**	**SPH (0.08')**	**SPH (0.08')**	**SPH (0.08')**	**SPH (0.08')**	--	--	--	--	--	--	--	--
	12/1/11	3.57	0.01	95.45	**1,000**	**110**	26	21	84	--	636	--	--	--	--	--	--
	3/6/12	3.55	0.01	95.47	**1,800**	**460**	8.8	36	55	0.14	-135	--	--	--	--	--	--
(99.01)	6/13/12	4.50	0.00	94.51	**7,200**	**1,600**	460	200	810	1.10	-79.90	--	--	--	--	--	--
	10/4/12	7.28	0.00	91.73	**22,200**	**4,630**	**1,340**	603	**3,600**	1.14	-13.8	26.4	<0.20	<1.0	7,190	164	466
	6/4/13	4.92	0.00	94.09	**8,300**	**1,800**	180	120	270	--	--	--	--	--	--	--	--
(12.69)	4/14/16	4.06	0.00	8.63	**36,500**	**4,250**	**1,030**	455	**2,620**	1.1	-141	63,100	<0.250	<1.00	--	228	1,290
(12.69)	6/20/19	6.54	0.00	6.15	**16,500**	**4,390**	60.5	436	778.8	--	--	--	--	--	--	--	--
(12.69)	5/26/21	6.02	0.00	6.67	**15,100**	**2,450**	<50.0	209	503	0.4	-155.9	--	--	--	--	--	--
MW-10	6/27/07	6.51	0.00	92.67	**50,000**	**1,300**	**2,200**	**1,200**	**6,700**	--	--	--	--	--	--	--	--
	11/30/11	3.59	0.00	95.59	**6,200**	**610**	53	390	390	4.80 H	-103	7.0 H	<0.100	9.99	--	--	--

	3/6/12	3.53	0.00	95.65	**2,200**	**150**	13	43	140	0.00	-125	9.10	<0.100	4.0	1,330	105	--
	3/6/12 DUP	3.53	0.00	95.65	**2,100**	**180**	20	68	210	--	--	--	--	--	--	--	--
(99.18)	6/13/12	4.50	0.00	94.68	**6,900**	**640**	440	330	**1,400**	0.92	-82.4	30 H	<0.50	<0.50	1,450	185	--
	10/4/12	7.44	0.00	91.74	**16,900**	**1,340**	464	**930**	**2,620**	1.60	32.4	40.1	<0.20	4.3	7,750	250	1,460
	6/4/13	4.94	0.00	94.24	**15,000**	**1,300**	360	500	**1,400**	--	--	--	--	--	--	--	--
(12.86)	4/13/16	4.23	0.00	8.63	**22,800**	**1,390**	63.9	555	**2,300**	1.10	-153.0	72,200	<0.250	<1.00	--	256	1,230
(12.86)	4/13/16 DUP	4.23	0.00	8.63	**21,600**	**1,340**	<100	457	**1,730**	--	--	--	--	--	--	--	--
(12.86)	6/21/19	6.68	0.00	6.18	**5,640**	**296**	11.4	312	293.6	--	--	--	--	--	--	--	--
(12.86)	5/25/21	5.97	0.00	6.89	**4,480**	**238**	11.5	211	57.4	0.28	-263.8	--	--	--	--	--	--
MW-11	6/27/07	6.89	0.00	92.08	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/30/11	4.37	0.00	94.60	<250	**20**	27	3.7	16	5.70 H	128	0.090 H	<0.100	6.63	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(98.97)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	5.73	0.00	93.24	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(12.77)	4/14/16	4.48	0.00	8.29	<100	<0.200	<1.00	<0.500	<1.50	3.3	-77	140	<0.250	5.05	--	78	1.12
(12.77)	6/20/19	7.32	0.00	5.45	<50	<1	<1	<1	2.50	--	--	--	--	--	--	--	--
(12.77)	5/26/21	6.37	0.00	6.40	<100	<0.200	<1.00	<0.500	<1.50	7.6	-134	--	--	--	--	--	--
MW-12	6/27/07	7.82	0.00	92.35	**20,000**	**14,000**	**28,000**	**1,700**	**21,000**	--	--	--	--	--	--	--	--
	11/29/11	5.01	0.00	95.16	**130,000**	**9,000**	**20,000**	**2,700**	**20,000**	2.90 H	627	5.8 H	<0.100 H	0.447 H	--	--	--
	3/6/12	5.12	0.00	95.05	**100,000**	**8,900**	**24,000**	**2,700**	**22,000**	0.54	-139	--	--	--	--	--	--
(100.17)	6/13/12	6.20	0.00	93.97	**100,000**	**6,800**	**19,000**	**2,500**	**21,000**	2.74	-105.8	--	--	--	--	--	--
	10/4/12	9.00	0.88	91.85	**SPH**	**SPH**	**SPH**	**SPH**	**SPH**	--	--	--	--	--	--	--	--
	6/4/13	6.40	0.00	93.77	**160,000/sheen**	**8,600/sheen**	**21,000/sheen**	**2,400/sheen**	**22,000/sheen**	--	--	--	--	--	--	--	--
(13.87)	4/14/16	5.61	0.00	8.26	**252,000/sheen**	**5,020/sheen**	**16,300/sheen**	**2,650/sheen**	**29,600/sheen**	1.1	-118	46,800	<0.250	169	--	273	2,770
(13.87)	6/19/19	7.82	0.00	6.05	**98,900**	**3,360**	**10,800**	**2,470**	**17,890**	--	--	--	--	--	--	--	--
(13.87)	6/19/16 DUP	7.82	0.00	6.05	**109,000**	**3,440**	**13,200**	**2,600**	**19,240**	--	--	--	--	--	--	--	--
(13.87)	5/25/21	7.43	0.00	6.44	**180,000/sheen**	**2,340**	**12,700**	**2,090**	**28,800**	0.14	-252.9	--	--	--	--	--	--
MW-13	6/27/07	6.49	0.00	92.21	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/30/11	5.55	0.00	93.15	<250	<0.50	<0.50	<0.50	<0.50	10.6 H	-105	0.070 H	<0.100	1.81	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(98.70)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	4.99	0.00	93.71	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(12.36)	4/14/16	3.79	0.00	8.57	<100	<0.200	<1.00	<0.500	<1.50	8.9	56	1,680	<0.250	1.75	--	<20.0	1.24
(12.36)	6/19/19	6.50	0.00	5.86	<50	<1	<1	<1	1.44	--	--	--	--	--	--	--	--
(12.36)	5/24/21	5.59	0.00	6.77	<100	<0.200	<1.00	<0.500	<1.50	8.41	-91.2	--	--	--	--	--	--
MW-14	6/27/07	7.36	0.00	92.17	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/30/11	4.44	0.00	95.09	<250	<0.50	<0.50	<0.50	<0.50	--	76	--	--	--	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(99.53)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	5.91	0.00	93.62	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(13.24)	4/12/16	5.22	0.00	8.02	<100	<0.200	<1.00	<0.500	<1.50	0.9	22.3	369	0.867	3.55	--	64.6	<1.00
(13.24)	6/19/19	7.41	0.00	5.83	<50	<1	<1	<1	<1	--	--	--	--	--	--	--	--
(13.24)	5/24/21	6.75	0.00	6.49	<100	<0.200	<1.00	<0.500	<1.50	2.63	-86.5	--	--	--	--	--	--
MW-16 No elevation	Not Located																
MW-20	6/27/07	7.82	0.00	92.27	**130,000**	**6,900**	**14,000**	**2,800**	**15,000**	--	--	--	--	--	--	--	--
(100.09)	Not Located																
	6/4/13	6.21	0.00	93.88	**100,000/sheen**	**8,800/sheen**	**9,800/sheen**	**2,600/sheen**	**11,000/sheen**	--	--	--	--	--	--	--	--
(13.66)	4/13/16	5.44	0.00	8.22	**184,000**	**6,500**	**14,500**	**3,240**	**19,400**	1.5	-137	64,500	<0.250	8.7	--	379	968
(13.66)	6/20/19	7.61	0.00	6.05	**88,400**	**7,550**	**9,040**	**3,440**	**11,460**	--	--	--	--	--	--	--	--
(13.66)	5/25/21	7.24	0.00	6.42	**90,500**	**4,550**	**5,850**	**3,220**	**9,610**	0.34	-310.2	--	--	--	--	--	--
MW-21	6/27/07	7.62	0.00	92.26	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/30/11	4.82	0.00	95.06	<250	<0.50	<0.50	<0.50	<0.50	--	138	--	--	--	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(99.88)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	6.22	0.00	93.66	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(13.57)	4/12/16	5.63	0.00	7.94	<100	<0.200	<1.00	<0.500	<1.50	8.3	127	368	<.250	3.12	--	31.1	2.30
(13.57)	6/19/19	7.58	0.00	5.99	<50	<1	<1	<1	<1	--	--	--	--	--	--	--	--
	5/24/2021	Not Located															
MW-22	6/27/07	7.45	0.00	92.64	**7,100**	**78**	42	57	520	--	--	--	--	--	--	--	--
	11/30/11	4.50	0.00	95.59	**3,000**	<2.00	17	47	160	6.10 H	125	4.4 H	<0.100	9.30	--	--	--
	3/6/12	4.50	0.00	95.59	<250	0.90	2.2	1.6	9.3	0.57	-31	--	--	--	--	--	--
(100.09)	6/13/12	5.45	0.00	94.64	**1,500**	0.92	4.9	61	43	2.38	-209.7	--	--	--	--	--	--
	10/4/12	8.34	0.00	91.75	**3,230**	**8.8**	21.2	118	121	2.52	-158.3	1.5	<0.20	5.2	1,910	230	136
	6/4/13	5.82	0.00	94.27	730	0.23	1.2	6.1	33	--	--	--	--	--	--	--	--
(13.77)	4/13/16	5.16	0.00	8.61	**2,010**	<0.200	1.15	7.08	19.1	1.1	12	2,870	<0.250	95	--	306	136
(13.77)	4/13/16 DUP	5.16	0.00	8.61	**1,890**	0.349	1.06	6.31	18.0	--	--	--	--	--	--	--	--
(13.77)	6/21/19	7.59	0.00	6.18	**1,490**	1.78	1.87	15.30	47.78	--	--	--	--	--	--	--	--
(13.77)	5/25/21	6.98	0.00	6.79	**1,370**	0.920	<1.00	27.6	16.5	0.34	-321.3	--	--	--	--	--	--
MW-23	6/27/07	7.01	0.00	92.56	**92,000**	**1,500**	**9,300**	**2,000**	**14,000**	--	--	--	--	--	--	--	--
	11/30/11	3.92	0.00	95.65	**51,000**	**470**	**3,700**	**1,100**	**7,100**	--	-121	--	--	--	--	35.6	--
(99.57)	11/30/11 DUP	3.92	0.00	95.65	**47,000**	**560**	**4,000**	**1,200**	**7,700**	--	--	--	--	--	--	--	--
	3/6/12	3.95	0.00	95.62	**55,000**	**630**	**5,700**	**2,200**	**12,000**	0.56	-107	12.6	<0.100	6.6	527	136	--
	6/13/12	4.95	0.00	94.62	**56,000**	**830**	**5,600**	**2,300**	**15,000**	1.28	-103.7	15 H	<0.50	12	387	169	--
	10/4/12	7.95	0.15	91.74	**70,500**	**1,320**	**6,850**	**1,580**	**10,000**	3.86	-112.8	13.5	<0.20	1.6	2,170	176	219
	6/4/13	5.40	0.00	94.17	**88,000/sheen**	**770/sheen**	**5,200/sheen**	**2,800/sheen**	**17,000/sheen**	--	--	--	--	--	--	--	--

(13.23)	4/13/16	4.84	0.00	8.39	**158,000/sheen**	**280/sheen**	**4,860/sheen**	**3,230/sheen**	**21,700/sheen**	1.1	-105	16,600	<0.250	1.32	--	96.1	128
(13.23)	6/20/19	7.10	0.00	6.13	**52,100**	**374**	**4,350**	**1,840**	**10,450**	--	--	--	--	--	--	--	--
(13.23)	5/25/21	6.78	0.00	6.45	**82,500**	**194**	**4,450**	**2,080**	**11,700**	0.40	-252.1	--	--	--	--	--	--
(13.23)	5/25/21 DUP	6.78	0.00	6.45	**88,000**	**214**	**4,650**	**2,200**	**12,400**	--	--	--	--	--	--	--	--
MW-24	6/27/07	5.15	0.00	92.78	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	12/1/11	2.14	0.00	95.79	<250	<0.50	<0.50	<0.50	<0.50	--	-133	--	--	--	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(97.93)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	3.47	0.00	94.46	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(11.61)	4/12/16	2.74	0.00	8.87	<100	<0.200	<1.00	<0.500	<1.50	1.4	99	5,170	<0.250	<1.00	--	35.6	105
(11.61)	6/26/19	5.51	0.00	6.10	<50	<1	<1	<1	<1	--	--	--	--	--	--	--	--
MW-25	6/27/07	6.45	0.00	92.29	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	12/1/11	3.68	0.00	95.06	<250	<0.50	<0.50	<0.50	<0.50	--	123	--	--	--	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(98.74)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	5.02	0.00	93.72	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
	4/13/16	4.25	0.00	8.16	**2,820**	**76.3**	<1.00	45.5	101	1.2	25	9,690	<0.250	6.24	--	65.0	235
(12.41)	5/20/16	5.77	0.00	6.64	94.4	<1.00	<1.00	1.10	1.08	--	--	--	--	--	--	--	--
(12.41)	1/9/18	3.36	0.00	9.05	123	2.15	<1.00	<1.00	33.7	--	--	--	--	--	--	--	--
(12.41)	6/19/19	6.52	0.00	5.89	<50	<1	<1	<1	1.60	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Levels [10]		N/A	N/A	N/A	800/1,000 [11]	5	1,000	700	1,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

[3] Dissolved Oxygen analysis collected as a field parameter, except samples collected November 2011, which were analyzed by laboratory

[4] Oxygen Reduction Potential collected as a field parameter

[5] Ferrous Iron analysis by Method SM3500-Fe B

[6] Nitrate and Sulfate analysis by Ion Chromatography by EPA Method 300.0

[7] Methane analysis by Method RSK-175M

[8] Total Alkalinity analysis by Method SM 2320B

[9] Manganese analysis bu EPA Method 6010

[10] Washington State Department of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Level for groundwater. November 2007.

[11] MTCA Method A Cleanup Level for TPH-G in groundwater is 800 µg/L if benzene is detected; but is 1,000 µg/L if benzene is not detected. SPH = Separate Phase Hydrocarbons

Groundwater Elevation calculated using "Groundwater Elevation = TOC-(Depth to Water -(SPH thickness*0.77))" where 0.77 is a generic density of gasoline.