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Stantec

March 14, 2012

Libby Goldstein
Department of Ecology
Toxic Cleanup Program, NWRO
3190 160th Avenue, SE
Bellevue, Washington 98008

Re: Soil and Groundwater Assessment Report
Former Tidewater Service Station
ConocoPhillips Site 5173
Chevron Site 301233
2800 Martin Luther King Way, Seattle, WA
Stantec Project No.: 211602382.500.9401

Dear Ms. Goldstein:

Stantec is pleased to submit the enclosed *Soil and Groundwater Assessment Report* for the above referenced site on behalf Chevron Environmental Management Company and ConocoPhillips.

If there are any questions or comments regarding the contents of this document, please contact Dan Schreiner at (916) 861-0400 extension 227.

Sincerely,
Stantec Consulting Services Inc.

Dan Schreiner
Senior Project Manager

cc: Mr. Eric Hetrick, ConocoPhillips – EDMS Upload
Mr. Rick Rittenberg, Chevron Environmental Management Company – Strata Upload
Mr. Howard F. Jensen and Ms. Alison Robinson, Tupper Mack Jensen Wells, 2025 First Ave., Suite 1100, Seattle, WA 98121 – Hard Copy
Mr. Greg McMormick, 295 NE Gilman Blvd., Suite 201, Issaquah, WA 98027 – Hard Copy

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Soil and Groundwater Assessment Report for

Chevron Environmental Management Company and ConocoPhillips Company

Former Tidewater Site

Chevron Site 301233
ConocoPhillips Site 5173
VCP Project No. NW2321

2800 Martin Luther King Jr. Way South
Seattle, WA

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EXPIRES 11-2[illegible] - 2012

March 14, 2012

Table of Contents

FIGURES

TABLES

APPENDICES

1.0 Introduction

On behalf of ConocoPhillips Company (COP) and Chevron Environmental Management Company (CEMC), Stantec Consulting Corporation (Stantec) has prepared this *Soil and Groundwater Assessment Report* for the former Tidewater site, defined herein as all areas where contamination associated with the former Tidewater service station has come to be located (the Site; Figure 1). The former Tidewater service station was located at 2800 Martin Luther King Jr. Way South in Seattle, Washington (the "Property"). This report summarizes work conducted in accordance with Stantec's report titled *Groundwater Sampling and Results Report and Work Plan Former Tidewater Service Station Martin Luther King Way South* dated July 5, 2010 (work plan). The work plan is included as Appendix A. The Site was accepted into the Voluntary Cleanup Program (VCP) by the State of Washington Department of Ecology (Ecology). Ecology confirmed the Site's acceptance into the VCP in a letter dated August 17, 2010 (Appendix B).

1.1 PURPOSE AND SCOPE OF WORK

The purpose of the assessment work was to further delineate subsurface contamination. A general description of the scope of work was proposed in the work plan. In the work plan, Stantec recommended the following:

- Groundwater monitoring and sampling of all Site wells on a quarterly basis; and,
- Completion of further assessment in two phases:
    - Phase 1: Installation of direct push borings to further define petroleum hydrocarbon impacts in soil and groundwater in the former western pump island area, in the former heating oil underground storage tank (UST) area, and in the southern portion of the Property.
    - Phase 2: Install off- and on-Property groundwater monitoring wells to further define petroleum hydrocarbon impacts in the former western pump island area and delineate the down-gradient impacts to groundwater at the Site.

Ecology reviewed Stantec's work plan and generally agreed with the scope of work in an opinion letter dated November 9, 2010 titled *Opinion pursuant to WAC 173-340-515(5) on Proposed Remedial Action for the following Hazardous Waste Site*. Ecology's letter specified the clean-up levels to be applied to the Site for remedial action and adjusted the locations of

Stantec's proposed soil borings as part of the delineation plan. Ecology's letter is provided in Appendix B.

The scope of work was completed in two phases (Phase 1 and Phase 2). Phase 1 was completed in April 2011 and Phase 2 was completed in July 2011. During Phase 1, Stantec installed seven direct push soil and groundwater investigative borings (B-1 through B-7) on the Property. Based on results of Phase 1, five groundwater monitoring wells (MW-6 through MW-10) were installed on and off the Property during Phase 2 (Figure 2).

1.2 SITE DESCRIPTION

The Property is an approximately 0.25-acre lot currently occupied by Auto Care Detail, which uses the Property as an auto detailing business. The Property was formerly used as a gasoline station between approximately 1955 and 1989. According to historical documents the Property was undeveloped until 1955 and has since been owned and operated by the following companies:

- ~1955 to ~1965: Associated Oil Company-Associates Gas Station (in 1938, Associated Oil and Tidewater Oil merged to become Tidewater Associated Oil Company)
- ~1965 to 1967: Phillips Gas Station
- ~1967 to ~1973: Rainier Bonanza Self Serve Gas
- ~1974 to ~1986: Vacant
- ~1986 to ~ 1990: Empire Mobile
- ~1994 to ~2004: R&R Auto Repair
- ~2004 to ~2010: Vacant auto repair garage
- ~2010 to Present: Auto Care Detail

Three USTs consisting of two gasoline USTs (4,000 and 5,000 gallon tanks) and one waste oil UST (approximately 300-gallon tank) were removed from the northwest corner of the Property in 1989. UST removal activities were summarized in G-Logics *Phase I Environmental Site Assessment* report dated January 11, 2005. Additional service station equipment, including two vehicle hoists, a heating oil UST, an oil/water separator, and drain sump were removed in February 2005.

The Site is in a mixed commercial and residential area. To the north of the Property is South McClellan Street and to the north-northwest, across South McClellan Street, is a home improvement store (Lowes). To the north-northeast, across South McClellan Street, is Mt. Baker Cleaners. The Property is bounded to the east by a dental clinic; a residential area is located to the southeast. Directly south of the Property is a strip mall with a nail salon and a few other small businesses. The Property is bounded to the west by Martin Luther King Jr. Way South (MLK Way). Across MLK Way to the southwest and west are commercial buildings.

There is an active Unocal 76 station northwest of the Site across MLK Way. The potential for impacts migrating from the Unocal station to the Site has not been investigated, however, the Unocal 76 station is located hydraulically cross-gradient of the Site and the potential for impacts to the Site from that facility appear limited.

1.3 REGULATORY BACKGROUND

Washington's hazardous waste cleanup law, the Model Toxics Control Act (chapter 70.105D RCW, MTCA), mandates that site cleanups protect human health and the environment. To implement this statutory mandate, Ecology has established cleanup standards and requirements for the cleanup of hazardous waste sites (cleanup actions). The rules establishing these standards and requirements were developed by Ecology.

MTCA Cleanup Regulation (chapter 173-340 WAC) defines a two-step approach for establishing cleanup requirements for individual sites:

- Establishing Cleanup Standards. The standards provide a uniform, statewide approach to cleanup that can be applied on a site-by-site basis. The two primary components of the standards, cleanup levels and points of compliance, must be established for each site. Cleanup levels determine the concentrations below which a particular hazardous substance no longer poses an unacceptable risk to human health or the environment. Points of compliance designate the location on the site where the cleanup levels must be met. The standard point of compliance is in all media throughout the Site. Conditional points of compliance may be developed in consultation with Ecology.

- Selecting Cleanup Actions. This step involves evaluating methods that could be used to clean a site and then deciding which of those methods would best achieve cleanup standards. When a selected remedial action to be used at a site cannot attain the target cleanup level, it may be necessary to establish "remediation levels" to indicate the concentrations above or below which certain remedial actions will be implemented. Aside from meeting the cleanup standards, the cleanup actions must also: comply with applicable state and federal laws; protect human health and the environment; provide for compliance monitoring to ensure effectiveness; provide for permanent cleanup to the maximum extent practicable; provide for a reasonable restoration time frame; and, consider public concerns. When it is not practicable to restore a site to the cleanup standards, the regulation allows use of engineered containment systems. In some circumstances this would seal off contamination on the site, provided it can be shown that the cleanup will still be protective of human health and the environment.

1.4 PREVIOUS INVESTIGATIONS

Soil and groundwater investigations at the Site began with the UST removals in 1989. All soil samples collected from the UST excavation, in the northwest corner of the Property, were documented below the MTCA Method A Cleanup Levels for constituents of concern (COC).

Additional soil and groundwater investigations were conducted by G-Logics in February 2005. A groundwater sample collected from boring GL-4, contained total petroleum hydrocarbons in the gasoline range (TPH-GRO) at 5,900 micrograms per liter (µg/L), exceeding the MTCA Method A Cleanup Level (1,000 µg/L). The sample area was located between the former western and eastern pump islands. G-Logics also conducted an investigation beneath the former heating oil UST. Impacted soil was found in this location but it did not exceed MTCA Method A Cleanup Levels.

Further soil and groundwater investigation of the western and eastern pump island area was conducted by G-Logics in June 2005 (soil borings P1 through P11). Laboratory results confirmed that the highest concentrations of petroleum-impacted soil, mostly in the gasoline range, were from soil borings P-7, P-8, and P-9 in the vicinity of the western pump island, which all exceeded MTCA Method A Cleanup Levels. The impact was primarily observed between 15 and 20 feet below ground surface (bgs).

All G-Logics sampling points are shown on Figure 2.

In August 2005 G-Logics began the installation and operation of an ozone treatment system. Five ozone injection points (IP-1 through IP-5) and monitoring wells MW-1, MW-2, and MW-3 were installed. The ozone system began operation on August 26, 2005.

Elevated concentrations of TPH-GRO were regularly detected at MW-3, located west of the western pump island. As a result, G-Logics continued soil investigations in the vicinity of MW-3 in June 2006 due to elevated concentrations of TPH-GRO detected in the groundwater well during quarterly sampling activities. Petroleum related compounds were either non-detect or were below the MTCA Method A Cleanup Levels in the borings, supporting that the source area was concentrated in the area of the west pump island.

In July 2006, ozone flow to injection points IP-1, IP-2, and IP-3 was stopped and directed towards injection points IP-4 and IP-5, in the area near MW-3. Petroleum related compounds were either non-detect or were below the MTCA Method A Cleanup Levels in monitoring wells MW-1 and MW-2, supporting that the source area impacting MW-3 was concentrated in the area of the west pump island.

In August 2006, a second compressor was added to augment the ozone injection system. The second compressor was dedicated to providing a primary source of air flow to the wells; the original compressor was dedicated to providing air flow to the ozone generator.

To supplement the ozone treatment system, in December 2006, G-Logics oversaw the installation of a horizontal pipe for In-Situ Chemical Oxidation (ISCO) in an area up-gradient of the western pump island. The pipe was installed at approximately six to seven feet; installation at a greater depth was unfeasible due to soil caving. Between January and March 2007, ISCO using Fenton's Reagent was performed to supplement ozone injection remediation efforts. On January 4, 2007, a buffered, iron-catalyst was introduced with the Fenton's application. In March 2007, a Fenton's application treatment well (TW-1) was installed directly west of the west pump island source area. The ozone system was shut down in June 2007.

1.5 GEOLOGY AND HYDROGEOLOGY

The general geological setting for the Site is the Puget Lowland geomorphic province, which consists of Quaternary sediments, containing mainly glacial drift, and alluvium. The retreat of the Fraser glaciation left behind glacial erosion and newly deposited glacial drift[1]. Lake Washington is approximately one mile east of the Site and The Puget Sound is approximately 2.5 miles west of the Site.

Subsurface soil and groundwater conditions encountered during this investigation are summarized in boring logs (Appendix C) and are discussed further in Section 3.

Based on site assessments, the stratigraphy varies but consists generally of silt and sandy material with clay inclusions from the ground surface to approximately 20 feet bgs. Anthropogenic material or other evidence of historic fill has been encountered in all areas of the Property. It is therefore likely that the Property is not situated directly on top of native material. For the purposes of this investigation and to simplify interpretation of the subsurface conditions, the boring logs do differentiate between fill and native material. The subsurface soil in all on site borings consisted of fill material to the final depth explored (17-25 feet bgs) with the exception of B-3; native soil was encountered at a depth of 16 feet bgs. The soils were comprised mainly of a compilation of sandy silt from one to nine feet bgs, sand with silt from nine to 16 feet bgs, and silt with sand from 16 to 20 feet bgs at the outer limits of the Site. Sandy silt to silt with clay was encountered in the southwest portion of the Site from one to 20 feet bgs.

Groundwater elevations range seasonally from approximately 82.61 feet above mean sea level (amsl) in September to 90.48 feet amsl in January (MW-2, 2006). During the Site assessment activities, groundwater was initially encountered between 11.5 feet bgs (B-1) and 16.5 (B-3) feet

[1] United States Geologic Survey, Geologic Map of Washington, compiled by J. Eric Schuster, 2002.

bgs. Static groundwater ranged from 10.25 feet bgs (B-2) to 14 feet bgs (MW-9). Liquid phase hydrocarbons (LPH) were not detected. Groundwater at the Site generally flows toward the southwest, further explanation of the groundwater gradient is provided in Section 4.2.2.

2.0 Field Investigation Phase 1 and Phase 2

Field investigation activities were conducted between April 2011 and July 2011 and included preparation of a Site-specific Health and Safety Plan (HASP) and project-specific Work Plan. In addition, permitting, private utility locating, drilling, soil sampling, monitoring well construction, well development, and surveying were completed.

These activities are described in detail in the following sections.

2.1 PRE-FIELD ACTIVITIES

Stantec prepared the work plan prior to initiating field work. In addition, pre-field activities included planning and coordination with stakeholders and subcontractors.

2.1.1 Site Health and Safety Plan

Stantec prepared a Site-specific HASP prior to the commencement of fieldwork. The HASP identified potential physical and chemical hazards associated with the proposed field activities and established personnel protection standards and mandatory safety practices. The HASP also included information on suspected chemical compounds to be encountered, a list of monitoring equipment, the required protective clothing and equipment, directions to the nearest hospital and a list of emergency telephone numbers. The HASP was reviewed by field staff and subcontractors before beginning field operations, and was in the possession of Stantec personnel while conducting work activities at the Site. In addition, Site-specific HASPs were created by each subcontractor and kept on Site during field activities.

2.1.2 Permitting

Stantec obtained encroachment permits and received approved traffic control plans from the Seattle Department of Transportation for installation of monitoring wells MW-6, MW-7, and MW-10, in the city right-of-way, prior to initiating field activities. All necessary permits are included in Appendix D.

2.1.3 Utility Clearance

In order to minimize the risk of encountering underground utility lines, Stantec marked the proposed boring locations and met with a private utility locator on April 18, 2011 and July 11, 2011. This was done to determine if any subsurface utilities or obstructions were located in the vicinity of the proposed boring locations. In addition, Stantec contacted Washington State One Call Utility Notification Service to further determine whether the proposed boring locations were clear of subsurface utilities. Soil boring locations were then hand cleared with an air-knife and/or hand auger to approximately eight feet bgs before actual drilling was performed.

2.2 SITE INVESTIGATION ACTIVITIES – PHASE 1

Stantec oversaw the advancement of seven on-Property soil borings between April 18 and 19, 2011. The borings were identified as B-1 through B-7 (Figure 2). Soil borings were advanced using a direct push rig, and were cored continuously below 10 feet to the maximum depth explored. A 2-inch diameter split spoon sampling device was used to collect a sufficient quantity of soil to define soil impacts and describe lithology in the vadose zone, potential smear zone, and below the aquifer.

Down-hole drilling equipment was steam cleaned before advancing each borehole, and sampling equipment was cleaned between each sampling interval. Each soil sample was screened for hydrocarbon vapors using a photoionization detector (PID). Soil samples screened and evaluated during drilling were logged using the Unified Soil Classification System (USCS) under supervision of a field geologist. The soil boring and monitoring well completion logs are included in Appendix C. Soil sampling methodology is described further below.

2.2.1 Sampling Methodology

2.2.1.1 Soil

Soil samples were collected for lithologic description and were screened for volatile vapors using a PID. Soil samples were submitted to the laboratory at the discretion of the field geologist, based on the PID headspace readings and field observations during boring advancement. In each boring, at least one soil sample from the vadose zone was sent to a certified laboratory for analysis. Additional soil samples were collected from the vadose zone in areas with the highest PID headspace concentrations and/or below the water table. Those samples were also submitted to the lab under chain-of-custody procedures for analysis of:

- Benzene, Toluene, Ethylbenzene, and Total Xylenes (collectively BTEX) and Methyl tertiary butyl ether (MTBE) using EPA Method 8260B;
- Total Petroleum Hydrocarbons in the Gasoline Range (GRO) using Ecology Method NWTPH-Gx;
- Total Petroleum Hydrocarbons in the Diesel and Oil Range (DRO and MRO, respectively) using Ecology Method NWTPH-Dx with Silica Gel Cleanup; and,
- Lead using EPA Method 6020.

Select samples were also analyzed for:

- Polycyclic Aromatic Hydrocarbons (PAHs) using EPA Method 8270C with selective ion monitoring (SIM);

- Volatile Organic Compounds (VOCs) using EPA Method 8260B; and,
- Polychlorinated Biphenyl (PCBs) using EPA Method 8082.

2.2.1.2 Groundwater

Grab groundwater samples were collected from each soil boring between 10 and 17 feet bgs, depending on the depth groundwater was encountered in the boring. Stantec extracted the water samples by placing 1-inch PVC temporary casing with 0.020-inch slotted screen to the maximum depth explored in the open borehole to allow for water collection, and to strain out the fine grained sediment. The water samples were pumped from the temporary PVC casing using ¼-inch sampling tube and a peristaltic pump, decanted into appropriate sample containers, and capped. Each sample container was labeled, placed on ice, and transported to a certified laboratory under chain-of-custody documentation for analysis of:

- BTEX, MTBE, 1,2-Dichloroethane (EDC), using EPA Method 8260B;
- GRO using Ecology Method NWTPH-Gx;
- Ethylene dibromide (EDB) using EPA Method 8011; and,
- Total Lead using EPA Method 6020.

Select borings were also analyzed for:

- DRO and MRO using Ecology Method NWTPH-Dx with Silica Gel Cleanup;
- Semi-VOCs (SVOCs) and/or PAHs using EPA Method 8270C SIM;
- VOCs using EPA Method 8260B; and,
- PCBs using EPA Method 8082.

Following collection of the grab groundwater sample, each boring was grouted from total depth to near grade with hydrated bentonite chips.

2.3 SITE INVESTIGATION ACTIVITIES – PHASE 2

Phase 2 of the assessment was based on results of the Phase 1 (the soil boring assessment completed in April 2011). Five monitoring wells (MW-6 through MW-10 as shown on Figure 2) were installed on and off-Property to depths ranging from 20 to 25 feet. The monitoring wells were situated generally down gradient of the area explored during Phase 1 in order to delineate the previously identified impacts. The work was completed between July 11, and July 13, 2011.

Soil borings were drilled using a hollow-stem auger drill rig equipped with eight-inch diameter continuous flight augers. During borehole advancement, soil was collected continuously for lithological description to the total explored depth of the well. A minimum of two soil samples per well boring were submitted to a certified laboratory for analysis. Down-hole drilling equipment was steam-cleaned prior to use at each location. The soil boring and groundwater monitoring well completion logs are included in Appendix C. The logs contain USCS soil descriptions, drilling methods, field screening PID results, and well completion details.

The wells were installed in accordance with Washington Administrative Code (WAC) 173-160, *Minimum Standards for Construction and Maintenance of Wells.* The wells were installed by a Washington State licensed well driller employed by Cascade Drilling Inc. (Cascade). All wells were completed using two-inch diameter, schedule 40 polyvinyl chloride (PVC) casing with a 0.010-inch machine-slotted screen from approximately 20 to 25 feet bgs. The wells were completed with blank two-inch diameter, schedule 40 PVC (riser) screwed onto the top of the screened-section of PVC. The annular space around the well casing was then backfilled with clean silica sand from the total depth of the borehole to approximately two feet above the screen interval. The remaining annular space was backfilled with hydrated bentonite chips to approximately one foot bgs. Monitoring wells were finished flush to the ground surface with concrete and a traffic-rated well monument. A unique Ecology well identification tag was fixed to each well casing, and a locking well cap was installed. The wells were developed following installation by surging, bailing, and purging groundwater from each well until the water quality parameters stabilized or 10 casing volumes was reached.

On July 14, 2011, wells MW-6 through MW-10 were surveyed by a registered professional land surveyor employed by Stantec. A copy of the survey data prepared by Stantec is provided in Appendix E. Note that prior to 2011, top of casing elevations for site monitoring wells were surveyed to an arbitrary benchmark designated in 2005 as the top of the walkway at the southwest corner of the building which was assigned an elevation of 100 feet by G-Logics. The newly installed wells as well as the existing wells (with the exception of MW-1 which could not be located at that time) were surveyed as part of this assessment to a City of Seattle brass cap stamped SNV-2511; which is located at the southeast corner of the intersection of S. Mt. Baker Blvd. and Rainier Ave. Additional survey information is including in Appendix E.

2.3.1 Sampling Methodology

2.3.1.1 Soil

Soil samples were collected from each well boring for lithological description and were screened for volatile vapors using a PID. Select soil samples were submitted at the discretion of the field geologist and based on PID headspace readings and observations made during boring advancement. In each boring, at least one soil sample from the vadose zone was sent to a certified laboratory for analysis. Additional soil samples collected from either the vadose zone, areas of highest PID headspace concentrations, or below the aquifer were also submitted to the lab for analysis as indicated above in Section 2.2.1.1.

2.3.1.2 Groundwater

Previously installed wells MW-2 through MW-5 and newly installed wells MW-6 through MW-10 were gauged and sampled on August 30 and 31, 2011 as part of the third quarter monitoring and sampling event. Monitoring well MW-1 could not be located during the third quarter 2011 sampling event. MW-1 was located and rehabilitated in January 2012 and will be included in future ground water monitoring events. Stantec's third quarter groundwater monitoring and sampling field data sheets are presented in Appendix F. The certified laboratory analytical report, chain-of-custody documentation, and Stantec Lab Validation Form are included in Appendix G. Field and laboratory procedures are presented in Appendix H.

Investigation-derived waste (IDW) generated during field activities included soil cuttings, decontamination rinsate water, and purge water generated during groundwater sampling. The water and soil were separately profiled. Based on laboratory analyses of waste characterization samples, both waste streams were disposed of as non-hazardous. The waste stream from both phases was removed by an approved waste hauler and transported to an approved facility. The waste data is included in Appendix I.

3.0 Subsurface Conditions

Soil boring and groundwater monitoring well completion logs are presented in Appendix C. The subsurface soil in all on-Property borings consisted of fill material to the final depth explored (17-25 feet bgs) with the exception of B-3; native soil was encountered at a depth of 16 feet bgs. The soils were comprised mainly of a compilation of sandy silt from one to nine feet bgs, sand with silt from nine to 16 feet bgs, and silt with sand from 16 to the maximum depth of exploration at 20-25 feet bgs. Sandy silt to silt with clay was observed from one to 20 feet bgs at the southwestern perimeter of the Property. Soil lithology observed off-Property to the southwest, generally consisted of sandy silt to silt with sand from one to 18 feet bgs.

During drilling activities, groundwater was encountered between 11.5 feet bgs (B-1) and 16.5 (B-3) feet bgs. Static groundwater depths ranged between 10.25 feet bgs (B-2) and 14 feet bgs (MW-9). LPH was not detected in any of the borings during either phase of investigation.

4.0 Analytical Results

4.1 SOIL ANALYTICAL RESULTS

During the Phase 1, a total of 28 soil samples (four from each soil boring) were selected for laboratory analyses. During the Phase 2, a total of 11 soil samples (up to three from each monitoring well boring) were selected for analyses. The samples collected from a depth of five feet bgs from each boring represented a vadose zone sample. Based on field observations, one soil sample per boring was collected from the "smear zone" and one soil sample per boring was collected below the smear zone. The smear zone was identifiable throughout the Site from approximately nine to 19 feet bgs in borings B-1 through B-3, B-6, and in well MW-8.

Maximum concentrations of detected constituents and MTCA exceedences for Phase I soil sampling are presented in the table below. Current and all historic soil analytical results are presented in Tables 1 and 2. Current analytical results are also presented on Figure 3. Certified laboratory analytical reports, chain-of-custody documentation, and Stantec's Lab Validation Forms are included as Appendix G.

SUMMARY OF ANALYTICAL RESULTS
SOIL SAMPLES EXCEEDING MTCA METHOD A CLEANUP CRITERIA
BORINGS B-1 THROUGH B-7 AND MW-6 THROUGH MW-10

Sample Name	Depth (ft. bgs)	Sample Date	Ecology Method NWTPH-Dx		Ecology Method NWTPH-Gx	EPA Method 8260				EPA Method 6020
			TPH-DRO	TPH-MRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total Lead
B-2-15	15	4/19/11	--	--	**820**	ND	ND	1.2	**26**	6.27
B-3-10	10	4/19/11	**10,000**	ND	**450**	ND	ND	ND	ND	2.21
B-3-15	15	4/19/11	**3,200**	ND	**720**	ND	ND	ND	ND	6.97
B-6-15	15	4/19/11	--	--	**1,300**	ND	ND	1.9	8.4	5.21
B-7-17	17	4/19/11	--	--	**35**	0.003	0.002	0.006	0.015	4.47
MW-8-15	15	7/12/11	--	--	**110**	ND	ND	ND	ND	--
MW-9-10	10	7/12/11	860	**13,000**	ND	0.002	0.002	ND	ND	--
MW-9-15	15	7/12/11	200	**3,600**	ND	0.002	0.001	ND	ND	--
MTCA Method A Cleanup Criteria			2,000	2,000	30/100*	0.03	7.0	6.0	9.0	250

All concentrations reported in milligrams per kilogram (mg/kg)
Bold concentration exceed the respective MTCA Method A Cleanup Level
ND = Non Detect at the laboratory's reporting limit
MTCA = Model Toxics Control Act
* = Soil cleanup level for gasoline with no detectable benzene in sample is 100 mg/kg. Soil cleanup level for gasoline with detectable benzene in sample is 30 mg/kg.

A summary of the analytical results for soil samples exceeding Ecology MTCA Method A Cleanup Levels (for unrestricted land use) is as follows:

- DRO concentrations exceeding the MTCA Method A Soil Cleanup Level of 2,000 mg/kg were detected in soil samples B-3-10 and B-3-15 at 10,000 and 3,200 mg/kg, respectively.

- MRO concentrations exceeding the MTCA Method A Soil Cleanup Level of 2,000 mg/kg were detected in soil samples MW-9-10 and MW-9-15 at 13,000 and 3,600 mg/kg, respectively.

- GRO concentrations exceeding the MTCA Method A Soil Cleanup Level of 100 mg/kg for gasoline with no detectable benzene or 30 mg/kg for gasoline with detectable benzene were detected in soil samples B-2-15, B-3-10, B-3-15, B-6-15, B-7-17, and MW-8-15 at 820, 450, 720, 1,300, 35, and 110 mg/kg, respectively.

- Total xylenes at a concentration exceeding the MTCA Method A Soil Cleanup Level of 9.0 mg/kg were detected in soil sample B-2-15 at 26 mg/kg.

VOCs were analyzed in soil samples collected from boring B-5. Acetone was detected in soil samples B-5-10 and B-5-18 at concentrations of 0.008 and 0.038 mg/kg, respectively. Soil sample B-5-18 contained benzene and carbon disulfide at concentrations of 0.002 and 0.006 mg/kg, respectively. These concentrations are below the applicable MTCA Method A cleanup levels. No other VOCs were detected at or above the method detection limit (MDL).

SVOCs were selected for analyses in soil samples collected from borings B-3, B-5, and B-9. No SVOCs were detected at or above the MDL. Results of SVOC analyses are summarized in Table 2.

PCBs were analyzed in soil samples collected from boring B-5. None of the analyzed PCBs were detected at or above the MDL.

4.2 GROUNDWATER ANALYTICAL RESULTS

This section summarizes groundwater analytical results from both phases of the assessment. The groundwater samples collected during Phase 1 were collected directly from the borings. The groundwater samples collected during Phase 2 were collected from the previously installed and recently installed monitoring wells.

4.2.1 Groundwater Analytical Results – Phase 1

Groundwater samples were collected between the depths of 10.25 and 14 feet bgs in borings B-1 through B-7, depending on the depth at which groundwater was encountered during drilling. Maximum concentrations of detected constituents and MTCA exceedences for Phase 1

groundwater sampling are presented in the table below. Phase 1 groundwater analytical data is presented in Tables 3 and 4 and on Figure 4. Certified laboratory analytical reports, chain-of-custody documentation, and Stantec's Lab Validation Forms are included as Appendix G.

SUMMARY OF ANALYTICAL RESULTS
GROUNDWATER SAMPLES EXCEEDING MTCA METHOD A CLEANUP CRITERIA
BORINGS B-1 THROUGH B-7

Sample Name	Sample Date	Ecology Method NWTPH-Dx		Ecology Method NWTPH-Gx	EPA Method 8260					EPA Method 8011	EPA Method 6020
		TPH-DRO	TPH-MRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	EDC	EDB	Total Lead
B-1	4/19/11	--	--	**1,700**	ND	ND	ND	1	ND	ND	**18.5**
B-2	4/19/11	--	--	**20,000**	ND	3	290	**5,100**	ND	ND	**32.9**
B-3	4/19/11	**100,000**	**<3,400**	**3,400**	1	28	33	150	ND	ND	9.2
B-4	4/19/11	--	--	ND	ND	ND	ND	ND	ND	ND	**48.5**
B-5	4/19/11	**530**	ND	ND	ND	ND	ND	ND	ND	ND	**116**
B-6	4/19/11	--	--	**27,000**	ND	ND	330	**2,000**	ND	ND	**18.4**
B-7	4/19/11	--	--	**3,900**	0.06	7	140	570	ND	ND	**15.7**
MTCA Method A Cleanup Criteria		500	500	800/1,000*	5.0	1,000	700	1,000	5.0	0.01	15

All concentrations reported in micrograms per liter (µg/L)
Bold concentration exceed the respective MTCA Method A Cleanup Level
ND = Non Detect at the laboratory's reporting limit
MTCA = Model Toxics Control Act
* = Groundwater cleanup level for gasoline with no detectable benzene in sample is 1,000 µg/L. Groundwater cleanup level for gasoline with detectable benzene in sample is 800 µg/L.

A summary of the analytical results for groundwater samples exceeding Ecology MTCA Method A Cleanup Levels is as follows:

- DRO was analyzed in groundwater samples collected from borings B-3 and B-5. DRO was detected above the MTCA Method A Cleanup Level of 500 µg/L in borings B-3 and B-5 at concentrations of 100,000 and 530 µg/L, respectively.

- GRO concentrations were above the MTCA Method A Cleanup Level of 1,000 µg/L, for gasoline with no detectable benzene, or 800 µg/L, for gasoline with detected benzene, in groundwater samples collected from borings B-1, B-2, B-3, B-6, and B-7 at 1,700, 20,000, 3,400, 27,000, and 3,900 µg/L, respectively.

- Total xylenes concentrations were above the MTCA Method A Cleanup Level of 1,000 µg/L in groundwater samples collected from borings B-2 and B-6 at 5,100 and 2,000 µg/L, respectively.

- Dissolved lead was detected above the MTCA Method A Cleanup Level of 15 µg/L in all samples collected except from boring B-3 (9.2 µg/L).

VOCs were analyzed in groundwater samples collected from boring B-5. Acetone was detected at a concentration of 16 µg/L and t-Butyl alcohol was detected at a concentration of 5 µg/L. Both concentrations are below the applicable MTCA Method A cleanup level. No other VOCs were detected at or above the MDL.

SVOCs were analyzed in groundwater samples collected from borings B-3 and B-5. No SVOCs were detected at or above the MDL. Results of the SVOC analysis are summarized in Table 4.

PCBs were analyzed in groundwater samples collected from boring B-5. None of the samples analyzed contained PCBs at or above the MDL.

4.2.2 Groundwater Analytical Results – Phase 2

Phase 2 of the groundwater investigation consisted of collection and analysis of samples from monitoring wells MW-2 through MW-10. MW-1 could not be located at that time and was not sampled. Monitoring wells gauged on August 30, 2011 indicated the depth to groundwater ranged from 11.15 (MW-7) to 14.29 (MW-9). Third quarter 2011 and historical gauging data is presented in Table 5. Groundwater flow direction was estimated to the southwest at an approximate gradient of 0.04 foot/foot (ft/ft) (Figure 5).

Groundwater samples collected from MW-2 through MW-10 were analyzed for GRO, BTEX, DRO, MRO, and VOCs. Third quarter monitoring and sampling analytical data for these analytes are summarized in Tables 5 and 6 and shown on Figure 6. Historical analytical data is presented in Table 5. Note that Stantec personnel conducted an electromagnetic survey to

locate MW-1 on January 24, 2012. The well was located and subsequently rehabilitated and will be included as part of the groundwater monitoring event in first quarter 2012.

Concentrations of detected constituents exceeding MTCA Method A Cleanup Levels for Phase II groundwater sampling are presented in the following table.

SUMMARY OF ANALYTICAL RESULTS
GROUNDWATER SAMPLES EXCEEDING MTCA METHOD A CLEANUP CRITERIA
MONITORING WELLS MW-1[1] THROUGH MW-10

Sample Name	Sample Date	Ecology Method NWTPH-Dx		Ecology Method NWTPH-Gx	EPA Method 8260			
		TPH-DRO	TPH-MRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes
MW-2	8/31/11	**590**	ND	**960**	1	ND	1	6
MW-3	8/31/11	370	ND	**7,400**	ND	ND	190	554
MW-5	8/31/11	**770**	ND	**3,100**	2	1	72	ND 4
MW-8	8/31/11	240	ND	**4,400**	ND	ND	41	442
MTCA Method A Cleanup Criteria		500	500	800/1,000*	5.0	1,000	700	1,000

MW-1[1] = MW-1 was not sampled.
All concentrations reported in micrograms per liter (µg/L)
Bold concentration exceed the respective MTCA Method A Cleanup Level
ND = Non Detect at the laboratory's reporting limit
MTCA = Model Toxics Control Act
* = Groundwater cleanup level for gasoline with no detectable benzene in sample is 1,000 µg/L. Groundwater cleanup level for gasoline with detectable benzene in sample is 800 µg/L.

A summary of the analytical results for groundwater samples exceeding Ecology MTCA Method A Cleanup Levels is provided below:

- DRO concentrations were above the MTCA Method A Cleanup Level of 500 µg/L in groundwater samples collected from wells MW-2 (590 µg/L) and MW-5 (770 µg/L).

- GRO concentrations were above the MTCA Method A Cleanup Levels of 800 µg/L when benzene is present in groundwater samples collected from wells MW-2 (960 µg/L), MW-3 (7,400 µg/L), MW-5 (3,100 µg/L) and MW-8 (4,400 µg/L).

4.3 QUALITY ASSURANCE AND QUALITY CONTROL

For both Phase 1 and Phase 2 of the assessment, analyzed constituents were not detected at or above laboratory MDLs in the five trip blank samples collected (TB-1 through TB-5). The laboratory analytical results for soil and groundwater were validated. All data is considered valid; however, several validation issues were noted. These issues are detailed in the Stantec Lab Validation Forms provided in Appendix G.

5.0 Conclusions and Recommendations

The purpose of the assessment work was to further delineate subsurface contamination at the Site. Results of the assessment indicate that the furthest extent of subsurface contamination at concentrations above MTCA Method A cleanup levels has been adequately delineated in the down-gradient locations to the south and southwest. The extent of subsurface contamination due west of the Site beneath Martin Luther King Jr. Way South is unknown. The limits of on-Property soil contamination remain uncharacterized in the area of the former heating oil UST.

The assessment work conducted thus far has met the substantive requirements of the Remedial Investigation (RI) as described in MTCA 173-340-350. Further efforts at delineating subsurface conditions in the western portion of the Site and in the area of the former heating oil UST are needed to fully satisfy the requirements of an RI.

Upon completion of the RI, a Feasibility Study (FS) consistent with the requirements set out in WAC 173-340-350 should be completed. Once completed, the RI/FS will serve as a basis for a Clean-up Action Plan (CAP) to be completed consistent with the requirements of WAC 173-340-380.

Stantec recommends the following:

- Delineation of subsurface conditions due west of the Property to be completed within the technical limits of working within Martin Luther King Jr. Way South – a major thoroughfare.

- Further assessment of the presence of GRO in groundwater (B-3, near the former heating oil UST). Further assessment of the lateral extent of DRO and MRO impacts to soil (i.e., B-3 and MW-9) at the former heating oil UST.

- Continued quarterly groundwater monitoring and sampling to evaluate contaminant concentration trends in groundwater.

- Preparation of a feasibility study upon completion of further delineation.

- Combination of the feasibility study with the results of the remedial investigation to create a RI/FS consistent with MTCA requirements.

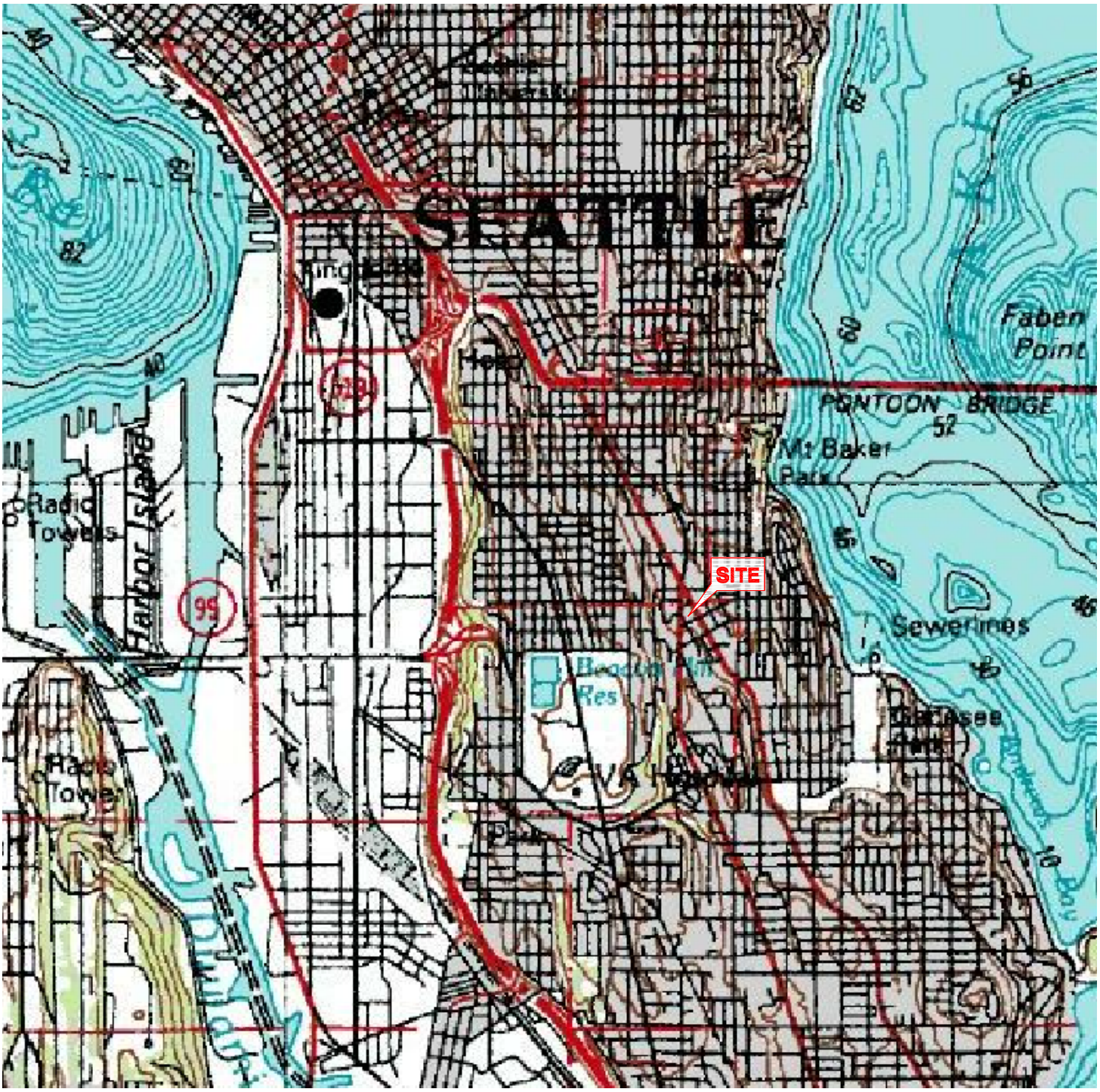
- Preparation and Implementation of a Cleanup Action Plan.

- Preparation and Implementation of a Cleanup Action Plan.

- Stantec is concerned that some limited potential exists for downgradient co-mingling of impacts with contaminants that may be originating from the fuel station directly west of the

Site. Stantec recommends completion of an Ecology file review of documents relevant to the environmental status of the fuel station to the west in order to evaluate this potential.

FIGURES



North

WASHINGTON

1 1/2 0 1

SCALE (MILES)

1000 0 1000 2000 3000 4000 5000 6000 7000

SCALE (FEET)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, SEATTLE NORTH, WASHINGTON

Stantec

FOR: FORMER TIDERWATER SERVICE STATION 2800 MARTIN LUTHER KING WAY SEATTLE, WASHINGTON		SITE LOCATION MAP		FIGURE: 1
JOB NUMBER: 211602274	DRAWN BY: MDR	CHECKED BY: TG	APPROVED BY: DS	DATE: 08/16/10

SOUTH McCLELLAN STREET

76 UNION SERVICE STATION

MARTIN LUTHER KING WAY

GRADIENT 0.04

NW CORNER 2

GL-1

NW-UST-3

FORMER UST EXCAVATION

P-5

P-12

GL-2

B-7

P-14

P-13

P-15

MW-4

P-4

NORTH PUMP-2

P-1

B-6

B-1

P-9

P-1

P-2

GL-3

MW-3

IP-1

IP-5

EPI-N-2

GL-4

MW-5

P-8

WPI-3

P-6

B-5

B-2

MW-1

MW-8

IP-4

P-11

SOUTH PUMP-2

P-7

P-3

IP-2

FORMER PUMP ISLAND

MW-2

IP-3

P-10

B-4

OWS-B-4.5

SUMP-B-4

FORMER STATION BUILDING

N. HOIST BOTTOM (9.5)

S. HOIST BOTTOM (8)

DENTIST OFFICE

B-3

MW-9

GL-5

GL-6

UST1-B-8

FORMER HEATING OIL UST (REMOVED 02-02-05)

RESIDENTIAL YARDS

MW-6

MW-7

MW-10

COMMERCIAL SHOPS

LEGEND:

- MW-1 GROUNDWATER MONITORING WELL
- P-1 PREVIOUS GEOPROBE BORING
- B-4 SOIL BORING
- GL-1 AUGER BORING LOCATION WITH GROUNDWATER SAMPLE
- GL-2 AUGER BORING LOCATION
- IP-1 FORMER INJECTION WELL LOCATION
- B-4 SOIL SAMPLE LOCATION

N

0 25 50

APPROXIMATE SCALE IN FEET

Stantec

FOR:			FIGURE:
FORMER TIDERWATER SERVICE STATION 2800 MARTIN LUTHER KING WAY SEATTLE, WASHINGTON		**SITE PLAN**	**2**
JOB NUMBER: 211602274	DRAWN BY: MDR	CHECKED BY: AH	APPROVED BY: DS	DATE: 09/28/11

SOUTH McCLELLAN STREET

B-7	5'	10'	15'	17'
TPH-GRO	ND	ND	1.1	**35**
B	ND	ND	0.0006	0.003
T	ND	ND	0.001	0.002
E	ND	ND	0.001	0.006
X	ND	ND	0.006	0.015

B-6	5'	10'	15'	17'
TPH-GRO	ND	ND	**1,300**	ND
B	ND	ND	ND	ND
T	ND	ND	ND	ND
E	ND	ND	1.9	ND
X	ND	ND	8.4	0.025

B-5	5'	10'	15'	18'
TPH-GRO	ND	ND	ND	ND
TPH-DRO	11	ND	12	ND
TPH-MRO	ND	ND	ND	ND
B	ND	ND	ND	0.002
T	ND	ND	ND	ND
E	ND	ND	ND	ND
X	ND	ND	ND	ND

B-2	5'	11'	15'	18'
TPH-GRO	1.4	12	**820**	4.5
TPH-MRO	NA	NA	NA	NA
B	0.002	0.001	ND	0.003
T	0.001	0.002	ND	0.005
E	ND	ND	1.2	0.007
X	0.002	0.005	**26**	0.15

MW-6	10'	15'
TPH-GRO	ND	1.7
TPH-DRO	ND	14
TPH-MRO	43	50
B	ND	0.002
T	ND	0.002
E	ND	ND
X	ND	ND

MW-7	5'	15'
TPH-GRO	ND	2
TPH-DRO	ND	11
TPH-MRO	ND	25
B	ND	0.002
T	ND	ND
E	ND	ND
X	ND	ND

B-1	5'	10'	15'	18'
TPH-GRO	ND	2	40	ND
B	ND	ND	ND	ND
T	ND	ND	ND	ND
E	ND	ND	ND	ND
X	ND	ND	ND	ND

MW-8	5'	15'
TPH-GRO	1	**110**
TPH-DRO	ND	ND
TPH-MRO	29	ND
B	ND	ND
T	0.001	ND
E	ND	ND
X	0.012	0.077

B-3	5'	10'	15'	20'
TPH-GRO	ND	**450**	**720**	ND
TPH-DRO	150	**10,000**	**3,200**	ND
TPH-MRO	1,000	ND	ND	ND
B	0.008	ND	ND	ND
T	ND	ND	ND	ND
E	ND	ND	ND	ND
X	ND	ND	ND	ND

B-4	5'	10'	15'	17'
TPH-GRO	ND	ND	ND	1.9
B	0.001	ND	ND	0.005
T	ND	ND	ND	ND
E	ND	ND	ND	ND
X	ND	ND	ND	0.004

MW-9	5'	10'	15'
TPH-GRO	ND	2	40
TPH-DRO	860	200	ND
TPH-MRO	**13,000**	**3,600**	ND
B	0.002	0.002	ND
T	0.002	0.001	ND
E	ND	ND	ND
X	ND	ND	ND

MW-10	5'	10'
TPH-GRO	ND	ND
TPH-DRO	ND	ND
TPH-MRO	ND	35
B	ND	ND
T	ND	ND
E	ND	ND
X	ND	ND

76 UNION SERVICE STATION

MARTIN LUTHER KING WAY

NW CORNER 2 · NW-UST-3 · GL-1 · FORMER UST EXCAVATION · P-5 · P-12 · GL-2 · B-7 · P-14 · P-15 · P-13 · MW-4 · P-4 · P-1 · B-1 · P-2 · P-9 · GL-3 · OWS-B-4.5 · SUMP-B-4 · FORMER STATION BUILDING · B-6 · MW-3 · MW-5 · IP-5 · IP-7 · EPI-N-2 · GL-4 · P-6 · P-8 · B-5 · B-2 · MW-8 · MW-1 · P-11 · IP-4 · P-3 · P-7 · IP-6 · MW-2 · IP-3 · FORMER PUMP ISLAND · B-3 · P-10 · UST1-B-8 · GL-5 · MW-9 · B-4 · GL-6 · FORMER HEATING OIL UST (REMOVED 02-02-05)

DENTIST OFFICE

RESIDENTIAL YARDS

COMMERCIAL SHOPS

SCHOOL TRACK

N

0 40 80

APPROXIMATE SCALE IN FEET

LEGEND:

- MW-1 GROUNDWATER MONITORING WELL
- P-1 PREVIOUS GEOPROBE BORING
- **B-4** SOIL BORING
- GL-1 AUGER BORING LOCATION WITH GROUNDWATER SAMPLE
- GL-2 AUGER BORING LOCATION
- IP-1 FORMER INJECTION WELL LOCATION
- B-4 SOIL SAMPLE LOCATION

DEPTH BELOW GROUND SURFACE

B-1	5'	10'	15'	18'
TPH-GRO	ND	2	40	ND
B	ND	ND	ND	ND
T	ND	ND	ND	ND
E	ND	ND	ND	ND
X	ND	ND	ND	ND

ANALYTE — CONCENTRATION (mg/kg)

< NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT

mg/kg MILLIGRAMS PER KILOGRAM

BOLD ABOVE MTCA METHOD A CLEANUP LEVEL

ANALYTES:

TPH-GRO	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
TPH-DRO	TOTAL PETROLEUM HYDROCARBONS AS DIESEL
TPH-MRO	TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENE

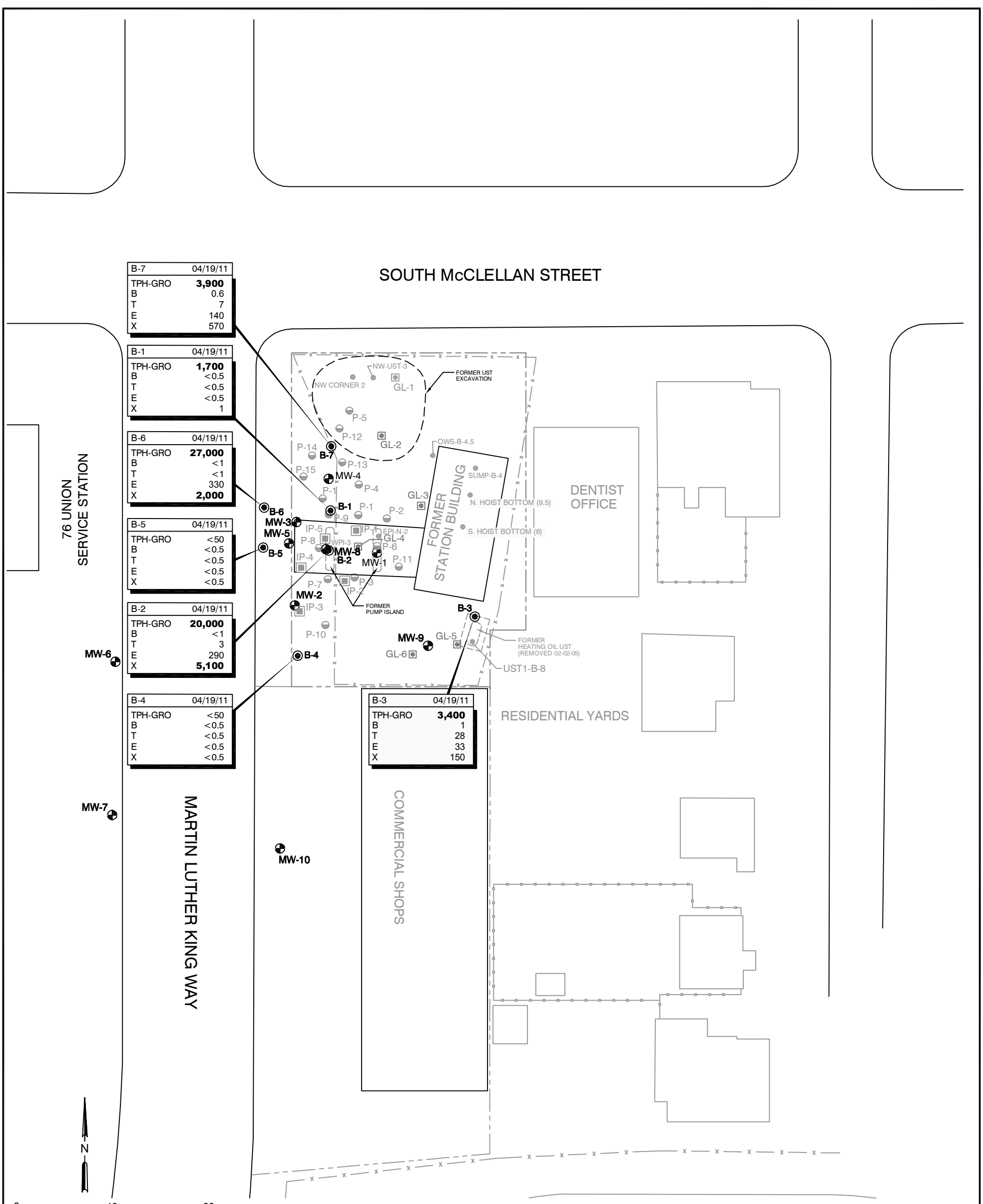
Stantec

FOR: FORMER TIDERWATER SERVICE STATION, 2800 MARTIN LUTHER KING WAY, SEATTLE, WASHINGTON

SOIL CHEMICAL CONCENTRATION MAP

FIGURE: **3**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602274	MDR	TG	DS	08/16/11



LEGEND:

⊕	MW-1	GROUNDWATER MONITORING WELL
◒	P-1	PREVIOUSGEOPROBE BORING
◉	**B-4**	SOIL BORING
▣	GL-1	AUGER BORING LOCATION WITH GROUNDWATER SAMPLE
▣	GL-2	AUGER BORING LOCATION
▣	IP-1	PREVIOUS FORMER INJECTION WELL LOCATION
●	B-4	SOIL SAMPLE LOCATION

CHEMICAL ANALYTICAL RESULTS:

SAMPLE LOCATION
SAMPLE DATE

B-1	04/19/11
TPH-GRO	<50
B	<0.50
T	<0.50
E	<0.50
X	<0.5

CONCENTRATION (µg/L) ANALYZED USING EPA METHOD 8260B

SAMPLE LOCATION

<	LESS THAN THE STATED LABORATORY METHOD REPORTING LIMIT
µg/L	MICROGRAMS PER LITER
BOLD	ABOVE MTCA METHOD A CLEANUP LEVEL

ANALYTES:

TPH-GRO	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENE

Stantec

FOR: FORMER TIDERWATER SERVICE STATION
2800 MARTIN LUTHER KING WAY
SEATTLE, WASHINGTON

GROUNDWATER CHEMICAL CONCENTRATION MAP

FIGURE: **4**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602274	MDR	TG	DS	08/16/11

SOUTH McCLELLAN STREET

76 UNION SERVICE STATION

MARTIN LUTHER KING WAY

GL-1

FORMER UST EXCAVATION

MW-4 50.33

MW-3 49.71

MW-5 48.86

MW-8 49.70

MW-1 NM

MW-2 48.76

MW-9 48.29

MW-6 45.70

MW-7 45.81

MW-10 47.02

50.00

49.50

49.00

48.50

48.00

47.50

47.00

46.50

46.0

46.00

GRADIENT 0.04

FORMER STATION BUILDING

FORMER PUMP ISLAND

FORMER HEATING OIL UST (REMOVED 02-02-05)

DENTIST OFFICE

RESIDENTIAL YARDS

COMMERCIAL SHOPS

LEGEND:

MW-1 GROUNDWATER MONITORING WELL

GRADIENT APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT (FT/FT)

47.00 GROUNDWATER ELEVATION CONTOUR (FEET ABOVE MEAN SEA LEVEL)

45.81 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

NM NOT MEASURED (WELL NOT FOUND)

N

0 25 50

APPROXIMATE SCALE IN FEET

Stantec

FOR: FORMER TIDERWATER SERVICE STATION 2800 MARTIN LUTHER KING WAY SEATTLE, WASHINGTON

GROUNDWATER ELEVATION CONTOUR MAP THIRD QUARTER 2011

FIGURE: **5**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602274	MDR	AH	DS	09/28/11

FILEPATH:M:\Tidewater\SEATTLE\SITE ASSESSMENT REPORT\FIG-5 TIDEWATER SEATTLE-GW.dwg | Layout Tab: 11x17L | Drafter: saguinaldo | Nov 02, 2011 at 17:33

SOUTH McCLELLAN STREET

76 UNION SERVICE STATION

MARTIN LUTHER KING WAY

FORMER UST EXCAVATION

FORMER STATION BUILDING

DENTIST OFFICE

FORMER PUMP ISLAND

FORMER HEATING OIL UST (REMOVED 02-02-05)

RESIDENTIAL YARD

COMMERCIAL SHOPS

MW-3	
TPH-GRO	**7,400**
TPH-DRO	370
TPH-MRO	<68
B	<1
T	<1
E	190
X	554
MTBE	<1

MW-4	
TPH-GRO	<50
TPH-DRO	<29
TPH-MRO	<68
B	<0.5
T	<0.7
E	<0.8
X	<0.8
MTBE	<0.5

MW-5	
TPH-GRO	**3,100**
TPH-DRO	**770**
TPH-MRO	<67
B	2
T	1
E	72
X	124
MTBE	<0.5

MW-8	
TPH-GRO	**4,400**
TPH-DRO	240
TPH-MRO	<67
B	<0.5
T	<0.7
E	41
X	442
MTBE	<0.5

MW-2	
TPH-GRO	**960**
TPH-DRO	**590**
TPH-MRO	<66
B	1
T	<0.7
E	1
X	6
MTBE	<0.5

MW-6	
TPH-GRO	<50
TPH-DRO	44
TPH-MRO	<67
B	<0.5
T	<0.7
E	<0.8
X	<0.8
MTBE	<0.5

MW-9	
TPH-GRO	<50
TPH-DRO	78
TPH-MRO	<68
B	<0.5
T	<0.7
E	<0.8
X	<0.8
MTBE	<0.5

MW-7	
TPH-GRO	<50
TPH-DRO	<29
TPH-MRO	<67
B	<0.5
T	<0.7
E	<0.8
X	<0.8
MTBE	<0.5

MW-10	
TPH-GRO	<50
TPH-DRO	260
TPH-MRO	100
B	2
T	<0.7
E	<0.8
X	<0.8
MTBE	<0.5

MW-1 *NS*

MW-2 MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9 MW-10

LEGEND:

MW-1 GROUNDWATER MONITORING WELL

ANALYTES:

TPH-GRO	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
TPH-DRO	TOTAL PETROLEUM HYDROCARBONS AS DIESEL
TPH-MRO	TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
B	BENZENE
T	TOULENE
E	ETHYLBENZENE
X	TOTAL XYLENES
MTBE	METHYL TERTIARY BUTYL ETHER
µg/L	MICROGRAMS PER LITER
NS	NOT SAMPLED

CHEMICAL ANALYTICAL RESULTS:

SAMLPE LOCATION

MW-2	
TPH-GRO	<50
TPH-DRO	<29
TPH-MRO	<67
B	<0.5
T	<0.7
E	<0.8
X	<0.8
MTBE	<0.5

ANALYTE

CONCENTRATION (µg/L) VIA NORTHWEST METHOD NWTPH-Gx

CONCENTRATION (µg/L) VIA EPA METHOD 8260B

BOLD ABOVE MTCA METHOD A CLEANUP LEVEL

N

0 25 50

APPROXIMATE SCALE IN FEET

Stantec

FOR: FORMER TIDERWATER SERVICE STATION 2800 MARTIN LUTHER KING WAY SEATTLE, WASHINGTON

GROUNDWATER CHEMICAL CONCENTRATION THIRD QUARTER 2011

FIGURE: **6**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602274	MDR	AH	DS	09/28/11

SOUTH McCLELLAN STREET

76 UNION SERVICE STATION

MARTIN LUTHER KING WAY

GL-1

FORMER UST EXCAVATION

MW-4 <29

MW-3 370

MW-5 770

MW-8 240

MW-1 NS

MW-2 590

MW-9 78

MW-6 44

MW-7 <29

MW-10 260

29

100

FORMER STATION BUILDING

FORMER PUMP ISLAND

FORMER HEATING OIL UST (REMOVED 02-02-05)

DENTIST OFFICE

RESIDENTIAL YARDS

COMMERCIAL SHOPS

N

0 25 50

APPROXIMATE SCALE IN FEET

LEGEND:

- MW-1 GROUNDWATER MONITORING WELL
- 100 TPH-GRO ISOCONCENTRATION CONTOUR(µg/L)
- 590 TPH-DRO CONCENTRATION(µg/L)
- TPH-DRO TOTAL PETROLEUM HYDROCARBON IN THE DIESEL RANGE
- µg/L MICROGRAMS PER LITER
- NS NOT SAMPLED (WELL NOT FOUND)

Stantec

FOR: FORMER TIDERWATER SERVICE STATION 2800 MARTIN LUTHER KING WAY SEATTLE, WASHINGTON

TPH-DRO ISOCONCENTRATION CONTOUR MAP THIRD QUARTER 2011

FIGURE: 7

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602274	MDR	AH	DS	09/28/11

SOUTH McCLELLAN STREET

76 UNION
SERVICE STATION

MARTIN LUTHER KING WAY

GL-1

FORMER UST
EXCAVATION

MW-4
<68

MW-3
<68

MW-5
<67

MW-8
<67

MW-1
NS

MW-2
<66

FORMER
PUMP ISLAND

FORMER
STATION BUILDING

DENTIST
OFFICE

MW-9
<68

FORMER
HEATING OIL UST
(REMOVED 02-02-05)

MW-6
<67

MW-7
<67

RESIDENTIAL YARDS

COMMERCIAL SHOPS

67

100

MW-10
100

LEGEND:

- MW-1 GROUNDWATER MONITORING WELL
- 100 TPH-MRO ISOCONCENTRATION CONTOUR(µg/L)
- 100 TPH-MRO CONCENTRATION(µg/L)
- TPH-MRO TOTAL PETROLEUM HYDROCARBON IN THE MOTOR OIL RANGE
- µg/L MICROGRAMS PER LITER
- NS NOT SAMPLED (WELL NOT FOUND)

N

0 25 50

APPROXIMATE SCALE IN FEET

Stantec

FOR:				FIGURE:
FORMER TIDERWATER SERVICE STATION 2800 MARTIN LUTHER KING WAY SEATTLE, WASHINGTON		TPH-MRO ISOCONCENTRATION CONTOUR MAP THIRD QUARTER 2011		8
JOB NUMBER: 211602274	DRAWN BY: MDR	CHECKED BY: AH	APPROVED BY: DS	DATE: 09/28/11

SOUTH McCLELLAN STREET

76 UNION SERVICE STATION

MARTIN LUTHER KING WAY

GL-1

FORMER UST EXCAVATION

MW-4 <50

MW-3 7,400

MW-5 3,100

MW-8 4,400

MW-1 NS

MW-2 960

1,000

100

50

FORMER STATION BUILDING

FORMER PUMP ISLAND

MW-9 <50

FORMER HEATING OIL UST (REMOVED 02-02-05)

DENTIST OFFICE

RESIDENTIAL YARDS

COMMERCIAL SHOPS

MW-6 <50

MW-7 <50

MW-10 <50

N

0 25 50

APPROXIMATE SCALE IN FEET

LEGEND:

- MW-1 GROUNDWATER MONITORING WELL
- 100 TPH-GRO ISOCONCENTRATION CONTOUR(µg/L)
- 4,400 TPH-GRO CONCENTRATION(µg/L)
- TPH-GRO TOTAL PETROLEUM HYDROCARBON IN THE GASOLINE RANGE
- µg/L MICROGRAMS PER LITER
- NS NOT SAMPLED (WELL NOT FOUND)

Stantec

FOR: FORMER TIDERWATER SERVICE STATION 2800 MARTIN LUTHER KING WAY SEATTLE, WASHINGTON

TPH-GRO ISOCONCENTRATION CONTOUR MAP THIRD QUARTER 2011

FIGURE: 9

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602274	MDR	AH	DS	09/28/11

TABLES

Table 1

Soil Analytical Results - Total Petroleum Hydrocarbons, BTEX, and Lead

Former Tidewater Site
2800 Martin Luther King Way South
Seattle, Washington

Sample ID	Depth (feet, bgs)	Date Sampled	NWTPH-Dx TPH-DRO (mg/kg)	NWTPH-Dx TPH-MRO/HRO (mg/kg)	NWTPH-Gx TPH-GRO (mg/kg)	EPA Method 8260B Benzene (mg/kg)	EPA Method 8260B Toluene (mg/kg)	EPA Method 8260B Ethyl-benzene (mg/kg)	EPA Method 8260B Total Xylenes (mg/kg)	EPA Method 6020 Lead (mg/kg)
UST1-B-8	8	02/02/05	**770**	**460**	--	--	--	--	--	--
OWS-B-4.5	4.5	02/02/05	ND	ND	--	--	--	--	--	--
North Pump-2	2	02/02/05	**23**	ND	ND	ND	ND	ND	ND	--
South Pump-2	2	02/02/05	ND	ND	ND	ND	ND	ND	ND	--
Sump-B-4	4	02/02/05	ND	ND	--	--	--	--	--	--
N. Hoist Bottom (9.5)	9.5	02/02/05	ND	**1,000**	--	--	--	--	--	--
S. Hoist Bottom (8.0)	8	02/02/05	ND	ND	--	--	--	--	--	--
GL1-5	5	02/09/05	--	--	ND	ND	ND	ND	ND	--
GL2-4	5	02/09/05	--	--	ND	ND	ND	ND	ND	--
GL2-9	9	02/09/05	--	--	ND	ND	ND	ND	ND	--
GL3-6	6	02/09/05	ND	**280**	--	--	--	--	--	--
GL4-9	9	02/09/05	--	--	ND	ND	ND	ND	ND	--
GL4-14	14	02/09/05	ND	ND	ND	ND	ND	ND	ND	--
GL4-18	18	02/09/05	--	--	ND	ND	ND	ND	ND	--
GL5-10	10	02/09/05	**1,400**	**120**	--	--	--	--	--	--
GL5-15	15	02/09/05	**550**	ND	--	--	--	--	--	--
GL5-20	20	02/09/05	ND	ND	ND	ND	ND	ND	ND	--
GL6-15	15	02/09/05	ND	**530**	--	--	--	--	--	--
GL6-20	20	02/09/05	ND	ND	--	--	--	--	--	--
P1-4 [1]	4	06/06/05	--	--	--	--	--	--	--	--
P1-8 [1]	8	06/06/05	--	--	--	--	--	--	--	--
P1-12	12	06/06/05	--	--	ND	ND	ND	ND	**0.16**	--
P1-16	16	06/06/05	--	**--**	ND	**0.37**	**0.082**	ND	ND	--
P2-4 [1]	4	06/06/05	--	--	--	--	--	--	--	--
P2-8 [1]	8	06/06/05	--	--	--	--	--	--	--	--
P2-12 [1]	12	06/06/05	--	--	--	--	--	--	--	--
P2-16	16	06/06/05	--	--	ND	ND	ND	ND	ND	--
P2-20 [1]	20	06/06/05	--	**--**	--	**--**	--	**--**	--	--
P3-4 [1]	4	06/06/05	--	--	--	--	--	--	--	--
P3-8 [1]	8	06/06/05	--	--	--	--	--	--	--	--
P3-12	12	06/06/05	--	--	ND	ND	ND	ND	ND	--
P3-16	16	06/06/05	--	--	**52.0**	**0.075**	ND	**0.60**	**1.90**	--
P3-20	20	06/06/05	--	**--**	ND	ND	ND	ND	ND	--

Table 1

Soil Analytical Results - Total Petroleum Hydrocarbons, BTEX, and Lead

Former Tidewater Site
2800 Martin Luther King Way South
Seattle, Washington

Sample ID	Depth (feet, bgs)	Date Sampled	NWTPH-Dx TPH-DRO (mg/kg)	NWTPH-Dx TPH-MRO/HRO (mg/kg)	NWTPH-Gx TPH-GRO (mg/kg)	EPA Method 8260B Benzene (mg/kg)	EPA Method 8260B Toluene (mg/kg)	EPA Method 8260B Ethyl-benzene (mg/kg)	EPA Method 8260B Total Xylenes (mg/kg)	EPA Method 6020 Lead (mg/kg)
P4-8 [1]	4	06/06/05	--	--	--	--	--	--	--	--
P4-12 [1]	12	06/06/05	--	--	--	--	--	--	--	--
P4-14	14	06/06/05	--	--	ND	ND	ND	ND	ND	--
P4-14-Dup	14	06/06/05	--	--	ND	ND	ND	ND	ND	--
P4-20 [1]	20	06/06/05	--	--	--	--	--	--	--	--
P5-12 [1]	12	06/06/05	--	--	--	--	--	--	--	--
P5-15	12	06/06/05	--	--	ND	ND	ND	ND	ND	--
P5-19 [1]	14	06/06/05	--	--	--	--	--	--	--	--
P6-4 [1]	4	06/06/05	--	--	--	--	--	--	--	--
P6-12	12	06/06/05	--	--	ND	ND	ND	ND	ND	--
P6-12-dup	12	06/06/05	--	--	ND	ND	ND	ND	ND	--
P6-16	16	06/06/05	--	--	**16.0**	**0.26**	**0.05**	ND	**0.03**	--
P6-18 [1]	18	06/06/05	--	--	--	--	--	--	--	--
P7-12	12	06/06/05	--	--	ND	ND	ND	ND	ND	--
P7-16 [1]	16	06/06/05	--	--	--	--	--	--	--	--
P7-18	18	06/06/05	--	--	**6,000**	**25.0**	**18.0**	**120**	**390**	--
P8-12 [1]	12	06/06/05	--	--	--	--	--	--	--	--
P8-16 [1]	16	06/06/05	--	--	--	--	--	--	--	--
P8-20	20	06/06/05	--	--	ND	ND	ND	ND	ND	--
P8-12	4	06/06/05	--	--	ND	ND	ND	ND	ND	--
P8-16	12	06/06/05	--	--	**4,000**	**7.0**	**10.0**	**45.0**	**310**	--
P8-20	14	06/06/05	--	--	**80.0**	**0.16**	**0.04**	**0.63**	**4.0**	--
P9-12	12	06/06/05	--	--	ND	ND	ND	ND	ND	--
P9-15	15	06/06/05	--	--	**1,300**	**14.0**	**2.20**	ND	**4.10**	--
P9-16 [1]	16	06/06/05	--	--	--	--	--	--	--	--
P9-20	20	06/06/05	--	--	**53.0**	ND	ND	ND	**0.30**	--
P10-12 [1]	12	06/06/05	--	--	--	--	--	--	--	--
P10-16	16	06/06/05	--	--	**40.0**	**0.034**	**0.05**	**0.35**	**1.60**	--
P10-20 [1]	20	06/06/05	--	--	--	--	--	--	--	--
P11-12	12	06/06/05	--	--	ND	ND	ND	ND	ND	--
P11-16 [1]	16	06/06/05	--	--	--	--	--	--	--	--
P11-20 [1]	20	06/06/05	--	--	--	--	--	--	--	--
NW-UST-3	3	08/05/05	--	--	<5.0	<0.020	<0.050	<0.050	<0.050	--
NW-UST-3-Duplicate	3	08/05/05	--	--	<5.0	<0.020	<0.050	<0.050	<0.050	--
WPI-3	3	08/05/05	--	--	<5.0	<0.020	<0.050	<0.050	<0.050	--
EPI-N-2	2	08/05/05	--	--	<5.0	<0.020	<0.050	<0.050	<0.050	--
NW Corner@2	2	08/05/05	--	--	**12**	<0.020	<0.050	<0.050	**0.090**	--
P12-4	4	06/22/06			ND	ND	ND	ND	ND	--
P12-15	15	06/22/06	--	--	ND	ND	ND	ND	ND	--
P13-20	20	06/22/06	--	--	ND	ND	ND	ND	ND	--
P14-16	16	06/22/06	--	--	ND	ND	ND	ND	ND	--
P15-20	20	06/22/06	--	--	ND	ND	ND	ND	ND	--
P16-16	16	06/22/06	--	--	ND	ND	ND	ND	ND	--
P16-20	20	06/22/06	--	--	ND	ND	ND	ND	ND	--

Table 1

Soil Analytical Results - Total Petroleum Hydrocarbons, BTEX, and Lead

Former Tidewater Site
2800 Martin Luther King Way South
Seattle, Washington

Sample ID	Depth (feet, bgs)	Date Sampled	NWTPH-Dx TPH-DRO (mg/kg)	NWTPH-Dx TPH-MRO/HRO (mg/kg)	NWTPH-Gx TPH-GRO (mg/kg)	EPA Method 8260B Benzene (mg/kg)	EPA Method 8260B Toluene (mg/kg)	EPA Method 8260B Ethyl-benzene (mg/kg)	EPA Method 8260B Total Xylenes (mg/kg)	EPA Method 6020 Lead (mg/kg)
MW-4-20	20	06/22/06	--	--	ND	ND	ND	ND	ND	--
MW-5-12	12	06/22/06	--	--	ND	ND	ND	ND	ND	--
MW-5-16	16	06/22/06	--	--	ND	ND	ND	ND	**0.16**	--
MW-5-20	20	06/22/06	--	--	**22**	**0.03**	ND	**0.06**	**0.36**	--
Site Assesment Phase I										
B-1-5	5	04/18/11	--	--	ND	ND	ND	ND	ND	**2.17**
B-1-10	10	04/19/11	--	--	**2.0**	ND	ND	ND	ND	**2.32**
B-1-15	15	04/19/11	--	--	**40**	ND [c]	ND [c]	ND [c]	ND [c]	**2.17**
B-1-18	18	04/19/11	--	--	ND	ND	ND	ND	ND	**1.76**
B-2-5	5	04/18/11	--	--	**1.4**	**0.002**	**0.001**	ND	**0.002**	**11.6**
B-2-11	11	04/19/11	--	--	**12** [d]	**0.001**	**0.002**	ND	**0.005**	**11.4**
B-2-15	15	04/19/11	--	--	**820**	ND	ND	**1.2**	**26**	**6.27**
B-2-18	18	04/19/11	--	--	**4.5**	**0.003**	ND	**0.007**	**0.15**	**5.62**
B-3-5	5	04/18/11	**150**	**1,000**	ND [d]	**0.0008**	ND	ND	ND	**33.8**
B-3-10	10	04/19/11	**10,000**	ND	**450**	ND [c]	ND [c]	ND [c]	ND [c]	**2.21**
B-3-15	15	04/19/11	**3,200**	ND	**720**	ND [c]	ND [c]	ND [c]	ND [c]	**6.97**
B-3-20	20	04/19/11	ND	ND	ND	ND	ND	ND	ND	**4.18**
B-4-5	5	04/18/11	--	--	ND	**0.001**	ND	ND	ND	**6.13**
B-4-10	10	04/19/11	--	--	ND [d]	ND	ND	ND	ND	**5.21**
B-4-15	15	04/19/11	--	--	ND [d]	ND	ND	ND	ND	**9.13**
B-4-17	17	04/19/11	--	--	**1.9**	**0.005**	ND	ND	**0.004**	**5.52**
B-5-5	5	04/18/11	**11**	ND	ND	ND	ND	ND	ND	**0.928**
B-5-10	10	04/19/11	ND	ND	ND	ND	ND	ND	ND	**2.13**
B-5-15	15	04/19/11	**12**	ND	ND	ND	ND	ND	ND	**1.81**
B-5-18	18	04/19/11	ND	ND	ND	**0.002**	ND	ND	ND	**4.53**
B-6-5	5	04/18/11	--	--	ND	ND	ND	ND	ND	**1.96**
B-6-10	10	04/19/11	--	--	ND	ND	ND	ND	ND	**2.38**
B-6-15	15	04/19/11	--	--	**1,300**	ND	ND	**1.9**	**8.4**	**5.21**
B-6-17	17	04/19/11	--	--	ND [d]	ND	ND	ND	**0.025**	**19.3**
B-7-5	5	04/18/11	--	--	ND	ND	ND	ND	ND	**2.66**
B-7-10	10	04/19/11	--	--	ND	ND	ND	ND	ND	**2.14**
B-7-15	15	04/19/11	--	--	**1.1**	**0.0006**	**0.001**	**0.001**	**0.006**	**6.36**
B-7-17	17	04/19/11	--	--	**35**	**0.003**	**0.002**	**0.006**	**0.015**	**4.47**
Site Assesment Phase II										
MW-6-10	10	07/12/11	ND	**43**	ND	ND	ND	ND	ND	--
MW-6-15	15	07/12/11	**14**	**50**	**1.7**	**0.002**	**0.002**	ND	ND	--
MW-7-5	5	07/12/11	ND	ND	ND	ND	ND	ND	ND	--
MW-7-15	15	07/13/11	**11**	**25**	ND	**0.002**	ND	ND	ND	--
MW-8-10	10	07/12/11	ND	**29**	**1**	ND	**0.001**	ND	**0.012**	--
MW-8-15	15	07/12/11	ND	ND	**110**	ND [c]	ND [c]	ND [c]	**0.077** [c]	--
MW-9-10	10	07/12/11	**860**	**13,000**	ND [d]	**0.002**	**0.002**	ND	ND	--
MW-9-15	15	07/12/11	**200**	**3,600**	ND [d]	**0.002**	**0.001**	ND	ND	--
MW-9-20	20	07/12/11	ND	ND	ND	ND	ND	ND	ND	--
MW-10-10	10	07/13/11	ND	ND	ND	ND	ND	ND	ND	--
MW-10-15	15	07/13/11	ND	**35**	ND	ND	ND	ND	ND	--
MTCA Method A Soil Cleanup Level			**2,000**	**2,000**	**100(a)/30(b)**	**0.03**	**7.0**	**6.0**	**9.0**	**250**

Table 1

Soil Analytical Results - Total Petroleum Hydrocarbons, BTEX, and Lead

Former Tidewater Site
2800 Martin Luther King Way South
Seattle, Washington

			NWTPH-Dx		NWTPH-Gx	EPA Method 8260B				EPA Method 6020
Sample ID	Depth (feet, bgs)	Date Sampled	TPH-DRO (mg/kg)	TPH-MRO/HRO (mg/kg)	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Lead (mg/kg)

Explanation:
bgs = below ground surface
BTEX = benzene, toluene, ethylbenzene, total xylenes
EPA = Environmental Protection Agency
ID = identification
mg/kg = milligrams per kilogram
MTCA = Model Toxics Control Act regulated by Washington Department of Ecology
ND = Concentration less than the laboratory method detection limit.
TPH-DRO = total petroleum hydrocarbons in diesel range (C10-C28)
TPH-GRO = total petroleum hydrocarbons in gasoline range (C6-C12)
TPH-MRO/HRO = total petroleum hydrocarbons in motor oil range (C16-C36)/heavy range organics
-- = Not applicable or not analyzed.
< = Below given laboratory detection limit

Notes:
1 =Sample not analyzed in the lab, field PID concentration <2 ppm.
a = Soil Cleanup Level for gasoline with no detectable benzene in the soil.
b = Soil Cleanup Level for gasoline with detectable benzene in the soil.
c = Reporting limits raised due to interference from the sample matrix.
d = Reporting limits raised due to sample foaming.
770 = Bold number(s) indicates concentration detected.
52.0 = Bold number(s) and shading indicates concentration exceeds MTCA Method A Cleanup Level.

Table 2
Soil Analytical Data - SVOCs

Former Tidewater Site
2800 Martin Luther King Way
Seattle, Washington

Sample ID	Date Sampled	EPA Method 8270C															
		Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)-anthracene (mg/kg)	Benzo(a)-pyrene (mg/kg)	Benzo(b)-fluoranthene (mg/kg)	Benzo(g,h,i)-perylene (mg/kg)	Benzo(k)-fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenz(a,h)-anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(1,2,3-cd)-pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
B-3-5'	04/18/11	<0.037	<0.019	<0.019	<0.037	0.067	0.064	0.12	<0.037	0.069	<0.037	0.062	<0.037	0.042	<0.037	0.046	0.061
B-3-10'	04/19/11	0.42	0.18	0.1	<0.038	<0.038	<0.038	<0.038	<0.038	0.056	<0.038	<0.038	0.34	<0.038	<0.038	0.88	0.13
B-3-15'	04/19/11	0.27	0.23	<0.0083	<0.017	<0.017	<0.017	<0.017	<0.017	0.041	<0.017	<0.017	1.3	<0.017	2.7	4.7	0.26
B-3-20'	04/19/11	<0.00079	<0.00040	<0.00040	<0.00079	<0.00079	<0.00079	<0.00079	<0.00079	<0.00040	<0.00079	<0.00079	<0.00079	<0.00079	<0.00079	0.0014	<0.00079
B-5-5'	04/18/11	<0.0019	<0.00094	<0.00094	<0.0019	<0.0019	<0.0019	<0.0019	<0.0019	<0.00094	<0.0019	<0.0019	<0.0019	<0.0019	<0.0019	<0.0019	<0.0019
B-5-10'	04/19/11	<0.00075	<0.00037	<0.00037	<0.00075	<0.00075	<0.00075	<0.00075	<0.00075	<0.00037	<0.00075	<0.00075	<0.00075	<0.00075	<0.00075	<0.00075	<0.00075
B-5-15'	04/19/11	<0.00077	<0.00038	<0.00038	<0.00077	<0.00077	<0.00077	<0.00077	<0.00077	<0.00038	<0.00077	<0.00077	<0.00077	<0.00077	<0.00077	<0.00077	<0.00077
B-5-18'	04/19/11	<0.00084	<0.00042	0.00053	<0.00084	<0.00084	<0.00084	<0.00084	<0.00084	<0.00042	<0.00084	<0.00084	<0.00084	<0.00084	0.0017	0.0017	<0.00084
MW-9-10'	07/12/11	<0.073	<0.037	<0.037	0.16	0.21	0.16	0.17	<0.073	0.37	<0.073	0.087	<0.073	<0.073	<0.073	<0.073	0.16
MW-9-15'	07/12/11	<0.078	<0.039	<0.039	0.21	0.22	0.16	0.094	<0.078	0.48	<0.078	0.084	<0.078	<0.078	<0.078	0.099	0.17

Explanation:
EPA = Environmental Protection Agency
ID = Identification
SVOCs = Semi volatile organic compounds
ug/L= micrograms per liter
-- = Not applicable
< = Not detected at or above laboratory method reporting limits.

Table 3

Groundwater Analytical Data - Total Petroleum Hydrocarbons, BTEX, EDC, EDB, and Lead

Former Tidewater Site
Chevron Site 301233
ConocoPhillips Site 5173
2800 Martin Luther King Way
Seattle, Washington

		NWTPH-Dx		NWTPH-Gx	EPA Method 8260B					EPA Method 8011	EPA Method 6020
Sample ID	Date Sampled	TPH-DRO [1] (ug/L)	TPH-MRO/HRO [1] (ug/L)	TPH-GRO [1] (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	1,2-Dichloroethane (ug/L)	Ethylene dibromide (ug/L)	Lead (ug/L)
Site Assesment Phase I											
B-1	4/19/2011	--	--	**1,700**	<0.5	<0.5	<0.5	**1**	<0.5	<0.0095	**18.5**
B-2	4/19/2011	--	--	**20,000**	<1	**3**	**290**	**5,100**	<1	<0.0094	**32.9**
B-3	4/19/2011	**100,000**	<3,400	**3,400**	**1**	**28**	**33**	**150**	<0.5	<0.0095	**9.2**
B-4	4/19/2011	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.0095	**48.5**
B-5	4/19/2011	**530**	<74	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.0097	**116**
B-6	4/19/2011	--	--	**27,000**	<1	<1	**330**	**2,000**	<1	<0.0093	**18.4**
B-7	4/19/2011	--	--	**3,900**	**0.6**	**7**	**140**	**570**	<0.5	<0.0098	**15.7**
QA/QC Sampling											
TB-1	4/19/2011	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
TB-2	4/19/2011	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
TB-3	4/19/2011	--	--	<50	---	---	---	---	--	--	--
TB-4	4/19/2011	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
TB-5	4/19/2011	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
MTCA Method A Groundwater Cleanup Level		**500**	**500**	**1,000 (a)/800 (b)**	**5.0**	**1,000**	**700**	**1,000**	**5.0**	**0.01**	**15**

Explanation:

BTEX = benzene, toluene, ethylbenzene, and total xylenes
EDB = ethylene dibromide
EDC = 1,2-dichloroethane
EPA = Environmental Protection Agency
ID = identification
MTCA = Model Toxics Control Acts per Washington Department of Ecology
NWTPH-Dx = Northwest Method Total Petroleum Hydrocarbon Range Method -Diesel/lub/oil
NWTPH-Gx = Northwest Method Total Petroleum Hydrocarbon Range Method -Gasoline
TB = Trip blank
TPH-DRO = total petroleum hydrocarbons in diesel range
TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics
TPH-MRO/HRO = total petroleum hydrocarbons in motor oil range/heavy range organics
QA/QC = quality assurance/quality control
ug/L= micrograms per liter
-- = Not applicable
< = Not detected at or above laboratory method reporting limit.

Notes:

[1] Per Northwest Method.
(a) = Groundwater Cleanup Level for gasoline with no detectable benzene.
(b) = Groundwater Cleanup Level for gasoline with detectable benzene.
2,000 = Bold number(s) indicates concentration detected.
2,000 = Bold number(s) and shading indicates concentration exceeds MTCA Method A Cleanup Level.

Table 4
Groundwater Analytical Data - SVOCs

Former Tidewater Site
2800 Martin Luther King Way
Seattle, Washington

Sample ID	Date Sampled	EPA Method 8270C															
		Acenaphthene (ug/L)	Acenaphthylene (ug/L)	Anthracene (ug/L)	Benzo(a)-anthracene (ug/L)	Benzo(a)-pyrene (ug/L)	Benzo(b)-fluoranthene (ug/L)	Benzo(g,h,i)-perylene (ug/L)	Benzo(k)-fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz(a,h)-anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Indeno(1,2,3-cd)-pyrene (ug/L)	Naphthalene (ug/L)	Phenanthrene (ug/L)	Pyrene (ug/L)
B-3	04/19/11	15	7.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.5	<0.20	5	55	<0.20	570	220	8.2
B-5	04/19/11	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.032	0.028	<0.011

Explanation:
EPA = Environmental Protection Agency
ID = Identification
SVOCs = Semi volatile organic compounds
TB = Trip blank
ug/L= micrograms per liter
< = Not detected at or above laboratory method reporting limits.

Table 5
Monitoring and Sampling Groundwater Elevation and Analytical Data

Former Tidewater Site
2800 Martin Luther King Way
Seattle, Washington

Sample ID	Date Sampled	Well Elevation (feet, amsl)	Depth to Water (feet, TOC)	Depth to SPH (feet TOC)	Product Thickness (feet)	Groundwater Elevation (feet, amsl)	NWTPH-Dx TPH-DRO (ug/L)	NWTPH-Dx TPH-MRO (ug/L)	NWTPH-Gx TPH-GRO (ug/L)	EPA Method 8260B Benzene (ug/L)	EPA Method 8260B Toluene (ug/L)	EPA Method 8260B Ethyl-benzene (ug/L)	EPA Method 8260B Total Xylenes (ug/L)
MW-1	08/19/05	**97.92**	13.01			84.91	--	--	ND	ND	ND	ND	ND
	10/27/05		12.62			85.30	--	--	ND	ND	ND	ND	ND
	12/27/05		--			--	--	--	ND	ND	ND	ND	ND
	01/12/08		9.03			88.89	--	--	--	--	--	--	--
	03/02/06		10.56			87.36	--	--	ND	ND	ND	ND	ND
	06/28/06		12.42			85.50	--	--	--	--	--	--	--
	12/01/06		9.33			88.59	--	--	--	--	--	--	--
	12/06/06		9.72			88.20	--	--	--	--	--	--	--
	02/28/07		11.04			86.88	--	--	--	--	--	--	--
	03/07/07		11.14			86.78	--	--	--	--	--	--	--
	04/11/07		11.06			86.86	--	--	ND	ND	ND	ND	ND
	11/12/09		11.08			86.84	--	--	<50	<1.0	<1.0	<1.0	<3.0
	08/30/11		--			--	--	--	--	Well not sampled - well not found			
MW-2	08/19/05	**96.25**	13.02			83.23	--	--	**2,000**	ND	**10**	**81**	**91**
	10/27/05		13.62			82.63	--	--	**2,300**	ND	ND	**89**	**93**
	12/27/05		--			--	--	--	**820**	ND	ND	**21**	**66**
	01/12/06		5.77			90.48	--	--	--	--	--	--	--
	03/02/06		11.82			84.43	--	--	**1,300**	ND	**3.9**	**23**	**50**
	04/13/06		13.06			83.19	--	--	**470**	ND	**1.4**	**6.9**	**15**
	06/28/06		12.40			83.85	--	--	--	--	--	--	--
	09/11/06		13.64			82.61	--	--	**580**	ND	**1.6**	**2.9**	**6.2**
	12/01/06		10.65			85.60	--	--	--	--	--	--	--
	12/06/06		10.20			86.05	--	--	--	--	--	--	--
	01/12/07		11.06			85.19	--	--	--	--	--	--	--
	02/12/07		--			--	--	--	**1,400**	**1.4**	**3.5**	**16**	**13**
	02/28/07		11.65			84.60	--	--	**1,200**	**1.8**	**3.7**	**18**	**60**
	03/07/07		11.43			84.82	--	--	--	--	--	--	--
	04/11/07		11.07			85.18	--	--	**1,200**	ND	**2.8**	**11**	**63**
	11/12/09		12.35			83.90	--	--	**455**	<1.0	<1.0	<1.0	<3.0
	08/31/11	**60.72**	11.96			48.76	**590**	<66	**960**	**1**	<0.7	**1**	**6**

Table 5

Monitoring and Sampling Groundwater Elevation and Analytical Data

Former Tidewater Site
2800 Martin Luther King Way
Seattle, Washington

							NWTPH-Dx		NWTPH-Gx	EPA Method 8260B			
Sample ID	Date Sampled	Well Elevation (feet, amsl)	Depth to Water (feet, TOC)	Depth to SPH (feet TOC)	Product Thickness (feet)	Groundwater Elevation (feet, amsl)	TPH-DRO (ug/L)	TPH-MRO (ug/L)	TPH-GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)
MW-3	08/19/05	**97.43**	12.72			84.71	--	--	**44,000**	**4.1**	**18**	**780**	**3,600**
	10/27/05		13.42			84.01	--	--	**17,000**	ND	**38**	**580**	**3,000**
	12/27/05		--			--	--	--	**6,600**	**5.0**	**22**	**200**	**1,100**
	01/12/06		8.84			88.59	--	--	--	--	--	--	--
	03/02/06		10.90			86.53	--	--	**22,000**	ND	**26**	**450**	**4,200**
	04/13/06		11.92			85.51	--	--	**33,000**	ND	**3.4**	**700**	**3,100**
	06/28/06		12.17			85.26	--	--	**53,000**	ND	**17**	**530**	**2,600**
	08/13/06		13.91			83.52	--	--	--	--	--	--	--
	09/11/06		13.77			83.66	--	--	**14,000**	ND	**5.6**	**180**	**1,100**
	10/13/06		--			--	--	--	**1,400**	ND	**1.0**	**26**	**98**
	11/17/06		10.56			86.87	--	--	**48,000**	ND	**34**	**490**	**4,100**
	12/01/06		9.78			87.65	--	--	--	--	--	--	--
	12/06/06		10.01			87.42	--	--	--	--	--	--	--
	01/12/07		10.90			86.53	--	--	--	--	--	--	--
	02/12/07		--			--	--	--	**36,000**	ND	**10**	**280**	**1,800**
	02/28/07		11.12			86.31	--	--	**22,000**	ND	**5.8**	**200**	**1,400**
	03/07/07		11.17			86.26	--	--	**21,000**	ND	**18**	**170**	**1,000**
	04/11/07		11.04			86.39	--	--	**19,000**	ND	**5.5**	**110**	**1,100**
	11/12/09		11.98			85.45	--	--	**71.7**	<1.0	<1.0	<1.0	<3.0
	08/31/11	**61.81**	12.10			49.71	**370**	<68	**7,400**	<1	<1	**190**	**554**
MW-4	06/28/06	**98.36**	12.40			85.96	--	--	ND	ND	ND	ND	ND
	12/01/06		9.90			88.46	--	--	--	--	--	--	--
	12/06/06		10.21			88.15	--	--	--	--	--	--	--
	02/28/07		11.43			86.93	--	--	--	--	--	--	--
	03/07/07		11.49			86.87	--	--	ND	ND	ND	ND	ND
	04/11/07		11.27			87.09	--	--	ND	ND	ND	ND	ND
	11/12/09		11.82			86.54	--	--	<50	<1.0	<1.0	<1.0	<3.0
	08/31/11	**62.75**	12.42			50.33	<29	<68	<50	<0.5	<0.7	<0.8	<0.8

Table 5
Monitoring and Sampling Groundwater Elevation and Analytical Data

Former Tidewater Site
2800 Martin Luther King Way
Seattle, Washington

							NWTPH-Dx		NWTPH-Gx	EPA Method 8260B			
Sample ID	Date Sampled	Well Elevation (feet, amsl)	Depth to Water (feet, TOC)	Depth to SPH (feet TOC)	Product Thickness (feet)	Groundwater Elevation (feet, amsl)	TPH-DRO (ug/L)	TPH-MRO (ug/L)	TPH-GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)
MW-5	06/28/06	**97.20**	12.09			85.11	--	--	21,000	ND	**14**	**290**	**920**
	09/11/06		13.63			83.57	--	--	2,500	ND	ND	**34**	**60**
	11/17/06		10.57			86.63	--	--	23,000	ND	**52**	**450**	**1,700**
	12/01/06		9.75			87.45	--	--	--	--	--	--	--
	01/12/07		10.85			86.35	--	--	--	--	--	--	--
	02/12/07		--			--	--	--	**37,000**	ND	**33**	**1,600**	**2,800**
	02/28/07		11.05			86.15	--	--	**29,000**	ND	**24**	**550**	**1,800**
	03/07/07		11.11			86.09	--	--	**42,000**	**11.0**	**24**	**740**	**2,500**
	04/11/07		10.96			86.24	--	--	**65,000**	ND	**79**	**850**	**4000**
	11/12/09		12.10			85.10	--	--	**2,340**	**1.3**	**36.3**	<1.0	**125**
	08/31/11	**61.66**	12.80			48.86	**770**	<67	**3,100**	**2**	**1**	**72**	**124**
MW-6	08/31/11	**58.03**	12.33			45.70	**44**	<67	<50	<0.5	<0.7	<0.8	<0.8
MW-7	08/31/11	**56.96**	11.15			45.81	<29	<67	<50	<0.5	<0.7	<0.8	<0.8
MW-8	08/31/11	**61.71**	12.01			49.70	**240**	<67	**4,400**	<0.5	<0.7	**41**	**442**
MW-9	08/31/11	**62.58**	14.29			48.29	**78**	<68	<50	<0.5	<0.7	<0.8	<0.8
MW-10	08/31/11	**58.96**	11.94			47.02	**260**	**100**	<50	**2**	<0.7	<0.8	<0.8
TB	11/12/2009	---	---		---	---	--	--	<50	<1.0	<1.0	<1.0	<3.0
	8/31/2011	---	---		---	---	--	--	<50	<0.5	<0.5	<0.5	<0.5

Explanation:
amsl = above mean sea level
bgs = below ground surface
EPA = Environmental Protection Agency
ND = Not detected at or above laboratory method reporting limits.
SPH = separate phase hydrocarbons
TB = Trip blank
TOC = top of casing

TPH-DRO = Total Petroleum Hydrocarbons as Diesel Range Organics
TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics
TPH-MRO = Total Petroleum Hydrocarbons as Motor Oil Range Organics
ug/L= micrograms per liter
< = Not detected at or above laboratory method reporting limits.
-- = Not applicable

Table 6
Monitoring and Sampling Groundwater Analytical Data - VOCs

Former Tidewater Site
2800 Martin Luther King Way
Seattle, Washington

Sample ID	Date Sampled	EPA Method 8260B							
		MTBE (ug/L)	1,2-Dibromoethane (ug/L)	1,2-Dichloroethane (ug/L)	Isopropylbenzene (ug/L)	Naphthalene (ug/L)	n-Propylbenzene (ug/L)	1,2,4-Trimethylbenzene (ug/L)	1,3,5-Trimethylbenzene (ug/L)
MW-1	08/30/11	Well Not Sampled - Well Not Found							
MW-2	08/31/11	<0.5	<1	<1	**24**	<1	**59**	<1	**2**
MW-3	08/31/11	<1	<2	<2	**47**	**67**	**140**	**1,300**	**330**
MW-4	08/31/11	<0.5	<1	<1	<1	<1	<1	<1	<1
MW-5	08/31/11	<0.5	<1	<1	**78**	**120**	**210**	**130**	**18**
MW-6	08/31/11	<0.5	<1	<1	<1	**1**	<1	<1	<1
MW-7	08/31/11	<0.5	<1	<1	<1	<1	<1	<1	<1
MW-8	08/31/11	<0.5	<1	<1	**11**	**33**	**26**	**500**	**130**
MW-9	08/31/11	<0.5	<1	<1	<1	<1	<1	<1	<1
MW-10	08/31/11	<0.5	<1	<1	<1	<1	<1	<1	<1
TB	8/31/2011	<0.5	--	--	--	--	--	--	--

Explanation:
EPA = Environmental Protection Agency
ID = Identification
MTBE= Methyl tertiary butyl ether
TB = Trip blank
ug/L= micrograms per liter
VOCs = Volatile organic compounds
-- = Not applicable
< = Not detected at or above laboratory method reporting limits.

APPENDIX A
WORK PLAN

Stantec Consulting Corporation
3017 Kilgore Road Suite 100
Rancho Cordova CA 95670
Tel: (916) 861-0400
Fax: (916) 861-0430

July 5, 2010

Sara Neid
3190 160th Avenue, SE
Bellevue, Washington 98008-5452

Re: Application for VCP-Agreement Form-Terrestrial Ecological Evaluation & Groundwater Sampling Results Report and Work Plan
Former Tidewater Service Station
ConocoPhillips Site 5173
Chevron Site 301233
2800 Martin Luther King Way, Seattle, WA
Stantec Project No.: 211402639.200.250

Dear Ms. Neid:

Stantec is pleased to submit the enclosed Application for Voluntary Cleanup Program-VCP Agreement Form-Terrestrial Ecological Evaluation and our *Groundwater Sampling Results Report and Work Plan* for the above referenced site on behalf Chevron Environmental Management Company and ConocoPhillips.

If there are any questions or comments regarding the contents of this document, please contact Dan Schreiner or Tony Giglini at (916) 861-0400.

Sincerely,

Stantec Consulting Corporation

Dan Schreiner
Senior Project Manager

cc: Mr. Myron Smith, ConocoPhillips
Mr. John Frary, Chevron Environmental Management Company
Mr. Howard F. Jensen, Hills Clark Martin and Peterson
Mr. Bill Hooe
Mr. Thomas Morin
Ms. Alison Robinson

Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program

APPLICATION FORM

Under the Voluntary Cleanup Program (VCP), the Department of Ecology (Ecology) may provide informal site-specific technical consultations to persons conducting independent remedial actions at a hazardous waste site. Ecology may provide such consultations under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC.

To enter the VCP, complete and submit to the Department of Ecology (Ecology) a VCP Application. The Application consists of the following two documents:

1. Application Form (including required attachments). ← **THIS DOCUMENT**
2. Agreement.

For guidance on how to complete your Application, please refer to the Application Instructions, which are available separately on the VCP web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm.

Part 1 - ADMINISTRATION

A. Customer Information. The Customer is the person or organization requesting services from Ecology under the VCP, and is responsible for paying the costs incurred by Ecology. The authority and duty of the Customer are explained in the Agreement.

Name of Customer: ConocoPhillips

What type of entity is the Customer?

☐ Person

*If the Customer is a **"person,"** then the Customer shall serve as both the Manager and Billing Contact for the Project. When identifying the Project Manager below, please enter the name of the Customer and his or her contact information.*

☒ Organization

*If the Customer is an **"organization,"** then please identify below both a Manager and Billing Contact for the Project. Those persons must be employed by the organization.*

What is the Customer's involvement at the Site? Please check all that apply.

☐ Property owner
☒ Past property owner
☐ Future property owner
☐ Property lessee
☒ Other – please specify: Responsible Party
☐ Business owner (operator)
☐ Mortgage holder
☐ Consultant
☐ Attorney

If not the current property owner, is the Customer acting as the agent for the property owner?

☐ Yes ☒ No

If not the current property owner, is the Customer authorized to grant access to the property?

☐ Yes ☒ No

Part 1 – ADMINISTRATION continued

B. Project Manager Information. Ecology will send this person all official correspondence. Please enter the required information below.

Name: Myron Smith		Title: Area Manager
Mailing address: 1230 W. Washington Street, Suite 212		
City: Tempe	State: AZ	Zip: 85281
Phone: 602-452-2505	Fax: 602-452-2509	E-mail: myron.w.smith@conocophillips.com

C. Project Billing Contact Information. Ecology will send this person monthly invoices.

Is the Project Billing Contact the same as the Project Manager?

☐ Yes *If you answered **"YES,"** then skip to the next question.*

☒ No *If you answered **"NO,"** then please enter the required information below.*

Name: Dan Schreiner-Stantec Consulting Corporation		Title: Senior Project Manager
Mailing address: 3017 Kilgore Road, Suite 100		
City: Rancho Cordova	State: CA	Zip: 95670
Phone: 916-861-0400 ext. 227	Fax: 916-861-0430	E-mail: dan.schreiner@stantec.com

D. Project Consultant Information.

Is the Customer a consultant?

☐ Yes *If you answered **"YES,"** then skip to the next question.*

☒ No *If you answered **"NO"** and the Customer hired a consultant to conduct the independent remedial action, then enter the required information below.*

Name: Dan Schreiner		Title: Senior Project Manager
Organization: Stantec Consulting Corporation		
Mailing address: 3017 Kilgore Road, Suite 100		
City: Rancho Cordova	State: CA	Zip: 95670
Phone: 916-861-0400 ext.227	Fax: 916-861-0430	E-mail: dan.schreiner@stantec.com

Do you want Ecology to contact the Project Consultant?

☒ Yes ☐ No

E. Property Owner Information.

Is the Customer the owner of the property where independent remedial action is being conducted?

☐ Yes *If you answered **"YES,"** then enter the type of entity and skip to the next question.*

☒ No *If you answered **"NO,"** then please enter all of the required information below.*

Name: Hooe Holdings, LLC		Title:
Organization: Hooe Holdings, LLC		
Mailing address: 747 North 185th Street, Suite 101		
City: Shoreline	State: WA	Zip: 98133
Phone:	Fax:	E-mail: whooe@mac.com

Part 1 – ADMINISTRATION continued

What type of entity is the property owner? Please check only one.

☒ Private	☐ County
☐ Tribal	☐ Municipal
☐ Federal	☐ Mixed
☐ State	☐ Public School
☐ Other – please specify: _____	

F. Request for Written Opinion.

Are you submitting a remedial action plan or report with your VCP Application?

☒ Yes ☐ No

If you answered "YES" above, do you want Ecology to provide you with a written opinion on the planned or completed remedial action?

☒ Yes ☐ No

Please note that Ecology's opinion will be limited to:

- ❑ Whether the planned or completed remedial action at the site meets the substantive requirements of the Model Toxics Control Act (MTCA), and/or
- ❑ Whether further remedial action is necessary at the site under MTCA.

Do you expect to request additional written opinions in the future?

☒ Yes ☐ No

G. Reporting Requirements.

Please comply with the following reporting requirements when requesting written opinions on planned or completed remedial actions:

- ❑ **Licensing.** Documents submitted containing geologic, hydrologic, or engineering work must be under the seal of an appropriately licensed professional, as required by Chapters 18.43 and 18.220 RCW.
- ❑ **Data Submittal.** Environmental sampling data must be submitted in both a printed form and an electronic form capable of being transferred into Ecology's data management systems. For instructions on how to submit the data, please refer to the following Ecology web site: www.ecy.wa.gov/programs/tcp/data_submittal/Data_Requirements.htm.

Failure to comply with these requirements may result in unnecessary delays. **Ecology will not issue a No Further Action (NFA) opinion unless these requirements are satisfied.**

Part 2 - DESCRIPTION OF THE SITE

A. Name of the Site. If Ecology has already identified the Site, enter the name provided by Ecology. Otherwise, enter a suggested name for the Site. You may also include an alternate name.

Name: Phillips 66 070644

Alternate Name: Former Gas Station 2800 M L King Jr Way, Phillips 66 070644

B. Location of Property where the Releases Occurred (Source Property).

The "source property" is the property where hazardous substances were released into the environment. For example, if petroleum was released from a leaking UST, the source property is the property where the UST was located.

Do you know on which property the releases occurred?

☒ Yes — *If you answered **"YES,"** then please refer to the source property when answering the following questions.*

☐ No — *If you answered **"NO,"** then please refer to the property addressed by your remedial action (cleanup) when answering the following questions.*

Physical Address. Please enter the physical address of the property below.

Street Address: 2800 M L King Jr. Way S		
City: Seattle	State: WA	Zip:

Geographic Position. Please enter the geographical position of the property below. For additional guidance on how to complete this part, please refer to instructions on the VCP web site.

COORDINATES	**LATITUDE:**	Degrees: 47	Minutes: 36	Seconds: 56.664
	LONGITUDE :	Degrees: -122	Minutes: 17	Seconds: 50.1354
LOCATION ON PROPERTY: [e.g., point of release or center of parcel]		Northern Portion of Parcel		
COLLECTION METHOD: [e.g., GPS or address matching]		VCP File Search		
COLLECTION SOURCE: [i.e., map scale]		VCP File Search		
HORIZONTAL DATUM: [i.e., base reference for coordinate system]		Unknown		
ACCURACY LEVEL: [i.e., +/- feet or meters]		Unknown		

Legal Descriptions.

TRS DATA:	Township: T25N	Range: R4E	Section: S33	Quarter-Quarter:
TAX PARCEL #(S):	0003600055			

Part 2 - DESCRIPTION OF THE SITE continued

C. Identification of Properties affected by the Releases (Affected Properties).

An "affected property" is a property affected by the release of hazardous substances on the source property. For example, petroleum released from a leaking UST on one property (source property) may migrate through the soil or ground water onto an adjacent property (affected property).

Do any of the releases affect any properties adjacent to the source property?

☐ Yes	*If you answered **"YES,"** then please identify below each property that you know has been affected by the releases on the source property. If you need to identify additional properties, please attach additional pages.*
☐ No	*If you answered **"NO,"** then skip to the next question.*
☒ Unknown	*If you answered **"UNKNOWN,"** then skip to the next question.*

1.	Address:
	Tax Parcel(s):
2.	Address:
	Tax Parcel(s):
3.	Address:
	Tax Parcel(s):
4.	Address:
	Tax Parcel(s):

D. Identification of Public Right-of-Ways affected by the Releases.

Do any of the releases affect any public right-of-ways (e.g., streets)?

☒ Yes ☐ No ☐ Unknown

If you answered **"YES"** above, please specify below. Otherwise, skip to the next question.

East sidewalk of Martin Luther King Jr. Way South, approximately 75 feet south of McClellan Street.

Attach additional pages if necessary.

E. Extent of the Site.

What is the approximate areal extent of the Site? Please check only one.

- ☐ < 5,000 square feet
- ☒ > 5,000 square feet, but < 1 acre
- ☐ > 1 acre, but < 10 acres
- ☐ > 10 acres
- ☐ Unknown

Part 2 - DESCRIPTION OF THE SITE continued

F. Description of Release(s) at the Site.

Source of Release(s).

What are the source(s) of the release(s) at the Site? Please check all that apply.

- ☒ Point source (e.g., leaking tank)
- ☐ Non-point source (e.g., contaminated soil used as fill)
- ☐ Area-wide lead and arsenic soil contamination (see questions below)
- ☐ Other – please specify: _____
- ☒ Unknown

To the extent known, please describe the source(s) of the release(s):

Potential release from former underground fuel dispensing system at the site.

Attach additional pages if necessary.

Circumstances of Release(s). To the extent known, please describe below the circumstances of the release(s).

Possible deterioration of USTs and/or associated pipelines or possible spillage at former pump island.

Attach additional pages if necessary.

Circumstances of Release Discovery. To the extent known, please describe below the circumstances of the discovery of the release(s).

TPH-contaminated soil and groundwater encountered during drilling of exploratory borings in 2005.

Attach additional pages if necessary.

Part 2 - DESCRIPTION OF THE SITE continued

Area-Wide Soil Contamination. For information about the area-wide soil contamination project, please refer to the following web site: www.ecy.wa.gov/programs/tcp/area_wide/area_wide_hp.html. For information about the Tacoma Smelter Plume (TSP) and the associated Management Plan, please refer to the following web site: www.ecy.wa.gov/programs/tcp/sites/tacoma_smelter/ts_hp.htm.

Is the Site located within an area affected by smelter emissions, such as the TSP area?

☒ Yes ☐ No ☐ Unknown

To determine whether your Site is located within the TSP area, please refer to the map on the TSP web site identified above.

Is the Site located on a former apple or pear orchard in operation prior to 1947?

☐ Yes ☒ No ☐ Unknown

Is the Site impacted by area-wide arsenic and/or lead soil contamination?

☐ Yes ☒ No ☐ Unknown

G. Nature and Extent of Hazardous Substances Released at the Site. The following questions refer to conditions after the release, but prior to any cleanup, of the hazardous substances at the Site.

Hazardous Substances and Affected Media. To the extent known, please identify in the following table the hazardous substances released at the Site and the media (e.g., soil) impacted by those substances. Use the codes at the bottom of the table.

Hazardous Substance	Affected Media				
	Soil	Ground Water	Surface Water	Sediment	Air
EXAMPLE: Benzene	C	S	N/A	N/A	B
TPH-GRO	C	C	N/A	N/A	U
Benzene	C	C	N/A	N/A	U
Toluene	C	B	N/A	N/A	U
Ethylbenzene	C	C	N/A	N/A	U
Total Xylenes	C	C	N/A	N/A	U
TPH-DRO	B	S	N/A	N/A	U
Heavy Oil	B	S	N/A	N/A	U

When identifying the affected media in the table above, please use one of the following codes:

- C = confirmed, above cleanup level
- B = confirmed, below cleanup level
- O = confirmed, not present
- S = suspected
- N/A = not suspected
- U = unknown

Part 2 - DESCRIPTION OF THE SITE continued

Drinking Water.

Does any of the contamination at the Site pose a threat or potential threat to an existing drinking water source (ground water or surface water)?

☐ Yes ☐ No ☒ Unknown

If you answered "YES" above, what type of drinking water system is threatened by the contamination? Please check all that apply.

☐ Single Family
☐ Community

Indoor Air.

Are contaminant odors present in any buildings, manholes, or other confined spaces?

☐ Yes ☒ No ☐ Unknown

If you answered "YES" above, please specify:

Attach additional pages if necessary.

H. Maps of the Site.

Please attach to this application map(s) that identify, to the extent known, the following:

- ❑ The location of the site.
- ❑ The properties, and any public right-of ways, affected by the site.
- ❑ The source(s) of the release(s) at the site.
- ❑ The nature and extent of contamination at the site.
- ❑ Any human or ecological receptors impacted by the site (e.g., drinking water wells).
- ❑ The physical characteristics of the site (e.g., property lines, building and road outlines, surface water bodies, water supply wells, ground water flow direction, and utility right-of-ways).
- ❑ The properties adjacent to the site and the uses of those properties (e.g., gas station, dry cleaner, residential).

Part 3 – OPERATIONAL HISTORY OF THE SITE

A. Current Use of Source Property. *Note that the following questions refer only to the Source Property, not other properties affected by the Site. Answer these questions to the best of your ability.*

Current Property Owners. To the extent known, please identify below the current owner of the source property.

Name: Hooe Holdings, LLC	Title:	
Organization: Hooe Holdings, LLC		
Mailing address: 747 North 185th Street, Suite 101		
City: Shoreline	State: WA	Zip code: 98133
Phone:		

Current Business Owner (Operator). To the extent known, please identify below the current owner of the business located on the source property.

Name: N/A No active business	Title:	
Organization:		
Mailing address:		
City:	State:	Zip code:
Phone:		

Current Business Operations. To the extent known, please identify below the current operations of the business located on the source property.

What is the current land use of the source property? Please check all that apply.

- ☐ Residential
- ☐ Commercial
- ☐ Industrial
- ☐ Agricultural
- ☐ School
- ☐ Childcare facility
- ☐ Park
- ☒ Other – please specify: Vacant

Is there a currently operational commercial or industrial business located on the source property?

☐ Yes ☒ No ☐ Unknown

If you answered "YES" above, please identify in the following table the current business operations using the North American Industry Classification System (NAICS) codes and specifying the operations.

NAICS CODE	DESCRIPTION OF OPERATIONS
EX: 447110	Gasoline Stations with Convenience Stores

Part 3 – OPERATIONAL HISTORY OF THE SITE continued

Is there a solid waste handling facility located on the Source Property?

☐ Yes ☒ No ☐ Unknown

If you answered "YES" above, please identify:

Attach additional pages if necessary.

Is there a dangerous waste treatment, storage, or disposal facility located on the Source Property?

☐ Yes ☒ No ☐ Unknown

If you answered "YES" above, please identify:

Attach additional pages if necessary.

Regulation of Current Business Operations.

Does the business operate under any federal, state, or local permits related to the release of hazardous substances into the environment (e.g., NPDES permit)?

☐ Yes ☒ No ☐ Unknown

If you answered "YES" above, please specify the regulated operation, the name of the permit, and the date it was issued in the table below.

REGULATED OPERATION	PERMIT	DATE ISSUED
EX: Wastewater discharge	NPDES permit	02/02/02

Has a state or federal notice of enforcement action (e.g., notice of violation) ever been issued related to the release of hazardous substances at the business?

☐ Yes ☒ No ☐ Unknown

If you answered "yes" above, please specify (notice and year issued): _____

Have business operations resulted in any other spills or other unpermitted releases on the source property?

☐ Yes ☐ No ☒ Unknown

If you answered "YES" above, please specify in the table below.

RELEASE	DATE OF RELEASE	STATUS OF RELEASE

Part 3 – OPERATIONAL HISTORY OF THE SITE continued

Storage Tank Information. In table below, please identify all above ground storage tanks (AST) and underground storage tanks (UST) that have been used for storing hazardous substances on the source property, irrespective of whether the tanks are still in use or in place. *If you are unable to provide answers to specific questions regarding a tank, please enter "U" for unknown.*

IDENTIFICATION				STATUS AND CLOSURE				RELEASES	
Hazardous Substance	Type (AST/UST)	Size (Gallons)	TANK ID	DATE INSTALL	IN USE (Y/N)	DATE CLOSED	CLOSURE METHOD (*)	PAST (Y/N)	CURRENT (Y/N)
EX: Diesel	UST	10,000	4	02/87	N	05/98	Removed	Y	N
Gasoline	1	4,000	U	U	N	1/25/89	Removed	U	N
Gasoline	1	5,000	U	U	N	1/25/89	Removed	U	N
Waste Oil	1	300	U	U	N	1/25/89	Removed	U	N
Heavy Oil	1	270	U	U		2005	Removed	U	N

(*) Options = Removed or Closed in Place

B. Past Use of Source Property. *Note that the following questions refer only to the Source Property, not other properties affected by the Site. Please answer these questions to the best of your ability.*

Past Property Owners. To the extent known, please identify below the owner of the source property at the time the release occurred.

Name: Unknown	Title:	
Organization:		
Mailing address:		
City:	State:	Zip code:
Phone:	Fax:	E-mail:

Past Business Owners (Operators). To the extent known, please identify below the owner of the business (operator) at the time the release occurred.

Name: Unknown	Title:	
Organization:		
Mailing address:		
City:	State:	Zip code:
Phone:	Fax:	E-mail:

Identification of Past Business Operations. Please identify in the following table the past operations of businesses located on the source property using the North American Industry Classification System (NAICS) codes and/or specifying the operations.

NAICS CODE	DESCRIPTION OF OPERATIONS
EX: 447110	Gasoline Stations with Convenience Stores
447190	Gasoline Stations (1955-1989)
811111	Automotive Repair Shop (1989-2004)

Part 3 – OPERATIONAL HISTORY OF THE SITE continued

C. Future Use of Source and Affected Properties. The following questions refer to both source and affected properties. Please answer these questions to the best of your ability.

Will any ownership interest in the source or affected properties be conveyed prior to, or upon completion of, the cleanup?

☒ Yes ☐ No ☒ Unknown

If you answered "YES" above, please specify:

Attach additional pages if necessary.

Will any of the source or affected properties, or portions of those properties, be redeveloped as part of the cleanup?

☐ Yes ☐ No ☒ Unknown

If you answered "YES" above, please specify the proposed land use below. Please check all that apply.

☐ Residential ☐ School
☒ Commercial ☐ Childcare facility
☐ Industrial ☐ Park
☐ Agricultural
☐ Other – please specify:

Please also specify the activities proposed for that land use:

Medical-dental office building

Attach additional pages if necessary.

Part 4 – ADMINISTRATIVE HISTORY OF THE SITE

Have you previously reported the release(s) of hazardous substances at the Site to Ecology?

☐ Yes – If so, when? _____ ☒ No ☐ Unknown

Has the cleanup of the Site, or any portion of the Site, ever been managed under the VCP?

☒ Yes – If so, please specify the VCP Project Number: NW1834
☐ No
☐ Unknown

Has the cleanup of the Site, or any portion of the Site, ever been managed under a federal or state order or decree?

☐ Yes – If so, please specify the type and docket number: _____
☒ No
☐ Unknown

Part 5 – DESCRIPTION OF INDEPENDENT REMEDIAL ACTIONS AT THE SITE

A. Scope of Remedial Actions.

Do you plan to characterize and address all of the contamination at the Site, including any contamination located on affected adjacent properties, as part of the VCP project?

☒ Yes ☐ No ☐ Unknown

If you answered "NO" above, please describe below the scope of the VCP project, including the contamination (properties, portions of a property, media and/or hazardous substances) that you DO NOT plan on characterizing and/or addressing as part of the VCP project. Please include additional pages if necessary.

Attach additional pages if necessary.

Part 5 – DESCRIPTION OF INDEPENDENT REMEDIAL ACTIONS AT THE SITE continued

B. Status of Remedial Actions.

What is the current status of remedial actions at the site? Please check all that apply in the table below.

REMEDIAL ACTION	PLANNED	ONGOING	COMPLETED	NOT APPLICABLE
INITIAL RESPONSE (UST ONLY)			x	
INTERIM ACTION		x		
REMEDIAL INVESTIGATION		x		
FEASIBILITY STUDY	x			
CLEANUP ACTION	x			

C. Documentation of Remedial Actions.

Please list in the table below all known remedial action plans or reports produced for the site, including:

- The title of the plan or report,
- The author (e.g. consulting firm) of the plan or report,
- The date the plan or report was produced,
- Whether the plan or report has been submitted to Ecology,
- The date the plan or report was submitted to Ecology.

	TITLE	AUTHOR	DATE	SUBMITTED TO ECOLOGY	
				Y/N?	DATE
Ex:	John Doe's Site: Remedial Investigation Work Plan	Mom's Consulting Firm	02/20/05	NO	N/A
1.	Phase I Environmental Site Assessment	G Logics, Inc.	1/11/05	No	N/A
2.	Phase II Environmental Site Assessment and Equipment Removal	G Logics, Inc	3/17/05	No	N/A
3.	Cleanup Action Report	G Logics, Inc	10/31/05	Yes	10/31/05
4.	Summary Report Site Remediation and Groundwater Monitoring	G Logics, Inc	8/2/07	Yes	8/16/05
5.	Draft Cleanup Action Plan	G Logics, Inc	1/22/08	Yes	1/22/08
6.					
7.					
8.					
9.					
10.					

Part 6 – STATEMENT AND SIGNATURE

A. Statement and Signature. The undersigned affirms that the information contained in this application is true and accurate to the best of his or her knowledge. Please note that someone other than the Customer may sign this Application Form.

Name: Dan Schreiner	Title: Senior Project Manager	
Signature:		Date: 6/4/10
Organization: Stantec Consulting Corporation		
Mailing address: 3017 Kilgore Road, STE 100		
City: Rancho Cordova	State: CA	Zip code: 95670
Phone: 916-861-0400	Fax: 916-861-0430	E-mail: dan.schreiner@stantec.com

B. Affiliation.

What is the signatory's involvement at the Site? Please check all that apply.

- ☐ Customer
- ☐ Property Owner
- ☒ Consultant
- ☐ Attorney
- ☐ Other – please specify: _____

VCP AGREEMENT

DEPARTMENT OF ECOLOGY
State of Washington

INSTRUCTIONS: Submit this Agreement (original) to Ecology as part of your Application. Before submitting, enter the Customer's name and the Site's address on the first page and sign the Agreement on the second page. If your Application is accepted, then Ecology will do the following: 1) identify the Site and VCP project in the box below; 2) sign the Agreement; and 3) send you a copy of the completed Agreement.

This document constitutes an Agreement between the State of Washington Department of Ecology (Ecology) and ConocoPhillips Company (Customer) to provide informal site-specific technical consultations under the Voluntary Cleanup Program (VCP) for the Site identified below and associated with the following address: 2800 Martin Luther King Jr. Way, Seattle, WA.

The purpose of this Agreement is to facilitate independent remedial action at the Site. Ecology is entering into this Agreement under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC. If a term in this Agreement is defined in MTCA or Chapter 173-340 WAC, then that definition shall govern.

Services Provided by Ecology

Upon request, Ecology agrees to provide the Customer informal site-specific technical consultations on the independent remedial actions proposed for or performed at the Site consistent with WAC 173-340-515(5). Those consultations may include assistance in identifying applicable regulatory requirements and opinions on whether the remedial actions proposed for or conducted at the Site meet those requirements.

Ecology may use any appropriate resource to provide the Customer with the requested consultative services. Those resources may include, but shall not be limited to, those of Ecology and the Office of the Attorney General. However, Ecology shall not use independent contractors unless the Customer provides Ecology with prior written authorization.

In accordance with RCW 70.105D.030(1)(i), any opinions provided by Ecology under this Agreement are advisory only and not binding on Ecology. Ecology, the state, and officers and employees of the state are immune from all liability. Furthermore, no cause of action of any nature may arise from any act or omission in providing, or failing to provide, informal advice and assistance under the VCP.

Payment for Services by Customer

The Customer agrees to pay all costs incurred by Ecology in providing the informal site-specific technical consultations requested by the Customer consistent with WAC 173-340-515(6) and 173-340-550(6). Those costs may include the costs incurred by attorneys or independent contractors used by Ecology to provide the requested consultative services. Ecology's hourly costs shall be determined based on the method in WAC 173-340-550(2).

Ecology shall mail the Customer a monthly itemized statement of costs (invoice) by the tenth day of each month (invoice date) that there is a balance on the account. The invoice shall include a summary of the costs incurred, payments received, identity of staff involved, and amount of time staff spent on the project.

The Customer shall pay the required amount by the due date, which shall be thirty (30) calendar days after the invoice date. If payment has not been received by the due date, then Ecology shall withhold

FOR COMPLETION BY ECOLOGY ONLY	**Facility / Site Name:**
	Facility / Site No.:
	VCP Project No.:

any requested opinions and notify the Customer by certified mail that the debt is past due. If payment has not been received within sixty (60) calendar days of the invoice date, then Ecology shall stop all work under the Agreement and may, as appropriate, assign the debt to a collection agency under Chapter 19.16 RCW. The Customer agrees to pay the collection agency fee incurred by Ecology in the course of debt collection.

Reservation of Rights / No Settlement

This Agreement does not constitute a settlement of liability to the state under MTCA. This Agreement also does not protect a liable person from contribution claims by third parties for matters addressed by the Agreement. The state does not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). Ecology's signature on this Agreement in no way constitutes a covenant not to sue or a compromise of any Ecology rights or authority.

Ecology reserves all rights under MTCA, including the right to require additional or different remedial actions at the Site should it deem such actions necessary to protect human health and the environment, and to issue orders requiring such remedial actions. Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances at the Site.

Effective Date, Modifications, and Severability

The effective date of this Agreement shall be the date on which this Agreement is signed by the Toxics Cleanup Program's Section Manager or delegated representative. This Agreement may be amended by mutual agreement of Ecology and the Customer. Amendments shall be in writing and shall be effective when signed by the Toxics Cleanup Program's Section Manager or delegated representative. If any provision of this Agreement proves to be void, it shall in no way invalidate any other provision of this Agreement.

Termination of Agreement

Either party may terminate this Agreement without cause by sending written notice by U.S. mail to the other party. The effective date of termination shall be the date Ecology sends notice to the Customer or the date Ecology receives notice from the Customer, whichever occurs first. Unless otherwise directed, issuance of a No Further Action opinion, either for the Site as a whole or for a portion of the real property located within the Site, shall constitute notice of termination by Ecology.

Under this Agreement, the Customer is only responsible for costs incurred by Ecology before the effective date of termination. However, termination of this Agreement shall not affect any right Ecology may have to recover its costs under MTCA or any other provision of law.

Representations and Signatures

The undersigned representative of the Customer hereby certifies that he or she is fully authorized to enter into this Agreement and to execute and legally bind the Customer to comply with the Agreement.

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY	ConocoPhillips Company *Name of Customer*
_____ *Signature*	James F. Trotter *Signature*
_____ *Printed Name*	James F. Trotter *Printed Name of Signatory*
Section Manager, _____ Toxics Cleanup Program *Section*	Site Manager *Title of Signatory*
Date: _____	Date: 6/29/2010

If you need this document in an alternative format, please call the Toxics Cleanup Program at 360-407-7170. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program

TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation. You still need to submit your evaluation as part of your cleanup plan or report.

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm.

Step 1: IDENTIFY HAZARDOUS WASTE SITE	
Please identify below the hazardous waste site for which you are documenting an evaluation.	
Facility/Site Name: Phillips 66 070644	
Facility/Site Address: 2800 Martin Luther King Jr Way S	
Facility/Site No: 42746846	VCP Project No.: Former NW1834

Step 2: IDENTIFY EVALUATOR			
Please identify below the person who conducted the evaluation and their contact information.			
Name: Andrea Donnell		Title: Geologic Staff	
Organization: Stantec Consulting Corporation			
Mailing address: 12034 134th Court Northeast Suite 102			
City: Redmond		State: WA	Zip code: 98052
Phone: 425-298-1000	Fax: 425-298-1019	E-mail: andrea.donnell@stantec.com	

Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

A. Exclusion from further evaluation.

1. Does the Site qualify for an exclusion from further evaluation?

☒ Yes *If you answered **"YES,"** then answer **Question 2**.*

☐ No or Unknown *If you answered **"NO" or "UKNOWN,"** then skip to **Step 3B** of this form.*

2. What is the basis for the exclusion? *Check all that apply. Then skip to **Step 4** of this form.*

Point of Compliance: WAC 173-340-7491(1)(a)

☐ All soil contamination is, or will be,* at least 15 feet below the surface.

☒ All soil contamination is, or will be,* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

☒ All contaminated soil, is or will be,* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

☐ There is less than 0.25 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.

☒ For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

☐ Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

[±] "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

[#] "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

B. Simplified evaluation.

1. Does the Site qualify for a simplified evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No or Unknown *If you answered **"NO"** or **"UNKNOWN,"** then skip to **Step 3C** of this form.*

2. Did you conduct a simplified evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 3** below.*

☐ No *If you answered **"NO,"** then skip to **Step 3C** of this form.*

3. Was further evaluation necessary?

☐ Yes *If you answered **"YES,"** then answer **Question 4** below.*

☐ No *If you answered **"NO,"** then answer **Question 5** below.*

4. If further evaluation was necessary, what did you do?

☐ Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*

☐ Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

5. If no further evaluation was necessary, what was the reason? *Check all that apply. Then skip to **Step 4** of this form.*

Exposure Analysis: WAC 173-340-7492(2)(a)

☐ Area of soil contamination at the Site is not more than 350 square feet.

☐ Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

Pathway Analysis: WAC 173-340-7492(2)(b)

☐ No potential exposure pathways from soil contamination to ecological receptors.

Contaminant Analysis: WAC 173-340-7492(2)(c)

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

C. Site-specific evaluation. A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. *See* WAC 173-340-7493(1)(c).

1. Was there a problem? *See* WAC 173-340-7493(2).

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No *If you answered **"NO,"** then identify the reason here and then skip to **Question 5** below:*

- ☐ No issues were identified during the problem formulation step.
- ☐ While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

2. What did you do to resolve the problem? *See* WAC 173-340-7493(3).

☐ Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*

☐ Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

3. If you conducted further site-specific evaluations, what methods did you use?
Check all that apply. See WAC 173-340-7493(3).

- ☐ Literature surveys.
- ☐ Soil bioassays.
- ☐ Wildlife exposure model.
- ☐ Biomarkers.
- ☐ Site-specific field studies.
- ☐ Weight of evidence.
- ☐ Other methods approved by Ecology. If so, please specify:

4. What was the result of those evaluations?

- ☐ Confirmed there was no problem.
- ☐ Confirmed there was a problem and established site-specific cleanup levels.

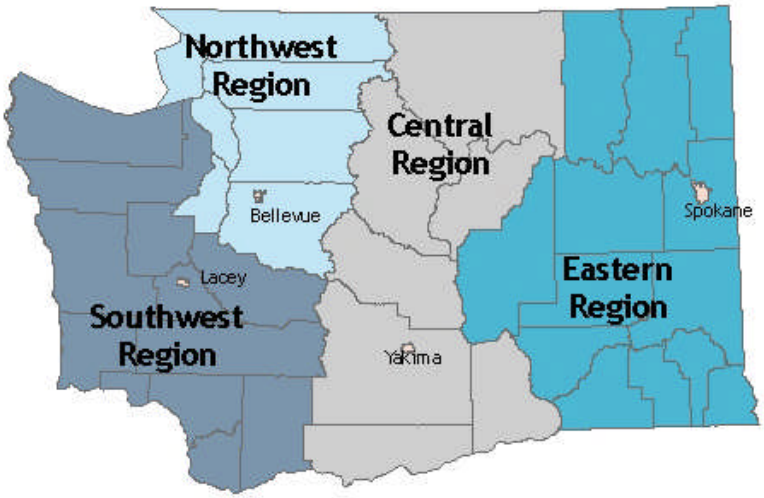
5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?

☐ Yes If so, please identify the Ecology staff who approved those steps:

☐ No

Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.



Northwest Region: Attn: Sara Nied 3190 160th Ave. SE Bellevue, WA 98008-5452	**Central Region:** Attn: Mark Dunbar 15 W. Yakima Ave., Suite 200 Yakima, WA 98902
Southwest Region: Attn: Scott Rose P.O. Box 47775 Olympia, WA 98504-7775	**Eastern Region:** Attn: Patti Carter N. 4601 Monroe Spokane WA 99205-1295

Stantec

Groundwater Sampling Results Report and Work Plan Prepared for

Chevron Environmental Management Company and ConocoPhillips Company

Former Tidewater Site
Chevron Site 301233
ConocoPhillips Site 5173
2800 Martin Luther King Way South
Seattle, WA

July 5, 2010

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Reviewed By

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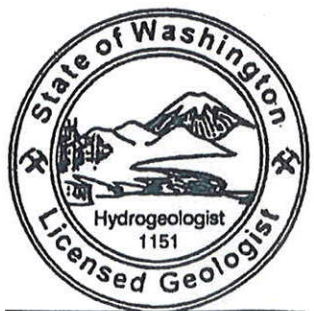


Mark A. Trewartha

Table of Contents

LIST OF FIGURES

LIST OF TABLES

TABLE 1 GROUNDWATER ELEVATION AND ANALYTICAL DATA

LIST OF APPENDICES

1.0 Introduction

Stantec Consulting Corporation (Stantec), on behalf of Chevron Environmental Management Company (CEMC) and ConocoPhillips Company (COP), presents results of groundwater monitoring and sampling and a Work Plan, for the site located at 2800 Martin Luther King Way South in Seattle, Washington (Figure 1).

1.1 SITE DESCRIPTION

The subject property is located at 2800 Martin Luther King Way South, in the City of Seattle, King County, Washington (the "site") (Figure 2). The site is an approximately 0.25-acre lot currently containing primarily grass, some shrubs, and an abandoned auto-repair garage. The site was formerly used as a gasoline station between approximately 1955 and 1989. According to historical documents the site was undeveloped until 1955 and has since been owned and operated by following companies:

- ~1955 to ~1965: Associated Oil Company-Associates Gas Station (in 1938, Associated Oil and Tidewater Oil merged to become Tidewater Associated Oil Company)
- ~1965 to 1967: Phillips Gas Station
- ~1967 to ~1973: Rainier Bonanza Self Serve Gas
- ~1974 to ~1986: Vacant
- ~1986 to ~ 1990: Empire Mobile
- ~1994 to ~2004: R&R Auto Repair
- ~2004 to Present: Vacant auto repair garage

Petroleum related activities ceased operation in 1989. Three underground storage tanks (USTs), two gasoline (4,000 and 5,000 gallon tanks) and one used waste oil (approximately 300-gallon tank) were removed from the corner of the property in 1989 (summarized in G-Logics Phase I Site Assessment report dated January 11, 2005). Additional service station equipment, including two vehicle hoists, a heating oil UST, an oil/water separator, and drain sump were removed in February 2005.

The site is in a mixed commercial and residential area. To the north of the site is South McClellan Street and to the north-northwest across South McClellan Street is a home improvement store (Lowes). To the north-northeast across South McClellan Street and up gradient is Mt. Baker Cleaners. The site is bounded to the east by a dental clinic and a residential area to the southeast. Directly south of the site is a strip mall with a nail salon and a few other small businesses. Further south of the strip mall is a school, soccer/football field, and track. The site is bounded to the west by Martin Luther King Way South (MLK Way). Across MLK Way to the southwest and west are commercial buildings. There is an active Unocal 76 Station northwest of the site across MLK Way.

1.2 REGULATORY BACKGROUND

The regulatory guidelines that drive the cleanup process at sites within the state of Washington are known as the Model Toxics Control Act (MTCA), which is administered by the Washington Department of Ecology (Ecology). The MTCA administers and establishes guidelines with recommended Cleanup Levels for soil and groundwater for facilities where hazardous substances have come to be located (WAC 173-340-100). The Cleanup Levels administered by MTCA are used as "standards" for deciding when additional investigation or cleanup may be necessary. It is further noted in the MTCA regulation that published Cleanup Levels should not automatically be used to define contaminant concentrations that "must" be met for financial, real estate, insurance coverage, or other similar purposes; thus, exceeding the MTCA suggested Cleanup Level does not entirely mandate cleanup action for a site.

1.3 PREVIOUS INVESTIGATIONS

Soil and groundwater investigations at the site began with the UST removals conducted by G-Logics in 1989. All soil samples collected from the location of the former UST excavation, in the northwest corner of the site, were below the MTCA Method A Cleanup Levels for constituents of concern (COC) for this site.

Soil and groundwater investigations were conducted by G-Logics in February 2005. A groundwater sample collected from boring GL-4, contained total petroleum hydrocarbons in the gasoline range (TPH-GRO) at 5,900 µg/L, exceeding MTCA Method A Cleanup Levels (1,000 µg/L). The sample area was in located approximately between the former western and eastern pump islands. In addition, an investigation was done beneath the former heating oil UST location where impacted soil was found but did not exceed MTCA Method A Cleanup Levels.

Further soil and groundwater investigation of the western and eastern pump island area was conducted by G-Logics in June 2005 (soil borings P1 through P11). Laboratory results confirmed that the highest concentrations of petroleum-impacted soil, mostly in the gasoline range, were from soil borings P-7, P-8, and P-9, which all exceeded MTCA Method A Cleanup Levels. The impact was mostly observed between 15 and 20 feet below ground surface (bgs) and was concentrated around the western pump island area.

G-Logics continued soil investigations in the vicinity of MW-3 in June 2006 due to elevated concentrations of TPH-GRO detected in the groundwater well during quarterly sampling activities. Petroleum related compounds were either non-detect or were below the MTCA Method A Cleanup Levels in the borings, supporting that the source area was concentrated in the area of the west pump island.

In August 2005 G-Logics began the installation and operation of an ozone treatment system at the site. According to historical documents, ozone sparging was considered a feasible remedial alternative based on soil lithology and previous findings. Five ozone injection points (IP-1

through IP-5) and monitoring wells MW-1, MW-2, and MW-3 were installed. The ozone system was started on August 26, 2005.

In July 2006, ozone flow to injection points IP-1, IP-2, and IP-3 was stopped and directed towards injection points IP-4 and IP-5, in the area near MW-3.

In August 2006, a second compressor was added to augment the ozone injection system. The second compressor was dedicated to providing a primary source of air flow to the wells and the original compressor was dedicated to providing air flow to the ozone generator.

In December 2006, the system was shut down for compressor repairs. The system was restarted in January 2007.

In December 2006, G-Logics oversaw the installation of a horizontal pipe for In-Situ Chemical Oxidation in an area upgradient of the west pump island. The pipe was installed at approximately 6-7 feet bgs and could not be installed at a greater depth due to caving. Between January and March 2007, In-Situ Chemical Oxidation through injection using Fenton's Reagent (hydrogren peroxide) was performed to supplement ozone injection remediation efforts. On January 4, 2007, a buffered, iron-catalyst was introduced with the Fenton's application. In March 2007, a Fenton's application treatment well (TW-1) was installed directly west of the west pump island source area. According to G-Logics, following every application of the Fenton's Reagent and/or the iron catalyst, a foaming reaction was noted in the surrounding surface of the treated area.

1.4 GEOLOGY / HYDROGEOLOGY

Based on historical review of site documents the soil lithology consists primarily of sandy fill material from ground surface to approximately 2 to 2 ½ feet bgs. Below 2 feet bgs is primarily fine to medium grained sand with some silt to approximately 18-20 feet bgs. Between 18 and 21 feet bgs a hard green silty clay layer was observed in several areas of the site. Groundwater elevations at the site have ranged from 82.61 feet above mean sea level (amsl) in MW-2 (9/11/06) to 90.48 feet amsl in well MW-2 (1/12/06) since monitoring began in August 2005. The depth to water has ranged from 5.77 feet below the top of casing (TOC) in MW-2 (1/12/06) to 13.91 feet below TOC in well MW-3 (8/13/06). Groundwater at the site generally flows toward the southwest.

2.0 Groundwater Sampling

On November 12, 2009 Stantec conducted groundwater monitoring and sampling at the site. Monitoring wells MW-1 through MW-5 were gauged and sampled (Figure 2). Stantec field data sheets are presented in Appendix A. The certified laboratory analytical report, chain-of-custody

(CoC) documentation, and the Stantec laboratory validation form are included in Appendix B. Field and laboratory procedures are presented in Appendix C.

2.1 MONITORING WELL GAUGING DATA

Monitoring well gauging data indicated the depth to groundwater ranged from 11.08 (MW-1) to 12.35 (MW-2) feet below the TOC. Corresponding groundwater elevation data ranged from 83.90 (MW-2) to 86.84 (MW-1) feet amsl. Groundwater gauging data for the site is presented in Table 1. Groundwater flow direction on-site was estimated to the southwest at an approximate gradient of 0.065 foot/foot (ft/ft) (Figure 3).

2.2 GROUNDWATER ANALYTICAL RESULTS

Collected groundwater samples were analyzed for TPH-GRO by Northwest Method NWTPH-Gx and benzene, toluene, ethylbenzene, and total xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260. Groundwater analytical data for these analytes are summarized in Table 1 and shown on Figure 4. Maximum concentrations of detected constituents are presented in the following table.

Constituents	Number of Detections Above MRL of the 5 Total Samples Collected (11/12/09)	Minimum Detected Concentration in µg/L (Sample ID)	Maximum Detected Concentration in µg/L(Sample ID)
TPH-GRO	3	71.7 (MW-3)	2,340 (MW-5)
Benzene	1	--	1.3 (MW-5)
Toluene	1	--	36.3 (MW-5)
Total Xylenes	2	--	125 (MW-5)

Explanations:
MRL = method reporting limit
µg/L = micrograms per liter
TPH-GRO = Total petroleum hydrocarbons as gasoline
NA = Not Available
-- = Not Applicable
Sampling conducted on November 12, 2009

2.3 QUALITY ASSURANCE / QUALITY CONTROL

Analyte concentrations were not detected at or above laboratory method detection limits (MDLs) in the trip blank sample (Trip Blank). Stantec's laboratory validation form is located in Appendix B. The laboratory analytical data are considered valid however the following issues were noted:

The percent recovery for surrogate 1,2-Dichloroethane-d4 was outside of control limits for samples MW-1, MW-2, MW-3, MW-4, and MW-5. All other surrogates were in range and the one outlier is not anticipated to affect the validity of the data. The percent recovery for benzene was outside of control limits in the matrix spike duplicate indicating a lack of accuracy in reporting. The relative percent difference was in range in the matrix spike indicating precision in reporting. Both percent recovery and relative percent difference were in range for benzene in the laboratory control spike; thus the reported values for benzene are considered valid.

2.4 WASTE DISPOSAL

Purged water generated during sampling of the wells on November 12, 2009 was temporarily stored on site in Department of Transportation-approved 55-gallon drums pending characterization and disposal. Purged water from the sampling event was removed first quarter 2010. The waste disposal manifest is included in Appendix D.

3.0 Groundwater Sampling Summary and Conclusions

Summary and conclusions based on the results of monitoring and sampling conducted on November 12, 2009 for the site are presented below.

- Depth to groundwater ranged from 11.08 (MW-1) to 12.35 (MW-2) feet below the TOC. Groundwater elevations ranged from 83.90 (MW-2) to 86.84 (MW-1) feet amsl.

- Site groundwater flow direction was estimated to the southwest using elevation data from wells MW-1 through MW-5, at an approximate hydraulic gradient of 0.065 ft/ft. Historically, the groundwater flow direction has been toward the southwest.

- TPH-GRO was detected in the samples collected from wells MW-2, MW-3 and MW-5 at concentrations of 455 µg/L, 71.7 µg/L and 2,340 µg/L, respectively. TPH-GRO concentrations exceed MTCA Method A Cleanup Levels for TPH-GRO with detectable benzene (800 µg/L) for well MW-5. TPH-GRO is delineated to the north and east (Figure 5).

- Benzene was detected in the sample collected from well MW-5 at a concentration of 1.3 µg/L during the sampling event, but does not exceed the MTCA Method A Cleanup Level for benzene (5.0 µg/L).

- Toluene was detected in the sample collected from well MW-5 at a concentration of 36.3 µg/L during the sampling event, but does not exceed the MTCA Method A Cleanup Level for toluene (1,000 µg/L).

- Ethylbenzene was not detected in site wells.

- Total xylenes were detected in the sample collected from well MW-5 at a concentration of 125 ug/L during the sampling event, but does not exceed the MTCA Method A Cleanup Level for total xylenes (1,000 µg/L).

4.0 Work Plan for Further Assessment

4.1 PROPOSED SCOPE OF WORK

Stantec proposes to perform further assessment at the site and site vicinity in two phases. During the first phase, Stantec proposes to install up to four direct push soil and groundwater investigative borings on site (B-1 through B-4). Based on this investigation, up to five additional on and off site groundwater monitoring wells will be installed during Phase 2 (Figure 6). By conducting this investigation in two parts, data obtained from the direct push investigation (Phase 1) can be used to determine the locations and need for wells MW-8, MW-9, and MW-10 (during Phase 2).

During Phase 1, a direct push rig will be used to collect samples on site in the vicinity of the former western pump island, exploratory boring locations B-1 and B-2; and an additional boring approximately 60-75 feet south of this area (B-4). According to historical soil data, there are potential residual hydrocarbon impacts in the former heating oil UST area on the southeastern boundary of the site; thus one additional exploratory direct push boring (B-3) will be advanced in this area to investigate any residual hydrocarbon impacts in soil that might remain.

During Phase 2, Stantec will install up to three groundwater monitoring wells (MW-6, MW-7, and MW-10) down-gradient off site to the south and southwest of the site. Up to two on site monitoring wells (MW-8 and MW-9) will be installed at the locations on Figure 6.

During Phase 2, off site wells (MW-6 and MW-7) will be strategically placed to fill potential data gaps in the current monitoring well network and to further define the impacts of petroleum related hydrocarbons down-gradient of the site. If data collected from borings B-1 and B-2 indicate an additional monitoring well is warranted, on site monitoring well MW-8 will be installed in the area of the former western pump island (area of highest subsurface hydrocarbon impact historically) for performance monitoring of past remediation efforts implemented on site and for additional repeatability data of groundwater impacts in this area. An additional on site monitoring well (MW-9) may be installed southeast of site well MW-2 and/or an additional off site monitoring well (MW-10) may be installed to evaluate fluctuations in groundwater flow in a more southerly direction and to provide an additional compliance point for monitoring the hydrocarbon extent in soil and groundwater. Data obtained from soil boring (B-4) will be used to help determine the need and final location of monitoring wells MW-9 and/or MW-10. These wells will be continuously cored during installation for lithologic description and to investigate for any residual soil impacts. The specific scope of work is discussed below.

4.1.1 Prefield Activities

For both Phase 1 and Phase 2, as required by the Occupational Health and Safety Administration (OSHA) “Hazardous Waste Operations and Emergency Response” guidelines

(29 CFR 1910.120), Stantec will prepare a site specific Health and Safety Plan (HASP). At a minimum, the HASP will define the proposed activities, describe physical and chemical hazards that may be associated with the work, provide a map to the nearest emergency medical facility, and include material safety data sheets for any hazardous chemicals that will be used or produced during the work. A copy of the HASP will be available onsite at all times during field work. The field staff and contractors performing field activities will review the HASP prior to beginning field operations at the site.

Prior to mobilizing, Stantec will notify One Call Utility Notification Service to alert the utility companies in the area of the scheduled work and to mark all underground utilities in accordance with State of Washington requirements. In addition, Stantec will subcontract with a private utility locating contractor to mark private underground utilities near the proposed well locations.

All appropriate access agreements and permits will be acquired and followed during field activities.

4.1.2 Phase 1 Further Assessment Activities

A detailed description of Phase 1 activities is presented below.

4.1.2.1 Direct Push Soil and Groundwater Borings

The borings proposed will be advanced using a direct push rig. These borings will be continuously cored with a two-inch diameter sampling device to define soil impacts in the vadose zone and the thickness of potential smear zone effects beneath the former western pump island.

Down-hole drilling equipment will be steam cleaned before advancing each boring, and sampling equipment will be cleaned between each sampling interval. Soil samples screened and evaluated during drilling will be logged using the Unified Soil Classification System by a Stantec field geologist or scientist working under the supervision of a geologist.

4.1.2.2 Soil Sampling and Analysis

Soil samples will be collected from each boring on five-foot intervals above the water table for lithological description and hydrocarbon vapor screening using a portable PID. At least one soil sample from the vadose zone with the highest PID reading will be sent to a certified laboratory for analysis to determine the magnitude of impacts. Additionally, soil samples will be collected below the water table at 2.5-foot intervals or until the smear zone has been defined by head space PID readings (approximately 20 feet bgs). All soil samples collected below the water table will be analyzed by the laboratory. The soil samples will be sent to the laboratory under CoC procedures for analysis of the following:

- TPH-GRO by Northwest Method NWTPH-Gx

- BTEX by EPA Method 8260B
- 7 oxygenates (MtBE, TBA, DIPE, ETBE, TAME, Ethylene dibromide [EDB], and 1,2-dichloroethane [1,2-DCA]) by EPA Method 8260B
- TPH-DRO/TPH-MRO by Northwest Method NWTPH-Dx
- Total Lead by EPA Method 6010B

Where NWTPH-Dx analysis indicates the presence of TPH-DRO, the sample(s) with detection(s) of TPH-DRO will be additionally analyzed for:

- Polycyclic aromatic hydrocarbons (PAHs) per EPA Method 8270-SIM.

A silica gel cleanup will be performed on all TPH-DRO and TPH-MRO analyses to eliminate the potential for biogenic interference.

4.1.2.3 Groundwater Grab Sampling and Analysis for Direct Push Borings

Grab groundwater samples will be collected from each soil boring between nine and 15 feet bgs depending on the depth groundwater is encountered in each boring. Each grab groundwater sample will be collected from the borehole using a modified HydroPunch® (or similar) sampler. Prior to sampling, a water level meter will be used to confirm that the drive rods do not contain water. The sampler and drive rod assembly will be driven to approximately three feet below the desired sampling depth. From this point, the drive rod will be retracted up to three feet to expose a disposable polyvinyl chloride (PVC) screen to allow groundwater to enter the HydroPunch® sampler. The water sample will be collected by lowering a ¾"-diameter stainless steel bailer through the drive rods to groundwater. The groundwater will be bailed from the drive rods, decanted from the bailer into appropriate sample containers and capped. Each sample container will be labeled, placed on ice, and transported to the laboratory under CoC documentation to a certified laboratory for analysis of the following:

- TPH-GRO by Northwest Method NWTPH-Gx
- BTEX by EPA Method 8260B
- 7 oxygenates (MtBE, TBA, DIPE, ETBE, TAME, EDB, and 1,2-DCA) by EPA Method 8260B
- TPH-DRO/TPH-MRO by Northwest Method NWTPH-Dx with silca gel cleanup
- Total Lead by EPA Method 6010B

Where NWTPH-Dx analysis indicates the presence of TPH-DRO, the sample(s) with detection(s) of TPH-DRO will be additionally analyzed for:

- Polycyclic aromatic hydrocarbons (PAHs) per EPA Method 8270-SIM.

A silica gel cleanup will be performed on all TPH-DRO and TPH-MRO analyses to eliminate the potential for biogenic interference. Following collection of the grab groundwater sample, each Geoprobe® boring will be tremie grouted from total depth to grade with bentonite cement.

4.1.3 Phase 2 Further Assessment Activities

A detailed description of Phase 2 activities is presented below.

4.1.3.1 Groundwater Monitoring Well Installation

Stantec proposes to install up to five two-inch diameter groundwater monitoring wells at the locations shown on Figure 6. The wells will be installed to a depth of approximately 20 feet bgs, consistent with current onsite wells, and targeting the high permeability sand layer located from approximately five to 20 feet bgs.

Soil borings will be drilled using a hollow-stem auger drill rig equipped with eight-inch diameter continuous flight augers. During borehole advancement soil will be collected continuously for lithological description to the total explored depth of the well. Based on Photo Ionization Detector (PID) field screen readings and field observations, a minimum of three soil samples per well boring will be collected in two-inch-diameter by six-inch-long brass or stainless steel sleeves, capped at each end with Teflon® sheets and plastic end caps, and placed on ice in an insulated cooler until relinquished under CoC to a certified laboratory for analysis. At least one soil sample from the vadose zone with the highest PID reading will be sent to a certified laboratory for analysis to determine the magnitude of impacts. All soil samples collected below the water table will be analyzed by the laboratory. All down-hole drilling equipment will be steam-cleaned prior to use at each location. The monitoring wells will be constructed with two-inch diameter PVC blank casing from the ground surface to approximately 20 feet bgs and 0.020-inch-slot well screen from 20 to 10 feet bgs. A sand filter pack will be placed within the annulus of the well from the bottom of the boring to approximately two feet above the top of the well screen. The annulus of the well will be sealed with three feet of hydrated bentonite on top of the sand filter pack and Portland cement/bentonite slurry will seal the remainder of the annulus to the ground surface. The top of the well will be sealed with a locking expansion cap and protected at grade with a seven-inch diameter traffic-rated well box.

4.1.3.2 Well Development

After at least 48 hours following well construction, Stantec will return to the site to develop the newly constructed wells. Development will be accomplished by alternately surging each well with a vented surge block followed by bailing to remove accumulated sediment. Final purging will be performed with either a submersible pump or bailer, and pH, temperature, and conductivity will be measured at regular intervals during purging. Development will be

considered complete when either: 1) 8 well volumes have been removed and physical-chemical parameters trends have stabilized over three consecutive measurements (variation less than 0.05 for pH, 3% for conductivity, and 10% for temperature); 2) 10 well volumes have been removed; or 3) the formation in which the well is screened inhibits either of the above from being accomplished and the well has been purged dry (i.e. the well does not sustain flow or is slow to recover).

4.1.3.3 Groundwater Sample Collection and Analysis from Monitoring Wells

After well development, initial groundwater samples will be collected using procedures outlined in Appendix C. Groundwater samples will be submitted under CoC documentation to a certified laboratory and will be analyzed for the following:

- TPH-GRO by Northwest Method NWTPH-Gx
- BTEX by EPA Method 8260B
- 5 oxygenates (MtBE, TBA, DIPE, ETBE, and TAME) by EPA Method 8260B
- TPH-DRO/TPH-MRO by Northwest Method NWTPH-Dx with silca gel cleanup

Where NWTPH-Dx analysis indicates the presence of TPH-DRO, the sample(s) with detection(s) of TPH-DRO will be additionally analyzed for:

- Polycyclic aromatic hydrocarbons (PAHs) per EPA Method 8270-SIM.

Based on the timing of well installation and development activities, the groundwater samples may be collected during the routine quarterly monitoring and sampling event for the site.

4.1.4 Well Surveying and EDF Upload

Upon completion of well construction, the wells will be surveyed by a licensed surveyor to a local benchmark relative to mean sea level. In order to comply with the standard surveying practices, the latitude and longitude (degree, minutes, seconds) location of each well will be surveyed.

4.1.5 Soil and Water Disposal

All investigation derived waste (IDW), including soil cuttings and purge water from well installation and development will be stored on-site in Department of Transportation-approved 55-gallon drums pending the results of chemical analyses. Analytical results will be used for waste profiling and disposal. After profiling, IDW will be transported and disposed at an appropriate disposal facility.

4.1.6 Report

Following the completion of these site assessment activities Stantec will submit a report documenting the findings of the investigation. The report will include soil boring logs, permits, soil analytical results, CoC documentation, conclusions, and recommendations as necessary.

5.0 Proposed Activities

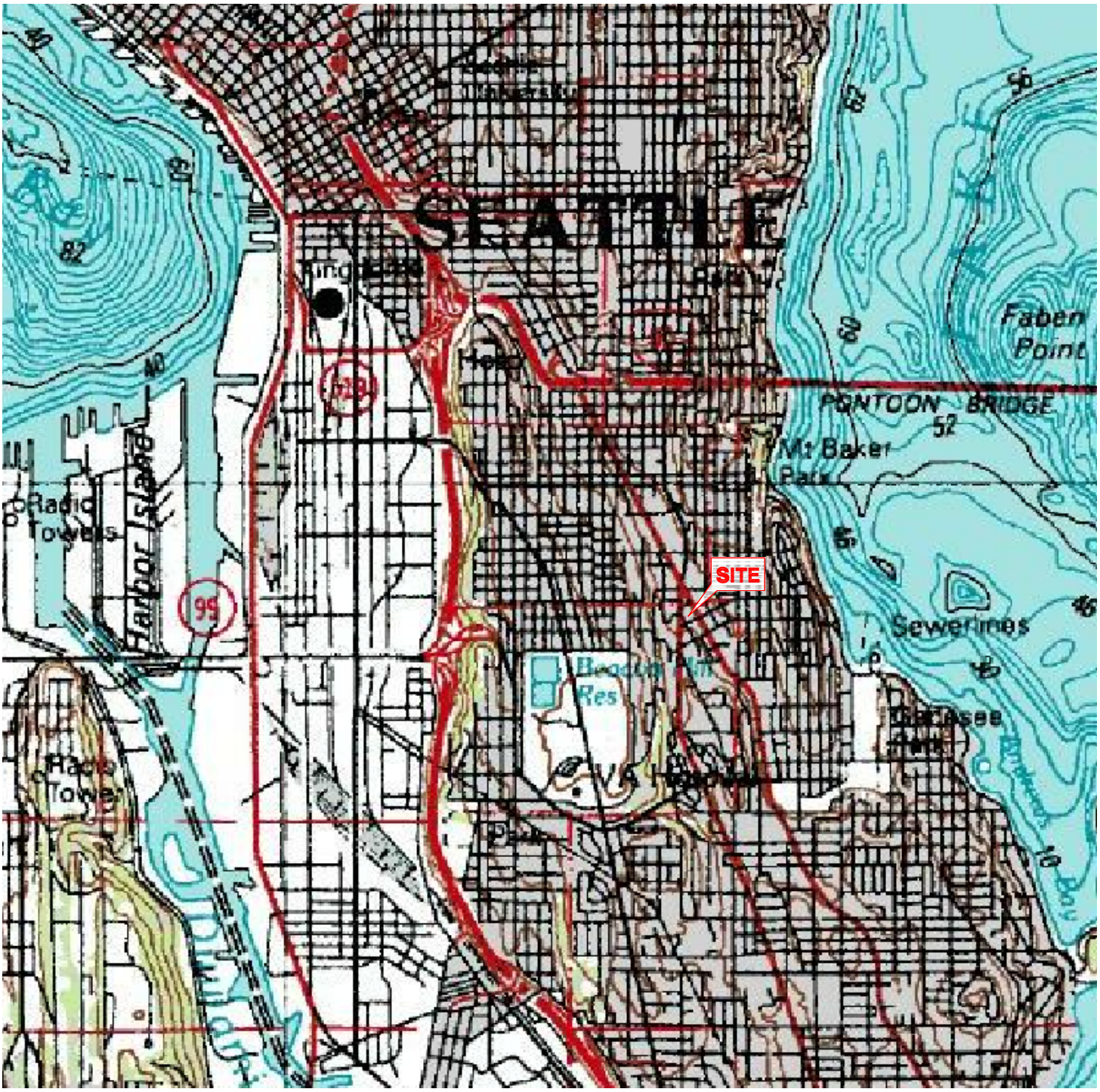
Based on available site data, Stantec recommends:

- Conduct groundwater monitoring and sampling of all site wells quarterly at the site.
- Complete the proposed scope of work for further assessment and monitoring well installation:
    - Phase 1; Install direct push borings to further define petroleum hydrocarbon impacts in soil and groundwater in the former western pump island area, in the former heating oil UST area, and in the southern portion of the site.
    - Phase 2; Install off- and on- site groundwater monitoring wells to further define petroleum hydrocarbon impacts in the former western pump island area and delineate the down-gradient of impacts to groundwater.

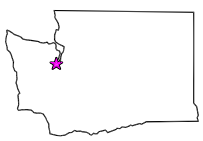
LIMITATIONS

This report has been prepared for the exclusive use of Chevron Environmental Management Company and ConocoPhillips Company, and its representatives as it pertains to the property located at 2800 Martin Luther King Way South, Seattle, Washington (or as it pertains to this site). The evaluation of subsurface conditions at the site for the purpose of this investigation is inherently limited due to the number of points of investigation. There are no representations, warranties, or guarantees that the results are representative of the entire site. Data from this report reflects the conditions at locations at a specified time. The conclusions contained herein are based on the analytical results, and professional judgment in accordance with current standards of professional practice. No other interpretation, representations, warranties, guarantees, expressed or implied, are included or intended in the report findings. Stantec assumes no responsibility for exploratory borings or data reported by any other consultants or contractors.

FIGURES



North



WASHINGTON

1 1/2 0 1

SCALE (MILES)

1000 0 1000 2000 3000 4000 5000 6000 7000

SCALE (FEET)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, SEATTLE NORTH, WASHINGTON

Stantec

FOR: FORMER TIDERWATER SERVICE STATION 2800 MARTIN LUTHER KING WAY SEATTLE, WASHINGTON		**SITE LOCATION MAP**		FIGURE: **1**
JOB NUMBER: 211402639.200.250	DRAWN BY: MDR	CHECKED BY: TG	APPROVED BY: DS	DATE: 01/13/10

SOUTH McCLELLAN STREET

76 UNION
SERVICE STATION

MARTIN LUTHER KING WAY

NW-UST-3
NW CORNER 2
GL-1
FORMER UST EXCAVATION
P-5
P-12
GL-2
P-14
P-13
MW-4
P-15
P-4
P-1
GL-3
NORTH PUMP-2
P-9
P-1
P-2
MW-3
IP-5
IP-1
EPI-N-2
MW-5
WPI-3
P-6
P-8
GL-4
P-11
IP-4
MW-1
SOUTH PUMP-2
P-7
P-3
IP-2
FORMER PUMP ISLAND
IP-3
MW-2
P-10
OWS-B-4.5
SUMP-B-4
FORMER STATION BUILDING
N. HOIST BOTTOM (9.5)
S. HOIST BOTTOM (8)
DENTIST OFFICE
GL-6
GL-5
UST1-B-8
FORMER HEATING OIL UST (REMOVED 02-02-05)
RESIDENTIAL YARDS
COMMERCIAL SHOPS
SCHOOL TRACK

N

0 40 80

APPROXIMATE SCALE IN FEET

LEGEND:

- MW-1 GROUNDWATER MONITORING WELL
- P-1 GEOPROBE BORING
- GL-1 AUGER BORING LOCATION WITH GROUNDWATER SAMPLE
- GL-2 AUGER BORING LOCATION
- IP-1 INJECTION WELL LOCATION
- B-4 SOIL SAMPLE LOCATION

Stantec

FOR: FORMER TIDERWATER SERVICE STATION
2800 MARTIN LUTHER KING WAY
SEATTLE, WASHINGTON

EXTENDED SITE PLAN

FIGURE: **2**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211402639.200.250	MDR	TG	DS	01/13/10

FILEPATH:M:\Tidewater\SEATTLE\FIG-2 TIDEWATER SEATTLE.dwg | Layout Tab: 11x17L | Drafter: miramirez | Jan 20, 2010 at 9:53

SOUTH McCLELLAN STREET

MARTIN LUTHER KING WAY

FORMER UST EXCAVATION

MW-4
86.54

MW-3
85.45

MW-5
85.10

MW-2
83.90

MW-1
86.84

86.5
86.0
85.5
85.0
84.5
84.0

GRADIENT 0.065

FORMER STATION BUILDING

FORMER PUMP ISLAND

DENTIST OFFICE

FORMER HEATING OIL UST (REMOVED 02-02-05)

RESIDENTIAL YARD

COMMERCIAL SHOPS

LEGEND:

MW-1 GROUNDWATER MONITORING WELL

GRADIENT APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT (FT/FT)

254.5 GROUNDWATER ELEVATION CONTOUR (FEET ABOVE MEAN SEA LEVEL)

253.95 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

N

0 25 50

APPROXIMATE SCALE IN FEET

Stantec

FOR: FORMER TIDERWATER SERVICE STATION 2800 MARTIN LUTHER KING WAY SEATTLE, WASHINGTON		**GROUNDWATER ELEVATION CONTOUR MAP NOVEMBER 12, 2009**		FIGURE: **3**
JOB NUMBER: 211402639.200.250	DRAWN BY: MDR	CHECKED BY: TG	APPROVED BY: DS	DATE: 01/13/10

FILEPATH:M:\Tidewater\SEATTLE\FIG-3 TIDEWATER SEATTLE-GW.dwg | Layout Tab: 11x17L | Drafter: miramirez | Jan 20, 2010 at 9:55

SOUTH McCLELLAN STREET

MW-4	11/12/09	06/28/06[1]
TPH-GRO	ND	ND
B	ND	ND
T	ND	ND
E	ND	ND
X	ND	ND

MW-3	11/12/09	08/15/05[1]
TPH-GRO	71.7	44,000
B	ND	4.1
T	ND	18
E	ND	780
X	ND	3,600

MW-5	11/12/09	08/15/05[1]
TPH-GRO	2,340	21,000
B	1.3	ND
T	36.3	14
E	ND	290
X	125	920

MW-1	11/12/09	08/19/05[1]
TPH-GRO	ND	ND
B	ND	ND
T	ND	ND
E	ND	ND
X	ND	ND

MW-2	11/12/09	08/15/05[1]
TPH-GRO	455	2,000
B	ND	ND
T	ND	10
E	ND	81
X	ND	91

FORMER UST EXCAVATION

MW-4

MW-3

MW-5

MW-1

MW-2

FORMER STATION BUILDING

DENTIST OFFICE

FORMER PUMP ISLAND

FORMER HEATING OIL UST (REMOVED 02-02-05)

RESIDENTIAL YARD

MARTIN LUTHER KING WAY

COMMERCIAL SHOPS

LEGEND:

MW-1 GROUNDWATER MONITORING WELL

[1] SAMPLE DATA FROM FIRST GROUNDWATER MONITORING EVENT FOLLOWING WELL INSTALLATION FOR COMPARISON PURPOSES

ANALYTES:

TPH-GRO	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	BENZENE
T	TOULENE
E	ETHYLBENZENE
X	TOTAL XYLENES
µg/L	MICROGRAMS PER LITER
ND	NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT

CHEMICAL ANALYTICAL RESULTS:

	SAMLPE LOCATION: MW-1	SAMLPE DATE: 11/12/09	08/15/05
ANALYTE	TPH-GRO	<50	<50
	B	<1.0	<1.0
	T	<1.0	<1.0
	E	<1.0	<1.0
	X	<3.0	<3.0

CONCENTRATION (µg/L) VIA NORTHWEST METHOD NWTPH-Gx

CONCENTRATION (µg/L) VIA EPA METHOD 8260B

N

0 25 50

APPROXIMATE SCALE IN FEET

Stantec

FOR:			FIGURE:
FORMER TIDERWATER SERVICE STATION 2800 MARTIN LUTHER KING WAY SEATTLE, WASHINGTON		**GROUNDWATER CHEMICAL CONCENTRATION**	**4**
JOB NUMBER: 211402639.200.250	DRAWN BY: MDR	CHECKED BY: TG	APPROVED BY: DS	DATE: 01/13/10

FILEPATH:M:\Tidewater\SEATTLE\2009\4th Qtr\FIG-4 TIDEWATER SEATTLE-CONC.dwg | Layout Tab: 11x17L | Drafter: miramirez | Jan 20, 2010 at 10:08

SOUTH McCLELLAN STREET

MARTIN LUTHER KING WAY

FORMER UST EXCAVATION

MW-4 <50

MW-3 71.7

MW-5 2,340

MW-1 <50

MW-2 455

1,000

100

<50

FORMER STATION BUILDING

DENTIST OFFICE

FORMER PUMP ISLAND

FORMER HEATING OIL UST (REMOVED 02-02-05)

RESIDENTIAL YARD

COMMERCIAL SHOPS

N

0 25 50

APPROXIMATE SCALE IN FEET

LEGEND:

- MW-1 GROUNDWATER MONITORING WELL
- 0.00 TPH-GRO ISOCONCENTRATION CONTOUR(µg/L)
- 455 TPH-GRO CONCENTRATION(µg/L)
- TPH-GRO TOTAL PETROLEUM HYDROCARBON IN THE GASOLINE RANGE
- µg/L MICROGRAMS PER LITER

Stantec

FOR:
FORMER TIDERWATER
SERVICE STATION
2800 MARTIN LUTHER KING WAY
SEATTLE, WASHINGTON

TPH-GRO ISOCONCENTRATION CONTOUR MAP FOURTH QUARTER 2009

FIGURE: **5**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211402639.200.250	MDR	TG	DS	01/13/10

FILEPATH:M:\Tidewater\SEATTLE\2009\4th Qtr\FIG-5 TIDEWATER SEATTLE-TPHG.dwg | Layout Tab: 11x17L | Drafter: miramirez | Jan 20, 2010 at 10:10

SOUTH McCLELLAN STREET

76 UNION
SERVICE STATION

MARTIN LUTHER KING WAY

FORMER UST EXCAVATION

GL-1

P-5

P-12

GL-2

P-14

P-13

MW-4

P-15

P-4

P-1

GL-3

P-1

P-2

P-9

MW-3

B-1

GL-4

MW-5

P-8

P-6

MW-8

MW-1

P-11

B-2

P-7

P-3

FORMER STATION BUILDING

FORMER PUMP ISLAND

MW-2

P-10

B-3

FORMER HEATING OIL UST (REMOVED 02-02-05)

GL-6

GL-5

B-4

MW-9

MW-6

MW-7

MW-10

DENTIST OFFICE

RESIDENTIAL YARDS

COMMERCIAL SHOPS

SCHOOL TRACK

N

0 40 80

APPROXIMATE SCALE IN FEET

LEGEND:

- MW-1 GROUNDWATER MONITORING WELL
- P-1 GEOPROBE BORING
- GL-1 AUGER BORING LOCATION
- PROPOSED WELL LOCATIONS
- PROPOSED DIRECT PUSH

Stantec

FOR:
FORMER TIDERWATER
SERVICE STATION
2800 MARTIN LUTHER KING WAY
SEATTLE, WASHINGTON

EXTENDED SITE PLAN WITH PROPOSED BORING LOCATIONS

FIGURE: **6**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211402926.300.250	MDR	TG	DS	03/22/10

FILEPATH:M:\Tidewater\SEATTLE\FIG-6 TIDEWATER SEATTLE-PROPOSED.dwg | Layout Tab: 11x17L | Drafter: miramirez | Mar 22, 2010 at 14:12

TABLES

Table 1
Groundwater Elevation and Analytical Data

Former Tidewater Site
Chevron Site 301233
ConocoPhillips Site 5173
2800 Martin Luther King Way
Seattle, WA

Sample ID	Date Sampled	Well Elevation (feet, amsl)	Depth to Water (feet, TOC)	Depth to SPH (feet TOC)	Product Thickness (feet)	Groundwater Elevation (feet, amsl)	NWTPH-Gx TPH-GRO [1] (ug/L)	EPA Method 8260B Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)
MW-1	08/19/05	**97.92**	13.01			84.91	ND	ND	ND	ND	ND
	10/27/05		12.62			85.30	ND	ND	ND	ND	ND
	12/27/05		--			--	ND	ND	ND	ND	ND
	01/12/08		9.03			88.89	--	--	--	--	--
	03/02/06		10.56			87.36	ND	ND	ND	ND	ND
	06/28/06		12.42			85.50	--	--	--	--	--
	12/01/06		9.33			88.59	--	--	--	--	--
	12/06/06		9.72			88.20	--	--	--	--	--
	02/28/07		11.04			86.88	--	--	--	--	--
	03/07/07		11.14			86.78	--	--	--	--	--
	04/11/07		11.06			86.86	ND	ND	ND	ND	ND
	10/15/08		--			--	<50	**0.2**	--	--	--
	11./12/09		11.08			86.84	<50	<1.0	<1.0	<1.0	<3.0
MW-2	08/19/05	**96.25**	13.02			83.23	**2,000**	ND	**10**	**81**	**91**
	10/27/05		13.62			82.63	**2,300**	ND	ND	**89**	**93**
	12/27/05		--			--	**820**	ND	ND	**21**	**66**
	01/12/06		5.77			90.48	--	--	--	--	--
	03/02/06		11.82			84.43	**1,300**	ND	**3.9**	**23**	**50**
	04/13/06		13.06			83.19	**470**	ND	**1.4**	**6.9**	**15**
	06/28/06		12.40			83.85	--	--	--	--	--
	09/11/06		13.64			82.61	**580**	ND	**1.6**	**2.9**	**6.2**
	12/01/06		10.65			85.60	--	--	--	--	--
	12/06/06		10.20			86.05	--	--	--	--	--
	01/12/07		11.06			85.19	--	--	--	--	--
	02/12/07		--			--	**1,400**	**1.4**	**3.5**	**16**	**13**
	02/28/07		11.65			84.60	**1,200**	**1.8**	**3.7**	**18**	**60**
	03/07/07		11.43			84.82	--	--	--	--	--
	04/11/07		11.07			85.18	**1,200**	ND	**2.8**	**11**	**63**
	10/15/08		--			--	**765**	**2.38**	--	--	--
	11./12/09		12.35			83.90	**455**	<1.0	<1.0	<1.0	<3.0

Table 1
Groundwater Elevation and Analytical Data

Former Tidewater Site
Chevron Site 301233
ConocoPhillips Site 5173
2800 Martin Luther King Way
Seattle, WA

							NWTPH-Gx	EPA Method 8260B			
Sample ID	Date Sampled	Well Elevation (feet, amsl)	Depth to Water (feet, TOC)	Depth to SPH (feet TOC)	Product Thickness (feet)	Groundwater Elevation (feet, amsl)	TPH-GRO [1] (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)
MW-3	08/19/05	**97.43**	12.72			84.71	**44,000**	**4**	**18**	**780**	**3,600**
	10/27/05		13.42			84.01	**17,000**	ND	**38**	**580**	**3,000**
	12/27/05		--			--	**6,600**	**5.0**	**22**	**200**	**1,100**
	01/12/06		8.84			88.59	--	--	--	--	--
	03/02/06		10.90			86.53	**22,000**	ND	**26**	**450**	**4,200**
	04/13/06		11.92			85.51	**33,000**	ND	**3.4**	**700**	**3,100**
	06/28/06		12.17			85.26	**53,000**	ND	**17**	**530**	**2,600**
	08/13/06		13.91			83.52	--	--	--	--	--
	09/11/06		13.77			83.66	**14,000**	ND	**5.6**	**180**	**1,100**
	10/13/06		--			--	**1,400**	ND	**1.0**	**26**	**98**
	11/17/06		10.56			86.87	**48,000**	ND	**34**	**490**	**4,100**
	12/01/06		9.78			87.65	--	--	--	--	--
	12/06/06		10.01			87.42	--	--	--	--	--
	01/12/07		10.90			86.53	--	--	--	--	--
	02/12/07		--			--	**36,000**	ND	**10**	**280**	**1,800**
	02/28/07		11.12			86.31	**22,000**	ND	**5.8**	**200**	**1,400**
	03/07/07		11.17			86.26	**21,000**	ND	**18**	**170**	**1,000**
	04/11/07		11.04			86.39	**19,000**	ND	**5.5**	**110**	**1,100**
	10/15/08		--			--	**2,740**	<0.2	--	--	--
	11./12/09		11.98			85.45	**71.7**	<1.0	<1.0	<1.0	<3.0
MW-4	06/28/06	**98.36**	12.40			85.96	ND	ND	ND	ND	ND
	12/01/06		9.90			88.46	--	--	--	--	--
	12/06/06		10.21			88.15	--	--	--	--	--
	02/28/07		11.43			86.93	--	--	--	--	--
	03/07/07		11.49			86.87	ND	ND	ND	ND	ND
	04/11/07		11.27			87.09	ND	ND	ND	ND	ND
	10/15/08		--			--	<50	<0.2	--	--	--
	11/12/09		11.82			86.54	<50	<1.0	<1.0	<1.0	<3.0

Table 1
Groundwater Elevation and Analytical Data

Former Tidewater Site
Chevron Site 301233
ConocoPhillips Site 5173
2800 Martin Luther King Way
Seattle, WA

							NWTPH-Gx	EPA Method 8260B			
Sample ID	Date Sampled	Well Elevation (feet, amsl)	Depth to Water (feet, TOC)	Depth to SPH (feet TOC)	Product Thickness (feet)	Groundwater Elevation (feet, amsl)	TPH-GRO [1] (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)
MW-5	06/28/06	**97.20**	12.09			85.11	**21,000**	ND	**14**	**290**	**920**
	09/11/06		13.63			83.57	**2,500**	ND	ND	**34**	**60**
	11/17/06		10.57			86.63	**23,000**	ND	**52**	**450**	**1,700**
	12/01/06		9.75			87.45	--	--	--	--	--
	01/12/07		10.85			86.35	--	--	--	--	--
	02/12/07		--			--	**37,000**	ND	**33**	**1,600**	**2,800**
	02/28/07		11.05			86.15	**29,000**	ND	**24**	**550**	**1,800**
	03/07/07		11.11			86.09	**42,000**	**11.0**	**24**	**740**	**2,500**
	04/11/07		10.96			86.24	**65,000**	ND	**79**	**850**	**4,000**
	10/15/08		--			--	**127**	**0.710**	--	--	--
	11/12/09		12.10			85.10	**2,340**	**1.3**	**36.3**	<1.0	**125**
B-4	11/13/2008		--			--	<50	<0.2	--	--	--
TB	11/12/2009	---	---		---	---	<50	<1.0	<1.0	<1.0	<3.0
MTCA Method A Soil Cleanup Level							**1,000 (a)/800 (b)**	**5.0**	**1,000**	**700**	**1,000**

Explanation:
TB = Trip blank
EPA = Environmental Protection Agency
bgs = below ground surface
amsl = above mean sea level
TOC = top of casing
TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics
ug/L= micrograms per liter
MTCA = Model Toxics Control Acts per Washington Department of Ecology
-- = Not applicable
ND = Not detected at or above laboratory method reporting limit.

Notes:
[1] TPH-GRO per Northwest Method NWTPH-Gx.
(a) = Groundwater Cleanup Level for gasoline with no detectable benzene.
(b) = Groundwater Cleanup Level for gasoline with detectable benzene.
2,000 = Bold number(s) indicates concentration detected.
2,000 = Bold number(s) and shading indicates concentration exceeds MTCA Method A Cleanup Level.

APPENDIX A

GROUNDWATER MONITORING AND SAMPLING FIELD DATA SHEETS

JOB NAME:	**Tidewater Seattle**	JOB NUMBER:	211402639.200.250
ADDRESS:	2800 MLK Jr Way South	START DATE:	11/05/09 ~ 11/12/09
ADDRESS:	Seattle, WA	DATE PREPARED:	11/03/09
PREPARED FOR:	Matthew Tolley	PREPARED BY:	Julie Pyzer

Stantec - SITE VISITATION REPORT

Did you call in? (Yes) No — Arrival Time: 10:00

Who did you call? JEFF COLLINS (UM), JULIE PYZER (UM), JEFF THOMPSON — Departure Time: 17:00

Weather Notations: (SUN) RAIN CLOUDY SNOW — Temperature: 42° — OnSite Time: 7.0 HRS

PURPOSE OF VISIT: Conduct M&S Event

DESCRIPTION OF ACTIVITIES ON SITE AND NOTES

DRUM INVENTORY: Type: Number: 1 (20 Gallon) Contents: PURGE AND DECON WATER.

10:00 ARRIVED ONSITE. DONNED PPE, HASP. MET WITH GREG McCORMICK FROM ENVIRONMENTAL PARTNERSHIP INC.

10:15 CONDUCTED TAILGATE SAFETY MEETING. ADDRESSED TRAFFIC AND ACCESS HAZARDS / CONCERNS. SET-UP DECON.

10:25 CONDUCT SITE WALK, PHOTODOCUMENT SITE CONDITIONS

10:30 CITY CONSTRUCTIONS WORKERS ONSITE CONDUCTING CURB REPAIRS ON SIDEWALK INTERSECTION. COVERING WELLS. AM CONSTRUCTION CREW MOVE WORK TRUCKS. WELLS NOW ACCESSABLE.

10:45 ATTEMPT TO OPEN LOCK ON GATE ENCLOSING SITE AREA. GATE IN POOR SHAPE, NOT WORKING. REMOVED LOCK & HINGE. REPAIRED GATE TO A FUNCTIONAL CONDITION.

11:00 PERFORM SITE WALK OF GATED AREA, PHOTODOCUMENT CONDITIONS OPEN / FIND WELL MW-1. MISSING BOLTS (3). BOLTS REPLACED.

11:20 MEASURE DTW / DTB IN MW-1

11:30 SET-UP DELINEATION ON STREET SIDE (NON-GATED) OF SITE OPEN WELLS MW-2, MW-3, MW-4, MW-5. WAIT FOR TRUCK TO MOVE / PURGE WORKS D

12:00 CALL JEFF WITH UPDATE. CUT TUBING FOR WELLS. MEASURE DTW / DTB IN WELLS MW-2 MW-3, MW-4, MW-5. BUY ICE SAMPLED CLEAN-DIRTY.

13:30 BEGIN SAMPLING MW-1 / FINISH AT 13:40 PURGED

13:55 BEGIN SAMPLING MW-4 / FINISH @ 14:35

14:40 BEGIN SAMPLING MW-2 / FINISH @ 15:20

15:30 BEGIN SAMPLING MW-5 / FINISH @ 16:00

16:00 BEGIN SAMPLE MW-3 / FINISH @ 16:35

" GREG OFFSITE

16:45. PACK COOLERS. LABEL & STORE DRUM. FINAL PHOTOS. BREAKDOWN DELINEATION & EQUIPMENT. LOCK GATE

15:05 CALL JEFF COLLINS INFORM OF DEPARTURE FROM SITE. EN ROUTE TO OFFICE. 1 DRUM ONSITE ~ 15 GALLONS

JOB NAME:	**Tidewater Seattle**	JOB NUMBER:	211402639.200.250
ADDRESS:	2800 MLK Jr Way South	START DATE:	11/05/09 11/12 09.
ADDRESS:	Seattle, WA	DATE PREPARED:	11/03/09
PREPARED FOR:	Matthew Tolley	PREPARED BY:	Julie Pyzer

Stantec - SITE VISITATION REPORT (continued)

Health and Safety Notes:

- HIGH TRAFFIC AREA WITH 4 OUT OF 5 WELLS IN SIDEWALK.
- ENCLOSED PORTION OF SITE IS IN NEED OF IMPROVED HOUSEKEEPING DUE TO THE FOLLOWING HAZARD CONCERNS:
  - OVERGROWN SITE DUE TO GRASS
  - LARGE PILE OF RUBBEL (CONCRETE WASTE) ONSITE
  - FORMER STATION BUILDING OVERGROWN
  - 2 PREVIOUS DRUMS ONSITE
  - UNEVEN SURFACES NEAR BUILDING.
  - GATE IS/WAS DIFFICULT TO ACCESS.

NOTE!

- DECIMATE UNGATED WELLS WHEN SAMPLING
- LIMITED ROOM FOR FIELD TRUCK ONSITE.
- HIGH VOLUME OF PEDESTRIAN TRAFFIC.
- HIGH VOLUME OF CONSTRUCTION OCCURING.

- POTENTIAL HAZARDS IDENTIFIED, AVOIDED, MITIGATED WHEN NECESSARY AND PHOTODOCUMENTED.

JOB NAME:	**Tidewater Seattle**	JOB NUMBER:	211402639.200.250
ADDRESS:	2800 MLK Jr Way South	START DATE:	11/05/09
ADDRESS:	Seattle, WA	DATE PREPARED:	11/03/09
PREPARED FOR:	Matthew Tolley	PREPARED BY:	Julie Pyzer

Stantec - GROUND WATER GAUGING FORM

MEASURED TO TOC Top of Casing

WELL I.D.	Gauge Order	WELL DIAM.	4Q09 DTB (ft)	4Q09 DTP (ft below TOC)	4Q09 DTW (ft below TOC)		NOTES OR COMMENTS (Was there sheen?)
MW-1	1	2"	23.5✓	N/A	11.08		NO SHEEN
MW-2	2	2"	~~21.18~~		12.35		NO SHEEN
MW-3	3	2"	20.10		11.98		NO SHEEN
MW-4	4	2"	19.45		11.82		NO SHEEN
MW-5	5	1"	18.00		12.10		NO SHEEN.

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211402639.200.250 PURGED BY: _____ WELL I.D.: MW- 1

CLIENT NAME: Tidewater Seattle SAMPLED BY: Matthew Tolley SAMPLE I.D.: MW-1

LOCATION: 2800 MLK Jr. Way South Seattle, WA QA SAMPLES: _____

DATE PURGED 11/12/09 START (2400hr) 13:11 END (2400hr) 13:40

DATE SAMPLED 11/12/09 SAMPLE TIME (2400hr) 13:30

SAMPLE TYPE: Groundwater X Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" X 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____

Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ( )

DEPTH TO BOTTOM (feet) = 23.50 CASING VOLUME (gal) = 2.0 Gallons.

DEPTH TO WATER (feet) = 11.08 CALCULATED PURGE (gal) = 6.0 Gallons.

WATER COLUMN HEIGHT (feet) = 12.42 ACTUAL PURGE (gal) = 4.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
11/12/09	13:16	.500	13.29	.103	7.66	SLT RUST	- 7.0
	13:19	.250	13.29	.100	7.96	"	- 5.0
	13:22	.250	13.27	.099	8.24	CLEAR	- 5.0

Post Purge Measurements

Dissolved Oxygen 2.1 ORP - 130 mV

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 14.40 SAMPLE TURBIDITY: - 5.0

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order TPH-G, BTEX.

ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 VOAs / HCl

PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump ___ Dedicated _____
Other: _____
Pump Depth: _____

SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (___ PVC or ___ disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump ___ Dedicated _____
Other: _____

WELL INTEGRITY: FAIR LOCK#: YES.

REMARKS: NEEDS BOLTS. NEW BOLTS ADDED.

SIGNATURE: Matthew Tolley Page ___ of ___

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211402639.200.250 PURGED BY: Matt Tolley WELL I.D.: MW- 2

CLIENT NAME: Tidewater Seattle SAMPLED BY: Matthew Tolley SAMPLE I.D.: MW-2

LOCATION: 2800 MLK Jr. Way South Seattle, WA QA SAMPLES: _____

DATE PURGED 11/12/09 START (2400hr) 14:40 END (2400hr) 15:20

DATE SAMPLED 11/12/09 SAMPLE TIME (2400hr) 15:00

SAMPLE TYPE: Groundwater X Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER: 2" X 3" _____ 4" _____ 5" _____ 6" _____ 8" _____ Other _____

Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ( )

DEPTH TO BOTTOM (feet) = 21.16 CASING VOLUME (gal) = 1.5

DEPTH TO WATER (feet) = 12.35 CALCULATED PURGE (gal) = 4.5

WATER COLUMN HEIGHT (feet) = 8.85 ACTUAL PURGE (gal) = 4.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME ~~(gal)~~ L	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
11/12/09	14:45	.500	15.34	56.2	10.78	GREY	~~-~~ 4.0
11/12/09	14:48	.250	15.19	56.2	10.85	GREY.	~~-~~ 5.0
11/12/09	14:51	.250	15.26	56.0	10.84	MILKY.	~~-~~ 5.0

Post Purge Measurements

Dissolved Oxygen 1.8 ORP -170 mv

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: NM 14.67 SAMPLE TURBIDITY: ~~0.5~~ - 5.0

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order TPH-G, BTEX

ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 VOAs / HCl

PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump ___ Dedicated _____

Other: _____

Pump Depth: _____

SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (___ PVC or ___ disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump ___ Dedicated _____

Other: _____

WELL INTEGRITY: Good. LOCK#: YES.

REMARKS: BEST IN CLASS.
NEW TUBING INSTALLED.

SIGNATURE: _____ Page ___ of ___

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211402639.200.250 PURGED BY: M. TOLLEY WELL I.D.: MW- 3

CLIENT NAME: Tidewater Seattle SAMPLED BY: Matthew Tolley SAMPLE I.D.: MW-3

LOCATION: 2800 MLK Jr. Way South Seattle, WA QA SAMPLES: _____

DATE PURGED 11/12/09 START (2400hr) 15:56 END (2400hr) 16:25

DATE SAMPLED 11/12/09 SAMPLE TIME (2400hr) 16:10

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" X 3" ____ 4" ____ 5" ____ 6" ____ 8" ____ Other ____

Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ( )

DEPTH TO BOTTOM (feet) = 20.10 CASING VOLUME (gal) = 1.38 x 1.5

DEPTH TO WATER (feet) = 11.98 CALCULATED PURGE (gal) = 4.14

WATER COLUMN HEIGHT (feet) = 8.12 ACTUAL PURGE (gal) = 4.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
11/12/09	16:03	500	13.85	66.4	11.09	C	ERROR
	16:06	350	14.00	66.5	11.20	C	
	16:09	250		66.6	11.11	C	

Post Purge Measurements

Dissolved Oxygen 2.1 ORP -177

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 13.45 SAMPLE TURBIDITY: ORG.

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order TPH-G, BTEX.

ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 VOAs / HCl

PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump X Dedicated TUBING

Other: _____

Pump Depth: _____

SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (___ PVC or ___ disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump X Dedicated TUBING

Other: _____

WELL INTEGRITY: GOOD LOCK#: YES

REMARKS: TURBIDITY READING NOT RECORDED DUE TO INSTRUMENT ERROR. EXTREMELY HIGH.

SIGNATURE: _____ Page ___ of ___

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211402639.200.250 PURGED BY: M. TOLLEY WELL I.D.: MW- 4

CLIENT NAME: Tidewater Seattle SAMPLED BY: Matthew Tolley SAMPLE I.D.: MW-4

LOCATION: 2800 MLK Jr. Way South Seattle, WA QA SAMPLES: _____

DATE PURGED 11/12/09 START (2400hr) 13:54 END (2400hr) 14:35

DATE SAMPLED 11/12/09 SAMPLE TIME (2400hr) 14:20

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" X 3" ____ 4" ____ 5" ____ 6" ____ 8" ____ Other ____

Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ( )

DEPTH TO BOTTOM (feet) = 19.45 CASING VOLUME (gal) = 1.3

DEPTH TO WATER (feet) = 11.02 CALCULATED PURGE (gal) = 3.9

WATER COLUMN HEIGHT (feet) = 7.43 ACTUAL PURGE (gal) = 4.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm) mS/m	pH (units)	COLOR (visual)	TURBIDITY (NTU)
11/12/09	13:59	.500 GAL	15.15	73.6	10.52	GREY	- 5.0
	14:02	.250	15.40	73.7	10.71	GREY	- 5.0
	14:05	.250	15.65	72.5	10.67	CLEAR	- 5.0
	14:08	.250	15.77	72.9	10.76	CLEAR	- 5.0

Post Purge Measurements

Dissolved Oxygen 3.5 ORP - 169

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 14.75 SAMPLE TURBIDITY: - 5.0

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order TPH-G, BTEX

ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 VOAs / HCl

PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump ___ Dedicated ____

Other: ____

Pump Depth: ____

SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (___ PVC or ___ disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump ___ Dedicated ____

Other: ____

WELL INTEGRITY: GOOD LOCK#: YES

REMARKS: SOME RUST IN WELL MONUMENT.

SIGNATURE: Matthew Tolley

Page ___ of ___

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211402639.200.250 PURGED BY: Matt Tolley WELL I.D.: MW- 5

CLIENT NAME: Tidewater Seattle SAMPLED BY: Matthew Tolley SAMPLE I.D.: MW-5

LOCATION: 2800 MLK Jr. Way South Seattle, WA QA SAMPLES:

DATE PURGED 11/12/09 START (2400hr) 15:30 END (2400hr) 15:57

DATE SAMPLED 11/12/09 SAMPLE TIME (2400hr) 15:45 MT

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" ____ 3" ____ 4" ____ 5" ____ 6" ____ 8" ____ Other 1" ( )

Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60)

DEPTH TO BOTTOM (feet) = 18.00 CASING VOLUME (gal) = 9.0

DEPTH TO WATER (feet) = 12.10 CALCULATED PURGE (gal) = 4.0 (+)

WATER COLUMN HEIGHT (feet) = 5.90 ACTUAL PURGE (gal) = 2.5

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME ~~(gal)~~ L	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm) in S/m	pH (units)	COLOR (visual)	TURBIDITY (NTU)
11/12/09	15:35	.500	14.93	61.2	10.94	Milky	- 5.1
	15:38	.250	15.06	60.7	11.07	Grey	- 5.0
	15:41	.250	15.30	60.7	11.13	Grey	- 5.2

Post Purge Measurements

Dissolved Oxygen 1.6 g/L ORP -184 mV

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 13.79 SAMPLE TURBIDITY: - 5.0

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order TPH-G, BTEX

ODOR: NONE SAMPLE VESSEL / PRESERVATIVE: 6 VOAs / HCl

PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump X Dedicated TUBING
Other: ____
Pump Depth: ____

SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (___ PVC or ___ disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump X Dedicated TUBING
Other: ____

WELL INTEGRITY: Good LOCK#: YES

REMARKS: SMALL 1" CASING DIAMETER WELL.

SIGNATURE: Matthew J

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1240997

Section A Required Client Information:

Company: STANTEC
Address: 12034 134TH CT NE Suite 152
REDMOND WA 98052
Email To: jeff.collins@stantec.com
Phone: (916) 861-0400 Fax:
Requested Due Date/TAT: STND 14 DAY

Section B Required Project Information:

Report To: jeff.collins@stantec.com
Copy To: Matthew.talley@stantec.com
Purchase Order No.:
Project Name: TIDEWATER SEATTLE
Project Number: 21140639.200.250

Section C Invoice Information:

Attention: SAME
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: WA.

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	Sample ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	TRH-G	BTEX / VOC's 8260B	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1	WT	G			11/12/09	13:30		6				X					X	X			
2	MW-2	WT	G			11/12/09	15:20		6				X					X	X			
3	MW-3	WT	G			11/12/09	16:10		6				X					X	X			
4	MW-4	WT	G			11/12/09	14:20		6				X					X	X			
5	MW-5	WT	G			11/12/09	15:45		6				X					X	X			
6																						
7	TRIP BLANK	WT	G			-	-		6									X	X			
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
BTEX / VOC's 8260B	Matt Talley / Stantec	11/13/09	13:00				

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Talley

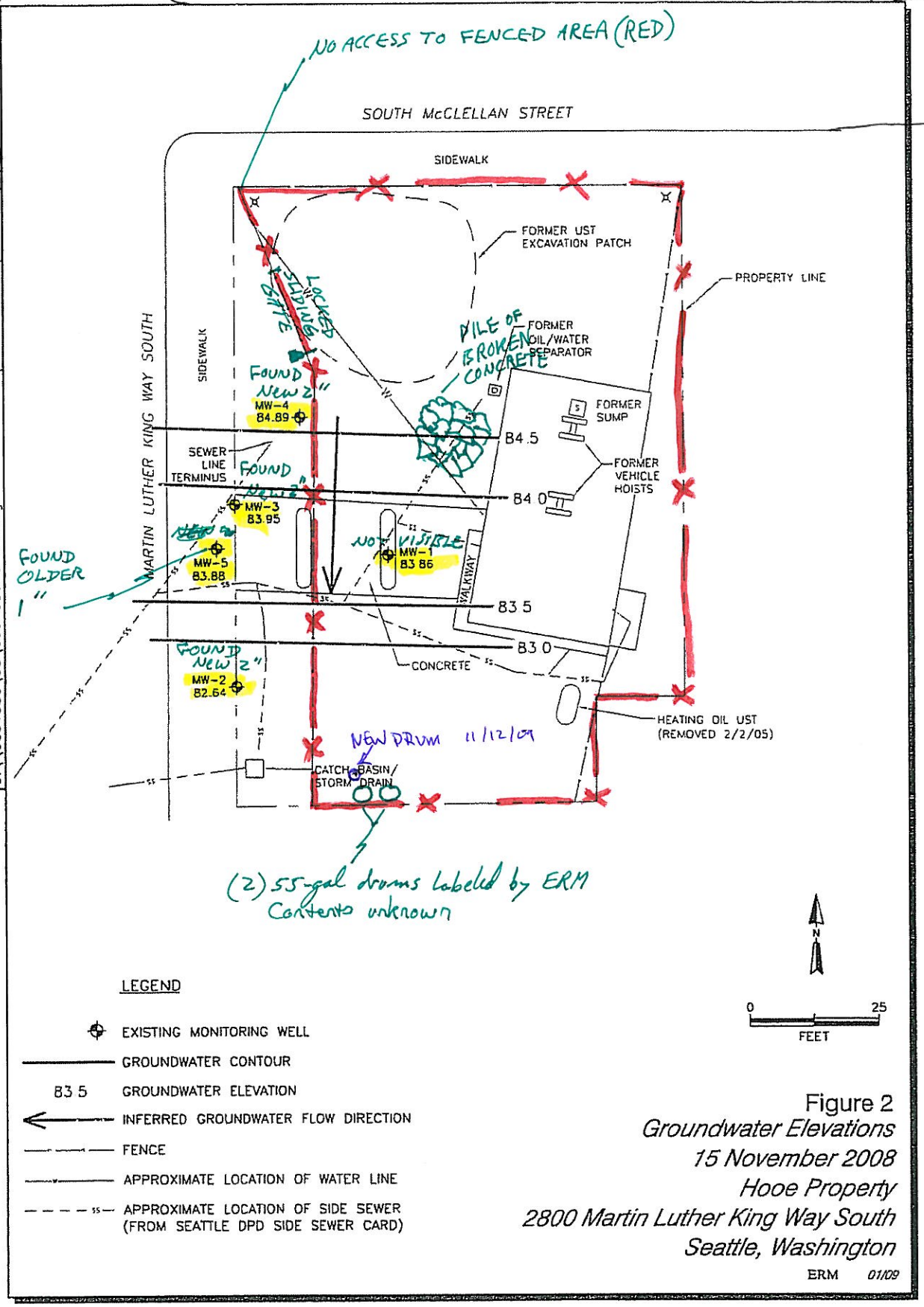
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

DRY CLEANER

COP / 76 Gas Station



CAD File: G:\009188600\00\009188600-01.dwg
Drawn By: R. Olson
Date: 01/30/09
Project No. 009188600.00

Figure 2
Groundwater Elevations
15 November 2008
Hooe Property
2800 Martin Luther King Way South
Seattle, Washington

ERM 01/09

APPENDIX B

CERTIFIED LABORATORY ANALYTICAL RESULTS, CHAIN-OF-CUSTODY DOCUMENTATION AND STANTEC LABORATORY VALIDATION FORM

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

November 24, 2009

Jeff Collins
COP_Stantec Washington
12034 134th CT NE
Redmond, WA 98052

RE: Project: Tide Water - 211402639.200.250
Pace Project No.: 252524

Dear Jeff Collins:
Enclosed are the analytical results for sample(s) received by the laboratory on November 13, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

8260 Full list was changed to BTEX per client on 11/16/09.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Gross

jennifer.gross@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

CERTIFICATIONS

Project: Tide Water - 211402639.200.250
Pace Project No.: 252524

Washington Certification IDs

940 South Harney Street Seattle, WA 98108
Washington Certification #: C1229
Oregon Certification #: WA200007
Alaska CS Certification #: UST-025
California Certification #: 01153CA
Alaska Drinking Water Micro Certification #: WA01230
Alaska Drinking Water VOC Certification #: WA01-09
Florida/NELAP Certification #: E87617

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

SAMPLE ANALYTE COUNT

Project: Tide Water - 211402639.200.250
Pace Project No.: 252524

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
252524001	**MW-1**	EPA 5030B/8260	LNH	8	PASI-S
		NWTPH-Gx	ATH	3	PASI-S
252524002	**MW-2**	EPA 5030B/8260	LNH	8	PASI-S
		NWTPH-Gx	ATH	3	PASI-S
252524003	**MW-3**	EPA 5030B/8260	LNH	8	PASI-S
		NWTPH-Gx	ATH	3	PASI-S
252524004	**MW-4**	EPA 5030B/8260	LNH	8	PASI-S
		NWTPH-Gx	ATH	3	PASI-S
252524005	**MW-5**	EPA 5030B/8260	LNH	8	PASI-S
		NWTPH-Gx	ATH	3	PASI-S
252524006	**Trip Blank**	EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	ATH	3	PASI-S

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

ANALYTICAL RESULTS

Project: Tide Water - 211402639.200.250
Pace Project No.: 252524

Sample: MW-1 **Lab ID: 252524001** Collected: 11/12/09 13:30 Received: 11/13/09 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
Gasoline Range Organics	ND	ug/L	50.0	1		11/24/09 05:27		
a,a,a-Trifluorotoluene (S)	109	%	50-150	1		11/24/09 05:27	98-08-8	
4-Bromofluorobenzene (S)	91	%	50-150	1		11/24/09 05:27	460-00-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		11/19/09 23:35	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		11/19/09 23:35	100-41-4	
Toluene	ND	ug/L	1.0	1		11/19/09 23:35	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		11/19/09 23:35	1330-20-7	
4-Bromofluorobenzene (S)	99	%	80-120	1		11/19/09 23:35	460-00-4	
Dibromofluoromethane (S)	106	%	80-122	1		11/19/09 23:35	1868-53-7	
1,2-Dichloroethane-d4 (S)	109	%	80-124	1		11/19/09 23:35	17060-07-0	
Toluene-d8 (S)	97	%	80-123	1		11/19/09 23:35	2037-26-5	

Sample: MW-2 **Lab ID: 252524002** Collected: 11/12/09 15:00 Received: 11/13/09 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
Gasoline Range Organics	**455**	ug/L	50.0	1		11/24/09 05:51		
a,a,a-Trifluorotoluene (S)	113	%	50-150	1		11/24/09 05:51	98-08-8	
4-Bromofluorobenzene (S)	118	%	50-150	1		11/24/09 05:51	460-00-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		11/19/09 23:57	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		11/19/09 23:57	100-41-4	
Toluene	ND	ug/L	1.0	1		11/19/09 23:57	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		11/19/09 23:57	1330-20-7	
4-Bromofluorobenzene (S)	102	%	80-120	1		11/19/09 23:57	460-00-4	
Dibromofluoromethane (S)	105	%	80-122	1		11/19/09 23:57	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	80-124	1		11/19/09 23:57	17060-07-0	
Toluene-d8 (S)	97	%	80-123	1		11/19/09 23:57	2037-26-5	

Sample: MW-3 **Lab ID: 252524003** Collected: 11/12/09 16:10 Received: 11/13/09 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
Gasoline Range Organics	**71.7**	ug/L	50.0	1		11/24/09 06:14		
a,a,a-Trifluorotoluene (S)	113	%	50-150	1		11/24/09 06:14	98-08-8	
4-Bromofluorobenzene (S)	99	%	50-150	1		11/24/09 06:14	460-00-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		11/20/09 00:20	71-43-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

ANALYTICAL RESULTS

Project: Tide Water - 211402639.200.250
Pace Project No.: 252524

Sample: MW-3 **Lab ID: 252524003** Collected: 11/12/09 16:10 Received: 11/13/09 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260							
Ethylbenzene	ND	ug/L	1.0	1		11/20/09 00:20	100-41-4	
Toluene	ND	ug/L	1.0	1		11/20/09 00:20	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		11/20/09 00:20	1330-20-7	
4-Bromofluorobenzene (S)	101	%	80-120	1		11/20/09 00:20	460-00-4	
Dibromofluoromethane (S)	104	%	80-122	1		11/20/09 00:20	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	80-124	1		11/20/09 00:20	17060-07-0	
Toluene-d8 (S)	98	%	80-123	1		11/20/09 00:20	2037-26-5	

Sample: MW-4 **Lab ID: 252524004** Collected: 11/12/09 14:20 Received: 11/13/09 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
Gasoline Range Organics	ND	ug/L	50.0	1		11/23/09 18:07		
a,a,a-Trifluorotoluene (S)	114	%	50-150	1		11/23/09 18:07	98-08-8	
4-Bromofluorobenzene (S)	101	%	50-150	1		11/23/09 18:07	460-00-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		11/20/09 00:42	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		11/20/09 00:42	100-41-4	
Toluene	ND	ug/L	1.0	1		11/20/09 00:42	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		11/20/09 00:42	1330-20-7	
4-Bromofluorobenzene (S)	103	%	80-120	1		11/20/09 00:42	460-00-4	
Dibromofluoromethane (S)	106	%	80-122	1		11/20/09 00:42	1868-53-7	
1,2-Dichloroethane-d4 (S)	111	%	80-124	1		11/20/09 00:42	17060-07-0	
Toluene-d8 (S)	97	%	80-123	1		11/20/09 00:42	2037-26-5	

Sample: MW-5 **Lab ID: 252524005** Collected: 11/12/09 15:45 Received: 11/13/09 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
Gasoline Range Organics	**2340**	ug/L	50.0	1		11/23/09 21:16		
a,a,a-Trifluorotoluene (S)	113	%	50-150	1		11/23/09 21:16	98-08-8	
4-Bromofluorobenzene (S)	145	%	50-150	1		11/23/09 21:16	460-00-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**1.3**	ug/L	1.0	1		11/20/09 01:05	71-43-2	
Ethylbenzene	**36.3**	ug/L	1.0	1		11/20/09 01:05	100-41-4	
Toluene	ND	ug/L	1.0	1		11/20/09 01:05	108-88-3	
Xylene (Total)	**125**	ug/L	3.0	1		11/20/09 01:05	1330-20-7	
4-Bromofluorobenzene (S)	104	%	80-120	1		11/20/09 01:05	460-00-4	
Dibromofluoromethane (S)	105	%	80-122	1		11/20/09 01:05	1868-53-7	
1,2-Dichloroethane-d4 (S)	108	%	80-124	1		11/20/09 01:05	17060-07-0	

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

ANALYTICAL RESULTS

Project: Tide Water - 211402639.200.250
Pace Project No.: 252524

Sample: MW-5 **Lab ID: 252524005** Collected: 11/12/09 15:45 Received: 11/13/09 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260							
Toluene-d8 (S)	96	%	80-123	1		11/20/09 01:05	2037-26-5	

Sample: Trip Blank **Lab ID: 252524006** Collected: 11/12/09 00:00 Received: 11/13/09 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
Gasoline Range Organics	ND	ug/L	50.0	1		11/23/09 17:43		
a,a,a-Trifluorotoluene (S)	114	%	50-150	1		11/23/09 17:43	98-08-8	
4-Bromofluorobenzene (S)	100	%	50-150	1		11/23/09 17:43	460-00-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		11/23/09 11:27	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		11/23/09 11:27	100-41-4	
Toluene	ND	ug/L	1.0	1		11/23/09 11:27	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		11/23/09 11:27	1330-20-7	
4-Bromofluorobenzene (S)	106	%	80-120	1		11/23/09 11:27	460-00-4	
Dibromofluoromethane (S)	89	%	80-122	1		11/23/09 11:27	1868-53-7	
1,2-Dichloroethane-d4 (S)	92	%	80-124	1		11/23/09 11:27	17060-07-0	
Toluene-d8 (S)	104	%	80-123	1		11/23/09 11:27	2037-26-5	

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(206)767-5060

QUALITY CONTROL DATA

Project: Tide Water - 211402639.200.250
Pace Project No.: 252524

QC Batch: GCV/1338 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx GCV Water
Associated Lab Samples: 252524001, 252524002, 252524003

METHOD BLANK: 16309 Matrix: Water
Associated Lab Samples: 252524001, 252524002, 252524003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	ug/L	ND	50.0	11/23/09 22:49	2n
4-Bromofluorobenzene (S)	%	94	50-150	11/23/09 22:49	
a,a,a-Trifluorotoluene (S)	%	107	50-150	11/23/09 22:49	

LABORATORY CONTROL SAMPLE: 16310

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	ug/L	250	333	133	50-163	
4-Bromofluorobenzene (S)	%			106	50-150	
a,a,a-Trifluorotoluene (S)	%			131	50-150	

SAMPLE DUPLICATE: 16406

Parameter	Units	252522005 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	ug/L	ND	ND		
4-Bromofluorobenzene (S)	%	86	87	1	
a,a,a-Trifluorotoluene (S)	%	101	99	2	

SAMPLE DUPLICATE: 16407

Parameter	Units	252523006 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	ug/L	577	564	2	
4-Bromofluorobenzene (S)	%	93	65	36	
a,a,a-Trifluorotoluene (S)	%	99	68	36	

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QUALITY CONTROL DATA

Project: Tide Water - 211402639.200.250
Pace Project No.: 252524

QC Batch: GCV/1340 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx GCV Water
Associated Lab Samples: 252524004, 252524005, 252524006

METHOD BLANK: 16333 Matrix: Water
Associated Lab Samples: 252524004, 252524005, 252524006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	ug/L	ND	50.0	11/23/09 11:26	
4-Bromofluorobenzene (S)	%	86	50-150	11/23/09 11:26	
a,a,a-Trifluorotoluene (S)	%	98	50-150	11/23/09 11:26	

LABORATORY CONTROL SAMPLE: 16334

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	ug/L	250	259	104	50-163	
4-Bromofluorobenzene (S)	%			90	50-150	
a,a,a-Trifluorotoluene (S)	%			112	50-150	

SAMPLE DUPLICATE: 16401

Parameter	Units	252550001 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	ug/L	ND	47.4J		
4-Bromofluorobenzene (S)	%	101	101	.02	
a,a,a-Trifluorotoluene (S)	%	112	113	.3	

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QUALITY CONTROL DATA

Project: Tide Water - 211402639.200.250
Pace Project No.: 252524

QC Batch: MSV/1718
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 252524006

METHOD BLANK: 16269 Matrix: Water
Associated Lab Samples: 252524006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	11/23/09 10:41	
Ethylbenzene	ug/L	ND	1.0	11/23/09 10:41	
Toluene	ug/L	ND	1.0	11/23/09 10:41	
Xylene (Total)	ug/L	ND	3.0	11/23/09 10:41	
1,2-Dichloroethane-d4 (S)	%	93	80-124	11/23/09 10:41	
4-Bromofluorobenzene (S)	%	104	80-120	11/23/09 10:41	
Dibromofluoromethane (S)	%	91	80-122	11/23/09 10:41	
Toluene-d8 (S)	%	104	80-123	11/23/09 10:41	

LABORATORY CONTROL SAMPLE: 16270

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	21.6	108	75-124	
Ethylbenzene	ug/L	20	23.0	115	76-124	
Toluene	ug/L	20	21.8	109	75-124	
Xylene (Total)	ug/L	60	58.1	97	76-123	
1,2-Dichloroethane-d4 (S)	%			91	80-124	
4-Bromofluorobenzene (S)	%			103	80-120	
Dibromofluoromethane (S)	%			93	80-122	
Toluene-d8 (S)	%			100	80-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 16392 16393

Parameter	Units	252511003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	20	20	23.2	23.3	116	116	75-124	.2	
Ethylbenzene	ug/L	ND	20	20	24.1	24.5	120	123	76-124	2	
Toluene	ug/L	ND	20	20	23.0	23.3	115	117	75-124	2	
Xylene (Total)	ug/L	ND	60	60	61.1	62.1	102	104	76-123	2	
1,2-Dichloroethane-d4 (S)	%						94	94	80-124		
4-Bromofluorobenzene (S)	%						102	103	80-120		
Dibromofluoromethane (S)	%						94	95	80-122		
Toluene-d8 (S)	%						98	99	80-123		

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(206)767-5060

QUALITY CONTROL DATA

Project: Tide Water - 211402639.200.250
Pace Project No.: 252524

QC Batch: MSV/1712 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 252524001, 252524002, 252524003, 252524004, 252524005

METHOD BLANK: 16087 Matrix: Water
Associated Lab Samples: 252524001, 252524002, 252524003, 252524004, 252524005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	11/19/09 17:58	
Ethylbenzene	ug/L	ND	1.0	11/19/09 17:58	
Toluene	ug/L	ND	1.0	11/19/09 17:58	
Xylene (Total)	ug/L	ND	3.0	11/19/09 17:58	
1,2-Dichloroethane-d4 (S)	%	132	80-124	11/19/09 17:58	1n,S0
4-Bromofluorobenzene (S)	%	106	80-120	11/19/09 17:58	2n
Dibromofluoromethane (S)	%	107	80-122	11/19/09 17:58	
Toluene-d8 (S)	%	96	80-123	11/19/09 17:58	

LABORATORY CONTROL SAMPLE: 16088

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.6	98	75-124	
Ethylbenzene	ug/L	20	18.8	94	76-124	
Toluene	ug/L	20	18.0	90	75-124	
Xylene (Total)	ug/L	60	54.6	91	76-123	
1,2-Dichloroethane-d4 (S)	%			106	80-124	
4-Bromofluorobenzene (S)	%			103	80-120	
Dibromofluoromethane (S)	%			102	80-122	
Toluene-d8 (S)	%			97	80-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 16089 16090

Parameter	Units	252523001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	20	20	24.2	25.2	121	126	75-124	4	M0
Ethylbenzene	ug/L	ND	20	20	23.2	23.9	116	120	76-124	3	
Toluene	ug/L	ND	20	20	22.2	22.9	111	114	75-124	3	
Xylene (Total)	ug/L	ND	60	60	66.9	69.1	111	115	76-123	3	
1,2-Dichloroethane-d4 (S)	%						105	105	80-124		
4-Bromofluorobenzene (S)	%						103	104	80-120		
Dibromofluoromethane (S)	%						103	103	80-122		
Toluene-d8 (S)	%						97	96	80-123		

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QUALIFIERS

Project: Tide Water - 211402639.200.250
Pace Project No.: 252524

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-S	Pace Analytical Services - Seattle

ANALYTE QUALIFIERS

1n	1,2 Dichloroethane was in control for all samples associated with this method blank and are un-affected by the high-bias.
2n	This sample was evaluated to the MDL.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
S0	Surrogate recovery outside laboratory control limits.

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(206)767-5060

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Tide Water - 211402639.200.250
Pace Project No.: 252524

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
252524001	**MW-1**	EPA 5030B/8260	MSV/1712		
252524002	**MW-2**	EPA 5030B/8260	MSV/1712		
252524003	**MW-3**	EPA 5030B/8260	MSV/1712		
252524004	**MW-4**	EPA 5030B/8260	MSV/1712		
252524005	**MW-5**	EPA 5030B/8260	MSV/1712		
252524006	**Trip Blank**	EPA 5030B/8260	MSV/1718		
252524001	**MW-1**	NWTPH-Gx	GCV/1338		
252524002	**MW-2**	NWTPH-Gx	GCV/1338		
252524003	**MW-3**	NWTPH-Gx	GCV/1338		
252524004	**MW-4**	NWTPH-Gx	GCV/1340		
252524005	**MW-5**	NWTPH-Gx	GCV/1340		
252524006	**Trip Blank**	NWTPH-Gx	GCV/1340		

Sample Condition Upon Receipt

Pace Analytical

Client Name: Stantec

Project # 252524

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other _____

Optional
Proj. Due Date:
Proj. Name:

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals Intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used: Horiba 132013 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 4.9 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: AJB 11/13/09 1300

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☑Yes	☐No	☐N/A
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A
Sufficient Volume:	☑Yes	☐No	☐N/A
Correct Containers Used:	☑Yes	☐No	☐N/A
-Pace Containers Used:	☑Yes	☐No	☐N/A
Containers Intact:	☑Yes	☐No	☐N/A
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A
Sample Labels match COC:	☑Yes	☐No	☐N/A
-Includes date/time/ID/Analysis Matrix: H2O			
All containers needing preservation have been checked.	☐Yes	☐No	☑N/A
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☑N/A
exceptions: (VOA), coliform, TOC, O&G, WI-DRO (water)	☑Yes	☐No	
Samples checked for dechlorination:	☐Yes	☐No	☑N/A
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A
Trip Blank Present:	☑Yes	☐No	☐N/A
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A
Pace Trip Blank Lot # (if purchased):			

	Initial when completed	Lot # of added preservative
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1240997

Section A Required Client Information:

Company: STANTEC
Address: 12034 134th Ct NE, Suite 100
REDMOND, WA. 98052
Email To: jeff.collins@stantec.com
Phone: (916)861-0400 Fax:
Requested Due Date/TAT: STN 14 DAY

Section B Required Project Information:

Report To: Jeff.Collins@Stantec.com
Copy To: Matthew.Tolley@Stantec.com
Purchase Order No.:
Project Name: TIDEWATER SEATTLE
Project Number: 211402639.200.250

Section C Invoice Information:

Attention: SAME / COPY
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: WA.

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	TPH-G	BTEX / VOC's 8260B	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1	WT	G			11/12/09	13:30		6				X						X	X		252524
2	MW-2	WT	G			11/12/09	15:00		6				X						X	X		
3	MW-3	WT	G			11/12/09	16:10		6				X						X	X		
4	MW-4	WT	G			11/12/09	14:20		6				X						X	X		
5	MW-5	WT	G			11/12/09	15:45		6				X						X	X		
6																						
7	TRIP BLANK	WT	G			—	—		6										X	X		
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
BTEX / VOCS 8260B	Matt Tolley / Stantec	11/13/09	13:20	Jenni Cross / Pace	11/13/09	15:00	4.9	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Tolley

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 11/13/09

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Is Data Valid? (circle)
YES
NO

Preservation Temperature
(If Known)
4.9
(°C)

Stantec Lab Validation Form-Soil and Water Matrix

Project/Client: TW Seattle
Project No.: 211402639.200.250
Lab Work Order No.: Pace Analytical 252524
Date of Validation: 1/16/10
Date of Analysis: 11/20/09 through 11/23/09
Date of Sampling: 11/12/09
Completed By: Tony Giglini

Signature: Tony Giglini

Circle/Highlight
Yes or No

1.	Was the analysis the one requested?	**Yes** / **No**
2.	Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?	**Yes** / **No**
3.	Were samples prepared (extracted, filtered, etc.) within EPA holding times?	**Yes** / **No**
4.	Once prepared/extracted, were the samples analyzed within the EPA holding times?	**Yes** / **No**
5.	Were Laboratory blanks performed, if so, were they below non-detect?	**Yes** / **No**
6.	Are the units correct? (i.e., soil samples in mg/kg or µg/g, water samples mg/L, µg/L, and air samples in volume mg/m^3,etc.)	**Yes** / **No**
7.	Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?	**Yes** / **No**
8.	In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?	**Yes** / **No**
9.	Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approx 80-120% depending on analyte)?1)	**Yes** / **No**
10.	Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?	**Yes** / **No**
11.	Were Relative Percent Difference values within the acceptable range (i.e. ± 25%)?	**Yes** / **No**

If any answer is no, explain why and what corrective action was taken:

1) The percent recovery for surrogate 1,2-Dichloroehane-d4 was outside of control limits for samples MW-1, MW-2, MW-3, MW-4, and MW-5. All other surrogates were in range and the one outlier is not anticipated to affect the validity of the data. The percent recovery for benzene for was outside of control limits in the matrix spike duplicate indicating a lack of accuracy in reporting. The relative percent difference was in range in the matrix spike indicating precision in reporting. Both percent recovery and relative percent difference were in range for benzene in the laboratory control spike; thus the reported values for benzene are considered valid.

APPENDIX C

FIELD AND LABORATORY PROCEDURES

Appendix C

STANTEC CONSULTING CORPORATION

STANDARD PROCEDURE FOR GROUNDWATER SAMPLING

Depth to Groundwater/LPH Thickness Measurements

Prior to purging each of the wells, the depth to groundwater and thickness of liquid phase hydrocarbons, if present, within each well casing is measured to the nearest 0.01 foot using either an electronic Solinst water level indicator or an electronic oil-water interface probe. Measurements are taken from a point of known elevation on the top of each well casing as determined in accordance with previous surveys.

Groundwater Monitoring Well Purging

Groundwater wells are purged by using a dedicated bailer or a groundwater pump. To help assure that the collected samples are representative of fresh formation water, the conductivity, temperature, and pH of the delivered effluent are monitored and recorded using a Cambridge Hydac meter or another meter similar in nature during purge operations. Purge operations are deemed sufficient once successive measurements of pH, conductivity, and temperature stabilize to within +/- 10 percent.

During purging, a minimum of three (3) well volumes, measured as the annular space of the well casing below the groundwater surface, are removed from each well. However, in the case of very slow recharging wells, purging is deemed sufficient if the well contents are completely evacuated during purge operations. Unless recharge takes more than two hours, wells are sampled once the well is recharged to within in 80 percent of the pre-purge groundwater elevation. For very slow recharging wells (wells pumped dry during purging), samples may be collected after 2 hours of recharge.

Groundwater Sample Acquisition, Handling, and Analysis

Following purging operations, groundwater samples are collected from each of the wells using pre-cleaned, single-sample polypropylene, disposable bailers. The groundwater sample is discharged from the bailer to the sample container through a bottom emptying flow control valve to minimize volatilization.

Collected water samples are discharged directly into laboratory provided, pre-cleaned, hydrochloric acid-preserved and unpreserved 40 milliliter (mL) glass vials and sealed with Teflon-lined septum, and screw-on lids for analysis of total petroleum hydrocarbons for gasoline range organics by Northwest Method NWTPH-Gx, total petroleum hydrocarbons for diesel range organics by Northwest Method NWTPH-Dx, and benzene, toluene, ethylbenzene, total xylenes by

EPA Method 8260B. Where NWTPH-Dx analysis indicates the presence of TPH-DRO, the sample(s) with detection(s) of TPH-DRO will be additionally analyzed for poly aromatic hydrocarbonos (PAHs) per EPA Method 8270-SIM.

Labels documenting sample number, well identification, collection date and time, type of sample and type of preservative (if applicable) are affixed to each sample. The samples are then placed into an ice-filled cooler for delivery under CoC to a laboratory certified to perform the specified tests by the State of Washington.

Containment and Disposal of Generated Purge Water

Purge water generated during the field activities is retained on-site in appropriate containers (i.e. Department Of Transportation approved drums) for future disposal. Purge water removed from the site is delivered under appropriate manifest to a facility certified and licensed to receive such waste streams.

Related Procedures:

- *Standard Procedure for Equipment Decontamination*

Appendix C

STANTEC CONSULTING CORPORATION

STANDARD PROCEDURE FOR EQUIPMENT DECONTAMINATION

Equipment that could potentially contact subsurface media and compromise the integrity of the samples is carefully decontaminated prior to sampling. Samplers, groundwater pumps, liners and other equipment are decontaminated in an Alconox scrub solution and double rinsed in clean tap water rinse followed by a final distilled water rinse.

The rinsate and other wastewater are contained in 55-gallon DOT-approved drums, labeled (to identify the contents, generation date and project) and stored on-site pending waste profiling and disposal.

APPENDIX D

WASTE DISPOSAL MANIFEST

CCS
A DIVISION OF PNE CORP.
55 International Way
Longview, WA 98632
Office: (360) 423-6316
Fax: (360) 423-3409
24-Hours: 1-888-423-6316
www.pnecorp.com
ALL ABOUT Solutions

B.O.L. / FREIGHT BILL

122754

OK per AL

Date 2/24 2010

Customer Bill CCS Contact

Site Address City/State/Zip

Billing Address City/State/Zip

Phone Fax

Tidewater site #5173

Generator 2800 MLK Way S. Seattle, WA		CCS PO#
Receiving Facility ORRCO 4150 N Suttle Rd. Portland OR		Box #
Operator Dan M	W.O.# 8510109 Truck # 160/51	Received by (TSDF) Lurenno

Customer warrants that the waste material being transferred by the above collector does not contain any contaminants including, without limitations; pesticides, chlorinated solvents at concentrations greater than 1,000 PPM, PCB's at greater concentrations than 2 PPM (or PPM with manifest), or any other material classified as hazardous by 40 CFR part 261, customer subparts C and D (implementing the Federal Resource Conservation and Recovery Act, or by any equivalent state hazardous waste or hazardous substance classification program). Should laboratory tests find this waste product not in compliance with 40 CFR part 261, customer (generator) agrees to pay for all disposal costs incurred.

Signature X Date

Print Name

QUANTITY	DESCRIPTION
10 gal	~~Emulsified~~ Purge + decon water

Thank you for your business!

A FINANCE CHARGE OF 1.5% per month may be applied to any past due amount. Past due accounts may be placed on C.O.D. without notification. If outside collection action is necessary, purchaser shall pay all costs of collection including reasonable attorney's fees.

EPA ID# WAH000014944 CCB#78140 USDOT 492568

WHITE - TRANSPORTER YELLOW - RECEIVING FACILITY PINK - GENERATOR

Form # C108

ORRCO
Oil Re-Refining Company

Head Office
4150 N. Suttle Rd.
Portland, OR 97217
1-800-367-8894

RECEIVING RECORD

R-01-10-0225-006

Received From:
Cowlitz Clean Sweep
55 International Way
Longview WA 98632
EPA# WAD988467197
Phone: 360-423-6316
Customer ID# 711
Driver: Dan

Receiving Location - Plant #:
FRI
4150 N. Suttle Road
Portland, OR 97217
Phone: 503-286-8852
EPA# ORD980975692

Date	Terms	Written By	Sales Rep.	Page
02/25/10	-0-	Laureano	0	1 of 1

Line	Qty.	Unit	Item	%H20	Manifest #	B/L#	Net Qty
1	1	Each	Hydro Clor-D-Tect Kit			122753	
			Generator ID# 0 See Comments				
			Conoco Phillips 11001 Roosevelt Way NE Seattle WA. job#8510103.				
2	1	Each	Truck Wash Out				
			Generator ID# 0 See Comments				
			Conoco Phillips 11001 Roosevelt Way NE Seattle WA. job#8510103.				
			Total Each 2.				
3	4587	Gal.	Emulsified Fuel	95 %		122753	
			Generator ID# 0 See Comments				
			Conoco Phillips 11001 Roosevelt Way NE Seattle WA. job#8510103. (gas)				
4	10	Gal.	Industrial Wash Water	95 %		122754	
			Generator ID# 0 See Comments				
			Tide Water Site #5173. 2800 MLK Way S. Seattle WA. JOB#8510109. Analytical Attached.				
5	20	Gal.	Oily Solids	0 %		122753	
			Generator ID# 0 See Comments				
			Conoco Phillips 11001 Roosevelt Way NE Seattle Wa. job#8510103.				
			Total Gal. 4617.				

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 02/25/10

APPENDIX B
AGENCY CORRESPONDENCE

RECEIVED AUG 3 0 2010

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Ave SE • Bellevue, WA 98008-5452 • 425-649-7000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

August 17, 2010

Mr. Myron Smith
Stantec Consulting Corporation
1230 W. Washington Street, Suite 212
Tempe, AZ 85281

Re: Acceptance of VCP Application for the following Site:

- **Site Name:** Phillips 66 070644
- **Site Address:** 2800 Martin Luther King Jr. Way, Seattle, WA
- **Facility/Site No.:** 42746846
- **VCP Project No.:** NW2321

Dear Mr. Myron Smith:

The Department of Ecology (Ecology) has accepted your Voluntary Cleanup Program (VCP) application for the Stantec Consulting Corporation facility (Site). We applaud your initiative and welcome your interest in the VCP. This letter confirms your entry into the VCP and provides important information on how we will manage the Project.

Agreement

Ecology has completed and signed the VCP Agreement governing the Project. The effective date of the Agreement is **August 12, 2010,** which is the date Ecology signed the Agreement. A copy of the Agreement is enclosed. Please review it carefully.

Identification

Ecology has assigned a unique name and number to the **Site**. We have also assigned a unique number to your **Project** at the Site. You can find this information in the box at the bottom of the first page of the Agreement. When contacting us, please use this information to identify your Project.

Designated Managers

Communications between Ecology and Stantec Consulting Corporation should be directed through their designated managers to the maximum extent possible.

- **Ecology**

We have designated the following site manager to respond to your requests:

Libby Goldstein
Department of Ecology
Toxic Cleanup Program, NWRO
3190 160th Ave. SE
Bellevue, WA 98008
Phone: (425) 649-7242
E-mail: ligo461@ecy.wa.gov

- **Stantec Consulting Corporation**

- The application designated you as the project manager for **Stantec Consulting Corporation.** We will therefore respond only to your requests. If someone replaces you as the project manager or your contact information changes, please submit a Change of Contact Form. You may download the Form from our VCP web site: http://www.ecy.wa.gov/programs/tcp/vcp/vcp2008/vcpForms.html

Requests for Written Opinions

In your application, you requested a written opinion on the sufficiency of your cleanup actions. Ecology will review the documents you submitted and provide you a written opinion within about 90 days.

Reporting Requirements

When requesting written opinions on planned or completed remedial actions, please comply with the following reporting requirements:

1. **Licensing.** Documents submitted containing geologic, hydrologic, or engineering work must be under the seal of an appropriately licensed professional, as required by Chapters 18.43 and 18.220 RCW.

2. **Data Submittal.** Environmental sampling data must be submitted in both a printed form and an electronic form capable of being transferred into our data management systems. For instructions on how to submit data, please refer to the

following web site:
www.ecy.wa.gov/programs/tcp/data_submittal/data_requirements.htm

Failure to comply with these requirements may result in unnecessary delays.

Payment

Ecology will send monthly invoices to the billing contact designated in the Application Form. If someone replaces the billing contact or their contact information changes, please submit a Change of Contact Form. The Form is available on the VCP web site.

The invoice will include a summary of the costs incurred, payments received, identity of staff involved, and the amount of time spent on the Project during the previous month. Payment is due within thirty days of the invoice date. For more information on the billing system, please refer to the VCP web site.

Contact Information

We are committed to working with you to accomplish the prompt and effective cleanup of the Site. Again, if you have any questions about the VCP or your Project, please contact Libby Goldstein at (425) 649-7242.

Sincerely,

For

Russ Olsen
VCP Unit Manager
Toxics Cleanup Program, NWRO

ro/ nl

Enclosure: Copy of VCP Agreement

RECEIVED
JUL 29 2010
OLOGY

VCP AGREEMENT

DEPARTMENT OF ECOLOGY
State of Washington

INSTRUCTIONS: Submit this Agreement (original) to Ecology as part of your Application. Before submitting, enter the Customer's name and the Site's address on the first page and sign the Agreement on the second page. If your Application is accepted, then Ecology will do the following: 1) Identify the Site and VCP project in the box below; 2) sign the Agreement; and 3) send you a copy of the completed Agreement.

This document constitutes an Agreement between the State of Washington Department of Ecology (Ecology) and Stantec Consulting Corporation (Customer) to provide informal site-specific technical consultations under the Voluntary Cleanup Program (VCP) for the Site identified below and associated with the following address: 2800 Martin Luther King Jr. Way, Seattle, WA.

The purpose of this Agreement is to facilitate independent remedial action at the Site. Ecology is entering into this Agreement under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC. If a term in this Agreement is defined in MTCA or Chapter 173-340 WAC, then that definition shall govern.

Services Provided by Ecology

Upon request, Ecology agrees to provide the Customer informal site-specific technical consultations on the independent remedial actions proposed for or performed at the Site consistent with WAC 173-340-515(5). Those consultations may include assistance in identifying applicable regulatory requirements and opinions on whether the remedial actions proposed for or conducted at the Site meet those requirements.

Ecology may use any appropriate resource to provide the Customer with the requested consultative services. Those resources may include, but shall not be limited to, those of Ecology and the Office of the Attorney General. However, Ecology shall not use independent contractors unless the Customer provides Ecology with prior written authorization.

In accordance with RCW 70.105D.030(1)(i), any opinions provided by Ecology under this Agreement are advisory only and not binding on Ecology. Ecology, the state, and officers and employees of the state are immune from all liability. Furthermore, no cause of action of any nature may arise from any act or omission in providing, or failing to provide, informal advice and assistance under the VCP.

Payment for Services by Customer

The Customer agrees to pay all costs incurred by Ecology in providing the informal site-specific technical consultations requested by the Customer consistent with WAC 173-340-515(6) and 173-340-550(6). Those costs may include the costs incurred by attorneys or independent contractors used by Ecology to provide the requested consultative services. Ecology's hourly costs shall be determined based on the method in WAC 173-340-550(2).

Ecology shall mail the Customer a monthly itemized statement of costs (invoice) by the tenth day of each month (invoice date) that there is a balance on the account. The invoice shall include a summary of the costs incurred, payments received, identity of staff involved, and amount of time staff spent on the project.

The Customer shall pay the required amount by the due date, which shall be thirty (30) calendar days after the invoice date. If payment has not been received by the due date, then Ecology shall withhold

FOR COMPLETION BY ECOLOGY ONLY	
	Facility / Site Name: Phillips 66 070644
	Facility / Site No.: 42746846
	VCP Project No.: NW 2321

any requested opinions and notify the Customer by certified mail that the debt is past due. If payment has not been received within sixty (60) calendar days of the invoice date, then Ecology shall stop all work under the Agreement and may, as appropriate, assign the debt to a collection agency under Chapter 19.16 RCW. The Customer agrees to pay the collection agency fee incurred by Ecology in the course of debt collection.

Reservation of Rights / No Settlement

This Agreement does not constitute a settlement of liability to the state under MTCA. This Agreement also does not protect a liable person from contribution claims by third parties for matters addressed by the Agreement. The state does not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). Ecology's signature on this Agreement in no way constitutes a covenant not to sue or a compromise of any Ecology rights or authority.

Ecology reserves all rights under MTCA, including the right to require additional or different remedial actions at the Site should it deem such actions necessary to protect human health and the environment, and to issue orders requiring such remedial actions. Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances at the Site.

Effective Date, Modifications, and Severability

The effective date of this Agreement shall be the date on which this Agreement is signed by the Toxics Cleanup Program's Section Manager or delegated representative. This Agreement may be amended by mutual agreement of Ecology and the Customer. Amendments shall be in writing and shall be effective when signed by the Toxics Cleanup Program's Section Manager or delegated representative. If any provision of this Agreement proves to be void, it shall in no way invalidate any other provision of this Agreement.

Termination of Agreement

Either party may terminate this Agreement without cause by sending written notice by U.S. mail to the other party. The effective date of termination shall be the date Ecology sends notice to the Customer or the date Ecology receives notice from the Customer, whichever occurs first. Unless otherwise directed, issuance of a No Further Action opinion, either for the Site as a whole or for a portion of the real property located within the Site, shall constitute notice of termination by Ecology.

Under this Agreement, the Customer is only responsible for costs incurred by Ecology before the effective date of termination. However, termination of this Agreement shall not affect any right Ecology may have to recover its costs under MTCA or any other provision of law.

Representations and Signatures

The undersigned representative of the Customer hereby certifies that he or she is fully authorized to enter into this Agreement and to execute and legally bind the Customer to comply with the Agreement.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Russ Olson VCP Unit Supervisor
Signature

Russ Olson VCP Unit Supervisor
Printed Name

Section Manager, Bob Warren for NW-TCP
Toxics Cleanup Program *Section*

Date: 8/12/10

ConocoPhillips Company c/o Stantec
Name of Customer

D-S-C
Signature

DAN SCHAEINER
Printed Name of Signatory

SR. Project Manager, Consultant for ConocoPhillips
Title of Signatory

Date: 7/28/10

If you need this document in an alternative format, please call the Toxics Cleanup Program at 360-407-7170. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

November 9, 2010

Dan Schreiner
Stantec Consulting Corporation
3017 Kilgore Road, Suite 100
Rancho Cordova, CA 95670

Re: Opinion pursuant to WAC 173-340-515(5) on Proposed Remedial Action for the following Hazardous Waste Site:

- **Name:** Phillips 66 070644
- **Address:** 2800 Martin Luther King Way S., Seattle
- **Facility/Site No.:** 42746846
- **VCP No.:** NW2321

Dear Mr. Schreiner:

Thank you for submitting documents regarding your proposed remedial action for the Phillips 66 070644 facility (Site) for review by the Washington State Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP). Ecology appreciates your initiative in pursuing this administrative option for cleaning up hazardous waste sites under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

This letter constitutes an advisory opinion regarding a review of submitted documents/reports pursuant to requirements of MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following release(s) at the Site:

- Gasoline-range Total Petroleum Hydrocarbon (TPHg) into the Soil and Ground Water.
- Benzene, toluene, ethylbenzene, and xylene (BTEX) into the Soil and Ground Water.

Ecology is providing this advisory opinion under the specific authority of RCW 70.105D.030(1)(i) and WAC 173-340-515(5).

This opinion does not resolve a person's liability to the state under MTCA or protect a person from contribution claims by third parties for matters addressed by the opinion. The state does not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). The opinion is advisory only and not binding on Ecology.

Ecology's Toxics Cleanup Program has reviewed the following information regarding your proposed remedial action(s):

1. Groundwater Sampling and Results Report and Work Plan, Former Tidewater Service Station Martin Luther King Way S., Stantec Project 211402639.200.250. July 5, 2010.

2. Cleanup Action Plan Former gas Station, 2800 Martin Luther King Way S., Seattle. G-Logics, Inc. January 22, 2008

The reports listed above will be kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Appointments can be made by calling the NWRO resource contact at 425.649.7239.

The Site is defined by the extent of contamination caused by the following release(s):

- Gasoline-range Total Petroleum Hydrocarbon (TPHg) into the Soil and Ground Water.
- Benzene, toluene, ethylbenzene, and xylene (BTEX) into the Soil and Ground Water.

The Site is more particularly described in Enclosure A to this letter, which includes a detailed Site diagram. The description of the Site is based solely on the information contained in the documents listed above.

Based on a review of supporting documentation listed above, pursuant to **requirements contained in MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following release(s) at the Site, Ecology has determined:**

- The results of the simplified terrestrial ecologic evaluation (TEE) indicate that the Site does not pose a substantial threat to terrestrial ecological receptors. Therefore, soil cleanup standards protective of terrestrial species are not required.
- The Site does not meet the MTCA definition of an industrial property; therefore soil cleanup levels suitable for unrestricted land use are appropriate. For unrestricted land use, direct contact, either Method A or Method B cleanup levels can be used.
- Ground water at this site has been impacted by the identified releases, therefore soil cleanup levels based on leaching (protection of ground water) are appropriate. To establish soil concentrations protective of ground water, either MTCA Method A cleanup levels for soil (Table 740-1) or one or more of the methods described in WAC 173-340-747 may be used.
- Ground water at the Site has been impacted by releases; therefore, either MTCA Method A or Method B cleanup levels for ground water could be used.

- Point of compliance for soil is Site wide throughout the soil profile and may extend below the water table. This is the appropriate point of compliance for the Site.
- Point of compliance for ground water is throughout the site from the uppermost level of the saturated zone extending vertically to the lowest depth which could potentially be affected.
- The location of monitoring wells proposed in your work plan seems appropriate to characterize the down gradient extent of the ground water plume.
- In addition to the soil boring and well installation proposed in the work plan it is recommended that:
  - A confirmation soil boring be located between historical boring P-13 and P-14 to confirm that releases from the tank nest (which was removed in 1989) have been remediated.
  - A soil boring be located west of MW-5 to characterize the lateral and vertical extent of soil contamination. Based on conditions encountered, additional boring locations may be needed to bound soil contamination.
  - Soil samples should be collected every 5 feet, from 5 feet below grade to 5 feet below encountered ground water.

This opinion does not represent a determination by Ecology that a proposed remedial action will be sufficient to characterize and address the specified contamination at the Site or that no further remedial action will be required at the Site upon completion of the proposed remedial action. To obtain either of these opinions, you must submit appropriate documentation to Ecology and request such an opinion under the VCP. **This letter also does not provide an opinion regarding the sufficiency of any other remedial action proposed for or conducted at the Site.**

Please note that this opinion is based solely on the information contained in the documents listed above. Therefore, if any of the information contained in those documents is materially false or misleading, then this opinion will automatically be rendered null and void.

The state, Ecology, and its officers and employees make no guarantees or assurances by providing this opinion, and no cause of action against the state, Ecology, its officers or employees may arise from any act or omission in providing this opinion.

Again, Ecology appreciates your initiative in conducting independent remedial action and requesting technical consultation under the VCP. As the cleanup of the Site progresses, you may request additional consultative services under the VCP, including assistance in identifying applicable regulatory requirements and opinions regarding whether remedial actions proposed for or conducted at the Site meet those requirements.

If you have any questions regarding this opinion, please contact me at 425.649.7242.

Sincerely,

Libby Goldstein
Site Manager Toxics Cleanup Program

lg/kh

Enclosures: 1

Enclosure A

Description and Diagrams of the Site

Name: Phillips 66 070644
Address: 2800 Martin Luther King Way S., Seattle
Facility/Site No.: 42746846
VCP No.: NW2321

The Property is located at 2800 Martin Luther King Way South in Seattle. It occupies approximately 0.25 acres of the southeast corner of the intersection of Martin Luther King Way S and South McClellan Street. Across South McClellan Street (north of the Property) is a residential house occupying the northeast corner of the intersection. Lowes Home Improvement store occupies the northwest corner of the intersection and an operating gasoline service station occupies the southwest corner of the intersection. The Property is bounded on the east by a dental clinic and by a strip mall directly south of the Property.

The Site is comprised of gasoline-range total petroleum hydrocarbon (TPHg) and benzene, toluene, ethylbenzene, and xylene (BTEX) in soil and ground water associated with the service station that operated on the Property from 1955 – 1989. From the late 1980s to 2004 various auto repair businesses operated on the Property.

The Property is at an elevation of approximately 65 feet above mean sea level and slopes gently down to the southwest corner of the Property. Surface cover on the Property is mainly grass, shrubs and an abandoned auto repair garage building. The ground cover is underlain by approximately 2 – 2 ½ feet of sandy fill material. This is underlain by approximately 15 feet of fine to medium grained sand with some silt which is underlain (to the maximum depth explored, approximately 20 feet bgs) by soil with more silt and is less permeable.

Perched ground water was encountered at approximately nine to 13 feet bgs. Depth to ground water fluctuates seasonally. Wet season depth to ground water averages about 9 – 13 feet bgs and dry season depth to ground water averages 11 – 13 feet bgs. Ground water flows to the southwest.

The underground storage tanks (USTs) which were located in the northern section of the property were removed in 1989. In addition, the pump islands, piping, oil/water separators, a heating oil UST, a floor drain, and two hydraulic hoists were removed.

Soil and ground water sampling indicated that soil and ground water near the dispenser islands had levels of THGg and BTEX above MTCA Method A cleanup levels. The vertical and lateral extend of soil and ground water contamination was not fully characterized along the south and western edges of the property.

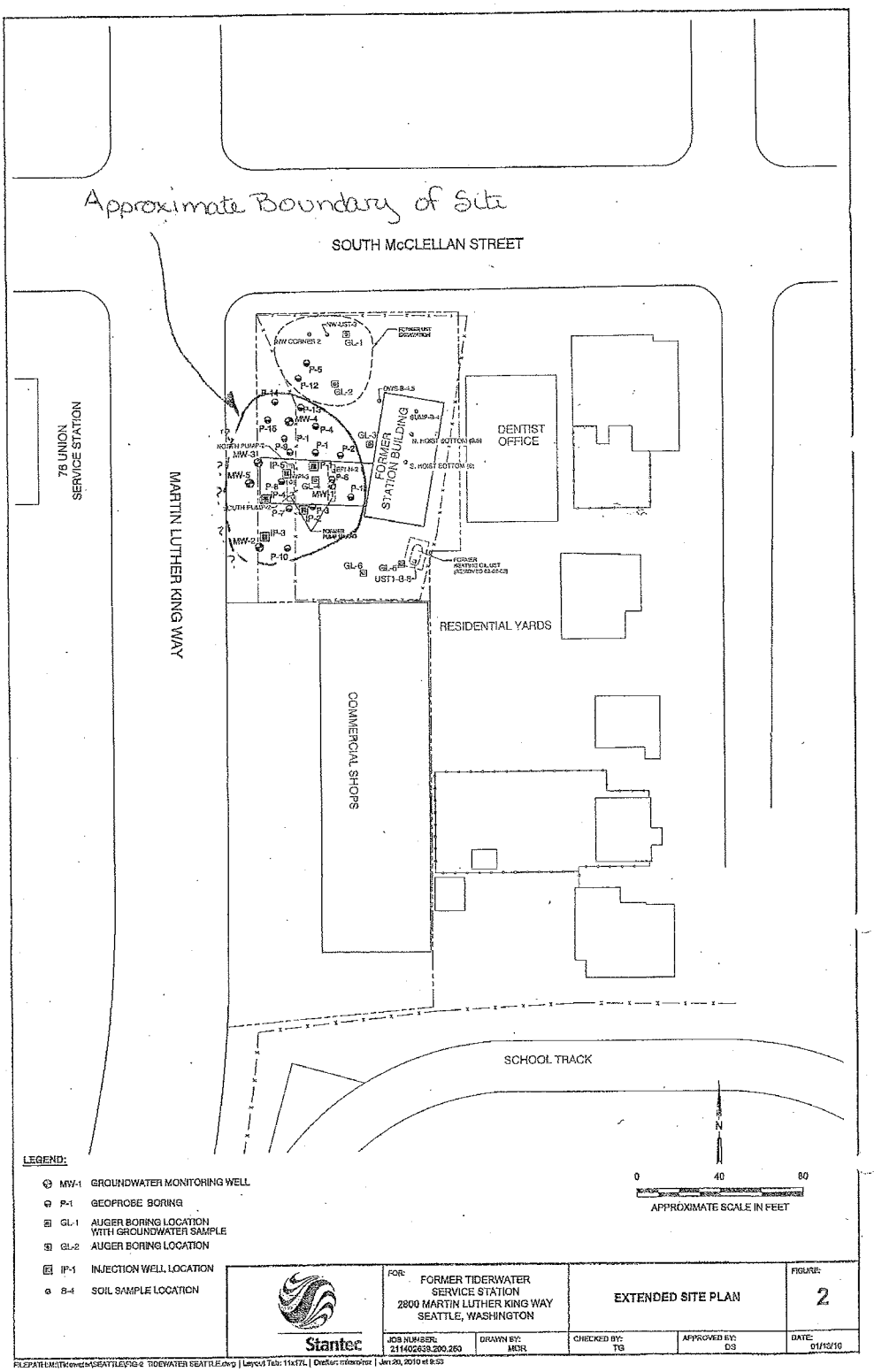
An ozone treatment system was installed in 2005 to treat ground water contamination observed near the dispenser islands. In 2006, in-situ oxidation treatment using Fentons reagent was conducted at the Site. Remediation efforts were discontinued in 2007 without confirmation soil or ground water samples collected to determine the effectiveness of the remediation efforts.

November 2009, ground water samples were collected from the monitoring wells to evaluate current conditions at the Site. The ground water results indicated that the levels of chemicals of concern were lower than before remediation. Ground water at MW-5 was still above MTCA Method A cleanup levels for TPHg.

The proposed sampling approach (Stantec, July 2010) appears reasonable to gather data needed to fully characterize current conditions at the Site. The following are recommendations to the sampling plan:

- The location of monitoring wells proposed in your work plan seems appropriate to characterize the down gradient extent of the ground water plume.
- In addition to the soil boring and well installation proposed in the work plan it is recommended that:
  - A confirmation soil boring be located between historical boring P-13 and P-14 to confirm that releases from the tank nest which was removed in 1989 have been remediated.
  - A soil boring be located west of MW-5 to characterize the lateral and vertical extent of soil contamination. Based on conditions encountered additional boring location may be needed to bound soil contamination.
  - Soil samples should be collected every 5 feet, from 5 feet below grade to 5 feet below encountered ground water.
  -

The data collected during the proposed sampling event will be used to characterize the site and if the Site is fully characterized, to determine the appropriate remedial action. If the Site is not fully characterized, these results will be used to determine the next steps needed to complete characterization.


Approximate Boundary of Site
SOUTH McCLELLAN STREET
MARTIN LUTHER KING WAY
76 UNION SERVICE STATION
FORMER STATION BUILDING
DENTIST OFFICE
RESIDENTIAL YARDS
COMMERCIAL SHOPS
SCHOOL TRACK
LEGEND:
MW-1 GROUNDWATER MONITORING WELL
P-1 GEOPROBE BORING
GL-1 AUGER BORING LOCATION WITH GROUNDWATER SAMPLE
GL-2 AUGER BORING LOCATION
IP-1 INJECTION WELL LOCATION
B-4 SOIL SAMPLE LOCATION
0 40 80
APPROXIMATE SCALE IN FEET
FOR: FORMER TIDERWATER SERVICE STATION 2800 MARTIN LUTHER KING WAY SEATTLE, WASHINGTON
EXTENDED SITE PLAN
FIGURE: 2
Stantec
JOB NUMBER: 211402639.200.250
DRAWN BY: MDR
CHECKED BY: TG
APPROVED BY: DS
DATE: 01/13/10

APPENDIX C
SOIL BORING AND MONITORING WELL COMPLETION LOGS

PROJECT: **Tidewater Seattle**
LOCATION: **2800 Martin Luther King Way, Seattle, WA**
PROJECT NUMBER: **211602274**

WELL / PROBEHOLE / BOREHOLE NO: **B-1** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **4/18/11** COMPLETED: **4/19/11**
DRILLING COMPANY: **Cascade Drilling**
DRILLING EQUIPMENT: **Geoprobe 8040**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **PID**

NORTHING (ft):
LAT:
GROUND ELEV (ft):
INITIAL DTW (ft): **11.5**
STATIC DTW (ft): **11.0**
WELL CASING DIA. (in): **--**
LOGGED BY: **RM**

EASTING (ft):
LONG:
TOC ELEV (ft):
WELL DEPTH (ft): **18.0**
BOREHOLE DEPTH (ft): **18.0**
BOREHOLE DIA. (in): **3**
CHECKED BY: **DS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Weathered Ashpalt/Gravel Road Base							Native Slough
		ML	**SANDY SILT** ; ML; gray; low plasticity; firm; moist; no odor; iron oxide staining; few small subrounded gravels		1100 NS			0.0		
5		SP	**SAND WITH SILT** ; SP; greenish brown; medium dense; moist; no odor; trace fine to small subrounded gravels; non-cohesive		1145 B-1 @ 5'			7.0	5	
					945 NS			0.0		
10					945 B-1 @ 10'			0.0	10	Bentonite Chips
			Same as above; light brown; wet							
		CL	**SANDY CLAY** ; CL; brown; low plasticity; firm; moist; slight odor; some small rounded gravels; gray mottling							
15					955 B-1 @ 15'			91.0	15	
		ML	**SILT WITH SAND** ; ML; dark brown; low plasticity; firm; wet; no odor; some small rounded gravels; many fine plant roots							
			Same as above; increase in sand; decrease in plant roots		1000 B-1 @ 18'			1.0		
			Borehole terminated at 18 feet.							

GEO FORM 304 B-1 THROUGH B-7.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/3/11

PROJECT: **Tidewater Seattle**
LOCATION: **2800 Martin Luther King Way, Seattle, WA**
PROJECT NUMBER: **211602274**

WELL / PROBEHOLE / BOREHOLE NO: **B-2** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **4/18/11** COMPLETED: **4/19/11**
DRILLING COMPANY: **Cascade Drilling**
DRILLING EQUIPMENT: **Geoprobe 8040**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **PID**

NORTHING (ft):
LAT:
GROUND ELEV (ft):
INITIAL DTW (ft): **12.0**
STATIC DTW (ft): **10.25**
WELL CASING DIA. (in): **--**
LOGGED BY: **RM**

EASTING (ft):
LONG:
TOC ELEV (ft):
WELL DEPTH (ft): **18.0**
BOREHOLE DEPTH (ft): **18.0**
BOREHOLE DIA. (in): **3**
CHECKED BY: **DS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Gravel Road Base							Native Slough
		ML	**SILT WITH FINE SAND** ; ML; brown; low plasticity; firm; moist; no odor; Trace small subrounded gravel; some asphalt debris at 1 ft bgs		1040 NS			0.0		
			Same as above; no gravels; light gray; iron oxide staining; firm							
5			**SANDY SILT** ; no odor; some construction debris		1045 B-2 @ 5'			0.0	5	
					1050 NS			0.0		
			6" gravel lens							Bentonite Chips
10		SP	**SAND WITH SILT** ; SP; brown; medium dense; moist; no odor; no gravels; non cohesive		920 B-2 @ 11'			0.0	10	
			Same as above; decrease in silt							
			Same as above; wet							
15					925 B-2 @ 15'			1,100	15	
			Same as above; some small subrounded gravels							
			SAND WITH CLAY ; moist; slight odor							
		ML	**SILT WITH SAND** ; ML; very dark brown; low plasticity; firm; moist; no odor; no gravels		935 B-2 @18'			24		
			Borehole terminated at 18 feet.							

GEO FORM 304 B-1 THROUGH B-7.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/3/11

PROJECT: **Tidewater Seattle**
LOCATION: **2800 Martin Luther King Way, Seattle, WA**
PROJECT NUMBER: **211602274**

WELL / PROBEHOLE / BOREHOLE NO: **B-3** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **4/18/11** COMPLETED: **4/19/11**
DRILLING COMPANY: **Cascade Drilling**
DRILLING EQUIPMENT: **Geoprobe 8040**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **PID**

NORTHING (ft):
LAT:
GROUND ELEV (ft):
INITIAL DTW (ft): **16.5**
STATIC DTW (ft): **11.75**
WELL CASING DIA. (in): **--**
LOGGED BY: **RM**

EASTING (ft):
LONG:
TOC ELEV (ft):
WELL DEPTH (ft): **20.0**
BOREHOLE DEPTH (ft): **20.0**
BOREHOLE DIA. (in): **3**
CHECKED BY: **DS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Gravel Road Base/Construction Debris							Native Slough
		ML	**SILT WITH SAND** ; ML; dark brown; low plasticity; soft; moist; no odor; some small subrounded gravels; construction debris at 1.75 ft bgs		1510 NS			0.0		
			Same as above; light brown; increase in sand; stiff; some fine plant roots							
			Some construction debris at 3.75 ft bgs							
5					1510 B-3 @ 5'			0.0	5	
			Some construction debris at 6 ft bgs							
			Some construction debris at 7 ft bgs							
		SP	**SAND** ; SP; gray; medium dense; moist; slight odor; no gravels; non-cohesive; trace fines							
10					835 B-3 @ 10'			37.0	10	Bentonite Chips
			Same as above; trace fine plant roots							
			Same as above; very dark brown; HC staining							
15					845 B-3 @ 15'			110	15	
			SAND WITH CLAY ; wet; iron oxide staining							
			Same as above; olive green with gray mottling							
			Same as above; decrease in odor; dense							
20					900 B-3- @ 20'			2.0	20	
			Borehole terminated at 20 feet.							

GEO FORM 304 B-1 THROUGH B-7.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/3/11

PROJECT: **Tidewater Seattle**
LOCATION: **2800 Martin Luther King Way, Seattle, WA**
PROJECT NUMBER: **211602274**

WELL / PROBEHOLE / BOREHOLE NO: **B-4** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **4/18/11** COMPLETED: **4/19/11**
DRILLING COMPANY: **Cascade Drilling**
DRILLING EQUIPMENT: **Geoprobe 8040**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **PID**

NORTHING (ft):
LAT:
GROUND ELEV (ft):
INITIAL DTW (ft): **12.0**
STATIC DTW (ft): **11.75**
WELL CASING DIA. (in): **--**
LOGGED BY: **RM**

EASTING (ft):
LONG:
TOC ELEV (ft):
WELL DEPTH (ft): **17.0**
BOREHOLE DEPTH (ft): **17.0**
BOREHOLE DIA. (in): **3**
CHECKED BY: **DS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Apshalt/Road Base							Native Slough
		ML	**SILT WITH TRACE SAND** ; ML; brown; low plasticity; firm; moist; no odor; no gravels							
			SILT WITH CLAY ; dark brown		1510 NS			0.0		
			Same as above; decrease in clay; some fine subangular gravels; moist; trace plant roots							
5					1510 B-4 @ 5'			0.0	5	
			Asphalt/construction debris from 6 to 7 ft bgs							
		ML	**SILT WITH CLAY** ; ML; dark brown; firm							
			Same as above; very dark brown							Bentonite Chips
10					810 B-4 @ 10'			0.0	10	
		GP	**GRAVEL WITH SAND** ; GP; wet; no odor; subangular medium to coarse gravel; trace fines							
15					815 B-4 @ 15'			0.0	15	
		SP	**SAND** ; SP; gray; dense; wet; no odor; no gravels; non-cohesive; some plant roots							
		CL	**CLAY WITH SAND** ; CL; brown; low plasticity; wet; no odor; no gravels; some plant roots		825 B-4 @ 17'			0.0		
		SP	**SAND** ; SP; gray; dense; wet; no odor; no gravels; non-cohesive; some plant roots							
			Borehole terminated at 17 feet.							

GEO FORM 304 B-1 THROUGH B-7.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/3/11

PROJECT: **Tidewater Seattle**
LOCATION: **2800 Martin Luther King Way, Seattle, WA**
PROJECT NUMBER: **211602274**

WELL / PROBEHOLE / BOREHOLE NO: **B-5** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **4/18/11** COMPLETED: **4/19/11**
DRILLING COMPANY: **Cascade Drilling**
DRILLING EQUIPMENT: **Geoprobe 8040**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **PID**

NORTHING (ft):
LAT:
GROUND ELEV (ft):
INITIAL DTW (ft): **13.0**
STATIC DTW (ft): **11.50**
WELL CASING DIA. (in): **--**
LOGGED BY: **RM**

EASTING (ft):
LONG:
TOC ELEV (ft):
WELL DEPTH (ft): **18.0**
BOREHOLE DEPTH (ft): **18.0**
BOREHOLE DIA. (in): **3**
CHECKED BY: **DS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Asphalt/Road Base							Native Slough
		ML	**SANDY SILT** ; ML; grayish brown; low plasticity; soft; moist; no odor; trace small subrounded gravels		1210 NS			0.0		
5		SP	**SAND WITH SILT** ; SP; gray; medium dense; moist; no odor; trace fine subrounded gravels; non-cohesive		1210 B-5 @ 5'			0.0	5	
			Sa,e as above; trace iron oxide staining		1210 NS			0.0		
10			**SANDY SILT** ; light brown; low plasticity; firm; moist; no odor; no gravels		1010 B-5 @ 10'			0.0	10	Bentonite Chips
			Same as above; wet							
15		SP	**SAND WITH SILT** ; SP; light gray; medium dense; wet; no odor; few small subrounded gravels; wood debris		1020 B-5 @ 15'			0.0	15	
		ML	**SILT** ; ML; very dark brown; low plasticity; firm; wet; no odor; few small subrounded gravels; wood debris							
		SP	**SAND** ; SP; gray; dense; wet; no odor; trace small gravels; non-cohesive		1030 B-5 @18			0.0		
			Borehole terminated at 18 feet.							

GEO FORM 304 B-1 THROUGH B-7.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/3/11

PROJECT: **Tidewater Seattle**
LOCATION: **2800 Martin Luther King Way, Seattle, WA**
PROJECT NUMBER: **211602274**

WELL / PROBEHOLE / BOREHOLE NO: **B-6** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **4/18/11** COMPLETED: **4/19/11**
DRILLING COMPANY: **Cascade Drilling**
DRILLING EQUIPMENT: **Geoprobe 8040**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **PID**

NORTHING (ft):
LAT:
GROUND ELEV (ft):
INITIAL DTW (ft): **12.0**
STATIC DTW (ft): **10.75**
WELL CASING DIA. (in): **--**
LOGGED BY: **RM**

EASTING (ft):
LONG:
TOC ELEV (ft):
WELL DEPTH (ft): **17.0**
BOREHOLE DEPTH (ft): **17.0**
BOREHOLE DIA. (in): **3**
CHECKED BY: **DS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Asphalt/Road Base							Native Slough
		ML	**SANDY SILT** ; ML; light brown; low plasticity; firm; moist; no odor; trace small subrounded gravels		1730 NS			0.0		
		SP	**SAND WITH SILT** ; SP; grayish brown; medium dense; moist; no odor; trace small to fine subrounded gravels							
5			Same as above; increase in gravels		1730 B-6 @ 5'			0.0	5	
					1730 NS			0.0		
			Brown							Bentonite Chips
			Very moist							
10					1100 B-6 @10'			6.0	10	
			Wet; slight HC odor							
			Gray; iron oxide staining; HC odor							
15					1110 B-6 @ 15'			1,880	15	
			Increase in silt							
			SILT ; dark brown; low plasticity; wet; no odor; no gravels; wood debris		1120 B-6 @ 17'			7.6		
			Borehole terminated at 17 feet.							

GEO FORM 304 B-1 THROUGH B-7.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/3/11

PROJECT: **Tidewater Seattle**
LOCATION: **2800 Martin Luther King Way, Seattle, WA**
PROJECT NUMBER: **211602274**

WELL / PROBEHOLE / BOREHOLE NO: **B-7** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **4/18/11** COMPLETED: **4/19/11**
DRILLING COMPANY: **Cascade Drilling**
DRILLING EQUIPMENT: **Geoprobe 8040**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **PID**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **12.5**
WELL DEPTH (ft): **17.0**
STATIC DTW (ft): **10.75**
BOREHOLE DEPTH (ft): **17.0**
WELL CASING DIA. (in): **--**
BOREHOLE DIA. (in): **3**
LOGGED BY: **RM**
CHECKED BY: **DS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Concrest/Gravel Road Base							Native Slough
		ML	**SANDY SILT** ; ML; brown; low plasticity; firm; moist; no odor; trace fine subrounded gravels		1640 NS			0.0		
			Grayish brown; trace iron oxide staining							
		SP	**SAND WITH SILT** ; SP; brown; medium dense; moist; no odor; iron oxide staining; gray mottling; trace small subrounded gravels; non-cohesive							
5					1640 B-7 @ 5'			0.0	5	
			Decrease in silt; very moist							
					1640 NS			0.0		
			Brown							Bentonite Chips
10					1140 B-7 @ 10'			0.0	10	
			Wet; increase in gravels							
			Increase in silt							
15					1150 B-7 @ 15'			0.0	15	
		ML	**SILT** ; ML; very dark brown; low plasticity; wet; no odor; no gravels; wood debris		1200 B-7 @ 17'			13.0		
			Borehole terminated at 17 feet.							

GEO FORM 304 B-1 THROUGH B-7.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 11/3/11

PROJECT: **Tidewater Seattle**
LOCATION: **2800 MLK Way South, Seattle, WA**
PROJECT NUMBER: **211602274**

WELL / PROBEHOLE / BOREHOLE NO: **MW-10** PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **7/11/11** COMPLETED: **7/13/11**
DRILLING COMPANY: **Cascade Drilling**
DRILLING EQUIPMENT: **Air Knife/CME 65**
DRILLING METHOD: **HSA (Limited access rig)**
SAMPLING EQUIPMENT: **Split spoon/PID**

NORTHING (ft):
LAT: **47° 34' 39.8"**
GROUND ELEV (ft): **59.28**
INITIAL DTW (ft): **16.0**
STATIC DTW (ft): **11.50**
WELL CASING DIA. (in): **2**
LOGGED BY: **RM**

EASTING (ft):
LONG: **122° 17' 45.8"**
TOC ELEV (ft): **58.96**
WELL DEPTH (ft): **20.0**
BOREHOLE DEPTH (ft): **20.0**
BOREHOLE DIA. (in): **8.25**
CHECKED BY: **JD**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
1450 (7/11/11)			12" Concrete/road base							Concrete
		ML	**SANDY SILT** ; ML; gray; low plasticity; firm; moist; iron oxide staining; trace small subrounded gravels; no odor							
1515 (7/11/11)			**SILT WITH CLAY** ; greenish gray; medium plasticity; trace brown mottles; increase in iron oxide staining		1515 MW-10-5'		N/A (air knife to 8' bgs)	6.3	5	Bentonite; 2" dia. sch. 40 PVC (blank)
			Gray; hard to very stiff; increase in sand				11 16 15			
855 (7/13/11)					855 MW-10-10'			14.0	10	
							18 45 25			Sand
905 (7/13/11)					905 MW-10-15'			12.6	15	2" dia. sch. 40 PVC (0.020" slot)
			Wet							
		SP	**SAND** ; SP; gray; medium-grained; dense; wet; no gravels; no odor				16 35 36			
916 (7/13/11)			Borehole terminated at 20 feet.		916 MW-10-20'			8.0	20	

GEO FORM 304 MW-6 THROUGH MW-10.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 9/9/11

PROJECT: **Tidewater Seattle**
LOCATION: **2800 MLK Way South, Seattle, WA**
PROJECT NUMBER: **211602274**

WELL / PROBEHOLE / BOREHOLE NO: **MW-6** PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **7/12/11** COMPLETED: **7/12/11**
DRILLING COMPANY: **Cascade Drilling**
DRILLING EQUIPMENT: **Air Knife/CME 75**
DRILLING METHOD: **HSA**
SAMPLING EQUIPMENT: **Split spoon/PID**

NORTHING (ft):
LAT: **47° 34' 40.5"**
GROUND ELEV (ft): **58.44**
INITIAL DTW (ft): **12.0**
STATIC DTW (ft): **12.15**
WELL CASING DIA. (in): **2**
LOGGED BY: **RM**

EASTING (ft):
LONG: **122° 17' 46.8"**
TOC ELEV (ft): **58.03**
WELL DEPTH (ft): **20.0**
BOREHOLE DEPTH (ft): **20.0**
BOREHOLE DIA. (in): **8.25**
CHECKED BY: **JD**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
830 (7/12/11)			12" Concrete/road base							Concrete
		ML	**SILT WITH FINE SAND** ; ML; gray; low plasticity; firm; moist; no gravels; no odor							
		SP	**SILTY SAND** ; SP; brown; medium dense; moist; trace small subrounded gravels; no odor		910 MW-6-5'		N/A (air knife to 8' bgs)	16.1	5	Bentonite; 2" dia. sch. 40 PVC (blank)
910 5 (7/12/11)										
		ML	**SILT WITH SAND** ; ML; gray; medium plasticity; soft; moist; trace brown mottles; some fine rounded gravels; no odor; trace fine roots		1330 MW-6-10'		2 2 2	0.5	10	
1330 10 (7/12/11)										
			Wet; many small-medium subbrounded gravels							
			Very dark brown; many medium roots		1340 MW-6-15'		2 5 9	1.8	15	Sand; 2" dia. sch. 40 PVC (0.020" slot)
1340 15 (7/12/11)										
		CL	**CLAY** ; CL; gray; low plasticity; firm; moist; no gravels; no odor		1355 MW-6-20'		2 4 6	0.5	20	
1355 20 (7/12/11)			Borehole terminated at 20 feet.							

GEO FORM 304 MW-6 THROUGH MW-10.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 9/9/11

PROJECT: **Tidewater Seattle**
LOCATION: **2800 MLK Way South, Seattle, WA**
PROJECT NUMBER: **211602274**

WELL / PROBEHOLE / BOREHOLE NO: **MW-7** PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **7/12/11** COMPLETED: **7/13/11**
DRILLING COMPANY: **Cascade Drilling**
DRILLING EQUIPMENT: **Air Knife/CME 65**
DRILLING METHOD: **HSA (Limited access rig)**
SAMPLING EQUIPMENT: **Split spoon/PID**

NORTHING (ft):
LAT: **47° 34' 39.9"**
GROUND ELEV (ft): **57.38**
INITIAL DTW (ft): **12.00**
STATIC DTW (ft): **11.00**
WELL CASING DIA. (in): **2**
LOGGED BY: **RM**

EASTING (ft):
LONG: **122° 17' 46.8"**
TOC ELEV (ft): **56.96**
WELL DEPTH (ft): **20.0**
BOREHOLE DEPTH (ft): **20.0**
BOREHOLE DIA. (in): **8.25**
CHECKED BY: **JD**

Time & Depth (feet)	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1030 (7/12/11)		12" concrete/road base						
	ML	**SANDY SILT** ; ML; grayish brown; low plasticity; firm; moist; no gravels; no odor						
1110 5 (7/12/11				1110 MW-7-5'		N/A (air knife to 8' bgs)	14.6	5
1115 10 (7/13/11)		No recovery at 10'						10
		Wet						
		Dark brown; some small-medium subrounded gravels		1130 MW-7-15'		4 5 9	6.9	15
	CH	**CLAY** ; CH; gray; high plasticity; soft; wet; no gravels; no odor; trace small roots		1145 MW-7-20'		3 7 9	0.7	20
1145 20 (7/13/11)		Borehole terminated at 20 feet.						

Well Construction: Concrete; Bentonite; 2" dia. sch. 40 PVC (blank); Sand; 2" dia. sch. 40 PVC (0.020" slot)

GEO FORM 304 MW-6 THROUGH MW-10.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 9/9/11

PROJECT: **Tidewater Seattle**
LOCATION: **2800 MLK Way South, Seattle, WA**
PROJECT NUMBER: **211602274**

WELL / PROBEHOLE / BOREHOLE NO: **MW-8** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **7/11/11** COMPLETED: **7/12/11**
DRILLING COMPANY: **Cascade Drilling**
DRILLING EQUIPMENT: **Air Knife/CME 75**
DRILLING METHOD: **HSA**
SAMPLING EQUIPMENT: **Split spoon/PID**

NORTHING (ft):
LAT: **47° 34' 41"**
GROUND ELEV (ft): **62.13**
INITIAL DTW (ft): **14.0**
STATIC DTW (ft): **11.40**
WELL CASING DIA. (in): **2**
LOGGED BY: **RM**

EASTING (ft):
LONG: **122° 17' 45.5"**
TOC ELEV (ft): **61.71**
WELL DEPTH (ft): **20.0**
BOREHOLE DEPTH (ft): **20.0**
BOREHOLE DIA. (in): **8.25**
CHECKED BY: **JD**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
1300 (7/11/11)			12" Weathered asphalt/road base							Concrete
			SANDY SILT WITH GRAVEL ; brown; low plasticity; firm; moist; some small-medium subrounded gravels; no odor; trace fine roots (Fill)							
			Concrete debris				N/A (air knife to 8' bgs)			
1330 (7/11/11) 5			**SAND WITH SILT** ; grayish brown; medium dense; moist; iron oxide staining; few small subrounded gravels; no odor; concrete debris (Fill)		1330 MW-8-5'			0.0	5	Bentonite; 2" dia. sch. 40 PVC (blank)
			Gray; loose; no gravels				3 3 4			
1050 (7/12/11) 10					1050 MW-8-10'			10.5	10	
			Wet; few medium subrounded gravels				3 3 5			Sand
1100 (7/12/11) 15					1100 MW-8-15'			56.5	15	2" dia. sch. 40 PVC (0.020" slot)
			Greenish gray; trace fine roots				5 8 19			
1115 (7/12/11) 20			Borehole terminated at 20 feet.		1115 MW-8-20'			11.6	20	

GEO FORM 304 MW-6 THROUGH MW-10.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 9/9/11

PROJECT: **Tidewater Seattle**
LOCATION: **2800 MLK Way South, Seattle, WA**
PROJECT NUMBER: **211602274**

WELL / PROBEHOLE / BOREHOLE NO: **MW-9** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **7/11/11** COMPLETED: **7/12/11**
DRILLING COMPANY: **Cascade Drilling**
DRILLING EQUIPMENT: **Air Knife/CME 75**
DRILLING METHOD: **HSA**
SAMPLING EQUIPMENT: **Split spoon/PID**

NORTHING (ft):
LAT: **47° 34' 40.6"**
GROUND ELEV (ft): **63.07**
INITIAL DTW (ft): **NE**
STATIC DTW (ft): **14.00**
WELL CASING DIA. (in): **2**
LOGGED BY: **RM**

EASTING (ft):
LONG: **122° 17' 44.9"**
TOC ELEV (ft): **62.58**
WELL DEPTH (ft): **25.0**
BOREHOLE DEPTH (ft): **25.0**
BOREHOLE DIA. (in): **8.25**
CHECKED BY: **JD**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1030 (7/11/11)			12" Asphalt/roadbase						
			SILT WITH SAND ; dark brown; low plasticity; soft; moist; some small subrounded gravels; no odor; concrete/brick debris at 2.5' bgs (Fill)				N/A (air knife to 5.5' bgs)		
			Construction debris with brown silt matrix - weathered concrete and bricks up to 6"x6"x3"						
1200 5 (7/11/11)			**POORLY GRADED GRAVEL WITH SILT AND SAND** ; moist; no odor; predominately fill gravel and construction debris (Fill)		1200 MW-9-5'			0.5	5
			SANDY SILT WITH GRAVEL ; dark brown; low plasticity; very stiff to hard; moist; many small subangular gravels; no odor (Fill)		830 MW-9-10'		8 24 37	15.4	10
			Few small subangular gravels; increase in moisture		845 MW-9-15'		9 14 15	4.3	15
			Gray; no gravels; increase in moisture		855 MW-9-20'		12 20 30	0.7	20
			SAND ; gray; very dense; moist; no gravels; no odor (Fill)						
905 25 (7/12/11)			Borehole terminated at 25 feet.		905 MW-9-25'		50 for 6"	0.9	25

Well Construction
- Concrete
- Bentonite
- 2" dia. sch. 40 PVC (blank)
- Sand
- 2" dia. sch. 40 PVC (0.020" slot)

GEO FORM 304 MW-6 THROUGH MW-10.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 9/9/11

APPENDIX D
PERMITS

Seattle Dept of Transportation
Street Use Permits, 23rd Floor
700 Fifth Ave, Suite 2300
P O Box 34996
Seattle, WA 98124-4996

UTILITY PERMIT

Permit No.: 154914
Job No.: 211602274

PERMITTEE

Inspector: David Soule
Inspection District: SOUTH CENTRAL

LOCATION

Address: 2800 M L KING JR WAY S

Details: IN THE SIDEWALK ACROSS MLK JR WAY WEST OF THE SITE LOCATION. IN THE SIDEWALK ON THE EAST SIDE OF MLK JR WAY 50-75 FEET SOUTH OF THE SITE.

Application Date: 6/8/11 1:17 pm
Issue Date: 6/29/11 8:27 am

PARTIES (* Primary Applicant)

Role	Name	Address	Phone	From	To
*24 Hour Contact	DAUPHINAIS, JUSTIN	9400 SW BARNES ROAD,SUITE 200,PORTLAND,OR,97225	(503)764-7061		
Permittee	STANTEC CONSULTING	9400 SW BARNES ROAD STE 200,,PORTLAND,OR,97224-	(503)297-1631		

PERMITTED USES

Right of Way: ARTERIAL **DPD #:** **To Be Restored By:** PERMITTEE

Use	Space	Start Date	Duration	Max Allowed Date	Sq. Ft.	Issued Date	Intended Vacate Date
51I	A	7/11/11	10	7/20/11	900	6/29/11	7/20/11

Use	Space	Description	Conditions
51I	A	Preparatory and exploratory work for upcoming projects, including surveying, installing monitoring wells, and soil sampling.	Stantec Consulting will be overseeing the installation of 3 groundwater monitoring wells for environmental sampling on behalf of ConocoPhillips Company. Two of the monitoring wells will be installed in the sidewalk across the street west from 2800 MLK J

CONDITIONS OF USE

DESCRIPTION OF WORK :

Additional Notes: *Stantec Consulting will be overseeing the installation of 3 groundwater monitoring wells for environmental sampling on behalf of ConocoPhillips Company. Two of the monitoring wells will be installed in the sidewalk across the street west from 2800 MLK JR Way S. Seattle, WA. One monitoring well will be installed in the sidewalk on the east side of MLK JR WAY approximately 50-75 feet south of the aforementioned address. The monitoring wells will be installed as 2 inch pvc wells approximately 20-25 feet in depth with heavy duty monuments. A limited access hollow stem auger drill rig will be used by Cascade Drilling to install the wells. Cascade Drilling is licensed in the state of Washington to install monitoring wells. All locations of the sidewalk worked on will be constructed and repaired to city code. the work will take approximately one week to complete. The work will be tentatively scheduled to begin on July 11, 2011.*

E1.15 :
MULCHING AND MATTING - Apply mulch to protect exposed soils and promote plant establishment.

E1.40 :
PERMANENT SEEDING AND PLANTING - Install temporary surface runoff control measures prior to seeding or planting to protect the surface from erosion until the vegetation is established. Establish permanent vegetation (e.g., grasses, legumes, trees, and shrubs) as rapidly as possible to prevent soil erosion by wind or water.

E1.45 :
SODDING - Establish permanent turf for immediate erosion protection or to stabilize drainage pathways where concentrated overland flow will occur.

E1.50 :
TOPSOILING - Preserve and use topsoil to enhance final site stabilization with vegetation and to provide a suitable growth medium for final site stabilization with vegetation.

E3.25 :
STORM DRAIN INLET PROTECTION - Install storm drain covers on stormwater structures less than 12 inches deep during construction. Install catch basin filter socks in stormwater structures greater than 12 inches deep. Place the storm drain or catch basin grate on top of the catch basin filter sock to hold it in place.

C1.20 :
USE OF CHEMICALS DURING CONSTRUCTION - Use only the recommended amounts of chemical materials and apply them in a proper manner. Neutralize the pH of concrete wash water from concrete mixers, if necessary.

C1.35 :
SAWCUTTING AND PAVING POLLUTION PREVENTION - Vacuum slurry and cuttings during the activity to prevent migration offsite and do not leave slurry and cuttings on permanent concrete or asphalt paving overnight. Dispose of collected slurry and cuttings, waste material, and demolition debris in a manner that does not violate groundwater or surface water quality standards. Implement preventative measures such as berms, barriers, secondary containment, and vactor trucks if observations indicate that a violation of water quality standards could occur.

C1.45 :
SOLID WASTE HANDLING AND DISPOSAL - Remove and dispose of accumulated solid waste at authorized disposal areas. Label waste containers and place them in a covered area with closed lids. Salvage and recycle any useful materials.

BMP5 :
SPILL PREVENTION AND CLEANUP-Keep a spill cleanup kit in a nearby vehicle or next to the work site so that it is easily accessible. Make sure the contents of the spill kit are appropriate for the types and quantities of materials used for this work task. Refill spill kit materials before beginning work.

BMP16 :
CONCRETE POURING, CONCRETE/ASPHALT CUTTING, AND ASPHALT APPLICATION - Sweep or shovel loose aggregate chunks and dust for recycling or proper disposal. Place storm drain covers or similarly effective containment devices over all storm drains located downslope or adjacent to the work area. Shovel or vacuum all slurry and remove from the site. Perform cleaning of concrete application and mixing equipment or concrete-delivery vehicles in a designated area where the rinse water is controlled.

BMP20 :
LANDSCAPING AND LAWN VEGETATION MANAGEMENT - Use proper fertilizer and herbicide application techniques to minimize nutrient pollution of stormwater. Implement proper landscaping and mulching techniques to prevent plant material and excess mulch from entering the separate storm drainage system. Do not dispose of collected vegetation in separate storm drainage systems, waterways, water bodies or greenbelt areas.

ARTERIAL PERMIT :
ARTERIAL STREETS shall be open to its full driving width between the hours of 7-9:00am and 4-6:00pm weekdays. At all other times it may be reduced to one lane in each direction. Permittee shall contact King County/METRO Transit (684-2732) five days prior to starting any work which may affect bus stop zones or other bus operations. Maintain a 4-foot wide walkway for pedestrians around the work area. Permittee shall contact all residents who may be affected by this work at least 72 hours before the start of work. A minimum of one week's advance notice shall be given by Permittee to the affected businesses/residents when driveway or delivery access will be restricted. Access to all businesses shall be maintained during construction. All driveways will be cleared and accessible at the end of every work day. Permittee is responsible to have parking restriction easels up a minimum of 24 hours in advance of the need to clear parking within the construction zone. Parking restriction easels must show either the Permittee's or contractor's name and phone number. Permittee shall coordinate this work with any other contractors working near its work zone to avoid conflicts. Tree roots 2" or more in diameter shall not be cut or damaged. Permittee shall contact the City Arborist Office (684-7649) a minimum of two working-days prior to digging within the "drip line" of any street trees. No permanent restoration of street or alley pavement shall be done by Permittee or its contractor until a City of Seattle/Seattle Transportation-Street Use inspector has marked the periphery of the pavement to be repaired and/or replaced.

COPY OF ISSUED PERMIT ON SITE :
A COPY OF THE ISSUED PERMIT must be on site at all times when working in the Right-of-Way.

EXCAVATION DATE NOTIFICATION :
Before beginning work in the right-of-way, you must notify Street Use to verify your start date 24-72 hours prior to the start of work by contacting Job Start at (206) 684-5270 or via email to SDOTJobStart@Seattle.gov. In addition, if your permitted work includes breaking ground and excavating in the Right-of-Way you MUST notify Street Use Job Start at least 24 hours in advance and specify the date that the ground breaking work will begin. Failure to comply with these requirements will result in a No Job Start Call Penalty.

INTEGRITY OF BACKFILL :
Permittee also agrees to guarantee the integrity of the backfill and permanent street restoration work done in conjunction with this permit for the period of time stipulated in the City of Seattle "Street and Sidewalk Pavement Opening and Restoration Rules" (SDOT Director's Rule 94-8). No permanent restoration of street or alley pavement shall be done by Permittee or its contractor until a City of Seattle/SDOT-Street Use inspector has marked the periphery of the pavement to be repaired and/or replaced. The use of Uretek or materials similar thereto in the backfill will not be allowed without prior review and approval of the use of this material by the owners the underground utilities in which the backfill will come in contact with.

METRO BUS RESTRICTIONS :
Contact Metro for bus restrictions at (206) 684-2732 prior to starting work.

PARKING ON SIGNAL DETECTORS :
During boring and trenching operations, equipment may not be parked on active signal detectors, as it will cause unnecessary extension of the traffic movement. If it is necessary to do this then the same procedure as above will be required.

SIGNAL CONTACTS :
Contact numbers for signal operations are: 24 hour emergency number - 206 386 1206 engineering questions - Darlene Pahlman 206 684 5105

STREET RESTORATION :
Cuts made in brick or decorative pavement shall be restored "in-kind". Also, all concrete pavement cut or damaged by Permittee will require the replacement of the entire concrete panel that has been damaged or cut. Permittee agrees to guarantee the integrity of its contractors' backfill and permanent street/sidewalk restoration work for the period of time stipulated in the City of Seattle "Street and Sidewalk Pavement Opening and Restoration Rules" (SDOT Director's Rule 94-8). Permittee's contractor shall immediately capture the concrete/water sludge produced from saw-cutting of sidewalk and street pavement to prevent the said sludge from: 1) flowing into the paths of pedestrians and vehicles; and, 2) entering the Seattle Public Utility's storm water inlets and catch basins. Permanent restoration of an asphalt or asphalt overlay street, alley or other public place shall be completed in a manner acceptable to the Director of Transportation. Permanent restoration shall include, at a minimum, the following, unless the Director of Transportation determines that the Permittee can otherwise make an equivalent restoration of the street, alley, or other public place: For any asphalt surface three (3) years old or less, new asphalt for the length of the cut and width of all lanes affected by the construction or other activity is required. For any asphalt surface where thirty percent (30%) or more of the width of any lane is affected by the construction or other activity, new asphalt for the length of the cut and width of all lanes affected is affected. For any other asphalt surface, new asphalt for the length and width of the affected area is required. All permanent restoration must be completed per the PORR.

WALKWAY FOR PEDS :
Maintain a four-foot (4') wide walkway for pedestrians through or around the work areas. Permittee shall contact all businesses and residents who may be affected by the work to be done under this permit at least one week before starting any construction activity in the street rights-of-way. Permittee must coordinate this work with any other contractors working near its construction zone to avoid conflicts. Access to all businesses shall be maintained during construction. All driveways will be cleared and accessible at the end of every work day.

Seattle Dept of Transportation
Street Use Permits, 23rd Floor
700 Fifth Ave, Suite 2300
P O Box 34996
Seattle, WA 98124-4996

UTILITY PERMIT

Permit No.: 154914
Job No.: 211602274

WORK OUTSIDE NORMAL WORK HOURS :
WORK OUTSIDE OF NORMAL WORKING HOURS (8:00 A.M. TO 5:00 P.M. MONDAY THROUGH FRIDAY) requires a minimum of 48 hours (2 days) advanced notice to the project's assigned inspector regarding the date and time when the work will be done. Work outside of normal working hours may also require a separate traffic control plan. A minimum of two hours of inspection time will be charged for inspection outside of normal working hours (8:00 a.m. to 5:00 p.m. Monday through Friday) at the premium rate. Failure to provide a minimum of 48 hour notice may result in additional penalty fees and/or enforcement measures; including issuance of a Stop Work Order and/or Citation.

FEES & PAYMENTS

Payment Method: FEES PAID OVER THE COUNTER

Description	Date	Amount	Unpaid Amount	Paid Amount	Waived
ISSUANCE FEE - USE 51I	6/29/11	$146.00	$0	$146.00	$0
USE FEE - USE 51I - SPACE A	6/29/11	$90.00	$0	$90.00	$0
Totals:		$236.00	$0.00	$236.00	$0.00

STREET USE INSPECTOR David Soule (206) 684-8253

Permittee _____ Director Per _____

GENERAL REQUIREMENTS

1. ***Nature of permit.*** This permit is issued pursuant to the Seattle Municipal Code (SMC), Chapter 15.04, for use and/or occupancy of the public right-of-way consistent with the terms and conditions set forth herein. This permit is wholly of a temporary nature, vests no permanent rights whatsoever, and is revocable pursuant to SMC 15.04.070.
2. ***Acceptance of terms, conditions, and requirements.*** Permittee accepts the terms, conditions, and requirements of this permit and agrees to comply with them to the satisfaction of the Seattle Department of Transportation, Street Use Division, or such other agency as may be designated by the City of Seattle. Permittee further agrees to comply with all applicable city ordinances, including but not limited to Title 15 SMC, and all applicable requirements of state and federal law.
3. ***Expiration of permit.*** This permit shall remain valid until revoked pursuant to SMC 15.04.070; provided that, the permit shall expire automatically if the authorized work does not begin within six months from the date the permit is issued
4. ***Superiority of street improvement contracts.*** Rights acquired under this permit are inferior to those acquired under existing or future street improvement contracts.
5. ***Compliance with technical requirements and standards.*** All work within the public right-of-way must be performed and completed in accordance with requirements set forth in the following technical documents published by the City of Seattle, as now or hereafter amended: Right-of-Way Improvements Manual; Standard Specifications for Road, Bridge, and Municipal Construction; Standard Plans for Municipal Construction; Street and Sidewalk Pavement Opening and Restoration Rule; and Traffic Control Manual for In-Street Work.
6. ***Notification prior to starting work.***
   a. UTILITY PERMITS: Permittee shall be responsible for notifying Street Use Job Start at (206) 684-5270 or SDOTJobStart@Seattle.gov twenty-four (24) to seventy-two (72) hours prior to the start of work and provide the following information:
      - Permit Number
      - Job Site Address
      - Start Date
      - Brief Work Description
      - Job Site Contact Name and Phone Number

      Failure to do so will result in a penalty of $300, or such other amount as may be established pursuant to SMC 15.04.074.
   b. ALL OTHER PERMITS: Permittee shall be responsible for notifying the Street Use Inspector named on this permit twenty-four (24) to seventy-two (72) hours prior to starting work within the public right-of-way. Failure to do so will result in a penalty of $300, or such other amount as may be established pursuant to SMC 15.04.074.
7. ***Coordination of work.*** In performing work authorized by this permit, the Permittee shall coordinate with other contractors working in the public right-of-way to avoid conflicts.
8. ***Hours of work.*** Work performed within the public right of way shall occur only during hours authorized under the City of Seattle Noise Control ordinance, codified at Chapter 25.08 SMC, and the Traffic Control Manual for In-Street Work, as now or hereafter amended.
9. ***Moratorium.*** Pursuant to SDOT Director's Rule 2004-02, no work in the public right-of-way shall be allowed in the following areas from Thanksgiving Day through January 1st:
   a. The area bounded by Seneca Street, Interstate 5, Denny Way, Virginia Street, and 1st Avenue; and
   b. The area bounded by Columbia Street, 2nd Avenue South, South King Street, and Elliott Bay.
10. ***Inspection fees.*** Permittee shall pay for city inspections of work authorized under this permit at a rate of $150 per hour, or such other amount as may be established pursuant to SMC 15.04.074, and to cover all other associated costs.
11. ***Billing.*** All fees and costs billed pursuant to this permit shall be paid to the City of Seattle within thirty (30) days from the date of the invoice. Any invoice more than ninety (90) days past due will be forwarded for collection. All past due amounts will accrue interest at twelve (12) percent

per annum. In the event suit is commenced to collect on unpaid invoices, the prevailing party will be entitled to reasonable attorney fees and costs of litigation.

12. ***Indemnification.*** The Permittee agrees to defend, indemnify, and hold harmless the City of Seattle, its officials, officers, employees, and agents against: (1) any liability, claims, causes of action, judgments, or expenses, including reasonable attorney fees, resulting directly or indirectly from any act or omission of the Permittee, its subcontractors, anyone directly or indirectly employed by them, and anyone for whose acts or omissions they may be liable, arising out of the Permittee's use or occupancy of the public right-of-way; and (2) all loss by the failure of the Permittee to fully or adequately perform, in any respect, all authorizations or obligations under this Permit.

EXISTING IMPROVEMENTS

1. ***Costs of damage to city property and improvements.*** Permittee shall be responsible for the costs of repairing any damage to city property or improvements resulting from work performed by or on behalf of the permittee within the public right-of-way.
2. ***Utility protection.*** Utility damage is costly! Permittee shall be responsible for checking locations and providing adequate protection for all utilities in the work area.
3. ***Utility relocation.*** Any necessary utility relocation shall be at the expense of the Permittee, who shall be responsible for notifying affected utilities and requesting the service relocation.
4. ***Notification prior to ground disturbance.*** Permittee shall call Utility Underground Locator Center (1-800-424-5555) 48 hours prior to ground disturbance.
5. ***Survey monuments.*** Prior to removing, destroying, disturbing, or covering a survey monument, such that the survey point is no longer visible or readily accessible, Permittee shall obtain a permit from the Department of Natural Resources pursuant to Washington Administrative Code, Chapter 332-120.

RESTORATION

1. ***Full and continuous restoration.*** The public right-of-way shall be left in original or better condition, continuous with job progress, pursuant to the Street and Sidewalk Pavement Opening and Restoration Rule, as now or hereafter amended.
2. ***Environmental protection.***
   2.1 Best management practices required. The Permittee shall ensure the use of environmental best practices, as detailed in the Regional Road Maintenance Endangered Species Act (ESA) Program Guidelines. The Permittee shall be responsible for the control of surface runoff, erosion and sediment at the construction site, as required by: the Stormwater, Drainage and Grading Code, codified in Subtitle VIII SMC, the Standard Specifications for Road, Bridge, and Municipal Construction, and Department of Planning and Development Director's Rule 16-2000, as now or hereafter amended. The site and the surrounding area shall generally be kept clean and free of construction debris or other material, including but not limited to mud, dust, rock, asphalt, and concrete. Waste materials shall be collected and disposed of at an appropriate disposal site. These materials shall be prevented from entering any part of the public sewer and storm drain system, and any surface waters.
   2.2 RESERVED

TRAFFIC CONTROL REQUIREMENTS

1. ***Compliance with traffic control manual.*** In order to provide safe and effective work areas and to ward, control, protect, and expedite vehicular and pedestrian traffic, signage for all construction within the public right-of-way must comply with the City of Seattle Traffic Control Manual for In-Street Work, as now or hereafter amended, unless the construction is subject to a traffic control plan approved by the City Traffic Engineer or designee. A copy of the current City of Seattle Traffic Control Manual for In-Street Work, and approved traffic control plan for arterial streets, shall be kept at the work site.
2. ***Lanes to remain open during peak hours.*** No moving traffic lanes shall be closed during the following peak hours: 6-9:00 am and 3-7:00 pm in the central business district, and 7-9:00 am and 4-6:00 pm for arterials elsewhere.
3. ***Access to business.*** Access to all businesses shall be maintained during construction. At least one week prior to starting work within the public right-of-way, Permittee shall notify all potentially affected residents and businesses.
4. ***Width of temporary traffic lanes.*** Temporary traffic lanes created during this work shall be a minimum of eleven feet in width
5. ***Meter hoods.*** When working in a metered zone, meter hoods must be obtained from SDOT Traffic Engineer's office (206) 684-5086.
6. ***No parking signs.*** "No parking" signs shall be placed 72 hours prior to the first day on which parking will be prohibited and shall clearly state the Permittee's name and telephone number. A copy of the "No parking sign" used by Permittee shall be faxed to Seattle Police Department, at (206) 684-5101, using the Notification of Temporary No parking Zone form
7. ***Flashing lights.*** Four or more FLASHING AMBER LIGHTS of sufficient brilliance to be seen from 500 feet, must be maintained at all times during the hours of darkness at the points of obstruction or excavation of any public place.

City of Seattle
Seattle Department of Transportation
Street Use Division
700 Fifth Avenue, Suite 2300
Seattle, Washington 98104-5043

Permit Number
154914

Street Use Permit Checklist and Review Transmittal

Project Location: 2800 M L King Jr Way S

FROM: SDOT, Street Use Division, SMT 39-00
Phone No. (206) 684-5283 Fax No. (206) 684-5347
Email Address: sdotpermits@seattle.gov

Application Acceptance Date: 6/7/11

RECEIVED
JUN 08
S.D.O.T.
TRAFFIC MANAGEMENT D

If comments are due sooner than 10 business days, please specify the reason for the shortened review period:

APPLICATION INTAKE CHECKLIST (The following information must be verified at application submittal)

- [x] APPLICATION COMPLETE
- [x] ON-LINE PERMIT APPLICATION
- [x] ENTER APPLICATION INFORMATION INTO HANSEN
- [x] STREET CLASSIFICATION CORRECT
- [x] ARTERIAL
- [ ] NON-ARTERIAL
- [x] MOBILITY IMPACTS ARE CORRECT BASED ON SITE PLAN AND TYPE OF WORK
- [x] FOR NON-ARTERIAL STREETS – ENTER MOBILITY IMPACTS INTO HANSEN
- [x] GIS SPECIAL CONDITIONS CHECK – ENTER ENDORSEMENTS INTO HANSEN BASD ON GIS
- [x] **PLAN CHECK (CHECK ALL THAT ARE REQUIRED IN THE REVIEW BOX BELOW)**
- [x] PLANS COMPLETE – VERIFY INFORMATION IS COMPLETE ON REQUIRED PLANS. ITEMS MAY INCLUDE:
  - SITE PLAN - TITLE, PERMIT NUMBER, WORK ZONE LOCATION AND DIMENSIONS
  - TCP - TITLE, PERMIT NUMBER, HOURS OF WORK, CONTACT INFORMATION
  - RESTORATION PLAN – REQUIREMENTS PER USE CODE AND PROJECT LOCATION

- [x] STAGE PROGRESS TO **APPLICATION PROCESSED** IN HANSEN
- [x] COLLECT DEPOSIT OR [ ] BILLING
- [x] COPY COMPLETED REVIEW CHECKLIST FOR FILE AND EACH REVIEWER
- [x] DISTRIBUTE PERMIT APPLICATION SUBMITTAL PER THE SDOT REVIEW BELOW AND PLACE 1 COPY IN APPROVED DOCUMENTS FILE

PERMIT PLAN REVIEW CHECKLIST

PLANS	RQ'D	REVIEWER	CIRC DATE	DUE DATE	APPRVD	DENIED	DATE
SITE PLAN / FIELD REVIEW	[x]	J Green			JG		6/8/11
TCP	[x]	M. Vancil	6/8/11	6/22/11			6/9/11
RESTORATION PLAN	[ ]						
Use Code information	[x]						
OTHER:							
OTHER:	[ ]						

[x] **PERMIT REVIEW COMPLETE** **INITIALS:** JG
[x] **APPLICANT NOTIFIED** **DATE** 6-29-11 **INITIALS:** JG

7/4 -20

STANTEC CONSULTING

PROJECT LOCATED AT
2800 MARTIN LUTHER KING WAY
SEATTLE, WA

DURATION OF WORK
APPROXIMATELY 2 DAYS

HOURS OF OPERATION
M-F, 9AM-3PM

PROJECT MANAGER
JUSTIN DAUPHINAIS
(503) 297.1631 X204
FAX# (503) 297.5429

STREET(S) & SIDEWALKS TO BE COMPLETELY CLEAR & FULLY OPEN
7 AM- 9 AM
4 PM- 6 PM
__ AM- __ PM

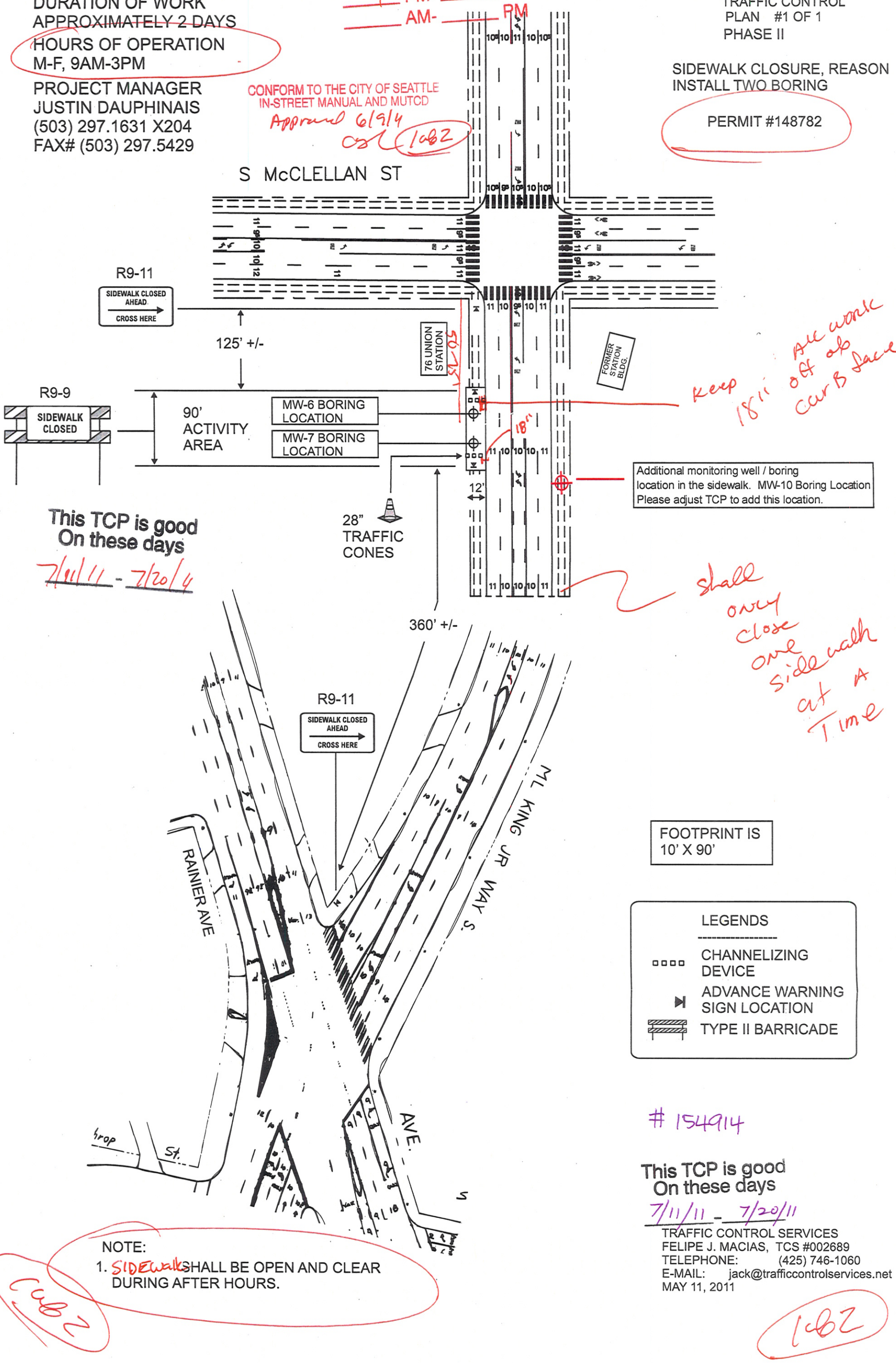
CONFORM TO THE CITY OF SEATTLE IN-STREET MANUAL AND MUTCD
Approved 6/9/11
OSL 1482

NOT TO SCALE

TRAFFIC CONTROL PLAN #1 OF 1
PHASE II

SIDEWALK CLOSURE, REASON
INSTALL TWO BORING

PERMIT #148782



Keep all work 18" off ob curb face

Additional monitoring well / boring location in the sidewalk. MW-10 Boring Location
Please adjust TCP to add this location.

This TCP is good
On these days
7/11/11 - 7/20/11

shall only close one sidewalk at A Time

FOOTPRINT IS
10' X 90'

LEGENDS
- CHANNELIZING DEVICE
- ADVANCE WARNING SIGN LOCATION
- TYPE II BARRICADE

NOTE:
1. SIDEWALK SHALL BE OPEN AND CLEAR DURING AFTER HOURS.

CUB 2

154914

This TCP is good
On these days
7/11/11 - 7/20/11

TRAFFIC CONTROL SERVICES
FELIPE J. MACIAS, TCS #002689
TELEPHONE: (425) 746-1060
E-MAIL: jack@trafficcontrolservices.net
MAY 11, 2011

1482

STANTEC CONSULTING

PROJECT LOCATED AT
2800 MARTIN LUTHER KING WAY
SEATTLE, WA

DURATION OF WORK
APPROXIMATELY 2 DAYS

HOURS OF OPERATION
M-F, 9AM-3PM

PROJECT MANAGER
JUSTIN DAUPHINAIS
(503) 297.1631 X204
FAX# (503) 297.5429

N
W E
S

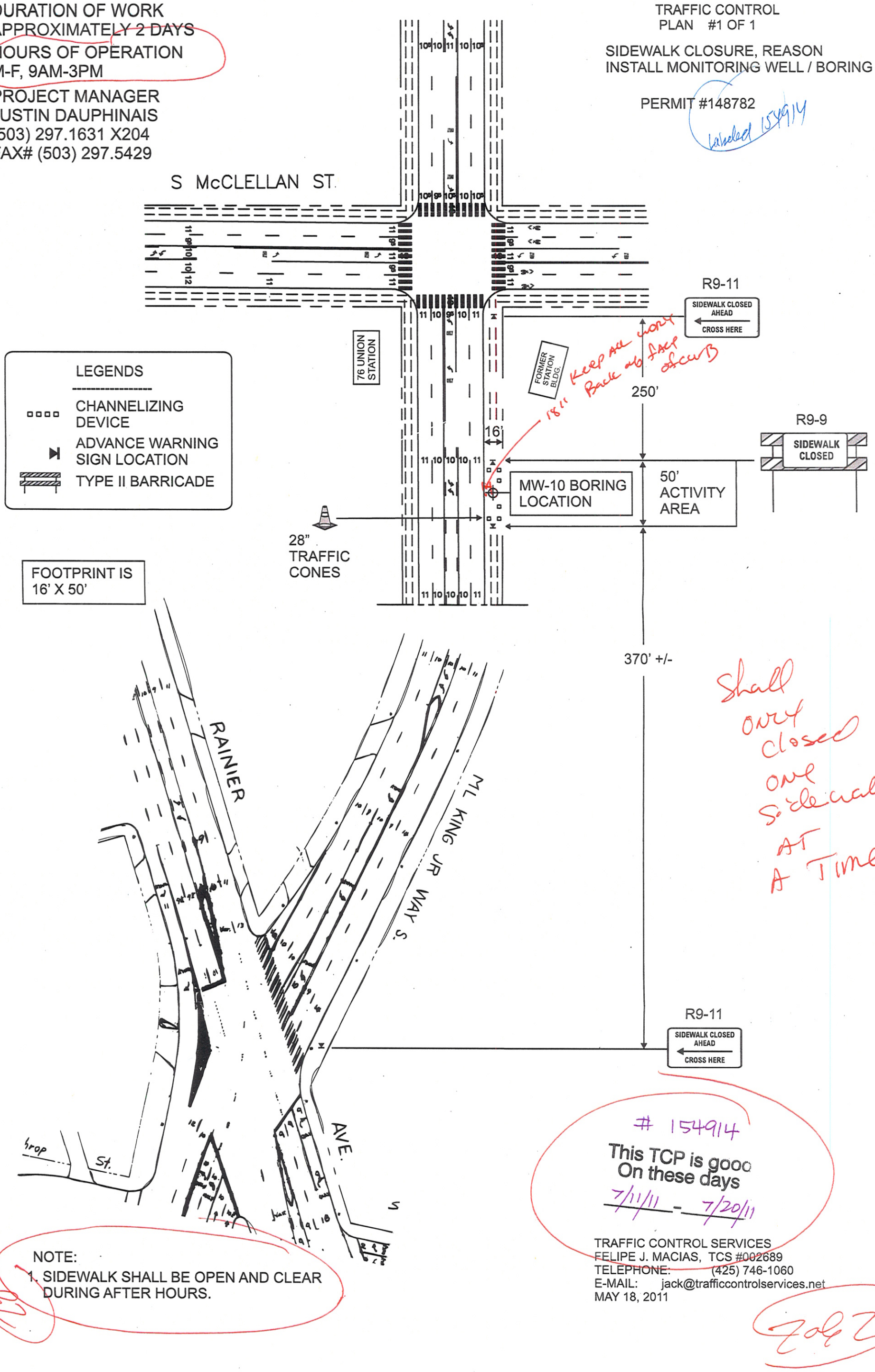
NOT TO SCALE

TRAFFIC CONTROL
PLAN #1 OF 1

SIDEWALK CLOSURE, REASON
INSTALL MONITORING WELL / BORING

PERMIT #148782

Labeled 15/9/14



Keep all work Back 18" from face of curb

Shall only have closed one sidewalk at A Time.

NOTE:
1. SIDEWALK SHALL BE OPEN AND CLEAR DURING AFTER HOURS.

154914
This TCP is good
On these days
7/11/11 - 7/20/11

TRAFFIC CONTROL SERVICES
FELIPE J. MACIAS, TCS #002689
TELEPHONE: (425) 746-1060
E-MAIL: jack@trafficcontrolservices.net
MAY 18, 2011

SDOT PERMIT # 154914

Dry cleaner?

SOUTH McCLELLAN STREET

Investigate Rainier?

76 UNION SERVICE STATION

MARTIN LUTHER KING WAY

FORMER UST EXCAVATION

FORMER STATION BUILDING

FORMER PUMP ISLAND

DENTIST OFFICE

RESIDENTIAL YARDS

SCHOOL TRACK

GL-1 GL-2 GL-3 GL-4 GL-5 GL-6

P-1 P-2 P-3 P-4 P-5 P-6 P-7 P-8 P-9 P-10 P-11 P-12 P-13 P-14 P-15

MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9 MW-10

B-1 B-2 B-3 B-4

Location of 3 Monitoring Wells MW-6, MW-7, and MW-10 located in the sidewalk.

LEGEND:

- MW-1 GROUNDWATER MONITORING WELL
- P-1 GEOPROBE BORING
- GL-1 AUGER BORING LOCATION
- PROPOSED WELL LOCATIONS
- PROPOSED DIRECT PUSH

N

0 40 80

APPROXIMATE SCALE IN FEET

Stantec

FOR: FORMER TIDERWATER SERVICE STATION 2800 MARTIN LUTHER KING WAY SEATTLE, WASHINGTON

EXTENDED SITE PLAN WITH PROPOSED BORING LOCATIONS

FIGURE: **6**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211402926.300.250	MDR	TG	DS	03/22/10

FILEPATH:M:\Tidewater\SEATTLE\FIG-6 TIDEWATER SEATTLE-PROPOSED.dwg | Layout Tab: 11x17L | Drafter: miramirez | Mar 22, 2010 at 14:12

APPENDIX E
SURVEYING DATA

Well ID	Ground Surface Elevation (feet)	Top of Casing Elevation (feet)	Latitude	Longitude	Northing	Easting
MW-01	Missing					
MW-02	61.34	60.72	47 34 40.78219	122 17 45.70692	214265.971	1279415.686
MW-03	62.26	61.81	47 34 41.12471	122 17 45.70706	214300.671	1279416.336
MW-04		62.75	47 34 41.30584	122 17 45.51615	214318.771	1279429.771
MW-05	61.84	61.66	47 34 41.03680	122 17 45.75051	214291.821	1279413.188
MW-06	58.44	58.03	47 34 40.53619	122 17 46.79231	214242.465	1279340.81
MW-07	57.38	56.96	47 34 39.90530	122 17 46.79436	214178.555	1279339.454
MW-08	62.13	61.71	47 34 41.01546	122 17 45.52376	214289.364	1279428.69
MW-09	63.07	62.58	47 34 40.62670	122 17 44.89215	214249.158	1279471.238
MW-10	59.28	58.96	47 34 39.78123	122 17 45.76924	214164.65	1279409.486

Benchmark - City of Seattle Brass cap stamped SNV-2511, 0.5' W of S PC BK CW also 06.3' E of SE cor column of bus shelter in the SE cor intersection of S. Mt. Baker Blvd & Rainier Ave. S. - Elevation 50.994 Ft. (US Survey foot, NAVD88). Horizontal control is based on WA State Coordinate System, North Zone.

APPENDIX F
GROUNDWATER MONITORING AND SAMPLING FIELD DATA SHEETS

JOB NAME:	Tidewater Seattle	JOB NUMBER:	211602211.400.400
ADDRESS:	2800 Martin Luther King Way	START DATE:	08/22/11
ADDRESS:	Seattle, WA	DATE PREPARED:	08/10/11
PREPARED FOR:		PREPARED BY:	Alejandra Hernandez

STANTEC - GROUND WATER GAUGING FORM

MEASURED TO TOC: Top of Casing

	WELL I.D	Gauge Order	Well Diameter	3Q11 DTB (ft)	3Q11 DTP (ft below TOC)	3Q11 DTW (ft below TOC)	3Q11 LPH (feet)	2Q11 DTW (ft below TOC)	NOTES OR COMMENTS Was there sheen?
0840	MW-1	1	2	—	—	—	—	--	CAN'T LOCATE WELL - I on site.
0927	MW-2	2	2	21.16	—	11.96	—	--	Well tag # APM434. Has tubing Locks on plug. Mud on probe DTB.
0933	MW-3	3	2	20.22	—	12.10	—	--	Well tag # APM435. Has tubing Lock on plug
0917	MW-4	4	2	19.12	—	12.42	—	--	No well tag. Has tubing.
0940	MW-5	5	2	19.29	—	12.80	—	--	Well tag # APK217. Has tubing.
0955	MW-6	6	2	19.96	—	12.33	—	--	Well tag # BHA 125, No tubing. Add tubing.
1005	MW-7	7	2	20.05	—	11.15	—	--	Well tag # BHA 127. No tubing. Add tubing.
0912	MW-8	8	2	20.00	—	12.01	—	--	Well tag # BHA 124 no tubing
0905	MW-9	9	2	23.15	—	14.29	—	--	BHA 123 Well tag # Slight odor no tubing, gasket organic
	MW-10	10	2	~~20.00~~	— PH 8-31-11	~~12.01~~	— PH 8-31-11	--	~~Well tag # BHA 124 No tub~~ PH 8-31-11
1017	MW-10	10	2	19.90	—	11.94	—	—	Well tag # BHA 126. No tubing.

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211602274.400.150 PURGED BY: Deitrie Hanson WELL I.D.: MW-2

CLIENT NAME: Tidewater Seattle SAMPLED BY: Deitrie Hanson SAMPLE I.D.: MW-2

LOCATION: 2800 Martin Luther King Way, Seattle, WA QA SAMPLES: —

DATE PURGED 8-31-2011 START (2400hr) 1500 END (2400hr) 1540

DATE SAMPLED 8-31-2011 SAMPLE TIME (2400hr) 1512

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" X (0.17) 3" ____ (0.38) 4" ____ (0.67) 5" ____ (1.02) 6" ____ (1.50) 8" ____ (2.60) Other ____ ( )

Casing Volume: (gallons per foot)

DEPTH TO BOTTOM (feet) = 21.10 CASING VOLUME (gal) = —

DEPTH TO WATER (feet) = 11.96 CALCULATED PURGE (gal) = —

WATER COLUMN HEIGHT (feet) = 9.14 ACTUAL PURGE (gal) = 1.00 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees °C) DH 8-31-11	CONDUCTIVITY ~~(umhos/cm)~~ mS/m DH 8-31-11	pH (units)	COLOR (visual)	TURBIDITY (NTU)
8-31-11	1503	0.20gal	18.98	55.50	6.2	Dark Gray	0
8-31-11	1505	0.20gal	18.98	55.50	6.1	Dark Gray	0
8-31-11	1507	0.20gal	19.07	55.40	6.0	Dark Gray	0
8-31-11	1509	0.20gal	19.20	54.20	5.90	Dark Gray	0
8-31-11	1511	0.20gal	19.33	54.30	5.90	Dark Gray	0

Post Purge Measurements

Dissolved Oxygen 0.0 g/L ORP -1 mV

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 12.43 SAMPLE TURBIDITY: 0 NTU

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order

ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 2 ambers (1,000 ml) NWTPH-Dx silica 3 (40 ml) VOAs RBCA, 3 (40 ml) VOAs TPH-G

PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump X Dedicated Silicon tubing
Other: ____
Pump Depth: ____

SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (___ PVC or ___ disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump X Dedicated Silicon tubing
Other: ____

WELL INTEGRITY: GOOD - rubber seal, lock LOCK#: Yes, lock

REMARKS: Well tag # APM 434. Inner lip for bolt is broken off. See picture.

SIGNATURE: Deitrie Hanson 8-31-2011

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211602274.400.150 PURGED BY: AV WELL I.D.: MW-3

CLIENT NAME: Tidewater Seattle SAMPLED BY: AV SAMPLE I.D.: MW-3

LOCATION: 2800 Martin Luther King Way, Seattle, WA QA SAMPLES: _____

DATE PURGED 8/31/11 START (2400hr) 1605 END (2400hr) 1635

DATE SAMPLED 8/31/11 SAMPLE TIME (2400hr) 1622

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" X (0.17) 3" ____ (0.38) 4" ____ (0.67) 5" ____ (1.02) 6" ____ (1.50) 8" ____ (2.60) Other ____ ( )

Casing Volume: (gallons per foot)

DEPTH TO BOTTOM (feet) = 20.22 CASING VOLUME (gal) = —

DEPTH TO WATER (feet) = 12.10 CALCULATED PURGE (gal) = —

WATER COLUMN HEIGHT (feet) = 8.12 ACTUAL PURGE (gal) = 1.20 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees ~~F~~ C)	CONDUCTIVITY (~~umhos/cm~~ mS/m)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
8/31/11	1608	0.15	17.2	64.6	6.35	clear	—
"	1611	0.25	17.1	60.0	6.28	clear	—
"	1614	0.35	16.9	57.1	6.21	clear	—
"	1617	0.45	16.8	56.4	6.19	clear	—

Post Purge Measurements

Dissolved Oxygen 1.9 g/L ORP -67

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: _____ SAMPLE TURBIDITY: —

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order

ODOR: none SAMPLE VESSEL / PRESERVATIVE: HCl

PURGING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
X Peristaltic Pump
___ Bailer (Teflon)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated ____

Other: _____

Pump Depth: ~19 bgs

SAMPLING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
X Peristaltic Pump
___ Bailer (Teflon)
___ Bailer (___ PVC or ___ disposable)
___ Bailer (Stainless Steel)
___ Dedicated ____

Other: _____

WELL INTEGRITY: Good LOCK#: _____

REMARKS: _____

SIGNATURE: Adam Valitis

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211602274.400.150 PURGED BY: AV WELL I.D.: ~~MW-8~~ AV MW-4

CLIENT NAME: Tidewater Seattle SAMPLED BY: AV SAMPLE I.D.: ~~MW-8~~ AV MW-4

LOCATION: 2800 Martin Luther King Way, Seattle, WA QA SAMPLES: _____

DATE PURGED 8/31/11 START (2400hr) 1410 END (2400hr) 1455

DATE SAMPLED 8/31/11 SAMPLE TIME (2400hr) 1425

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" X (0.17) 3" ____ (0.38) 4" ____ (0.67) 5" ____ (1.02) 6" ____ (1.50) 8" ____ (2.60) Other ____ ( )

Casing Volume: (gallons per foot)

DEPTH TO BOTTOM (feet) = 20.00 CASING VOLUME (gal) = —

DEPTH TO WATER (feet) = 12.01 CALCULATED PURGE (gal) = —

WATER COLUMN HEIGHT (feet) = 7.99 ACTUAL PURGE (gal) = ~~0.50~~ 1.20 gal DH 8/31-11

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F) DH 8-31-11 °C	CONDUCTIVITY (~~umhos/cm~~) S/m DH 8-31-11	pH (units)	COLOR (visual)	TURBIDITY (NTU)
8/31/11	1413	0.15 gal	17.5	0.090	6.39	light brown	—
	1416	0.25 gal	18.2	0.090	6.37	light brown	—
	1419	0.35 gal	18.2	0.090	6.40	clear	—
V	1422	0.45 gal	17.9	0.090	6.35	clear	—

Post Purge Measurements

Dissolved Oxygen 1.7 g/L ORP -106

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 12.60 SAMPLE TURBIDITY: —

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order

ODOR: none SAMPLE VESSEL / PRESERVATIVE: HCl

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ Bladder Pump	___ Bailer (Teflon)	___ Bladder Pump	___ Bailer (Teflon)
___ Centrifugal Pump	___ Bailer (PVC)	___ Centrifugal Pump	___ Bailer (___ PVC or ___ disposable)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Submersible Pump	___ Bailer (Stainless Steel)
X Peristaltic Pump	___ Dedicated ____	X Peristaltic Pump	___ Dedicated ____
Other: ____		Other: ____	
Pump Depth: 18' bgs			

WELL INTEGRITY: Good LOCK#: None

REMARKS: _____

SIGNATURE: Adam Valbit

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211602274.400.150 PURGED BY: Deitrie Hanson WELL I.D.: MW-5

CLIENT NAME: Tidewater Seattle SAMPLED BY: Deitrie Hanson SAMPLE I.D.: MW-5

LOCATION: 2800 Martin Luther King Way, Seattle, WA QA SAMPLES: —

DATE PURGED 8-31-2011 START (2400hr) 1615 END (2400hr) 1650

DATE SAMPLED 8-31-2011 SAMPLE TIME (2400hr) 1627

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" X (0.17) 3" ____ (0.38) 4" ____ (0.67) 5" ____ (1.02) 6" ____ (1.50) 8" ____ (2.60) Other ____ ( )

Casing Volume: (gallons per foot)

DEPTH TO BOTTOM (feet) = 19.29 CASING VOLUME (gal) = —

DEPTH TO WATER (feet) = 12.80 CALCULATED PURGE (gal) = —

WATER COLUMN HEIGHT (feet) = 6.49 ACTUAL PURGE (gal) = 0.95gal.

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees °C) DH 8-31-11	CONDUCTIVITY ~~(umhos/cm)~~ S/m DH 8-31-11	pH (units)	COLOR (visual)	TURBIDITY (NTU)
8-31-11	1618	0.15gal	17.89	0.814	6.0	Clear	~5
8-31-11	1620	0.20gal	17.59	0.111	5.8	Clear	~5
8-31-11	1622	0.20gal	17.52	0.112	5.8	Clear	~5
8-31-11	1624	0.20gal	17.55	0.111	5.8	Clear	~5
8-31-11	1626	0.20gal	17.54	0.111	5.8	Clear	~5

Post Purge Measurements

Dissolved Oxygen 1.09/L ORP 42 mV

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 12.92 SAMPLE TURBIDITY: ~5 NTU

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order

3(40ml) VOAs RBCA, 3(40ml) VOAs NWTPH-Gx

ODOR: No SAMPLE VESSEL / PRESERVATIVE: 2(1,000ml) 1Liter ambers

PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump X Dedicated Silicon
Other: ____
Pump Depth: ____

SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (___ PVC or ___ disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump X Dedicated Silicon
Other: ____

WELL INTEGRITY: GOOD - NO O-RING LOCK#: No lock

REMARKS: Pink plug. Well tag # APK 217.

SIGNATURE: Deitrie Hanson

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211602274.400.150 PURGED BY: Adam Valenti WELL I.D.: MW-6

CLIENT NAME: Tidewater Seattle SAMPLED BY: Adam Valenti SAMPLE I.D.: MW-6

LOCATION: 2800 Martin Luther King Way, Seattle, WA QA SAMPLES: No

DATE PURGED 8-31-2011 START (2400hr) 1142 END (2400hr) 1206

DATE SAMPLED 8-31-2011 SAMPLE TIME (2400hr) 1153

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" X 3" ____ 4" ____ 5" ____ 6" ____ 8" ____ Other ____

Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ( )

DEPTH TO BOTTOM (feet) = 19.96 CASING VOLUME (gal) = —

DEPTH TO WATER (feet) = 12.33 CALCULATED PURGE (gal) = —

WATER COLUMN HEIGHT (feet) = 7.63 ACTUAL PURGE (gal) = 0.70 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. °C (degrees F)	CONDUCTIVITY ~~(umhos/cm)~~ S/m	pH (units)	COLOR (visual)	TURBIDITY (NTU)
8-31-11	1145	0.20 gal	17.3	0.146	6.51	Clear	~5
8-31-11	1147	0.15 gal	17.2	0.140	6.52	Clear	~5
8-31-11	1149	0.15 gal	17.2	0.137	6.51	Clear	~6
8-31-11	1151	0.20 gal	17.3	0.136	6.51	Clear	~6
8-31-11	1153	Sampled					

DH 8-31-11 (°C) DH 8-31-11 (S/m)

Post Purge Measurements

Dissolved Oxygen 2.3 g/L ORP −107 mV

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 12.35 SAMPLE TURBIDITY: ~6 NTU

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order

ODOR: NONE SAMPLE VESSEL / PRESERVATIVE: 2(1000ml)amb 3(40ml)voas RBCA, 3(40ml)voas NWTPH-Gx

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ Bladder Pump	___ Bailer (Teflon)	___ Bladder Pump	___ Bailer (Teflon)
___ Centrifugal Pump	___ Bailer (PVC)	___ Centrifugal Pump	___ Bailer (___ PVC or ___ disposable)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Submersible Pump	___ Bailer (Stainless Steel)
X Peristalic Pump	X Dedicated Silicon tubing	X Peristalic Pump	X Dedicated ____
Other: ____		Other: ____	
Pump Depth: ____			

WELL INTEGRITY: GOOD - rubber gasket LOCK#: No lock

REMARKS: Well tag # BHA 125

SIGNATURE: Deitrich Pearson

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211602274.400.150 PURGED BY: Adam Valenti WELL I.D.: MW-7

CLIENT NAME: Tidewater Seattle SAMPLED BY: Adam Valenti SAMPLE I.D.: MW-7

LOCATION: 2800 Martin Luther King Way, Seattle, WA QA SAMPLES: —

DATE PURGED 8-31-2011 START (2400hr) 1102 END (2400hr) 1134

DATE SAMPLED 8-31-2011 SAMPLE TIME (2400hr) 1117

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" X 3" ____ 4" ____ 5" ____ 6" ____ 8" ____ Other ____ ( )

Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60)

DEPTH TO BOTTOM (feet) = 20.05 CASING VOLUME (gal) = —

DEPTH TO WATER (feet) = 11.15 CALCULATED PURGE (gal) = —

WATER COLUMN HEIGHT (feet) = 8.90 ACTUAL PURGE (gal) = 0.50 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees C) DH 8-31-11	CONDUCTIVITY (umhos/cm) S/m DH 8-31-11	pH (units)	COLOR (visual)	TURBIDITY (NTU)
8-31-11	1107	0.10gal	17.1	0.134	6.54	brown	~4
8-31-11	1109	0.10gal	17.3	0.132	6.56	brown	~4
8-31-11	1111	0.10gal	17.1	0.130	6.56	brown	~4
8-31-11	1113	0.10gal	17.1	0.127	6.54	brown	~5
8-31-11	1115	0.10gal	16.9	0.121	6.49	brown	~5
8-31-11	1117	sampling					

Post Purge Measurements

Dissolved Oxygen 2.19/L ORP −74 mV

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 11.15 SAMPLE TURBIDITY: ~5 NTU

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order

ODOR: NONE SAMPLE VESSEL / PRESERVATIVE: 2(1,000ml) ambers - NWTPH-Dx bysilicagel cl
3(40ml) VOAs - 8260 RBCA, 3(40ml) voas - NWTPH-Gx

PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump X Dedicated silicon tubing
Other: ____
Pump Depth: ____

SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (___ PVC or ___ disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump ___ Dedicated ____
Other: ____

WELL INTEGRITY: EXCELLENT - 3 bolts, rubber gasket LOCK#: No lock on pink plug

REMARKS: Well tag # BHA 127

SIGNATURE: Beatrice Dawson

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211602274.400.150 PURGED BY: AV WELL I.D.: ~~MW-4~~ MW-8

CLIENT NAME: Tidewater Seattle SAMPLED BY: AV SAMPLE I.D.: ~~MW-4~~ MW-8

LOCATION: 2800 Martin Luther King Way, Seattle, WA QA SAMPLES: —

DATE PURGED 8/31/11 START (2400hr) 1508 END (2400hr) 1545

DATE SAMPLED 8/31/11 SAMPLE TIME (2400hr) 1525

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" X (0.17) 3" ____ (0.38) 4" ____ (0.67) 5" ____ (1.02) 6" ____ (1.50) 8" ____ (2.60) Other ____ ( )

Casing Volume: (gallons per foot)

DEPTH TO BOTTOM (feet) = 19.12 CASING VOLUME (gal) = —

DEPTH TO WATER (feel) = 12.42 CALCULATED PURGE (gal) = —

WATER COLUMN HEIGHT (feet) = 6.70 ACTUAL PURGE (gal) = ~~0.60~~ 1.40 gal DH 8/31-11

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F) °C SHE 8/31-11	CONDUCTIVITY AV (~~umhos/cm~~) mS/m	pH (units)	COLOR (visual)	TURBIDITY (NTU)
8/31/11	1511	0.20	17.0	93.3	6.37	clear	—
↓	1514	0.30	16.9	89.2	6.35	clear	—
	1517	0.40	17.2	87.5	6.35	clear	—
	1520	0.50	16.9	86.8	6.35	clear	—

Post Purge Measurements

Dissolved Oxygen 2.1 g/L ORP -51 mV

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 12.56 SAMPLE TURBIDITY: —

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order

ODOR: none SAMPLE VESSEL / PRESERVATIVE: HCl

PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump ___ Dedicated ____
Other: ____
Pump Depth: 18' bgs

SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (___ PVC or ___ disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump ___ Dedicated ____
Other: ____

WELL INTEGRITY: Good LOCK#: ____

REMARKS: ____

SIGNATURE: Adam Valbi

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211602274.400.150 PURGED BY: AV WELL I.D.: MW-9

CLIENT NAME: Tidewater Seattle SAMPLED BY: AV SAMPLE I.D.: MW-9

LOCATION: 2800 Martin Luther King Way, Seattle, WA QA SAMPLES: _____

DATE PURGED 8/31/11 START (2400hr) 1311 END (2400hr) 1350

DATE SAMPLED 8/31/11 SAMPLE TIME (2400hr) 1326

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" X (0.17) 3" ____ (0.38) 4" ____ (0.67) 5" ____ (1.02) 6" ____ (1.50) 8" ____ (2.60) Other ____ ( )

Casing Volume: (gallons per foot)

DEPTH TO BOTTOM (feet) = 23.15 CASING VOLUME (gal) = —

DEPTH TO WATER (feet) = 14.29 CALCULATED PURGE (gal) = —

WATER COLUMN HEIGHT (feet) = 8.86 ACTUAL PURGE (gal) = ~~0.50~~ 1.20gal DH 8-31-11

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees C)	CONDUCTIVITY (~~umhos/cm~~) S/m	pH (units)	COLOR (visual)	TURBIDITY (NTU)
8/31/11	1314	0.15gal	17.3 DH 8-31-11	0.106 AV	6.84	gray/brown	NA - over
"	1317	0.25gal	17.5	0.092	6.95	gray/brown	NA - over
"	1320	0.35gal	17.0	0.091	6.91	gray/brown	NA - over
"	1323	0.45gal	16.6	0.091	6.85	gray/brown	NA - over

Post Purge Measurements

Dissolved Oxygen 1.8 g/L ORP 24 mV

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 14.35 SAMPLE TURBIDITY: over

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order

ODOR: None SAMPLE VESSEL / PRESERVATIVE: HCl

PURGING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
X Peristaltic Pump
___ Bailer (Teflon)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated ____
Other: ____
Pump Depth: 22' bgs

SAMPLING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
X Peristaltic Pump
___ Bailer (Teflon)
___ Bailer (___ PVC or ___ disposable)
___ Bailer (Stainless Steel)
___ Dedicated ____
Other: ____

WELL INTEGRITY: Good LOCK#: None

REMARKS: ____

SIGNATURE: Adam Valkt

Stantec Consulting

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 211602274.400.150 PURGED BY: DeitrieHanson WELL I.D.: MW-10

CLIENT NAME: Tidewater Seattle SAMPLED BY: DeitrieHanson SAMPLE I.D.: MW-10

LOCATION: 2800 Martin Luther King Way, Seattle, WA QA SAMPLES: —

DATE PURGED 8-31-2011 START (2400hr) 1330 END (2400hr) 1407

DATE SAMPLED 8-31-2011 SAMPLE TIME (2400hr) 1342

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" X (0.17) 3" ____ (0.38) 4" ____ (0.67) 5" ____ (1.02) 6" ____ (1.50) 8" ____ (2.60) Other ____ ( )
Casing Volume: (gallons per foot)

DEPTH TO BOTTOM (feet) = 19.90 CASING VOLUME (gal) = —

DEPTH TO WATER (feet) = 11.94 CALCULATED PURGE (gal) = —

WATER COLUMN HEIGHT (feet) = 7.96 ACTUAL PURGE (gal) = 1.25 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F) DH 8-31-11 °C	CONDUCTIVITY ~~(umhos/cm)~~ AU S/m	pH (units)	COLOR (visual)	TURBIDITY (NTU)
8-31-11	1333	0.25gal	17.51	0.284	6.10	Clear	~5
8-31-11	1335	0.25gal	17.36	0.281	6.20	Clear	~5
8-31-11	1337	0.25gal	17.35	0.281	6.20	Clear	~5
8-31-11	1339	0.25gal	17.40	0.280	6.20	Clear	~5
8-31-11	1341	0.25gal	17.43	0.280	6.20		~5

Post Purge Measurements

Dissolved Oxygen 1.59 g/L ORP 167 mV

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: ____ SAMPLE TURBIDITY: ~5 NTU

80% RECHARGE: X YES ___ NO ANALYSES: See Work Order

3(40ml) voas RBCA, 3(40ml) voas NWTPH-Gx

ODOR: N SAMPLE VESSEL / PRESERVATIVE: 2(1000ml) 1Lambers

PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump X Dedicated Silicon
Other: ____
Pump Depth: ____

SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (___ PVC or ___ disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
X Peristalic Pump X Dedicated Siliconetubing
Other: ____

WELL INTEGRITY: Good, broken rubber seal LOCK#: None, no lock

REMARKS: Well tag # BHA 126

SIGNATURE: DeitrieHanson

JOB NAME:	Tidewater Seattle	JOB NUMBER:	211602211.400.400
ADDRESS:	2800 Martin Luther King Way	START DATE:	08/22/11
ADDRESS:	Seattle, WA	DATE PREPARED:	08/10/11
PREPARED FOR:	Deitrie Hanson, Adam Valenti	PREPARED BY:	Alejandra Hernandez

STANTEC - SITE VISITATION REPORT

Did you call in? (Yes) No

Who did you call? Chris Golak

Arrival Time: 0647

Departure Time: 1747

Weather Notations SUN RAIN (CLOUDY) SNOW Temperature: 61°F OnSite Time: 11.00 hours

PURPOSE OF VISIT: Conduct M&S Event

DESCRIPTION OF ACTIVITIES ON SITE AND NOTES

DRUM INVENTOR Type: Number: 10 (55gl) Drill cutting Contents: 1 (55gl) ERM soil Need: metal detector 1.5 Volt batteries
55gl 15 total 3 (55gl) well purge water
(0445 up) 1 (55gl Decon water = 14 Stantec + 1 ERM 11-16-08

0530-0537 Loaded up Chevy cargo van at Deitrie's house. Walk around van again. Filled out Daily Vehicle Checklist. Secured all cargo.
0537-0541 Drove from house to QFC to buy wet ice to pack 3 large coolers.
0541-0548 Purchased 5 bags of wet ice $1.59 QFC.
0548-0613 Pack all 3 coolers with the wet ice. Voas and ambers are on ice. Secured.
0613-0622 Drove from QFC 148th to Main Street & 107 Ave NE to pick up Adam Valenti at his condo.
0622-0630 Wait to pick up Adam. He came and we loaded up
0630-0647 Drove from Bellevue to the site. Arrived on site at 0647.
0647-0653 Parked. Called Chris Golak cell phone # 425-698-7398.
0653-0707 Found Kevlars for Adam. Start to fill out H&S forms
0708-0716 EPI's Greg McCormick is late. Introductions. Quick review
0716 Greg opened up dummy lock. Adam V. spotter, backed me up at strip mall. Don our PPE. Greg McCormick gave me his business card.
0716-0810 Conducted big H&S Meeting with Greg McCormick. Reviewed GWM JSA, Driving JSA, Vehicle Checklist form, Attachment 1 Daily H&S Site H&S Quiz, General Permit to Work (PTW) Form, COPRM&R Personal H&S Commitment, muster pt center of lot, 9-1-1 ambulance.
0810-0900 Performed site walk. Can't find MW-1 on site. Greg, Adam, & I dig around looking for it. Need metal detector. Called Chris Golak PM about this.
* 0905 Began gauging MW-9, MW-8, MW-4, MW-2, MW-3, MW-5.
0950-1010 PM Chris Golak called back. Don't worry about MW-1. Previous site visit not find it
1010-1017 Site tenant arrived. Decon'd probe. Adam V. and I gauged MW-6 and MW-7.
* 1020 Moved 2nd set of delineation to MW-10. Greg came out. Copied DTW levels.
Added tubing to MW-10. Finished gauging.
Calibrated HORIBas. Calibration logs
1102 Began to purge MW-7. Adam and I help each other out
* 1117 Sampled MW-7. 3 voas RBCA, 3 voas NWTPH-Gx, 2 ambers.
1134 Closed MW-7. Move to MW-6, set-up
1142 Started to purge MW-6.
* 1153 Sampled MW-6. Blue and yellow macaw. Put ambers on ice
1206 Closed up MW-6. 2-3 trips to bring over everything. Put voas on ice.
1230-1245 Lunch break.
1245-1300 Prepare sampling gear so we are sampling 2 wells at once.

JOB NAME:	Tidewater Seattle	JOB NUMBER:	211602211.400.400
ADDRESS:	2800 Martin Luther King Way	START DATE:	08/22/11
ADDRESS:	Seattle, WA	DATE PREPARED:	08/10/11
PREPARED FOR:	Dettrie, Hanson / Adam Valenti	PREPARED BY:	Alejandra Hernandez

STANTEC - SITE VISITATION REPORT (continued)

Health and Safety Notes:

0716-0810 Conducted H&S meeting w/ D. Hanson, A. Valenti, Greg McCormick
Filled out: Attachment II Daily Production, H&S Briefing Log
Site H&S Quiz
General Permit-to-Work PTW Form
COP RM&R Personal H&S Commitment
HASP Acknowledgement Form

1430 Conducted 2nd H&S meeting when Marc Sauze on-site
-1445 Go over Attachment II Daily Production H&S
1) Sharps
2) Traffic (cars on-site)
3) Uneven ground

SITE OBSERVATION REPORT

Stantec

Project: CEMC 301233/COP5173 Chevron/COP Tidewater, Seattle
Contractor: Stantec - Groundwater sampling
Owner:
Location: 2800 Martin Luther King Jr Way South Seattle, WA.

File No:
Project No:
Project No: 21160221.400.400
Date: 8-31-2011
Page: 2 of 4

The following items were noted: Weather: 65° F partly sunny

12.30 - 1300 lunch
1303 opened MW-9
1311 ~~1305~~ AV initiated purging at MW-9
1326 sampled MW-9
1350 closed well MW-9. moved sampling equipment to new location
1405 opened up well MW-4
1410 initiated purging MW-4
1425 sampled MW-4
1455 closed well MW-4. moved sampling equipment to new location
1445 Marc Sauze conducted LPO on sampling task for Adam Valenti
1505 opened well MW-8
1508 initiated purging MW-8
1525 sampled MW-8
1545 closed well MW-4. moved sampling equipment to new location
1600 opened up well MW-3
1605 initiated purging well MW-3
1622 sampled well MW-3
1635 closed well MW-3
1720 ~~1715~~ AV Disposed of Purge water in 15 gal drum
1725 ~~1645~~ AV labeled drum
1730 Packed up the van
1742-~~1745~~ AV Signed out w/ Chris G
1747 ~~1710~~ AV off site

Prepared by: Adam Valenti
Print Name
Adam Valenti
Signature

SITE OBSERVATION REPORT

CEMC 301233/COP 5173

Project: Chevron/COP Tidewater Seattle
Contractor: StantecC
Owner:
Location: 2800 Martin Luther King Jr Way So. Seattle, WA

File No.
Project No.
Project No. 21602211.400.400
Date: 8-31-2011
Page 3 of 4

The following items were noted: **Weather:** Pt. Cloudy

1300-1310 Adam V. started to purge MW-9 in corner. Greg McCormick came back to park at strip mall. He told me as I was setting up at MW-10 that he ate McDonalds for lunch. I ate apple, drink.
1310-1320 Set-up at MW-10. Made out labels.
1330 Began to purge MW-10.
* 1342 Sampled MW-10. Talked to Greg.
1407 Closed MW-10.
1420 Marc Sauze arrived on-site as I set-up MW-2. Marc drove right pass me in driveway.
1420-1430 Marc donned PPE and talked to Greg McCormick
1430-1445 Conducted 2nd H&S meeting with Marc Sauze. Main discussion: traffic, cab movement and sharps, and uneven ground.
1445 Resume work on MW-2. As Marc performs LPO on Adam Valenti.
1452 Put voas on ice in cooler. Resume
1510 Marc Sauze did LPO on Adam V. We talked about it. Exclusion Zone not wide enough. Purging MW-2.
1511 Marc Sauze departed the site.
* 1512 Sampled MW-2.
1540 Closed MW-2. Put voas and ambers on wet ice bags.
1555 I set-up on MW-5. Adam set-up on last well MW-3.
1600 Set-up at MW-5.

Prepared by: Deitrie Hanson
Print Name
Deitrie Hanson
Signature

SITE OBSERVATION REPORT
CEMC 301233/CDP5173

Stantec

Project: Chevron/COP Tidewater, Seattle
Contractor: Stantec
Owner:
Location: 2800 Martin Luther King Jr. Way So., Seattle, WA

File No:
Project No:
Project No: 21160221.400.400
Date: 8-31-2011
Page: 4 of 4

The following items were noted: Weather: Sunny! 75°F Pt. Cloudy,

1602 Greg McCormick chatted with Adam and me. Last signatures. He wanted to depart the site for today. Greg said we seemed to know what we are doing.
1610 Greg departed the site.
1615 Began to purge MW-5.
* 1627 Sampled MW-5.
1650 Closed MW-5. Adam V. deconing HORIBA-22.
1651-1705 Carried all gear back. Put all Coas on ice. Ambers on ice.
1705 Decon my HORIBA-22. Adam puts delineators together,
1720 Dumped purge water.
1730 Loaded all gear and delineators into rear of cargo van.
1742-1745 Called Chris Gdak.
1747 Departed the site.
1804 Dropped Adam Valenti off at his Bellevue condo.
1840 At Stantec Redmond office.
(1840-1850) Personal time off.
1850-2000 DEMOBILIZE Chevy Cargo Van

Prepared by: Deitrie Hanson
Print Name
L Deitrie Hanson
Signature

APPENDIX G
CERTIFIED LABORATORY ANALYTICAL REPORTS, CHAIN-OF-CUSTODY DOCUMENTATION, AND STANTEC LAB VALIDATION FORMS

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

May 06, 2011

Project: Tidewater Seattle

Submittal Date: 04/21/2011
Group Number: 1243377
PO Number: 5173
Release Number: BEWLEY
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LLI) #
B-1-5' Grab Soil Sample	6265632
B-1-10' Grab Soil Sample	6265633
B-1-15' Grab Soil Sample	6265634
B-1-18' Grab Soil Sample	6265635
B-2-5' Grab Soil Sample	6265636
B-2-11' Grab Soil Sample	6265637
B-2-15' Grab Soil Sample	6265638
B-2-18' Grab Soil Sample	6265639
B-3-5' Grab Soil Sample	6265640
B-3-10' Grab Soil Sample	6265641
B-3-15' Grab Soil Sample	6265642
B-3-20' Grab Soil Sample	6265643
TB-1 Water Sample	6265644
TB-2 Water Sample	6265645
B-4-5' Grab Soil Sample	6265646
B-4-10' Grab Soil Sample	6265647
B-4-15' Grab Soil Sample	6265648
B-4-17' Grab Soil Sample	6265649
B-5-5' Grab Soil Sample	6265650
B-5-10' Grab Soil Sample	6265651
B-5-15' Grab Soil Sample	6265652
B-5-18' Grab Soil Sample	6265653
B-6-5' Grab Soil Sample	6265654
B-6-10' Grab Soil Sample	6265655
B-6-15' Grab Soil Sample	6265656
B-6-17' Grab Soil Sample	6265657
TB-5 Water Sample	6265658
B-7-5' Grab Soil Sample	6265659

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Analysis Report

B-7-10' Grab Soil Sample	6265660
B-7-15' Grab Soil Sample	6265661
B-7-17' Grab Soil Sample	6265662
B-1 Grab Water Sample	6265663
B-2 Grab Water Sample	6265664
B-3 Grab Water Sample	6265665
B-4 Grab Water Sample	6265666
B-5 Grab Water Sample	6265667
B-6 Grab Water Sample	6265668
B-7 Grab Water Sample	6265669
TB-3 Water Sample	6265670
TB-4 Water Sample	6265671

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Stantec - Tidewater	Attn: Laura Viesselman
ELECTRONIC COPY TO	STANTEC	Attn: Tony Giglini
ELECTRONIC COPY TO	STANTEC-TIDEWATER	Attn: Dan Schreiner
ELECTRONIC COPY TO	Stantec	Attn: Alejandra Hernandez
ELECTRONIC COPY TO	Stantec	Attn: Jennifer Tanner
ELECTRONIC COPY TO	Stantec	Attn: Justin Dauphinais

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,

Chad Moline

Chad A. Moline
Group Leader

Lancaster Laboratories

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Analysis Report

Sample Description: B-1-5' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265632
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/18/2011 11:45 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML105

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.88
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.88
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.88
10950	Toluene	108-88-3	N.D.	0.001	0.88
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.88
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.1	24.42
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	2.17	0.0116	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	10.3	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	A111172AA	04/28/2011 04:35	Laura M Krieger	0.88
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/18/2011 11:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/18/2011 11:45	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/18/2011 11:45	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34B	04/29/2011 12:12	Elizabeth J Marin	24.42
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/18/2011 11:45	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111161026004A	04/30/2011 21:45	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111161026004	04/27/2011 12:03	James L Mertz	1
00111	Moisture	SM20 2540 G	1	11118820001A	04/28/2011 11:57	Stephanie A Sanchez	1

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Analysis Report

Sample Description: B-1-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265633
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 09:45 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML110

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.87
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.87
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.87
10950	Toluene	108-88-3	N.D.	0.001	0.87
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.87
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	2.0	0.9	36.66
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	2.32	0.0113	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	11.3	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	A111172AA	04/28/2011 04:57	Laura M Krieger	0.87
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 09:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 09:45	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 09:45	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34B	04/29/2011 12:54	Marie D John	36.66
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 09:45	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111161026004A	04/30/2011 21:48	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111161026004	04/27/2011 12:03	James L Mertz	1
00111	Moisture	SM20 2540 G	1	11118820001A	04/28/2011 11:57	Stephanie A Sanchez	1

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Analysis Report

Sample Description: B-1-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265634
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 09:55 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML115

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.020	36.23
10950	Ethylbenzene	100-41-4	N.D.	0.040	36.23
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.020	36.23
10950	Toluene	108-88-3	N.D.	0.040	36.23
10950	Xylene (Total)	1330-20-7	N.D.	0.040	36.23
	Reporting limits were raised due to interference from the sample matrix.				
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	40	2.0	45.77
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	2.17	0.0111	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	10.2	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	R111173AA	04/28/2011 07:58	Stephanie A Selis	36.23
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 09:55	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 09:55	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 09:55	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11109A34B	04/29/2011 20:07	Marie D John	45.77
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 09:55	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111161026004A	04/30/2011 21:50	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111161026004	04/27/2011 12:03	James L Mertz	1
00111	Moisture	SM20 2540 G	1	11118820001A	04/28/2011 11:57	Stephanie A Sanchez	1

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Analysis Report

Sample Description: B-1-18' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265635
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 10:00 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML118

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.79
10950	Ethylbenzene	100-41-4	N.D.	0.0009	0.79
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.79
10950	Toluene	108-88-3	N.D.	0.0009	0.79
10950	Xylene (Total)	1330-20-7	N.D.	0.0009	0.79
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.4	30.1
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	1.76	0.0114	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	13.1	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	A111172AA	04/28/2011 05:19	Laura M Krieger	0.79
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 10:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 10:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 10:00	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11109A34B	04/29/2011 21:21	Marie D John	30.1
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 10:00	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111161026004A	04/30/2011 21:53	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111161026004	04/27/2011 12:03	James L Mertz	1
00111	Moisture	SM20 2540 G	1	11118820001A	04/28/2011 11:57	Stephanie A Sanchez	1

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Analysis Report

Sample Description: B-2-5' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265636
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/18/2011 10:45 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML205

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.002	0.0005	0.85
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.85
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.85
10950	Toluene	108-88-3	0.001	0.001	0.85
10950	Xylene (Total)	1330-20-7	0.002	0.001	0.85
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	1.4	1.2	26.03
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	11.6	0.0118	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	12.9	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	A111172AA	04/28/2011 05:42	Laura M Krieger	0.85
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/18/2011 10:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/18/2011 10:45	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/18/2011 10:45	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34B	04/29/2011 13:30	Elizabeth J Marin	26.03
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/18/2011 10:45	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111161026004A	04/30/2011 22:00	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111161026004	04/27/2011 12:03	James L Mertz	1
00111	Moisture	SM20 2540 G	1	11118820001A	04/28/2011 11:57	Stephanie A Sanchez	1

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Analysis Report

Sample Description: B-2-11' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265637
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 09:20 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML211

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.001	0.0005	0.83
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.83
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.83
10950	Toluene	108-88-3	0.002	0.001	0.83
10950	Xylene (Total)	1330-20-7	0.005	0.001	0.83
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	12	10	214.51
	Reporting limits were raised due to sample foaming.				
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	11.4	0.0119	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	13.8	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	A111172AA	04/28/2011 06:04	Laura M Krieger	0.83
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 09:20	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 09:20	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 09:20	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11109A34B	04/29/2011 16:56	Marie D John	214.51
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 09:20	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111161026004A	04/30/2011 22:02	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111161026004	04/27/2011 12:03	James L Mertz	1
00111	Moisture	SM20 2540 G	1	11118820001A	04/28/2011 11:57	Stephanie A Sanchez	1

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Analysis Report

Sample Description: B-2-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265638
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 09:25 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML215

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.045	79.11
10950	Ethylbenzene	100-41-4	1.2	0.089	79.11
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.045	79.11
10950	Toluene	108-88-3	N.D.	0.089	79.11
10950	Xylene (Total)	1330-20-7	26	0.089	79.11
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	820	91	2015.69
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	6.27	0.0116	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	11.3	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	R111173AA	04/28/2011 09:07	Stephanie A Selis	79.11
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 09:25	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 09:25	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 09:25	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11109A34B	04/29/2011 22:34	Marie D John	2015.69
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 09:25	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111161026004A	04/30/2011 22:05	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111161026004	04/27/2011 12:03	James L Mertz	1
00111	Moisture	SM20 2540 G	1	11118820001A	04/28/2011 11:57	Stephanie A Sanchez	1

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Analysis Report

Sample Description: B-2-18' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265639
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 09:35 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML218

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.003	0.0006	0.88
10950	Ethylbenzene	100-41-4	0.007	0.001	0.88
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.88
10950	Toluene	108-88-3	N.D.	0.001	0.88
10950	Xylene (Total)	1330-20-7	0.15	0.001	0.88
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	4.5	1.4	27.56
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	5.62	0.0127	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	20.2	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	A111172AA	04/28/2011 06:26	Laura M Krieger	0.88
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 09:35	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 09:35	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 09:35	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11109A34B	04/29/2011 17:32	Marie D John	27.56
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 09:35	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111161026004A	04/30/2011 22:07	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111161026004	04/27/2011 12:03	James L Mertz	1
00111	Moisture	SM20 2540 G	1	11118820001A	04/28/2011 11:57	Stephanie A Sanchez	1

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Analysis Report

Sample Description: B-3-5' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265640
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/18/2011 15:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML305

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.0008	0.0005	0.87
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.87
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.87
10950	Toluene	108-88-3	N.D.	0.001	0.87
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.87
GC/MS Semivolatiles	**SW-846 8270C SIM**		**mg/kg**	**mg/kg**	
10722	Acenaphthene	83-32-9	N.D.	0.037	50
10722	Acenaphthylene	208-96-8	N.D.	0.019	50
10722	Anthracene	120-12-7	N.D.	0.019	50
10722	Benzo(a)anthracene	56-55-3	N.D.	0.037	50
10722	Benzo(a)pyrene	50-32-8	0.067	0.037	50
10722	Benzo(b)fluoranthene	205-99-2	0.064	0.037	50
10722	Benzo(g,h,i)perylene	191-24-2	0.12	0.037	50
10722	Benzo(k)fluoranthene	207-08-9	N.D.	0.037	50
10722	Chrysene	218-01-9	0.069	0.019	50
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	0.037	50
10722	Fluoranthene	206-44-0	0.062	0.037	50
10722	Fluorene	86-73-7	N.D.	0.037	50
10722	Indeno(1,2,3-cd)pyrene	193-39-5	0.042	0.037	50
10722	Naphthalene	91-20-3	N.D.	0.037	50
10722	Phenanthrene	85-01-8	0.046	0.037	50
10722	Pyrene	129-00-0	0.061	0.037	50

Reporting limits were raised due to interference from the sample matrix.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(a)pyrene

GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	13	289.03

Reporting limits were raised due to sample foaming.

GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	150	34	10
02214	HRO C24-C40 w/Si Gel	n.a.	1,000	110	10
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	33.8	0.0114	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	11.2	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

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Analysis Report

Sample Description: B-3-5' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265640
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/18/2011 15:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML305

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	A111182AA	04/29/2011 09:16	Angela D Sneeringer	0.87
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/18/2011 15:10	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/18/2011 15:10	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/18/2011 15:10	Client Supplied	1
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	11118SLD026	05/03/2011 10:46	Joseph M Gambler	50
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	11118SLD026	04/29/2011 03:35	Roman Kuropatkin	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34B	04/29/2011 14:11	Elizabeth J Marin	289.03
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/18/2011 15:10	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111170032A	05/03/2011 10:55	Dustin A Underkoffler	10
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	111170032A	04/28/2011 07:30	Kerrie A Freeburn	1
06135	Lead	SW-846 6020	1	111161026004A	04/30/2011 22:10	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111161026004	04/27/2011 12:03	James L Mertz	1
00111	Moisture	SM20 2540 G	1	11118820001A	04/28/2011 11:57	Stephanie A Sanchez	1

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Analysis Report

Sample Description: B-3-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265641
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 08:35 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML310

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.022	37.88
10950	Ethylbenzene	100-41-4	N.D.	0.043	37.88
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.022	37.88
10950	Toluene	108-88-3	N.D.	0.043	37.88
10950	Xylene (Total)	1330-20-7	N.D.	0.043	37.88
	Reporting limits were raised due to interference from the sample matrix.				
GC/MS Semivolatiles	**SW-846 8270C SIM**		**mg/kg**	**mg/kg**	
10722	Acenaphthene	83-32-9	0.42	0.038	50
10722	Acenaphthylene	208-96-8	0.18	0.019	50
10722	Anthracene	120-12-7	0.10	0.019	50
10722	Benzo(a)anthracene	56-55-3	N.D.	0.038	50
10722	Benzo(a)pyrene	50-32-8	N.D.	0.038	50
10722	Benzo(b)fluoranthene	205-99-2	N.D.	0.038	50
10722	Benzo(g,h,i)perylene	191-24-2	N.D.	0.038	50
10722	Benzo(k)fluoranthene	207-08-9	N.D.	0.038	50
10722	Chrysene	218-01-9	0.056	0.019	50
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	0.038	50
10722	Fluoranthene	206-44-0	N.D.	0.038	50
10722	Fluorene	86-73-7	0.34	0.038	50
10722	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.038	50
10722	Naphthalene	91-20-3	N.D.	0.038	50
10722	Phenanthrene	85-01-8	0.88	0.038	50
10722	Pyrene	129-00-0	0.13	0.038	50
	Reporting limits were raised due to interference from the sample matrix.				
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	450	42	908.59
GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	10,000	170	50
02214	HRO C24-C40 w/Si Gel	n.a.	N.D.	570	50
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	2.21	0.0117	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	12.5	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

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Analysis Report

Sample Description: B-3-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265641
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 08:35 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML310

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	R111173AA	04/28/2011 08:21	Stephanie A Selis	37.88
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 08:35	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 08:35	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 08:35	Client Supplied	1
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	11118SLD026	05/03/2011 12:25	Joseph M Gambler	50
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	11118SLD026	04/29/2011 03:35	Roman Kuropatkin	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11109A34B	04/29/2011 21:57	Marie D John	908.59
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 08:35	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111170032A	05/03/2011 09:50	Dustin A Underkoffler	50
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	111170032A	04/28/2011 07:30	Kerrie A Freeburn	1
06135	Lead	SW-846 6020	1	111161026004A	04/30/2011 22:12	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111161026004	04/27/2011 12:03	James L Mertz	1
00111	Moisture	SM20 2540 G	1	11118820001A	04/28/2011 11:57	Stephanie A Sanchez	1

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Analysis Report

Sample Description: B-3-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265642
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 08:45 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML315

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.024	38.58
10950	Ethylbenzene	100-41-4	N.D.	0.048	38.58
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.024	38.58
10950	Toluene	108-88-3	N.D.	0.048	38.58
10950	Xylene (Total)	1330-20-7	N.D.	0.048	38.58
Reporting limits were raised due to interference from the sample matrix.					
GC/MS Semivolatiles	**SW-846 8270C SIM**		**mg/kg**	**mg/kg**	
10722	Acenaphthene	83-32-9	0.27	0.017	20
10722	Acenaphthylene	208-96-8	0.23	0.0083	20
10722	Anthracene	120-12-7	N.D.	0.0083	20
10722	Benzo(a)anthracene	56-55-3	N.D.	0.017	20
10722	Benzo(a)pyrene	50-32-8	N.D.	0.017	20
10722	Benzo(b)fluoranthene	205-99-2	N.D.	0.017	20
10722	Benzo(g,h,i)perylene	191-24-2	N.D.	0.017	20
10722	Benzo(k)fluoranthene	207-08-9	N.D.	0.017	20
10722	Chrysene	218-01-9	0.041	0.0083	20
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	0.017	20
10722	Fluoranthene	206-44-0	N.D.	0.017	20
10722	Fluorene	86-73-7	1.3	0.017	20
10722	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.017	20
10722	Naphthalene	91-20-3	2.7	0.017	20
10722	Phenanthrene	85-01-8	4.7	0.017	20
10722	Pyrene	129-00-0	0.26	0.017	20
Reporting limits were raised due to interference from the sample matrix.					
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	720	53	1056.64
GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	3,200	190	50
02214	HRO C24-C40 w/Si Gel	n.a.	N.D.	620	50
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	6.97	0.0126	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	19.9	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

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Analysis Report

Sample Description: B-3-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265642
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 08:45 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML315

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	R111173AA	04/28/2011 08:44	Stephanie A Selis	38.58
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 08:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 08:45	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 08:45	Client Supplied	1
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	11118SLD026	05/03/2011 16:17	Gregory J Drahovsky	20
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	11118SLD026	04/29/2011 03:35	Roman Kuropatkin	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11109A34B	04/30/2011 09:34	Marie D John	1056.64
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 08:45	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111170032A	05/03/2011 09:07	Dustin A Underkoffler	50
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	111170032A	04/28/2011 07:30	Kerrie A Freeburn	1
06135	Lead	SW-846 6020	1	111161026004A	04/30/2011 22:15	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111161026004	04/27/2011 12:03	James L Mertz	1
00111	Moisture	SM20 2540 G	1	11118820001A	04/28/2011 11:57	Stephanie A Sanchez	1

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Analysis Report

Sample Description: B-3-20' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265643
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 09:00 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML320

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.84
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.84
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.84
10950	Toluene	108-88-3	N.D.	0.001	0.84
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.84
GC/MS Semivolatiles	**SW-846 8270C SIM**		**mg/kg**	**mg/kg**	
10722	Acenaphthene	83-32-9	N.D.	0.00079	1
10722	Acenaphthylene	208-96-8	N.D.	0.00040	1
10722	Anthracene	120-12-7	N.D.	0.00040	1
10722	Benzo(a)anthracene	56-55-3	N.D.	0.00079	1
10722	Benzo(a)pyrene	50-32-8	N.D.	0.00079	1
10722	Benzo(b)fluoranthene	205-99-2	N.D.	0.00079	1
10722	Benzo(g,h,i)perylene	191-24-2	N.D.	0.00079	1
10722	Benzo(k)fluoranthene	207-08-9	N.D.	0.00079	1
10722	Chrysene	218-01-9	N.D.	0.00040	1
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00079	1
10722	Fluoranthene	206-44-0	N.D.	0.00079	1
10722	Fluorene	86-73-7	N.D.	0.00079	1
10722	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00079	1
10722	Naphthalene	91-20-3	N.D.	0.00079	1
10722	Phenanthrene	85-01-8	0.0014	0.00079	1
10722	Pyrene	129-00-0	N.D.	0.00079	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.2	24.21
GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	N.D.	3.6	1
02214	HRO C24-C40 w/Si Gel	n.a.	N.D.	12	1
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	4.18	0.0122	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	16.3	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: B-3-20' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265643
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 09:00 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML320

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	A111181AA	04/28/2011 18:32	Chelsea B Eastep	0.84
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 09:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 09:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 09:00	Client Supplied	1
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	11118SLD026	05/03/2011 13:32	Joseph M Gambler	1
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	11118SLD026	04/29/2011 03:35	Roman Kuropatkin	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11109A34B	04/29/2011 19:31	Marie D John	24.21
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 09:00	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111170032A	04/28/2011 17:12	Dustin A Underkoffler	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	111170032A	04/28/2011 07:30	Kerrie A Freeburn	1
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 19:11	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11118820001A	04/28/2011 11:57	Stephanie A Sanchez	1

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Analysis Report

Sample Description: TB-1 Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265644
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 14:05

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLTB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z111172AA	04/27/2011 12:40	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z111172AA	04/27/2011 12:40	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11119A07A	04/29/2011 22:33	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11119A07A	04/29/2011 22:33	Elizabeth J Marin	1

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Analysis Report

Sample Description: TB-2 Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265645
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 13:20

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLTB2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z111172AA	04/27/2011 13:04	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z111172AA	04/27/2011 13:04	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11119A07A	04/29/2011 22:58	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11119A07A	04/29/2011 22:58	Elizabeth J Marin	1

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Analysis Report

Sample Description: B-4-5' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265646
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/18/2011 15:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML405

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.001	0.0005	0.88
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.88
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.88
10950	Toluene	108-88-3	N.D.	0.001	0.88
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.88
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.2	25.65
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	6.13	0.0126	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	17.6	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	A111181AA	04/28/2011 18:55	Chelsea B Eastep	0.88
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/18/2011 15:10	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/18/2011 15:10	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/18/2011 15:10	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 12:04	Elizabeth J Marin	25.65
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/18/2011 15:10	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 19:26	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007A	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-4-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265647
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 08:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML410

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0009	1.52
10950	Ethylbenzene	100-41-4	N.D.	0.002	1.52
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0009	1.52
10950	Toluene	108-88-3	N.D.	0.002	1.52
10950	Xylene (Total)	1330-20-7	N.D.	0.002	1.52
	The GC/MS volatile internal standard peak areas were outside the QC limits. A re-analysis was performed, and the matrix effect was confirmed.				
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	200	4503.19
	Reporting limits were raised due to sample foaming.				
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	5.21	0.0114	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	11.8	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	A111181AA	04/28/2011 19:17	Chelsea B Eastep	1.52
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 08:10	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 08:10	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 08:10	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 16:30	Elizabeth J Marin	4503.19
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 08:10	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 19:28	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007A	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-4-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265648
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 08:15 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML415

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.79
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.79
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.79
10950	Toluene	108-88-3	N.D.	0.001	0.79
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.79
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	18	356.45
	Reporting limits were raised due to sample foaming.				
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	9.13	0.0128	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	19.7	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111181AA	04/28/2011 19:43	Kristen D Pelliccia	0.79
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 08:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 08:15	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 08:15	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 17:06	Elizabeth J Marin	356.45
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 08:15	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 19:36	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007A	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-4-17' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265649
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 08:25 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML417

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.005	0.0007	0.99
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	0.99
10950	Toluene	108-88-3	N.D.	0.001	0.99
10950	Xylene (Total)	1330-20-7	0.004	0.001	0.99
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	1.9	1.6	28.68
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	5.52	0.0149	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	30.4	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111181AA	04/28/2011 22:45	Kristen D Pelliccia	0.99
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 08:25	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 08:25	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 08:25	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 12:40	Elizabeth J Marin	28.68
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 08:25	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 19:38	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007A	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-5-5' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265650
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/18/2011 12:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML505

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Acetone	67-64-1	N.D.	0.007	0.85
10950	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.85
10950	Benzene	71-43-2	N.D.	0.0005	0.85
10950	Bromobenzene	108-86-1	N.D.	0.001	0.85
10950	Bromochloromethane	74-97-5	N.D.	0.001	0.85
10950	Bromodichloromethane	75-27-4	N.D.	0.001	0.85
10950	Bromoform	75-25-2	N.D.	0.001	0.85
10950	Bromomethane	74-83-9	N.D.	0.002	0.85
10950	2-Butanone	78-93-3	N.D.	0.004	0.85
10950	t-Butyl alcohol	75-65-0	N.D.	0.019	0.85
10950	n-Butylbenzene	104-51-8	N.D.	0.001	0.85
10950	sec-Butylbenzene	135-98-8	N.D.	0.001	0.85
10950	tert-Butylbenzene	98-06-6	N.D.	0.001	0.85
10950	Carbon Disulfide	75-15-0	N.D.	0.001	0.85
10950	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.85
10950	Chlorobenzene	108-90-7	N.D.	0.001	0.85
10950	Chloroethane	75-00-3	N.D.	0.002	0.85
10950	Chloroform	67-66-3	N.D.	0.001	0.85
10950	Chloromethane	74-87-3	N.D.	0.002	0.85
10950	2-Chlorotoluene	95-49-8	N.D.	0.001	0.85
10950	4-Chlorotoluene	106-43-4	N.D.	0.001	0.85
10950	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	0.85
10950	Dibromochloromethane	124-48-1	N.D.	0.001	0.85
10950	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.85
10950	Dibromomethane	74-95-3	N.D.	0.001	0.85
10950	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.85
10950	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.85
10950	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.85
10950	Dichlorodifluoromethane	75-71-8	N.D.	0.002	0.85
10950	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.85
10950	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.85
10950	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.85
10950	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.85
10950	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.85
10950	1,2-Dichloropropane	78-87-5	N.D.	0.001	0.85
10950	1,3-Dichloropropane	142-28-9	N.D.	0.001	0.85
10950	2,2-Dichloropropane	594-20-7	N.D.	0.001	0.85
10950	1,1-Dichloropropene	563-58-6	N.D.	0.001	0.85
10950	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	0.85
10950	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	0.85
10950	Ethanol	64-17-5	N.D.	0.096	0.85
10950	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.85
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.85
10950	Freon 113	76-13-1	N.D.	0.002	0.85
10950	Hexachlorobutadiene	87-68-3	N.D.	0.002	0.85
10950	2-Hexanone	591-78-6	N.D.	0.003	0.85
10950	di-Isopropyl ether	108-20-3	N.D.	0.001	0.85
10950	Isopropylbenzene	98-82-8	N.D.	0.001	0.85
10950	p-Isopropyltoluene	99-87-6	N.D.	0.001	0.85
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.85

Sample Description: B-5-5' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265650
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/18/2011 12:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML505

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	0.85
10950	Methylene Chloride	75-09-2	N.D.	0.002	0.85
10950	Naphthalene	91-20-3	N.D.	0.001	0.85
10950	n-Propylbenzene	103-65-1	N.D.	0.001	0.85
10950	Styrene	100-42-5	N.D.	0.001	0.85
10950	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.001	0.85
10950	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	0.85
10950	Tetrachloroethene	127-18-4	N.D.	0.001	0.85
10950	Toluene	108-88-3	N.D.	0.001	0.85
10950	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.001	0.85
10950	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	0.85
10950	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.85
10950	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	0.85
10950	Trichloroethene	79-01-6	N.D.	0.001	0.85
10950	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.85
10950	1,2,3-Trichloropropane	96-18-4	N.D.	0.001	0.85
10950	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.85
10950	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.85
10950	Vinyl Chloride	75-01-4	N.D.	0.001	0.85
10950	m+p-Xylene	179601-23-1	N.D.	0.001	0.85
10950	o-Xylene	95-47-6	N.D.	0.001	0.85

2-Chloroethyl vinyl ether is an acid labile compound and cannot be reported in this sample due to the acid preservation of the samples and standards.

GC/MS Semivolatiles	**SW-846 8270C SIM**		**mg/kg**	**mg/kg**	
10722	Acenaphthene	83-32-9	N.D.	0.0019	1
10722	Acenaphthylene	208-96-8	N.D.	0.00094	1
10722	Anthracene	120-12-7	N.D.	0.00094	1
10722	Benzo(a)anthracene	56-55-3	N.D.	0.0019	1
10722	Benzo(a)pyrene	50-32-8	N.D.	0.0019	1
10722	Benzo(b)fluoranthene	205-99-2	N.D.	0.0019	1
10722	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0019	1
10722	Benzo(k)fluoranthene	207-08-9	N.D.	0.0019	1
10722	Chrysene	218-01-9	N.D.	0.00094	1
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0019	1
10722	Fluoranthene	206-44-0	N.D.	0.0019	1
10722	Fluorene	86-73-7	N.D.	0.0019	1
10722	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0019	1
10722	Naphthalene	91-20-3	N.D.	0.0019	1
10722	Phenanthrene	85-01-8	N.D.	0.0019	1
10722	Pyrene	129-00-0	N.D.	0.0019	1

Reporting limits were raised due to limited sample volume.

GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.4	30.76

Pesticides/PCBs	**SW-846 8082**		**mg/kg**	**mg/kg**	
10736	PCB-1016	12674-11-2	N.D.	0.0040	1
10736	PCB-1221	11104-28-2	N.D.	0.0051	1
10736	PCB-1232	11141-16-5	N.D.	0.0089	1

Sample Description: B-5-5' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265650
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/18/2011 12:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML505

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082**		**mg/kg**	**mg/kg**	
10736	PCB-1242	53469-21-9	N.D.	0.0037	1
10736	PCB-1248	12672-29-6	N.D.	0.0037	1
10736	PCB-1254	11097-69-1	N.D.	0.0037	1
10736	PCB-1260	11096-82-5	N.D.	0.0055	1
10736	PCB-1262	37324-23-5	N.D.	0.0037	1
10736	PCB-1268	11100-14-4	N.D.	0.0037	1
GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	11	3.4	1
02214	HRO C24-C40 w/Si Gel	n.a.	N.D.	11	1
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	0.928	0.0115	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	11.2	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	8260 Full List + Sep Xylenes	SW-846 8260B	1	X111181AA	04/28/2011 20:06	Kristen D Pelliccia	0.85
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/18/2011 12:10	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/18/2011 12:10	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/18/2011 12:10	Client Supplied	1
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	11118SLD026	05/03/2011 14:05	Joseph M Gambler	1
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	11118SLD026	04/29/2011 03:35	Roman Kuropatkin	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 13:17	Elizabeth J Marin	30.76
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/18/2011 12:10	Client Supplied	n.a.

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Analysis Report

Sample Description: B-5-5' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265650
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/18/2011 12:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML505

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10736	PCBs in Soil (microwave)	SW-846 8082	1	111150007A	04/28/2011 15:13	Lindsey K Lafferty	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	111150007A	04/25/2011 13:50	Olivia I Santiago	1
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111170032A	04/28/2011 17:33	Dustin A Underkoffler	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	111170032A	04/28/2011 07:30	Kerrie A Freeburn	1
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 19:40	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007A	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-5-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265651
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 10:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML510

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		mg/kg	mg/kg	
10950	Acetone	67-64-1	0.008	0.008	1.01
10950	t-Amyl methyl ether	994-05-8	N.D.	0.001	1.01
10950	Benzene	71-43-2	N.D.	0.0006	1.01
10950	Bromobenzene	108-86-1	N.D.	0.001	1.01
10950	Bromochloromethane	74-97-5	N.D.	0.001	1.01
10950	Bromodichloromethane	75-27-4	N.D.	0.001	1.01
10950	Bromoform	75-25-2	N.D.	0.001	1.01
10950	Bromomethane	74-83-9	N.D.	0.002	1.01
10950	2-Butanone	78-93-3	N.D.	0.005	1.01
10950	t-Butyl alcohol	75-65-0	N.D.	0.023	1.01
10950	n-Butylbenzene	104-51-8	N.D.	0.001	1.01
10950	sec-Butylbenzene	135-98-8	N.D.	0.001	1.01
10950	tert-Butylbenzene	98-06-6	N.D.	0.001	1.01
10950	Carbon Disulfide	75-15-0	N.D.	0.001	1.01
10950	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.01
10950	Chlorobenzene	108-90-7	N.D.	0.001	1.01
10950	Chloroethane	75-00-3	N.D.	0.002	1.01
10950	Chloroform	67-66-3	N.D.	0.001	1.01
10950	Chloromethane	74-87-3	N.D.	0.002	1.01
10950	2-Chlorotoluene	95-49-8	N.D.	0.001	1.01
10950	4-Chlorotoluene	106-43-4	N.D.	0.001	1.01
10950	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	1.01
10950	Dibromochloromethane	124-48-1	N.D.	0.001	1.01
10950	1,2-Dibromoethane	106-93-4	N.D.	0.001	1.01
10950	Dibromomethane	74-95-3	N.D.	0.001	1.01
10950	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.01
10950	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.01
10950	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.01
10950	Dichlorodifluoromethane	75-71-8	N.D.	0.002	1.01
10950	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.01
10950	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.01
10950	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.01
10950	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.01
10950	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.01
10950	1,2-Dichloropropane	78-87-5	N.D.	0.001	1.01
10950	1,3-Dichloropropane	142-28-9	N.D.	0.001	1.01
10950	2,2-Dichloropropane	594-20-7	N.D.	0.001	1.01
10950	1,1-Dichloropropene	563-58-6	N.D.	0.001	1.01
10950	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	1.01
10950	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	1.01
10950	Ethanol	64-17-5	N.D.	0.11	1.01
10950	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1.01
10950	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10950	Freon 113	76-13-1	N.D.	0.002	1.01
10950	Hexachlorobutadiene	87-68-3	N.D.	0.002	1.01
10950	2-Hexanone	591-78-6	N.D.	0.003	1.01
10950	di-Isopropyl ether	108-20-3	N.D.	0.001	1.01
10950	Isopropylbenzene	98-82-8	N.D.	0.001	1.01
10950	p-Isopropyltoluene	99-87-6	N.D.	0.001	1.01
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	1.01

Sample Description: B-5-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265651
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 10:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML510

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	1.01
10950	Methylene Chloride	75-09-2	N.D.	0.002	1.01
10950	Naphthalene	91-20-3	N.D.	0.001	1.01
10950	n-Propylbenzene	103-65-1	N.D.	0.001	1.01
10950	Styrene	100-42-5	N.D.	0.001	1.01
10950	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.001	1.01
10950	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	1.01
10950	Tetrachloroethene	127-18-4	N.D.	0.001	1.01
10950	Toluene	108-88-3	N.D.	0.001	1.01
10950	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.001	1.01
10950	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	1.01
10950	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.01
10950	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	1.01
10950	Trichloroethene	79-01-6	N.D.	0.001	1.01
10950	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.01
10950	1,2,3-Trichloropropane	96-18-4	N.D.	0.001	1.01
10950	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.01
10950	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.01
10950	Vinyl Chloride	75-01-4	N.D.	0.001	1.01
10950	m+p-Xylene	179601-23-1	N.D.	0.001	1.01
10950	o-Xylene	95-47-6	N.D.	0.001	1.01

2-Chloroethyl vinyl ether is an acid labile compound and cannot be reported in this sample due to the acid preservation of the samples and standards.

GC/MS Semivolatiles	**SW-846 8270C SIM**		**mg/kg**	**mg/kg**	
10722	Acenaphthene	83-32-9	N.D.	0.00075	1
10722	Acenaphthylene	208-96-8	N.D.	0.00037	1
10722	Anthracene	120-12-7	N.D.	0.00037	1
10722	Benzo(a)anthracene	56-55-3	N.D.	0.00075	1
10722	Benzo(a)pyrene	50-32-8	N.D.	0.00075	1
10722	Benzo(b)fluoranthene	205-99-2	N.D.	0.00075	1
10722	Benzo(g,h,i)perylene	191-24-2	N.D.	0.00075	1
10722	Benzo(k)fluoranthene	207-08-9	N.D.	0.00075	1
10722	Chrysene	218-01-9	N.D.	0.00037	1
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00075	1
10722	Fluoranthene	206-44-0	N.D.	0.00075	1
10722	Fluorene	86-73-7	N.D.	0.00075	1
10722	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00075	1
10722	Naphthalene	91-20-3	N.D.	0.00075	1
10722	Phenanthrene	85-01-8	N.D.	0.00075	1
10722	Pyrene	129-00-0	N.D.	0.00075	1

GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.2	25.71

Pesticides/PCBs	**SW-846 8082**		**mg/kg**	**mg/kg**	
10736	PCB-1016	12674-11-2	N.D.	0.0040	1
10736	PCB-1221	11104-28-2	N.D.	0.0052	1
10736	PCB-1232	11141-16-5	N.D.	0.0090	1

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Analysis Report

Sample Description: B-5-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265651
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 10:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML510

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082**		**mg/kg**	**mg/kg**	
10736	PCB-1242	53469-21-9	N.D.	0.0037	1
10736	PCB-1248	12672-29-6	N.D.	0.0037	1
10736	PCB-1254	11097-69-1	N.D.	0.0037	1
10736	PCB-1260	11096-82-5	N.D.	0.0055	1
10736	PCB-1262	37324-23-5	N.D.	0.0037	1
10736	PCB-1268	11100-14-4	N.D.	0.0037	1
GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	N.D.	3.4	1
02214	HRO C24-C40 w/Si Gel	n.a.	N.D.	11	1
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	2.13	0.0114	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	11.6	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	8260 Full List + Sep Xylenes	SW-846 8260B	1	X111181AA	04/28/2011 20:28	Kristen D Pelliccia	1.01
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 10:10	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 10:10	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 10:10	Client Supplied	1
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	11118SLD026	05/03/2011 14:38	Joseph M Gambler	1
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	11118SLD026	04/29/2011 03:35	Roman Kuropatkin	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 15:45	Elizabeth J Marin	25.71
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 10:10	Client Supplied	n.a.

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Analysis Report

Sample Description: B-5-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265651
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 10:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML510

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10736	PCBs in Soil (microwave)	SW-846 8082	1	111150007A	04/28/2011 17:49	Lindsey K Lafferty	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	111150007A	04/25/2011 13:50	Olivia I Santiago	1
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111170032A	04/28/2011 17:54	Dustin A Underkoffler	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	111170032A	04/28/2011 07:30	Kerrie A Freeburn	1
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 19:43	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007A	04/27/2011 18:41	Scott W Freisher	1

Lancaster Laboratories

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Analysis Report

Sample Description: B-5-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265652
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 10:20 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML515

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		mg/kg	mg/kg	
10950	Acetone	67-64-1	N.D.	0.008	1
10950	t-Amyl methyl ether	994-05-8	N.D.	0.001	1
10950	Benzene	71-43-2	N.D.	0.0006	1
10950	Bromobenzene	108-86-1	N.D.	0.001	1
10950	Bromochloromethane	74-97-5	N.D.	0.001	1
10950	Bromodichloromethane	75-27-4	N.D.	0.001	1
10950	Bromoform	75-25-2	N.D.	0.001	1
10950	Bromomethane	74-83-9	N.D.	0.002	1
10950	2-Butanone	78-93-3	N.D.	0.005	1
10950	t-Butyl alcohol	75-65-0	N.D.	0.023	1
10950	n-Butylbenzene	104-51-8	N.D.	0.001	1
10950	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10950	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10950	Carbon Disulfide	75-15-0	N.D.	0.001	1
10950	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10950	Chlorobenzene	108-90-7	N.D.	0.001	1
10950	Chloroethane	75-00-3	N.D.	0.002	1
10950	Chloroform	67-66-3	N.D.	0.001	1
10950	Chloromethane	74-87-3	N.D.	0.002	1
10950	2-Chlorotoluene	95-49-8	N.D.	0.001	1
10950	4-Chlorotoluene	106-43-4	N.D.	0.001	1
10950	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	1
10950	Dibromochloromethane	124-48-1	N.D.	0.001	1
10950	1,2-Dibromoethane	106-93-4	N.D.	0.001	1
10950	Dibromomethane	74-95-3	N.D.	0.001	1
10950	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10950	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10950	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10950	Dichlorodifluoromethane	75-71-8	N.D.	0.002	1
10950	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10950	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10950	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10950	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10950	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10950	1,2-Dichloropropane	78-87-5	N.D.	0.001	1
10950	1,3-Dichloropropane	142-28-9	N.D.	0.001	1
10950	2,2-Dichloropropane	594-20-7	N.D.	0.001	1
10950	1,1-Dichloropropene	563-58-6	N.D.	0.001	1
10950	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	1
10950	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	1
10950	Ethanol	64-17-5	N.D.	0.12	1
10950	Ethyl t-butyl ether	637-92-3	N.D.	0.001	1
10950	Ethylbenzene	100-41-4	N.D.	0.001	1
10950	Freon 113	76-13-1	N.D.	0.002	1
10950	Hexachlorobutadiene	87-68-3	N.D.	0.002	1
10950	2-Hexanone	591-78-6	N.D.	0.003	1
10950	di-Isopropyl ether	108-20-3	N.D.	0.001	1
10950	Isopropylbenzene	98-82-8	N.D.	0.001	1
10950	p-Isopropyltoluene	99-87-6	N.D.	0.001	1
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	1

Sample Description: B-5-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265652
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 10:20 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML515

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	1
10950	Methylene Chloride	75-09-2	N.D.	0.002	1
10950	Naphthalene	91-20-3	N.D.	0.001	1
10950	n-Propylbenzene	103-65-1	N.D.	0.001	1
10950	Styrene	100-42-5	N.D.	0.001	1
10950	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.001	1
10950	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	1
10950	Tetrachloroethene	127-18-4	N.D.	0.001	1
10950	Toluene	108-88-3	N.D.	0.001	1
10950	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.001	1
10950	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	1
10950	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10950	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	1
10950	Trichloroethene	79-01-6	N.D.	0.001	1
10950	Trichlorofluoromethane	75-69-4	N.D.	0.002	1
10950	1,2,3-Trichloropropane	96-18-4	N.D.	0.001	1
10950	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10950	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10950	Vinyl Chloride	75-01-4	N.D.	0.001	1
10950	m+p-Xylene	179601-23-1	N.D.	0.001	1
10950	o-Xylene	95-47-6	N.D.	0.001	1

2-Chloroethyl vinyl ether is an acid labile compound and cannot be reported in this sample due to the acid preservation of the samples and standards.

GC/MS Semivolatiles	**SW-846 8270C SIM**		**mg/kg**	**mg/kg**	
10722	Acenaphthene	83-32-9	N.D.	0.00077	1
10722	Acenaphthylene	208-96-8	N.D.	0.00038	1
10722	Anthracene	120-12-7	N.D.	0.00038	1
10722	Benzo(a)anthracene	56-55-3	N.D.	0.00077	1
10722	Benzo(a)pyrene	50-32-8	N.D.	0.00077	1
10722	Benzo(b)fluoranthene	205-99-2	N.D.	0.00077	1
10722	Benzo(g,h,i)perylene	191-24-2	N.D.	0.00077	1
10722	Benzo(k)fluoranthene	207-08-9	N.D.	0.00077	1
10722	Chrysene	218-01-9	N.D.	0.00038	1
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00077	1
10722	Fluoranthene	206-44-0	N.D.	0.00077	1
10722	Fluorene	86-73-7	N.D.	0.00077	1
10722	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00077	1
10722	Naphthalene	91-20-3	N.D.	0.00077	1
10722	Phenanthrene	85-01-8	N.D.	0.00077	1
10722	Pyrene	129-00-0	N.D.	0.00077	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.4	29.89
Pesticides/PCBs	**SW-846 8082**		**mg/kg**	**mg/kg**	
10736	PCB-1016	12674-11-2	N.D.	0.0041	1
10736	PCB-1221	11104-28-2	N.D.	0.0053	1
10736	PCB-1232	11141-16-5	N.D.	0.0092	1

Sample Description: B-5-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265652
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 10:20 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML515

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082**		**mg/kg**	**mg/kg**	
10736	PCB-1242	53469-21-9	N.D.	0.0038	1
10736	PCB-1248	12672-29-6	N.D.	0.0038	1
10736	PCB-1254	11097-69-1	N.D.	0.0038	1
10736	PCB-1260	11096-82-5	N.D.	0.0056	1
10736	PCB-1262	37324-23-5	N.D.	0.0038	1
10736	PCB-1268	11100-14-4	N.D.	0.0038	1
GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	12	3.5	1
02214	HRO C24-C40 w/Si Gel	n.a.	N.D.	12	1
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	1.81	0.0119	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	13.4	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	8260 Full List + Sep Xylenes	SW-846 8260B	1	X111181AA	04/28/2011 20:51	Kristen D Pelliccia	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 10:20	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 10:20	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 10:20	Client Supplied	1
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	11118SLD026	05/03/2011 15:11	Gregory J Drahovsky	1
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	11118SLD026	04/29/2011 03:35	Roman Kuropatkin	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 14:29	Elizabeth J Marin	29.89
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 10:20	Client Supplied	n.a.

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Analysis Report

Sample Description: B-5-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265652
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 10:20 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML515

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10736	PCBs in Soil (microwave)	SW-846 8082	1	111150007A	04/28/2011 18:04	Lindsey K Lafferty	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	111150007A	04/25/2011 13:50	Olivia I Santiago	1
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111170032A	04/28/2011 18:15	Dustin A Underkoffler	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	111170032A	04/28/2011 07:30	Kerrie A Freeburn	1
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 19:45	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007A	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-5-18' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265653
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 10:30 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML518

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		mg/kg	mg/kg	
10950	Acetone	67-64-1	0.038	0.008	0.85
10950	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.85
10950	Benzene	71-43-2	0.002	0.0005	0.85
10950	Bromobenzene	108-86-1	N.D.	0.001	0.85
10950	Bromochloromethane	74-97-5	N.D.	0.001	0.85
10950	Bromodichloromethane	75-27-4	N.D.	0.001	0.85
10950	Bromoform	75-25-2	N.D.	0.001	0.85
10950	Bromomethane	74-83-9	N.D.	0.002	0.85
10950	2-Butanone	78-93-3	N.D.	0.004	0.85
10950	t-Butyl alcohol	75-65-0	N.D.	0.022	0.85
10950	n-Butylbenzene	104-51-8	N.D.	0.001	0.85
10950	sec-Butylbenzene	135-98-8	N.D.	0.001	0.85
10950	tert-Butylbenzene	98-06-6	N.D.	0.001	0.85
10950	Carbon Disulfide	75-15-0	0.006	0.001	0.85
10950	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.85
10950	Chlorobenzene	108-90-7	N.D.	0.001	0.85
10950	Chloroethane	75-00-3	N.D.	0.002	0.85
10950	Chloroform	67-66-3	N.D.	0.001	0.85
10950	Chloromethane	74-87-3	N.D.	0.002	0.85
10950	2-Chlorotoluene	95-49-8	N.D.	0.001	0.85
10950	4-Chlorotoluene	106-43-4	N.D.	0.001	0.85
10950	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	0.85
10950	Dibromochloromethane	124-48-1	N.D.	0.001	0.85
10950	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.85
10950	Dibromomethane	74-95-3	N.D.	0.001	0.85
10950	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.85
10950	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.85
10950	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.85
10950	Dichlorodifluoromethane	75-71-8	N.D.	0.002	0.85
10950	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.85
10950	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.85
10950	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.85
10950	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.85
10950	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.85
10950	1,2-Dichloropropane	78-87-5	N.D.	0.001	0.85
10950	1,3-Dichloropropane	142-28-9	N.D.	0.001	0.85
10950	2,2-Dichloropropane	594-20-7	N.D.	0.001	0.85
10950	1,1-Dichloropropene	563-58-6	N.D.	0.001	0.85
10950	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	0.85
10950	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	0.85
10950	Ethanol	64-17-5	N.D.	0.11	0.85
10950	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.85
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.85
10950	Freon 113	76-13-1	N.D.	0.002	0.85
10950	Hexachlorobutadiene	87-68-3	N.D.	0.002	0.85
10950	2-Hexanone	591-78-6	N.D.	0.003	0.85
10950	di-Isopropyl ether	108-20-3	N.D.	0.001	0.85
10950	Isopropylbenzene	98-82-8	N.D.	0.001	0.85
10950	p-Isopropyltoluene	99-87-6	N.D.	0.001	0.85
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.85

Sample Description: B-5-18' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265653
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 10:30 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML518

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	0.85
10950	Methylene Chloride	75-09-2	N.D.	0.002	0.85
10950	Naphthalene	91-20-3	N.D.	0.001	0.85
10950	n-Propylbenzene	103-65-1	N.D.	0.001	0.85
10950	Styrene	100-42-5	N.D.	0.001	0.85
10950	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.001	0.85
10950	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	0.85
10950	Tetrachloroethene	127-18-4	N.D.	0.001	0.85
10950	Toluene	108-88-3	N.D.	0.001	0.85
10950	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.001	0.85
10950	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	0.85
10950	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.85
10950	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	0.85
10950	Trichloroethene	79-01-6	N.D.	0.001	0.85
10950	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.85
10950	1,2,3-Trichloropropane	96-18-4	N.D.	0.001	0.85
10950	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.85
10950	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.85
10950	Vinyl Chloride	75-01-4	N.D.	0.001	0.85
10950	m+p-Xylene	179601-23-1	N.D.	0.001	0.85
10950	o-Xylene	95-47-6	N.D.	0.001	0.85

2-Chloroethyl vinyl ether is an acid labile compound and cannot be reported in this sample due to the acid preservation of the samples and standards.

GC/MS Semivolatiles	**SW-846 8270C SIM**		**mg/kg**	**mg/kg**	
10722	Acenaphthene	83-32-9	N.D.	0.00084	1
10722	Acenaphthylene	208-96-8	N.D.	0.00042	1
10722	Anthracene	120-12-7	0.00053	0.00042	1
10722	Benzo(a)anthracene	56-55-3	N.D.	0.00084	1
10722	Benzo(a)pyrene	50-32-8	N.D.	0.00084	1
10722	Benzo(b)fluoranthene	205-99-2	N.D.	0.00084	1
10722	Benzo(g,h,i)perylene	191-24-2	N.D.	0.00084	1
10722	Benzo(k)fluoranthene	207-08-9	N.D.	0.00084	1
10722	Chrysene	218-01-9	N.D.	0.00042	1
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00084	1
10722	Fluoranthene	206-44-0	N.D.	0.00084	1
10722	Fluorene	86-73-7	N.D.	0.00084	1
10722	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00084	1
10722	Naphthalene	91-20-3	0.0017	0.00084	1
10722	Phenanthrene	85-01-8	0.0017	0.00084	1
10722	Pyrene	129-00-0	N.D.	0.00084	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.3	24.8
Pesticides/PCBs	**SW-846 8082**		**mg/kg**	**mg/kg**	
10736	PCB-1016	12674-11-2	N.D.	0.0045	1
10736	PCB-1221	11104-28-2	N.D.	0.0058	1
10736	PCB-1232	11141-16-5	N.D.	0.010	1

Sample Description: B-5-18' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265653
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 10:30 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML518

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082**		**mg/kg**	**mg/kg**	
10736	PCB-1242	53469-21-9	N.D.	0.0041	1
10736	PCB-1248	12672-29-6	N.D.	0.0041	1
10736	PCB-1254	11097-69-1	N.D.	0.0041	1
10736	PCB-1260	11096-82-5	N.D.	0.0061	1
10736	PCB-1262	37324-23-5	N.D.	0.0041	1
10736	PCB-1268	11100-14-4	N.D.	0.0041	1
GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	N.D.	3.8	1
02214	HRO C24-C40 w/Si Gel	n.a.	N.D.	13	1
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	4.53	0.0132	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	21.0	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	8260 Full List + Sep Xylenes	SW-846 8260B	1	X111181AA	04/28/2011 21:13	Kristen D Pelliccia	0.85
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 10:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 10:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 10:30	Client Supplied	1
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	11118SLD026	05/03/2011 15:44	Gregory J Drahovsky	1
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	11118SLD026	04/29/2011 03:35	Roman Kuropatkin	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 17:45	Elizabeth J Marin	24.8
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 10:30	Client Supplied	n.a.

Sample Description: B-5-18' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265653
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 10:30 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML518

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10736	PCBs in Soil (microwave)	SW-846 8082	1	111150007A	04/28/2011 18:18	Lindsey K Lafferty	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	111150007A	04/25/2011 13:50	Olivia I Santiago	1
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111170032A	04/28/2011 18:35	Dustin A Underkoffler	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	111170032A	04/28/2011 07:30	Kerrie A Freeburn	1
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 19:48	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007A	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-6-5' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265654
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/18/2011 17:30 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML605

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0004	0.78
10950	Ethylbenzene	100-41-4	N.D.	0.0009	0.78
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0004	0.78
10950	Toluene	108-88-3	N.D.	0.0009	0.78
10950	Xylene (Total)	1330-20-7	N.D.	0.0009	0.78
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.1	24.22
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	1.96	0.0113	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	8.7	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111181AA	04/28/2011 21:36	Kristen D Pelliccia	0.78
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/18/2011 17:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/18/2011 17:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/18/2011 17:30	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 19:33	Elizabeth J Marin	24.22
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/18/2011 17:30	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 19:50	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007A	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-6-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265655
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 11:00 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML610

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.93
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.93
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.93
10950	Toluene	108-88-3	N.D.	0.001	0.93
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.93
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.3	30.76
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	2.38	0.0112	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	8.1	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111181AA	04/28/2011 23:07	Kristen D Pelliccia	0.93
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 11:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 11:00	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 20:10	Elizabeth J Marin	30.76
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 11:00	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 19:53	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007A	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-6-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265656
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 11:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML615

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.29	486.38
10950	Ethylbenzene	100-41-4	1.9	0.58	486.38
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.29	486.38
10950	Toluene	108-88-3	N.D.	0.58	486.38
10950	Xylene (Total)	1330-20-7	8.4	0.58	486.38
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	1,300	200	4135.14
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	5.21	0.0122	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	15.9	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	R111181AA	04/28/2011 18:13	Kerri E Legerlotz	486.38
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 11:10	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 11:10	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 11:10	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 22:35	Elizabeth J Marin	4135.14
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 11:10	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 19:55	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007A	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-6-17' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265657
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 11:20 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML617

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0008	1.08
10950	Ethylbenzene	100-41-4	N.D.	0.002	1.08
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0008	1.08
10950	Toluene	108-88-3	N.D.	0.002	1.08
10950	Xylene (Total)	1330-20-7	0.025	0.002	1.08
	The GC/MS volatile internal standard peak areas were outside the QC limits. A re-analysis could not be performed, because only 1 sample vial was submitted for this analysis.				
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	24	392.55
	Reporting limits were raised due to sample foaming.				
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	19.3	0.0157	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	35.1	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111181AA	04/29/2011 02:33	Kristen D Pelliccia	1.08
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 11:20	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 11:20	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 23:11	Elizabeth J Marin	392.55
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 11:20	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 19:57	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007A	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: TB-5 Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265658
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 13:50

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLTB5

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z111172AA	04/27/2011 13:28	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z111172AA	04/27/2011 13:28	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11119A07A	04/29/2011 23:23	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11119A07A	04/29/2011 23:23	Elizabeth J Marin	1

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Analysis Report

Sample Description: B-7-5' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265659
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/18/2011 16:40 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML705

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.86
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.86
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.86
10950	Toluene	108-88-3	N.D.	0.001	0.86
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.86
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.1	24.34
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	2.66	0.0116	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	10.3	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111181AA	04/28/2011 21:59	Kristen D Pelliccia	0.86
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/18/2011 16:40	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/18/2011 16:40	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/18/2011 16:40	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 20:46	Elizabeth J Marin	24.34
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/18/2011 16:40	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 20:05	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007B	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-7-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265660
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 11:40 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML710

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0004	0.68
10950	Ethylbenzene	100-41-4	N.D.	0.0008	0.68
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0004	0.68
10950	Toluene	108-88-3	N.D.	0.0008	0.68
10950	Xylene (Total)	1330-20-7	N.D.	0.0008	0.68
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.1	23.31
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	2.14	0.0114	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	11.2	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111181AA	04/28/2011 23:53	Kristen D Pelliccia	0.68
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 11:40	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 11:40	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 21:22	Elizabeth J Marin	23.31
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 11:40	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 20:07	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007B	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-7-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265661
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 11:50 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML715

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.0006	0.0005	0.93
10950	Ethylbenzene	100-41-4	0.001	0.001	0.93
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.93
10950	Toluene	108-88-3	0.001	0.001	0.93
10950	Xylene (Total)	1330-20-7	0.006	0.001	0.93
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	1.1	1.0	22.89
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	6.36	0.0117	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	11.2	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111181AA	04/28/2011 23:30	Kristen D Pelliccia	0.93
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 11:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 11:50	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34A	04/28/2011 21:59	Elizabeth J Marin	22.89
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 11:50	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 20:10	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007B	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-7-17' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # SW 6265662
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 12:00 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

ML717

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.003	0.0007	0.72
10950	Ethylbenzene	100-41-4	0.006	0.001	0.72
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	0.72
10950	Toluene	108-88-3	0.002	0.001	0.72
10950	Xylene (Total)	1330-20-7	0.015	0.001	0.72
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	35	2.5	32.74
Metals	**SW-846 6020**		**mg/kg**	**mg/kg**	
06135	Lead	7439-92-1	4.47	0.0193	2
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	48.2	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111181AA	04/29/2011 02:56	Kristen D Pelliccia	0.72
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201111224210	04/19/2011 12:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201111224210	04/19/2011 12:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201111224210	04/19/2011 12:00	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11116A34B	04/29/2011 11:36	Elizabeth J Marin	32.74
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201111224210	04/19/2011 12:00	Client Supplied	n.a.
06135	Lead	SW-846 6020	1	111171026002A	04/30/2011 20:12	David K Beck	2
11026	SW SW846 ICP-MS Digest	SW-846 3050A	1	111171026002	04/27/2011 21:35	Annamaria Stipkovits	1
00111	Moisture	SM20 2540 G	1	11117820007B	04/27/2011 18:41	Scott W Freisher	1

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Analysis Report

Sample Description: B-1 Grab Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265663
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 13:50 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLK01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	1	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	1,700	50	1
GC Miscellaneous	**SW-846 8011**		**ug/l**	**ug/l**	
07879	Ethylene dibromide	106-93-4	N.D.	0.0095	1
Metals	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	18.5	0.052	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	8260 BTEX/MTBE/EDC - Water	SW-846 8260B	1	D111171AA	04/27/2011 20:00	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D111171AA	04/27/2011 20:00	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11116A20A	04/26/2011 16:31	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11116A20A	04/26/2011 16:31	Laura M Krieger	1
07879	EDB in Wastewater	SW-846 8011	1	111150018A	04/27/2011 20:13	Tyler O Griffin	1
07786	EDB Extraction	SW-846 8011	1	111150018A	04/26/2011 15:40	Edwin Ortiz	1
06035	Lead	SW-846 6020	1	111156050001A	04/26/2011 21:06	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	111156050001	04/25/2011 21:00	Mirit S Shenouda	1

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Analysis Report

Sample Description: B-2 Grab Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265664
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 14:05 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLK02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	1	2
10943	1,2-Dichloroethane	107-06-2	N.D.	1	2
10943	Ethylbenzene	100-41-4	290	1	2
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	2
10943	Toluene	108-88-3	3	1	2
10943	Xylene (Total)	1330-20-7	5,100	10	20
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	20,000	250	5
GC Miscellaneous	**SW-846 8011**		**ug/l**	**ug/l**	
07879	Ethylene dibromide	106-93-4	N.D.	0.0094	1
Metals	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	32.9	0.052	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	8260 BTEX/MTBE/EDC - Water	SW-846 8260B	1	D111171AA	04/27/2011 20:45	Daniel H Heller	2
10943	8260 BTEX/MTBE/EDC - Water	SW-846 8260B	1	D111171AA	04/27/2011 21:07	Daniel H Heller	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D111171AA	04/27/2011 20:45	Daniel H Heller	2
01163	GC/MS VOA Water Prep	SW-846 5030B	2	D111171AA	04/27/2011 21:07	Daniel H Heller	20
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11116A20A	04/26/2011 19:25	Laura M Krieger	5
01146	GC VOA Water Prep	SW-846 5030B	1	11116A20A	04/26/2011 19:25	Laura M Krieger	5
07879	EDB in Wastewater	SW-846 8011	1	111150018A	04/27/2011 21:44	Tyler O Griffin	1
07786	EDB Extraction	SW-846 8011	1	111150018A	04/26/2011 15:40	Edwin Ortiz	1
06035	Lead	SW-846 6020	1	111156050001A	04/26/2011 21:08	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	111156050001	04/25/2011 21:00	Mirit S Shenouda	1

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Analysis Report

Sample Description: B-3 Grab Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265665
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 15:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLK03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	1	0.5	1
10943	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	33	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	28	0.5	1
10943	Xylene (Total)	1330-20-7	150	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	15	0.20	20
08357	Acenaphthylene	208-96-8	7.5	0.20	20
08357	Anthracene	120-12-7	N.D.	0.20	20
08357	Benzo(a)anthracene	56-55-3	N.D.	0.20	20
08357	Benzo(a)pyrene	50-32-8	N.D.	0.20	20
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.20	20
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.20	20
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.20	20
08357	Chrysene	218-01-9	1.5	0.20	20
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.20	20
08357	Fluoranthene	206-44-0	5.0	0.20	20
08357	Fluorene	86-73-7	55	0.20	20
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.20	20
08357	Naphthalene	91-20-3	570	5.9	200
08357	Phenanthrene	85-01-8	220	2.0	200
08357	Pyrene	129-00-0	8.2	0.20	20
Reporting limits were raised due to interference from the sample matrix.					
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	3,400	250	5
GC Miscellaneous	**SW-846 8011**		**ug/l**	**ug/l**	
07879	Ethylene dibromide	106-93-4	N.D.	0.0095	1
GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
02211	DRO C12-C24 w/Si Gel	n.a.	100,000	1,500	50
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	3,400	50
Metals	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	9.2	0.052	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: B-3 Grab Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265665
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 15:10 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLK03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	8260 BTEX/MTBE/EDC - Water	SW-846 8260B	1	Z111172AA	04/27/2011 18:59	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z111172AA	04/27/2011 18:59	Daniel H Heller	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11112WAC026	04/26/2011 14:51	Joseph M Gambler	20
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11112WAC026	04/26/2011 15:46	Joseph M Gambler	200
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11112WAC026	04/23/2011 07:30	Joseph S Feister	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11116A20A	04/26/2011 20:53	Laura M Krieger	5
01146	GC VOA Water Prep	SW-846 5030B	1	11116A20A	04/26/2011 20:53	Laura M Krieger	5
07879	EDB in Wastewater	SW-846 8011	1	111150018A	04/27/2011 22:14	Tyler O Griffin	1
07786	EDB Extraction	SW-846 8011	1	111150018A	04/26/2011 15:40	Edwin Ortiz	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111180025A	05/04/2011 00:12	Melissa McDermott	50
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111180025A	04/29/2011 08:00	Catherine R Wiker	1
06035	Lead	SW-846 6020	1	111156050001A	04/26/2011 21:09	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	111156050001	04/25/2011 21:00	Mirit S Shenouda	1

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Analysis Report

Sample Description: B-4 Grab Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265666
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 14:30 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLK04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**SW-846 8011**		**ug/l**	**ug/l**	
07879	Ethylene dibromide	106-93-4	N.D.	0.0095	1
Metals	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	48.5	0.052	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	8260 BTEX/MTBE/EDC - Water	SW-846 8260B	1	Z111172AA	04/27/2011 19:23	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z111172AA	04/27/2011 19:23	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11116A20A	04/26/2011 14:42	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11116A20A	04/26/2011 14:42	Laura M Krieger	1
07879	EDB in Wastewater	SW-846 8011	1	111150018A	04/27/2011 22:44	Tyler O Griffin	1
07786	EDB Extraction	SW-846 8011	1	111150018A	04/26/2011 15:40	Edwin Ortiz	1
06035	Lead	SW-846 6020	1	111156050001A	04/26/2011 21:11	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	111156050001	04/25/2011 21:00	Mirit S Shenouda	1

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Analysis Report

Sample Description: B-5 Grab Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265667
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 13:40 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLK05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10905	Acetone	67-64-1	16	6	1
10905	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10905	Benzene	71-43-2	N.D.	0.5	1
10905	Bromobenzene	108-86-1	N.D.	1	1
10905	Bromochloromethane	74-97-5	N.D.	1	1
10905	Bromodichloromethane	75-27-4	N.D.	1	1
10905	Bromoform	75-25-2	N.D.	1	1
10905	Bromomethane	74-83-9	N.D.	1	1
10905	2-Butanone	78-93-3	N.D.	3	1
10905	t-Butyl alcohol	75-65-0	5	5	1
10905	n-Butylbenzene	104-51-8	N.D.	1	1
10905	sec-Butylbenzene	135-98-8	N.D.	1	1
10905	tert-Butylbenzene	98-06-6	N.D.	1	1
10905	Carbon Disulfide	75-15-0	N.D.	1	1
10905	Carbon Tetrachloride	56-23-5	N.D.	1	1
10905	Chlorobenzene	108-90-7	N.D.	0.8	1
10905	Chloroethane	75-00-3	N.D.	1	1
10905	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.				
10905	Chloroform	67-66-3	N.D.	0.8	1
10905	Chloromethane	74-87-3	N.D.	1	1
10905	2-Chlorotoluene	95-49-8	N.D.	1	1
10905	4-Chlorotoluene	106-43-4	N.D.	1	1
10905	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10905	Dibromochloromethane	124-48-1	N.D.	1	1
10905	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10905	Dibromomethane	74-95-3	N.D.	1	1
10905	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10905	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10905	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10905	Dichlorodifluoromethane	75-71-8	N.D.	2	1
10905	1,1-Dichloroethane	75-34-3	N.D.	1	1
10905	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10905	1,1-Dichloroethene	75-35-4	N.D.	0.8	1
10905	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	1
10905	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	1
10905	1,2-Dichloropropane	78-87-5	N.D.	1	1
10905	1,3-Dichloropropane	142-28-9	N.D.	1	1
10905	2,2-Dichloropropane	594-20-7	N.D.	1	1
10905	1,1-Dichloropropene	563-58-6	N.D.	1	1
10905	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	1
10905	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	1
10905	Ethanol	64-17-5	N.D.	50	1
10905	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10905	Ethylbenzene	100-41-4	N.D.	0.5	1
10905	Freon 113	76-13-1	N.D.	2	1
10905	Hexachlorobutadiene	87-68-3	N.D.	2	1
10905	2-Hexanone	591-78-6	N.D.	3	1
10905	di-Isopropyl ether	108-20-3	N.D.	0.5	1

Sample Description: B-5 Grab Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265667
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 13:40 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLK05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10905	Isopropylbenzene	98-82-8	N.D.	1	1
10905	p-Isopropyltoluene	99-87-6	N.D.	1	1
10905	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10905	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10905	Methylene Chloride	75-09-2	N.D.	2	1
10905	Naphthalene	91-20-3	N.D.	1	1
10905	n-Propylbenzene	103-65-1	N.D.	1	1
10905	Styrene	100-42-5	N.D.	1	1
10905	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	1
10905	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	1
10905	Tetrachloroethene	127-18-4	N.D.	0.8	1
10905	Toluene	108-88-3	N.D.	0.5	1
10905	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10905	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10905	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	1
10905	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	1
10905	Trichloroethene	79-01-6	N.D.	1	1
10905	Trichlorofluoromethane	75-69-4	N.D.	2	1
10905	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10905	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10905	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10905	Vinyl Chloride	75-01-4	N.D.	1	1
10905	m+p-Xylene	179601-23-1	N.D.	0.5	1
10905	o-Xylene	95-47-6	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.011	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	1
08357	Anthracene	120-12-7	N.D.	0.011	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	1
08357	Chrysene	218-01-9	N.D.	0.011	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	1
08357	Fluoranthene	206-44-0	N.D.	0.011	1
08357	Fluorene	86-73-7	N.D.	0.011	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	1
08357	Naphthalene	91-20-3	N.D.	0.032	1
08357	Phenanthrene	85-01-8	0.028	0.011	1
08357	Pyrene	129-00-0	N.D.	0.011	1
Reporting limits were raised due to limited sample volume.					
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**SW-846 8011**		**ug/l**	**ug/l**	
07879	Ethylene dibromide	106-93-4	N.D.	0.0097	1

Sample Description: B-5 Grab Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265667
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 13:40 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLK05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082**		ug/l	ug/l	
10227	PCB-1016	12674-11-2	N.D.	1.0	1
10227	PCB-1221	11104-28-2	N.D.	1.0	1
10227	PCB-1232	11141-16-5	N.D.	2.0	1
10227	PCB-1242	53469-21-9	N.D.	1.0	1
10227	PCB-1248	12672-29-6	N.D.	1.0	1
10227	PCB-1254	11097-69-1	N.D.	1.0	1
10227	PCB-1260	11096-82-5	N.D.	1.5	1
10227	PCB-1262	37324-23-5	N.D.	2.0	1
10227	PCB-1268	11100-14-4	N.D.	1.6	1
GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	530	32	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	74	1
Metals	**SW-846 6020**		ug/l	ug/l	
06035	Lead	7439-92-1	116	0.052	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10905	8260 Full List w/ Sep. Xylenes	SW-846 8260B	1	W111152AA	04/25/2011 23:28	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W111152AA	04/25/2011 23:28	Emily R Styer	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	11112WAC026	04/26/2011 13:14	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	11112WAC026	04/23/2011 07:30	Joseph S Feister	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11119A07A	04/30/2011 02:18	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11119A07A	04/30/2011 02:18	Elizabeth J Marin	1
07879	EDB in Wastewater	SW-846 8011	1	111180011A	04/29/2011 18:26	Tyler O Griffin	1
10227	PCBs in Water 8082	SW-846 8082	1	111130006A	04/26/2011 03:13	Lindsey K Lafferty	1
11117	PCB Waters Extraction	SW-846 3510C	1	111130006A	04/24/2011 15:20	Denise L Trimby	1
07786	EDB Extraction	SW-846 8011	1	111180011A	04/28/2011 21:05	JoElla L Rice	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	111180025A	05/02/2011 16:33	Melissa McDermott	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	111180025A	04/29/2011 08:00	Catherine R Wiker	1
06035	Lead	SW-846 6020	1	111156050001A	04/26/2011 21:13	David K Beck	1

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Analysis Report

Sample Description: B-5 Grab Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265667
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 13:40 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLK05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	111156050001	04/25/2011 21:00	Mirit S Shenouda	1

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Analysis Report

Sample Description: B-6 Grab Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265668
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 13:15 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLK06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	1	2
10943	1,2-Dichloroethane	107-06-2	N.D.	1	2
10943	Ethylbenzene	100-41-4	330	1	2
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	2
10943	Toluene	108-88-3	N.D.	1	2
10943	Xylene (Total)	1330-20-7	2,000	10	20
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	27,000	250	5
GC Miscellaneous	**SW-846 8011**		**ug/l**	**ug/l**	
07879	Ethylene dibromide	106-93-4	N.D.	0.0093	1
Metals	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	18.4	0.052	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	8260 BTEX/MTBE/EDC - Water	SW-846 8260B	1	Z111172AA	04/27/2011 19:47	Daniel H Heller	2
10943	8260 BTEX/MTBE/EDC - Water	SW-846 8260B	1	Z111172AA	04/27/2011 20:11	Daniel H Heller	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z111172AA	04/27/2011 19:47	Daniel H Heller	2
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z111172AA	04/27/2011 20:11	Daniel H Heller	20
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11119A07A	04/30/2011 06:53	Butch A Sokolowski	5
01146	GC VOA Water Prep	SW-846 5030B	1	11119A07A	04/30/2011 06:53	Butch A Sokolowski	5
07879	EDB in Wastewater	SW-846 8011	1	111240001A	05/04/2011 18:20	Tyler O Griffin	1
07786	EDB Extraction	SW-846 8011	2	111240001A	05/04/2011 11:10	Edwin Ortiz	1
06035	Lead	SW-846 6020	1	111156050001A	04/26/2011 21:19	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	111156050001	04/25/2011 21:00	Mirit S Shenouda	1

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Analysis Report

Sample Description: B-7 Grab Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265669
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 13:20 by JD

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLK07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	0.6	0.5	1
10943	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	140	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	7	0.5	1
10943	Xylene (Total)	1330-20-7	570	5	10
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	3,900	250	5
GC Miscellaneous	**SW-846 8011**		**ug/l**	**ug/l**	
07879	Ethylene dibromide	106-93-4	N.D.	0.0098	1
Metals	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	15.7	0.052	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	8260 BTEX/MTBE/EDC - Water	SW-846 8260B	1	Z111172AA	04/27/2011 20:35	Daniel H Heller	1
10943	8260 BTEX/MTBE/EDC - Water	SW-846 8260B	1	Z111172AA	04/27/2011 20:59	Daniel H Heller	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z111172AA	04/27/2011 20:35	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z111172AA	04/27/2011 20:59	Daniel H Heller	10
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11119A07A	04/30/2011 07:18	Butch A Sokolowski	5
01146	GC VOA Water Prep	SW-846 5030B	1	11119A07A	04/30/2011 07:18	Butch A Sokolowski	5
07879	EDB in Wastewater	SW-846 8011	1	111180011A	04/29/2011 19:27	Tyler O Griffin	1
07786	EDB Extraction	SW-846 8011	1	111180011A	04/28/2011 21:05	JoElla L Rice	1
06035	Lead	SW-846 6020	1	111156050001A	04/26/2011 21:21	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	111156050001	04/25/2011 21:00	Mirit S Shenouda	1

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Analysis Report

Sample Description: TB-3 Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265670
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 13:40

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLTB3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**ECY 97-602 NWTPH-Gx**		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11119A07A	04/29/2011 23:48	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11119A07A	04/29/2011 23:48	Elizabeth J Marin	1

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Analysis Report

Sample Description: TB-4 Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way - S Seattle, WA

LLI Sample # WW 6265671
LLI Group # 1243377
Account # 11811

Project Name: Tidewater Seattle

Collected: 04/19/2011 14:30

Submitted: 04/21/2011 10:30
Reported: 05/06/2011 16:28

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

MLTB4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z111172AA	04/27/2011 13:52	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z111172AA	04/27/2011 13:52	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11119A07A	04/30/2011 00:13	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11119A07A	04/30/2011 00:13	Elizabeth J Marin	1

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377
Reported: 05/06/11 at 04:28 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: A111172AA	Sample number(s): 6265632-6265633,6265635-6265637,6265639							
Benzene	N.D.	0.0005	mg/kg	103		80-120		
Ethylbenzene	N.D.	0.001	mg/kg	101		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	105		74-121		
Toluene	N.D.	0.001	mg/kg	101		80-120		
Xylene (Total)	N.D.	0.001	mg/kg	99		80-120		
Batch number: A111181AA	Sample number(s): 6265643,6265646-6265647							
Benzene	N.D.	0.0005	mg/kg	102		80-120		
Ethylbenzene	N.D.	0.001	mg/kg	96		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	100		74-121		
Toluene	N.D.	0.001	mg/kg	98		80-120		
Xylene (Total)	N.D.	0.001	mg/kg	96		80-120		
Batch number: A111182AA	Sample number(s): 6265640							
Benzene	N.D.	0.0005	mg/kg	92	91	80-120	2	30
Ethylbenzene	N.D.	0.001	mg/kg	89	89	80-120	0	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	94	87	74-121	8	30
Toluene	N.D.	0.001	mg/kg	91	91	80-120	0	30
Xylene (Total)	N.D.	0.001	mg/kg	89	89	80-120	0	30
Batch number: D111171AA	Sample number(s): 6265663-6265664							
Benzene	N.D.	0.5	ug/l	88	95	79-120	8	30
1,2-Dichloroethane	N.D.	0.5	ug/l	85	96	70-130	12	30
Ethylbenzene	N.D.	0.5	ug/l	90	96	79-120	6	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	84	92	76-120	9	30
Toluene	N.D.	0.5	ug/l	90	96	79-120	6	30
Xylene (Total)	N.D.	0.5	ug/l	89	96	80-120	7	30
Batch number: R111173AA	Sample number(s): 6265634,6265638,6265641-6265642							
Benzene	N.D.	0.025	mg/kg	103	101	80-120	2	30
Ethylbenzene	N.D.	0.050	mg/kg	97	96	80-120	0	30
Methyl Tertiary Butyl Ether	N.D.	0.025	mg/kg	100	99	74-121	0	30
Toluene	N.D.	0.050	mg/kg	102	100	80-120	2	30
Xylene (Total)	N.D.	0.050	mg/kg	100	98	80-120	2	30
Batch number: R111181AA	Sample number(s): 6265656							
Benzene	N.D.	0.025	mg/kg	100	101	80-120	0	30
Ethylbenzene	N.D.	0.050	mg/kg	94	94	80-120	0	30
Methyl Tertiary Butyl Ether	N.D.	0.025	mg/kg	101	103	74-121	2	30
Toluene	N.D.	0.050	mg/kg	99	99	80-120	0	30
Xylene (Total)	N.D.	0.050	mg/kg	97	98	80-120	0	30
Batch number: W111152AA	Sample number(s): 6265667							
Acetone	N.D.	6.	ug/l	98	103	49-234	5	30
t-Amyl methyl ether	N.D.	0.5	ug/l	96	96	77-120	0	30
Benzene	N.D.	0.5	ug/l	101	99	79-120	3	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377

Reported: 05/06/11 at 04:28 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bromobenzene	N.D.	1.	ug/l	97	98	80-120	0	30
Bromochloromethane	N.D.	1.	ug/l	94	93	80-120	1	30
Bromodichloromethane	N.D.	1.	ug/l	107	104	80-120	3	30
Bromoform	N.D.	1.	ug/l	98	94	61-120	4	30
Bromomethane	N.D.	1.	ug/l	81	79	44-120	2	30
2-Butanone	N.D.	3.	ug/l	86	86	66-151	1	30
t-Butyl alcohol	N.D.	5.	ug/l	103	103	62-129	0	30
n-Butylbenzene	N.D.	1.	ug/l	95	96	74-120	1	30
sec-Butylbenzene	N.D.	1.	ug/l	99	98	78-120	1	30
tert-Butylbenzene	N.D.	1.	ug/l	96	97	80-120	1	30
Carbon Disulfide	N.D.	1.	ug/l	93	93	62-120	0	30
Carbon Tetrachloride	N.D.	1.	ug/l	118	113	75-123	4	30
Chlorobenzene	N.D.	0.8	ug/l	100	99	80-120	0	30
Chloroethane	N.D.	1.	ug/l	79	76	49-129	4	30
2-Chloroethyl Vinyl Ether	N.D.	2.	ug/l	71	69	56-129	3	30
Chloroform	N.D.	0.8	ug/l	109	107	77-122	2	30
Chloromethane	N.D.	1.	ug/l	63	66	60-129	6	30
2-Chlorotoluene	N.D.	1.	ug/l	95	96	80-120	1	30
4-Chlorotoluene	N.D.	1.	ug/l	96	97	80-120	1	30
1,2-Dibromo-3-chloropropane	N.D.	2.	ug/l	96	90	56-126	6	30
Dibromochloromethane	N.D.	1.	ug/l	105	101	80-120	5	30
1,2-Dibromoethane	N.D.	0.5	ug/l	104	103	80-120	1	30
Dibromomethane	N.D.	1.	ug/l	100	97	80-120	3	30
1,2-Dichlorobenzene	N.D.	1.	ug/l	99	98	80-120	1	30
1,3-Dichlorobenzene	N.D.	1.	ug/l	97	97	80-120	0	30
1,4-Dichlorobenzene	N.D.	1.	ug/l	98	97	80-120	1	30
Dichlorodifluoromethane	N.D.	2.	ug/l	76	74	47-120	3	30
1,1-Dichloroethane	N.D.	1.	ug/l	99	95	79-120	4	30
1,2-Dichloroethane	N.D.	0.5	ug/l	122	119	70-130	3	30
1,1-Dichloroethene	N.D.	0.8	ug/l	108	105	74-123	3	30
cis-1,2-Dichloroethene	N.D.	0.8	ug/l	103	102	80-120	1	30
trans-1,2-Dichloroethene	N.D.	0.8	ug/l	106	104	80-120	2	30
1,2-Dichloropropane	N.D.	1.	ug/l	88	86	78-120	2	30
1,3-Dichloropropane	N.D.	1.	ug/l	95	96	80-120	2	30
2,2-Dichloropropane	N.D.	1.	ug/l	116	112	77-124	3	30
1,1-Dichloropropene	N.D.	1.	ug/l	105	101	80-120	4	30
cis-1,3-Dichloropropene	N.D.	1.	ug/l	99	98	80-120	0	30
trans-1,3-Dichloropropene	N.D.	1.	ug/l	101	99	79-120	2	30
Ethanol	N.D.	50.	ug/l	77	76	54-149	1	30
Ethyl t-butyl ether	N.D.	0.5	ug/l	94	94	76-120	0	30
Ethylbenzene	N.D.	0.5	ug/l	105	101	79-120	3	30
Freon 113	N.D.	2.	ug/l	111	109	69-128	2	30
Hexachlorobutadiene	N.D.	2.	ug/l	90	97	58-120	7	30
2-Hexanone	N.D.	3.	ug/l	82	83	65-136	2	30
di-Isopropyl ether	N.D.	0.5	ug/l	78	77	71-124	1	30
Isopropylbenzene	N.D.	1.	ug/l	106	106	77-120	0	30
p-Isopropyltoluene	N.D.	1.	ug/l	101	97	80-120	3	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	102	101	76-120	2	30
4-Methyl-2-pentanone	N.D.	3.	ug/l	80	80	70-121	0	30
Methylene Chloride	N.D.	2.	ug/l	100	100	80-120	0	30
Naphthalene	N.D.	1.	ug/l	82	82	62-120	0	30
n-Propylbenzene	N.D.	1.	ug/l	100	98	80-120	2	30
Styrene	N.D.	1.	ug/l	105	101	80-120	3	30
1,1,1,2-Tetrachloroethane	N.D.	1.	ug/l	104	105	80-120	1	30
1,1,2,2-Tetrachloroethane	N.D.	1.	ug/l	85	87	71-120	2	30
Tetrachloroethene	N.D.	0.8	ug/l	106	105	80-121	1	30
Toluene	N.D.	0.5	ug/l	103	100	79-120	2	30
1,2,3-Trichlorobenzene	N.D.	1.	ug/l	92	91	65-120	1	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377
Reported: 05/06/11 at 04:28 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2,4-Trichlorobenzene	N.D.	1.	ug/l	87	86	67-120	1	30
1,1,1-Trichloroethane	N.D.	0.8	ug/l	119	114	75-127	4	30
1,1,2-Trichloroethane	N.D.	0.8	ug/l	101	97	80-120	4	30
Trichloroethene	N.D.	1.	ug/l	108	104	80-120	4	30
Trichlorofluoromethane	N.D.	2.	ug/l	104	100	64-129	4	30
1,2,3-Trichloropropane	N.D.	1.	ug/l	96	97	80-120	1	30
1,2,4-Trimethylbenzene	N.D.	1.	ug/l	101	99	74-120	2	30
1,3,5-Trimethylbenzene	N.D.	1.	ug/l	105	104	75-120	0	30
Vinyl Chloride	N.D.	1.	ug/l	72	68	65-125	4	30
m+p-Xylene	N.D.	0.5	ug/l	103	102	80-120	1	30
o-Xylene	N.D.	0.5	ug/l	100	100	80-120	0	30
Batch number: X111181AA	Sample number(s): 6265648-6265655,6265657,6265659-6265662							
Acetone	N.D.	0.007	mg/kg	91	93	32-209	2	30
t-Amyl methyl ether	N.D.	0.001	mg/kg	81	84	69-124	4	30
Benzene	N.D.	0.0005	mg/kg	98	96	80-120	2	30
Bromobenzene	N.D.	0.001	mg/kg	96	97	79-120	2	30
Bromochloromethane	N.D.	0.001	mg/kg	98	99	79-124	1	30
Bromodichloromethane	N.D.	0.001	mg/kg	95	94	78-120	1	30
Bromoform	N.D.	0.001	mg/kg	88	90	70-120	2	30
Bromomethane	N.D.	0.002	mg/kg	75	75	32-162	0	30
2-Butanone	N.D.	0.004	mg/kg	92	97	46-153	5	30
t-Butyl alcohol	N.D.	0.020	mg/kg	100	99	71-122	1	30
n-Butylbenzene	N.D.	0.001	mg/kg	92	91	72-120	1	30
sec-Butylbenzene	N.D.	0.001	mg/kg	95	95	75-120	0	30
tert-Butylbenzene	N.D.	0.001	mg/kg	95	97	75-120	1	30
Carbon Disulfide	N.D.	0.001	mg/kg	81	80	67-122	1	30
Carbon Tetrachloride	N.D.	0.001	mg/kg	92	91	69-122	2	30
Chlorobenzene	N.D.	0.001	mg/kg	99	99	80-120	0	30
Chloroethane	N.D.	0.002	mg/kg	76	74	37-154	3	30
Chloroform	N.D.	0.001	mg/kg	97	97	80-120	0	30
Chloromethane	N.D.	0.002	mg/kg	79	80	54-132	1	30
2-Chlorotoluene	N.D.	0.001	mg/kg	96	96	78-120	0	30
4-Chlorotoluene	N.D.	0.001	mg/kg	98	98	79-120	0	30
1,2-Dibromo-3-chloropropane	N.D.	0.002	mg/kg	84	90	58-120	8	30
Dibromochloromethane	N.D.	0.001	mg/kg	95	97	77-120	2	30
1,2-Dibromoethane	N.D.	0.001	mg/kg	100	102	80-120	2	30
Dibromomethane	N.D.	0.001	mg/kg	96	99	80-120	3	30
1,2-Dichlorobenzene	N.D.	0.001	mg/kg	95	97	79-120	2	30
1,3-Dichlorobenzene	N.D.	0.001	mg/kg	95	94	78-120	0	30
1,4-Dichlorobenzene	N.D.	0.001	mg/kg	96	96	79-120	0	30
Dichlorodifluoromethane	N.D.	0.002	mg/kg	78	76	20-120	3	30
1,1-Dichloroethane	N.D.	0.001	mg/kg	94	93	80-120	2	30
1,2-Dichloroethane	N.D.	0.001	mg/kg	97	98	71-129	1	30
1,1-Dichloroethene	N.D.	0.001	mg/kg	93	89	73-123	4	30
cis-1,2-Dichloroethene	N.D.	0.001	mg/kg	97	97	80-120	0	30
trans-1,2-Dichloroethene	N.D.	0.001	mg/kg	95	93	79-120	2	30
1,2-Dichloropropane	N.D.	0.001	mg/kg	95	96	80-120	1	30
1,3-Dichloropropane	N.D.	0.001	mg/kg	98	101	80-120	3	30
2,2-Dichloropropane	N.D.	0.001	mg/kg	79	79	72-123	0	30
1,1-Dichloropropene	N.D.	0.001	mg/kg	94	91	77-120	3	30
cis-1,3-Dichloropropene	N.D.	0.001	mg/kg	89	91	80-120	1	30
trans-1,3-Dichloropropene	N.D.	0.001	mg/kg	90	90	77-120	0	30
Ethanol	N.D.	0.10	mg/kg	125	120	47-157	4	30
Ethyl t-butyl ether	N.D.	0.001	mg/kg	82	85	70-122	3	30
Ethylbenzene	N.D.	0.001	mg/kg	97	97	80-120	0	30
Freon 113	N.D.	0.002	mg/kg	91	87	61-126	5	30
Hexachlorobutadiene	N.D.	0.002	mg/kg	95	91	57-120	4	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377
Reported: 05/06/11 at 04:28 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2-Hexanone	N.D.	0.003	mg/kg	90	96	45-155	6	30
di-Isopropyl ether	N.D.	0.001	mg/kg	90	91	73-121	1	30
Isopropylbenzene	N.D.	0.001	mg/kg	100	99	76-120	1	30
p-Isopropyltoluene	N.D.	0.001	mg/kg	96	95	75-120	0	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	87	90	74-121	3	30
4-Methyl-2-pentanone	N.D.	0.003	mg/kg	96	100	61-134	4	30
Methylene Chloride	N.D.	0.002	mg/kg	95	96	76-124	1	30
Naphthalene	N.D.	0.001	mg/kg	87	88	59-123	1	30
n-Propylbenzene	N.D.	0.001	mg/kg	94	93	77-120	0	30
Styrene	N.D.	0.001	mg/kg	94	91	76-120	4	30
1,1,1,2-Tetrachloroethane	N.D.	0.001	mg/kg	98	99	80-120	1	30
1,1,2,2-Tetrachloroethane	N.D.	0.001	mg/kg	91	96	71-123	5	30
Tetrachloroethene	N.D.	0.001	mg/kg	99	97	77-120	2	30
Toluene	N.D.	0.001	mg/kg	97	95	80-120	2	30
1,2,3-Trichlorobenzene	N.D.	0.001	mg/kg	93	95	64-120	2	30
1,2,4-Trichlorobenzene	N.D.	0.001	mg/kg	89	88	68-120	1	30
1,1,1-Trichloroethane	N.D.	0.001	mg/kg	91	88	71-125	4	30
1,1,2-Trichloroethane	N.D.	0.001	mg/kg	97	97	80-120	0	30
Trichloroethene	N.D.	0.001	mg/kg	98	95	80-120	3	30
Trichlorofluoromethane	N.D.	0.002	mg/kg	86	83	58-133	4	30
1,2,3-Trichloropropane	N.D.	0.001	mg/kg	96	99	71-123	3	30
1,2,4-Trimethylbenzene	N.D.	0.001	mg/kg	94	94	79-120	0	30
1,3,5-Trimethylbenzene	N.D.	0.001	mg/kg	97	95	78-120	2	30
Vinyl Chloride	N.D.	0.001	mg/kg	83	83	53-120	0	30
m+p-Xylene	N.D.	0.001	mg/kg	100	100	80-120	1	30
o-Xylene	N.D.	0.001	mg/kg	99	100	80-120	1	30
Xylene (Total)	N.D.	0.001	mg/kg	100	100	80-120	0	30
Batch number: Z111172AA	Sample number(s): 6265644-6265645,6265658,6265665-6265666,6265668-6265669,6265671							
Benzene	N.D.	0.5	ug/l	109		79-120		
1,2-Dichloroethane	N.D.	0.5	ug/l	107		70-130		
Ethylbenzene	N.D.	0.5	ug/l	110		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	116		76-120		
Toluene	N.D.	0.5	ug/l	108		79-120		
Xylene (Total)	N.D.	0.5	ug/l	110		80-120		
Batch number: 11112WAC026	Sample number(s): 6265665,6265667							
Acenaphthene	N.D.	0.010	ug/l	91	92	74-109	1	30
Acenaphthylene	N.D.	0.010	ug/l	90	92	70-110	2	30
Anthracene	N.D.	0.010	ug/l	88	89	66-111	1	30
Benzo(a)anthracene	N.D.	0.010	ug/l	94	91	72-114	3	30
Benzo(a)pyrene	N.D.	0.010	ug/l	90	90	60-127	1	30
Benzo(b)fluoranthene	N.D.	0.010	ug/l	86	89	69-123	3	30
Benzo(g,h,i)perylene	N.D.	0.010	ug/l	111	105	57-131	6	30
Benzo(k)fluoranthene	N.D.	0.010	ug/l	95	101	59-130	6	30
Chrysene	N.D.	0.010	ug/l	93	95	76-116	2	30
Dibenz(a,h)anthracene	N.D.	0.010	ug/l	101	94	55-134	7	30
Fluoranthene	N.D.	0.010	ug/l	87	89	75-116	3	30
Fluorene	N.D.	0.010	ug/l	91	93	75-114	2	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	ug/l	105	99	69-124	6	30
Naphthalene	N.D.	0.030	ug/l	91	93	72-109	3	30
Phenanthrene	N.D.	0.010	ug/l	93	94	76-111	1	30
Pyrene	N.D.	0.010	ug/l	106	105	69-118	1	30
Batch number: 11118SLD026	Sample number(s): 6265640-6265643,6265650-6265653							
Acenaphthene	N.D.	0.00067	mg/kg	94		73-104		
Acenaphthylene	N.D.	0.00033	mg/kg	87		67-100		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377
Reported: 05/06/11 at 04:28 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Anthracene	N.D.	0.00033	mg/kg	93		69-107		
Benzo(a)anthracene	N.D.	0.00067	mg/kg	90		74-112		
Benzo(a)pyrene	N.D.	0.00067	mg/kg	111*		70-109		
Benzo(b)fluoranthene	N.D.	0.00067	mg/kg	109		60-126		
Benzo(g,h,i)perylene	N.D.	0.00067	mg/kg	128		49-135		
Benzo(k)fluoranthene	N.D.	0.00067	mg/kg	114		65-130		
Chrysene	N.D.	0.00033	mg/kg	102		79-111		
Dibenz(a,h)anthracene	N.D.	0.00067	mg/kg	130		49-135		
Fluoranthene	N.D.	0.00067	mg/kg	93		78-114		
Fluorene	N.D.	0.00067	mg/kg	93		75-110		
Indeno(1,2,3-cd)pyrene	N.D.	0.00067	mg/kg	127		53-128		
Naphthalene	N.D.	0.00067	mg/kg	94		67-105		
Phenanthrene	N.D.	0.00067	mg/kg	98		76-109		
Pyrene	N.D.	0.00067	mg/kg	97		71-109		
Batch number: 11109A34B	Sample number(s): 6265634-6265635,6265637-6265639,6265641-6265643							
TPH by NWTPH-Gx soils	N.D.	1.0	mg/kg	92	101	67-119	9	30
Batch number: 11116A20A	Sample number(s): 6265663-6265666							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	90	86	75-135	4	30
Batch number: 11116A34A	Sample number(s): 6265646-6265657,6265659-6265661							
TPH by NWTPH-Gx soils	N.D.	1.0	mg/kg	88	92	67-119	4	30
Batch number: 11116A34B	Sample number(s): 6265632-6265633,6265636,6265640,6265662							
TPH by NWTPH-Gx soils	N.D.	1.0	mg/kg	88	92	67-119	4	30
Batch number: 11119A07A	Sample number(s): 6265644-6265645,6265658,6265667-6265671							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: 111150018A	Sample number(s): 6265663-6265666							
Ethylene dibromide	N.D.	0.010	ug/l	96	100	60-140	4	20
Batch number: 111180011A	Sample number(s): 6265667,6265669							
Ethylene dibromide	N.D.	0.010	ug/l	96	96	60-140	0	20
Batch number: 111240001A	Sample number(s): 6265668							
Ethylene dibromide	N.D.	0.010	ug/l	96	96	60-140	0	20
Batch number: 111130006A	Sample number(s): 6265667							
PCB-1016	N.D.	0.10	ug/l	90	96	51-128	6	30
PCB-1221	N.D.	0.10	ug/l					
PCB-1232	N.D.	0.20	ug/l					
PCB-1242	N.D.	0.10	ug/l					
PCB-1248	N.D.	0.10	ug/l					
PCB-1254	N.D.	0.10	ug/l					
PCB-1260	N.D.	0.15	ug/l	100	98	56-135	2	30
PCB-1262	N.D.	0.20	ug/l					
PCB-1268	N.D.	0.16	ug/l					
Batch number: 111150007A	Sample number(s): 6265650-6265653							
PCB-1016	N.D.	0.0036	mg/kg	98		64-121		
PCB-1221	N.D.	0.0046	mg/kg					
PCB-1232	N.D.	0.0080	mg/kg					
PCB-1242	N.D.	0.0033	mg/kg					
PCB-1248	N.D.	0.0033	mg/kg					
PCB-1254	N.D.	0.0033	mg/kg					
PCB-1260	N.D.	0.0049	mg/kg	98		72-123		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377
Reported: 05/06/11 at 04:28 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1262	N.D.	0.0033	mg/kg					
PCB-1268	N.D.	0.0033	mg/kg					
Batch number: 111170032A	Sample number(s): 6265640-6265643,6265650-6265653							
DRO C12-C24 w/Si Gel	N.D.	3.0	mg/kg	88		60-120		
HRO C24-C40 w/Si Gel	N.D.	10.	mg/kg					
Batch number: 111180025A	Sample number(s): 6265665,6265667							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	80	76	56-103	5	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 111156050001A	Sample number(s): 6265663-6265669							
Lead	N.D.	0.052	ug/l	96		90-115		
Batch number: 111161026004A	Sample number(s): 6265632-6265642							
Lead	0.0149	0.0100	mg/kg	95		83-110		
Batch number: 111171026002A	Sample number(s): 6265643,6265646-6265657,6265659-6265662							
Lead	N.D.	0.0104	mg/kg	97		83-110		
Batch number: 11117820007A	Sample number(s): 6265646-6265657							
Moisture				100		99-101		
Batch number: 11117820007B	Sample number(s): 6265659-6265662							
Moisture				100		99-101		
Batch number: 11118820001A	Sample number(s): 6265632-6265643							
Moisture				100		99-101		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: A111172AA	Sample number(s): 6265632-6265633,6265635-6265637,6265639 UNSPK: P264746								
Benzene	116	97	55-143	23	30				
Ethylbenzene	101	89	44-141	17	30				
Methyl Tertiary Butyl Ether	111	92	55-129	23	30				
Toluene	138	101	50-146	36*	30				
Xylene (Total)	95	86	44-136	15	30				
Batch number: A111181AA	Sample number(s): 6265643,6265646-6265647 UNSPK: P264801								
Benzene	115	118	55-143	7	30				
Ethylbenzene	106	102	44-141	1	30				
Methyl Tertiary Butyl Ether	113	109	55-129	1	30				
Toluene	109	104	50-146	1	30				
Xylene (Total)	106	100	44-136	2	30				
Batch number: Z111172AA	Sample number(s): 6265644-6265645,6265658,6265665-6265666,6265668-6265669,6265671 UNSPK: P266221								
Benzene	64 (2)	85 (2)	80-126	2	30				
1,2-Dichloroethane	113	115	66-141	2	30				

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Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377
Reported: 05/06/11 at 04:28 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Ethylbenzene	49 (2)	59 (2)	71-134	1	30				
Methyl Tertiary Butyl Ether	120	122	72-126	2	30				
Toluene	116	119	80-125	2	30				
Xylene (Total)	112	115	79-125	2	30				
Batch number: 11118SLD026	Sample number(s): 6265640-6265643,6265650-6265653 UNSPK: 6265640								
Acenaphthene	0*	0*	65-110	0	30				
Acenaphthylene	97	94	63-120	3	30				
Anthracene	126*	96	56-121	27	30				
Benzo(a)anthracene	225*	182*	66-114	21	30				
Benzo(a)pyrene	49*	67	57-117	7	30				
Benzo(b)fluoranthene	20*	87	26-142	30	30				
Benzo(g,h,i)perylene	41	33	33-141	2	30				
Benzo(k)fluoranthene	161*	117	49-145	31*	30				
Chrysene	35*	26*	41-126	4	30				
Dibenz(a,h)anthracene	137	159*	29-138	15	30				
Fluoranthene	123	65	47-135	22	30				
Fluorene	0*	0*	65-116	0	30				
Indeno(1,2,3-cd)pyrene	86	67	25-136	10	30				
Naphthalene	115*	107	61-113	7	30				
Phenanthrene	87	89	37-134	1	30				
Pyrene	89	101	31-120	4	30				
Batch number: 111150018A	Sample number(s): 6265663-6265666 UNSPK: P259828 BKG: 6265663								
Ethylene dibromide	77		65-135			N.D.	N.D.	0 (1)	30
Batch number: 111180011A	Sample number(s): 6265667,6265669 UNSPK: P266514								
Ethylene dibromide	96	109	65-135	13	20				
Batch number: 111240001A	Sample number(s): 6265668 UNSPK: P271538 BKG: P271539								
Ethylene dibromide	77		65-135			N.D.	N.D.	0 (1)	30
Batch number: 111150007A	Sample number(s): 6265650-6265653 UNSPK: P263420								
PCB-1016	97	108	29-146	11	50				
PCB-1260	96	93	39-149	2	50				
Batch number: 111170032A	Sample number(s): 6265640-6265643,6265650-6265653 BKG: 6265640								
DRO C12-C24 w/Si Gel						130	200	39* (1)	20
HRO C24-C40 w/Si Gel						910	820	10 (1)	20
Batch number: 111156050001A	Sample number(s): 6265663-6265669 UNSPK: P262718 BKG: P262718								
Lead	103	104	83-120	1	20	N.D.	N.D.	0 (1)	20
Batch number: 111161026004A	Sample number(s): 6265632-6265642 UNSPK: P265049 BKG: P265049								
Lead	1107 (2)	3466 (2)	75-125	37*	20	121	126	4	20
Batch number: 111171026002A	Sample number(s): 6265643,6265646-6265657,6265659-6265662 UNSPK: 6265643 BKG: 6265643								
Lead	105	102	75-125	1	20	3.50	3.34	5	20
Batch number: 11117820007A	Sample number(s): 6265646-6265657 BKG: 6265657								
Moisture						35.1	36.1	3	15

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Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377
Reported: 05/06/11 at 04:28 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11117820007B	Sample number(s): 6265659-6265662					BKG: 6265659			
Moisture						10.3	9.9	3	15
Batch number: 11118820001A	Sample number(s): 6265632-6265643					BKG: 6265642			
Moisture						19.9	21.9	9	15

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs by 8260B - Solid
Batch number: A111172AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6265632	101	104	97	93
6265633	101	103	98	92
6265635	99	104	100	93
6265636	102	104	97	92
6265637	102	103	100	93
6265639	99	102	107	87
Blank	101	105	99	96
LCS	101	103	101	101
MS	110	112*	126*	75
MSD	100	105	110	84
Limits:	71-114	70-109	70-123	70-111

Analysis Name: VOCs by 8260B - Solid
Batch number: A111181AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6265643	103	105	100	90
6265646	103	105	101	88
6265647	116*	122*	128*	61*
Blank	102	105	97	93
LCS	101	103	100	98
MS	100	101	101	96
MSD	99	101	101	97
Limits:	71-114	70-109	70-123	70-111

Analysis Name: VOCs by 8260B - Solid
Batch number: A111182AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6265640	102	101	104	86
Blank	99	100	99	94
LCS	100	99	100	100

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377
Reported: 05/06/11 at 04:28 PM

Surrogate Quality Control

LCSD	99	98	101	99
Limits:	71-114	70-109	70-123	70-111

Analysis Name: UST VOCs by 8260B - Water
Batch number: D111171AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6265663	90	95	103	102
6265664	92	96	103	113
Blank	93	96	102	97
LCS	93	97	101	103
LCSD	94	99	100	102
Limits:	80-116	77-113	80-113	78-113

Analysis Name: VOCs by 8260B - Solid
Batch number: R111173AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6265634	77	81	77	74
6265638	77	81	80	82
6265641	79	82	77	75
6265642	79	80	78	83
Blank	100	105	97	91
LCS	98	99	97	93
LCSD	94	98	94	90
Limits:	71-114	70-109	70-123	70-111

Analysis Name: VOCs by 8260B - Solid
Batch number: R111181AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6265656	76	84	82	81
Blank	98	102	97	93
LCS	96	98	94	91
LCSD	95	97	93	90
Limits:	71-114	70-109	70-123	70-111

Analysis Name: VOCs by 8260B(Extended) -Water
Batch number: W111152AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6265667	101	99	101	102
Blank	102	100	101	101
LCS	103	101	101	106
LCSD	101	103	101	107
Limits:	80-116	77-113	80-113	78-113

Analysis Name: VOCs by 8260B - Solid
Batch number: X111181AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6265648	103	109	91	95

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377
Reported: 05/06/11 at 04:28 PM

Surrogate Quality Control

6265649	107	107	94	96
6265650	104	106	91	91
6265651	103	106	93	96
6265652	105	106	91	91
6265653	105	107	95	90
6265654	105	105	93	95
6265655	105	107	90	94
6265657	105	109	87	87
6265659	106	108	90	97
6265660	104	104	92	95
6265661	104	107	92	94
6265662	106	104	96	95
Blank	104	105	91	92
LCS	102	99	100	98
LCSD	102	99	101	99
Limits:	71-114	70-109	70-123	70-111

Analysis Name: UST VOCs by 8260B - Water
Batch number: Z111172AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6265644	100	96	98	97
6265645	99	96	98	97
6265658	100	98	98	98
6265665	101	98	98	103
6265666	98	96	98	98
6265668	99	95	99	101
6265669	100	99	100	100
6265671	100	97	99	98
Blank	101	98	99	98
LCS	99	98	98	100
MS	100	101	98	105
MSD	99	101	99	102
Limits:	80-116	77-113	80-113	78-113

Analysis Name: PAHs in waters by SIM
Batch number: 11112WAC026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6265665	4303*	255*	141*
6265667	96	92	71
Blank	92	91	97
LCS	97	94	97
LCSD	99	96	99
Limits:	64-147	68-132	53-129

Analysis Name: PAH SIM 8270 Soil Microwave
Batch number: 11118SLD026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6265640	92	78	75
6265641	1493*	237*	101
6265642	994*	339*	474*
6265643	95	95	85

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377
Reported: 05/06/11 at 04:28 PM

Surrogate Quality Control

6265650	100	102	94
6265651	98	67	90
6265652	98	97	90
6265653	104	101	88
Blank	110	109	113
LCS	99	100	100
MS	99	88	85
MSD	94	83	88
Limits:	53-152	52-132	51-141

Analysis Name: NWTPH-Gx soil C7-C12
Batch number: 11109A34B

	Trifluorotoluene-F
6265634	69
6265635	90
6265637	82
6265638	131*
6265639	70
6265641	73
6265642	76
6265643	66
Blank	81
LCS	91
LCSD	93
Limits:	61-122

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11116A20A

	Trifluorotoluene-F
6265663	138*
6265664	81
6265665	73
6265666	69
Blank	70
LCS	113
LCSD	110
Limits:	63-135

Analysis Name: NWTPH-Gx soil C7-C12
Batch number: 11116A34A

	Trifluorotoluene-F
6265646	66
6265647	0*
6265648	75
6265649	64
6265650	69
6265651	85
6265652	70
6265653	84
6265654	68
6265655	73

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377
Reported: 05/06/11 at 04:28 PM

Surrogate Quality Control

6265656	442*
6265657	63
6265659	72
6265660	75
6265661	68
Blank	86
LCS	85
LCSD	87
Limits:	61-122

Analysis Name: NWTPH-Gx soil C7-C12
Batch number: 11116A34B

	Trifluorotoluene-F
6265632	72
6265633	207*
6265636	73
6265640	81
6265662	100
Blank	88
LCS	85
LCSD	87
Limits:	61-122

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11119A07A

	Trifluorotoluene-F
6265644	86
6265645	85
6265658	86
6265667	85
6265668	97
6265669	86
6265670	84
6265671	87
Blank	84
LCS	90
LCSD	95
Limits:	63-135

Analysis Name: PCBs in Water 8082
Batch number: 111130006A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6265667	106	77
Blank	104	65
LCS	102	106
LCSD	103	84
Limits:	30-150	30-150

Analysis Name: PCBs in Soil (microwave)
Batch number: 111150007A

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377
Reported: 05/06/11 at 04:28 PM

Surrogate Quality Control

	Tetrachloro-m-xylene	Decachlorobiphenyl
6265650	108	107
6265651	110	107
6265652	109	105
6265653	108	106
Blank	112	108
LCS	112	110
MS	98	99
MSD	101	101
Limits:	33-143	24-164

Analysis Name: EDB in Wastewater
Batch number: 111150018A

	1,1,2,2-Tetrachloroethane
6265663	85
6265664	114
6265665	110
6265666	73
Blank	94
DUP	72
LCS	94
LCSD	96
MS	70
Limits:	46-136

Analysis Name: EDB in Wastewater
Batch number: 111180011A

	1,1,2,2-Tetrachloroethane
6265667	93
6265669	75
Blank	94
LCS	94
LCSD	94
MS	91
MSD	112
Limits:	46-136

Analysis Name: EDB in Wastewater
Batch number: 111240001A

	1,1,2,2-Tetrachloroethane
6265668	105
Blank	99
DUP	128
LCS	102
LCSD	102
MS	77

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1243377
Reported: 05/06/11 at 04:28 PM

Surrogate Quality Control

Limits: 46-136

Analysis Name: NWTPH-Dx soil w/Si Gel
Batch number: 111170032A

	Orthoterphenyl
6265640	110
6265641	669*
6265642	480*
6265643	94
6265650	98
6265651	100
6265652	96
6265653	87
Blank	101
DUP	119
LCS	112

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 111180025A

	Orthoterphenyl
6265665	418*
6265667	90
Blank	85
LCS	98
LCSD	93

Limits: 50-150

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11811 Sample #: 62656321-71 SCR#: 247035 / 10441
G# 1243377

Analyses Requested

Facility #: 5173 Tidewater
Site Address: 2800 MLK JR WAY South Seattle, WA
Chevron PM: Karl Brwley Lead Consultant: Stantec
Consultant/Office: Rancho Cordova, CA
Consultant Prj. Mgr.: Tony Giglini
Consultant Phone #: 916-384-0764 Fax #:
Sampler: Justin Dauphinais & Bob McAlister
Service Order #: ☐ Non SAR:

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☒ 8021 ☐	TPH 8015 MOD GRO NWTPH-6X	TPH 8015 MOD DRO ☒ Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420 ☐ 7421 ☐ 6020 modified	PAH SIM 8270					
B-1-5'	Soil			11/4/18	1145		X		5	X	X				X						
B-1-10'	Soil			11-4-19	945		X		5	X	X				X						
B-1-15'	Soil			11-4-19	955		X		5	X	X				X						
B-1-18'	Soil			11-4-19	1000		X		5	X	X				X						
B-2-5'	Soil			11-4-18	1045		X		5	X	X				X						
B-2-11'	Soil			11-4-19	~~1100~~ 920		X		5	X	X				X						
B-2-15'	Soil			11-4-19	925		X		5	X	X				X						
B-2-18'	Soil			11-4-19	935		X		5	X	X				X						
B-3-5'	Soil			11-4-18	1510		X		6	X	X	X			X	X					
B-3-10'	Soil			11-4-19	835		X		6	X	X	X			X	X					
B-3-15	Soil			11-4-19	845		X		6	X	X	X			X	X					
B-3-20	Soil			11-4-19	900		X		6	X	X	X			X	X					
TB-1 & TB-2	Water			11-4-19	1405/1320		X		4	X	X										

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

16 PAHs per T. Giglini. jmp 4/22/11

Turnaround Time Requested (TAT) (please circle)
(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by:	4/12/11	1350	Received by:		
Relinquished by:	4/20/11	1200	Received by:		
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by Commercial Carrier: UPS (FedEx) Other			Received by:	4/21/11	1030
Temperature Upon Receipt 2.2-3.6 C°			Custody Seals Intact? (Yes) No		

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11811 Sample #: 02265632-71 SCR#: 247032 / 104407

G# 1243377

Facility #: 5173 Tidewater
Site Address: 2800 MLK JR WAY South Seattle, WA
Chevron PM: COP Karl Bewley Lead Consultant: Stantec
Consultant/Office: Rancho Cordova, CA
Consultant Prj. Mgr.: Tony Giglini
Consultant Phone #: 916-364-0764 Fax #:
Sampler: Justin Dauphinais : Bob McAlister
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☒ 8021 ☐	TPH 8015 MOD GRO N/HTPH·6X	TPH 8015 MOD DRO ☒ Silica Gel Cleanup	8260 full scan + SEP Xylenes	Oxygenates	Lead 7420 ☐ 7421 ☐ 6020 Pb	PAH SIM 8270	PCBs 8082
B-4-5'	Soil			11-4-18	1510		X		5	X	X				X		
B-4-10'	Soil			11-4-19	810		X		5	X	X				X		
B-4-15'	Soil			11-4-19	815		X		5	X	X				X		
B-4-17'	Soil			11-4-19	825		X		5	X	X				X		
B-5-5'	Soil			11-4-18	1210		X		6		X	X	X		X	X	X
B-5-10'	Soil			11-4-19	1010		X		6		X	X	X		X	X	X
B-5-15'	Soil			11-4-19	1020		X		6		X	X	X		X	X	X
B-5-18'	Soil			11-4-19	1030		X		6		X	X	X		X	X	X
B-6-5'	Soil			11-4-18	1730		X		5	X	X				X		
B-6-10'	Soil			11-4-19	1100		X		4	X	X				X		
B-6-15'	Soil			11-4-19	1110		X		5	X	X				X		
B-6-17'	Soil			11-4-19	1120		X		4	X	X				X		
TB-5	Water			11-4-19	1350		X		2	X	X						

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

16 PAHs per T. Giglini. jmp 4/22/11

Turnaround Time Requested (TAT) (please circle)
(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by:	4-12-11	1140	Received by:		
Relinquished by:	4/20/11	1201	Received by:		
Relinquished by:			Received by:		
Relinquished by Commercial Carrier: UPS (FedEx) Other			Received by:	4/21/11	1030
Temperature Upon Receipt 2.2-3.6 C°			Custody Seals Intact? (Yes) No		

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11811 Sample #: 6265632-71 SCR#: 247033 10442

G# 1243377

Facility #: 5173 Tidewater
Site Address: 2800 MLK JRWAY South, Seattle, WA
Chevron PM: Karl Bewley (SAP) Lead Consultant: Stantec
Consultant/Office: Rancho Cordova, CA
Consultant Prj. Mgr.: Tony Giglini
Consultant Phone #: 916-384-0764 Fax #:
Sampler: Justin Dauphinais & Bob McAllister
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☒ 8021 ☐	TPH 8015 MOD GRO NWTPH-Gx	TPH 8015 MOD DRO ☒ Silica Gel Cleanup	8260 full scan SEP Xylenes	Oxygenates ___	Lead 7420 ☐ 7421 ☐ 6020 Marisol	BTEX + MTBE + EDC 8260	EDB 8011	PAH SIM 8270	PCBs 8082		
B-7-5'	Soil			11-4-19	1640		X		5	X	X				X						
B-7-10'	Soil			11-4-19	1140		X		5	X	X				X						
B-7-15'	Soil			11-4-19	1150		X		4	X	X				X						
B-7-17'	Soil			11-4-19	1200		X		5	X	X				X						
B-1	Water			11-4-19	1350		X		9		X				X	X	X				
B-2	Water			11-4-19	1405		X		9		X				X	X	X				
B-3	Water			11-4-19	1510		X		13		X	X			X	X	X	X			
B-4	Water			11-4-19	1430		X		9		X				X	X	X				
B-5	Water			11-4-19	1340		X		12		X	X	X		X	X	X	X	X		
B-6	Water			11-4-19	1315		X		9		X				X	X	X				
B-7	Water			11-4-19	1320		X		9		X				X	X	X				
TB-3	Water			11-4-19	1340		X		2		X										
TB-4	Water			11-4-19	1430		X		2	X	X										

Comments / Remarks

16 PAHs per T. Giglini. jmp 4/22/11

Turnaround Time Requested (TAT) (please circle)

STD. TAT	72 hour	48 hour
24 hour	4 day	5 day

Data Package Options (please circle if required)

QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time	Received by:	Date	Time
Relinquished by:	4/21/11	1150			
Relinquished by:	4/21/11	1200			
Relinquished by:					
Relinquished by Commercial Carrier: UPS (FedEx) Other			Received by	4/21/11	1030
Temperature Upon Receipt 2.2-3.6 C°			Custody Seals Intact? (Yes) No		

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

August 08, 2011

Project: Tidewater Seattle

Submittal Date: 07/15/2011
Group Number: 1256596
PO Number: 5173
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LLI) #
MW-6-10' Grab Soil Sample	6346210
MW-6-15' Grab Soil Sample	6346211
MW-7-5' Grab Soil Sample	6346212
MW-7-15' Grab Soil Sample	6346213
MW-8-10' Grab Soil Sample	6346214
MW-8-15' Grab Soil Sample	6346215
MW-9-10' Grab Soil Sample	6346216
MW-9-15' Grab Soil Sample	6346217
MW-9-20' Grab Soil Sample	6346218
MW-10-10' Grab Soil Sample	6346219
MW-10-15' Grab Soil Sample	6346220
WASTE_PROFILE Composite Soil Sample	6346221
WASTE_PROFILE Composite Soil Sample	6346222
WASTE_PROFILE-WATER Composite Water Sample	6346223
WASTE_PROFILE-WATER Composite Water Sample	6346224

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Stantec - Tidewater	Attn: Laura Viesselman
ELECTRONIC COPY TO	STANTEC	Attn: Tony Giglini
ELECTRONIC COPY TO	STANTEC-TIDEWATER	Attn: Dan Schreiner
ELECTRONIC	Stantec	Attn: Alejandra Hernandez

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Analysis Report

COPY TO		
ELECTRONIC	Stantec	Attn: Jennifer Tanner
COPY TO		
ELECTRONIC	STANTEC-TIDEWATER	Attn: Brian Goss
COPY TO		
ELECTRONIC	Stantec	Attn: Justin Dauphinais
COPY TO		

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,

Valerie L. Tomayko
Principal Specialist

Lancaster Laboratories

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Analysis Report

Sample Description: MW-6-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346210
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/12/2011 13:30 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

610TS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.9
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.9
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.9
10950	Toluene	108-88-3	N.D.	0.001	0.9
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.9
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.3	25.91
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	N.D.	3.7	1
02214	HRO C24-C40 w/Si Gel	n.a.	43	12	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	18.2	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111991AA	07/18/2011 16:31	Emily R Styer	0.9
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201119724933	07/12/2011 13:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201119724933	07/12/2011 13:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035	1	201119724933	07/12/2011 13:30	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11202A31A	07/21/2011 13:12	Marie D John	25.91
06647	GC-5g Field Preserved MeOH	SW-846 5035	1	201119724933	07/12/2011 13:30	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112020028A	07/23/2011 08:44	Glorines Suarez-Rivera	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	112020028A	07/22/2011 07:00	Katheryne V Sponheimer	1
00111	Moisture	SM20 2540 G	1	11201820001B	07/20/2011 18:02	Scott W Freisher	1

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Analysis Report

Sample Description: MW-6-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346211
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/12/2011 13:40 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

615TS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.002	0.0007	1.17
10950	Ethylbenzene	100-41-4	N.D.	0.001	1.17
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	1.17
10950	Toluene	108-88-3	0.002	0.001	1.17
10950	Xylene (Total)	1330-20-7	N.D.	0.001	1.17
	The GC/MS volatile internal standard peak areas were outside the QC limits. A re-analysis was performed, and the matrix effect was confirmed.				
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	1.7	1.5	31.37
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	14	3.7	1
02214	HRO C24-C40 w/Si Gel	n.a.	50	12	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	18.6	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111991AA	07/18/2011 16:54	Emily R Styer	1.17
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201119724933	07/12/2011 13:40	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201119724933	07/12/2011 13:40	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035	1	201119724933	07/12/2011 13:40	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11202A31A	07/21/2011 13:48	Marie D John	31.37
06647	GC-5g Field Preserved MeOH	SW-846 5035	1	201119724933	07/12/2011 13:40	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112020028A	07/23/2011 10:10	Glorines Suarez-Rivera	1

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Analysis Report

Sample Description: **MW-6-15' Grab Soil Sample**
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346211
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/12/2011 13:40 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

615TS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	112020028A	07/22/2011 07:00	Katheryne V Sponheimer	1
00111	Moisture	SM20 2540 G	1	11201820001B	07/20/2011 18:02	Scott W Freisher	1

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Analysis Report

Sample Description: MW-7-5' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346212
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/12/2011 11:10 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

75TSS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.82
10950	Ethylbenzene	100-41-4	N.D.	0.0009	0.82
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.82
10950	Toluene	108-88-3	N.D.	0.0009	0.82
10950	Xylene (Total)	1330-20-7	N.D.	0.0009	0.82
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.1	22.94
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	N.D.	3.5	1
02214	HRO C24-C40 w/Si Gel	n.a.	N.D.	12	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	13.3	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111991AA	07/18/2011 17:17	Emily R Styer	0.82
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201119724933	07/12/2011 11:10	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201119724933	07/12/2011 11:10	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035	1	201119724933	07/12/2011 11:10	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11202A31A	07/21/2011 14:24	Marie D John	22.94
06647	GC-5g Field Preserved MeOH	SW-846 5035	1	201119724933	07/12/2011 11:10	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112020028A	07/23/2011 07:39	Glorines Suarez-Rivera	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	112020028A	07/22/2011 07:00	Katheryne V Sponheimer	1
00111	Moisture	SM20 2540 G	1	11201820001B	07/20/2011 18:02	Scott W Freisher	1

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Analysis Report

Sample Description: MW-7-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346213
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/13/2011 11:30 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

715TS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.002	0.0008	1.11
10950	Ethylbenzene	100-41-4	N.D.	0.002	1.11
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0008	1.11
10950	Toluene	108-88-3	N.D.	0.002	1.11
10950	Xylene (Total)	1330-20-7	N.D.	0.002	1.11
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	2.0	34.27
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	11	4.3	1
02214	HRO C24-C40 w/Si Gel	n.a.	25	14	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	30.2	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111991AA	07/18/2011 17:40	Emily R Styer	1.11
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201119724933	07/13/2011 11:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201119724933	07/13/2011 11:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035	1	201119724933	07/13/2011 11:30	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11202A31A	07/21/2011 15:00	Marie D John	34.27
06647	GC-5g Field Preserved MeOH	SW-846 5035	1	201119724933	07/13/2011 11:30	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112020028A	07/23/2011 10:31	Glorines Suarez-Rivera	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	112020028A	07/22/2011 07:00	Katheryne V Sponheimer	1
00111	Moisture	SM20 2540 G	1	11201820001B	07/20/2011 18:02	Scott W Freisher	1

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Analysis Report

Sample Description: MW-8-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346214
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/12/2011 10:50 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

810TS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.96
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.96
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.96
10950	Toluene	108-88-3	0.001	0.001	0.96
10950	Xylene (Total)	1330-20-7	0.012	0.001	0.96
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	1.0	1.0	22.8
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	N.D.	3.3	1
02214	HRO C24-C40 w/Si Gel	n.a.	29	11	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	9.6	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X111991AA	07/18/2011 18:03	Emily R Styer	0.96
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201119724933	07/12/2011 10:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201119724933	07/12/2011 10:50	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035	1	201119724933	07/12/2011 10:50	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11202A31A	07/21/2011 15:36	Marie D John	22.8
06647	GC-5g Field Preserved MeOH	SW-846 5035	1	201119724933	07/12/2011 10:50	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112020028A	07/23/2011 07:18	Glorines Suarez-Rivera	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	112020028A	07/22/2011 07:00	Katheryne V Sponheimer	1
00111	Moisture	SM20 2540 G	1	11201820001B	07/20/2011 18:02	Scott W Freisher	1

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Analysis Report

Sample Description: MW-8-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346215
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/12/2011 11:00 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

815TS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.023	40.72
10950	Ethylbenzene	100-41-4	N.D.	0.046	40.72
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.023	40.72
10950	Toluene	108-88-3	N.D.	0.046	40.72
10950	Xylene (Total)	1330-20-7	0.077	0.046	40.72
	Reporting limits were raised due to interference from the sample matrix.				
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	110	11	238.16
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	N.D.	3.4	1
02214	HRO C24-C40 w/Si Gel	n.a.	N.D.	11	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	11.1	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	Q111992AA	07/19/2011 04:34	Stephanie A Selis	40.72
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201119724933	07/12/2011 11:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201119724933	07/12/2011 11:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035	1	201119724933	07/12/2011 11:00	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11202A31A	07/21/2011 20:16	Marie D John	238.16
06647	GC-5g Field Preserved MeOH	SW-846 5035	1	201119724933	07/12/2011 11:00	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112020028A	07/23/2011 06:56	Glorines Suarez-Rivera	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	112020028A	07/22/2011 07:00	Katheryne V Sponheimer	1
00111	Moisture	SM20 2540 G	1	11201820001B	07/20/2011 18:02	Scott W Freisher	1

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Analysis Report

Sample Description: MW-9-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346216
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/12/2011 08:30 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

910TS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.002	0.0006	1.07
10950	Ethylbenzene	100-41-4	N.D.	0.001	1.07
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	1.07
10950	Toluene	108-88-3	0.002	0.001	1.07
10950	Xylene (Total)	1330-20-7	N.D.	0.001	1.07
	The GC/MS volatile internal standard peak areas were outside the QC limits. A re-analysis was performed, and the matrix effect was confirmed.				
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/kg**	**ug/kg**	
10722	Acenaphthene	83-32-9	N.D.	73	10
10722	Acenaphthylene	208-96-8	N.D.	37	10
10722	Anthracene	120-12-7	N.D.	37	10
10722	Benzo(a)anthracene	56-55-3	160	73	10
10722	Benzo(a)pyrene	50-32-8	210	73	10
10722	Benzo(b)fluoranthene	205-99-2	160	73	10
10722	Benzo(g,h,i)perylene	191-24-2	170	73	10
10722	Benzo(k)fluoranthene	207-08-9	N.D.	73	10
10722	Chrysene	218-01-9	370	37	10
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	73	10
10722	Fluoranthene	206-44-0	87	73	10
10722	Fluorene	86-73-7	N.D.	73	10
10722	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	73	10
10722	Naphthalene	91-20-3	N.D.	73	10
10722	Phenanthrene	85-01-8	N.D.	73	10
10722	Pyrene	129-00-0	160	73	10
	This sample was extracted outside of the method required holding time.				
	Reporting limits were raised due to interference from the sample matrix.				
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	45	1011.36
	Reporting limits were raised due to sample foaming.				
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	860	330	50
02214	HRO C24-C40 w/Si Gel	n.a.	13,000	1,100	50
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	10.1	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

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Analysis Report

Sample Description: MW-9-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346216
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/12/2011 08:30 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

910TS

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X112001AA	07/19/2011 20:35	Andrea E Lando	1.07
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201119724933	07/12/2011 08:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201119724933	07/12/2011 08:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035	1	201119724933	07/12/2011 08:30	Client Supplied	1
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	11214SLH026	08/06/2011 13:12	Joseph M Gambler	10
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	11214SLH026	08/03/2011 08:15	Olivia Arosemena	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11202A31A	07/21/2011 16:36	Marie D John	1011.36
06647	GC-5g Field Preserved MeOH	SW-846 5035	1	201119724933	07/12/2011 08:30	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112020028A	07/26/2011 14:29	Dustin A Underkoffler	50
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	112020028A	07/22/2011 07:00	Katheryne V Sponheimer	1
00111	Moisture	SM20 2540 G	1	11201820001B	07/20/2011 18:02	Scott W Freisher	1

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Analysis Report

Sample Description: MW-9-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346217
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/12/2011 08:45 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

915TS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.002	0.0006	0.94
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.94
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.94
10950	Toluene	108-88-3	0.001	0.001	0.94
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.94
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/kg**	**ug/kg**	
10722	Acenaphthene	83-32-9	N.D.	78	10
10722	Acenaphthylene	208-96-8	N.D.	39	10
10722	Anthracene	120-12-7	N.D.	39	10
10722	Benzo(a)anthracene	56-55-3	210	78	10
10722	Benzo(a)pyrene	50-32-8	220	78	10
10722	Benzo(b)fluoranthene	205-99-2	160	78	10
10722	Benzo(g,h,i)perylene	191-24-2	94	78	10
10722	Benzo(k)fluoranthene	207-08-9	N.D.	78	10
10722	Chrysene	218-01-9	480	39	10
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	78	10
10722	Fluoranthene	206-44-0	84	78	10
10722	Fluorene	86-73-7	N.D.	78	10
10722	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	78	10
10722	Naphthalene	91-20-3	N.D.	78	10
10722	Phenanthrene	85-01-8	99	78	10
10722	Pyrene	129-00-0	170	78	10

This sample was extracted outside of the method required holding time.

Reporting limits were raised due to interference from the sample matrix.

GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	49	1028.66

Reporting limits were raised due to sample foaming.

GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	200	89	25
02214	HRO C24-C40 w/Si Gel	n.a.	3,600	300	25
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	15.6	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

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Analysis Report

Sample Description: MW-9-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346217
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/12/2011 08:45 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

915TS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X112001AA	07/19/2011 20:58	Andrea E Lando	0.94
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201119724933	07/12/2011 08:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201119724933	07/12/2011 08:45	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035	1	201119724933	07/12/2011 08:45	Client Supplied	1
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	11214SLH026	08/06/2011 14:49	Joseph M Gambler	10
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	11214SLH026	08/03/2011 08:15	Olivia Arosemena	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11202A31A	07/21/2011 17:20	Marie D John	1028.66
06647	GC-5g Field Preserved MeOH	SW-846 5035	1	201119724933	07/12/2011 08:45	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112020028A	07/23/2011 12:18	Glorines Suarez-Rivera	25
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	112020028A	07/22/2011 07:00	Katheryne V Sponheimer	1
00111	Moisture	SM20 2540 G	2	11202820001A	07/21/2011 19:16	Scott W Freisher	1

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Analysis Report

Sample Description: MW-9-20' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346218
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/12/2011 08:55 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

920TS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.87
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.87
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.87
10950	Toluene	108-88-3	N.D.	0.001	0.87
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.87
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.1	24.37
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	N.D.	3.4	1
02214	HRO C24-C40 w/Si Gel	n.a.	N.D.	11	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	12.2	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X112001AA	07/19/2011 21:20	Andrea E Lando	0.87
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201119724933	07/12/2011 08:55	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201119724933	07/12/2011 08:55	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035	1	201119724933	07/12/2011 08:55	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11202A31A	07/21/2011 19:04	Marie D John	24.37
06647	GC-5g Field Preserved MeOH	SW-846 5035	1	201119724933	07/12/2011 08:55	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112020028A	07/23/2011 08:01	Glorines Suarez-Rivera	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	112020028A	07/22/2011 07:00	Katheryne V Sponheimer	1
00111	Moisture	SM20 2540 G	1	11201820001B	07/20/2011 18:02	Scott W Freisher	1

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Analysis Report

Sample Description: MW-10-10' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346219
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/13/2011 08:55 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

1010T

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.8
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.8
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.8
10950	Toluene	108-88-3	N.D.	0.001	0.8
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.8
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.2	23.85
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	N.D.	3.6	1
02214	HRO C24-C40 w/Si Gel	n.a.	N.D.	12	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	17.7	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X112001AA	07/19/2011 21:42	Andrea E Lando	0.8
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201119724933	07/13/2011 08:55	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201119724933	07/13/2011 08:55	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035	1	201119724933	07/13/2011 08:55	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11202A31A	07/21/2011 19:40	Marie D John	23.85
06647	GC-5g Field Preserved MeOH	SW-846 5035	1	201119724933	07/13/2011 08:55	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112020028A	07/23/2011 08:22	Glorines Suarez-Rivera	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	112020028A	07/22/2011 07:00	Katheryne V Sponheimer	1
00111	Moisture	SM20 2540 G	1	11201820001B	07/20/2011 18:02	Scott W Freisher	1

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Analysis Report

Sample Description: MW-10-15' Grab Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346220
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/13/2011 09:05 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

1015S

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.92
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.92
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.92
10950	Toluene	108-88-3	N.D.	0.001	0.92
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.92
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	N.D.	1.2	26.07
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	N.D.	6.7	1
02214	HRO C24-C40 w/Si Gel	n.a.	35	22	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	11.3	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X112001AA	07/19/2011 22:05	Andrea E Lando	0.92
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201119724933	07/13/2011 09:05	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201119724933	07/13/2011 09:05	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035	1	201119724933	07/13/2011 09:05	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11202A31A	07/21/2011 17:53	Marie D John	26.07
06647	GC-5g Field Preserved MeOH	SW-846 5035	1	201119724933	07/13/2011 09:05	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112020044A	07/26/2011 17:50	Dustin A Underkoffler	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	112020044A	07/23/2011 07:15	Katheryne V Sponheimer	1
00111	Moisture	SM20 2540 G	1	11201820001B	07/20/2011 18:02	Scott W Freisher	1

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Analysis Report

Sample Description: WASTE_PROFILE Composite Soil Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # SW 6346221
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/14/2011 09:45 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

WPSTA

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.0007	0.0005	0.81
10950	Ethylbenzene	100-41-4	0.059	0.001	0.81
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.81
10950	Toluene	108-88-3	0.001	0.001	0.81
10950	Xylene (Total)	1330-20-7	0.78	0.043	36.23
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	TPH by NWTPH-Gx soils	n.a.	14	1.2	24.6
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
02214	DRO C12-C24 w/Si Gel	n.a.	N.D.	7.1	1
02214	HRO C24-C40 w/Si Gel	n.a.	41	24	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	16.0	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	X112001AA	07/20/2011 03:26	Andrea E Lando	0.81
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	R112031AA	07/22/2011 17:16	Lauren C Temple	36.23
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201119724933	07/14/2011 09:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201119724933	07/14/2011 09:45	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035	1	201119724933	07/14/2011 09:45	Client Supplied	1
02005	NWTPH-Gx soil C7-C12	ECY 97-602 NWTPH-Gx	1	11202A31A	07/21/2011 18:27	Marie D John	24.6
06647	GC-5g Field Preserved MeOH	SW-846 5035	1	201119724933	07/14/2011 09:45	Client Supplied	n.a.
02214	NWTPH-Dx soil w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112020044A	07/26/2011 18:33	Dustin A Underkoffler	1
07024	DRO Alternate Soil Extraction	ECY 97-602 NWTPH-Dx 06/97	1	112020044A	07/23/2011 07:15	Katheryne V Sponheimer	1
00111	Moisture	SM20 2540 G	1	11201820001B	07/20/2011 18:02	Scott W Freisher	1

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Analysis Report

Sample Description: WASTE_PROFILE Composite Soil Sample
Tidewater Seattle TCLP NVE
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # TL 6346222
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/14/2011 09:45 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

WPSTN

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010B**		ug/l	ug/l	
07055	Lead	7439-92-1	15.8	2.2	1

General Sample Comments

State of Washington Lab Certification No. C259

If the analysis is for determination of Hazardous Waste Characteristics, see Table 1 in EPA Code of Federal Regulations 40 CFR 261.24.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07055	Lead	SW-846 6010B	1	112025705002	07/22/2011 18:10	John P Hook	1
05705	WW/TL SW 846 ICP Digest (tot)	SW-846 3010A	1	112025705002	07/22/2011 09:45	Denise K Conners	1
00947	TCLP Non-volatile Extraction	SW-846 1311	1	11199-482-0947A	07/18/2011 13:05	Darin P Wagner	n.a.

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Analysis Report

Sample Description: WASTE_PROFILE-WATER Composite Water Sample
Tidewater Seattle
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # WW 6346223
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/14/2011 10:00 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

WPWTA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	8	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	91	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	6,500	250	5
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
02211	DRO C12-C24 w/Si Gel	n.a.	150	28	1
02211	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D112031AA	07/22/2011 20:44	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D112031AA	07/22/2011 20:44	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	11206A20A	07/26/2011 20:07	Laura M Krieger	5
01146	GC VOA Water Prep	SW-846 5030B	1	11206A20A	07/26/2011 20:07	Laura M Krieger	5
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	112020046A	07/26/2011 22:14	Dustin A Underkoffler	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	112020046A	07/23/2011 08:30	Kathryn I DeHaven	1

Lancaster Laboratories

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Analysis Report

Sample Description: WASTE_PROFILE-WATER Composite Water Sample
Tidewater Seattle TCLP NVE
2800 Martin Luther King Jr Way S - Seattle, WA

LLI Sample # TL 6346224
LLI Group # 1256596
Account # 11811

Project Name: Tidewater Seattle

Collected: 07/14/2011 10:00 by RM

Submitted: 07/15/2011 09:10
Reported: 08/08/2011 13:00

STANTEC-TIDEWATER
3017 Kilgore Rd, Ste 100
Rancho Cordova CA 95670

WPWTM

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010B**		ug/l	ug/l	
07055	Lead	7439-92-1	N.D.	2.2	1

General Sample Comments

State of Washington Lab Certification No. C259

If the analysis is for determination of Hazardous Waste Characteristics, see Table 1 in EPA Code of Federal Regulations 40 CFR 261.24.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07055	Lead	SW-846 6010B	1	112025705004	07/22/2011 19:53	John P Hook	1
05705	WW/TL SW 846 ICP Digest (tot)	SW-846 3010A	1	112025705004	07/22/2011 09:58	Denise K Conners	1
01339	Leachate Filtration	SW-846 1311	1	11200-482-1339	07/19/2011 09:15	Darin P Wagner	n.a.

Quality Control Summary

Client Name: STANTEC-TIDEWATER
Reported: 08/08/11 at 01:00 PM

Group Number: 1256596

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D112031AA	Sample number(s): 6346223							
Benzene	N.D.	0.5	ug/l	100		79-120		
Ethylbenzene	N.D.	0.5	ug/l	109		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	84		76-120		
Toluene	N.D.	0.5	ug/l	110		79-120		
Xylene (Total)	N.D.	0.5	ug/l	107		80-120		
Batch number: Q111992AA	Sample number(s): 6346215							
Benzene	N.D.	0.025	mg/kg	105	106	80-120	1	30
Ethylbenzene	N.D.	0.050	mg/kg	104	104	80-120	0	30
Methyl Tertiary Butyl Ether	N.D.	0.025	mg/kg	102	104	74-121	3	30
Toluene	N.D.	0.050	mg/kg	105	105	80-120	0	30
Xylene (Total)	N.D.	0.050	mg/kg	106	106	80-120	0	30
Batch number: R112031AA	Sample number(s): 6346221							
Xylene (Total)	N.D.	0.050	mg/kg	103	102	80-120	1	30
Batch number: X111991AA	Sample number(s): 6346210-6346214							
Benzene	N.D.	0.0005	mg/kg	92	102	80-120	10	30
Ethylbenzene	N.D.	0.001	mg/kg	93	103	80-120	10	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	91	96	74-121	5	30
Toluene	N.D.	0.001	mg/kg	93	101	80-120	9	30
Xylene (Total)	N.D.	0.001	mg/kg	95	104	80-120	9	30
Batch number: X112001AA	Sample number(s): 6346216-6346221							
Benzene	N.D.	0.0005	mg/kg	97	95	80-120	2	30
Ethylbenzene	N.D.	0.001	mg/kg	104	101	80-120	3	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	90	86	74-121	4	30
Toluene	N.D.	0.001	mg/kg	103	101	80-120	2	30
Xylene (Total)	N.D.	0.001	mg/kg	105	103	80-120	2	30
Batch number: 11214SLH026	Sample number(s): 6346216-6346217							
Acenaphthene	N.D.	0.67	ug/kg	91		73-104		
Acenaphthylene	N.D.	0.33	ug/kg	91		67-100		
Anthracene	N.D.	0.33	ug/kg	92		69-107		
Benzo(a)anthracene	N.D.	0.67	ug/kg	92		74-112		
Benzo(a)pyrene	N.D.	0.67	ug/kg	76		70-109		
Benzo(b)fluoranthene	N.D.	0.67	ug/kg	71		60-126		
Benzo(g,h,i)perylene	N.D.	0.67	ug/kg	76		49-135		
Benzo(k)fluoranthene	N.D.	0.67	ug/kg	81		65-130		
Chrysene	N.D.	0.33	ug/kg	93		79-111		
Dibenz(a,h)anthracene	N.D.	0.67	ug/kg	75		49-135		
Fluoranthene	N.D.	0.67	ug/kg	91		78-114		
Fluorene	N.D.	0.67	ug/kg	93		75-110		
Indeno(1,2,3-cd)pyrene	N.D.	0.67	ug/kg	75		53-128		
Naphthalene	N.D.	0.67	ug/kg	90		67-105		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1256596
Reported: 08/08/11 at 01:00 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Phenanthrene	N.D.	0.67	ug/kg	92		76-109		
Pyrene	N.D.	0.67	ug/kg	95		71-109		
Batch number: 11202A31A	Sample number(s): 6346210-6346221							
TPH by NWTPH-Gx soils	N.D.	1.0	mg/kg	92	91	67-119	1	30
Batch number: 11206A20A	Sample number(s): 6346223							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	109	109	75-135	0	30
Batch number: 112020028A	Sample number(s): 6346210-6346219							
DRO C12-C24 w/Si Gel	N.D.	3.0	mg/kg	82		60-120		
HRO C24-C40 w/Si Gel	N.D.	10.	mg/kg					
Batch number: 112020044A	Sample number(s): 6346220-6346221							
DRO C12-C24 w/Si Gel	N.D.	6.0	mg/kg	73		60-120		
HRO C24-C40 w/Si Gel	N.D.	20.	mg/kg					
Batch number: 112020046A	Sample number(s): 6346223							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	81	80	56-103	2	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 112025705002	Sample number(s): 6346222							
Lead	N.D.	2.2	ug/l	96		88-110		
Batch number: 112025705004	Sample number(s): 6346224							
Lead	N.D.	2.2	ug/l	102		88-110		
Batch number: 11201820001B	Sample number(s): 6346210-6346216,6346218-6346221							
Moisture				100		99-101		
Batch number: 11202820001A	Sample number(s): 6346217							
Moisture				100		99-101		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D112031AA	Sample number(s): 6346223 UNSPK: P346084								
Benzene	90	94	80-126	4	30				
Ethylbenzene	95	100	71-134	5	30				
Methyl Tertiary Butyl Ether	69*	74	72-126	6	30				
Toluene	99	105	80-125	6	30				
Xylene (Total)	94	100	79-125	6	30				
Batch number: 11214SLH026	Sample number(s): 6346216-6346217 UNSPK: 6346216								
Acenaphthene	0*	0*	65-110	0	30				
Acenaphthylene	116	111	63-120	4	30				
Anthracene	216*	136*	56-121	45*	30				
Benzo(a)anthracene	593 (2)	157 (2)	66-114	53*	30				
Benzo(a)pyrene	431 (2)	225 (2)	57-117	23	30				
Benzo(b)fluoranthene	378 (2)	239 (2)	26-142	18	30				

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1256596
Reported: 08/08/11 at 01:00 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzo(g,h,i)perylene	94 (2)	0 (2)	33-141	18	30				
Benzo(k)fluoranthene	348*	326*	49-145	6	30				
Chrysene	1533 (2)	301 (2)	41-126	64*	30				
Dibenz(a,h)anthracene	209*	0*	29-138	200*	30				
Fluoranthene	300*	156*	47-135	31*	30				
Fluorene	0*	0*	65-116	0	30				
Indeno(1,2,3-cd)pyrene	226*	0*	25-136	200*	30				
Naphthalene	0*	0*	61-113	0	30				
Phenanthrene	572*	276*	37-134	70*	30				
Pyrene	555 (2)	205 (2)	31-120	43*	30				
Batch number: 112020028A	Sample number(s): 6346210-6346219					BKG: 6346210			
DRO C12-C24 w/Si Gel						N.D.	6.3	200* (1)	20
HRO C24-C40 w/Si Gel						35	46	27* (1)	20
Batch number: 112020044A	Sample number(s): 6346220-6346221					BKG: 6346220			
DRO C12-C24 w/Si Gel						N.D.	N.D.	0 (1)	20
HRO C24-C40 w/Si Gel						31	37	17 (1)	20
Batch number: 112025705002	Sample number(s): 6346222 UNSPK: P347406 BKG: P347406								
Lead	85	88	75-125	2	20	247	244	1	20
Batch number: 112025705004	Sample number(s): 6346224 UNSPK: 6346224 BKG: 6346224								
Lead	99	101	75-125	2	20	N.D.	N.D.	0 (1)	20
Batch number: 11201820001B	Sample number(s): 6346210-6346216,6346218-6346221 BKG: 6346211								
Moisture						18.6	17.6	6	15
Batch number: 11202820001A	Sample number(s): 6346217 BKG: 6346217								
Moisture						15.6	16.6	6	15

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: UST VOCs by 8260B - Water
Batch number: D112031AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6346223	95	97	106	98
Blank	95	101	101	89
LCS	95	97	102	100
MS	95	99	103	101
MSD	93	100	102	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: VOCs by 8260B - Solid

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1256596
Reported: 08/08/11 at 01:00 PM

Surrogate Quality Control

Batch number: Q111992AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6346215	72	73	73	75
Blank	96	97	94	94
LCS	89	90	92	95
LCSD	93	95	93	94
Limits:	71-114	70-109	70-123	70-111

Analysis Name: 8260 Ext. Soil Master w/GRO
Batch number: R112031AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
Blank	96	98	95	93
LCS	90	89	88	90
LCSD	92	93	90	91
Limits:	71-114	70-109	70-123	70-111

Analysis Name: VOCs by 8260B - Solid
Batch number: X111991AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6346210	105	104	93	91
6346211	109	104	109	76
6346212	108	107	95	90
6346213	107	102	95	92
6346214	107	100	94	95
Blank	105	96	93	99
LCS	105	103	102	98
LCSD	104	101	100	98
Limits:	71-114	70-109	70-123	70-111

Analysis Name: VOCs by 8260B - Solid
Batch number: X112001AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6346216	108	108	110	73
6346217	106	105	98	90
6346218	108	105	94	95
6346219	107	106	97	90
6346220	105	101	99	90
6346221	106	102	105	105
Blank	104	102	95	92
LCS	104	97	105	97
LCSD	103	101	106	96
Limits:	71-114	70-109	70-123	70-111

Analysis Name: PAH SIM 8270 Soil Microwave
Batch number: 11214SLH026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6346216	116	101	112
6346217	113	104	110

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1256596
Reported: 08/08/11 at 01:00 PM

Surrogate Quality Control

Blank	105	101	108
LCS	107	103	109
MS	127	102	120
MSD	111	97	107
Limits:	53-152	66-118	63-129

Analysis Name: NWTPH-Gx soil C7-C12
Batch number: 11202A31A

	Trifluorotoluene-F
6346210	86
6346211	83
6346212	102
6346213	64
6346214	89
6346215	97
6346216	102
6346217	94
6346218	88
6346219	73
6346220	82
6346221	76
Blank	99
LCS	105
LCSD	101
Limits:	61-122

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 11206A20A

	Trifluorotoluene-F
6346223	96
Blank	95
LCS	124
LCSD	122
Limits:	63-135

Analysis Name: NWTPH-Dx soil w/Si Gel
Batch number: 112020028A

	Orthoterphenyl
6346210	77
6346211	67
6346212	106
6346213	52
6346214	100
6346215	95
6346216	174*
6346217	102
6346218	94
6346219	89
Blank	106
DUP	55
LCS	110

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: STANTEC-TIDEWATER Group Number: 1256596
Reported: 08/08/11 at 01:00 PM

Surrogate Quality Control

Limits: 50-150

Analysis Name: NWTPH-Dx soil w/Si Gel
Batch number: 112020044A

	Orthoterphenyl
6346220	101
6346221	98
Blank	103
DUP	105
LCS	119

Limits: 50-150

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 112020046A

	Orthoterphenyl
6346223	106
Blank	101
LCS	108
LCSD	108

Limits: 50-150

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody

221358

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11811 Sample #: 6346210-24 SCR#:

GR#1256596

Facility #: TIDEWATER SEATTLE (COP # 5173)
Site Address: 2800 MLK WAY S, SEATTLE, WA
Chevron PM: — Lead Consultant: STANTEC
Consultant/Office: 3017 KILGORE ROAD, SUITE 100 RANCHO CORDOVA, CA 95670
Consultant Prj. Mgr.: TONY GIGLINI
Consultant Phone #: 916-384-0764 Fax #:
Sampler: ROBERT MCALISTER
Service Order #: 2116022274 ☐ Non SAR:

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy s on highest hit
☐ Run ____ oxy s on all hits

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Matrix: Water	Matrix: Oil ☐ Air ☐	Total Number of Containers	Analyses Requested / Preservation Codes: BTEX + MTBE 8021 ☐ 8260 ☒ Naphth ☐	8260 full scan	Oxygenates	NW TPH Gx	NW TPH Dw ☐ Extended Rng. ☒ Silica Gel Cleanup	Lead Total ☐ Diss. ☐ Method ___	VPH/EPH	NWTPH HCID ☐ quantification	MOISTURE	SIM PAH's 8270 *	TCLP METALS
MW-6-10'	7/12/11	1330	X		X			6	X			X	X				X	X	
MW-6-15'		1340																	
MW-7-5'	↓	1110																	
MW-7-15'	7/13/11	1130																	
MW-8-10'	7/12/11	1050																	
MW-8-15'		1100																	
MW-9-10'		830																	
MW-9-15'		845																	
MW-9-20'	↓	855																	
MW-10-10'	7/13/11	855																	
MW-10-15'	↓	905	↓					↓											
WASTE PROFILE	7/14/11	945		X	↓			7									↓		X
WASTE PROFILE - WATER	↓	1000		X		X		11	↓			↓	↓					↓	X

Comments / Remarks
*MeOH VOA's w/ soil and $NaHSO_4$ VOA's for BTEX/MTBE
**ONLY ANALYZE PAH's IF TPH-D IS DETECTED IN SAMPLE
Extract + Hold for PAHs per J. Dauphinais. fmp 7/15/11
TCLP Pb only per J. Dauphinais. fmp 7/18/11

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I - Full
Type VI (Raw Data) Disk / EDD
WIP (RWQCB) Standard Format
Disk _____ Other.

Relinquished by:	Date	Time	Received by:	Date	Time
[redacted] / STANTEC	7/14/11	1300	FEDEX	7/14/11	1300
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by Commercial Carrier: UPS FedEx Other			Received by:	7/15/11	910
Temperature Upon Receipt ____ C° 2.6 - 9.4			Custody Seals Intact? (Yes) No		

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Stantec

Is Data Valid? (circle)
YES
NO

Preservation Temperature
2.2 to 3.6 (°C)

Stantec Lab Validation Form-Soil and Water Matrix

Project/Client: Tidewater Seattle
Project No.: 211602274.400.150
Lab Work Order No.: Lancaster #1243377
Date of Validation: 08/18/11
Date of Analysis: 04/18/11 through 05/04/11
Date of Sampling: 04/18/11 through 04/19/11
Completed By: Alejandra Hernandez

Signature:

Circle/Highlight
Yes or No

1. Was the analysis the one requested? **Yes** No
2. Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet? **Yes** No
3. Were samples prepared (extracted, filtered, etc.) within EPA holding times? **Yes** No
4. Once prepared/extracted, were the samples analyzed within the EPA holding times? **Yes** No
5. Were Laboratory blanks performed, if so, were they below non-detect? 1) Yes **No**
6. Are the units correct? (i.e., soil samples in mg/kg or µg/g, water samples mg/L, µg/L, and air samples in volume mg/m^3,etc.) **Yes** No
7. Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample? **Yes** No
8. In lieu of MS/ MSD, were surrogate spike (SS)/surrogate spike duplicate (SSD), or laboratory control spike (LCS)/laboratory control spike duplicate (LCSD) samples included in the laboratory batch samples? **Yes** No
9. Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approx 80-120% depending on analyte)? 2), 3), 4), 5), 6), 7), 8), 9), 10), 11), 12), 13), 14), 15), 16), and 17) Yes **No**
10. Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)? **Yes** No
11. Were Relative Percent Difference values within the acceptable range (i.e. ± 25%)? 18), 19), 20), and 21) Yes **No**

If any answer is no, explain why and what corrective action was taken:

1) The laboratory blank result associated with soil samples B-1-5, B-1-10, B-1-15, B-1-18, B-2-5, B-2-11, B-2-15, B-2-18, B-3-5, B-3-10, and B-3-15 for analyte lead was detected above the method detection limit (MDL). The blank result for analyte lead was slightly above the MDL. In addition, the LCS % recovery and RPD duplicate values are within range, indicating accuracy and precision in reporting; therefore, the reported values are not considered to be affected.
2) The LCS/LCSD results associated with soil samples B-3-5, B-3-10, B-3-15, B-3-20, B-5-5, B-5-10, B-5-15, and B-5-18 for analyte benzo (a) pyrene is outside of the stated QC limits for % recovery. This may indicate a possible bias for the reporting accuracy. The LCS/LCSD results are within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards; therefore, the analyte benzo (a) pyrene is accepted. In addition, the MSD % recovery and RPD is within range, indicating accuracy in reporting; therefore, the values are considered valid.

Continues on next page

Comments Continued

3) The gas chromatograms (GC) and MS volatile internal standard peak areas were outside of the QC limits for soil samples collected from boring B-4-10 for benzene, toluene, ethylbenzene, total xylenes (collectively BTEX), and methyl tertiary butyl ether (MtBE). A re-analysis was performed, and the matrix effect was confirmed: therefore, the reported values are not considered to be affected. In addition, the LCS % recovery and RPD are within QC limits for BTEX and MtBE demonstrating accuracy and precision in reporting.

4) The GC/MS volatile internal standard peak areas were outside of the QC limits for soil samples collected from boring B-6-17 BTEX and MtBE. A re-analysis could not be performed, because insufficient vials were submitted: therefore, the reported values could not be confirmed. BTEX and MtBE results were slightly or not detected above the method detection limit (MDL); therefore, the reported values are not considered to be affected.

5) The MS/MSD results associated with groundwater samples B-3, B-4, B-6, B-7, TB-1, TB-2, TB-4, and TB-5 for analytes benzene and ethylbenzene were outside of the stated QC limits for % recovery. This may indicate a possible bias for the reporting accuracy. The LCS % recovery and RPD are within range, indicating accuracy and precision in reporting; therefore, the values are considered valid.

6) The MS/MSD results associated with soil samples B-3-5, B-3-10, B-3-15, B-3-20, B-5-5, B-5-10, B-5-15, and B-5-18 for analytes acenaphthene, anthracene, benzo (a) anthracene, benzo (a) pyrene, benzo (b) fluoranthene, benzo (k) fluoranthene, chrysene, dibenz (a, h) anthracene, fluorene, and naphthalene were outside of the stated QC limits for % recovery. This may indicate a possible bias for the reporting accuracy. The LCS % recovery and RPD are within range, indicating accuracy in reporting; therefore, the values are considered valid.

7) The MS/MSD results associated with soil samples B-1-5, B-1-10, B-1-15, B-1-18, B-2-5, B-2-11, B-2-15, B-2-18, B-3-5, B-3-10, and B-3-15 for the analyte lead were outside of the stated QC limits for % recovery. This may indicate a possible bias for the reporting accuracy. The LCS % recovery and RPD duplicate are within range, indicating accuracy and precision in reporting; therefore, the values are considered valid.

8) The VOCs by 8260B soil sample surrogates 1,2-dichloroethane-d4 and toluene-d8 were out of QC limits for MS % recovery. This could have been due to matrix interference. There were six other samples checked with the same surrogate and in the same laboratory batch analysis and all were within QC limits. In addition, LCS and MSD % recoveries are within QC limits, demonstrating accuracy in reporting. The sample outlier is not anticipated to affect the reported values.

9) The VOCs by 8260B soil sample surrogates dibromofluoromethane, 1,2-dichloroethane-d4, toluene-d8, and 4-bromofluorobenzene were out of QC limits for B-4-10. This could have been due to matrix interference. There were two other samples checked with the same surrogate and in the same laboratory batch analysis and all were within QC limits. The sample outlier is not anticipated to affect the reported values. In addition, LCS and MS and MSD % recoveries are within QC limits, demonstrating accuracy in reporting.

10) The PAHs water sample surrogates nitrobenzene-d5, 2-fluorobiphenyl, and terphenyl-d14 were out of QC limits for B-3. This could have been due to matrix interference. There was one other sample checked with the same surrogate and in the same laboratory batch analysis and was within QC limits. The sample outlier is not anticipated to affect the reported values. In addition, LCS and LCSD % recoveries are within QC limits, demonstrating accuracy in reporting.

11) The PAHs soil sample surrogates nitrobenzene-d5 and 2-fluorobiphenyl for B-3-10 and B-3-15, and the PAHs soil sample surrogate terphenyl-d14 for B-3-15 were out of QC limits. This could have been due to matrix interference. There were six other samples checked with the same surrogate and in the same laboratory batch analysis and all were within QC limits. The sample outlier is not anticipated to affect the reported values. In addition, LCS and MS and MSD % recoveries are within QC limits, demonstrating accuracy in reporting.

12) The TPH-GRO soil sample surrogate trifluorotoluene-F was out of QC limits for B-2-15. This could have been due to matrix interference. There were seven other samples checked with the same surrogate and in the same laboratory batch analysis and all were within QC limits. The sample outlier is not anticipated to affect the reported values. In addition, LCS and LCSD % recoveries are within QC limits, demonstrating accuracy in reporting.

13) The TPH-GRO water sample surrogate trifluorotoluene-F was out of QC limits for B-1. This could have been due to matrix interference. There were three other samples checked with the same surrogate and in the same laboratory batch analysis and all were within QC limits. The sample outlier is not anticipated to affect the reported values. In addition, LCS and LCSD % recoveries are within QC limits, demonstrating accuracy in reporting.

14) The TPH-GRO soil sample surrogate trifluorotoluene-F was out of QC limits for B-4-10 and B-6-15. This could have been due to matrix interference. There were 13 other samples checked with the same surrogate and in the same laboratory batch analysis and all were within QC limits. The sample outlier is not anticipated to affect the reported values. In addition, LCS and LCSD % recoveries are within QC limits, demonstrating accuracy in reporting.

15) The TPH-GRO soil sample surrogate trifluorotoluene-F was out of QC limits for B-1-10. This could have been due to matrix interference. There were four other samples checked with the same surrogate and in the same laboratory batch

analysis and all were within QC limits. The sample outlier is not anticipated to affect the reported values. In addition, LCS and LCSD % recoveries are within QC limits, demonstrating accuracy in reporting.

16) The TPH-DRO soil sample surrogate orthoterphenyl was out of QC limits for B-3-10 and B-3-15. This could have been due to matrix interference. There were six other samples checked with the same surrogate and in the same laboratory batch analysis and all were within QC limits. The sample outlier is not anticipated to affect the reported values. In addition, LCS % recovery is within QC limits, demonstrating accuracy in reporting.

17) The TPH-DRO water sample surrogate orthoterphenyl was out of QC limits for B-3. This could have been due to matrix interference. There was one other sample checked with the same surrogate and in the same laboratory batch analysis and was within QC limits. The sample outlier is not anticipated to affect the reported values. In addition, LCS and LCSD % recoveries are within QC limits, demonstrating accuracy in reporting.

18) The RPD values associated with soil samples B-1-5, B-1-10, B-1-18, B-2-5, B-2-11, and B-2-18 for the analyte toluene were outside of the stated QC limits. This may indicate a bias for the reporting precision. The LCS, MS, and MSD % recoveries are within QC limits demonstrating accuracy in reporting. RPD is not at QC range for toluene indicating lack of precision in reporting; therefore, precision could not be confirmed and reported toluene concentrations could be slightly biased.

19) The RPD values associated with soil samples B-3-5, B-3-10, B-3-15, B-3-20, B-5-5, B-5-10, B-5-15, and B-5-18 for analyte benzo (k) fluoranthene were outside of the stated QC limits. This may indicate a bias for the reporting precision. RPD values exceeded the allowance by 1 percent; therefore, is not anticipated to affect the reported values. In addition, the LCS % recovery is within QC limits demonstrating accuracy in reporting.

20) The RPD values associated with soil samples B-3-5, B-3-10, B-3-15, B-3-20, B-5-5, B-5-10, B-5-15, and B-5-18 for analyte TPH-DRO was outside of the stated QC limits. This may indicate a bias for the reporting precision. The LCS % recovery is within QC limits demonstrating accuracy in reporting. RPD is not at QC range for TPH-DRO indicating lack of precision in reporting; therefore, precision could not be confirmed and reported TPH-DRO concentrations could be slightly biased.

21) The RPD values associated with soil samples B-1-5, B-1-10, B-1-15, B-1-18, B-2-5, B-2-11, B-2-15, B-2-18, B-3-5, B-3-10, and B-3-15 for the analyte lead was outside of the stated QC limits. This may indicate a bias for the reporting precision. The LCS % recovery is within QC limits demonstrating accuracy in reporting. RPD is not at QC range for lead; however, RPD duplicate is within QC limits demonstrating precision in reporting.

Stantec

Is Data Valid? (circle)
YES
NO

Preservation Temperature
2.6 to 9.4 (°C)

Stantec Lab Validation Form-Soil and Water Matrix

Project/Client: Tidewater Seattle
Project No.: 211602274.400.150
Lab Work Order No.: Lancaster #1256596
Date of Validation: 08/17/11
Date of Analysis: 07/12/11 through 08/06/11
Date of Sampling: 07/12/11 through 07/14/11
Completed By: Alejandra Hernandez

Signature:

	Circle/Highlight Yes or No
1. Was the analysis the one requested?	Yes No
2. Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?	Yes No
3. Were samples prepared (extracted, filtered, etc.) within EPA holding times? 1)	Yes **No**
4. Once prepared/extracted, were the samples analyzed within the EPA holding times?	Yes No
5. Were Laboratory blanks performed, if so, were they below non-detect?	Yes No
6. Are the units correct? (i.e., soil samples in mg/kg or µg/g, water samples mg/L, µg/L, and air samples in volume mg/m^3,etc.)	Yes No
7. Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?	Yes No
8. In lieu of MS/ MSD, were surrogate spike (SS)/surrogate spike duplicate (SSD), or laboratory control spike (LCS)/laboratory control spike duplicate (LCSD) samples included in the laboratory batch samples?	Yes No
9. Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approx 80-120% depending on analyte)? 2), 3), and 4)	Yes **No**
10. Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?	Yes No
11. Were Relative Percent Difference values within the acceptable range (i.e. ± 25%)? 5) and 6)	Yes **No**

If any answer is no, explain why and what corrective action was taken:

1) The soil samples collected from borings MW-9-10 and MW-9-15 were extracted outside of the method required holding time for all semivolatile analytes. The LCS % recovery is within quality control (QC) limits for the semivolatile analytes demonstrating accuracy in reporting.
2) The gas chromatograms (GC) and MS volatile internal standard peak areas were outside of the QC limits for soil samples collected from borings MW-6-15 and MW-9-10 for benzene, toluene, ethylbenzene, total xylenes (collectively BTEX), and methyl tertiary butyl ether (MtBE). The BTEX and MtBE results were slightly or not detected above the method detection limit (MDL); therefore, the reported values are not considered to be affected. In addition, the LCS and LCSD % recoveries are within QC limits for BTEX and MtBE demonstrating accuracy in reporting.

Continues on next page

Comments Continued

3) The MS/MSD results associated with soil samples MW-9-10 and MW-9-15 for analytes acenaphthene, anthracene, benzo (a) anthracene, benzo (a) pyrene, benzo (b) fluoranthene, benzo (g, h, i) perylene, benzo (k) fluoranthene, chrysene, dibenz (a, h) anthracene, fluoranthene, fluorene, indeno (1, 2, 3-cd) pyrene, naphthalene, phenanthrene, and pyrene were outside of the stated QC limits for % recovery. This may indicate a possible bias for the reporting accuracy. The LCS % recovery is within range, indicating accuracy in reporting; therefore, the values are considered valid.

4) TPH-DRO surrogate orthoterphenyl was out of QC limits for sample MW-9-10. This could have been due to matrix interference. There were nine other samples checked with the same surrogate and in the same laboratory batch analysis and all were within QC limits. The sample outlier is not anticipated to affect the reported values. In addition, LCS % recovery is within QC limits for TPH-DRO, demonstrating accuracy in reporting.

5) The RPD values associated with samples MW-9-10 and MW-9-15 for analytes anthracene, benzo (a) anthracene, chrysene, dibenz (a, h) anthracene, fluoranthene, indeno (1, 2, 3-cd) pyrene, phenanthrene, and pyrene were outside of the stated QC limits. This may indicate a bias for the reporting precision. The LCS % recovery is within QC limits demonstrating accuracy in reporting. RPD is not at QC range for these analytes indicating lack of precision in reporting; therefore, precision could not be confirmed and reported values may be slightly biased.

6) The RPD duplicate values associated with samples MW-6-10, MW-6-15, MW-7-5, MW-7-15, MW-8-10, MW-8-15, MW-9-10, MW-9-15, MW-9-20, and MW-10-10 for analytes TPH-DRO and TPH-MRO were outside of the stated QC limits. This may indicate a bias for the reporting precision. The LCS % recovery is within QC limits for TPH-DRO demonstrating accuracy in reporting. RPD is not at QC range for TPH-DRO indicating lack of precision in reporting; therefore, precision could not be confirmed. The LCS % recovery for TPH-MRO could not be confirmed and the RPD is not at QC range for TPH-MRO indicating lack of accuracy and precision in reporting; therefore, accuracy and precision could not be confirmed: However, concentrations are consistent with historical ranges in this area, thus, the data is considered valid.

Note: The temperature of the samples exceeded temperature allowance of +/- 2 °C upon arrival at the lab. The temperature samples arrived at the lab at 9.4 °C, only 3.4 °C above the exceedance allowed. In addition, analytical samples do not appear to have any atypical issues; therefore the reported values are considered valid.

APPENDIX H
FIELD AND LABORATORY PROCEDURES

STANTEC CONSULTING CORPORATION

STANDARD PROCEDURE FOR GROUNDWATER SAMPLING

Depth to Groundwater/LPH Thickness Measurements

Prior to purging each of the wells, the depth to groundwater and thickness of liquid phase hydrocarbons, if present, within each well casing is measured to the nearest 0.01 foot using either an electronic Solinst water level indicator or an electronic oil-water interface probe. Measurements are taken from a point of known elevation on the top of each well casing as determined in accordance with previous surveys.

Groundwater Monitoring Well Purging

Groundwater wells are purged by using a dedicated bailer or a groundwater pump. To help assure that the collected samples are representative of fresh formation water, the conductivity, temperature, and pH of the delivered effluent are monitored and recorded using a Cambridge Hydac meter or another meter similar in nature during purge operations. Purge operations are deemed sufficient once successive measurements of pH, conductivity, and temperature stabilize to within +/- 10 percent.

During purging, a minimum of three (3) well volumes, measured as the annular space of the well casing below the groundwater surface, are removed from each well. However, in the case of very slow recharging wells, purging is deemed sufficient if the well contents are completely evacuated during purge operations. Unless recharge takes more than two hours, wells are sampled once the well is recharged to within in 80 percent of the pre-purge groundwater elevation. For very slow recharging wells (wells pumped dry during purging), samples may be collected after 2 hours of recharge.

Groundwater Sample Acquisition, Handling, and Analysis

Following purging operations, groundwater samples are collected from each of the wells using pre-cleaned, single-sample polypropylene, disposable bailers. The groundwater sample is discharged from the bailer to the sample container through a bottom emptying flow control valve to minimize volatilization.

Collected water samples are discharged directly into laboratory provided, pre-cleaned, hydrochloric acid-preserved and unpreserved 40 milliliter (mL) glass vials and sealed with Teflon-lined septum, and screw-on lids for analysis of total petroleum hydrocarbons for gasoline range organics by Northwest Method NWTPH-Gx, total petroleum hydrocarbons for diesel range organics by Northwest Method NWTPH-Dx, and benzene, toluene, ethylbenzene, total xylenes by EPA Method 8260B. Where NWTPH-Dx analysis indicates the presence of TPH-DRO, the sample(s) with detection(s) of TPH-DRO will be

additionally analyzed for poly aromatic hydrocarbonos (PAHs) per EPA Method 8270-SIM.

Labels documenting sample number, well identification, collection date and time, type of sample and type of preservative (if applicable) are affixed to each sample. The samples are then placed into an ice-filled cooler for delivery under CoC to a laboratory certified to perform the specified tests by the State of Washington.

Containment and Disposal of Generated Purge Water

Purge water generated during the field activities is retained on-site in appropriate containers (i.e. Department Of Transportation approved drums) for future disposal. Purge water removed from the site is delivered under appropriate manifest to a facility certified and licensed to receive such waste streams.

Related Procedures:

- *Standard Procedure for Equipment Decontamination*

STANTEC CONSULTING CORPORATION

STANDARD PROCEDURE FOR EQUIPMENT DECONTAMINATION

Equipment that could potentially contact subsurface media and compromise the integrity of the samples is carefully decontaminated prior to sampling. Samplers, groundwater pumps, liners and other equipment are decontaminated in an Alconox scrub solution and double rinsed in clean tap water rinse followed by a final distilled water rinse.

The rinsate and other wastewater are contained in 55-gallon DOT-approved drums, labeled (to identify the contents, generation date and project) and stored on-site pending waste profiling and disposal.

APPENDIX I
WASTE MANIFEST

WASTE MANAGEMENT

Hillsboro Landfill, Inc
3205 SE Minter Bridge
Hillsboro, OR, 97123
Ph: (503)-640-9427

Original
Ticket# 1276714

Customer Name COWLITZCLEAN COWLITZ CLEAN SW
Ticket Date 11/04/2011
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest na
Destination
PO 105551WA
Profile 105551WA (PCS)
Generator OR-CONOCOPHILLIPS MLK SEATTLE CONOCOPHILLIPS MLK SEATTLE

Carrier CCS
Vehicle# 132
Container
Driver dan
Check#
Billing # 00000868
Gen EPA ID N/A

Volume

	Time	Scale	Operator	Inbound		
In	11/04/2011 16:03:52	Inbound_1	ajs		Gross	15220 lb
Out	11/04/2011 16:45:26	Outbound	ajs		Tare	8760 lb
					Net	6460 lb
					Tons	3.23

Comments

Consumer Comments? We want to know. Please call.

	Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1	Special Misc-Tons-	100	3.23	Tons	29.40		$94.96	KING
2	13% FEA-13% FEA FE	100		%	13.00		$12.34	KING

Total Tax
Total Ticket $107.30

profile 75.00
182.30

Driver's Signature

403WM

RECEIVING RECORD

ORRCO Oil Re-Refining Company

Head Office
4150 N. Suttle Rd.
Portland, OR 97217
1-800-367-8894

R **01-11-1104-008**

Received From:
Cowlitz Clean Sweep
55 International Way
Longview WA 98632
EPA# WAD988467197
Phone: 360-423-6316
Customer ID# ***711***
Driver: Dan

Receiving Location: Plant #
FPI
4150 N. Suttle Road
Portland, OR 97217

Phone 503-286-8352
EPA# ORD980975692

Date	Terms	Written By	Sales Rep.	Page
11/04/11	-0-	Laureano	0	*1* of *1*

Line	Qty.	Unit	Item	%H20	Manifest #	B/L#	Net Qty
1	*6*	*Brl.*	*Industrial Wash Water* Generator ID# 0 See Comments Profile On File.Conoco Phillips Job#8511533 *Total Brl. 6.*	*100 %*			
2	*1*	*Each*	*Hydro Clor-D-Tect Kit* Generator ID# 0 See Comments *Total Each 1.*				

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 11/04/11

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	1	888-423-6316	851533

GENERATOR

5. Generator's Name and Mailing Address: c/o Stantec, 12811 134th Ct NE #110, Redmond WA 98052
Generator's Phone:

Generator's Site Address (if different than mailing address): Conoco Phillips, 2800 Martin Luther King Jr Way S, SEATTLE, WA

6. Transporter 1 Company Name: CCS A Division of PNE Corp.
U.S. EPA ID Number: WAH000014944

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: ORRCO Inc., 4150 N. Suttle Road - Portland, OR 97217 USA
U.S. EPA ID Number: ORD980976992
Facility's Phone: 888-367-8884

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Monitor well purge water not regulated by DOT/non Hazardous non RCRA	001	T	195	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Receiving Record# profile + analytical on file
CCS Job# 851533 Truck# DSU

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Don Mullendore on behalf of Conoco Phillips
Signature
Month: 11 Day: 4 Year: 11

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Don Mullendore
Signature
Month: 11 Day: 4 Year: 11

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Jason Chastain
Signature
Month: 11 Day: 04 Year: 11

Hillsboro Landfill, Inc.

3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123

PERMIT # 105551WA

Tracking Number 15893

PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

This permit authorizes disposal of Customer's waste materials in accordance with the Industrial Waste & Disposal Services Agreement dated __ _____.

EXPIRES: 10/13/2012

GENERATOR: CONOCOPHILLIPS

DESCRIPTION: *PCS*	**TONS:** *2 drums*
☒ **SPECIAL WASTE** ☐ **CS** ☐ **C&D** ☐ **CLEAN-UP**	
LOCATION: *SEATTLE, WASHINGTON* *2800 MARTIN LUTHER KING JR WAY S.*	**COUNTY:** * *King - not in metro*
CONTACT: *SCOTT FILFILLAN*	**PHONE:** *360-957-2018*
	FAX: *scottgccs@ccs-pnecorp.com*

BILLING: *Landfill account COWLITZ CLEAN SWEEP*	**PO#:** *N/A*	**JOB#:** *N/A*

We accept business checks, cash, VISA / Mastercard or charge(with prior approval)

SPECIAL HANDLING : *NONE;*
MK **TyT**

APPROVED: KC *KRISTIN CASTNER* DATE: *10/18/11 3:55:29 PM*

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER

THERE IS A MINIMUM CHARGE OF $50-$60 FOR EACH LOAD OF SPECIAL WASTE

WASTE MANAGEMENT

HAZARDOUS WASTE IS STRICTLY PROHIBITED

APPENDIX J
LIMITATIONS AND CERTIFICATIONS FOR NON-PHASE I REPORTS

Stantec	LIMITATIONS AND CERTIFICATIONS FOR NON-PHASE I REPORTS	QA/QC-302B	
		Page 1 of 1	
		Rev. 1.2	January 8, 2010

This report was prepared in accordance with the scope of work outlined in Stantec's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the Site. It was prepared for the exclusive use of ConocoPhillips Company and Chevron EMC for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Stantec. To the extent that this report is based on information provided to Stantec by third parties, Stantec may have made efforts to verify this third party information, but Stantec cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the Site existing at the time of the field investigation. No other warranties, expressed or implied are made by Stantec.

Prepared by:

Alejandra Hernandez,
Geologic Project Specialist
Name
Title

Reviewed by:

Marc Sauze,
Sr. Engineer
Name
Title

All information, conclusions, and recommendations provided by Stantec in this document regarding the Site have been prepared under the supervision of and reviewed by the Licensed Professional whose signature appears below:

Licensed Approver:

Name: **Marc Sauze, P.E.**

Signature:

Date: March 14, 2012