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Remedial Investigation/Feasibility Study

sound environmental strategies

Site:

Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Prepared for:

Ultra Corporation
1700 Westlake Avenue North
Suite 700
Seattle, Washington

December 13, 2010

www.soundenvironmental.com

Sound Environmental Strategies

2811 Fairview Avenue East, Suite 2000

Seattle, Washington 98102

Prepared for:

Ultra Corporation
1700 Westlake Avenue North, Suite 700
Seattle, Washington 98109

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SES Project No.: 0698-001-01

Prepared by:

Thomas Cammarata, LG, LHG
Senior Geochemist

State of Washington
Hydrogeologist
196
Licensed Geologist
Thomas J. Cammarata

Reviewed by:

John Funderburk, MSPH
Principal

December 13, 2010

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ACRONYMS AND ABBREVIATIONS

µg/L	micrograms per liter
1,1,2,2-TCA	1,1,2,2-tetrachlorethane
1,2,4-TMB	1,2,4-trimethylbenzene
4,4-DDD	dichlorodiphenyldichloroethane
AO	Agreed Order
ARAR	applicable or relevant and appropriate requirement
AS	air sparge
AST	aboveground storage tank
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CAP	Cleanup Action Plan
cis-1,2-DCE	cis 1,2-dichloroethene
COC	chemical of concern
COPC	chemical of potential concern
CSM	Conceptual Site Model
CVOC	chlorinated volatile organic compound
DHC	Dehalococcoides
DRPH	diesel-range petroleum hydrocarbons
Ecology	Washington State Department of Ecology
Eh	redox potential
EPA	United States Environmental Protection Agency
EHC®	controlled-release, integrated carbon and zero valent iron
ESE	Environmental Science & Engineering, Inc.
Evergreen	Evergreen Environmental Consulting
FETA	Former Ecology Tank Area

ACRONYMS AND ABBREVIATIONS (CONTINUED)

FS	feasibility study
ft/yr	feet per year
Galloway	Galloway Environmental, Inc.
gc/L	gene copies per liter
GeoTech	GeoTech Consultants, Inc.
GRPH	gasoline-range petroleum hydrocarbons
Hart Crowser	Hart Crowser, Inc.
KB-1®	KB-1® Dechlorinator
MBV Property	Moss Bay Vista Condominium Property
MCL	maximum contaminant level
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MTCA	Washington State Model Toxics Control Act
mV	millivolt
NWTPH	Northwest Total Petroleum Hydrocarbons
ORC®	Oxygen Release Compound
ORP	oxidation-reduction potential
Pace	Pace National
PCE	tetrachloroethene
PCP	pentachlorophenol
the Property	500 7th Avenue South, Kirkland, Washington
PSCI	PSCI Environmental
QC limits	quality control limits
RAO	remedial action objective
RCRA	Resource Conservation Recovery Act

ACRONYMS AND ABBREVIATIONS (CONTINUED)

RCW	Revised Code of Washington
RI	remedial investigation
RI/FS	Remedial Investigation/Feasibility Study
ROW	right-of-way
RPD	relative percent difference
RUA	railroad unloading area
SCS	SCS Engineers
SES	Sound Environmental Strategies
SRH	SRH Environmental Management
SRI	Supplemental Remedial Investigation
SRI Work Plan	Supplemental Remedial Investigation Work Plan
SVE	soil vapor extraction
SVOC	semi-volatile organic compound
TCE	trichloroethene
TEE	Terrestrial Ecological Evaluation
TOC	total organic carbon
TPH	total petroleum hydrocarbons
trans-1,2-DCE	trans-1,2-dichloroethene
Ultra	Ultra Corporation
UST	underground storage tank
VOC	volatile organic compound
WAC	Washington Administrative Code
VFA	volatile fatty acid
ZVI	Zero Valent Iron

1.0 INTRODUCTION

Sound Environmental Strategies (SES) has prepared this Remedial Investigation/Feasibility Study (RI/FS) for the Former Pace National facility located at 500 7th Avenue South in Kirkland, Washington (hereinafter referred to as the Property), shown on Figure 1. The former Pace National facility operated as a specialty chemical mixing and packaging business from 1971 to approximately 1990. Subsurface investigations, soil removal action, remedial investigations (RIs), and interim remedial actions have occurred at the Property from 1990 to the present. RI activities conducted to date have defined the Site as the extent of contaminated media that originated from a release at the Property and requires remedial action in accordance with the Washington State Model Toxics Control Act (MTCA) Cleanup Regulation as established in Section 200 of Chapter 173-340 of the Washington Administrative Code (WAC 173-340-200). The RI/FS summarizes the results of previous investigations, the RI activities, several interim actions, and compliance monitoring events conducted at the Site by SES and others between 1990 and 2009. In addition, the RI/FS presents the Conceptual Site Model (CSM) for the Site and associated requirements for the cleanup of the Site, evaluates remedial alternatives, and identifies a preferred cleanup remedy for the Site.

This RI/FS has been prepared on behalf of Ultra Corporation (Ultra), the owner of the Property and in accordance with the Agreed Order (AO) negotiated between Ultra and the Washington State Department of Ecology (Ecology) and dated December 19, 2008. The AO defines the scope of work and deliverables that include an RI Work Plan, Pilot Test Work Plan, RI/FS, and draft Cleanup Action Plan (CAP) prepared in accordance with WAC 173-350 and 380. The work elements included in the RI Work Plan are presented in the Remedial Investigation Work Plan for the former Pace National Site prepared by SES (SES 2009b). Prior to the effective date of the AO, subsurface investigations, RI activities, and interim remedial actions at the Site were conducted under Ecology's Voluntary Cleanup Program (VCP No. 2159) and in accordance with the MTCA Cleanup Regulation as established in WAC 173-340.

1.1 PURPOSE

The purpose of the RI/FS is to collect and evaluate sufficient information in order to develop and evaluate technically feasible cleanup alternatives in accordance with WAC 173-340-360 through 173-340-390. The completed RI provided sufficient data to prepare a Conceptual Site Model for use in evaluating potential feasible remediation technologies. The RI/FS provides sufficient information to develop and evaluate cleanup alternatives to facilitate selection of a final cleanup action at the Site in accordance with WAC 173-340-350(8). SES performed the feasibility study (FS) to screen remediation technologies and eliminate those that are not technically practicable and whose costs are disproportionate under WAC 173-340-360(3)(e). The selection of a final action for the Site will be documented in the CAP in accordance with WAC 173-340-360 through WAC 173-340-390.

1.2 REPORT ORGANIZATION

The RI/FS has been prepared in order to meet the general requirements under WAC 173-340(7) and (8). This report has been organized in the following sections:

- **Section 2, Site Background.** This section provides a description of the Site features and location; a summary of historical Site use; a description of the local geology, hydrology, and land use pertaining to the Site; and a summary of previous subsurface investigations and interim cleanup actions conducted at the Site.

- **Section 3, Previous Investigations and Interim Remedial Actions.** This section provides a description of previous subsurface investigations and interim remedial actions conducted at the Site by others. The summary of previous investigations and interim cleanup actions will be used to develop the CSM for the Site and to focus the scope of the FS.
- **Section 4, Remedial Investigation.** This section provides a description of the RI field work program conducted at the Site from 2003 to 2006 and includes a discussion of the remaining data gaps, if any; the scope of work for the RI; and the results of the RI.
- **Section 5, Interim Remedial Actions**. This section provides a description of the 2006 interim remedial action conducted at the Site, which includes removing contaminated soil from source areas. This section summarizes the interim remedial action field activities and analytical results for confirmation soil samples.
- **Section 6, Compliance Groundwater Monitoring and Sampling.** This section includes a discussion of analytical results for groundwater samples collected from monitoring wells at the Site.
- **Section 7, Supplemental Remedial Investigation.** This section provides a discussion of field activities and results from the 2010 supplemental remedial investigation (SRI) conducted at the Site.
- **Section 8, Terrestrial Ecological Evaluation Results.** This section provides a discussion of the evaluation of potential impacts to ecological receptors from a release of hazardous substances.
- **Section 9, Data Quality and Usability.** This section provides a summary of results for data evaluation of available analytical reports for investigations and interim remedial actions conducted at the Site. The section also includes a discussion of the usability of the analytical results for the purpose of the RI.
- **Section 10, Conceptual Site Model.** This section provides a summary of the CSM derived from the results of the all subsurface investigations performed at the Site and results of the RI. Included is a discussion of confirmed and suspected source areas, the chemicals of concern (COCs), affected media, fate and transport characteristics of the release of hazardous substances, and preliminary exposure assessment.
- **Section 11, Applicable or Relevant and Appropriate Requirements.** This section describes the applicable or relevant and appropriate requirements (ARARs) for conducting a cleanup action at the Site. The cleanup action will be conducted in accordance with local permit requirements.
- **Section 12, Data Gaps.** This section presents a discussion of remaining data gaps, if any, after completion of the RI and the SRI.
- **Section 13, Feasibility Study.** This section presents the cleanup objectives and a screening overview of potential remediation technologies evaluated for the Site. This section also includes pilot testing conducted to evaluate selected remedial alternatives.
- **Section 14, Recommended Cleanup Alternative.** This section presents the cleanup alternative recommended for implementation at the Site and the rationale for recommendation.

- **Section 15, Limitations.** This section presents SES's standard limitations associated with conducting the work reported herein and preparing the RI/FS.
- **Section 16, Bibliography.** This section provides a list of the source materials used in preparing the RI/FS.

2.0 SITE BACKGROUND

This section provides a description and historical background of the Site and surrounding area, the environmental setting, hydrogeology, and prior investigations. The source of the historical information includes the previous investigations conducted by Evergreen Environmental Consulting in 1991 (Evergreen 1991); SRH Environmental Management in 1990 (SRH 1991); PSCI Environmental in 1999 (PSCI 1999); Galloway Environmental, Inc. in 1999 and 2000 (Galloway 1999a, 1999b, 2000a, and 2000b); Hart Crowser, Inc. in 1990 and 1991 (Hart Crowser 1990 and 1991); and King County 2008 Tax Assessor Records (King County 2008).

2.1 SITE DESCRIPTION

The Property is located in Section 8, Township 25 North, Range 5 West in King County, Kirkland, Washington, southwest of the intersection of 7th Avenue South and the Burlington Northern Railroad. Residential properties are located to the north, south, and west of the Site. East of the Site is the BNSF Railway right-of-way (ROW) and the Google Campus (Figure 2). The Property comprises Parcel Number 7882600120 containing Lots 12, 15, and 16 for a total of 5.07 acres (Hart Crowser 2003a, King County 2008). The Property formerly contained a two-story, 37,799-square-foot main building containing offices, warehouse space, workshop and loading docks, an underground storage tank area, a railroad unload area and adjacent railroad spur, a drum storage yard, and an oil/water treatment system (Figure 2). The subsurface utilities formerly entered the Property from the north and included sanitary and stormwater service and municipal water service. Catch basins were located throughout the Property and drained to the on-Property oil/water treatment system or municipal utilities (Figure 2). The Property is currently vacant and is owned by Ultra. Municipal subsurface utilities are located in the BNSF Railway ROW and along 7th Avenue South (Figure 2).

2.2 PROPERTY AND ADJACENT PROPERTY HISTORY

2.2.1 Property History

The Property originally contained residential dwellings from the 1910s to the 1920s. By 1965, the residential dwellings were absent from the Property, and one building was located in the northeastern corner of the Property. Tax records indicated that the building was used as an office building for the Seattle Door Company. In 1969, Pace National (now known as Ultra) purchased the Property from the Tyee Lumber and Manufacturing Company (Galloway 1999a). In 1971, the former Pace National (Pace) warehouse and office building (herein referred to as the former Pace Main Building) was constructed (Hart Crowser 2006b, Figure 2). Pace operated a specialty chemical mixing and packaging business from 1971 to approximately 1990. After 1990, the Property has been used as a warehouse and storage facility for retail purposes; no industrial activities have occurred at the Property since 1990. The southern two-thirds of the Property, which are wooded, were never developed (Hart Crowser 2006a). The former Pace Main Building was demolished in 2006.

Other historical features located at the Property and associated with the former Pace operations included:

- A former Railroad Unloading Area (RUA) was located in the northeast corner of the Property adjacent to the former Underground Storage Tank Area. Product was piped from railcars located at the RUA to the underground storage tanks (USTs). The railroad spur entered the Property east from the BNSR Railway ROW (Figure 2).
- The former Underground Storage Tank Area contained fourteen USTs ranging in capacity from 1,000 to 8,000 gallons and contained solvents, glycol, fatty acids, and petroleum products that were packaged at the facility (Figure 2). The USTs were removed in 1990 (SRH 1991).
- An oil/water separator in combination with a 1,000-gallon underground flow-through ecology tank (herein referred to as the FETA) formerly occupied the northwest corner of the former Pace Main Building (Figure 2). The oil/water separator and FETA were removed in 1999 (PSCI 1999).
- An asphalt-paved Drum Storage Yard was located adjacent to and south of the former Pace Main Building. An aboveground storage tank (AST) with a capacity of 8,000 gallons with unknown content was located in the Drum Storage Yard. The AST was removed in 1999 (PSCI 1999, Figure 2).
- Subsurface utilities at the Property included catch basins on the exterior of the former Pace Main Building, an oil/water separator with a 1,000-gallon underground flow-through tank, and indoor floor drains on the interior of the former Pace Main Building (Figure 2). Indoor floor drains discharged to an oil/water separator that drained to an underground flow-through tank. Water exiting this tank discharged to a sanitary sewer line located along 7th Avenue South. Storm drains on the Property discharged to stormwater lines also located along 7th Avenue South (Figure 2).

2.2.2 Adjacent Property History

Historical land use adjacent to the Property included residential, commercial, and manufacturing. From the 1970s through the 1980s Boise Cascade and Sauder Door (also known as Seattle Door), formerly located to the east of the Property, manufactured corrugated containers and doors, respectively (Figure 2). Western Pneumatic Tube operates a facility east of the Property and manufactures pneumatic tubing (Figure 2). In the 1970s and 1980s, residential development occurred west and northwest of the Property (Figure 2). In the early 1980s, Genie Industries operated a crane and hoist manufacturing facility north of the Property across 7th Avenue South at the intersection with BNSF Railway ROW. In the late 1980s, the same building was occupied by Action Medical Supply, Concool, Inc. (industrial refrigerant), Seattle Ice Company, and Sound Elevator Maintenance Company. The property is currently used to manufacture wood products.

Subsurface investigations and cleanup actions were conducted by Environmental Science & Engineering, Inc (ESE) and GeoTech Consultants (GeoTech) at Sauder Door between 1990 and 2007 (ESE 1991, GeoTech 2006 and 2008). Subsurface investigations identified diesel-range petroleum hydrocarbons (DRPH) and pentachlorophenol (PCP) in soil at concentrations that exceeded the MTCA Method A and B cleanup levels, respectively. A mixture of PCP and diesel were used at Sauder Door as part of their wood treating operations. In 1991, 2006, and 2007, soil containing concentrations of PCP and total petroleum hydrocarbons (TPH) were excavated from various locations at Sauder Door. Concentrations of PCP in soil confirmation samples collected from excavations did not exceed MTCA Method A and/or B cleanup levels. Between 2006 and 2007 approximately 707 tons of PCP and DRPH soil were excavated from the southern portion of the Sauder Door and disposed off the property (GeoTech 2008). PCP and TPH were not detected at concentrations above laboratory reporting limits in groundwater samples collected from monitoring wells installed at Sauder Door (ESE 1991, GeoTech 2006). The Google Campus currently occupies the former locations of Boise Cascade and Sauder Door. The campus was built in 2008.

2.3 ENVIRONMENTAL SETTING

This section provides a summary of the environmental setting of the Site. The information presented herein has been obtained from national, state, and local records, including national census statistics.

2.3.1 Land Use

The Property is located within the city limits of Kirkland, King County, Washington (Figure 1). According to King County Assessor Parcel Records, the Property type is listed as commercial (King County 2008). The land use types listed for adjacent properties are a mixture of commercial and residential.

2.3.2 Demographics

The Property is located southeast of downtown Kirkland. The area proximal to the Property is used predominately for industrial, commercial office, and residential activities. The population of Kirkland is approximately is 45,054 (United States Department of Commerce 2000).

2.3.3 Meteorology

According to the Western Regional Climate Center, the climate of the Kirkland area is maritime, characterized by cool summers, mild winters, influenced by ocean air. The average annual minimum temperature is 45.1 degrees Fahrenheit and the average maximum temperature is 61.5 degrees Fahrenheit (Western Regional Climate Center 2005). The average annual precipitation in Kirkland is 36.22 inches.

2.3.4 Groundwater Use

The City of Kirkland water is supplied through the Cascade Water Alliance which purchases water from the City of Seattle. The City of Seattle water is supplied from the Cedar River and South Fork Tolt River watersheds. A small amount of the City of Seattle's water is supplied by groundwater wells. The City of Seattle's drinking water wells are located near the Seattle-Tacoma International Airport in SeaTac, Washington. There are no drinking water wells within a 0.5-mile radius of the Property (Ecology 2008). Shallow groundwater at the Property, as described in Section 2.4 below, is not used as a drinking water source and is not a potable resource as defined in WAC 173-340-720(2)(b)(i).

2.4 HYDROGEOLOGY

This section provides a discussion of geology and hydrogeology at and in the vicinity of the Site. Boring logs used to prepare this discussion are shown on Figure 3 and included in Appendix A. Historical groundwater elevation data is presented in Table 1.

2.4.1 Geohydrology

The regional geology in the area of the Site consists of Quaternary Vashon glacial deposits consisting of Vashon till, recessional sand and gravel deposits of the Vashon glacier, and Esperance Sand, which represent advanced outwash of the Vashon glacier.

Glacial till generally ranges from gravelly, sandy silt to silty sand with varied quantities of scattered cobbles and boulders. Vashon recessional deposits generally include gravel and sand. Esperance Sand is generally composed of fine- to medium-grained sand, but locally contained silt beds and lenticular channel deposits of gravel (Galster and Laprade 1991).

The general subsurface stratigraphy encountered in borings advanced at the Site includes three soil units designated for purposes of the RI/FS as the Upper Soil Unit or fill, Intermediate Soil Unit containing groundwater, and Lower Silt Unit. Figure 4 shows a generalized cross section of the subsurface stratigraphy at the Site. Figure 5 shows a generalized cross section of the subsurface stratigraphy on the west boundary of the Site. The location and orientation of cross sections through the Site are shown on Figure 3.

2.4.1.1 Upper Soil Unit

The Upper Soil Unit consists of fill material placed under buildings, driveways, and parking lots. The fill consists of 1 to 15 feet of silty sand, sand, and gravels deposits. In general, groundwater has not been encountered in the fill (Hart Crowser 2006b, Figure 4). Chemicals of potential concern (COPCs) have historically been identified in the Upper Soil Unit.

2.4.1.2 Intermediate Soil Unit

The Intermediate Soil Unit underlies the fill material and consists of interbedded gravel, sand, and silt. Investigations conducted at the Site have demonstrated that groundwater within the Intermediate Soil Unit is intermittent, and seasonal in some areas of the Site, with selected monitoring wells being dry during various times of the year (Table 1). Monitoring wells installed at the Site generally were screened in the Intermediate Soil Unit, which ranges in depth from approximately 5 to 15 feet below ground surface (bgs) (Figure 4, Hart Crowser 2006b). Based on aquifer test data and analysis of data presented in Sections 4.6.3 and 9.5.2 of the RI/FS, groundwater in the Intermediate Soil Unit is non-potable. A request will be made under separate cover to Ecology stating the rationale for designating the groundwater in the Intermediate Soil Unit as non-potable.

2.4.1.3 Lower Soil Unit

The Lower Soil Unit is composed of silt and underlies the Intermediate Soil Unit. The bottom of the silt has not been reached in borings advanced at the Site. However, the bottom of the silt was encountered in two groundwater monitoring wells installed at the former Sauder Door facility located east of the Site (Figure 2). In these off-Property monitoring wells, the Lower Silt Unit was encountered at a depths of 5 to 37 feet bgs. On the Property, the top of Lower Soil Unit ranges in depth from approximately 10 to 15 feet bgs. Underlying the Lower Silt Unit, at the Sauder Door facility, was a confined, coarse sand and gravel water-bearing zone. This water-bearing zone has been reported to produce water under artesian flow at the monitoring wells located at Sauder Door facility (Hart Crowser 2004 and 2006a).

2.4.1.4 Deep Water-Bearing Zone

The Lower Soil Unit appears to extend to a depth of approximately 37 feet bgs and is up to 32 feet thick in the area of the Site (GeoTech 2008). A Deep Water-Bearing Zone underlying the Lower Silt Unit is confined based on the fact that groundwater within two monitoring wells screened in the Deep Water-Bearing Zone at the former Sauder Door property, located east of the Site, exhibit artesian flow conditions (Hart Crowser 2004).

2.4.1.5 Surface Water and Subsurface Utilities

The Site is located approximately 1,200 feet east of Lake Washington. During operation of the former Pace National facility, stormwater runoff at the Property was captured in stormwater catch basins located at and adjacent to the Site (Figure 2). The basins discharged to a municipal sanitary sewer located beneath 7th Avenue South. Currently, stormwater generated at the Site from rain events infiltrates the surface soil. When the surface soil is saturated, stormwater runoff flows to the north and is captured in catch basins located along 7th Avenue South (Figure 2). The sanitary sewer and storm drain lines along 7th Avenue South extend for approximately 1,000 feet downstream west of the Site.

3.0 PREVIOUS INVESTIGATIONS AND INTERIM REMEDIAL ACTIONS

This section describes the previous investigations and interim remedial actions conducted by others at the Site. Additional information on the investigation and interim remedial actions and results are provided in the referenced reports. A summary of analytical results for soil samples, grab groundwater samples, reconnaissance groundwater samples, and groundwater samples are presented in Tables 2 through 13. Analytical results are segregated in each table by the area of the Site where they were collected: RUA, former Underground Storage Tank Area, FETA, former Pace Main Building and Drum Storage Yard, Subsurface Utilities, and Downgradient of the former Pace Main Building. Analytical results for soil samples are presented on Figure 6. For the purpose of the RI/FS, water grab samples discussed in the text below are defined as samples collected from water standing in an open excavation. Available boring and monitoring well logs from previous investigations are presented in Appendix A.

3.1 HART CROWSER, INC.—PHASE II INVESTIGATION, 1990

In July 1990, Hart Crowser conducted a Phase II investigation at the Site in conjunction with a Phase I Environmental Assessment (Hart Crowser 1990). The purpose of the investigation was to evaluate subsurface soil and groundwater quality at the Pace Main Building, the RUA, and the Drum Storage Yard (Figure 3). The Hart Crowser scope of work for the investigation included the following work elements:

- Advancing hand auger boring HA-1 proximate to a containment drum located at a truck ramp located north of the former Pace Main Building (Figure 3).
- Advancing hand auger boring HA-2 at the RUA (Figure 3).
- Advancing hand auger HA-3 at the Drum Storage Yard (Figure 3).
- Advancing hand auger HA-4 downgradient of the Drum Storage Yard (Figure 3).

Selected soil samples collected from borings were submitted for analysis of chlorinated volatile organic compounds (CVOCs) by United States Environmental Protection Agency (EPA) Methods 8010 and 8240 and gasoline-range petroleum hydrocarbons (GRPH) and DRPH by EPA Method 8015 modified. In addition, soil samples collected from borings HA-3 and HA-4 were also analyzed for semi-volatile organic compounds (SVOCs) by EPA Method 8270. Soil analytical results are summarized in Tables 2 through 4. Analytical results were as follows:

- Analytical results for soil sample S-2 collected from boring HA-2, advanced proximate to a containment drum located at the truck ramp at a depth of 1.2 to 1.5 feet bgs, contained concentrations of DRPH, trichloroethene (TCE), and tetrachloroethene (PCE) of 5,300, 1.4, and 3.3 milligrams per kilogram (mg/kg) respectively, which exceeded the MTCA Method A cleanup levels (Figures 3 and 5, Tables 2 and 3). Concentrations of remaining analytes were below MTCA Method A and/or B cleanup levels, and/or concentrations were not reported above laboratory reporting limits.

- Analytical results for soil sample S-3 collected from boring HA-3, advanced proximate to the Drum Storage Yard at a depth of 0.5 to 0.8 feet bgs, contained 0.08 mg/kg of PCE, which exceeded the MTCA Method A cleanup level (Figure 6, Table 3).
- Concentrations of remaining CVOCs, GRPH, DRPH, and SVOCs in soil samples collected from borings were below MTCA Method A and/or B cleanup levels and/or concentrations were not reported above laboratory reporting limits (Tables 2 through 4).

3.2 SRH ENVIRONMENTAL MANAGEMENT—UST REMOVAL, 1991

In December 1990, SRH removed 14 USTs from the Underground Storage Tank Area formerly located at northeast corner of the former Pace Main Building (Figure 2). The 1,000- to 8,000-gallon USTs contained solvents, glycol, fatty acids, and petroleum products (SRH 1991). According to Pace records, the USTs never contained gasoline. The content of each UST is presented in Appendix B. The SRH scope of work included the following work elements:

- Decommissioning and removing the USTs in accordance with WAC 173-360.
- Treating the residual product and rinsate fluid generated during UST decommissioning and removal at the Site.
- Excavating and stockpiling contaminated soil.
- Collecting three soil samples from beneath each UST (numbered 1A through 1C, through 14A through 14C). The USTs were designated USTs 1 through 14. Sample locations are shown on Figure 7.
- Collecting two grab groundwater samples (P1 and P2) from groundwater that entered the UST excavation (Figure 7).
- Analyzing samples for TPH using EPA Method 418.1 and benzene, toluene, ethyl benzene, and xylenes (BTEX). Six soil samples were analyzed for methanol, and two soil samples collected proximate to USTs 5, 12, 13, and 14 and groundwater grab samples collected from the UST cavity were analyzed for isopropanol by EPA Method 8015 Modified. Two soil samples collected from beneath UST 13 were analyzed for diphenylamine by EPA Method 8015 Modified.
- Analyzing 10 soil samples for isopropanol (isopropyl alcohol) by EPA Method 8015 Modified.
- Analyzing two soil samples collected proximate to UST 13 for diphenylamine.

Analytical results indicated concentrations of isopropanol were present in soil samples collected proximate to USTs 5 and 13 and in the groundwater grab samples; there is no MTCA cleanup level for isopropanol. Analytical results for soil and grab groundwater samples reported concentrations of TPH, BTEX, methanol, and diphenylamine below MTCA Method A and/or B cleanup levels and/or laboratory reporting limits (Tables 2, 3, 4, and 6). Analytical results for methanol and isopropanol are presented in the SRH UST Removal Report (SRH 1991).

3.3 HART CROWSER, INC.—SUBSURFACE INVESTIGATION, 1991

In February 1991, Hart Crowser conducted an additional subsurface investigation at the Site (Hart Crowser 1991). The purpose of this investigation was to further evaluate subsurface soil and groundwater quality in the Drum Storage Yard and the RUA (Figure 3). The Hart Crowser scope of work for the subsurface investigation included the following work elements:

- Advancing nine soil borings (B-1 through B-9) at the Site to depths of 15 feet bgs and collecting soil samples at 2.5-foot sample depth intervals from each boring (Figure 3).
- Advancing boring B-1 and borings B-6 through B-9 proximate to the Drum Storage Yard (Figure 3).
- Advancing borings B-2 through B-5 at the RUA and proximate to the rail spur leading to the RUA (Figure 3).

One soil sample from each boring was analyzed for volatile organic compounds (VOCs) and two soil samples collected from boring B-2 were analyzed for VOCs by EPA Method 8240 and TPH by EPA Method 8015 Modified (Hart Crowser 1991). One soil sample collected from boring B-2 was analyzed for SVOCs by EPA Method 8270 (Hart Crowser 1991). Analytical results were as follows:

- Soil sample B-2/S-1, collected from boring B-2 at 2.5 feet bgs and advanced at the RUA, contained concentrations of DRPH and mineral spirits of 7,300 and 140 mg/kg, respectively, which exceeded the MTCA Method A cleanup levels (Figure 6, Table 2). Hart Crowser stated that the mineral spirits was most likely n-nitrosodiphenylamine because the compound was detected in soil sample B-2/S-3 collected beneath sample B-2/S-1 at depth of 7.5 feet bgs, and n-nitrosodiphenylamine was used by the former Pace National facility (Hart Crowser 1991). The concentration of n-nitrosodiphenylamine was below the MTCA Method B cleanup level (Table 4).
- Concentrations of remaining TPH, VOCs and SVOCs in soil samples collected from the borings were below MTCA Method A and B cleanup levels. The Hart Crowser report did not contain laboratory reports for TPH, VOCs, and SVOCs (Hart Crowser 1991).

3.4 PSCI ENVIRONMENTAL—AST AND OIL/WATER SEPARATOR REMOVAL, 1999

In January 1999, PSCI conducted a limited subsurface investigation at the Site and removed an 8,000 gallon AST formerly located near the Drum Storage Yard and an oil/water separator and associated 1,000-gallon ecology flow-through tank located at the FETA (Figure 2). The PSCI scope of work included:

- Removing the AST and ecology flow-through tank in accordance with Ecology regulations and the Washington State Uniform Fire Code (PSCI 1999).
- Removing product and wastewater from the AST, oil/water separator, and ecology flow-through tank prior to their removal.
- Transporting product and wastewater off-Site for treatment and disposal (PSCI 1999).

In February 1999, PSCI conducted an investigation to evaluate subsurface soil quality in the FETA. The PSCI scope of work included:

- Collecting soil samples S1-SE-Comp-7, S-2-NW-7, and S-3-B-10 and samples from the FETA excavation and OWS-E-2.5 from the oil/water separator excavation. Soil samples were collected at depths of 2.5 to 10 feet bgs from the sidewalls and/or bottoms of the excavation (PSCI 1999).
- Analyzing soil samples for BTEX, PCP, and organochlorine pesticides.

Concentrations of chlordane, heptachlor, PCP, and/or dichlorodiphenyldichloroethane (4,4-DDD) were not detected above MTCA Method B cleanup levels in confirmation soil samples collected from the FETA excavation (Tables 4 and 8). Remaining organochlorine pesticides did not exceed MTCA Method B cleanup levels or the laboratory reporting limits. The PSCI subsurface investigation report did not contain laboratory reports for VOCs (PSCI 1999). Analytical results for stockpile soil samples are presented in the PSCI subsurface investigation report (PSCI 1999).

3.5 GALLOWAY ENVIRONMENTAL, INC.—RESTORATION REPORT, 1999

In August 1999, Galloway excavated contaminated soil containing chlordane, PCP, and/or 4,4-DDD at the FETA (Galloway 1999a). The contaminated soil was previously identified by PCSI as part of the removal of the oil/ water separator and ecology flow-through tank at the FETA (PSCI 1999, Galloway 1999a).

The removal action at the FETA included the following work elements:

- Excavating contaminated soil based on visual observation and field screening using a hand-held portable gas analyzer equipped with photoionization detector.
- Collecting confirmation soil samples (PN@6, PW@6, PB@12, PE@6, and PS@6) from the sidewalls and bottom of the excavation at depths ranging from 6 to 12 feet bgs (Figure 8).
- Stockpiling excavated soil on a lined pad and treating with genetically cultured microorganisms.
- Collecting stockpile soil samples PSP-1, PSP-2, PSP-3, PSP-4, and PSP-5.
- Analyzing confirmation and stockpile soil samples for PCP and organochlorine pesticides using EPA Methods 8270 and 8081, respectively.

Analytical results for confirmation soil samples collected from the excavation and stockpile soil samples collected after treatment of the soil stockpile indicated that concentrations of PCP and organochlorine pesticides were below MTCA Method B cleanups levels and/or laboratory reporting limits (Tables 4 and 8). Analytical results for stockpile soil samples are presented in the Galloway report (Galloway 1999a). Galloway did not report the volume of treated soil or whether treated soil was returned to the remedial excavation or transported off the Site for disposal (Galloway 1999a).

3.6 GALLOWAY ENVIRONMENTAL, INC.—ENVIRONMENTAL REMEDIATION, 2000

In March 2000, Galloway Environmental, Inc. excavated a test pit in the RUA to a depth of 8 feet bgs to further delineate the nature and extent of petroleum-contaminated soil, previously identified by Hart Crowser in 1991 (Figure 8, Hart Crowser 1991, Galloway 2000a). The Galloway scope of work included the following work elements:

- Excavating a test pit 24 feet long, 4 feet wide, and 8 feet deep in the RUA to further characterize the extent of contamination identified by Hart Crowser.

- Collecting test pit sidewall soil performance and/or confirmation samples PEW@3, PWW@3, PNW@3, PSW@3, PWW@3-2, and PNW@3-2 and bottom soil performance sample PB@8' from the test pit at depths ranging from 3 to 8 feet bgs.
- Collecting groundwater grab sample PWA-1 from the test pit.
- Collecting stockpile soil sample PSP2.
- Collecting and analyzing performance soil samples from the excavation for DRPH and ORPH by Northwest Total Petroleum Hydrocarbon (NWTPH) Method NWTPH-Dx. A grab groundwater sample collected from the test pit was analyzed for DRPH by Method NWTPH-Dx. The stockpile soil sample was analyzed for SVOCs by EPA Method 8270C, VOCs by 8260, and DRPH by Method NWTPH-Dx.

Analytical results for performance soil samples were as follows:

- The performance soil sample PWW@3' collected at 3 feet bgs contained a concentration of DRPH of 4,500 mg/kg, exceeding the MTCA Method A cleanup level (Figure 9, Table 2).
- The concentrations of DRPH and ORPH in all remaining soil samples were below the MTCA Method A cleanup levels, and/or concentrations were not reported above laboratory reporting limits.
- The grab groundwater sample PWA-1 collected from the test pit contained a concentration of DRPH of 175,000 micrograms per liter (µg/L), exceeding the MTCA Method A cleanup level (Table 6).

Based on analytical results for test pit soil samples, Galloway removed additional petroleum-contaminated soil from the west wall of the test pit. After additional soil was removed from the west wall, three confirmation soil sidewall samples PAST-N@3'-6', PAST-W@3'-6', PAST-S@3'-6', and bottom sample PAST-BOT@8' were collected at depths ranging from 3 to 8 feet bgs (Figure 9 Galloway 2000a). Confirmation soil samples were analyzed for DRPH and ORPH by Method NWTPH-Dx.

Analytical results indicated the DRPH and ORPH concentrations in the confirmation soil samples were below MTCA cleanup levels and/or the concentrations were not reported above laboratory reporting limits (Figure 9, Table 2). Approximately 45 tons of petroleum-contaminated soil was removed from the Site and disposed of at a thermal treatment facility (Galloway 2000a). Analytical results for the stockpile soil sample are presented in the Galloway environmental remediation report (Galloway 2000a).

4.0 REMEDIAL INVESTIGATION

For the purpose of the RI/FS in consultation with Ecology, all investigations and interim cleanup actions conducted at the Site after January 2003 are considered RI activities. After reviewing results of previous investigations (Section 3.0) and the results of RIs at the Site, it is the SES opinion that there is sufficient information to complete the RI/FS. A description of RI activities and results conducted at the Site are presented below. Additional information on the RI activities is provided in the referenced reports. A summary of analytical results for soil samples, grab groundwater samples, reconnaissance groundwater samples, and groundwater samples are presented in Tables 2 through 13. Analytical results are segregated in each table by the area of the Site where they were collected: former RUA, former Underground Storage Tank Area, former FETA, former Pace Main Building, Drum Storage Yard, Subsurface Utility, and Downgradient of the former Pace Main Building. Analytical results for soil samples collected from borings are shown on Figure 6. Analytical results for reconnaissance and monitoring well groundwater samples that exceeded MTCA Method A and/or B cleanup levels for years 2003 through 2006 are shown on Figure 10. Interim remedial action confirmation soil sampling locations from 2006 are shown on Figure 11. Analytical results for reconnaissance and monitoring well groundwater samples that exceeded MTCA Method A and/or B cleanup levels for the years 2007 through 2010 are shown on Figure 12. Available boring and monitoring well logs from previous investigations are presented in Appendix A. Results from the RIs conducted at the Site are discussed below.

4.1 HART CROWSER, INC., 2003

In July and August 2003, Hart Crowser conducted RI activities at the FETA and RUA, Drum Storage Yard, and the former Underground Storage Tank Area to further characterize the nature and extent of contamination in these areas of the Site (Figure 2, Hart Crowser 2003a). The work elements for this phase of the RI included:

- Advancing 27 direct-push borings (SP-1 through SP-27) at the Site to depths ranging from 8 to 20 feet bgs (Figure 3).
- Installing five monitoring wells (HC-MW-1 through HC-MW-5) to depths of 15 or 20 feet bgs (Figure 3).
- Collecting soil and reconnaissance groundwater samples from the borings.
- Collecting groundwater samples from monitoring wells HC-MW-1, HC-MW-2, HC-MW-3 HC-MW-4, and HC-MW-5 (Figure 3).
- Analyzing soil and groundwater samples for GRPH by Method NWTPH-Gx; DRPH and ORPH by Method NWTPH-Dx; VOCs by EPA Method 8260; SVOCs by EPA Method 8270; organochlorine pesticides by EPA Method 8081; Resource Conservation Recovery Action (RCRA) 8 metals, including arsenic, barium, cadmium, chromium, lead, mercury, nickel, and zinc (hereinafter referred to as metals) by EPA Method 7010 and/or methanol and isopropanol by EPA Method 8015 modified.

Analytical results from the RI were as follows:

- Concentrations of PCE exceeded the MTCA Method A cleanup level in soil samples collected from two borings, SP-5 and SP-17 at depth of 10 and 2 feet bgs, respectively (Table 3). Concentrations of PCE were reported to be 0.540 and 0.059 mg/kg in borings SP-5 and SP-7, respectively. Boring SP-5 was advanced at the FETA and boring SP-17 was advanced proximate to the RUA (Figures 3 and 5).
- Concentrations of GRPH as mineral spirits exceeded the MTCA Method A cleanup level in soil samples collected from two borings, SP-18 and SP-21 at depth of 2 and 10 feet bgs, respectively (Table 2). Concentrations of GRPH as mineral spirits were reported to be 650 and 280 mg/kg in borings SP-18 and SP-21, respectively. Borings SP-18 and SP-21 were advanced at the RUA and former Underground Storage Tank Area, respectively (Figures 3 and 5). Since GRPH at the Site represents mineral spirits, the samples were not analyzed for MTBE and lead. As previously stated, gasoline was never stored in tanks at the Site.

- Analytical results for remaining VOCs, GRPH, DRPH, ORPH, SVOCs, organochlorine pesticides, metals, methanol, and isopropanol for soil samples collected from the remaining borings were below MTCA Method A and/or B cleanup levels and/or laboratory reporting limits (Tables 4, 7, and 8).
- Analytical results for the reconnaissance groundwater samples collected from boring SP-21, advanced in the former Underground Storage Tank Area, contained concentrations of GRPH as mineral spirits, chloromethane, and vinyl chloride of 8,100, 170, and 82 µg/L, respectively, which exceeded their respective MTCA Method A cleanup levels (Figure 10, Tables 6 and 9). Analytical results for the groundwater sample collected from monitoring well HC-MW-1, installed in the RUA, contained a concentration of arsenic at 22 µg/L, which exceeded the MTCA Method A cleanup level (Figure 3, Table 10). Analytical results for the groundwater sample collected from RUA monitoring well HC-MW-2 (later identified as HC-MW-2R), contained concentrations of cis 1,2-dichloroethene (cis-1,2-DCE) at 1,300 µg/L, vinyl chloride at 240 µg/L, TCE at 25 µg/L, PCE at 47 µg/L, and arsenic at 43 µg/L, which exceeded their respective MTCA Method A or B cleanup levels (Figure 10, Tables 9 and 10). Groundwater samples were not collected from monitoring wells HC-MW-3 and HC-MW-4 because the wells were dry.
- Analytical results for the remaining VOCs, GRPH, DRPH, ORPH, SVOCs, organochlorine pesticides, metals, methanol, and isopropanol analytes for reconnaissance groundwater samples and groundwater samples collected from monitoring wells were below MTCA Method A and/or B cleanup levels and/or laboratory reporting limits (Tables 12 and 13). Analytical results for methanol and isopropanol are presented in the Hart Crowser report (Hart Crowser 2003a).

Based on soil and groundwater analytical results, Hart Crowser in October 2003 excavated contaminated soil at RUA and the FETA (Figure 6). The work elements for the interim remedial action included the following:

- Excavating contaminated soil in the RUA and FETA to depths of 5 to 6 feet bgs and 12 feet bgs, respectively.
- Excavating approximately 70 cubic yards of soil at the RUA and 5 cubic yards of soil from the northwest corner of the FETA and disposing the soil at RABANCO in Seattle, Washington.
- Collecting one confirmation soil sample from the bottom of the FETA excavation and five confirmation samples from the sidewalls and bottom of the RUA excavation.
- Analyzing confirmation soil samples LDA#1-Bottom, LDA#2-North, LDA#3-East Side, LDA#4-South Side, and LDA#5-West Side collected at the RUA for GRPH by Method NWTPH-Gx, DRPH and ORPH by Method NWTPH-Dx, and VOCs by EPA Method 8260B.
- Analyzing confirmation sample FETA-10'-11' collected from the FETA for GRPH by Method NWTPH-Gx and DRPH and ORPH by Method NWTPH-Dx.
- Backfilling the RUA and FETA excavations and treating the in situ soil with the Regenesis product Hydrogen Release Compound, HRC®, to promote biological breakdown of CVOCs.
- Installing monitoring well HC-MW-2R to replace HC-MW-2 which was removed during the interim remedial action at the RUA.

Analytical results for confirmation samples collected at the RUA and FETA indicated that the samples did not contain concentrations of GRPH, DRPH, ORPH, and VOCs above MTCA Method A and/or B cleanup levels and/or concentrations were not reported above laboratory reporting limits (Table 2 and 3).

4.2 HART CROWSER, 2004

In March of 2004, Hart Crowser continued the RI activities at the former UST Area, RUA, FETA, and Drum Storage Yard (Figure 2). The RI activities were conducted in response to comments made by Ecology following a review of the reports previously prepared for the Site in conjunction with a request for a No Further Action determination (Hart Crowser 2004). The work elements for this phase of the RI included the following:

- Installing 13 direct-push boring borings (SP-28 through SP-40) to depths ranging from 4 to19 feet bgs.
- Collecting soil and reconnaissance groundwater samples from the direct-push borings.
- Converting boring SP-34 to monitoring well HC-MW-6.
- Collecting samples from monitoring wells HC-MW-2R, HC-MW-3, HC-MW-4, and HC-MW-6.
- Analyzing soil and groundwater samples for GRPH by Method NWTPH-Gx; DRPH and ORPH Method NWTPH-Dx; VOCs by EPA Method 8260; SVOCs by EPA Method 8270; organochlorine pesticides by EPA Method 8081; metals, by EPA Method 7010; and/or alcohols by EPA Method 8015 Modified.

Analytical results from the RI were as follows:

- Concentrations for GRPH, DRPH, ORPH, VOCs, SVOCs, metals, organochlorine pesticides, and alcohols in soil samples collected from borings did not exceed MTCA Method A or B cleanup levels (Tables 2 through 4 and 8). Analytical results for alcohols are available in the Hart Crowser report (Hart Crowser 2004).
- The reconnaissance groundwater sample collected from boring SP-29, advanced at the former UST Storage Tank Area, contained a concentration of vinyl chloride of 1.1 µg/L, which exceeded the MTCA Method A cleanup level (Figure 10, Table 9).
- The groundwater samples collected from monitoring well HC-MW-2R, installed at the RUA, and monitoring well HC-MW-4, installed downgradient of the former Pace Main Building office, contained vinyl chloride concentrations of 4.6 and 1.4 µg/L, respectively, which exceeded the MTCA Method A cleanup level (Figure 10, Table 9).
- Concentrations of remaining VOCs, GRPH, DRPH, ORPH, SVOCs, metals, organochlorine pesticides, and alcohols for groundwater reconnaissance and groundwater samples collected from borings and monitoring wells, respectively, were below MTCA Method A and B cleanup levels and/or were below laboratory reporting limits (Tables 10, 12, and 13). Analytical results for alcohols are presented in the Hart Crowser report (Hart Crowser 2004).

4.3 HART CROWSER, 2005

In June 2005, Hart Crowser installed monitoring wells HC-MW-7 through HC-MW-10 at the western Property boundary and collected groundwater samples from each monitoring wells including existing monitoring wells HC-MW-3 and HC-MW-4 (Figure 3). Monitoring wells HC-MW-7 through HC-MW-10 were installed at the west boundary of the Property (Figure 3). Groundwater samples collected from the monitoring wells were analyzed for VOCs by EPA Method 8260B. Analytical results for groundwater samples indicated that concentrations of vinyl chloride in the groundwater samples collected from monitoring wells HC-MW-7 through HC-MW-10 ranged from 1 to 7.6 µg/L, which exceeded the MTCA Method A cleanup level (Figure 10, Table 9). Concentrations of remaining volatile organic analytes were below laboratory reporting limits and/or MTCA Method A and/or B cleanup levels (Table 9).

4.4 SCS ENGINEERS, 2004 AND 2005

Between September 2004 and June 2005, SCS Engineers (SCS) continued RI activities to address data gaps identified in previous RI activities conducted at the Site by Hart Crowser (SCS 2005). The SCS RI activities focused on characterizing soil and groundwater quality beneath portions of the former Pace Main Building and proximate to storm and sanitary sewer lines on the Site, along 7th Avenue South, and proximate to the BNSF Railway ROW (Figure 3).

The work elements for this phase of the RI:

- Advancing 38 direct-push borings in September 2004 and June 2005 (SB-1 through SB-38) to depths ranging from 8 to 21 feet bgs. Borings SB-22 through SB-38 were advanced adjacent to the subsurface utilities in 7th Avenue South and the BNSF Railway ROWs (Figure 2).
- Collecting soil and reconnaissance groundwater samples from all direct-push borings, with the exception of borings SB-2, SB-6, SB-7, SB-12, SB-15, SB-16, SB-20, SB-23 through SB-29, and SB-32 through SB-34. Soil samples were only collected from these borings.
- Converting 12 borings into monitoring wells (SB-1, SB-4, SB-5, SB-8 through SB-11, SB-14, SB-22, and SB-36 through SB-38) and collecting soil from borings and groundwater samples from the monitoring wells.
- Collecting groundwater samples from monitoring wells SB-1, SB-4, SB-5, SB-8, SB-9, SB-10, SB-11, SB-14, SB-22, HC-MW-2R, HC-MW-5, and HC-MW-6 in January 2005 and monitoring wells SB-1, SB-5, SB-8 through SB-11, SB-14, SB-22, SB-36 through SB-38 in June 2005 (Figure 3). Groundwater was not present in monitoring wells SB-4, HC-MW-3, or HC-MW-4 at the time of the groundwater monitoring and sampling events.
- Analyzing soil and reconnaissance groundwater samples for GRPH by Method NWTPH-Gx, DRPH and ORPH by Method NWTPH-Dx, VOCs by EPA Method 8260, herbicides by EPA Method 8151, organochlorine pesticides by EPA Method 8081, and/or RCRA 8 metals by EPA Method 7010 (SCS 2005).

Analytical results indicated that soil samples contained the following:

- ORPH was detected at a concentration of 6,620 mg/kg in a soil sample collected at a depth of 4 feet bgs from boring SB-15, which exceeded the MTCA Method A cleanup level (Figure 6, Table 2). The boring was advanced on the west side and downgradient of the former Pace Main Building (Figure 3).
- GRPH was detected at a concentration of 169 mg/kg in a soil sample collected at a depth of 8 feet bgs from boring SB-8, which exceeded the MTCA Method A cleanup level (Figure 6, Table 2). The boring was advanced at former UST Area (Figure 3).

- GRPH was detected at a concentration of 445 mg/kg in a soil sample collected at a depth of 11 feet bgs from boring SB-19, which exceeded the MTCA Method A cleanup level (Figure 6, Table 2). The boring was advanced adjacent to subsurface utilities in the parking lot located in the northeast corner of the Site (Figure 3).
- PCE and TCE were detected at concentrations of 31.8 and 1.65 mg/kg, respectively, in a single soil sample collected at a depth of 10 feet bgs from boring SB-35 advanced north and proximal to the subsurface utilities located in a parking lot at the northeast of Site. The concentrations of PCE and TCE exceeded MTCA Method A cleanup levels (Figure 6, Table 3).
- Analytical results for remaining VOCs, GRPH, DRPH, ORPH, herbicides, organochlorine pesticides, and metals for soil samples indicated that concentrations were below MTCA Method A and B cleanup levels and/or laboratory reporting limits (Tables 3, 4, 5, 7, and 8; SCS 2005).

Analytical results for reconnaissance groundwater samples collected from borings advanced in September, October, and December 2004 at the Site and along 7th Avenue South and proximate to the BNSF Railway ROW were as follows:

- DRPH, ORPH, and vinyl chloride were detected at concentrations of 2,120, 1,670, and 0.800 µg/L, respectively, in the reconnaissance groundwater sample collected from boring SB-19, advanced adjacent to subsurface utilities in the parking lot at the northeast corner of the Site. The concentrations of DRPH, ORPH, and vinyl chloride exceeded the MTCA Method A cleanup levels (Figure 10, Tables 6 and 9).
- DRPH, ORPH, and vinyl chloride were detected at concentrations of 16,800, 2,260, and 0.532 µg/L, respectively, in the reconnaissance groundwater sample collected from boring SB-21, advanced proximate to a stormwater utility at the former Underground Storage Tank Area. The concentrations of DRPH, ORPH, and vinyl chloride exceeded the MTCA Method A cleanup levels (Figure 10, Tables 6 and 9).
- Cis 1,2-DCE and vinyl chloride were detected at concentrations of 271 and 23.3 µg/L, respectively, in the reconnaissance groundwater sample collected from boring SB-22, which exceeded the MTCA Method A and B cleanup levels (Figure 10, Table 9).The boring was advanced proximate to a catch basin located outside the northeast corner of the Site (Figure 3).
- ORPH was detected in the reconnaissance groundwater sample collected from boring SB-26 advanced in 7th Avenue South proximal to the sanitary sewer, at a concentration of, 1,230 µg/L, exceeding the MTCA Method A cleanup level (Figure 10, Table 6).
- ORPH was detected in the boring SB-30 reconnaissance groundwater sample advanced next to the 7th Avenue South sanitary sewer at a concentration of1,130 µg/L, exceeding the MTCA Method A cleanup level (Figure 10, Table 6).
- PCE, TCE, and vinyl chloride were detected at concentrations of 44.9, 389, and 6.95 µg/L, respectively, in the reconnaissance groundwater sample collected from boring SB-35. The concentrations of PCE, TCE, and vinyl chloride exceeded the MTCA Method A and/or B cleanup levels (Figure 10, Table 9). The boring was advanced adjacent to subsurface utilities in the parking lot at the northeast corner of the Site.
- Concentrations of herbicides, pesticides, and SVOCs in reconnaissance groundwater samples collected as part of this 2004 study did not exceed MTCA

Method A and B cleanup levels and/or were not reported above laboratory reporting limits (Tables 11, 12, and 13).

4.4.1 Groundwater Monitoring and Sampling Events, January 2005

SCS conducted a groundwater monitoring and sampling event at the Site in January 2005 that included collecting groundwater samples from monitoring wells SB-1, SB-4, SB-5, SB-8, SB-9, SB-10, SB-11, SB-14, SB-22, HC-MW-2R, HC-MW-5, and HC-MW-6 (Figure 10, SCS 2005). Results for the groundwater monitoring and sampling event conducted in January 2005 are as following:

- Vinyl chloride was detected in groundwater samples collected from monitoring wells SB-1, SB-8, SB-10, SB-14, SB-22, and HC-MW-2R at concentrations ranging from 1.36 to 32.4 µg/L, which exceeded the MTCA Method A cleanup level (Figure 10, Table 9).
- Cis-1,2-DCE was detected at monitoring well SB-22 at a concentration of 102 µg/L, which exceeded the MTCA Method B cleanup level (Figure 10, Table 9).
- Concentrations of remaining VOCs were not detected above MTCA Method A and/or B cleanup levels and/or above laboratory reporting limits (Table 9).

The SCS assessment of groundwater conditions beneath the Site indicated that groundwater beneath the Site was perched and intermittent, and groundwater appeared to occur within a gravelly to silty sand unit at depths ranging from 2 to 13 feet bgs (SCS 2005). Based on depth-to-groundwater measurements taken from monitoring wells in January 2005, the direction of groundwater flow at the Site is to the west with gradient ranging from 0.066 to 0.068 feet per foot. Groundwater was not present in monitoring wells SB-4, HC-MW-3, and HC-MW-4 during the January 2005 groundwater monitoring and sampling event.

4.4.2 Groundwater Monitoring and Sampling Events, June 2005

SCS conducted a groundwater monitoring and sampling event at the Site in June 2005 that included collecting groundwater samples from monitoring wells SB-9, SB-10, SB-11, SB-14, and SB-36 through SB-38 (Figure 10, SCS 2005). Results for the groundwater monitoring and sampling event conducted in January 2005 are as following:

- Vinyl chloride was detected at concentrations of 24.8, 0.21, and 16.2 µg/L in groundwater samples collected from monitoring wells SB-10, SB-11, and SB-14, respectively, which exceeded the MTCA Method A cleanup level (Figure 10, Table 9).
- Concentrations of remaining VOCs were not detected above MTCA Method A and/or B cleanup levels and/or laboratory reporting limits (Table 9).

4.5 SCS ENGINEERS, 2006

In August 2006, SCS Engineers installed and sampled monitoring wells DWMW-1 through DWMW-3 at the Eliasen property located west and downgradient of the Property (SCS 2006). The wells were installed at depths of 10 to 15 feet bgs. Soil samples were not collected. Groundwater samples were collected and analyzed for CVOCs. Analytical results indicated concentrations of CVOCs in the groundwater samples were not detected above the laboratory reporting limit (Figure 3, Table 9).

4.6 HART-CROWSER, 2006

From January through September of 2006, Hart Crowser continued RI activities at the Site, advancing 24 direct-push soil borings (SP-A through SPW), installing groundwater monitoring wells HC-MW-11 and HC-MW-12, and conducting a hydrogeologic investigation (Hart Crowser 2006a and 2006b). Results from the investigation and hydrogeologic investigation are presented below.

4.6.1 Installation of Monitoring Wells

In January 2006, Hart Crowser installed monitoring wells HC-MW-11 and HC-MW-12 downgradient of the former Pace Main Building (Figure 3). Groundwater samples were collected from the monitoring wells in February, April, June, and July 2006. Groundwater samples collected from the monitoring wells were analyzed for VOCs by EPA Method 8260B.

- Concentrations of vinyl chloride in the groundwater samples collected from monitoring well HC-MW-11 in February, April, June, and July 2006 ranged from 6.5 to 41 µg/L, which exceeded the MTCA Method A cleanup level(Figure 10, Table 9).
- Concentrations of remaining VOCs were below MTCA Method A or B cleanup levels and/or laboratory reporting limits for the groundwater monitoring and sampling events (Table 9).

4.6.2 Subsurface Investigation

In February through September 2006, additional soil borings SP-A through SP-W were advanced in the former Pace Main Building, the RUA, and/or the former Underground Storage Tank Area (Figure 3). Soil and/or reconnaissance groundwater samples were collected from each boring. Soil samples were collected at depths ranging from 4 to 17.5 feet bgs. Soil and/or groundwater samples were analyzed for GRPH by Method NWTPH-Gx, DRPH and OPRH by Method NWTPH-Dx, and/or VOCs by Method EPA Method 8260B. Analytical results for soil and reconnaissance groundwater samples were as follows:

- VOCs were not detected in soils sample at concentrations that exceeded the MTCA Method A or B cleanup levels and/or laboratory reporting limits (Table 3).
- Vinyl chloride concentrations ranging from 0.68 to 75 µg/L were detected in reconnaissance groundwater samples collected from borings SP-D, SP-E, SP-G, and SP-I through SP-L advanced proximate to the workshop at the Main Pace Building; boring SP-S advanced in a warehouse at the Main Pace Building; boring SP-O advanced at the northeast corner of the former Pace Main Building; and boring SP-N advanced proximate to the exterior northwest corner of the former Pace Main Building (Figure 10, Table 9). These vinyl chloride concentrations exceed the MTCA Method A cleanup level. Cis-1,2-DCE was detected in the reconnaissance groundwater sample collected from boring SP-O at a concentration of 200 µg/L, which exceeded the MTCA Method B cleanup level. Concentrations of remaining VOCs did not exceed the MTCA Method A or B cleanup levels and/or laboratory reporting limits (Table 9).
- Concentrations of GRPH, DRPH, and ORPH in reconnaissance groundwater samples did not exceed MTCA Method A cleanup levels or concentrations did not exceed laboratory reporting limits (Table 6).

4.6.3 Hydrogeologic Investigation

A hydrogeologic investigation conducted between January and July 2006 included measuring the depth to groundwater at monitoring wells; conducting slug testing at monitoring wells HC-MW-3, HC-MW-5, HC-MW-9, and HC-MW-10 (Figure 3); conducting constant-rate aquifer test (pump test) on monitoring wells HC-MW-4 and HC-MW-9 (Figure 3); and calculating the groundwater flow velocities for the eastern and western portions of the Site (Hart Crowser 2006b).

Results from the hydrogeologic investigation were as follows:

- The depth to groundwater ranged from 0.72 (HC-MW-10) to 14.70 feet (SB-5) and groundwater elevation ranged from 139.76 (HC-MW-10) to 163.60 feet (SB-38), as shown on Table 1.
- The direction of groundwater flow in February and June 2006 was to the west-northwest with gradients ranging from 0.037 to 0.12 feet per foot. The highest gradients were present on the western portion of the Site.
- The calculated groundwater velocities in eastern and western portions of the Site ranged from 11 to 102 feet per year (ft/yr) and 20 to 164 ft/yr, respectively, assuming hydraulic conductivities ranging from 0.15 to 1.5 feet per day, average hydraulic gradient of 0.09 feet per foot, and effective porosity of 0.25.

Results from this hydrological investigation are used to prepare the Conceptual Site Model discussed in Section 10.0 of the RI/FS.

5.0 INTERIM REMEDIAL ACTIONS

Based on results from the previous investigations, soil removal actions, and RI activities, Hart Crowser conducted a series of interim remedial actions at the Site in 2006 to remove source areas by excavating and disposing of soil containing concentrations of GRPH, DRPH, ORPH, and/or VOCs that exceeded MTCA Method A and/or B cleanup levels (Hart Crowser 2008). The interim actions were conducted in conjunction with the demolition of the Pace Main Building. The interim actions were conducted in five areas of the Site designated as Areas A through D, and SB-15 (Figure 11). Confirmation soil sample locations for each interim remedial action area are shown on Figure 11, and analytical results are presented in Tables 2 and 3 which include both performance and confirmation soil samples. Results from the interim remedial actions are discussed below.

5.1 AREA SB-15

In February 2006, Hart Crowser conducted a interim action centered on boring SB-15. The purpose of the interim remedial action was to remove soil containing ORPH at a concentration that exceeded the MTCA Method A cleanup level (Figure 6, Table 2, SCS 2005). The excavation was 6 feet deep with plan dimensions of 9 by 4 feet. Five confirmation soil samples (E1-B, E1-E, E1-W, E1-N, and E1-S) were analyzed for VOCs by EPA Method 8260B and DRPH and/or ORPH by Method NWTPH-Dx. Concentrations of VOCs, DRPH, and ORPH in confirmation soil samples were below MTCA Method A and B cleanup levels or laboratory reporting limits (Tables 2 and 3).

5.2 AREA A—PACE MAIN BUILDING

Soil in Area A was excavated from beneath the north central portion of the former Pace Main Building to an approximate depth of 16 feet bgs (Figure 11). Analytical results from the RI activities indicated that a soil sample collected at a depth of 8 feet bgs from boring SB-7 in 2004 did not contain PCE at a concentration that exceeded the MTCA Method A cleanup level (Figure 3, Table 3). A reconnaissance groundwater sample collected from boring SP-S in 2004 contained a vinyl chloride concentration of 37 µg/L, which exceeded the MTCA Method A cleanup level (Figure 10, Table 9). A groundwater sample collected from monitoring well SB-1 in 2005 contained a vinyl chloride concentration of 9.07 µg/L, which exceeded the MTCA Method A cleanup level. Vinyl chloride was not reported at a concentration above the laboratory reporting limit in a groundwater sample collected from monitoring well SB-1 in 2006; however, the laboratory reporting limit (<1.0) exceeded the MTCA Method A cleanup level.

Nine confirmation soil samples were collected at the design limits of the excavation and included seven sidewall samples (A-N-W-11, A-N-W-4/8, A-C-W-7, A-S-W-7, A-C-E-6, A-S-E-8, and A-S-S-7) and three floor samples (A-N-B-16, A-C-B-16, and A-S-B-16) (Figure 11). Confirmation soil samples were analyzed for GRPH by Method NWTPH-Gx, DRPH and ORPH by Method NWTPH-Dx, and VOCs by EPA Method 8260B, respectively. Analytical results for confirmation soil samples reported concentrations of GRPH, DRPH, ORPH and VOCs above laboratory reporting limits (Tables 2 and 3, Hart Crowser 2008).

5.3 AREA B—UNDERGROUND STORAGE TANK AREA

Soil in Area B was excavated at the location of the former Underground Storage Tank Area and beneath a portion of the former Pace National Building (Figure 11). Analytical results from the RI activities indicated that soil samples collected at depths of 8 and 10 feet bgs from borings SB-8 in 2004 and SP-21 in 2003, advanced in the former Underground Storage Tank Area, contained concentrations of GRPH (169 mg/kg) and mineral spirits (280 mg/kg), respectively which exceed the MTCA Method A cleanup level (Figure 6, Table 2).

The groundwater sample was collected from boring SB-8 and the reconnaissance groundwater samples collected from borings SB-21, SP-21, SP-O, and SP-29 between 2003 and 2006 contained concentrations of vinyl chloride ranging from 0.532 to 82 µg/L, which exceeded the MTCA Method A cleanup level (Figure 10, Table 9). The reconnaissance groundwater sample collected from boring SP-O also contained 200 µg/L cis-1,2-DCE, which exceeded the MTCA Method B drinking water cleanup level (80 µg/L). The reconnaissance groundwater sample collected from boring SB-21 contained concentrations of DRPH and ORPH of 16,800 and 2,260 µg/L, respectively, which exceeded the MTCA Method A cleanup level of 500 µg/L (Figure 10, Table 6). In addition, the reconnaissance groundwater sample collected from boring SP-21 contained a concentration of GRPH as mineral spirits of 8,100 µg/L, which exceeded the MTCA Method A cleanup level (Figure 10, Table 9).

Soil in Area B was excavated to an approximate depth of 17 feet bgs. The initial excavation activities removed soil from the former Underground Storage Tank Area. The excavation was extended to the south to remove a previously unknown deposit of petroleum-contaminated soil discovered beneath the former Pace National Building. Water seeps were observed in the excavation. In addition, water infiltrated the excavation from quarry spalls beneath a driveway on the east side of the excavation. The excavation was dewatered and confirmation soil samples were collected at the limits of the excavation.

A total of fourteen confirmation soil samples were collected at the limits of the excavation and included eight sidewall samples (B-E-N-6/7, B-E-S-5/6, B-SW-S-8/10, B-S-S7/10, B-C-B-17, B-W-B-17, BSE-W-7, and BSE-S-W8) and six floor samples (B-SW-B-17, B-NE-B-17, B-SE-B-17, BSE-B-12, B-C-B-17, and B-W-B-17), as shown on Figure 11. Confirmation soil samples were analyzed for GRPH by Method NWTPH-Gx, DRPH and ORPH by Method NWTPH-Dx, and VOCs by EPA Method 8260B. Although GRPH was present in the soil at UST Storage Tank Area, GRPH was identified as mineral spirits; therefore, confirmation soil samples were not analyzed for MTBE and lead. Analytical results for confirmation soil samples did not report concentrations of GRPH, DRPH, ORPH, and VOCs above laboratory reporting limits (Tables 2 and 3, Hart Crowser 2008).

5.4 AREA C—RUA

Soil in Area C was excavated proximate to the RUA and included portions of the former Underground Storage Tank Area. The excavation was extended beyond the design limits to excavate a wood pile deposit discovered on the west boundary excavation (Figure 11). Analytical results from the RI activities indicated that a soil sample collected at 11 feet bgs from boring SB-19 in 2004 contained a concentration of GRPH of 445 mg/kg, which exceeded the MTCA Method A cleanup level (Figure 6, Table 2). Concentrations of PCE (31.8 mg/kg) and TCE (1.65 mg/kg) were detected in a soil sample collected at a depth of 10 feet bgs in boring SB-35, which exceed the MTCA Method A cleanup levels (Figure 6, Table 3). The reconnaissance groundwater sample collected from boring SB-19 contained concentrations of vinyl chloride, DRPH, and ORPH of 0.8, 2,120, and 1,670 µg/L, respectively, which exceeded MTCA Method A cleanup levels (Figure 10, Table 6). The reconnaissance groundwater sample collected from boring SB-35 contained concentrations of PCE, TCE, and vinyl chloride of 44.9, 389, and 6.95 µg/L, respectively, which exceeded MTCA Method A cleanup levels (Figure 10, Table 9). The laboratory noted that the GRPH chromatogram for the soil sample collected from boring SB-19 was not indicative of gasoline. The GRPH in the soil most likely represented mineral spirits because mineral spirits were previously identified in soil samples collected from the UST Storage Area.

Soil in Area C was excavated to depths 3 to 13 feet bgs. On east side of Area C, performance soil samples collected indicated the presence of residual concentrations of petroleum hydrocarbons, PCE, TCE, and DCE in the soil at a depth of 8 to 10 feet bgs. The contaminated soil was located proximate to a storm drain manhole. At the north boundary, soil was excavated to a depth 3 to 6 feet bgs to support temporary stormwater retention pond constructed immediately north of Area C. On the west side of Area C, analytical results for performance samples indicated that concentrations of petroleum hydrocarbons in soil exceeded MTCA cleanup levels. The excavation was extended 18 feet to the west and to a depth of 6 to 12 feet bgs to remove the petroleum-contaminated soil.

A total of twelve confirmation soil samples were collected at the limits of the Area C excavation and included six sidewall samples (C-N-E-6, C-N-W-6, C-E-N-9, C-E-8, C-E-S-7, and CNW-S-6) and six floor samples (C-W-B-13, C-E-B-13, C-NE-B-10, C-C-B-13, C-N-C-B-12, and CNW-B-12) (Figure 11). Confirmation soil samples were analyzed for GRPH by Method NWTPH-Gx, DRPH and ORPH by Method NWTPH-Dx, and VOCs by EPA Method 8260B. Although GRPH was present in soil samples collected in the RUA, detected GRPH are likely derived from mineral spirits; therefore, confirmation soil samples were not analyzed for MTBE and lead. Analytical results indicated confirmation soil samples did not contain GRPH, DRPH, ORPH, and/or VOCs at concentrations that exceeded the laboratory reporting limits (Tables 2 and 3, Hart Crowser 2008).

5.5 AREA D—SUBSURFACE UTILITY

The interim remedial action in Area D included excavation of soil proximate to a subsurface sanitary sewer line (Figure 11). Field screening indicated TPH impacts to soil in the upper 6 to 7 feet of the western half of the excavation (Hart Crowser 2008). Previous analytical results from the RI activities had not previously indicated contaminated soil and groundwater in this area of the Site. Soil in Area D was excavated to a depth of 12 feet bgs.

Seven confirmation soil samples were collected at the design limits of the excavation and included five sidewall samples (D-E-N-3/5, D-W-N-3/5, D-W-S-3/5, D-E-S-3/5, and D-W-W-2/3) and two floor samples (D-E-B-12 and D-W-B-12)(Figure 11). Confirmation soil samples were analyzed for GRPH by Method NWTPH-Gx, DRPH and ORPH by Method NWTPH-Dx, and VOCs by EPA Method 8260B. Analytical results indicated that confirmation soil samples did not contain concentrations of GRPH, DRPH, ORPH and/or VOCs that exceeded the laboratory reporting limits (Tables 2 and 3, Hart Crowser 2008).

5.6 SURFACE SOIL AREA

In March 2006, three samples (SS-1, SS-2, and SS-4) were collected from a yellow material observed on surface soil proximate to the exterior southwest corner of the former Pace Main Building, which was under demolition at the time. The yellow material covered approximately 300 square feet. The samples were analyzed for GRPH by Method NWTPH-Gx, DRPH and ORPH by Method NWTPH-Dx, VOCs by EPA Method 8260B, metals by EPA Methods 7010 and 7471, and SVOCs by EPA Method 8270. Analytical results indicated sample SS-1 contained concentrations of PCE, naphthalene, 1,2,4-trimethylbenzene (1,2,4-TMB), and 1,1,2,2-tetrachlorethane (1,1,2,2-TCA) ranging from 68 to 1,500 µg/L, which exceeded the MTCA Method A or B cleanup levels. Sample SS-4 contained concentrations of 1,2,4-TMB, 1,1,2,2-TCA, toluene, total xylenes, PCE, TCE and mineral spirits at concentrations ranging from 65 to 1,200 µg/L, which exceeded MTCA Method A or B cleanup levels (Tables 2 and 3). Concentrations of the remaining VOCs, GRPH, DRPH, ORPH, metals, and SVOCs from SS-1 and SS-4 were below the MTCA Method A and/or B cleanup levels or laboratory reporting limits. No contaminants were detected in sample SS-2 at concentrations in exceedance of MTCA Method A or B cleanup levels.

Based on analytical results for samples SS-1, SS-2, and SS-4, Hart Crowser collected two additional soil samples (YS-WC and YS-EC) from the upper two inches of soil. The samples were analyzed for VOCs by EPA Method 8260B. Concentrations of VOCs in the soil samples were not reported above laboratory reporting limits (Figure 11, Table 3). Hart Crowser did not provide information regarding the final disposition of the yellow material.

5.7 SOIL HANDLING AND DISPOSAL

During the interim remedial action of 2006, soil excavated from Areas A through Area D was stockpiled at the Site. Prior to off-Site disposal of the excavated soil, performance confirmation soil samples were collected from each stockpile. A total of 102 discrete stock pile soil samples were collected. Stockpile soil samples were analyzed for GRPH by Method NWTPH-Gx, DRPH and ORPH by Method NWTPH-Dx, and VOCs by EPA Method 8260B. Selected stockpile soil samples were submitted to the laboratory for Toxicity Characteristic Leach Procedure test by EPA Method 1311. Analytical results for stockpile soil samples are presented in the Hart Crowser 2008 interim remedial action report (Hart Crowser 2008).

Based on analytical results for performance samples, soil stockpiles were designated for off-Site disposal or reuse as backfill at the Site. Approximately 5,840 tons of contaminated soil were disposed of off the Site at Waste Management in Seattle, Washington. Approximately 2,600 tons of clean imported fill material were used to backfill the excavations A through D. The excavations were backfilled to grade.

6.0 COMPLIANCE GROUNDWATER MONITORING AND SAMPLING

Quarterly compliance groundwater sampling has been occurring at the Site since December 2006. The purpose of compliance groundwater monitoring is to assess the concentrations of volatile organic compounds in the groundwater at the Site following the 2006 interim actions and to fulfill compliance monitoring requirements in WAC 173-340-410. Compliance monitoring included the installation of groundwater monitoring wells and groundwater sampling by Hart Crowser in 2007 and 2008. SES has conducted groundwater monitoring and sampling at the Site since July 2008. A discussion of well installation and groundwater hydraulic analytical results for groundwater samples is presented below. Analytical results are presented in Tables 6 and 9. Figure 12 presents analytical results for vinyl chloride in groundwater that exceeded the MTCA Method A cleanup level from 2007 through 2010. Analytical results for remaining VOCs analyzed after 2006 were not reported above laboratory reporting limits or did not exceed MTCA Method A and/or B cleanup levels. Monitoring well logs are presented in Appendix A. A detailed discussion of field activities and results for compliance monitoring events is presented in the referenced reports.

6.1 HART CROWSER—WELL INSTALLATION AND GROUNDWATER SAMPLING, 2007 AND 2008

In January 2007, Hart Crowser installed monitoring wells HC-MW-19 through HC-MW-24 (Figure 3). Monitoring well HC-MW-19 was installed in the gravel parking lot located in the northeast corner of the Site proximate to boring SP-V advanced at the Site in September 2006. Monitoring wells HC-MW-20 and HC-MW-24 were installed at the former Underground Storage Tank Area. Monitoring wells HC-MW-22 and HC-MW-23 were installed on the interior and exterior of the northwest corner of the former Pace Main Building, respectively, proximate to boring SP-N advanced at the Site in September 2006 (Figure 3).

Groundwater samples were collected from the monitoring wells in first through fourth quarters 2007 from monitoring wells HC-MW-3, HC-MW-4, HC-MW-7, HC-MW-8, HC-MW-9, HC-MW-10, HC-MW-11, HC-MW-12, HC-MW-17, HC-MW-19, HC-MW-20, HC-MW-21, HC-MW-22, HC-MW-23, HC-MW-24, SB-10, SB-11, SB-14, SB-36, and/or SB-38. Groundwater samples were analyzed for VOCs by EPA Method 8260B. Groundwater samples were collected from monitoring wells HC-MW-3, HC-MW-4, HC-MW-7, HC-MW-8, HC-MW-9, HC-MW-10 through HC-MW-23, SB-10, SB-11, and SB-24 during first quarter 2008. Groundwater samples collected from monitoring wells HC-MW-19 through HC-MW-22 were analyzed for GRPH by Method NWTPH-Gx and for DRPH and ORPH by Method NWTPH-Dx in first and third quarters 2007 and first quarter 2008.

Analytical results for the groundwater monitoring and sampling events were as follows:

- GRPH, DRPH, and OPRH were not detected above laboratory reporting limits in groundwater samples collect from monitoring wells HC-MW-20 and HC-MW-24 during the groundwater monitoring and sampling events (Table 6).
- The analytical results for groundwater samples collected from monitoring wells HC-MW-4, HC-MW-8, HC-MW-9, HC-MW-10, HC-MW-11, HC-MW-21, SB-10, SB-11, and SB-14 in the first through fourth quarter 2007 contained concentrations of vinyl

chloride ranging from 1 to 51 µg/L. These analytical results exceeded the MTCA Method A cleanup level, with the exception of the fourth quarter 2007 result from well HC-MW-9 (Figure 12, Table 9). Wells HC-MW-4 and SB-11 were not sampled during the fourth quarter 2007. In addition, the groundwater samples collected from monitoring wells HC-MW-17 and HC-MW-22 in fourth quarter of 2007 contained vinyl chloride at concentrations of 0.9 and 0.4 µg/L, respectively, which exceeded the MTCA Method A cleanup level (Figure 12, Table 9).

- Groundwater samples collected from monitoring well HC-MW-23 in the first and third quarters 2007 contained vinyl chloride concentrations of 1.5 and 0.6 µg/L, respectively which exceeded the MTCA Method A cleanup level (Figure 12, Table 9).
- Concentrations of vinyl chloride in groundwater samples collected from monitoring well HC-MW-19 in 2007 were not reported above laboratory reporting limit. The laboratory reporting limit is equal to the MTCA Method A cleanup level (Table 9).
- Groundwater samples collected from monitoring wells HC-MW-4, HC-MW-8, HC-MW-9, HC-MW-10, HC-MW-11, HC-MW-14, HC-MW-17, SB-10, and SB-14 in the first quarter 2008 contained concentrations of vinyl chloride ranging from 1.2 to 29 µg/L, which exceeded the MTCA Method A cleanup level (Figure 12, Table 9).
- Concentrations of remaining VOCs, as well as DRPH, ORPH, and/or GRPH in groundwater samples from monitoring wells sampled during the 2007 and 2008 Hart Crowser monitoring events were below MTCA cleanup levels or laboratory reporting limits (Table 9).

6.2 SES—GROUNDWATER SAMPLING, 2008 AND 2009

SES conducted groundwater monitoring and sampling events at the Site on July 9, 2008, and February and May 2009 (SES 2008, 2009a, and 2009c). Field activities were as follows:

- Measuring the depth to groundwater at monitoring wells HC-MW-4, HC-MW-7, HC-MW-8, HC-MW-9, and HC-MW-10 in July 2008 and monitoring wells HC-MW-3, HC-MW-4, HC-MW-6 through HC-MW-24, SB-10, SB-11, and SB-14 in February and May 2009 (Figure 3).
- Collecting groundwater samples from monitoring wells HC-MW-4, HC-MW-7 through HC-MW-10 in July 2008 and groundwater samples from monitoring wells HC-MW-4, HC-MW-7 through HC-MW-11, HC-MW-13, HC-MW-21, SB-10, SB-11, and SB-14 in February and May 2009 (Figure 3).
- Analyzing groundwater samples for CVOCs by EPA Method 8260B. Groundwater samples collected from monitoring wells HC-MW-4, and HC-MW-8 though HC-MW-10 were analyzed for methane, ethane, and ethene in July 2008.

Results from each groundwater monitoring and sampling events are presented below.

6.2.1 Groundwater Monitoring and Sampling, July 2008

In July 2008, monitoring wells HC-MW-11, HC-MW-12, and HC-MW-21 did not contain a sufficient volume of water to sample and collect groundwater samples or measure the depths to groundwater. The depth to groundwater at the Site in July 2008 ranged from 2.40 feet at monitoring well HC-MW-10 to 9.03 feet at monitoring well HC-MW-4. The groundwater elevation ranged from 138.85 at monitoring well HC-MW-9 to 149.72 at monitoring well HC-MW04 (Table 1). A groundwater elevation contour map for July 2008 is presented in the third quarter 2008 groundwater monitoring and sampling report (SES

2008). On July 9, 2008, the direction of groundwater flow at the Site was to the west-northwest (Figure 13). The average hydraulic gradient at the Site was approximately 0.14 feet per foot. Groundwater samples collected from monitoring wells HC-MW-4, HC-MW-8, HC-MW-9, and HC-MW-10 were analyzed for CVOCs by EPA Method 8260B.

Groundwater samples contained concentrations of vinyl chloride ranging from 2.8 to 11 µg/L, which exceeded the MTCA Method A cleanup level (Figure 12, Table 9). Concentrations of the remaining CVOCs in groundwater samples were below MTCA Method A and B cleanup levels or laboratory reporting limits.

6.2.2 Groundwater Monitoring and Sampling, February 2009

The depth to groundwater at the Site in February 2009 ranged from 1.15 feet at monitoring well HC-MW-10 to 12.85 feet at monitoring well HC-MW-11. The groundwater elevation ranged from 140.16 at monitoring well HC-MW10 to 162.83 at monitoring well HC-MW-20 (Table 1). In February 2009, the direction of groundwater flow at the Site was to the west-northwest (Figure 14). The average hydraulic gradient at the Site was approximately 0.070 feet per foot. Groundwater samples collected were analyzed for CVOCs by EPA Method 8260B. Analytical results for groundwater samples were as follows:

- Groundwater samples collected from monitoring wells HC-MW-4, HC-MW-7 through HC-MW11, HC-MW-13, HC-MW-21, SB-10, and SB-11 contained vinyl chloride concentrations ranging from 0.32 to 30 µg/L, which exceeded the MTCA Method A cleanup level (Figure 12, Table 9).
- Concentrations of the remaining CVOCs in groundwater samples were below the MTCA Method A and B cleanup levels or laboratory reporting limits (Table 9).

Results for geochemical and field parameter for the February 2009 groundwater monitoring and sampling event are presented in the *Groundwater Monitoring Report and Sampling Report, First Quarter 2009*, prepared by SES (SES 2009a).

6.2.3 Groundwater Monitoring and Sampling, May 2009

The depth to groundwater at the Site in May 2009 ranged from 0.54 feet at monitoring well HC-MW-10 to 11.90 feet at monitoring well HC-MW-11. The groundwater elevation ranged from 140.77 at monitoring well HC-MW10 to 164.10 at monitoring well HC-MW-20 (Table 1). In May 2009, the direction of groundwater flow at the Site was to the west-northwest (Figure15). The average hydraulic gradient at the Site was approximately 0.10 feet per foot. A groundwater elevation contour map for May 2009 is presented in the second quarter 2009 groundwater monitoring and sampling report (SES 2009c). Groundwater samples collected from monitoring wells analyzed for CVOCs by EPA Method 8260B. Analytical results for groundwater samples were as follows:

- Groundwater samples collected from monitoring wells HC-MW04, HC-MW-7 through HC-MW11, HC-MW-13, SB-10, SB-11, and SB-14 contained vinyl chloride concentrations ranging from 0.51 to 18 µg/L, which exceeded the MTCA Method A cleanup level (Figure 12, Table 9).
- Concentrations of the remaining CVOCs in groundwater samples were below the MTCA Method A and B cleanup levels or laboratory reporting limits (Table 9).

Results for geochemical and field parameter in the May 2009 groundwater monitoring and sampling event are presented in the *Groundwater Monitoring Report and Sampling Report, Second Quarter 2009*, prepared by SES (SES 2009c).

7.0 SUPPLEMENTAL REMEDIAL INVESTIGATION

Between April and June 2010, SES conducted an SRI at the Site to address data gaps identified by Ecology during a review of the *Draft Remedial Investigation Report, Former Pace National Site, 500 7th Avenue South, Kirkland, Washington*, prepared by SES and dated December 14, 2009 (SES 2009d). The SRI was conducted in accordance with the *Supplemental Remedial Investigation Work Plan, Former Pace National Site, 500 7th Avenue South, Kirkland, Washington*, prepared by SES and dated March 1, 2010 (SRI Work Plan) (SES 2010). The SRI work elements included:

- Advancing direct-push borings SB01 through SB06 and SB09 on Moss Bay Vista Condominium Property (MBV Property) located adjacent to the west Property boundary (Figure 3). The borings were advanced to a depth of 10 to 15 feet bgs. Soil samples were not collected for chemical analysis, in accordance with the SRI Work Plan, with the exception of two soil samples collected from boring SB04 at depths of 6.0 and 7.5 feet bgs. The samples were analyzed for DRPH/ORPH by Method NWTPH-Dx. Reconnaissance groundwater samples collected from the borings were analyzed for GRPH and DRPH/ORPH by Methods NWTPH-Gx and NWTPH-Dx, and for CVOCs by EPA Method 8260B. Boring logs are presented in Appendix A.
- Advancing direct-push borings SB07 and SB08 in the 7th Avenue South ROW in April of 2010 (Figure 3). Soil samples were not collected for chemical analysis from these borings, in accordance with the SRI Work Plan. A reconnaissance groundwater sample was collected from the boring SB08 and analyzed for GRPH and DRPH/ORPH by Methods NWTPH-Gx, NWTPH-Dx, respectively, and CVOCs by EPA Method 8260B. A reconnaissance groundwater sample was not collected from boring SB07 because groundwater was not present in the borings at the time of drilling. Boring logs are presented in Appendix A.
- Installing monitoring wells SES-MW25 through SES-MW27 on the MBV Property located adjacent to the west Property boundary (Figure 3). The monitoring wells were installed at depths of 10 feet bgs surface. Soil samples were collected from the borings advanced during the installation of the monitoring wells at depths of 3.5 (SES-MW25), 6.5 (SES-MW26), and 3.5 (SES-MW27) feet bgs. One soil sample from each boring was analyzed for CVOCs by EPA Method 8260B. The soil sample collected from boring/monitoring wells SES-MW27 at a depth of 3.5 feet bgs was also analyzed for DRPH/ORPH by Method NWTPH-Dx. Monitoring well logs are presented in Appendix A.
- Collecting and analyzing groundwater samples from newly installed monitoring wells SES-MW25, SES-MW26, SES-MW27 and existing monitoring wells HC-MW-07, HC-MW-08, HC-MW-09, and HC-MW-10 for CVOCs by EPA Method 8260B.
- Collecting and analyzing groundwater samples from newly installed monitoring wells SES-MW25, SES-MW26, SES-MW27 and existing monitoring wells HC-MW-4, HC-MW-7, HC-MW-8, HC-MW-09, and HC-MW-10 for GRPH and DRPH/ORPH by Methods NWTPH-Gx, NWTPH-Dx, respectively.

Subsurface soil conditions observed in the borings SB01 through SB09 and SES-MW25 through SES-MW27 generally consisted of 3 feet of fill material overlying 3 to 4 feet of silty sand (Figure 5). Underlying the silty sand is approximately 5 feet of interbedded sandy silt to silt. Subsurface soil conditions are similar to those observed in borings advanced at the Property into the

Intermediate and Lower Soil units (Sections 2.4.1.2 and 2.4.1.3); however, the units are much thinner in this area of the Site (Figure 4).

Groundwater elevations measured at the Site during the SRI ranged from 133.93 feet at monitoring well SES-MW25 to 163.27 feet at monitoring well HC-MW-2R (Table 1). The groundwater gradient at the Site was approximately 0.08 feet per foot and the direction of groundwater flow was to the west-northwest (Figure 16).

Analytical results for soil, groundwater, and reconnaissance groundwater samples collected during the SRI were as follows:

- DRPH was detected at a concentration of 3,400 mg/kg in a soil sample collected from boring SB04 at a depth of 6.0 feet bgs (Figure 6, Table 2). The concentration exceeds the MTCA Method A cleanup level. Concentrations of DRPH and ORPH in remaining soil samples analyzed were not detected above laboratory reporting limits and/or below MTCA Method A cleanup levels (Table 2).
- DRPH and ORPH were detected at concentrations of 15,000 and 970 µg/L in reconnaissance groundwater samples collected from borings SB04 and SB08, respectively. The concentrations of DRPH and ORPH in all remaining reconnaissance groundwater samples were not reported at concentrations above laboratory reporting limits (Table 6).
- Concentrations of CVOCs in soil samples collected from boring/monitoring wells SES-MW25 through SES-MW27 were not reported above laboratory reporting limits. The laboratory reporting limits were equal or less than the MTCA Method A and B cleanup levels (Table 3).
- Concentrations of CVOCs in reconnaissance groundwater samples collected from borings SB01 through SB09 were not reported above laboratory reporting limits (Table 9).
- Vinyl chloride was detected in groundwater samples collected from monitoring wells HC-MW-7, HC-MW-8, HC-MW-9, and HC-MW-10 at concentration ranging from 0.89 to 16 µg/L (Figure 12, Table 9). The concentrations exceed the MTCA Method A cleanup level. Concentrations of CVOCs in all remaining groundwater samples were not reported above laboratory reporting limits and/or concentrations did not exceed MTCA Method A and B cleanup levels or where applicable the federal and state maximum contaminant levels (MCLs).
- Concentrations of DRPH and ORPH in all remaining groundwater samples were not reported above laboratory reporting limits (Table 6).

8.0 TERRESTRIAL ECOLOGICAL EVALUATION RESULTS

Terrestrial Ecological Evaluation (TEE) is required by WAC 173-340-7940 at sites where there has been a release of a hazardous substance to soil. The regulation requires that one of the following actions be taken:

- Documenting a TEE exclusion using the criteria presented in WAC 173-340-7491;
- Conducting a simplified TEE in accordance with WAC 173-340-7492; or
- Conducting a site-specific TEE in accordance with WAC 173-340-7493.

The Site qualifies for TEE exclusion based on WAC 173-340-7491. The results of ranking for the simplified TEE under Table 749-1 MTCA yield a score of 12, which qualifies the Site for TEE exclusion under the criteria set forth in WAC 173-340-7492. No further consideration of ecological impacts is required under MTCA. The simplified TEE score sheet for the Site is presented in Appendix C.

9.0 DATA QUALITY AND USABILITY

Data validation was conducted on current and past laboratory reports provided with each subsurface investigation, interim remedial action, RI, and groundwater monitoring and sampling report prepared by SES and others. Analytical results were evaluated for holding times, blank contamination, and accuracy and precision using quality control limits (QC limits) provided by the laboratory at the time an analysis was performed. Analytical results reviewed included VOCs, SVOCs, GRPH, DPRH, ORPH, pesticides, herbicides, alcohols, and metals for soil and/or groundwater. Results from data validation of laboratory reports are as follows:

- Methylene chloride and/or bromomethane were found in select method blanks analyzed for VOCs using EPA Method 8260. Based on EPA guidance, positive results for the methyl chloride and bromomethane should not be reported if their concentrations in the field samples were less than or equal to 5 times the amount of the analytes in the blanks. (EPA 1999). Concentrations of methylene chloride and bromomethane in samples were less than 5 times their concentrations in the method blanks. The laboratory reports flagged analytes in samples with associated method blank contamination.
- Surrogate recoveries for organic analyses were generally acceptable. Surrogate recoveries outside QC limits were generally associated with high native concentrations of analytes in the sample matrix. High native concentrations of analytes required dilution of the sample extract, which lead to poor surrogate recoveries. Since other associated QC data were acceptable for laboratory sample batch, no action is required.
- Spike recoveries for organic and inorganic analyses were generally acceptable for matrix spike and laboratory control samples. Spike recoveries outside QC limits were generally attributed to matrix interference or concentrations of analyte substantially greater than the concentration of the spike. No action is required because other QC data were acceptable for the laboratory sample batch.
- Relative percent difference (RPD) for laboratory duplicate samples were generally acceptable. RPDs outside QC limits can generally be associated with soil samples and can be attributed to sample heterogeneity; therefore, no action is required.
- Technical holding times for inorganic and organic analyses were acceptable.
- Laboratory reporting limits for several analytes exceeded their respective MTCA cleanup levels for select investigation and groundwater monitoring events. Cleanup levels that exceed the MTCA cleanup level are colored blue in summary analytical results tables.

Based on the data validation results for the laboratory reports, the analytical results are acceptable to meet the objectives of the RI. Although results for select quality control data were outside QC limits for select laboratory batches, this did not affect the usability of the analytical results. Laboratory reports are presented in Appendix D.

10.0 CONCEPTUAL SITE MODEL

A CSM identifies suspected sources of contamination, affected media, transport mechanisms, contaminant fate, and potential receptors and exposure pathways. A CSM serves as a basis for developing technically feasible cleanup alternatives, and for selecting a final cleanup action. A CSM is dynamic and may be refined throughout implementation of a cleanup action as additional information becomes available.

This section discusses the components of the CSM developed for the Site, based on completion of the various phases of investigation and interim actions conducted by SES and others. Included in the following subsections is a discussion of the former confirmed and suspected source areas, affected media, COCs, contaminant fate and transport, the preliminary exposure assessment, and the CSM summary.

10.1 FORMER CONFIRMED AND SUSPECTED SOURCE AREAS

Former source areas are the locations of releases of the COPCs that have affected soil and groundwater quality at the Site. . The former source areas at the Site include the RUA, FETA, former Underground Storage Tank Area, and the former Pace Main Building. The series of investigations and removal actions conducted at the Site from 1990 through 2006, as previously described, defined the nature and extent of COPCs in the affected media at the former source areas in the soil and groundwater. The analytical results from the confirmation soil samples collected from remedial excavations have demonstrated compliance with MTCA cleanup standards in accordance with WAC 173-340-700. A discussion of each former source area is presented below.

10.1.1 RUA

The former RUA was located at the northeast corner of the Property, adjacent to the former Underground Storage Tank Area (Figure 2). Liquid product was piped from railcars located at the RUA to the UST located in the former Underground Storage Tank Area. In the early 1980s, liquid collected within the former Underground Storage Tank Area was drained through a pipe into a dry well under the railroad tracks at the RUA (Figure 2). Analytical results from soil samples collected during subsurface investigations or the RI indicated concentrations of PCE, TCE, mineral spirits, and DRPH were present in the subsurface soils at concentrations that exceeded MTCA Method A cleanup levels (Figure 5, Tables 2 and 3). Analytical results indicated that reconnaissance groundwater and groundwater samples collected at the RUA contained concentrations of arsenic, cis-1,2-DCE, PCE, TCE, and vinyl chloride that exceeded MTCA Method A cleanup levels (Figure 10, Tables 9 and 10). Detailed discussions of the investigations conducted at the RUA are presented in Sections 3.0 through 5.0 of the RI/FS.

Interim source control remedial actions conducted in 2000 and 2006 removed contaminated soil at the RUA (Figure 11). The 2000 and 2006 interim remedial actions were conducted by Galloway (Section 3.6 of the RI/FS) and Hart Crowser (Section 5.4 of the RI/FS), respectively. Based on analytical results from previous investigations, the COPCs at the RUA were identified as petroleum hydrocarbons and VOCs. At total of 18 confirmation samples collected by Galloway and Hart Crowser ranged in depth from 3 to 8 feet bgs and 5 to 17 feet, respectively (Tables 2 and 3). Confirmation soil samples are identified in Figure 11, Tables 2 and 3, and Section 5.0 of the RI/FS, Analytical results indicated that confirmation soil samples did not contain concentrations of GRPH, DRPH, ORPH, and VOCs that exceeded MTCA Method A and/or B cleanup levels or laboratory reporting limits (Tables 2 and 3).

10.1.2 FETA

The former FETA included an oil/water separator in combination with a 1,000-gallon underground flow-through ecology tank and was formerly located at the northwest corner of the former Pace Main Building (Figure 2). The oil/water separator had a capacity of 500 gallons and was constructed of solid concrete. A 4-inch–diameter overflow pipe extended from near the top of the oil/water separator to the 1,000 gallon UST. Oil was skimmed off the top of the water and was recycled. Treated water was pumped to the UST, tested to meet discharge limits, and discharged to the municipal sewer. Reportedly, the oil/water separator was last used in the late 1980s.

The FETA was removed in 1999 by PSCI Environmental (Section 3.4 of the RI/FS). Analytical results for soil samples collected from the remedial excavation contained concentrations of chlordane, heptachlor, PCP, and/or 4,4-DDD below MTCA Method B cleanup levels (Tables 4 and 8). In August 1999, Galloway excavated additional soil at the FETA to remove soil containing residual contamination and collected 5 confirmation soil samples (Section 3.5 of the RI/FS). Analytical results for confirmation soil samples collected from the excavation after removal of contaminated soil indicated that concentrations of PCP and pesticides in the soil were below MTCA Method A and/or B cleanup levels (Tables 4 and 8). Confirmation soil samples are identified on Figure 8 and in Tables 4 and 8.

In 2003 and 2004 subsurface investigations conducted at FETA included advancing soil borings and collecting reconnaissance groundwater samples. Analytical results indicate that soil samples collected from boring SP-5 advanced at the FETA in 2003 contained PCE at a concentration above the MTCA Method A cleanup level (Table 3). In 2006, vinyl chloride was detected in groundwater sample collected from monitoring well HC-MW-6 located downgradient of the FETA at a concentration equal to the MTCA Method A cleanup level (Table 9). A detailed discussion of the investigation and analytical results are presented in Section 4.0 of the RI/FS.

10.1.3 Underground Storage Tank Area

The former Underground Storage Tank Area included 14 USTs located at the northeast corner of the former Pace Main Building (Figure 2). The USTs had capacities of 1,000 to 8,000 gallons and contained solvents, glycol, fatty acids, and petroleum products. The USTs were removed in 1990. Analytical results of confirmation soil samples collected from the UST excavation did not contain concentrations of COPCs at concentrations above MTCA Method A and/or B cleanup levels (Tables 2 through 5). Detailed discussions of the analytical results are presented in Section 4.0 of the RI/FS.

From 2003 to 2006 investigations conducted at the former Underground Storage Tank Area included advancing soil borings and installing monitoring wells. Soil samples collected from borings SB-8 and SP-21 advanced in the former Underground Storage Tank Area at depths of 8 and 10 feet bgs contained concentrations of GRPH and mineral spirits that exceeded the MTCA Method A cleanup levels (Figure 5, Table 2). Reconnaissance groundwater samples collected from borings SP-Q, SP-21, SP-29, SB-8 advanced in the former Underground Storage Tank Area contained concentrations mineral spirits, DRPH, ORPH, chloromethane, and/or vinyl chloride that exceeded MTCA Method A or B cleanup levels (Figure 10, Tables 6 and 9). Detailed discussions of the analytical results are presented in Section 4.0 of the RI/FS.

The interim remedial action conducted by Hart Crowser in 2006 excavated contaminated soil at the former Underground Storage Tank Area (Figure 11, Section 5.0 of the RI/FS). Analytical results for confirmation soil samples collected in the excavation area indicated that concentrations of GRPH, DRPH, ORPH and VOCs did not exceed MTCA Method A and/or B cleanup or laboratory reporting limits (Tables 2 and 3). A detailed discussion of the 2006 interim remedial action at former Underground Storage Tank Area is presented in Section 5.0 of the RI/FS. Confirmation soils samples are identified on Figure 11 and in Tables 2 and 3.

In 2007, monitoring wells HC-MW-20 and HC-MW-24 were installed at or proximate to the former Underground Storage Tank Area and groundwater was sampled for selected COPCs (Figure 12). Groundwater samples did not contain concentrations of COPCs at concentrations above laboratory reporting limits (Tables 6 and 9). A detailed discussion of the 2007 groundwater sampling results for the former Underground Storage Tank Area is presented in Section 4.0 of the RI/FS.

10.1.4 Pace Main Building and Drum Storage Yard

The former Pace Main Building and Drum Storage Yard occupied the east half of the Property. The Pace Main Building was demolished in 2006. Investigations were conducted at the former Pace Main Building and Drum Storage Area in 1990, 2003, and 2006 (Figure 3). An interim remedial action was conducted on a portion of the former Pace Main Building in 2006 to remove contaminated soil (Figure 11). Groundwater monitoring and sampling were conducted at the former Pace Main Building and Drum Storage Yard in 2007 and 2008.

Analytical results from soil samples collected from borings advanced at the former Pace Main Building did not contain concentrations of COPCs that exceeded MTCA Method A or B cleanup levels and/or laboratory reporting limits. PCE was detected in a near surface soil samples collected from boring HA-3 advanced in the Drum Storage Yard (Figure 5, Table 3). Analytical results from a groundwater sample collected from monitoring well SB-1 and reconnaissance groundwater samples collected from borings SP-D, SP-E, SP-G, SP-I through SP-L, SP-0, SP-S, and SP-10 between 2003 and 2006 contained concentrations of vinyl chloride that exceeded the MTCA Method A cleanup level (Figure 10, Table 9). Detailed discussions of the investigations conducted at the former Pace Main Building and the Drum Storage Yard are presented in Sections 3.0 and 4.0 of the RI/FS.

The interim remedial action conducted in 2006 excavated soil containing PCE from beneath the north central portion of the former Pace Main Building (Figure 11). Analytical results showed that confirmation soil samples collected from the excavation area did not contain concentrations of GRPH, DRPH, ORPH, and VOCs above laboratory reporting limits (Tables 2 and 3). A detailed discussion of the interim remedial action is presented in Section 5.0 of the RI/FS. Confirmation soils samples are identified on Figure 11 and in Tables 2 and 3.

In February 2008, groundwater samples were collected from monitoring well HC-MW-21 and HC-MW-22 located at the former Pace Main Building. The groundwater collected did not contain concentrations of selected COPCs that exceeded MTCA Method A cleanup levels or laboratory report limits (Figure 12, Table 6 and 9). In February 2009, vinyl chloride was detected in groundwater at monitoring well HC-MW-21 at a concentration that exceeded the MTCA Method A cleanup level (Figure 12). In May 2009, vinyl chloride was not detected in groundwater at monitoring well HC-MW-21 above the laboratory reporting limit (Figure 12, Table 9). Detailed discussions of the groundwater analytical results are presented in Sections 5.0 and 6.0) of the RI/FS.

10.2 AFFECTED MEDIA

Based on results from previous investigations, removal actions, and the RI, concentrations of PCE, TCE, GRPH, DRPH, and/or ORPHs have been previously confirmed in soil and/or groundwater at former RUA, former Underground Storage Tank Area, FETA, and/or former Pace Main Building and Drum Storage Yard at concentrations that exceeded MTCA Method A and/or B cleanup levels. The distribution of these contaminants in the affected media has been investigated sufficiently for definition of the Site under the MTCA, for identification of media of concern for future cleanup, and for evaluation of recommendations of remedial alternatives. A discussion of the affected media is presented below.

10.2.1 Soil

Investigations conducted at the Site from 1990 to 2006 delineated the nature and extent of COPCs in soil at the Site. Analytical results for soil samples collected during these investigations eliminated pesticides, herbicides, SVOCs, metals, and alcohols as COPCs because their concentrations in soil were below applicable MTCA cleanup levels and/or laboratory reporting limits. Results from the investigations did identify concentrations of PCE, TCE, GRPH, DRPH, and/or ORPH in subsurface soil with concentrations above MTCA Method A unrestricted cleanup levels in the RUA, Underground Storage Tank Area, FETA, and/or the former Pace Main Building.

Soil containing concentrations of PCE, TCE, GRPH, DRPH, and/or ORPH above MTCA cleanup levels was removed during interim remedial actions conducted at the RUA, FETA, former Underground Storage Tank Area, and the former Pace Main Building. Analytical results for at total of 79 confirmation soil samples collected from the remedial excavations at RUA, FETA, former Underground Storage Tank Area, and the former Pace Main Building indicate that soil containing concentrations of PCE, TCE, GRPH, DRPH, ORPHs, and/or PCP above MTCA cleanup levels has been removed. Confirmation soil sample locations are shown on Figures 7 and 11 and analytical results are presented in Tables 2, 3, 4, and 8. Based on results from the investigations and interim remedial actions, soil is not a media of concern at the Site.

10.2.2 Groundwater

Shallow groundwater beneath the Site occurs in the Intermediate Soil Unit as described in Section 2.4.1.2 of the RI/FS. Underlying the Intermediate Soil Unit is the Lower Soil Unit which is present at depths of 10 to 15 feet bgs at the Site and has been reported to extend to a depth of approximately 37 feet bgs and is up to 32 feet thick in borings advanced adjacent to and east of the Site. Beneath the Lower Soil Unit is a Deep Water-Bearing Zone that is characterized by confined artesian flow conditions. Discussions of the Intermediate Soil Unit and Deep Water-Bearing Zone as affected media for the Site are presented below.

Intermediate Soil Unit

Investigations conducted at the Site between 1990 and 2006 eliminated SVOC, pesticides, herbicides, metals, and alcohols in groundwater as COPCs because they were not detected in groundwater and/or reconnaissance groundwater samples at concentrations that exceed MTCA Method A or B drinking water cleanup levels. In addition, these compounds were not detected at concentrations above MTCA Method A and B unrestricted soil cleanup levels and/or were not reported at concentrations above laboratory reporting limits in soil samples collected during investigations or interim remedial actions (Tables 2 through 13, Sections 3.0, 4.0, and 5.0 of the RI/FS).

Analytical results for groundwater and reconnaissance groundwater samples collected from monitoring wells and direct push borings, respectively, indicated that groundwater containing concentrations of PCE, TCE, cis 1,2-DCE, vinyl chloride, GRPH, DRPH, and/or ORPHs above MTCA Method A cleanup levels was present proximate to the former Underground Storage Area and RUA prior to the 2006 interim remedial action (Figure 10). After the 2006 interim remedial actions at the Site, analytical results for groundwater samples collected from groundwater monitoring wells installed proximate to the RUA, FETA, former Underground Storage Tank Area, former Pace Main Building and Drum Storage Yard, and downgradient at the former Pace Main Building show that concentrations of PCE, TCE, GRPH, DRPH, and/or ORPH are below MTCA Method A cleanup levels and/or laboratory reporting limits (Figure 12, Tables 6 and 9).

The long term effectiveness of the interim actions, based on 4 quarters of groundwater compliance monitoring, has only been confirmed for VOCs at monitoring wells HC-MW-6, HC-MW-12, HC-MW-20, HC-MW-22, and HC-MW-24 (Figure 12). Concentrations of vinyl chloride in all remaining monitoring wells either have exceeded the MTCA Method A cleanup level for multiple groundwater monitoring events or 4 quarters of compliance monitoring have not shown that concentrations of vinyl chloride are below the MTCA Method A cleanup level. In addition, 4 quarters of compliance groundwater monitoring for petroleum hydrocarbons has not yet been performed at the Site (Figure 12). Based on groundwater analytical results from compliance monitoring, groundwater remains a media of concern.

Deep Water-Bearing Zone

The Deep Water-Bearing Zone underlies the Lower Silt Unit and is a confined aquifer based on the fact that groundwater from two monitoring wells screened in the Deep Water-Bearing Zone at the former Sauder Door are under artesian flow. Given the low permeability of the Lower Silt Unit and its relative thickness (observed to be up to 32 feet thick on adjacent Sauder Door property) and vertical upward gradient created by artesian flow conditions in the Deep Water-Bearing Zone, it is unlikely that contaminated groundwater in the overlying Intermediate Soil Unit has impacted groundwater quality in the Deep Water-Bearing Zone beneath the Site. As a result, groundwater in the Deep Water-Bearing Zone is not a media of concern.

10.2.3 Indoor and Ambient Air

The presence of vinyl chloride in Site groundwater at concentrations that exceed the MTCA Method A cleanup level may, depending on a variety of site specific factors, result in vapor emissions that can impact indoor air quality. Based on the current extent of the vinyl chloride groundwater plume, impacts to indoor air quality, if present, would be confined to the west half of the Property where concentrations of vinyl chloride exceed the MTCA Method A cleanup level. No buildings are located on the Property and as such the indoor air pathway of exposure is not complete. Vinyl chloride was not detected in groundwater samples collected from off-Property downgradient monitoring wells SES-MW25 through SES-MW27 located approximately 80 feet from the west boundary Property. These analytical results suggest that impacts to indoor air quality at the MBV Property are unlikely or absent. Ambient (outdoor) air is not considered an affected media because vinyl chloride vapor present in the outdoor air would be dispersed by convective winds and/or quickly destroyed by photodegradation.

10.3 CHEMICALS OF CONCERN

The COCs for the cleanup action at the Site are the chemical constituents that were detected in affected media at concentrations that exceeded MTCA Method A and B cleanup levels. Analytical results from subsurface investigations, interim remedial actions, and compliance monitoring have shown that concentrations of PCE, TCE, cis 1,2-DCE, vinyl chloride, GRPH, DRPH, ORPH, and arsenic exceeded MTCA Method A and B cleanup levels in soil and/or groundwater. Arsenic can be eliminated as a COC in groundwater at the Site because the concentration of arsenic in groundwater since the October 2003 interim removal action at the former RUA has not exceeded the MTCA Method A cleanup level (Table 10). In addition, the groundwater sample collected from monitoring well HC-MW-6 located downgradient of the RUA in March 2004 did not contain a concentration of arsenic above the laboratory reporting limit (Table 10).

Concentrations of remaining VOCs, SVOC, metals, pesticides, herbicides, and alcohols in groundwater and soil at the Site can be eliminated as COCs because their concentrations did not exceed the MTCA Method A and B cleanup levels in soil and/or groundwater samples collected during subsurface investigations or confirmation soil samples collected during interim remedial actions conducted at the Site (Tables 2 through 13; Sections 3.0, 4.0, and 5.0 of the RI/FS). In addition, confirmation soil samples collected from interim remedial actions have confirmed that concentrations of PCE, TCE, cis 1,2-DCE, vinyl chloride, GRPH, DRPH, and ORPH in soil at the are below MTCA Method A and B cleanup levels. Therefore, the COC for the Site is, vinyl chloride, in groundwater.

10.4 CONTAMINANT FATE AND TRANSPORT

This section discusses the fate and transport characteristics of vinyl chloride in groundwater at the Site that are relevant to the evaluation of potential remedial technologies. Vinyl chloride is a degradation product of PCE, TCE, cis-1,2-DCE, and trans-1,2-dichloroethene (trans-1,2-DCE). Analytical results for groundwater samples collected after 2006 have not contained concentrations of PCE, TCE, cis-1,2-DCE, and trans-1-2-DCE above MTCA Method A and B levels. Because the environmental fate and transport characteristics of PCE, TCE, cis-1,2-DCE, and trans-1-2-DCE are similar to vinyl chloride, vinyl chloride will be the focus of the discussions of contaminant fate and transport.

10.4.1 Transport Mechanism Affecting Distribution of Vinyl Chloride in the Subsurface

Concentrations of vinyl chloride in groundwater in the Intermediate Soil Unit have been transported from source areas and distributed throughout the Site by advective and dispersive transport mechanisms (Figure 4). These transport mechanisms impact the downgradient and lateral extent of vinyl chloride in the groundwater. Based on aquifer test results, the mean groundwater velocity (geometric mean) at the Site is approximately 44 ft/yr (Hart Crowser 2006b). The presence of groundwater in the Intermediate Soil Unit is sporadic in some areas of the Site, based on the fact that some monitoring wells are periodically dry, which may indicate groundwater flow in the Intermediate Soil Unit is not uniform and may flow in discrete preferential pathways.

Prior to the 2006 interim remedial action, analytical results for reconnaissance and groundwater samples indicate that the vinyl chloride groundwater plume extended from the east to west boundaries of the Site. Figure 17 shows the extent of the vinyl chloride groundwater plume prior to the 2006 interim remedial action; the boundaries of the plume are based on the MTCA Method A cleanup level for vinyl chloride (0.2 µg/L).

Since 2006, analytical results for groundwater samples have shown that the vinyl chloride groundwater plume is now confined to an area downgradient of the former Pace Main Building (Figure 18), with a small isolated plume near the northwest corner of the former Pace Main Building. The boundaries of the plume are based on the MTCA Method A cleanup level for vinyl chloride.

10.4.2 Environmental Fate in the Subsurface

In groundwater chemical attenuation processes, such as hydrolysis, direct mineralization, and reductive dehalogenation, may affect the vinyl chloride resulting in a breakdown of the vinyl chloride into non-toxic components, such as chloride, ethene, and carbon dioxide. Biologically mediated attenuation processes, such as reductive dechlorination and oxidation, also may affect the reduction of vinyl chloride in groundwater under conducive groundwater conditions. If degradation of vinyl chloride is occurring, ethene and ethane should be present in the groundwater.

The presence of vinyl chloride in the groundwater at the Site indicates that PCE and TCE were present in the groundwater at the Site at one time and that biological and potentially chemical attenuation have degraded PCE and TCE to vinyl chloride. This conclusion is supported by the presence of PCE and TCE in groundwater at the RUA and the former Underground Storage Tank Area prior to the 2006 interim remedial action. Analytical results from the February 2009 groundwater monitoring sampling event indicated the presence of vinyl chloride and absence of ethane and ethene in the groundwater at downgradient monitoring wells HC-MW-8, HC-MW-9, and HC-MW10 (Figure 3, SES 2009a). The absence of ethane and ethene suggests that conditions in the groundwater are not conducive to the degradation of vinyl chloride. Under these present conditions, in situ treatment may be required for the degradation of residual vinyl chloride in the groundwater.

10.4.3 Predictive Modeling

Based on groundwater analytical results from 2010, the downgradient extent of the vinyl chloride groundwater plume at the Site is located between the west Property boundary monitoring wells HC-MW-7 through HC-MW-10 and downgradient monitoring wells SES-MW25 through SES-MW27 located approximately 80 feet west of the Property boundary (Figure 18, Table 9). To predict the downgradient extent of vinyl chloride plume, the EPA BIOCHLOR Model was used. BIOCHLOR is a screening model that simulates remediation by natural attenuation of dissolved solvents in groundwater (EPA 2000). BIOCHLOR uses an analytical solute transport model with sequential first-order decay for simulating in situ biotransformation (EPA 2000). The model will predict the maximum extent of dissolved-phase plume migration, which may then be compared to the distance to potential points of exposure.

To simulate the transport of vinyl chloride at the Site using the BIOCHLOR Model, the following assumptions were used:

- The hydraulic conductivity of groundwater in the Intermediate Soil Unit at the Site is 5.3×10^{-4} centimeters per second, the hydraulic gradient is 0.09 feet per foot, and the effective porosity is 0.25. Hydraulic conductivity is based on aquifer test data for monitoring well HC-MW-9, the average hydraulic gradient of the Site, and estimated effective porosity (Hart Crowser 2006b).
- The longitudinal, lateral, and vertical dispersion within the Intermediate Soil Unit were derived using the following equations (EPA 2000):

    - Longitudinal Dispersion (Ld) = 0.1 Lp; where Lp is the predicted length of the plume or model area length. For the Site model area, length was assumed to be 160 feet, which is the approximate distance from monitoring well HC-MW-9 to monitoring well DWMW-2.
    - Lateral Dispersion = 0.33 x Ld.
    - Vertical Dispersion = 0.025 x Ld.
- Vinyl chloride is not degrading in groundwater by natural attenuation processes (i.e., no first order decay) and a constant source for vinyl chloride is present at the west Property boundary. These are conservative assumptions given the fact that the vinyl chloride groundwater plume is independent of a source area (i.e., no active source is likely present) and intrinsic biodegradation is likely occurring based on sampling results.
- The vinyl chloride groundwater plume originates at the western boundary of the Property at monitoring wells HC-MW-7 through HC-MW-10. The model area is 160 feet long and 110 feet wide. The length of the model area is the approximate distance from monitoring well HC-MW-9 to downgradient monitoring well DWMW-2. The width of the model area is the distance between monitoring wells HC-MW-7 through HC-MW-10, located at the west Property boundary.
- The source thickness of the shallow groundwater in the Intermediate Soil Unit is 10 feet, which is based on the length of the well screen for monitoring wells HC-MW-7 through HC-MW-10.
- The concentration of vinyl chloride in the Intermediate Soil Unit at the west boundary of the Property is 16 µg/L. This was the concentration of vinyl chloride in groundwater at monitoring well HC-MW-8 in June 2010 (Figure 12).
- The model simulation time is 10 years.

Modeling results indicate that in 10 years, the concentration of vinyl chloride 80 feet downgradient of monitoring well HC-MW-8 is less than 1 µg/L. This result is conservative because the model was designed with a constant source for vinyl chloride at the west Property boundary, when in reality the plume is independent of a source area (no known active sources) and is likely being attenuated by advection and dispersion processes as well as limited intrinsic biodegradation. This conclusion is verified by the fact that vinyl chloride has not been reported at concentrations above laboratory report limits in groundwater samples collected from downgradient monitoring wells SES-MW-25 through SES-MW27 located approximately 80 feet downgradient of the west Property boundary. Model input parameters and results are presented in Appendix E.

10.5 PRELIMINARY EXPOSURE PATHWAY

The two types of risk for exposure at the Site are terrestrial ecological risk and human health risk. Because the Site qualifies for a TEE exclusion based on WAC 173-340-7491, mitigating the potential human health risk, if any, associated with exposure to the vinyl chloride in the affected medium at the Site will be the primary objective of any cleanup action implemented. This subsection presents the evaluation and conclusions pertaining to the exposure pathways at the Site.

10.5.1 Soil Pathway

The residual concentrations of CVOCs, GRPH, DRPH, and ORPH in soil at the Site are protective of the soil direct contact pathway, the soil-to-groundwater pathway, and the vapor exposure pathway, based on the results of interim remedial actions conducted in 2006 at the Site. Therefore, soil is not a pathway of concern at the Site.

10.5.2 Groundwater Pathway

Potential exposure pathways for groundwater include the direct contact pathway, comprised of the dermal contact and ingestion pathways. There are no groundwater supply wells at or within a 0.5-mile radius of the Site that are used for potable water supply. Based on the shallow depth of groundwater at the Site, dermal contact with contaminated groundwater may occur during redevelopment activities. A construction contingency plan would be developed for handling potentially contaminated groundwater during future construction, as necessary.

10.5.3 Vapor Pathway

The presence of the vinyl chloride in groundwater at the Site at concentrations that exceed the MTCA Method A cleanup level may, depending on a variety of Site specific factors, indicate an exposure pathway for vinyl chloride intrusion to indoor and outdoor air. Currently, there are no structures on the Property for vapor accumulation in indoor air. The Property may eventually be developed for residential or commercial use. If residual concentrations of vinyl chloride remain in the groundwater when the Property is redeveloped, it may be necessary to evaluate the inhalation pathway for indoor air.

Vinyl chloride vapors that may be present in outdoor air at the Site would be dispersed by convective winds and/or quickly destroyed by photodegradation. Therefore, there is no exposure pathway for vinyl chloride in the outdoor air is present at the Site.

10.6 CONCEPTUAL SITE MODEL SUMMARY

A release of CVOCs and petroleum hydrocarbon constituents at the Site proximate to the former Underground Storage Tank Area, RUA, and FETA, has been confirmed in soil and/or groundwater (Figures 7, 8, 9, and 11). Soil contamination was generally observed to the Upper Soil Unit which is primarily composed of fill material. Groundwater at the Site is present in the Intermediate Soil Unit which underlies the Upper Soil Unit and is composed of interbedded gravel, sand, and silt. Monitoring wells at the Site are screened in the Intermediate Soil Unit (Figure 4). The presence of groundwater in the Intermediate Soil Unit is sporadic in some areas of the Site based on the fact that some monitoring wells are periodically dry (Table 1). Groundwater flows to the west-northwest with groundwater velocities in the eastern and western portions of the Site ranging from 11 to 102 ft/yr and 20 to 164 ft/yr, respectively (Figures 13 through 16). Groundwater in the Intermediate Soil Unit is perched on the underlying Lower Soil Unit which is composed of a mixture of silty sand and sandy silt (Figure 4).

Prior to the 2006 interim remedial action, CVOCs, GRPH, DRPH, and/or ORPH were present in Site soil and groundwater at concentrations that exceeded MTCA Method A and/or B cleanup levels (Figures 7, 8, 9, and 11). After 2006, PCE, TCE, GRPH, and DRPH have not been detected in groundwater downgradient of the sources areas at concentrations that exceeded MTCA Method A cleanup levels. PCE and TCE degradation products, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride, have been detected in the groundwater in the source areas and downgradient of the source areas; however, as of 2007, only vinyl chloride concentrations in the groundwater exceeded the MTCA Method A cleanup level on the Property (Figure 12).

Prior to and including 2006, groundwater containing vinyl chloride concentrations which exceed the MTCA Method A cleanup level extended from the east to west boundary of the Site (Figure 17). After the 2006 interim remedial action, analytical results show that groundwater containing concentrations of vinyl chloride that exceeded the MTCA Method A cleanup level is confined to the area downgradient of the former Pace Main Building (Figure 18). The decrease in the size of the vinyl chloride groundwater plume since 2006 suggests that interim remedial actions eliminated the soil-to-groundwater pathway for CVOCs and that residual vinyl chloride plume is migrating downgradient independent of the former source area. Simulation of migration of the vinyl chloride plume in the Intermediate Soil Unit using the BIOCHLOR Model estimates that over the next 10 years, the concentration of vinyl chloride will be less than 1 µg/L at a distance of 80 feet downgradient of the west Property boundary.

Exposure to contaminated soil through the ingestion, dermal, and vapor pathways is unlikely because the interim remedial actions conducted at the Site have removed soil containing contaminants with concentrations above MTCA Method A and/or B cleanup levels. Ingestion of vinyl chloride-contaminated groundwater at the Site is also unlikely because the aquifer beneath the Site is non-potable and drinking water is supplied by the local municipality. Persons working on subsurface utilities at the Property could potentially receive a limited acute exposure by direct contact with vinyl chloride-contaminated groundwater given the shallow depth to groundwater at the Property. Exposure to vinyl chloride vapors at the Property through the indoor air pathway is unlikely since currently there are no structures on the Property; however, future utility workers working at the Property could receive exposure to vinyl chloride vapors in some areas of the Property if residual concentrations of vinyl chloride remain in the groundwater when the Property is redeveloped. In addition, the indoor air pathway may need to be evaluated if permanent buildings are constructed within or adjacent to the west half of the Property where concentrations of vinyl chloride remain above the MTCA Method A cleanup level (Figure 18).

Vinyl chloride has not been detected above laboratory reporting limits in reconnaissance groundwater samples collected proximate to utility corridors in the BNSF Railway ROW and in 7^{th} Avenue South (Table 9). ORPH was detected in reconnaissance groundwater samples collected in the 7^{th} Avenue South ROW; however, the source of the OPRH is most likely subsurface utilities and not the Site because ORPH has not been detected at concentrations above laboratory reporting limits groundwater samples collected from monitoring wells located upgradient and crossgradient of the 7^{th} Avenue South ROW (Figure 18).

11.0 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Cleanup of the Site will be conducted under the Consent Decree to be negotiated between Ultra and Ecology after submittal and approval of the Feasibility Study to Ecology. Although Ecology will be the lead agency for compliance, the cleanup action will also be conducted in accordance with local permit requirements.

The preliminary ARARs related to the cleanup action include:

- MTCA, Chapter 70.105, of the Revised Code of Washington (RCW 70.105).
- Cleanup and Monitoring Provisions of MTCA, WAC 173-340.
- Water Quality Standards for Ground Waters of the State of Washington, WAC 173-200.
- Washington State Hazardous Waste Management Act, RCW 70.105.

- Washington State Dangerous Waste Regulations, WAC 173-303.
- Washington State Environmental Project Action, WAC 197-11.
- Puget Sound Clean Air Agency, Regulation I, Article 6.
- Underground Injection Control WAC 173-218.

These primary ARARs are anticipated to be most applicable to the cleanup action because they provide the framework for the cleanup action, including applicable and relevant regulatory guidelines, cleanup standards, waste disposal criteria, references for additional ARARs, and standards for documentation of the cleanup action.

Other ARARs related to the cleanup action include:

- Occupational Safety and Health Act, Part 1910 of Title 29 of the Code of Federal Regulations.
- Safety Standards for Construction Work, WAC 296-155.
- Minimum Standards for Construction and Maintenance of Wells, WAC 173-160.
- Washington State Solid Waste Management Laws and Regulations, RCW 70.95, and WAC 173-351 and 173-304.
- Accreditation of Environmental Laboratories, WAC 173-50.

12.0 DATA GAPS

The RI and SRI provide sufficient information to meet the requirements under the MTCA and the AO for completion of the remedial investigation at the Site. In addition, data collected during the RI and SRI provides sufficient information regarding the Site to select a cleanup action. Therefore, there are no remaining data gaps for the Site.

13.0 FEASIBILITY STUDY

The purpose of the FS is to develop and evaluate remedial alternatives for the Site and to facilitate selection of a final remedial action in accordance with WAC 173-340-350(8) and the AO. The FS typically includes an extensive development, screening, and evaluation process for numerous remedial alternatives. However, because the Site-specific condition precludes many potential remedial alternatives from application at the Site, the evaluation, in consultation with Ecology, focused on a limited number of potential remediation technologies that are most likely capable of achieving remediation of the affected media. The evaluated technologies were as follows:

- Oxygen Release Compound (ORC®)
- EHC® Reactive Barrier Wall
- In situ Bioaugmentation
- Natural Attenuation and Monitoring
- Air Sparge (AS) with Soil Vapor Extraction (SVE)

The capability of EHC® and bioaugmentation to remediate vinyl chloride in the groundwater at the Site was evaluated using in-field pilot testing to assist in recommending a final cleanup action for the Site in accordance with WAC 173-340-360 through 173-340-390. ORC® technology was implemented at the Site as a potential full scale remedy for the cleanup of vinyl chloride. Results from the RI/FS are intended to provide sufficient information to enable Ecology and Ultra to reach concurrence on the selection of a final cleanup action. SES will present the final cleanup action in the CAP.

13.1 EVALUATION OF FEASIBLE REMEDIAL ALTERNATIVES

SES evaluated remediation technologies for the Site with respect to the cleanup requirements set forth in MTCA and the AO. The FS considered the requirements under WAC 173-340-350, Site-specific conditions, and criteria defined in WAC 173-340-360 for screening of potentially feasible remedial alternatives for the Site. The cleanup alternatives must satisfy all of the following thresholds criteria specified in WAC 173-340-360(2):

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

These criteria represent the minimum standards for an acceptable cleanup action. In addition to meeting the threshold criteria, cleanup actions under MTCA will also accomplish the following:

- Use permanent solutions to the maximum extent practicable;
- Provide for a reasonable restoration time frame; and
- Consider public concerns on the proposed cleanup action alternative.

13.2 REMEDIAL ACTION OBJECTIVES

Remedial action objectives (RAOs) address the primary goals that a remedial action should achieve in order to be retained for further evaluation for the FS. The RAOs for the Site are to eliminate or mitigate potential exposure pathways that pose a potential threat to human health via direct contact and that pose a potential future threat to human health and the environment via the vapor and groundwater pathways. The remedial action should occur in a timely and cost-effective manner that minimizes impacts to the redevelopment of the Property to the maximum extent practicable. The specific goals for the remediation of groundwater at the Site include:

- Reducing the concentrations of vinyl chloride in shallow groundwater proximate to the west Property boundary to below the MTCA Method A cleanup level or to the extent practicable.
- Mitigate potential vinyl chloride vapor from the groundwater to indoor and outdoor ambient air on the Property.

These Site-specific goals, in combination with the interim remedial actions conducted at the Site, will eliminate or mitigate potential exposure pathways that may pose a potential threat to human health.

13.3 ALTERNATIVE EVALUATION PROCESS

This section presents the evaluation of potentially feasible cleanup alternatives with respect to the RAOs established for the Site. Remedial components were identified in accordance with the requirements set forth in MTCA under WAC 173-340-350(8)(b) and the focused screening of potential remedial components using the requirements and procedures for selecting cleanup actions in accordance with WAC 173-340-360(2)(a)(b). The criteria used to evaluate and compare applicable cleanup alternatives when conducting the disproportionate cost analysis were derived from WAC 173-340-360(3)(f) and include:

- **Protectiveness:** The overall protectiveness of human health and the environment, including the degree to which existing risks are reduced, the time required to reduce risk at the facility and attain cleanup standards, the on-Site risks resulting from implementing the alternative, and improvement of overall environmental quality of the Site.
- **Permanence:** The degree to which the alternative permanently reduces the toxicity, mobility, or volume of hazardous substances, including the adequacy of the alternative in destroying hazardous substances, the reduction or elimination of hazardous substance releases and sources of releases, the degree of irreversibility of the waste treatment process, and the characteristics and quantity of treatment residuals generated during the treatment process.
- **Cost:** The cost to implement the alternative, including the cost of construction, the net present value of any long-term costs, and Ecology oversight costs. Long-term costs that were considered include those associated with operation and maintenance, monitoring, equipment replacement, reporting, and maintaining institutional controls.
- **Effectiveness over the long term:** The degree of certainty that the alternative will be successful, the reliability of the alternative during the period of time over which hazardous substances are expected to remain on the Site, and the magnitude of residual risk associated with the contaminated soil and/or groundwater components, presented in descending order, may be used as a guide when assessing the relative degree of long-term effectiveness of the chosen alternative: reuse or recycling; destruction or detoxification; immobilization or solidification; on-Site or off-Site disposal in an engineered, lined and monitored facility; on-Site isolation or containment with attendant engineering controls; and institutional controls and monitoring.
- **Management of short-term risks:** The risk to human health and the environment associated with the alternative during its construction and implementation, and the effectiveness of measures that will be taken to manage such risks.
- **Technical and administrative implementability:** The ability to implement the alternative; includes consideration of the technical feasibility of the alternative, administrative and regulatory requirements, permitting, scheduling, size, complexity, monitoring requirements, access for construction operations and monitoring, and integration with the future development plans for the Property.
- **Consideration of public concerns:** The consideration of community concerns regarding the alternative and, if there are concerns, the extent to which the alternative addresses those concerns. This process includes concerns from individuals, community groups, local governments, federal and state agencies, or other organizations that may have an interest in or knowledge of the Site.

13.4 IDENTIFICATION AND SCREENING OF REMEDIAL COMPONENTS

SES evaluated remedial components for the Site with respect to the cleanup requirements set forth in MTCA. In accordance with criteria specified in WAC 173-340-360 (2), several potential remedial components were evaluated to produce a short list for further evaluation. Table 14 presents the results of the remedial component screening in a matrix format. Components that passed the screening process include the following:

- No Further Action with Institutional Controls
- Monitored Natural Attenuation
- AS with SVE
- EHC® Reactive Barrier Wall
- ORC®
- Bioaugmentation

13.5 ORC® CLEANUP ACTION

In February and March 2006, Hart Crowser injected Advanced Formula ORC® upgradient of the west Property boundary. ORC® is a patented formulation of phosphate intercalated calcium oxy-hydroxide, manufactured as fine powder, which is designed to function as a time release source of oxygen (Hart Crower 2006a and 2010). ORC® provides oxygen to simulate the aerobic degradation of compounds like vinyl chloride and petroleum hydrocarbons.

ORC® was injected at the west Property boundary using direct-push borings to deliver the ORC® to the designated depth. ORC® was injected at depths ranging from 16 to 20 feet bgs. The upgradient injection points were installed over a distance of 150 feet. The injection points were spaced 10 feet apart (Figure 3). The downgradient injection points were approximately 160 feet in length and included two rows of staggered injection points. A 30 percent ORC® slurry was prepared for each injection point and remains in the treatment zone where it was injected. The ORC® was expected to have lifetime of up to 1 year.

Following the injection of ORC®, performance groundwater samples were collected from monitoring wells HC-MW-7 through HC-MW-12, SB-9 through SB-11, and SB-14. Monitoring wells HC-MW-11 and HC-MW-12 were used to monitor the performance of the upgradient ORC® injection points. Monitoring wells HC-MW-7 through HC-MW-10 were used to monitor the performance of the downgradient ORC® injection points.

Analytical results for vinyl chloride in performance groundwater samples collected after the injection of ORC® initially showed a slight decrease in vinyl chloride concentrations in the groundwater at some performance monitoring wells. Concentrations of dissolved oxygen also increased in some performance monitoring wells. However, the decrease in the concentrations of vinyl chloride was not significant enough to differentiate the analytical results from analytical and/or field sampling variability between sampling events (Table 15).

13.6 PILOT TESTING

Based on conditions at the Site, in situ treatment of the vinyl chloride groundwater plume is considered a possible cleanup approach. Pilot tests were conducted to evaluate in situ treatment of the groundwater at the Site using EHC® and bioaugmentation. These technologies have the advantage of extended treatment of the contaminated groundwater, degradation of

COCs using both abiotic and biological processes, and prevention of off-Property migration of the vinyl chloride groundwater plume. The results of pilot testing are presented below.

13.6.1 EHC® Reactive Barrier Wall Pilot Test

In 2009, SES installed an EHC® reactive barrier wall at the Site to treat vinyl chloride in groundwater. EHC® is a controlled-release, integrated carbon and zero valent iron (ZVI) source that yields redox potential (Eh) in the -500 to -650 millivolt (mV) range. Eh potentials in this range facilitate the timely and effective removal of normally recalcitrant CVOCs. EHC® relies on a combination of chemical and biological treatment mechanisms as follows:

1. Direct abiotic reduction (primarily beta elimination) due to contact with ZVI.
2. Enhanced thermodynamic conditions resulting in more complete in situ chemical reduction due to lowered Eh engendered by the carbon and iron combination.
3. Indirect chemical reduction via reduced metals, i.e., reactive surface areas due to dissolved iron and secondary precipitates formed from products of iron corrosion, such as magnetite.
4. Biostimulation as EHC® fermentation produces volatile fatty acids and hydrogen to stimulate dehalogenators downgradient of injection locations.

These mechanisms are synergistic, giving an overall accelerated remediation of chlorinated hydrocarbons. In addition, should one mechanism be less than optimized due to the local pH conditions, the other pathways usually make up for the shortfall because they work better in those local conditions.

The EHC® reactive barrier wall pilot test was conducted proximate to the west Property boundary (Figure 3). The location of the pilot test was selected based on the location of the vinyl chloride plume and the location of existing monitoring wells for performance monitoring. Performance monitoring wells were located along the western edge of the vinyl chloride plume, to allow comparison from the treated zone (downgradient) and the non-treated zone (upgradient and crossgradient). Performance groundwater samples were collected from monitoring wells HC-MW-4, HC-MW-7 to HC-MW-9, HC-MW-11, HC-MW-13, SB-10, SB-11, and SB-14 weekly for six weeks, biweekly for six weeks thereafter, and eight weeks thereafter (Figure 3). The EHC® reactive barrier wall was constructed at the Site using five direct-push probes (IP01 through IP05) to inject a slurry wall of EHC® to a depth of 18 feet bgs (Figure 3). EHC® was injected at 150 to 200 pounds per square inch at 1-foot intervals starting at the bottom of each boring to a depth of 8 feet bgs. EHC® was injected to impact approximately a 5-foot radius around each boring, for an overall EHC® loading rate of 0.9 percent by soil dry weight.

A summary of results from the performance groundwater monitoring events for the EHC® pilot test are as follows

- Concentrations of PCE, TCE, trans-1,2-DCE, cis-1,2-DCE, chloroethane, 1,1-dichloroethene, methylene chloride, 1,1-dichloroethane 1,2-dichloroethane, 1,1,1-trichloroethane, and 1,2-dichloropropane in the groundwater samples collected from monitoring wells HC-MW-4, HC-MW-7 through HC-MW-9, HC-MW-13, SB-10, SB-11, and SB-14 are below the laboratory reporting limits, MTCA Method A and/or B groundwater cleanup levels, or the applicable federal and state MCLs over the 20 week life cycle of the pilot test (Table 16).

- Concentrations of vinyl chloride in the groundwater samples collected from monitoring wells HC-MW-4, HC-MW-7 through HC-MW-9, HC-MW-13, SB-10, SB-11, and SB-14 exceeded the MTCA Method A cleanup level over the 20 week life cycle of the pilot test (Table 16).
- Oxidation-reduction potential (OPR) readings, the presence of ferric iron, the absence of sulfide, and dissolved oxygen concentrations in the groundwater at monitoring well SB-10 suggest that iron-reducing conditions may be present in the groundwater (Tables 17 and 18).

Based on the results of the performance groundwater monitoring events, the EHC® reactive barrier wall did not create conditions that are conducive to abiotic and biotic degradation of vinyl chloride in the groundwater at the Site. According to Adventus, the vendor for EHC®, two to three months after injecting EHC®, OPR readings in groundwater typically range from -200 to -500 mV. In addition, volatile fatty acids (VFAs) are created that produce hydrogen for anaerobic dechlorination. ORP readings in the groundwater at the Site proximate to the EHC® reactive barrier wall were typically greater than -50 mV, with the exception of ORP readings of -351 mV, -434 mV, and -217 mV measured in groundwater at monitoring well SB-10 during the EHC® performance groundwater monitoring events in Weeks 1, 2, and 8.

The failure of EHC® to create or sustain conditions that are conducive to the degradation of vinyl chloride may result from oxygenated rainwater infiltrating the shallow groundwater where EHC® was injected. According to Adventus, there are sites where EHC® has not performed as anticipated because oxygenated rainwater entered the shallow groundwater, which prohibited the EHC® from creating anaerobic conditions. At the time EHC® was injected at the Site and for some weeks thereafter, standing water was present proximate to the EHC® reactive barrier wall.

13.6.2 In situ Bioaugmentation Pilot Test

The use of bioaugmentation to treat vinyl chloride-contaminated groundwater at the Site was evaluated using the Dehalococcoides microbe (DHC). SiREM produces a specialty strain of the DHC called KB-1® Dechlorinator (KB-1®). The KB-1® cultures were isolated because of their ability to anaerobically biodegrade chlorinated hydrocarbons and specifically to degrade vinyl chloride to ethane, where most anaerobic microbes stop. On May 12, 2009, SES personnel injected DHC into monitoring well HC-MW-11 (Figure 3). Prior to injecting the DHC, historical concentrations of vinyl chloride in the groundwater at the monitoring well HC-MW-11 were 4.5 and 51 µg/L in February 2006 and April 2007, respectively. DHC was injected at a depth of 18 feet bgs from a stainless steel pressure vessel. The vessel was connected to injection lines and inert gas was used to pressurize the vessel to displace the contents. Monitoring well HC-MW-11 is screened from 9 to 19 feet bgs.

Performance monitoring to evaluate the DHC pilot test consisted of collecting and analyzing groundwater samples from monitoring well HC-MW-11 for CVOCs by EPA Method 8260B; total organic carbon (TOC) by Standard Method 5310B; nitrate by EPA Method 353.2; and sulfate by EPA Method 375.4. Groundwater samples were collected every week for 6 weeks and 12 weeks thereafter. Groundwater samples collected in the 12th week were also analyzed for ammonia by EPA Method 350.3; nitrite by EPA Method 353.3; sulfide by EPA Method 376.2; VFAs by EPA 300.0; and ethene, ethane, and methane by Analytical Resources Method RSK175, and assayed for DHC by Si REM. Field parameters consisted of pH, specific conductivity, turbidity, dissolved oxygen, temperature, oxidation-reduction potential, and depth-to-groundwater measurements and were collected during each groundwater sampling event.

Results from the performance groundwater monitoring events for the DHC pilot test are as follows:

- Concentrations of DCE, PCE, trans-1,2-DCE, cis-1,2-DCE, chloroethane, 1,1-dichloroethene, methylene chloride, 1,1-dichloroethane 1,2-dichloroethane, 1,1,1-trichloroethane, and 1,2-dichloropropane in the groundwater samples collected from monitoring wells HC-MW11 were below the laboratory reporting limits, the MTCA Method A and/or B groundwater cleanup levels, or the applicable federal and state MCLs (Table 16).
- The concentrations of vinyl chloride in the groundwater sample collected from monitoring wells HC-MW-11 exceeded the MTCA Method A cleanup level (Table 16).
- ORP readings, the presence of ferric iron, the absence of sulfide, and dissolved oxygen concentrations in the groundwater at monitoring well HC-MW11 suggest that iron-reducing conditions may be present in the groundwater (Tables 17 and 18).
- The concentration of DHC in the groundwater sample collected from monitoring well HC-MW-11 was 1 x 10^8 gene copies per liter (gc/L). A concentration of DHC greater than 10^7 gc/L indicates the sample contains high concentrations of DHC.
- VFAs were not detected in the groundwater sample collected from monitoring well HC-MW-11 at concentrations above laboratory reporting limits. VFAs are indicators of substrate distribution in the groundwater. A lack of measurable VFAs or very low concentrations of VFA in conjunction with elevated concentrations of CVOCs indicates that additional substrate may be required to sustain an anaerobic treatment zone (Table 18).

Based on the results of the performance groundwater monitoring events, the DHC pilot test did not reduce vinyl chloride concentrations in groundwater at the monitoring well HC-MW-11. Geochemical and field parameters and DHC assays indicate that conditions in the groundwater at monitoring well HC-MW-11 are not conducive to biotic degradation of vinyl chloride. The DHC pilot test may have not performed as anticipated because of a lack of substrate. According to SiREM, the optimum TOC concentration in groundwater for the growth and survival of DHC should be greater than 50 milligrams per liter (mg/L). The concentration of TOC in groundwater at monitoring well HC-MW-11 has been consistently less than 20 mg/L. According to SiREM, the high concentration of DHC in groundwater at monitoring well HC-MW-11 does not necessarily mean the DHC is alive, only that the DHC deoxyribonucleic acid is present in the groundwater.

13.7 FOCUSED EVALUATION OF TREATMENT ALTERNATIVES

During the focused evaluation of potential technically feasible cleanup alternatives, SES considered all practicable remedial components confirmed to be effective for addressing the COCs in the media of concern. SES also considered whether Site-specific constraints would preclude application of a component due to the creation of a greater risk to human health and/or the environment. Based on cumulative results from the interim remedial actions, remedial investigation, pilot test results, and performance monitoring, two cleanup alternatives were retained for further consideration for the Site. They include the following:

- **Cleanup Alternative 1:** Monitored natural attenuation of vinyl chloride in shallow groundwater at the Site. Monitored natural attenuation relies on natural processes, within the context of a carefully controlled cleanup approach, to achieve site-specific remedial objectives within a reasonable time frame.

- **Cleanup Alternative 2:** In situ treatment of shallow groundwater containing vinyl chloride at concentrations above the MTCA Method A cleanup level at the west boundary of Property using AS and SVE.

Cleanup Alternatives 1 and 2 meet the criteria under the MTCA for protection of human health and the environment, compliance standards, permanence of the remedy, and completion with a reasonable time frame. The implementation of these alternatives likely would not result in public concern. Each cleanup alternative is discussed below.

13.7.1 Cleanup Alternative 1— Monitored Natural Attenuation of Shallow Groundwater

Cleanup Alternative 1 includes using monitored natural attenuation of vinyl chloride in shallow groundwater at the Property (Figure 19). Groundwater compliance monitoring will be conducted at monitoring wells HC-MW-7 through HC-MW-10 located adjacent to the west Property boundary (Figure 3). Primary and secondary lines of evidence gathered during the RI and interim remedial actions provide support for the conclusion that monitored natural attenuation is a feasible cleanup alternative for the Site in accordance with minimum requirements under WAC 173-340-360 (2).

The primary lines of evidence supporting natural attenuation of vinyl chloride at the Site include a shrinking vinyl chloride groundwater plume after the 2006 interim remedial action at the Site (Section 5.0 of the RI/FS). Prior to 2006, groundwater containing vinyl chloride concentrations which exceed the MTCA Method A cleanup level extended from the east to west boundary of the Site (Figure 17). After the 2006 interim remedial action, analytical results showed that groundwater containing concentrations of vinyl chloride that exceeded the MTCA Method A cleanup level is confined to the area downgradient of the former Pace Main Building (Figure 18). Analytical results for groundwater samples collected from downgradient monitoring wells at the MBV Property indicate that natural attenuation processes are reducing the vinyl chloride concentrations in the groundwater to below laboratory reporting limits. This empirical evidence also suggests that it is unlikely there is an indoor vapor intrusion pathway at the MBV Property resulting from the presence of vinyl chloride concentrations above the MTCA Method A cleanup level at the west Property boundary.

The secondary lines of evidence supporting natural attenuation of vinyl chloride at the Site include fate and transport model results (Section 10.4 of the RI/FS) and groundwater geochemical data. A simulation of the migration of the vinyl chloride plume in the shallow groundwater using the BIOCHLOR Model estimates that over the next 10 years, the concentration of vinyl chloride will be less than 1 µg/L at a distance of 80 feet downgradient of the west Property boundary, which is the approximately the distance to groundwater monitoring wells SES-MW25 through SES-MW27 (Figure 18). The groundwater at downgradient monitoring wells SES-MW25 through SES-MW27 does not contain concentrations of vinyl chloride above laboratory reporting limits (Figure 18). ORP readings, the presence of ferric iron, the absence of sulfide, and low dissolved oxygen concentrations in the groundwater proximate to at the west Property boundary suggest that iron-reducing conditions may be present in the groundwater (Tables 17 and 18). Iron-reducing conditions are conducive to the degradation of CVOCs.

The present worth cost estimate to implement Cleanup Alternative 1 is approximately $353,323. The cost estimate assumes 4 years of semiannual groundwater monitoring and one confirmation groundwater monitoring and sampling event in year 5 (Table 19).

13.7.2 Cleanup Alternative 2—In Situ Treatment of Shallow Groundwater with AS and SVE

Cleanup Alternative 2 involves the installation of AS and SVE to reduce concentrations of vinyl chloride in shallow groundwater to below the MTCA Method A cleanup level. The combined AS/SVE remediation system will purge vinyl chloride from the groundwater and capture and remove vinyl chloride vapors in the vadose zone. Implementation of SVE involves the installation of vertical or horizontal wells within the zone of contamination and the application of a vacuum to the vadose zone to induce the flow of air and enhance the recovery of vinyl chloride vapors in the vadose zone. Air sparge involves injecting air into shallow groundwater to induce convective airflow through the soil column. This condition creates an underground air stripping mechanism to remove vinyl chloride. The injected air effectively transports the stripped contaminants into the vadose zone wherein they can be captured and removed by the SVE system. The AS/SVE remediation system would be installed at the west Property boundary proximate to monitoring wells HC-MW-7 through HC-MW-10 (Figure 20). Pilot testing would be required to determine the effective radius of influence of the SVE wells and develop design specifications for full scale implementation of the AS/SVE remediation system.

The present worth cost estimate to implement Cleanup Alternative 2 is approximately $607,476 (Table 20). The cost estimate assumes 5 years of operation and maintenance.

13.8 COMPARISON OF ALTERNATIVES

This section presents the evaluation and ranking of potentially feasible cleanup alternatives established for the Site. Section 13.2, Remedial Action Objectives, details the criteria to be used to evaluate and rank applicable cleanup alternatives when conducting the disproportionate cost analysis for the established cleanup alternative as outlined in WAC 173-340-360(3)(f). The evaluation and ranking of each criterion for the cleanup alternatives are summarized in Table 21 and discussed below.

- **Protectiveness.** Cleanup Alternatives 1 and 2 rank high for the protection of human health and the environment because each alternative has been proven to reduce the concentrations of vinyl chloride in the groundwater to below the MTCA Method A cleanup level.
- **Permanence.** Cleanup Alternatives 1 and 2 rank medium for permanence through ongoing degradation and removal of vinyl chloride in the groundwater.
- **Effectiveness over the long term.** Cleanup Alternatives 1 and 2 rank medium and provide effective measures over the long term to address the protection of human health and the environment.
- **Management of short-term risks.** The management of short-term risks is higher for Cleanup Alternative 1 compared to Cleanup Alternative 2. Cleanup Alternative 1 may lead to the discharge of vinyl chloride to the atmosphere and require personal protection for workers during the installation of the AS/SVE remediation system.
- **Technical and administrative implementability.** Cleanup Alternative 1 ranks highest for technical and administrative implementability because it does not

require pilot testing, design, installation, or operation and maintenance as does Cleanup Alternative 2.

- **Consideration of public concerns.** Cleanup Alternative 1 ranks highest for consideration of public concerns because it will lead to the cleanup vinyl chloride contaminated groundwater at the Site without disruption of the local ascetics. Cleanup Alternative 2 ranks moderate because installation of an aboveground treatment system may be required to mitigate vinyl chloride vapors prior to being discharged to the atmosphere. Given the unknown restoration time frame for treatment of vinyl chloride in groundwater under Cleanup Alternative 1 and the effectiveness of the AS/SVE remediation system, public concern over longer-term operation of AS/SVE treatment system may grow with time.

13.9 DISPROPORTIONATE COST ANALYSIS

The disproportionate cost analysis involves comparing the costs and benefits of cleanup alternatives and selecting the alternative whose incremental costs are not disproportionate to the incremental benefits. Costs are considered disproportionate to benefits if the incremental costs of the alternative over that of a lower-cost alternative exceeds the incremental degree of benefits achieved by the alternative over that of the other lower-cost alternative. Chart 1 presents the disproportionate cost and relative ranking of cleanup alternatives established for the Site. Chart 2 presents the cost-to-benefit ratios for established cleanup alternatives for the Site.

Results from the disproportionate cost analysis for cleanup alternatives established for the Site indicate that, although Cleanup Alternative 2 ranks the highest or most preferable (Chart 1), the cost-to-benefit ratio (Chart 2) indicates that the benefit gained from performing the alternative does not justify the cost to implement it. Cleanup Alternative 1 is the most favorable alternative in regards to the cost–to-benefit ratio.

14.0 RECOMMENDED CLEANUP ACTION ALTERNATIVE

After performing the comparative analysis and ranking of cleanup alternatives, Cleanup Alternative 1 is the recommended cleanup alternative for the Site. Cleanup Alternative 1 meets the requirements set forth in WAC 173-340-360(3) and WAC 173-340-370 and is the alternative most compatible with any future redevelopment plans for the Property.

15.0 LIMITATIONS

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

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

16.0 BIBLIOGRAPHY

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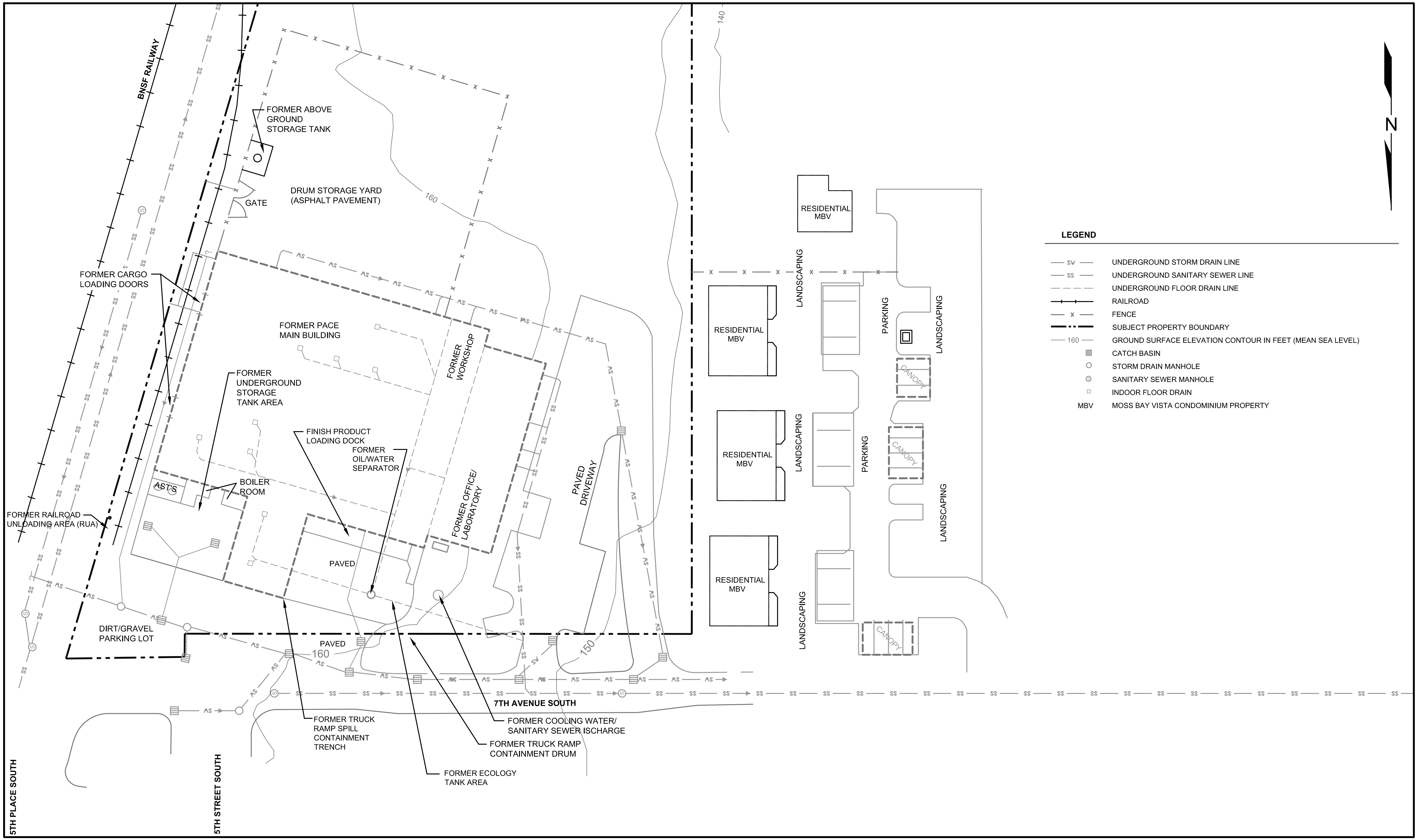
FIGURES

SOUND ENVIRONMENTAL STRATEGIES www.soundenvironmental.com	N	Date: March 17, 2009 Drawn By: NAC Chk By: DMB/TJC SES Project No.: 0698-001 File ID: 0698-001-FIG1-VIC	FORMER PACE NATIONAL SITE 500 7TH AVENUE SOUTH KIRKLAND, WASHINGTON	**FIGURE 1** Site Vicinity Map



SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

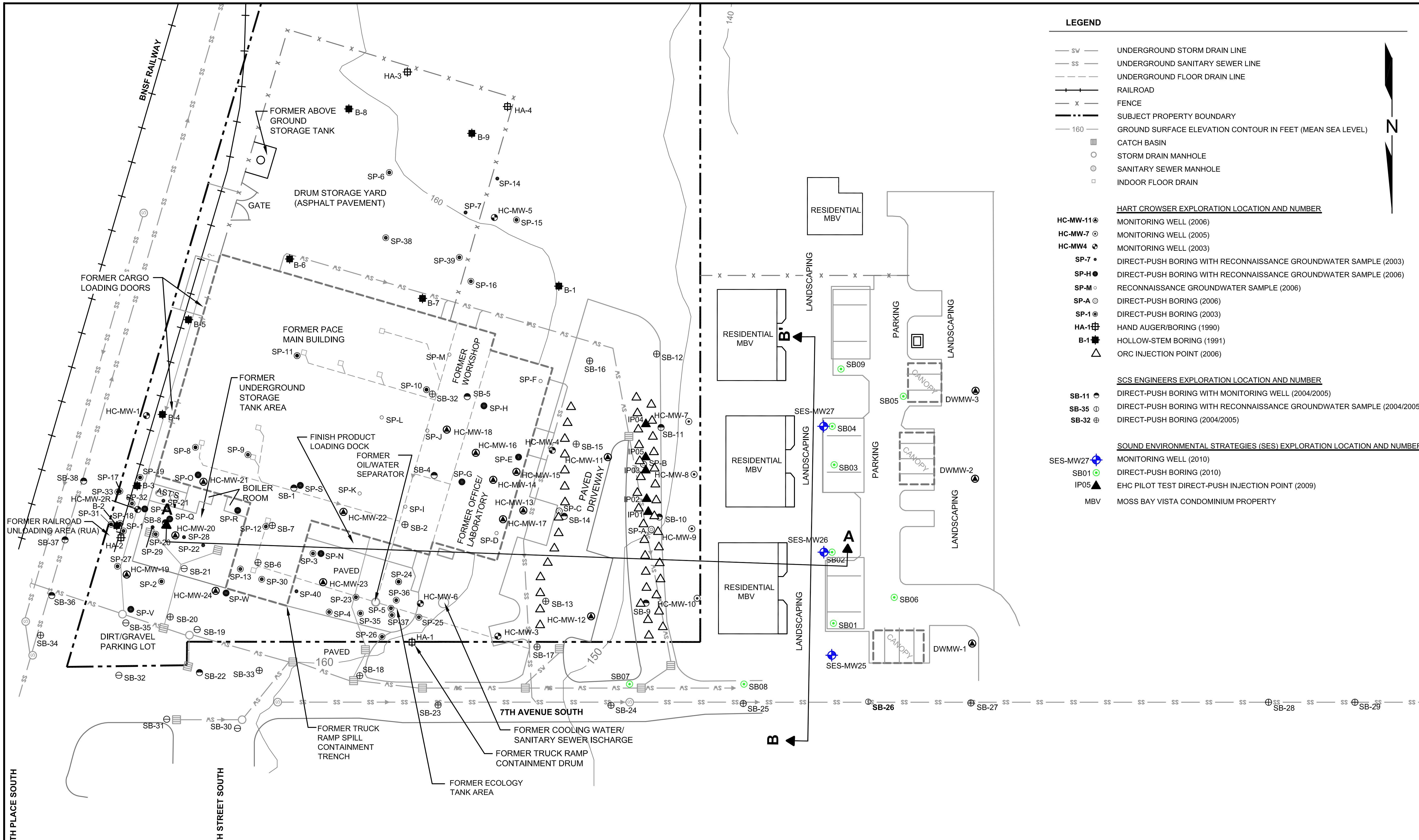
DATE: 08/11/2010
DRAWN BY: NAC
CHECKED BY: TJC
CAD FILE: 0698-001-2010SRI_SP

PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY,STATE: KIRKLAND, WA

REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 2
FORMER PACE NATIONAL SITE PLAN MAP



SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 08/11/2010
DRAWN BY: NAC
CHECKED BY: TJC
CAD FILE: 0698-001-2010SRI_SLOC

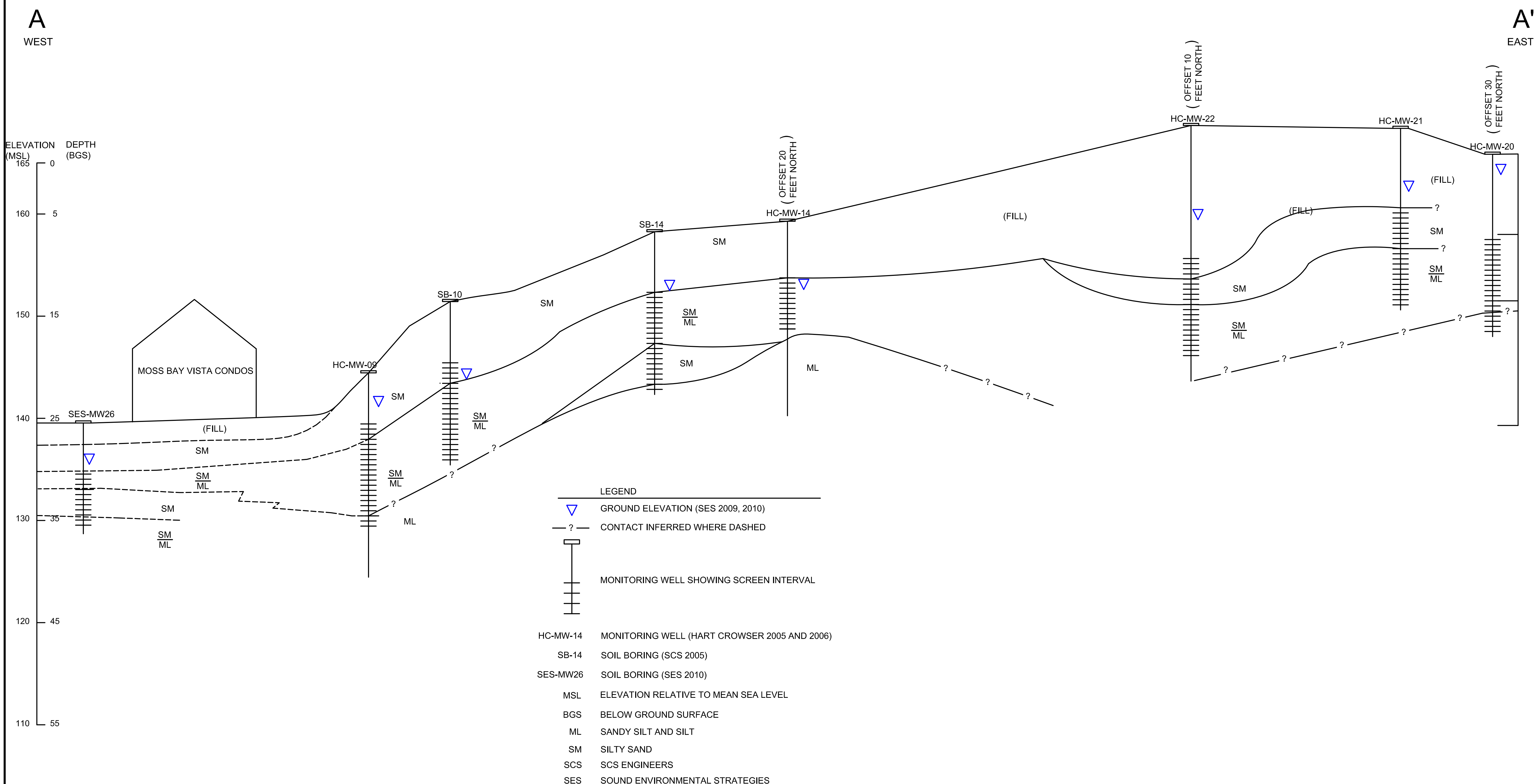
PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY,STATE: KIRKLAND, WA

REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 3

MAP SHOWING SITE BORINGS, INJECTION POINTS, AND MONITORING WELL LOCATIONS



SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

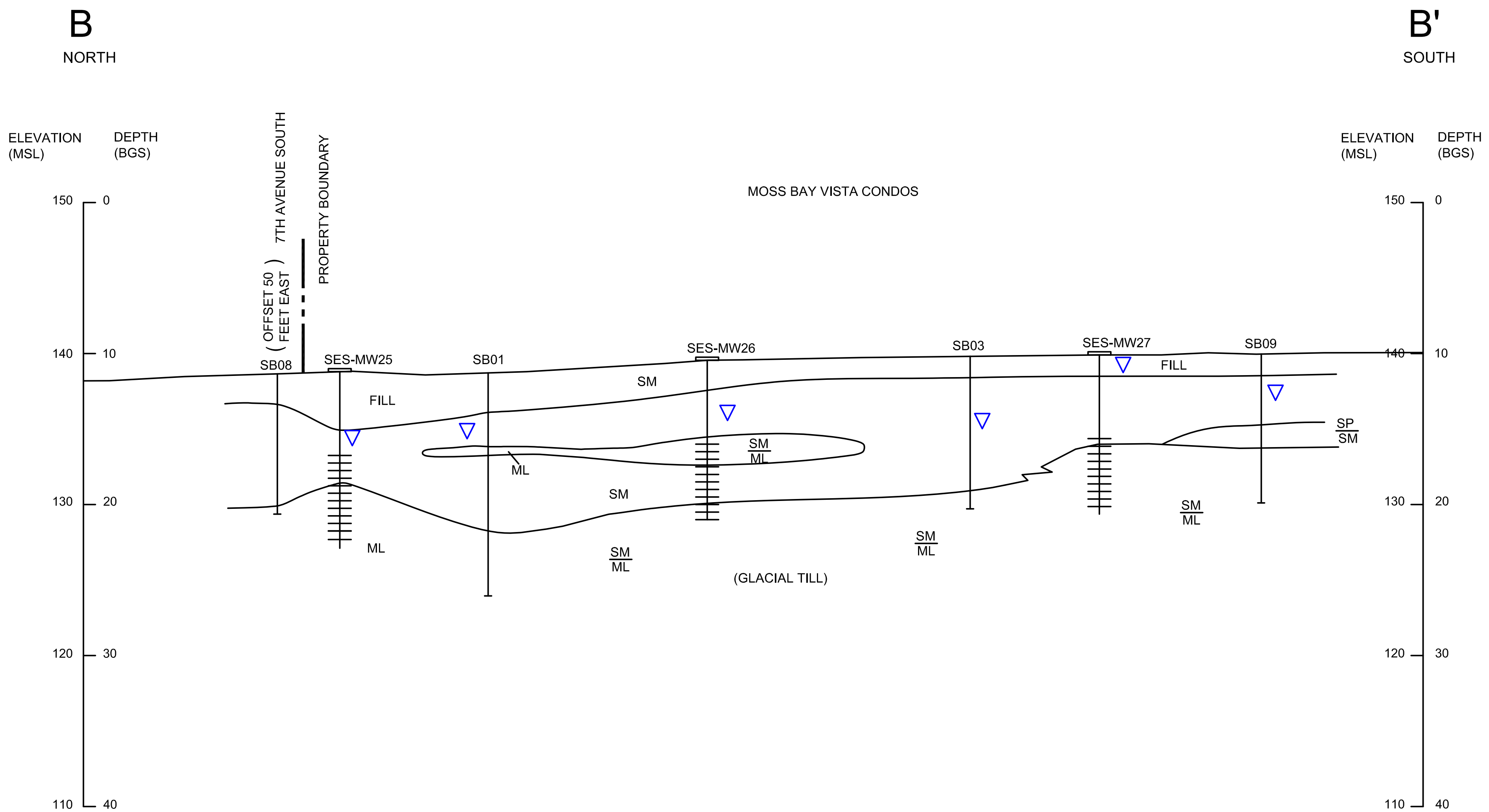
DATE: 07/30/10
DRAWN BY: NAC/JQC
CHECKED BY: TJC
CAD FILE: 0698-001_2010SRI_XAA

PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY, STATE: KIRKLAND, WASHINGTON

REGION:

HORIZONTAL SCALE : 1" = 30'
VERTICAL SCALE : 1" = 10'

FIGURE 4
GENERALIZED GEOLOGIC CROSS SECTION A-A'



LEGEND

▽	GROUND ELEVATION (SES 2010)
— ? —	CONTACT INFERRED WHERE DASHED
	MONITORING WELL SHOWING SCREEN INTERVAL
HC-MW-14	MONITORING WELL (HART CROWSER 2005 AND 2006)
SES-MW25	SOIL BORING (SES 2010)
SB03	DIRECT PUSH BORING (SES 2010)
MSL	ELEVATION RELATIVE TO MEAN SEA LEVEL
BGS	BELOW GROUND SURFACE
ML	SANDY SILT AND SILT
SM	SILTY SAND
SES	SOUND ENVIRONMENTAL STRATEGIES

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 07/30/10
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CAD FILE: 0698-001_2010SRI_XBB

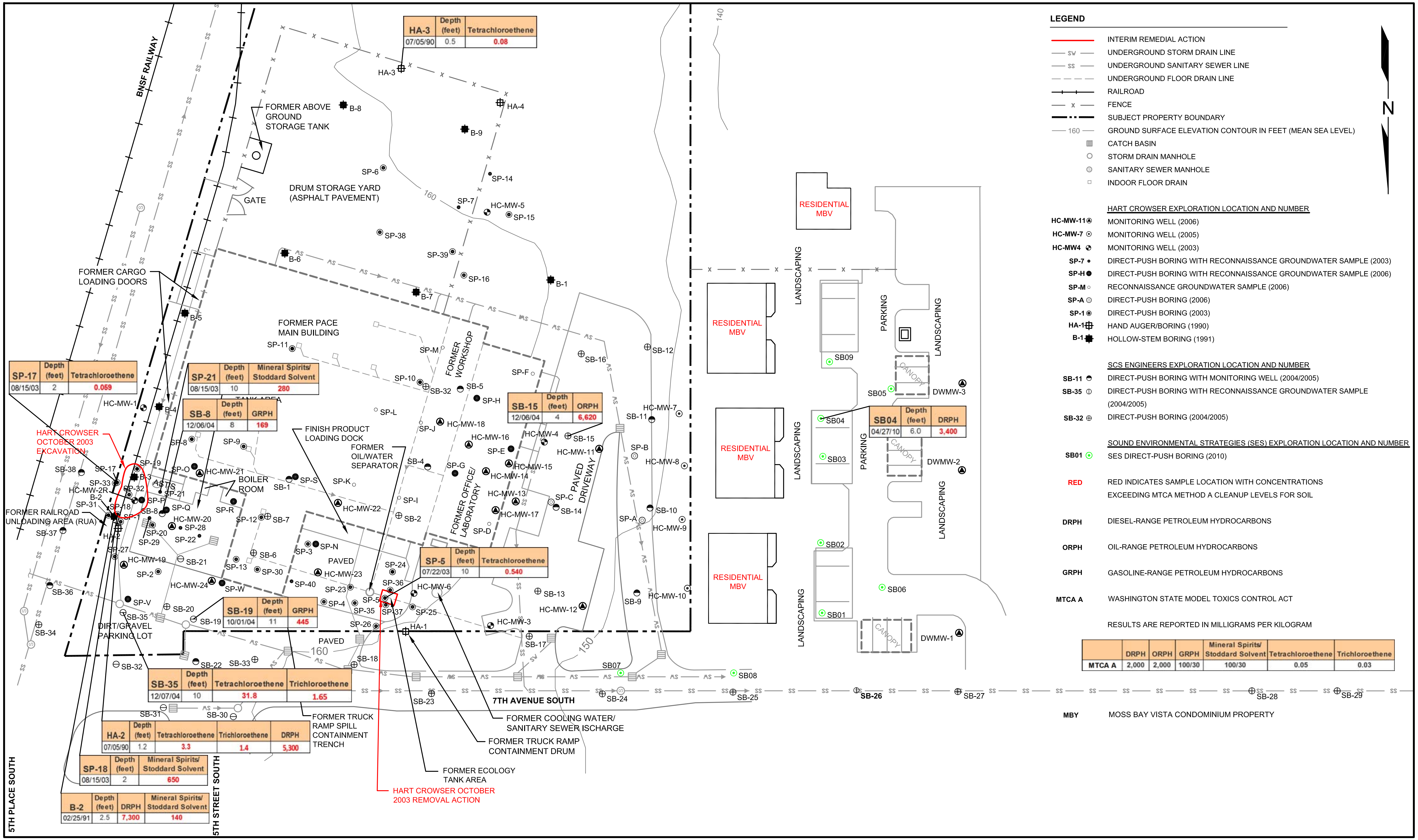
PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY, STATE: KIRKLAND, WASHINGTON

REGION:

HORIZONTAL SCALE : 1" = 30'
VERTICAL SCALE : 1" = 10'

FIGURE 5
GENERALIZED GEOLOGIC CROSS SECTION B-B'

P:\0698 Ultra - Former Pace National\0698-001-02 Supp RI-FS\Technical\CAD\RIFS 2010\0698-001_2010SRI_XBB.dwg 8/19/2010



SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 08/11/10
DRAWN BY: JQC/NAC
CHECKED BY: TJC
CAD FILE: 0698-001-2010SRI_SD

PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY,STATE: KIRKLAND, WA

REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 6
MAP SHOWING 1990 THROUGH 2010 SOIL ANALYTICAL RESULTS THAT EXCEEDED MTCA CLEANUP LEVELS FOR SUBSURFACE INVESTIGATIONS

P:\0698 ULTRA - FORMER PACE NATIONAL\0698-001-02 SUPP RI-FS\TECHNICAL\CAD\RIFS 2010\0698-001_2010SRI_SD.DWG 12/8/2010

LEGEND

▲1A	CONFIRMATION SOIL SAMPLE
△P1	GRAB GROUNDWATER SAMPLE
— — — —	FORMER SITE FEATURE
———	BUILDING OUTLINE

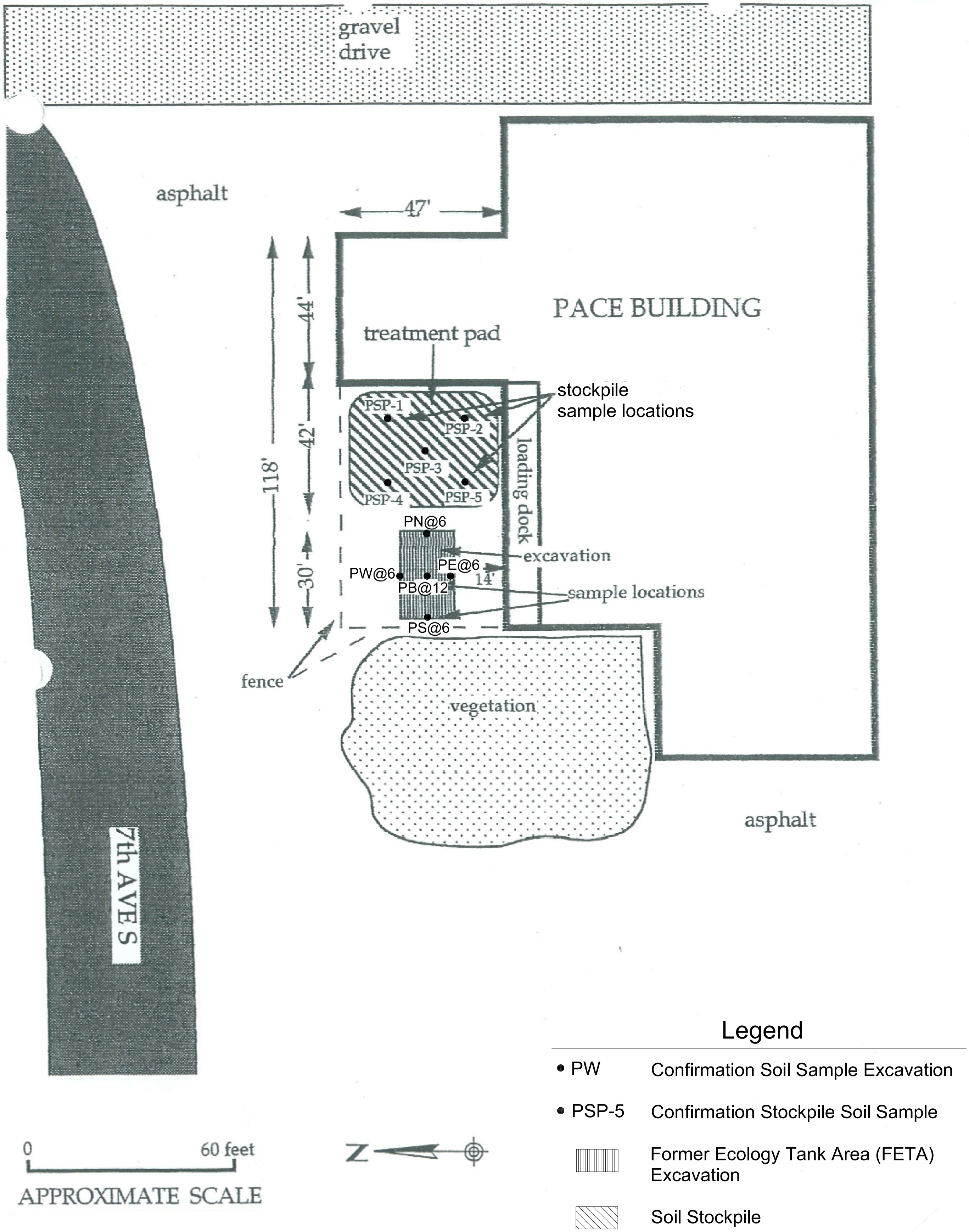
NOTE: Source For Map Hart Crowser 1991

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 06/05/2009
DRAWN BY: JQC
CHECKED BY: TJC
CAD FILE: 0698-001_2010SRI_SS91

PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY, STATE: KIRKLAND, WA

FIGURE 7
MAP SHOWING UNDERGROUND STORAGE TANK AREA SOIL SAMPLING LOCATIONS 1991



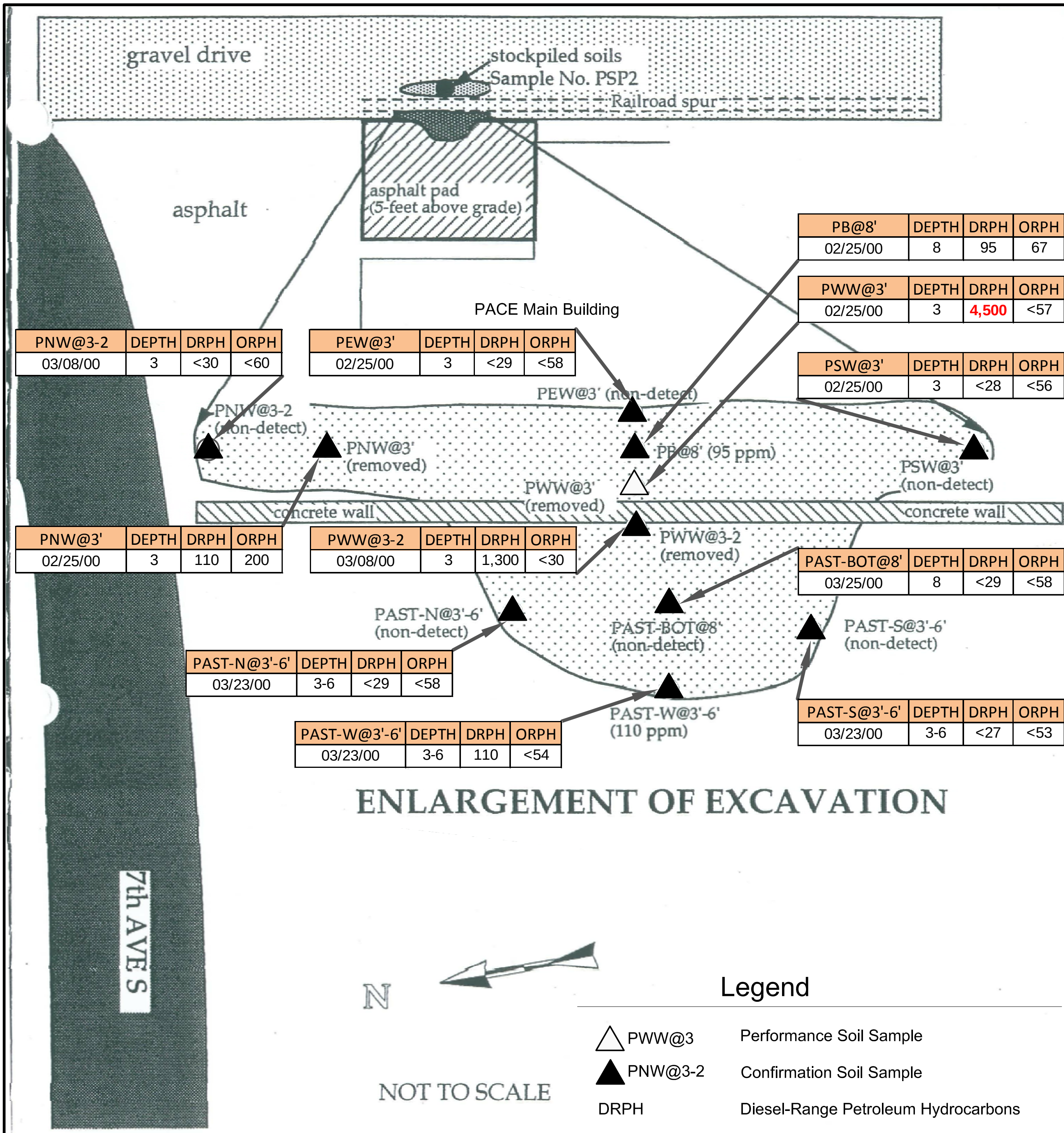
NOTE: Source For Map Galloway 1999a

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 06/02/2009
DRAWN BY: JQC
CHECKED BY: TJC
CAD FILE: 0698-001_2010SRI_SS99

PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY, STATE: KIRKLAND, WA

FIGURE 8
MAP SHOWING FETA SOIL SAMPLING LOCATIONS 1999



PNW@3-2	DEPTH	DRPH	ORPH
03/08/00	3	<30	<60

PEW@3'	DEPTH	DRPH	ORPH
02/25/00	3	<29	<58

PB@8'	DEPTH	DRPH	ORPH
02/25/00	8	95	67

PWW@3'	DEPTH	DRPH	ORPH
02/25/00	3	4,500	<57

PSW@3'	DEPTH	DRPH	ORPH
02/25/00	3	<28	<56

PNW@3'	DEPTH	DRPH	ORPH
02/25/00	3	110	200

PWW@3-2	DEPTH	DRPH	ORPH
03/08/00	3	1,300	<30

PAST-BOT@8'	DEPTH	DRPH	ORPH
03/25/00	8	<29	<58

PAST-N@3'-6'	DEPTH	DRPH	ORPH
03/23/00	3-6	<29	<58

PAST-W@3'-6'	DEPTH	DRPH	ORPH
03/23/00	3-6	110	<54

PAST-S@3'-6'	DEPTH	DRPH	ORPH
03/23/00	3-6	<27	<53

Legend

PWW@3 (open triangle)	Performance Soil Sample
PNW@3-2 (filled triangle)	Confirmation Soil Sample
DRPH	Diesel-Range Petroleum Hydrocarbons
MTCA	Washington State Model Toxics Control Act
ORPH	Oil-Range Petroleum Hydrocarbons
RUA	Railroad Unloading Area
4,500	(Red) Reported Concentration exceeds MTCA Method A cleanup levels for groundwater

Note: Results are Reported in Micrograms per Kilogram.

	DEPTH	DRPH	ORPH
MTCA		2,000	2,000

NOTE: Source For Map Galloway 2000a

SOUND ENVIRONMENTAL STRATEGIES
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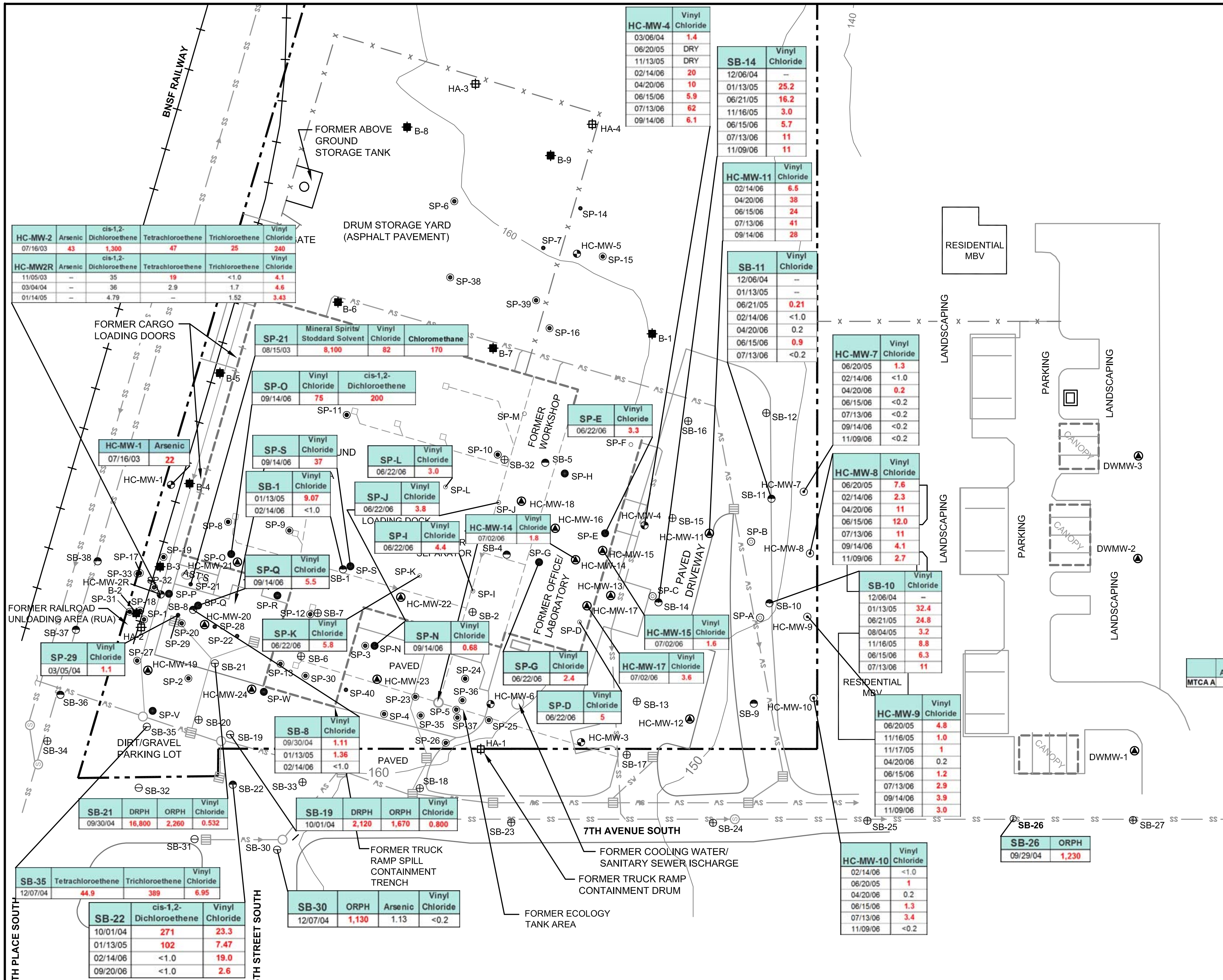
DATE: 11/12/2009
DRAWN BY: JQC/NAC
CHECKED BY: TJC
CAD FILE: 0698-001_2010SRI_SS00

PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY, STATE: KIRKLAND, WA

FIGURE 9
MAP SHOWING RUA
SOIL SAMPLING LOCATIONS
2000



HC-MW-4	Vinyl Chloride
03/06/04	1.4
06/20/05	DRY
11/13/05	DRY
02/14/06	20
04/20/06	10
06/15/06	5.9
07/13/06	62
09/14/06	6.1

SB-14	Vinyl Chloride
12/06/04	–
01/13/05	25.2
06/21/05	16.2
11/16/05	3.0
06/15/06	5.7
07/13/06	11
11/09/06	11

HC-MW-11	Vinyl Chloride
02/14/06	6.5
04/20/06	38
06/15/06	24
07/13/06	41
09/14/06	28

SB-11	Vinyl Chloride
12/06/04	–
01/13/05	–
06/21/05	0.21
02/14/06	<1.0
04/20/06	0.2
06/15/06	0.9
07/13/06	<0.2

HC-MW-7	Vinyl Chloride
06/20/05	1.3
02/14/06	<1.0
04/20/06	0.2
06/15/06	<0.2
07/13/06	<0.2
09/14/06	<0.2
11/09/06	<0.2

HC-MW-8	Vinyl Chloride
06/20/05	7.6
02/14/06	2.3
04/20/06	11
06/15/06	12.0
07/13/06	11
09/14/06	4.1
11/09/06	2.7

SB-10	Vinyl Chloride
12/06/04	–
01/13/05	32.4
06/21/05	24.8
08/04/05	3.2
11/16/05	8.8
06/15/06	6.3
07/13/06	11

HC-MW-9	Vinyl Chloride
06/20/05	4.8
11/16/05	1.0
11/17/05	1
04/20/06	0.2
06/15/06	1.2
07/13/06	2.9
09/14/06	3.9
11/09/06	3.0

HC-MW-10	Vinyl Chloride
02/14/06	<1.0
06/20/05	1
04/20/06	0.2
06/15/06	1.3
07/13/06	3.4
11/09/06	<0.2

SB-26	ORPH
09/29/04	1,230

HC-MW-2	Arsenic	cis-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride
07/16/03	43	1,300	47	25	240

HC-MW2R	Arsenic	cis-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride
11/05/03	–	35	19	<1.0	4.1
03/04/04	–	36	2.9	1.7	4.6
01/14/05	–	4.79	–	1.52	3.43

SP-21	Mineral Spirits/ Stoddard Solvent	Vinyl Chloride	Chloromethane
08/15/03	8,100	82	170

SP-O	Vinyl Chloride	cis-1,2-Dichloroethene
09/14/06	75	200

HC-MW-1	Arsenic
07/16/03	22

SP-S	Vinyl Chloride
09/14/06	37

SB-1	Vinyl Chloride
01/13/05	9.07
02/14/06	<1.0

SP-L	Vinyl Chloride
06/22/06	3.0

SP-J	Vinyl Chloride
06/22/06	3.8

SP-I	Vinyl Chloride
06/22/06	4.4

HC-MW-14	Vinyl Chloride
07/02/06	1.8

SP-E	Vinyl Chloride
06/22/06	3.3

SP-Q	Vinyl Chloride
09/14/06	5.5

SP-K	Vinyl Chloride
06/22/06	5.8

SP-N	Vinyl Chloride
09/14/06	0.68

SP-G	Vinyl Chloride
06/22/06	2.4

SP-D	Vinyl Chloride
06/22/06	5

HC-MW-15	Vinyl Chloride
07/02/06	1.6

HC-MW-17	Vinyl Chloride
07/02/06	3.6

SP-29	Vinyl Chloride
03/05/04	1.1

SB-8	Vinyl Chloride
09/30/04	1.11
01/13/05	1.36
02/14/06	<1.0

SB-21	DRPH	ORPH	Vinyl Chloride
09/30/04	16,800	2,260	0.532

SB-19	DRPH	ORPH	Vinyl Chloride
10/01/04	2,120	1,670	0.800

SB-35	Tetrachloroethene	Trichloroethene	Vinyl Chloride
12/07/04	44.9	389	6.95

SB-22	cis-1,2-Dichloroethene	Vinyl Chloride
10/01/04	271	23.3
01/13/05	102	7.47
02/14/06	<1.0	19.0
09/20/06	<1.0	2.6

SB-30	ORPH	Arsenic	Vinyl Chloride
12/07/04	1,130	1.13	<0.2

LEGEND

- SW — UNDERGROUND STORM DRAIN LINE
- SS — UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND FLOOR DRAIN LINE
- RAILROAD
- X — FENCE
- SUBJECT PROPERTY BOUNDARY
- 160 — GROUND SURFACE ELEVATION CONTOUR IN FEET (MEAN SEA LEVEL)
- CATCH BASIN
- STORM DRAIN MANHOLE
- SANITARY SEWER MANHOLE
- INDOOR FLOOR DRAIN

N

HART CROWSER EXPLORATION LOCATION AND NUMBER

- HC-MW-11 MONITORING WELL (2006)
- HC-MW-7 MONITORING WELL (2005)
- HC-MW4 MONITORING WELL (2003)
- SP-7 DIRECT-PUSH BORING WITH RECONNAISSANCE GROUNDWATER SAMPLE (2003)
- SP-H DIRECT-PUSH BORING WITH RECONNAISSANCE GROUNDWATER SAMPLE (2006)
- SP-M RECONNAISSANCE GROUNDWATER SAMPLE (2006)
- SP-A DIRECT-PUSH BORING (2006)
- SP-1 DIRECT-PUSH BORING (2003)
- HA-1 HAND AUGER/BORING (1990)
- B-1 HOLLOW-STEM BORING (1991)

SCS ENGINEERS EXPLORATION LOCATION AND NUMBER

- SB-11 DIRECT-PUSH BORING WITH MONITORING WELL (2004/2005)
- SB-35 DIRECT-PUSH BORING WITH RECONNAISSANCE GROUNDWATER SAMPLE (2004/2005)
- SB-32 DIRECT-PUSH BORING (2004/2005)

- RED REPORTED CONCENTRATION EXCEEDS MTCA METHOD A CLEANUP LEVEL FOR GROUNDWATER
- DRPH DIESEL-RANGE PETROLEUM HYDROCARBONS
- ORPH OIL-RANGE PETROLEUM HYDROCARBONS
- GRPH GASOLINE-RANGE PETROLEUM HYDROCARBONS
- MTCA WASHINGTON STATE MODEL TOXICS CONTROL ACT
- < RESULTS IS BELOW THE LABORATORY REPORTING LIMIT
- – NOT ANALYZED
- NR NOT REPORTED

RESULTS ARE REPORTED IN MICROGRAMS PER LITER (ug/L)

	Arsenic	Mineral Spirits/ Stoddard Solvent	DRPH	ORPH	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Chloromethane
MTCA A	5	80/1000	500	500	5	5	80	0.2	3.4

- MBV MOSS BAY VISTA CONDOMINIUM PROPERTY

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 08/11/10
DRAWN BY: NAC
CHECKED BY: TJC
CAD FILE: 0698-001-2010SRI_GD06

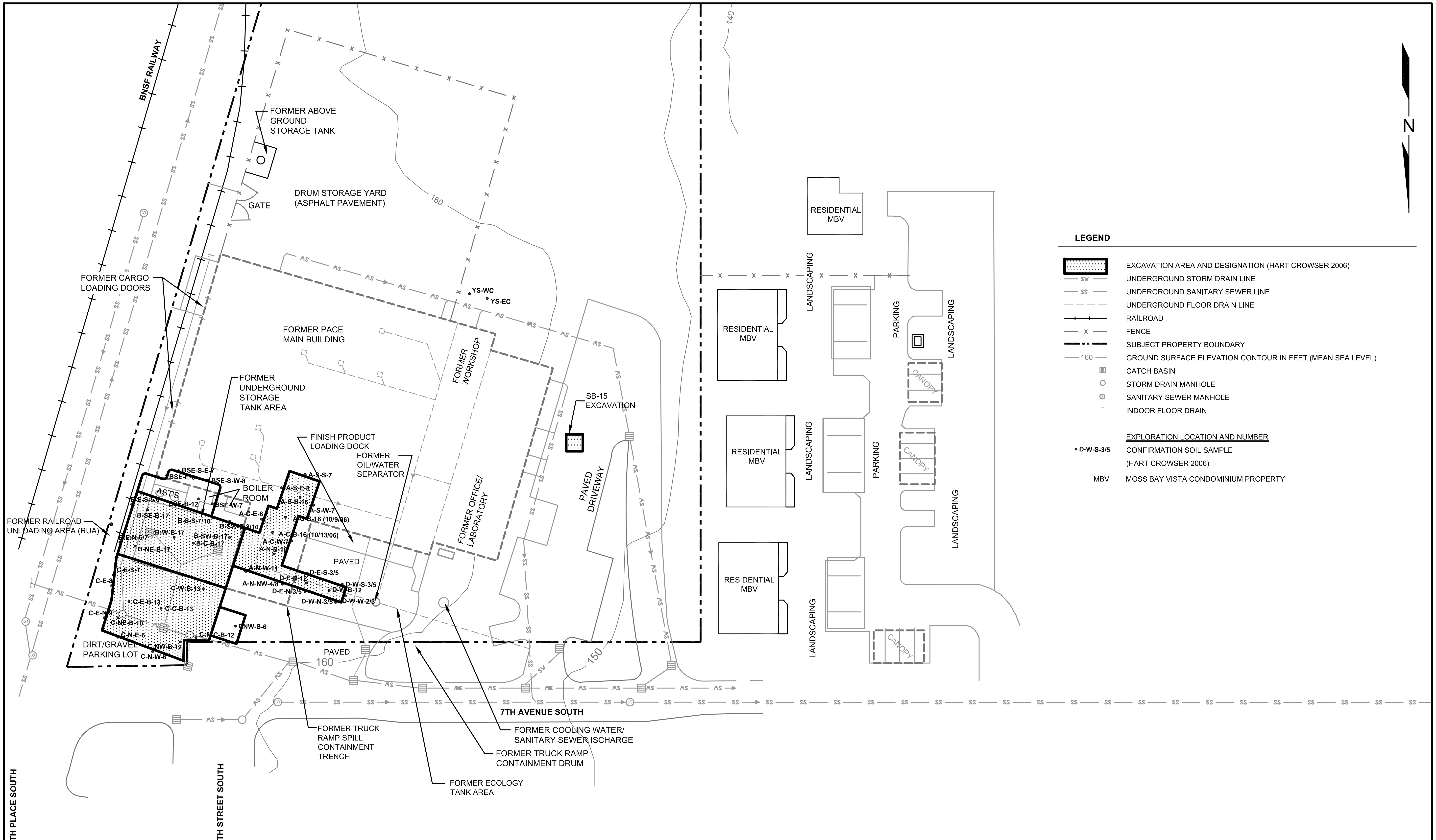
PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY,STATE: KIRKLAND, WA

REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 10

MAP SHOWING GROUNDWATER ANALYTICAL RESULTS FOR COPCs EXCEEDING MTCA CLEANUP LEVELS 2003 THROUGH 2006



SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 08/11/2010
DRAWN BY: NAC
CHECKED BY: TJC
CAD FILE: 0698-001-2010SRI_SS06

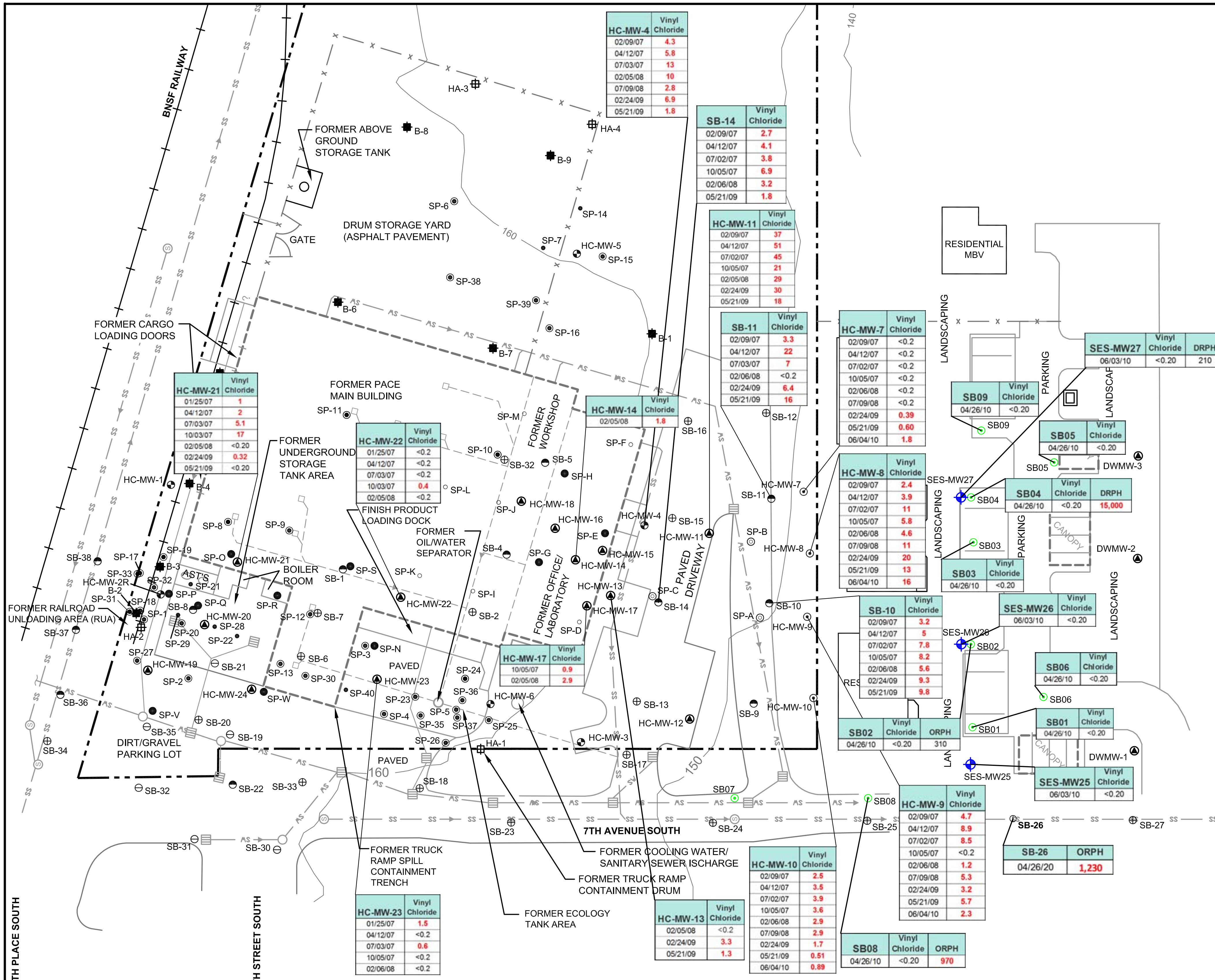
PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY,STATE: KIRKLAND, WA

REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 11
MAP SHOWING INTERIM REMEDIAL ACTION CONFIRMATION SOIL SAMPLING LOCATIONS 2006

P:\0698 ULTRA - FORMER PACE NATIONAL\0698-001-02 SUPP RI-FS\TECHNICAL\CAD\RIFS 2010\0698-001_2010SRI_SS06.DWG
9/2/2010



HC-MW-4	Vinyl Chloride
02/09/07	4.3
04/12/07	5.8
07/03/07	13
02/05/08	10
07/09/08	2.8
02/24/09	6.9
05/21/09	1.8

SB-14	Vinyl Chloride
02/09/07	2.7
04/12/07	4.1
07/02/07	3.8
10/05/07	6.9
02/06/08	3.2
05/21/09	1.8

HC-MW-11	Vinyl Chloride
02/09/07	37
04/12/07	51
07/02/07	45
10/05/07	21
02/05/08	29
02/24/09	30
05/21/09	18

SB-11	Vinyl Chloride
02/09/07	3.3
04/12/07	22
07/03/07	7
02/06/08	<0.2
02/24/09	6.4
05/21/09	16

HC-MW-14	Vinyl Chloride
02/05/08	1.8

HC-MW-21	Vinyl Chloride
01/25/07	1
04/12/07	2
07/03/07	5.1
10/03/07	17
02/05/08	<0.20
02/24/09	0.32
05/21/09	<0.20

HC-MW-22	Vinyl Chloride
01/25/07	<0.2
04/12/07	<0.2
07/03/07	<0.2
10/03/07	0.4
02/05/08	<0.2

HC-MW-17	Vinyl Chloride
10/05/07	0.9
02/05/08	2.9

HC-MW-7	Vinyl Chloride
02/09/07	<0.2
04/12/07	<0.2
07/02/07	<0.2
10/05/07	<0.2
02/06/08	<0.2
07/09/08	<0.2
02/24/09	0.39
05/21/09	0.60
06/04/10	1.8

HC-MW-8	Vinyl Chloride
02/09/07	2.4
04/12/07	3.9
07/02/07	11
10/05/07	5.8
02/06/08	4.6
07/09/08	11
02/24/09	20
05/21/09	13
06/04/10	16

SB-10	Vinyl Chloride
02/09/07	3.2
04/12/07	5
07/02/07	7.8
10/05/07	8.2
02/06/08	5.6
02/24/09	9.3
05/21/09	9.8

SB02	Vinyl Chloride	ORPH
04/26/10	<0.20	310

SB09	Vinyl Chloride
04/26/10	<0.20

SES-MW27	Vinyl Chloride	DRPH
06/03/10	<0.20	210

SB05	Vinyl Chloride
04/26/10	<0.20

SB04	Vinyl Chloride	DRPH
04/26/10	<0.20	15,000

SB03	Vinyl Chloride
04/26/10	<0.20

SES-MW26	Vinyl Chloride
06/03/10	<0.20

SB06	Vinyl Chloride
04/26/10	<0.20

SB01	Vinyl Chloride
04/26/10	<0.20

SES-MW25	Vinyl Chloride
06/03/10	<0.20

HC-MW-9	Vinyl Chloride
02/09/07	4.7
04/12/07	8.9
07/02/07	8.5
10/05/07	<0.2
02/06/08	1.2
07/09/08	5.3
02/24/09	3.2
05/21/09	5.7
06/04/10	2.3

SB-26	ORPH
04/26/20	1,230

SB08	Vinyl Chloride	ORPH
04/26/10	<0.20	970

HC-MW-10	Vinyl Chloride
02/09/07	2.5
04/12/07	3.5
07/02/07	3.9
10/05/07	3.6
02/06/08	2.9
07/09/08	2.9
02/24/09	1.7
05/21/09	0.51
06/04/10	0.89

HC-MW-13	Vinyl Chloride
02/05/08	<0.2
02/24/09	3.3
05/21/09	1.3

HC-MW-23	Vinyl Chloride
01/25/07	1.5
04/12/07	<0.2
07/03/07	0.6
10/05/07	<0.2
02/06/08	<0.2

LEGEND

- SW — UNDERGROUND STORM DRAIN LINE
- SS — UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND FLOOR DRAIN LINE
- RAILROAD
- X — FENCE
- SUBJECT PROPERTY BOUNDARY
- 160 — GROUND SURFACE ELEVATION CONTOUR IN FEET (MEAN SEA LEVEL)
- CATCH BASIN
- STORM DRAIN MANHOLE
- SANITARY SEWER MANHOLE
- INDOOR FLOOR DRAIN

HART CROWSER EXPLORATION LOCATION AND NUMBER

- HC-MW-11 MONITORING WELL (2006)
- HC-MW-7 MONITORING WELL (2005)
- HC-MW4 MONITORING WELL (2003)
- SP-7 DIRECT-PUSH BORING WITH RECONNAISSANCE GROUNDWATER SAMPLE (2003)
- SP-H DIRECT-PUSH BORING WITH RECONNAISSANCE GROUNDWATER SAMPLE (2006)
- SP-M RECONNAISSANCE GROUNDWATER SAMPLE (2006)
- SP-A DIRECT-PUSH BORING (2006)
- SP-1 DIRECT-PUSH BORING (2003)
- HA-1 HAND AUGER/BORING (1990)
- B-1 HOLLOW-STEM BORING (1991)

SCS ENGINEERS EXPLORATION LOCATION AND NUMBER

- SB-11 DIRECT-PUSH BORING WITH MONITORING WELL (2004/2005)
- SB-35 DIRECT-PUSH BORING WITH RECONNAISSANCE GROUNDWATER SAMPLE (2004/2005)
- SB-32 DIRECT-PUSH BORING (2004/2005)

SOUND ENVIRONMENTAL STRATEGIES (SES) EXPLORATION LOCATION AND NUMBER

- SES-MW27 MONITORING WELL (2010)
- SB01 DIRECT-PUSH BORING (2010)

- RED — REPORTED CONCENTRATION EXCEEDS MTCA METHOD A CLEANUP LEVEL FOR GROUNDWATER
- DRPH — DIESEL-RANGE PETROLEUM HYDROCARBONS
- ORPH — OIL-RANGE PETROLEUM HYDROCARBONS
- GRPH — GASOLINE-RANGE PETROLEUM HYDROCARBONS
- MTCA — WASHINGTON STATE MODEL TOXICS CONTROL ACT
- < — RESULTS IS BELOW THE LABORATORY REPORTING LIMIT
- -- — NOT ANALYZED
- NR — NOT REPORTED
- MBV — MOSS BAY VISTA CONDOMINIUM PROPERTY

RESULTS ARE REPORTED IN MICROGRAMS PER LITER (ug/L)

	DRPH	ORPH	Vinyl Chloride
MTCA	500	500	0.2

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 06/18/2010
DRAWN BY: JQC/BLR
CHECKED BY: TJC
CAD FILE: 0698-001-2010SRI_GD10

PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-01
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY,STATE: KIRKLAND, WA

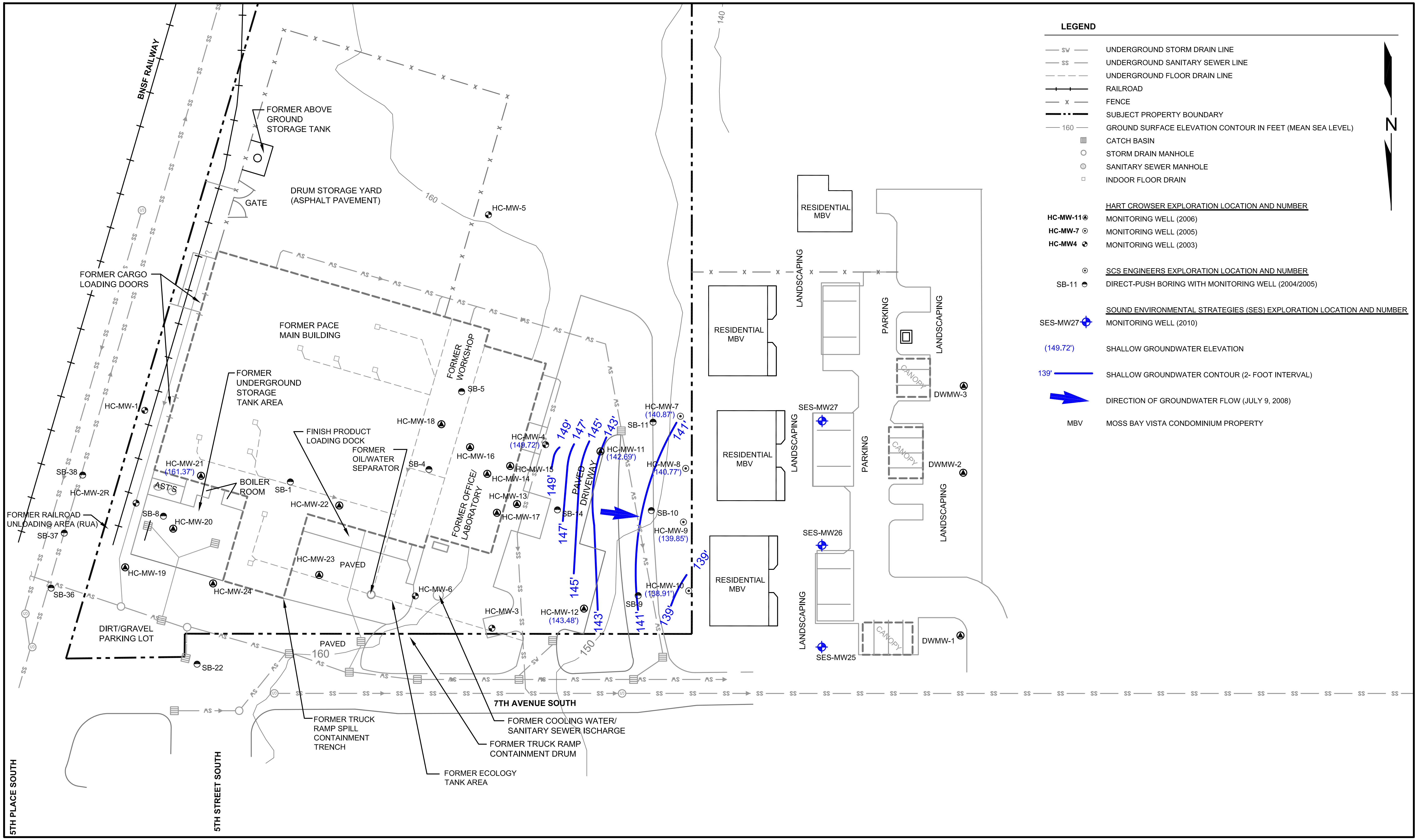
REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 12

MAP SHOWING GROUNDWATER ANALYTICAL RESULTS FOR VINYL CHLORIDE, DRPH, AND ORPH (2007 THROUGH 2010)

9/2/2010
P:\0698 ULTRA - FORMER PACE NATIONAL\0698-001-02 SUPP RI-FS\TECHNICAL\CAD\RIFS 2010\0698-001_2010SRI_GD10.DWG



9/2/2010

P:\0698 ULTRA - FORMER PACE NATIONAL\0698-001-02 SUPP RI-FS\TECHNICAL\CAD\RIFS 2010\0698-001 2010SRI_CM08Q3.DWG

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

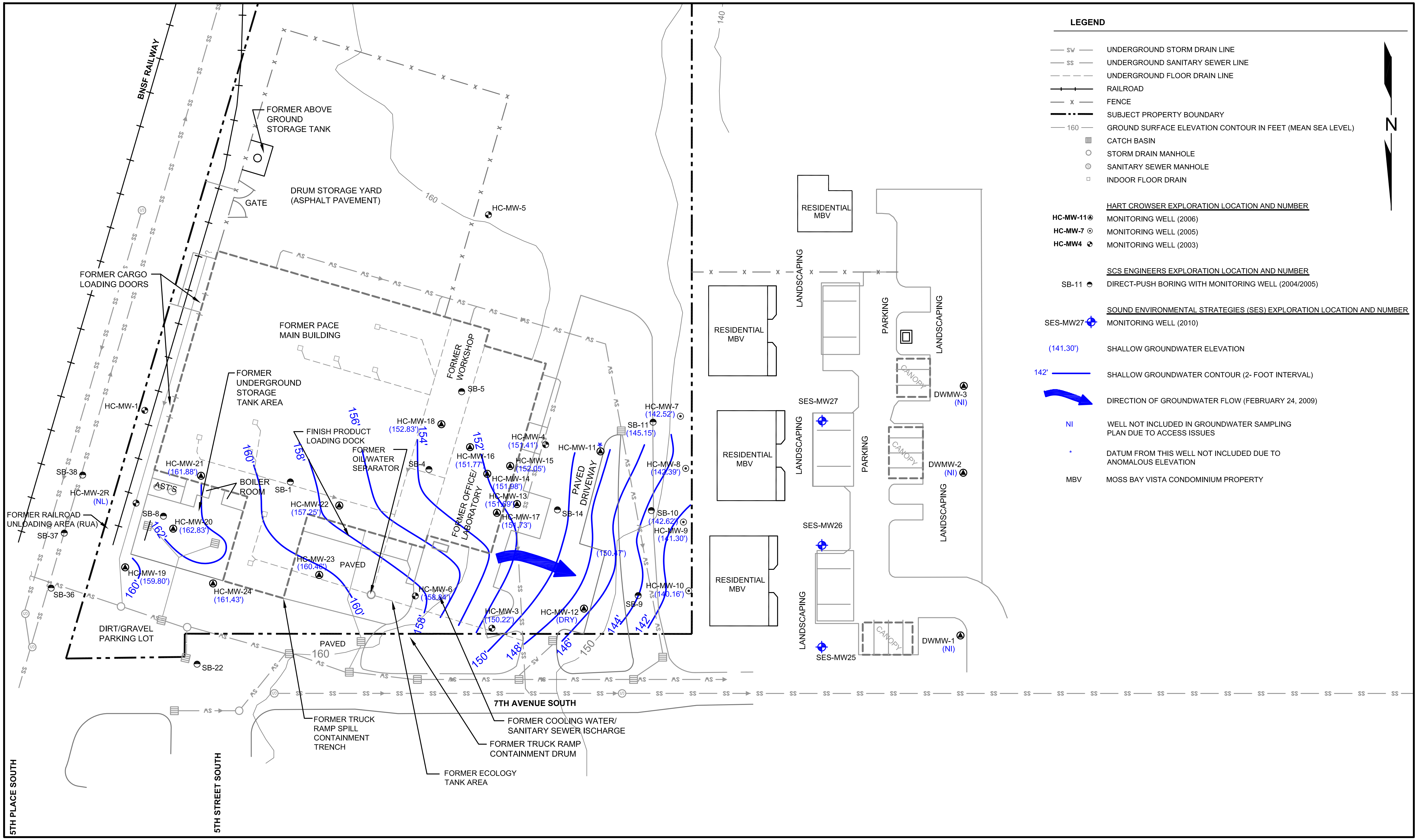
DATE: 06/17/10
DRAWN BY: NAC/JQC
CHECKED BY: TJC
CAD FILE: 0698-001-2010SRI_CM08Q3

PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY,STATE: KIRKLAND, WA

REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 13
MAP SHOWING GROUNDWATER ELEVATION CONTOURS (JULY 2008)



P:\0698 ULTRA - FORMER PACE NATIONAL\0698-001-02 SUPP RI-FS\TECHNICAL\CAD\RIFS 2010\0698-001 2010SRI_CM09Q1.DWG 9/2/2010

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 06/17/10
DRAWN BY: NAC/JQC
CHECKED BY: TJC
CAD FILE: 0698-001-2010SRI_CM09Q1

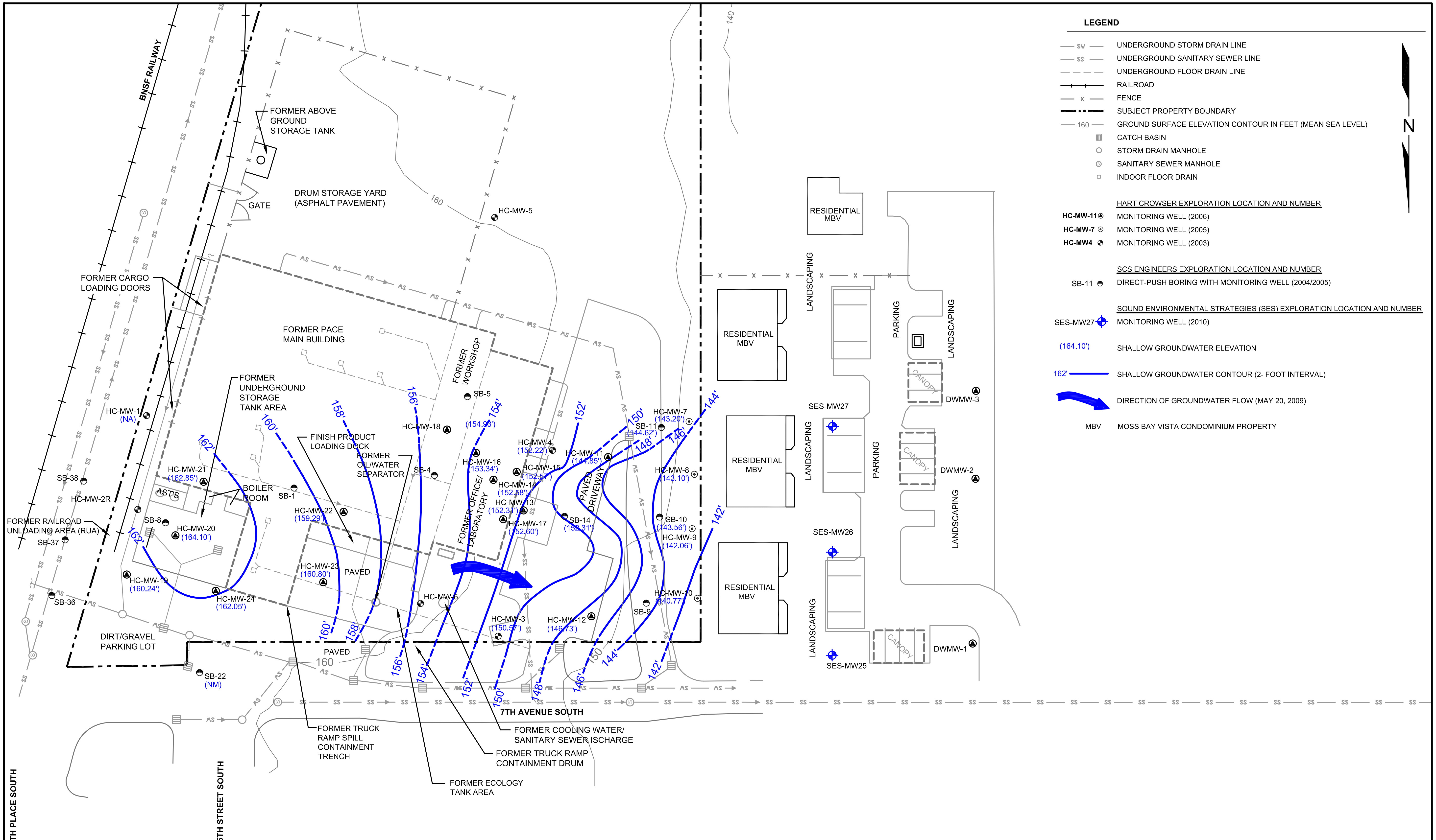
PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY,STATE: KIRKLAND, WA

REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 14

MAP SHOWING GROUNDWATER ELEVATION CONTOURS (FEBRUARY 2009)



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SOUNDENVIRONMENTAL.COM

DATE: 06/17/10
DRAWN BY: NAC/JQC
CHECKED BY: TJC
CAD FILE: 0698-001-2010SRI_CM09Q2

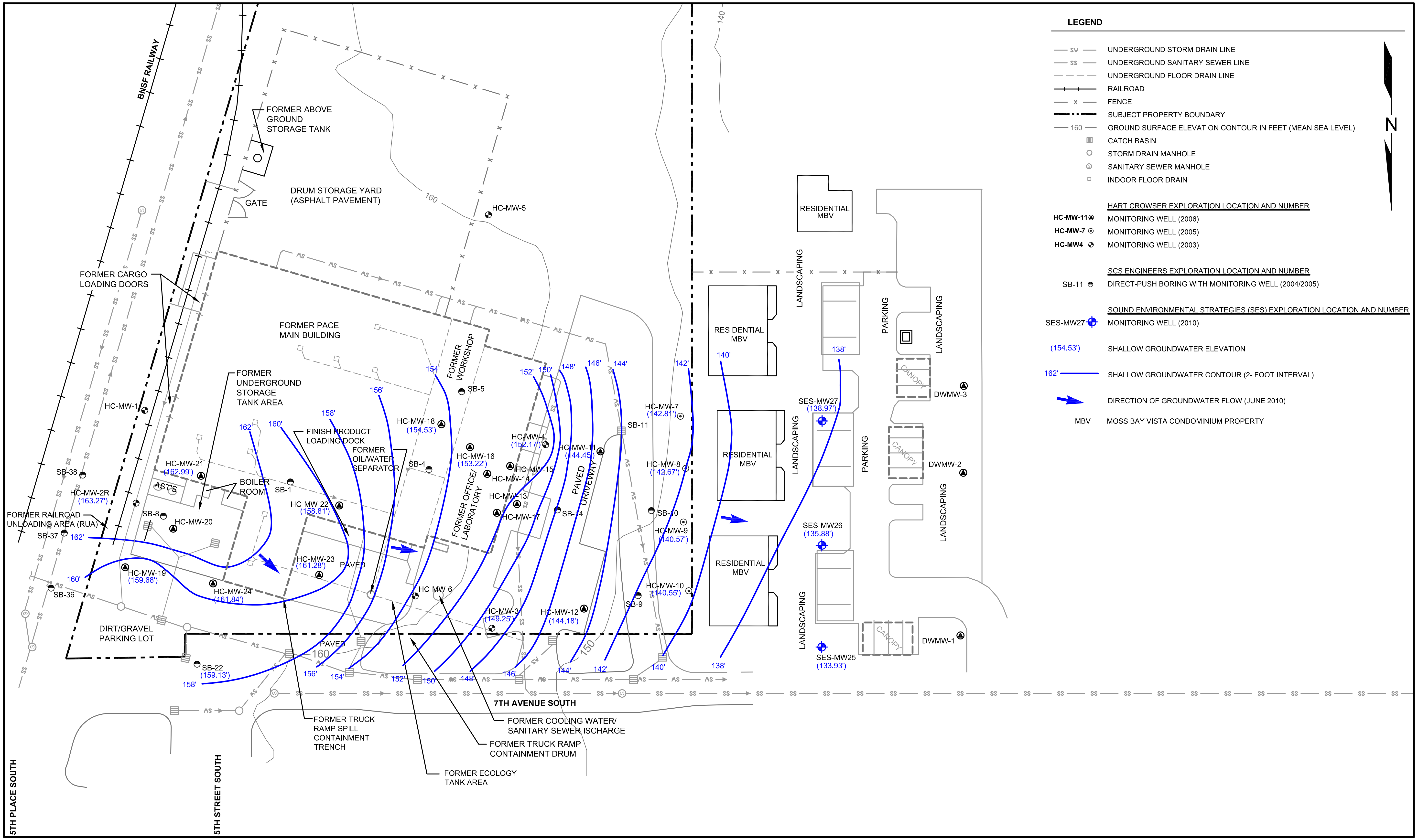
PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY,STATE: KIRKLAND, WA

REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 15
MAP SHOWING GROUNDWATER ELEVATION CONTOURS (MAY 2009)

P:\0698 ULTRA - FORMER PACE NATIONAL\0698-001-02 SUPP RI-FS\TECHNICAL\CAD\RIFS 2010\0698-001 2010SRI_CM09Q2.DWG 9/2/2010



9/2/2010

P:\0698 ULTRA - FORMER PACE NATIONAL\0698-001-02 SUPP RI-FS\TECHNICAL\CAD\RIFS 2010\0698-001_2010SRI_CM10Q2.DWG

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DATE:	06/17/10
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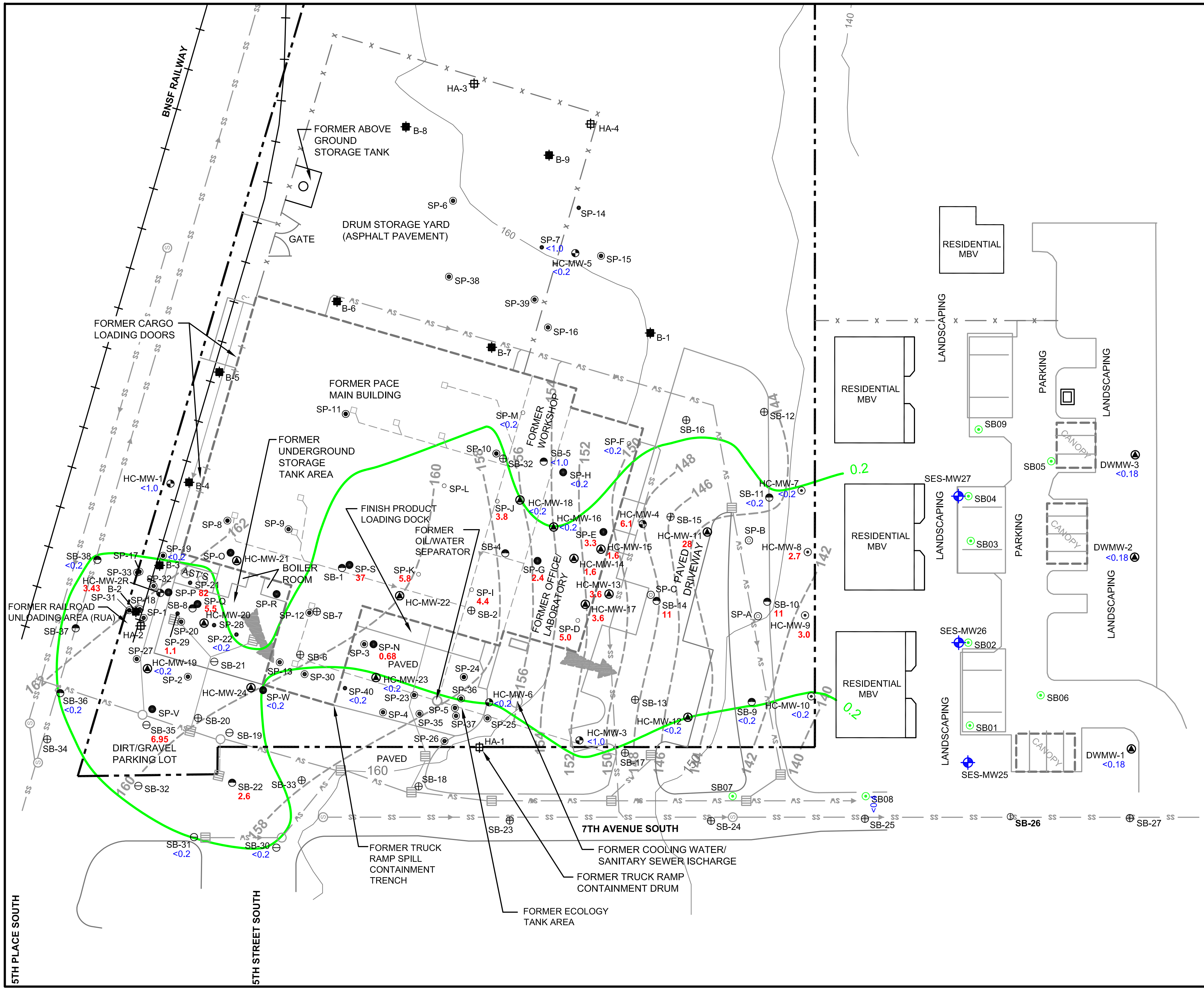
CAD FILE:	0698-001-2010SRI_CM10Q2

PROJECT NAME:	FORMER PACE NATIONAL
SES PROJECT NUMBER:	0698-001-02
STREET ADDRESS:	500 7TH AVENUE SOUTH
CITY,STATE:	KIRKLAND, WA

REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 16
MAP SHOWING GROUNDWATER ELEVATION CONTOURS (JUNE 2010)



LEGEND

- UNDERGROUND STORM DRAIN LINE
- UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND FLOOR DRAIN LINE
- RAILROAD
- FENCE
- SUBJECT PROPERTY BOUNDARY
- 160 — GROUND SURFACE ELEVATION CONTOUR IN FEET (MEAN SEA LEVEL)
- CATCH BASIN
- STORM DRAIN MANHOLE
- SANITARY SEWER MANHOLE
- INDOOR FLOOR DRAIN

HART CROWSER EXPLORATION LOCATION AND NUMBER

- HC-MW-11 — MONITORING WELL (2006)
- HC-MW-7 — MONITORING WELL (2005)
- HC-MW4 — MONITORING WELL (2003)
- SP-7 — DIRECT-PUSH BORING WITH RECONNAISSANCE GROUNDWATER SAMPLE (2003)
- SP-H — DIRECT-PUSH BORING WITH RECONNAISSANCE GROUNDWATER SAMPLE (2006)
- SP-M — RECONNAISSANCE GROUNDWATER SAMPLE (2006)
- SP-A — DIRECT-PUSH BORING (2006)
- SP-1 — DIRECT-PUSH BORING (2003)
- HA-1 — HAND AUGER/BORING (1990)
- B-1 — HOLLOW-STEM BORING (1991)

SCS ENGINEERS EXPLORATION LOCATION AND NUMBER

- SB-11 — DIRECT-PUSH BORING WITH MONITORING WELL (2004/2005)
- SB-35 — DIRECT-PUSH BORING WITH RECONNAISSANCE GROUNDWATER SAMPLE (2004/2005)
- SB-32 — DIRECT-PUSH BORING (2004/2005)

SOUND ENVIRONMENTAL STRATEGIES (SES) EXPLORATION LOCATION AND NUMBER

- SES-MW27 — MONITORING WELL (2010)
- SB01 — DIRECT-PUSH BORING (2010)

- BLUE — CONCENTRATION LESS THAN LABORATORY REPORTING LIMIT
- RED — RED INDICATES SAMPLE LOCATION WITH CONCENTRATIONS EXCEEDING MTCA METHOD CLEANUP LEVELS FOR GROUNDWATER
- < — RESULTS NOT REPORTED ABOVE LABORATORY REPORTING LIMIT
- MTCA A — WASHINGTON STATE MODEL TOXICS CONTROL ACT
- RESULTS ARE REPORTED IN MICROGRAMS PER LITER (µg/L)
- ISOCONCENTRATION-MTCA METHOD A GROUNDWATER CLEANUP LEVEL
- 148 — GROUNDWATER ELEVATION CONTOUR IN FEET (FEBRUARY 2006)
- GROUNDWATER FLOW DIRECTION (FEBRUARY 2006)
- MBV — MOSS BAY VISTA CONDOMINIUM PROPERTY

N

NOTE: THE REPORTED VINYL CHLORIDE RESULTS ARE FROM THE MOST RECENT FOR EACH WELL SAMPLED AS OF 2003, 2004, 2005, OR 2006.

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CAD FILE: 0698-001-2010SRI_VOC06

PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-01
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY,STATE: KIRKLAND, WA

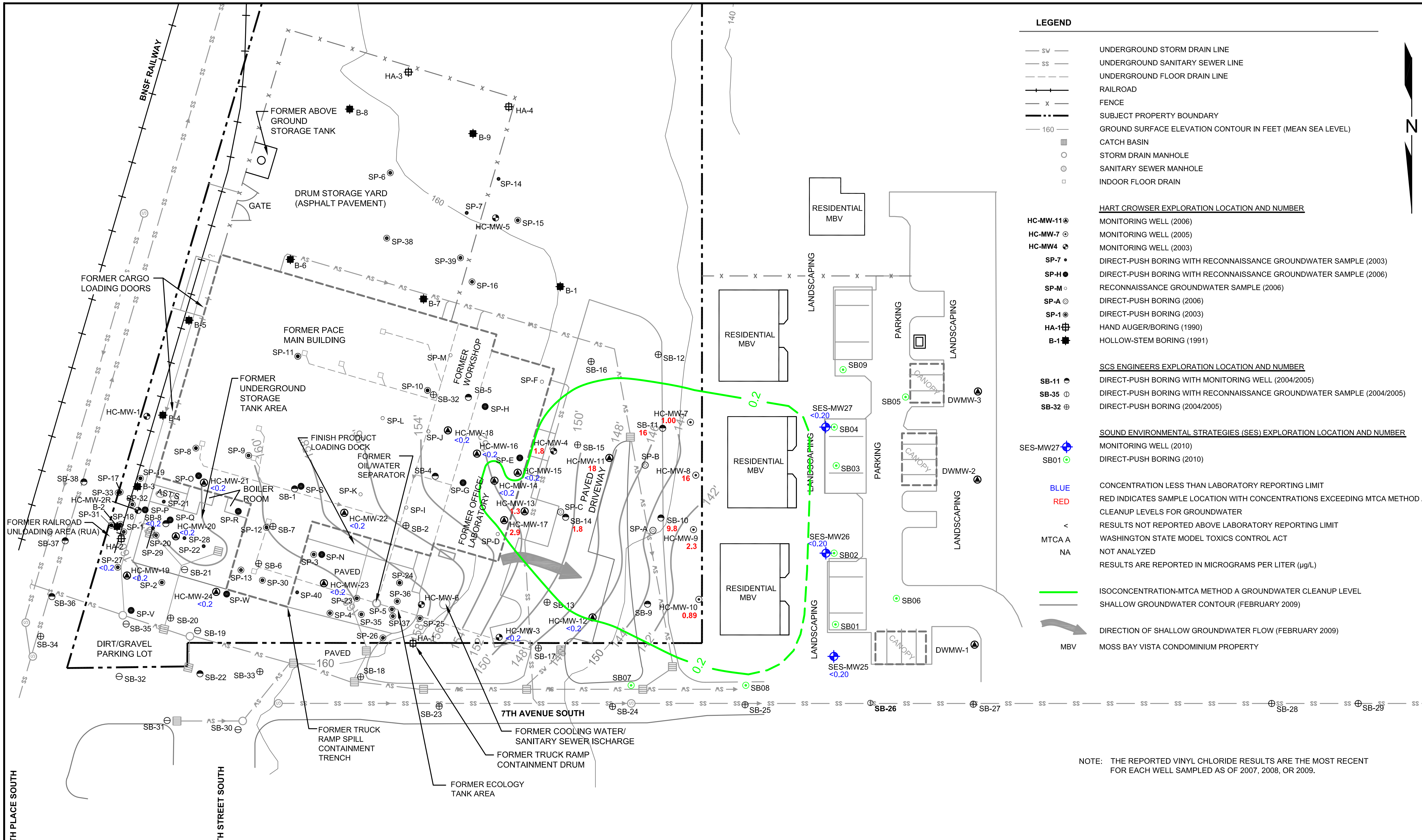
REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 17

MAP SHOWING VINYL CHLORIDE CONCENTRATIONS IN GROUNDWATER 2003, 2004, 2005, OR 2006

P:\0698 ULTRA - FORMER PACE NATIONAL\0698-001-02 SUPP RI-FS\TECHNICAL\CAD\RIFS 2010\0698-001_2010SRI_VOC06.DWG 9/2/2010



SOUND ENVIRONMENTAL STRATEGIES
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DATE: 06/18/2010
DRAWN BY: JQC/BLR
CHECKED BY: TJC
CAD FILE: 0698-001-2010SRI_VOC09

PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-01
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY,STATE: KIRKLAND, WA

REGION:

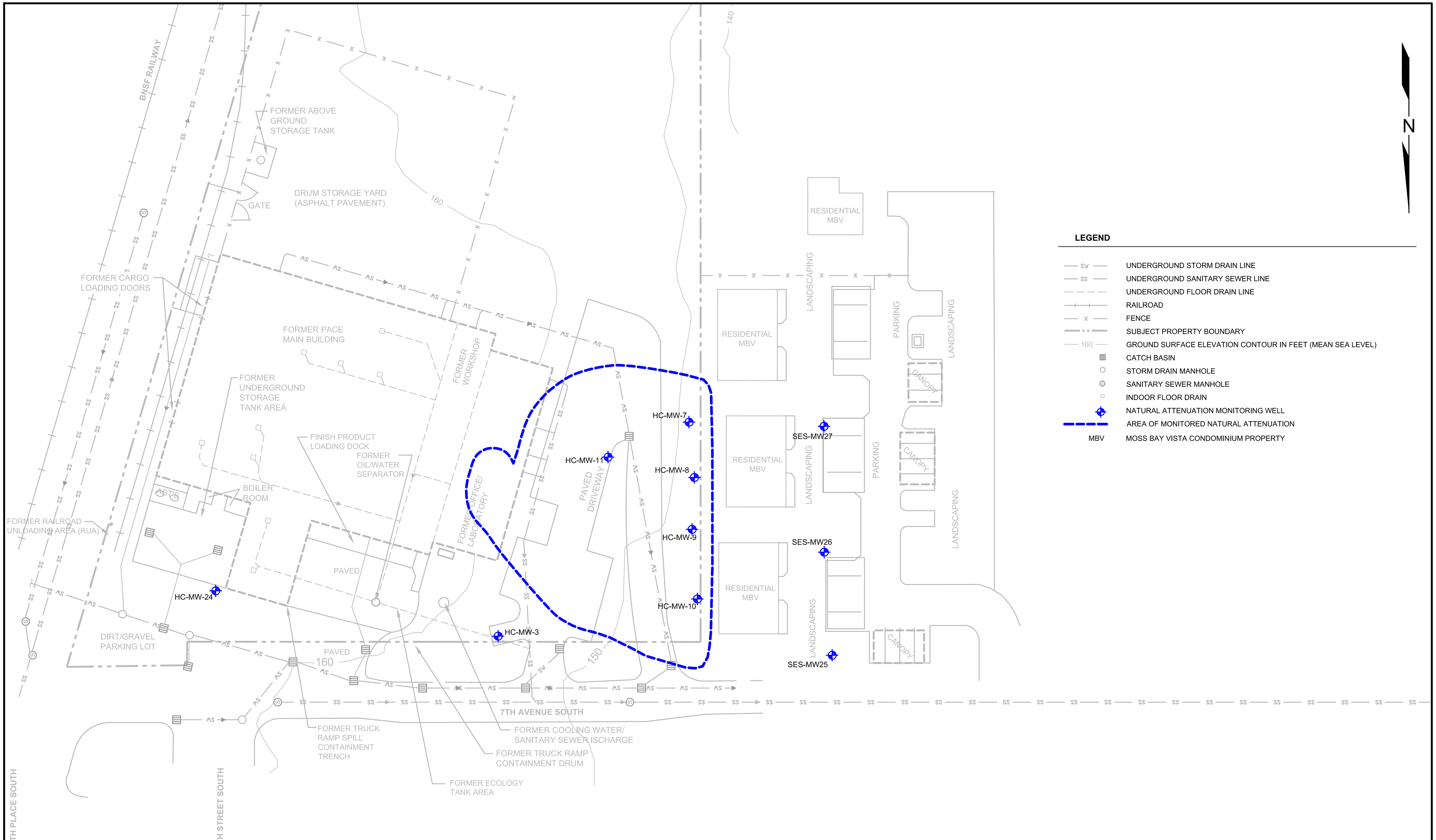
0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 18
MAP SHOWING VINYL CHLORIDE CONCENTRATIONS IN GROUNDWATER 2007, 2008, 2009 OR 2010

P:\0698 ULTRA - FORMER PACE NATIONAL\0698-001-02 SUPP RI-FS\TECHNICAL\CAD\RIFS 2010\0698-001_2010SRI_VOC09.DWG 9/2/2010

10/12/2010

P:\0698 ULTRA - FORMER PACE NATIONAL\0698-001-02 SUPP RI-FS\TECHNICAL\CAD\RIFS 2010\0698-001_2010SRI_CP1.DWG



SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 08/03/2010
DRAWN BY: NAC
CHECKED BY: TJC
CAD FILE: 0698-001-2010SRI_CP1

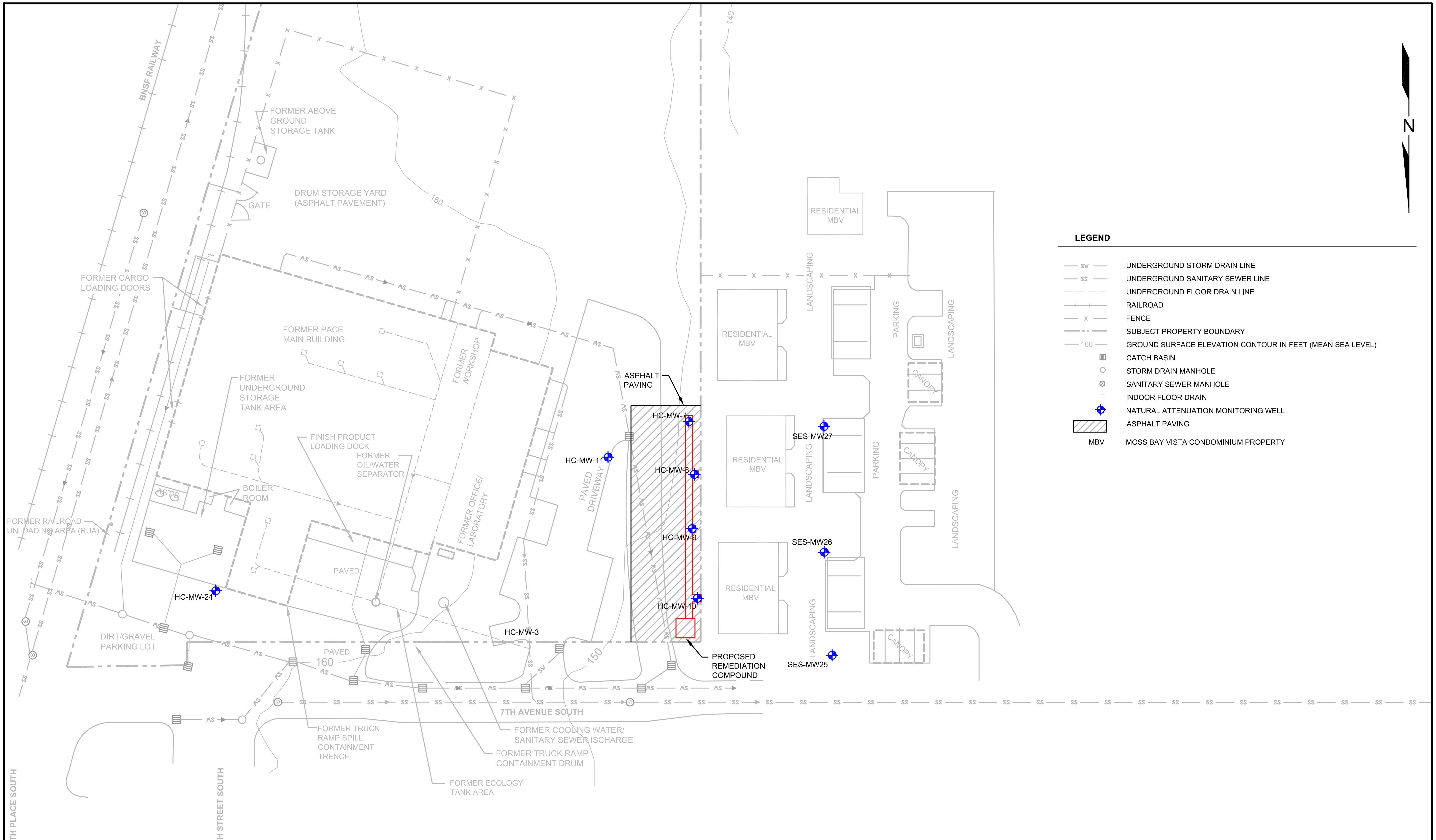
PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY,STATE: KIRKLAND, WA

REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 19
CLEANUP ALTERNATIVE 1:
MONITORED NATURAL ATTENUATION

SOUNDENVIRONMENTAL.COM



P:\0698 ULTRA - FORMER PACE NATIONAL\0698-001-02 SUPP RI-FS\TECHNICAL\CAD\RIFS 2010\0698-001_2010SRI_CP2.DWG 9/2/2010

SOUND ENVIRONMENTAL STRATEGIES
SOUNDENVIRONMENTAL.COM

DATE: 08/03/2010
DRAWN BY: NAC
CHECKED BY: TJC
CAD FILE: 0698-001-2010SRI_CP2

PROJECT NAME: FORMER PACE NATIONAL
SES PROJECT NUMBER: 0698-001-02
STREET ADDRESS: 500 7TH AVENUE SOUTH
CITY,STATE: KIRKLAND, WA

REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 20
CLEANUP ALTERNATIVE 2:
AIR SPARGE AND
SOIL VAPOR EXTRACTION

TABLES

Table 1
Summary of Historical Groundwater Elevations
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Date	Sampled By	Well Status	TOC (feet)	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)
HC-MW-1	05/20/09	SES	Active	NM	NM	NM
	06/03/10	SES	Active	NM	0.55	NM
HC-MW-2R	01/13/05	SCS Engineers	Active	165.00	1.96	163.04
	06/20/05	SCS Engineers	Active	165.00	2.29	162.71
	06/03/10	SES	Active	165.00	1.73	163.27
HC-MW-3	02/14/06	HartCrowser	Active	154.91	3.08	151.83
	03/06/06	HartCrowser	Active	154.91	3.95	150.96
	04/20/06	HartCrowser	Active	154.91	NM	NM
	05/16/06	HartCrowser	Active	154.91	NM	NM
	06/15/06	HartCrowser	Active	154.91	NM	NM
	07/13/06	HartCrowser	Active	154.91	NM	NM
	01/25/07	HartCrowser	Active	154.91	NM	NM
	02/08/07	HartCrowser	Active	154.91	NM	151.06
	04/12/07	HartCrowser	Active	154.91	NM	146.11
	10/03/07	HartCrowser	Active	154.91	NM	NM
	02/05/08	HartCrowser	Active	154.91	NM	NM
	02/24/09	SES	Active	154.91	4.69	150.22
	05/20/09	SES	Active	154.91	4.34	150.57
	06/03/10	SES	Active	154.91	5.66	149.25
HC-MW-4	01/13/05	SCS Engineers	Active	154.91	Dry	Dry
	06/20/05	HartCrowser	Active	154.91	Dry	Dry
	02/14/06	HartCrowser	Active	158.75	10.75	148.00
	03/06/06	HartCrowser	Active	158.75	NM	NM
	04/20/06	HartCrowser	Active	158.75	8.22	150.53
	05/16/06	HartCrowser	Active	158.75	8.13	150.62
	06/15/06	HartCrowser	Active	158.75	7.17	151.58
	07/13/06	HartCrowser	Active	158.75	7.16	151.59
	01/25/07	HartCrowser	Active	158.75	NM	NM
	02/08/07	HartCrowser	Active	158.75	NM	151.37
	04/12/07	HartCrowser	Active	158.75	NM	151.43
	10/03/07	HartCrowser	Active	158.75	NM	Dry
	02/05/08	HartCrowser	Active	158.75	NM	151.19
	07/09/08	SES	Active	158.75	9.03	149.72
	02/24/09	SES	Active	158.75	7.34	151.41
	05/20/09	SES	Active	158.75	6.53	152.22
	06/03/10	SES	Active	158.75	6.58	152.17
HC-MW-5	01/13/05	SCS Engineers	Active	161.14	6.28	154.86
	06/20/05	HartCrowser	Active	161.14	7.38	153.76
	02/14/06	HartCrowser	Active	161.14	NM	NM
	03/06/06	HartCrowser	Active	161.14	6.38	154.76
	04/20/06	HartCrowser	Active	161.14	NM	NM
	05/16/06	HartCrowser	Active	161.14	NM	NM
	06/15/06	HartCrowser	Active	161.14	NM	NM
	07/13/06	HartCrowser	Active	161.14	NM	NM
	01/25/07	HartCrowser	Active	161.14	NM	NM
	02/08/07	HartCrowser	Active	161.14	NM	NM
	04/12/07	HartCrowser	Active	161.14	NM	NM
	10/03/07	HartCrowser	Active	161.14	NM	NM
	02/05/08	HartCrowser	Active	161.14	NM	NM

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Table 1
Summary of Historical Groundwater Elevations
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Date	Sampled By	Well Status	TOC (feet)	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)
HC-MW-6	01/13/05	SCS Engineers	Active	164.69	8.10	156.59
	06/20/05	HartCrowser	Active	164.69	8.67	156.02
	02/14/06	HartCrowser	Active	164.69	7.04	157.65
	03/06/06	HartCrowser	Active	164.69	6.96	157.73
	04/20/06	HartCrowser	Active	164.69	7.13	157.56
	05/16/06	HartCrowser	Active	164.69	8.76	155.93
	06/15/06	HartCrowser	Active	164.69	7.04	157.65
	07/13/06	HartCrowser	Active	164.69	9.50	155.19
	01/25/07	HartCrowser	Active	164.69	NM	NM
	02/08/07	HartCrowser	Active	164.69	NM	NM
	04/12/07	HartCrowser	Active	164.69	NM	NM
	10/03/07	HartCrowser	Active	164.69	NM	NM
	02/05/08	HartCrowser	Active	164.69	NM	NM
	02/24/09	SES	Active	164.69	5.85	158.84
	05/20/09	SES	Active	164.69	Dry	Dry
	06/03/10	SES	Active	164.69	Dry	Dry
HC-MW-7	02/14/06	HartCrowser	Active	148.03	4.94	143.09
	03/06/06	HartCrowser	Active	148.03	5.10	142.93
	04/20/06	HartCrowser	Active	148.03	5.51	142.52
	05/16/06	HartCrowser	Active	148.03	6.30	141.73
	06/15/06	HartCrowser	Active	148.03	5.77	142.26
	07/13/06	HartCrowser	Active	148.03	6.84	141.19
	01/25/07	HartCrowser	Active	148.03	NM	NM
	02/08/07	HartCrowser	Active	148.03	NM	142.84
	04/12/07	HartCrowser	Active	148.03	NM	142.70
	10/03/07	HartCrowser	Active	148.03	NM	140.09
	02/05/08	HartCrowser	Active	148.03	NM	142.87
	07/09/08	SES	Active	148.03	7.16	140.87
	02/24/09	SES	Active	148.03	5.51	142.52
	05/20/09	SES	Active	148.03	4.83	143.20
	06/03/10	SES	Active	148.03	5.22	142.81
HC-MW-8	02/14/06	HartCrowser	Active	146.92	3.90	143.02
	03/06/06	HartCrowser	Active	146.92	4.05	142.87
	04/20/06	HartCrowser	Active	146.92	4.50	142.42
	05/16/06	HartCrowser	Active	146.92	5.28	141.64
	06/15/06	HartCrowser	Active	146.92	4.70	142.22
	07/13/06	HartCrowser	Active	146.92	5.71	141.21
	01/25/07	HartCrowser	Active	146.92	NM	NM
	02/08/07	HartCrowser	Active	146.92	NM	142.77
	04/12/07	HartCrowser	Active	146.92	NM	142.49
	10/03/07	HartCrowser	Active	146.92	NM	140.07
	02/05/08	HartCrowser	Active	146.92	NM	142.77
	07/09/08	SES	Active	146.92	6.15	140.77
	02/24/09	SES	Active	146.92	4.53	142.39
	05/20/09	SES	Active	146.92	3.82	143.10
	06/03/10	SES	Active	146.92	4.25	142.67

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Table 1
Summary of Historical Groundwater Elevations
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Date	Sampled By	Well Status	TOC (feet)	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)
HC-MW-9	02/14/06	HartCrowser	Active	144.45	2.93	141.52
	03/06/06	HartCrowser	Active	144.45	3.07	141.38
	04/20/06	HartCrowser	Active	144.45	3.19	141.26
	05/16/06	HartCrowser	Active	144.45	3.79	140.66
	06/15/06	HartCrowser	Active	144.45	3.20	141.25
	07/13/06	HartCrowser	Active	144.45	3.93	140.52
	01/25/07	HartCrowser	Active	144.45	NM	NM
	02/08/07	HartCrowser	Active	144.45	NM	141.69
	04/12/07	HartCrowser	Active	144.45	NM	141.34
	10/03/07	HartCrowser	Active	144.45	NM	139.16
	02/05/08	HartCrowser	Active	144.45	NM	141.51
	07/09/08	SES	Active	144.45	4.60	139.85
	02/24/09	SES	Active	144.45	3.15	141.30
	05/20/09	SES	Active	144.45	2.39	142.06
	06/03/10	SES	Active	144.45	3.88	140.57
HC-MW-10	02/14/06	HartCrowser	Active	141.31	0.72	140.59
	03/06/06	HartCrowser	Active	141.31	0.73	140.58
	04/20/06	HartCrowser	Active	141.31	0.79	140.52
	05/16/06	HartCrowser	Active	141.31	1.37	139.94
	06/15/06	HartCrowser	Active	141.31	0.93	140.38
	07/13/06	HartCrowser	Active	141.31	1.55	139.76
	01/25/07	HartCrowser	Active	141.31	NM	NM
	02/08/07	HartCrowser	Active	141.31	NM	140.50
	04/12/07	HartCrowser	Active	141.31	NM	140.40
	10/03/07	HartCrowser	Active	141.31	NM	136.79
	02/05/08	HartCrowser	Active	141.31	NM	140.04
	07/09/08	SES	Active	141.31	2.40	138.91
	02/24/09	SES	Active	141.31	1.15	140.16
	05/20/09	SES	Active	141.31	0.54	140.77
	06/03/10	SES	Active	141.31	0.76	140.55
HC-MW-11	02/14/06	HartCrowser	Active	156.75	12.92	143.83
	03/06/06	HartCrowser	Active	156.75	12.86	143.89
	04/20/06	HartCrowser	Active	156.75	13.01	143.74
	05/16/06	HartCrowser	Active	156.75	13.45	143.30
	06/15/06	HartCrowser	Active	156.75	12.94	143.81
	07/13/06	HartCrowser	Active	156.75	13.42	143.33
	01/25/07	HartCrowser	Active	156.75	NM	NM
	02/08/07	HartCrowser	Active	156.75	NM	144.19
	04/12/07	HartCrowser	Active	156.75	NM	144.16
	10/03/07	HartCrowser	Active	156.75	NM	141.32
	02/05/08	HartCrowser	Active	156.75	NM	144.31
	02/24/09	SES	Active	156.75	12.85	143.90
	05/20/09	SES	Active	156.75	11.90	144.85
	06/03/10	SES	Active	156.75	12.30	144.45

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Table 1
Summary of Historical Groundwater Elevations
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Date	Sampled By	Well Status	TOC (feet)	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)
HC-MW-12	02/14/06	HartCrowser	Active	154.23	9.44	144.79
	03/06/06	HartCrowser	Active	154.23	9.29	144.94
	04/20/06	HartCrowser	Active	154.23	9.70	144.53
	05/16/06	HartCrowser	Active	154.23	10.04	144.19
	06/15/06	HartCrowser	Active	154.23	9.63	144.60
	07/13/06	HartCrowser	Active	154.23	10.14	144.09
	01/25/07	HartCrowser	Active	154.23	NM	NM
	02/08/07	HartCrowser	Active	154.23	NM	144.47
	04/12/07	HartCrowser	Active	154.23	NM	144.69
	10/03/07	HartCrowser	Active	154.23	NM	142.49
	02/05/08	HartCrowser	Active	154.23	NM	144.79
	02/24/09	SES	Active	154.23	Dry	--
	05/20/09	SES	Active	154.23	7.50	146.73
	06/03/10	SES	Active	154.23	10.05	144.18
HC-MW-13	01/25/07	HartCrowser	Active	159.00	NM	NM
	02/08/07	HartCrowser	Active	159.00	NM	NM
	04/12/07	HartCrowser	Active	159.00	NM	NM
	10/03/07	HartCrowser	Active	159.00	NM	NM
	02/05/08	HartCrowser	Active	159.00	NM	151.20
	02/24/09	SES	Active	159.00	7.31	151.69
	05/20/09	SES	Active	159.00	6.69	152.31
	06/03/10	SES	Active	159.00	6.41	152.59
HC-MW-14	01/25/07	HartCrowser	Active	159.29	NM	NM
	02/08/07	HartCrowser	Active	159.29	NM	NM
	04/12/07	HartCrowser	Active	159.29	NM	NM
	10/03/07	HartCrowser	Active	159.29	NM	Dry
	02/05/08	HartCrowser	Active	159.29	NM	151.54
	02/24/09	SES	Active	159.29	7.31	151.98
	05/20/09	SES	Active	159.29	6.71	152.58
HC-MW-15	01/25/07	HartCrowser	Active	159.66	NM	NM
	02/08/07	HartCrowser	Active	159.66	NM	NM
	04/12/07	HartCrowser	Active	159.66	NM	NM
	10/03/07	HartCrowser	Active	159.66	NM	Dry
	02/05/08	HartCrowser	Active	159.66	NM	151.61
	02/24/09	SES	Active	159.66	7.61	152.05
	05/20/09	SES	Active	159.66	7.09	152.57
HC-MW-16	01/25/07	HartCrowser	Active	159.70	NM	NM
	02/08/07	HartCrowser	Active	159.70	NM	NM
	04/12/07	HartCrowser	Active	159.70	NM	NM
	10/03/07	HartCrowser	Active	159.70	NM	NM
	02/05/08	HartCrowser	Active	159.70	NM	152.23
	02/24/09	SES	Active	159.70	7.93	151.77
	05/20/09	SES	Active	159.70	6.36	153.34
	06/03/10	SES	Active	159.70	6.48	153.22
HC-MW-17	01/25/07	HartCrowser	Active	159.09	NM	NM
	02/08/07	HartCrowser	Active	159.09	NM	NM
	04/12/07	HartCrowser	Active	159.09	NM	NM
	10/03/07	HartCrowser	Active	159.09	NM	147.53
	02/05/08	HartCrowser	Active	159.09	NM	151.51
	02/24/09	SES	Active	159.09	7.36	151.73
	05/20/09	SES	Active	159.09	6.49	152.60

Table 1
Summary of Historical Groundwater Elevations
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Date	Sampled By	Well Status	TOC (feet)	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)
HC-MW-18	01/25/07	HartCrowser	Active	159.98	NM	NM
	02/08/07	HartCrowser	Active	159.98	NM	NM
	04/12/07	HartCrowser	Active	159.98	NM	NM
	10/03/07	HartCrowser	Active	159.98	NM	NM
	02/05/08	HartCrowser	Active	159.98	NM	155.19
	02/24/09	SES	Active	159.98	7.15	152.83
	05/20/09	SES	Active	159.98	5.05	154.93
	06/03/10	SES	Active	159.98	5.45	154.53
HC-MW-19	01/25/07	HartCrowser	Active	164.38	NM	161.23
	02/08/07	HartCrowser	Active	164.38	NM	159.70
	04/12/07	HartCrowser	Active	164.38	NM	159.56
	10/03/07	HartCrowser	Active	164.38	NM	159.88
	02/05/08	HartCrowser	Active	164.38	NM	159.53
	05/20/09	SES	Active	164.38	4.14	160.24
	06/10/10	SES	Active	164.38	4.70	159.68
HC-MW-20	01/25/07	HartCrowser	Active	165.85	NM	163.24
	02/08/07	HartCrowser	Active	165.85	NM	NM
	04/12/07	HartCrowser	Active	165.85	NM	162.66
	10/03/07	HartCrowser	Active	165.85	NM	161.65
	02/05/08	HartCrowser	Active	165.85	NM	163.22
	02/24/09	SES	Active	165.85	3.02	162.83
	05/20/09	SES	Active	165.85	1.75	164.10
HC-MW-21	01/25/07	HartCrowser	Active	168.38	NM	162.46
	02/08/07	HartCrowser	Active	168.38	NM	NM
	04/12/07	HartCrowser	Active	168.38	NM	162.09
	10/03/07	HartCrowser	Active	168.38	NM	160.38
	02/05/08	HartCrowser	Active	168.38	NM	162.16
	02/24/09	SES	Active	168.38	6.50	161.88
	05/20/09	SES	Active	168.38	5.53	162.85
	06/03/10	SES	Active	168.38	5.39	162.99

Table 1
Summary of Historical Groundwater Elevations
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Date	Sampled By	Well Status	TOC (feet)	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)
HC-MW-22	01/25/07	HartCrowser	Active	168.66	NM	158.27
	02/08/07	HartCrowser	Active	168.66	NM	NM
	04/12/07	HartCrowser	Active	168.66	NM	157.41
	10/03/07	HartCrowser	Active	168.66	NM	155.74
	02/05/08	HartCrowser	Active	168.66	NM	158.19
	02/24/09	SES	Active	168.66	11.41	157.25
	05/20/09	SES	Active	168.66	9.37	159.29
	06/03/10	SES	Active	168.66	9.85	158.81
HC-MW-23	01/25/07	HartCrowser	Active	165.58	NM	160.24
	02/08/07	HartCrowser	Active	165.58	NM	NM
	04/12/07	HartCrowser	Active	165.58	NM	158.75
	10/03/07	HartCrowser	Active	165.58	NM	159.12
	02/05/08	HartCrowser	Active	165.58	NM	159.88
	02/24/09	SES	Active	165.58	5.12	160.46
	05/20/09	SES	Active	165.58	4.78	160.80
	06/03/10	SES	Active	165.58	4.30	161.28
HC-MW-24	01/25/07	HartCrowser	Active	165.38	NM	161.54
	02/08/07	HartCrowser	Active	165.38	NM	NM
	04/12/07	HartCrowser	Active	165.38	NM	161.08
	10/03/07	HartCrowser	Active	165.38	NM	161.03
	02/05/08	HartCrowser	Active	165.38	NM	161.27
	02/24/09	SES	Active	165.38	3.95	161.43
	05/20/09	SES	Active	165.38	3.33	162.05
	06/03/10	SES	Active	165.38	3.51	161.87
SES-MW25	06/30/10	SES	Active	138.48	4.55	133.93
SES-MW26	06/30/10	SES	Active	139.54	3.66	135.88
SES-MW27	06/30/10	SES	Active	139.73	0.76	138.97
SB-1	01/13/05	SCS Engineers	Active	168.83	8.77	160.06
	06/20/05	SCS Engineers	Active	168.93	8.84	160.09
	02/14/06	HartCrowser	Active	168.83	7.19	161.64
	03/06/06	HartCrowser	Active	168.83	NM	NM
	04/20/06	HartCrowser	Active	168.83	NM	NM
	05/16/06	HartCrowser	Active	168.83	NM	NM
	06/15/06	HartCrowser	Active	168.83	NM	NM
	07/13/06	HartCrowser	Active	168.83	NM	NM
	01/25/07	HartCrowser	Active	168.83	NM	NM
	02/08/07	HartCrowser	Active	168.83	NM	NM
	04/12/07	HartCrowser	Active	168.83	NM	NM
	10/03/07	HartCrowser	Active	168.83	NM	NM
	02/05/08	HartCrowser	Active	168.83	NM	NM

Table 1
Summary of Historical Groundwater Elevations
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Date	Sampled By	Well Status	TOC (feet)	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)
SB-4	01/13/05	SCS Engineers	Active	168.93	Dry	Dry
	06/20/05	SCS Engineers	Active	168.93	Dry	Dry
	02/14/06	HartCrowser	Active	168.93	NM	NM
	03/06/06	HartCrowser	Active	168.93	Dry	NM
	04/20/06	HartCrowser	Active	168.93	Dry	NM
	05/16/06	HartCrowser	Active	168.93	NM	NM
	06/15/06	HartCrowser	Active	168.93	NM	NM
	07/13/06	HartCrowser	Active	168.93	NM	NM
	01/25/07	HartCrowser	Active	168.93	NM	NM
	02/08/07	HartCrowser	Active	168.93	NM	NM
	04/12/07	HartCrowser	Active	168.93	NM	NM
	10/03/07	HartCrowser	Active	168.93	NM	157.23
	02/05/08	HartCrowser	Active	168.93	NM	NM
SB-5	01/13/05	SCS Engineers	Active	169.00	14.29	154.71
	06/20/05	SCS Engineers	Active	169.00	NM	NM
	02/14/06	HartCrowser	Active	169.00	14.70	154.30
	03/06/06	HartCrowser	Active	169.00	13.54	155.46
	04/20/06	HartCrowser	Active	169.00	NM	NM
	05/16/06	HartCrowser	Active	169.00	NM	NM
	06/15/06	HartCrowser	Active	169.00	NM	NM
	07/13/06	HartCrowser	Active	169.00	NM	NM
	01/25/07	HartCrowser	Active	169.00	NM	NM
	02/08/07	HartCrowser	Active	169.00	NM	NM
	04/12/07	HartCrowser	Active	169.00	NM	NM
	10/03/07	HartCrowser	Active	169.00	NM	NM
	02/05/08	HartCrowser	Active	169.00	NM	NM
SB-8	01/13/05	SCS Engineers	Active	168.52	8.86	159.66
	06/20/05	SCS Engineers	Active	168.52	6.21	162.31
	02/14/06	HartCrowser	Active	NM	5.14	NM
	03/06/06	HartCrowser	Active	NM	NM	NM
	04/20/06	HartCrowser	Active	NM	NM	NM
	05/16/06	HartCrowser	Active	NM	NM	NM
	06/15/06	HartCrowser	Active	NM	NM	NM
	07/13/06	HartCrowser	Active	NM	NM	NM
	01/25/07	HartCrowser	Active	NM	NM	NM
	02/08/07	HartCrowser	Active	NM	NM	NM
	04/12/07	HartCrowser	Active	NM	NM	NM
	10/03/07	HartCrowser	Active	NM	NM	NM
	02/05/08	HartCrowser	Active	NM	NM	NM
SB-9	01/13/05	SCS Engineers	Active	147.80	6.26	141.54
	06/20/05	SCS Engineers	Active	147.80	9.49	138.31
	02/14/06	HartCrowser	Active	147.80	5.14	142.66
	03/06/06	HartCrowser	Active	147.80	NM	NM
	04/20/06	HartCrowser	Active	147.80	NM	NM
	05/16/06	HartCrowser	Active	147.80	NM	NM
	06/15/06	HartCrowser	Active	147.80	NM	NM
	07/13/06	HartCrowser	Active	147.80	NM	NM
	01/25/07	HartCrowser	Active	147.80	NM	NM
	02/08/07	HartCrowser	Active	147.80	NM	NM
	04/12/07	HartCrowser	Active	147.80	NM	NM
	10/03/07	HartCrowser	Active	147.80	NM	NM
	02/05/08	HartCrowser	Active	147.80	NM	NM

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Table 1
Summary of Historical Groundwater Elevations
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Date	Sampled By	Well Status	TOC (feet)	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)
SB-10	01/13/05	SCS Engineers	Active	151.43	9.49	141.94
	06/20/05	SCS Engineers	Active	151.43	10.28	141.15
	02/14/06	HartCrowser	Active	151.43	NM	NM
	03/06/06	HartCrowser	Active	151.43	8.37	143.06
	04/20/06	HartCrowser	Active	151.43	NM	NM
	05/16/06	HartCrowser	Active	151.43	9.25	142.18
	06/15/06	HartCrowser	Active	151.43	8.70	142.73
	07/13/06	HartCrowser	Active	151.43	9.41	142.02
	01/25/07	HartCrowser	Active	151.43	NM	NM
	02/08/07	HartCrowser	Active	151.43	NM	143.02
	04/12/07	HartCrowser	Active	151.43	NM	142.82
	10/03/07	HartCrowser	Active	151.43	NM	140.81
	02/05/08	HartCrowser	Active	151.43	NM	143.13
	02/24/09	SES	Active	151.43	8.81	142.62
	05/20/09	SES	Active	151.43	7.87	143.56
SB-11	01/13/05	SCS Engineers	Active	154.77	12.31	142.46
	06/20/05	SCS Engineers	Active	154.77	13.17	141.60
	02/14/06	HartCrowser	Active	154.77	10.37	144.40
	03/06/06	HartCrowser	Active	154.77	10.45	144.32
	04/20/06	HartCrowser	Active	154.77	10.92	143.85
	05/16/06	HartCrowser	Active	154.77	11.49	143.28
	06/15/06	HartCrowser	Active	154.77	11.29	143.48
	07/13/06	HartCrowser	Active	154.77	11.60	143.17
	01/25/07	HartCrowser	Active	154.77	NM	NM
	02/08/07	HartCrowser	Active	154.77	NM	144.54
	04/12/07	HartCrowser	Active	154.77	NM	140.48
	10/03/07	HartCrowser	Active	154.77	NM	Dry
	02/05/08	HartCrowser	Active	154.77	NM	144.13
	02/24/09	SES	Active	154.77	9.62	145.15
	05/20/09	SES	Active	154.77	10.15	144.62
SB-14	01/13/05	SCS Engineers	Active	158.26	11.49	146.77
	06/20/05	SCS Engineers	Active	158.26	11.04	147.22
	02/14/06	HartCrowser	Active	158.26	10.24	148.02
	03/06/06	HartCrowser	Active	158.26	9.77	148.49
	04/20/06	HartCrowser	Active	158.26	8.75	149.51
	05/16/06	HartCrowser	Active	158.26	8.75	149.51
	06/15/06	HartCrowser	Active	158.26	7.56	150.70
	07/13/06	HartCrowser	Active	158.26	7.43	150.83
	01/25/07	HartCrowser	Active	158.26	NM	NM
	02/08/07	HartCrowser	Active	158.26	NM	150.37
	04/12/07	HartCrowser	Active	158.26	NM	150.47
	10/03/07	HartCrowser	Active	158.26	NM	NM
	02/05/08	HartCrowser	Active	158.26	NM	149.96
	02/24/09	SES	Active	158.26	7.79	150.47
	05/20/09	SES	Active	158.26	5.95	152.31

Table 1
Summary of Historical Groundwater Elevations
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Date	Sampled By	Well Status	TOC (feet)	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)
SB-22	01/13/05	SCS Engineers	Active	161.86	3.57	158.29
	06/20/05	SCS Engineers	Active	161.86	3.74	158.12
	02/14/06	HartCrowser	Active	161.86	3.20	158.66
	03/06/06	HartCrowser	Active	161.86	3.39	158.47
	04/20/06	HartCrowser	Active	161.86	NM	NM
	05/16/06	HartCrowser	Active	161.86	NM	NM
	06/15/06	HartCrowser	Active	161.86	NM	NM
	07/13/06	HartCrowser	Active	161.86	NM	NM
	01/25/07	HartCrowser	Active	161.86	NM	NM
	02/08/07	HartCrowser	Active	161.86	NM	NM
	04/12/07	HartCrowser	Active	161.86	NM	NM
	10/03/07	HartCrowser	Active	161.86	NM	NM
	02/05/08	HartCrowser	Active	161.86	NM	NM
	06/03/10	SES	Active	161.86	2.73	159.13
SB-36	01/13/05	SCS Engineers	Active	NM	NM	NM
	06/20/05	SCS Engineers	Active	NM	1.49	NM
	02/14/06	HartCrowser	Active	165.22	3.34	161.88
	03/06/06	HartCrowser	Active	165.22	3.60	161.62
	04/20/06	HartCrowser	Active	165.22	NM	NM
	05/16/06	HartCrowser	Active	165.22	NM	NM
	06/15/06	HartCrowser	Active	165.22	NM	NM
	07/13/06	HartCrowser	Active	165.22	NM	NM
	01/25/07	HartCrowser	Active	165.22	NM	NM
	02/08/07	HartCrowser	Active	165.22	NM	161.61
	04/12/07	HartCrowser	Active	165.22	NM	161.90
	10/03/07	HartCrowser	Active	165.22	NM	NM
	02/05/08	HartCrowser	Active	165.22	NM	NM
SB-37	01/13/05	SCS Engineers	Active	NM	NM	NM
	06/20/05	SCS Engineers	Active	NM	3.08	NM
	02/14/06	HartCrowser	Active	165.55	NM	NM
	03/06/06	HartCrowser	Active	165.55	3.03	162.52
	04/20/06	HartCrowser	Active	165.55	NM	NM
	05/16/06	HartCrowser	Active	165.55	NM	NM
	06/15/06	HartCrowser	Active	165.55	NM	NM
	07/13/06	HartCrowser	Active	165.55	NM	NM
	01/25/07	HartCrowser	Active	165.55	NM	NM
	02/08/07	HartCrowser	Active	165.55	NM	NM
	04/12/07	HartCrowser	Active	165.55	NM	NM
	10/03/07	HartCrowser	Active	165.55	NM	NM
	02/05/08	HartCrowser	Active	165.55	NM	NM
SB-38	01/13/05	SCS Engineers	Active	NM	NM	NM
	06/20/05	SCS Engineers	Active	NM	2.13	NM
	02/14/06	HartCrowser	Active	165.49	1.89	163.60
	03/06/06	HartCrowser	Active	165.49	1.95	163.54
	04/20/06	HartCrowser	Active	165.49	NM	NM
	05/16/06	HartCrowser	Active	165.49	NM	NM
	06/15/06	HartCrowser	Active	165.49	NM	MN
	07/13/06	HartCrowser	Active	165.49	NM	NM
	01/25/07	HartCrowser	Active	165.49	NM	NM
	02/08/07	HartCrowser	Active	165.49	NM	162.94
	04/12/07	HartCrowser	Active	165.49	NM	163.15
	10/03/07	HartCrowser	Active	165.49	NM	NM
	02/05/08	HartCrowser	Active	165.49	NM	NM
DWMW-1	08/14/06	SCS Engineers	Active	131.25	6.31	124.94
DWMW-2	08/14/06	SCS Engineers	Active	132.94	8.16	124.78
DWMW-3	08/14/06	SCS Engineers	Active	126.67	4.10	122.57

NOTES:

[1]As measured from a fixed spot on the well casing rim.

[2]TOCs provided by Farallon Consulting, LLC.

-- = Not determined

Dry = no measurable groundwater encountered within the screened interval in the well

HartCrowser = Hart Crowser, Inc.

NM = not measured

SES = Sound Environmental Strategies

TOC = top of casing elevation (measured in feet)

Table 2
Summary of Analytical Results for Total Petroleum
Hydrocarbon Constituents in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth[1] (feet)	Compliance Status	Sample Date	Sampled By	**Analytical Results** (mg/kg)						
							HCID[2]	TPH	GRPH[3]	Mineral Spirits/Stoddard Solvent[3]	DRPH[4]	ORPH[4]	Kerosene/Jet Fuel[4]
FETA													
HA-1	S-1	Boring	0.3	Investigation	07/05/90	Hart Crowser	--	--	<5	--	<5	--	--
SP-5	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
FETA	FETA-10'-11'	Grab	10	Investigation	10/10/03	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
SP-35	S-2	Boring	4	Investigation	03/04/04	Hart Crowser	--	--	--	--	<20	<50	<20
SP-34/HC-MW-6	S-3	Boring	6	Investigation	03/04/04	Hart Crowser	--	--	--	--	<20	<50	<20
DOWNGRADIENT													
B-1	S-2	Boring	5.0	Investigation	02/25/91	Hart Crowser	NR	23	NR	NR	NR	96	NR
SB-15	SB-15,4'	Boring	4	Investigation	12/06/04	SCS Engineers	--	--	<3.81	--	367[X]	**6,620**	--
B4/MW4	S-2	Boring	9.00	Investigation	7/17/03	Hart Crowser	--	--	--	--	<20	<50	<20
SB04	SB04-6	Boring	6.0	Investigation	04/27/10	SES	--	--	--	--	**3,400**	<92	--
SB04	SB04-7.5	Boring	7.5	Investigation	04/27/10	SES	--	--	--	--	<28	<56	--
SES-MW27	06-005-07	Boring	3.5	Investigation	06/01/10	SES	--	--	--	--	<30	<60	--
DRUM STORAGE YARD													
HA-3	S-3	Boring	0.5 to 0.8	Investigation	07/05/90	Hart Crowser	--	--	13	--	64	--	--
HA-4	S-4	Boring	0.5 to 1.0	Investigation	07/05/90	Hart Crowser	--	--	<5	--	<5	--	--
B5/MW5	S-1A	Boring	4	Investigation	07/14/03	Hart Crowser	--	--	--	--	170	<50	<20
SP-6	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	--	--	--	<20	270	<20
SP-7	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
SP-9	S-3	Boring	9	Investigation	07/23/03	Hart Crowser	--	--	--	--	<20	<50	<20
SP-13	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
SP-14	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
SP-15	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
SP-16	S-3	Boring	10	Investigation	07/23/03	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
SP-38	S-1	Boring	0.5	Investigation	03/05/04	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
SP-39	S-2	Boring	2	Investigation	03/05/04	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
B-8	S-3	Boring	7.5	Investigation	02/25/91	Hart Crowser	NR	NR	NR	NR	NR	NR	NR
B-9	S-3	Boring	7.5	Investigation	02/25/91	Hart Crowser	38	NR	NR	NR	NR	NR	NR
UNDERGROUND STORGE TANK AREA													
Underground Storage Tank Area	2413-121990-3A	Grab	Unknown	Confirmation	12/21/90	SRH	--	<25	--	--	--	--	--
Underground Storage Tank Area	2413-121990-3B	Grab	Unknown	Confirmation	12/21/90	SRH	--	<25	--	--		--	--
Underground Storage Tank Area	2413-121990-4A	Grab	Unknown	Confirmation	12/21/90	SRH	--	<25	--	--	--	--	--
Underground Storage Tank Area	2413-121990-4B	Grab	Unknown	Confirmation	12/21/90	SRH	--	61	<20	<20	20	<20	<20
Underground Storage Tank Area	2413-121990-5A	Grab	Unknown	Confirmation	12/21/90	SRH	--	<25	--	--	--	--	--
Underground Storage Tank Area	2413-121990-5B	Grab	Unknown	Confirmation	12/21/90	SRH	--	<25	--	--	--	--	--
Underground Storage Tank Area	2413-121990-6A	Grab	Unknown	Confirmation	12/21/90	SRH	--	27	<20	<20	20	<20	<20
Underground Storage Tank Area	2413-121990-6B	Grab	Unknown	Confirmation	12/21/90	SRH	--	<25	--	--	--	--	--
Underground Storage Tank Area	2413-121990-7A	Grab	Unknown	Confirmation	12/21/90	SRH	--	<25	--	--	--	--	--
Underground Storage Tank Area	2413-121990-7A	Grab	Unknown	Confirmation	12/21/90	SRH	--	<25	--	--	--	--	--
Underground Storage Tank Area	2413-121990-11A	Grab	Unknown	Confirmation	12/21/90	SRH	--	<25	--	--	--	--	--
Underground Storage Tank Area	2413-121990-11B	Grab	Unknown	Confirmation	12/21/90	SRH	--	<25	--	--	--	--	--
Underground Storage Tank Area	2413-121990-12A	Grab	Unknown	Confirmation	12/21/90	SRH	--	<25	--	--	--	--	--
Underground Storage Tank Area	2413-121990-12B	Grab	Unknown	Confirmation	12/21/90	SRH	--	<25	--	--	--	--	--
SP-2	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	--	<5.0	<5.0	160	670	<20
SP-2	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
SP-20	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	--	--	<5.0	<5.0	42	<50	<20
SP-21	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
SP-21	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	--	--	<5.0	**280**	--	--	--
SP-29	S-3	Boring	6	Investigation	03/05/04	Hart Crowser	--	--	<5.0	<5.0	--	--	--
SB-8	SB-8,8'	Boring	8	Investigation	09/30/04	SCS Engineers	DET	--	**169**[X]	--	188[X]	82.3[X]	--
SB-21	SB-21,6'	Boring	6	Investigation	09/30/04	SCS Engineers	DET	--	<19.3	--	52.6[X]	668	--
MTCA Method A Soil Cleanup Level[5]							**NA**	**NA**	**100/30[a]**	**100/30[a]**	**2,000**	**2,000**	**2,000**

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Table 2
Summary of Analytical Results for Total Petroleum
Hydrocarbon Constituents in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth[1] (feet)	Compliance Status	Sample Date	Sampled By	Analytical Results (mg/kg) HCID[2]	TPH	GRPH[3]	Mineral Spirits/Stoddard Solvent[3]	DRPH[4]	ORPH[4]	Kerosene/Jet Fuel[4]
PACE MAIN BUILDING													
SP-3	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
SP-4	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
SP-30	S-2	Boring	5	Investigation	03/05/04	Hart Crowser	--	--	<5.0	<5.0	--	--	--
SP-T-17.5	SP-T-17.5	Boring	17.5	Investigation	09/25/06	Hart Crowser	NR	NR	NR	NR	320	<50	<20
SP-T-17	SP-T-17	Boring	17	Investigation	09/25/06	Hart Crowser	NR	NR	NR	NR	<20	<50	<20
S-1	B-1	Boring	5.0	Investigation	02/25/91	Hart Crowser	NR	23	NR	NR	NR	96	NR
Pace Main Building	SS-1[b]	Grab	Surface	Performance	03/17/06	Hart Crowser	--	--	<5.0	<5.0	1,100	<50	<20
Pace Main Building	SS-2[b]	Grab	Surface	Performance	03/17/06	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
Pace Main Building	SS-4[b]	Grab	Surface	Performance	03/17/06	Hart Crowser	--	--	<5.0	**210**	250	<50	<20
SUBSURFACE UTILITY													
SB-25	SB-25,4'	Boring	4	Investigation	09/29/04	SCS Engineers	ND	--	19.1	--	<58.8	<118	--
SB-19	SB-19,11'	Boring	11	Investigation	10/01/04	SCS Engineers	DET	--	**445**[X]	--	693[X]	<61	--
SB-20	SB-20,6'	Boring	6	Investigation	10/01/04	SCS Engineers	DET	--	21.5[X]	--	1,580[X]	<63.3	--
SB-32	SB-32,5'	Boring	5	Investigation	12/07/04	SCS Engineers	--	--	<4.11	--	<27.3	<54.7	--
SB-34	SB-34,6'	Boring	6	Investigation	12/07/04	SCS Engineers	--	--	<5.03	--	<27.7	<55.3	--
SB-35	SB-35,10'	Boring	10	Investigation	12/07/04	SCS Engineers	--	--	13.4	--	<27.6	<55.2	--
RUA													
HA-2	S-2	Boring	1.2 to 1.5	Investigation	07/05/90	Hart Crowser	--	--	<50	--	**5,300**	--	--
East wall	PEW@3'	Grab	3	Confirmation	02/25/00	Galloway	--	--	--	--	<200	--	--
West wall	PWW@3'	Grab	3	Performance	02/25/00	Galloway	--	--	--	--	**4,500**	--	--
North wall	PNW@3'	Grab	3	Confirmation	02/25/00	Galloway	--	--	--	--	<200	--	--
South wall	PSW@3'	Grab	3	Confirmation	02/25/00	Galloway	--	--	--	--	<200	--	--
Bottom	PB@8'	Grab	8	Confirmation	02/25/00	Galloway	--	--	--	--	95	--	--
West wall	PWW@3-2	Grab	3	Confirmation	03/08/00	Galloway	--	--	--	--	1,300	--	--
North wall	PNW@3-2	Grab	3	Confirmation	03/08/00	Galloway	--	--	--	--	<200	--	--
Bottom	PAST-BOT@8'	Grab	8	Confirmation	03/23/00	Galloway	--	--	--	--	<200	<58	--
North wall	PAST-N@3-6'	Grab	3 to 6	Confirmation	03/23/00	Galloway	--	--	--	--	<200	<58	--
West wall	PAST-W@3-6'	Grab	3 to 6	Confirmation	03/23/00	Galloway	--	--	--	--	110	<54	--
South wall	PAST-S@3'-6'	Grab	3 to 6	Confirmation	03/23/00	Galloway	--	--	--	--	<200	<53	--
SP-1	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	--	<5.0	<5.0	250	<30	<20
SP-17	S-1	Boring	2	Investigation	08/15/03	Hart Crowser	--	--	<5.0	<5.0	--	--	--
SP-18	S-1	Boring	2	Investigation	08/15/03	Hart Crowser	--	--	<5.0	**650**	<20	<50	<20
SP-18	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	--	--	<5.0	21	--	--	--
SP-19	S-1	Boring	2	Investigation	08/15/03	Hart Crowser	ND	--	--	--	--	--	--
RUA	LDA#1-Bottom	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
RUA	LDA#2-North	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	--	--	<5.0	<5.0	<20	350	<20
RUA	LDA#3-East Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	--	--	<5.0	<5.0	<20	340	<20
RUA	LDA#4-South Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	--	--	<5.0	<5.0	62	<50	<20
RUA	LDA#5-West Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	--	--	<5.0	<5.0	<20	<50	<20
B-2	S-1	Boring	2.5	Investigation	02/25/91	Hart Crowser	NR	NR	NR	**140**	**7,300**	NR	NR
B-2	S-2	Boring	5.0	Investigation	02/25/91	Hart Crowser	NR	NR	NR	NR	NR	NR	NR
B-2	S-3	Boring	7.5	Investigation	02/25/91	Hart Crowser	NR	NR	NR	NR	NR	NR	NR
MTCA Method A Soil Cleanup Level[5]							**NA**	**NA**	**100/30[a]**	**100/30[a]**	**2,000**	**2,000**	**2,000**

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Table 2
Summary of Analytical Results for Total Petroleum Hydrocarbon Constituents in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth[1] (feet)	Compliance Status	Sample Date	Sampled By	**Analytical Results** (mg/kg) HCID[2]	TPH	GRPH[3]	Mineral Spirits/Stoddard Solvent[3]	DRPH[4]	ORPH[4]	Kerosene/Jet Fuel[4]
AREA A - Former Pace Main Building													
Area A	A-C-B-16	Grab	16	Confirmation	10/09/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area A	A-C-E-6	Grab	16	Confirmation	10/09/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area A	A-C-W-7	Grab	7	Confirmation	10/09/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area A	A-S-B-16	Grab	16	Confirmation	10/09/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area A	A-S-E-8	Grab	8	Confirmation	10/09/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area A	A-S-S-7	Grab	7	Confirmation	10/09/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area A	A-S-W-7	Grab	7	Confirmation	10/09/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area A	A-NE-9	Grab	9	Confirmation	10/10/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area A	A-N-B-16	Grab	16	Confirmation	10/11/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area A	A-N-NW-4/8	Grab	4 to 8	Confirmation	10/11/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area A	A-N-W-11	Grab	11	Confirmation	10/11/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area A	A-C-B-16	Grab	16	Confirmation	10/13/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
AREA B - UST Storage Tank Area													
Area B	B-SW-B-17	Grab	17	Confirmation	10/11/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area B	B-SW-S-8/10	Grab	8 to 10	Confirmation	10/11/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area B	B-S-S-7/10	Grab	7 to 10	Confirmation	10/12/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area B	B-C-B-17	Grab	17	Confirmation	10/13/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area B	B-W-B-17	Grab	17	Confirmation	10/13/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area B	B-E-N-6/7	Grab	6 to 7	Confirmation	10/16/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area B	B-E-S-5/6	Grab	7 to 9	Confirmation	10/16/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area B	BSE-B-12	Grab	12	Confirmation	10/23/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area B	BSE-E-6	Grab	6	Confirmation	10/23/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area B	BSE-W-7	Grab	7	Confirmation	10/23/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area B	BSE-S-E-7	Grab	7	Confirmation	10/25/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area B	BSE-S-W-8	Grab	8	Confirmation	10/25/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area B	B-NE-B-17	Grab	17	Confirmation	10/27/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area B	B-SE-B-17	Grab	17	Confirmation	10/27/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
AREA C - RUA													
Area C	C-C-B-13	Grab	13	Confirmation	10/13/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area C	C-E-8	Grab	8	Confirmation	10/13/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area C	C-W-B-13	Grab	13	Confirmation	10/16/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area C	C-NW-B-12	Grab	12	Confirmation	10/18/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area C	C-E-B-13	Grab	13	Confirmation	10/19/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area C	C-E-N-9	Grab	9	Confirmation	10/19/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area C	C-E-S-7	Grab	7	Confirmation	10/19/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area C	C-N-C-B-12	Grab	12	Confirmation	10/19/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area C	C-N-E-6	Grab	6	Confirmation	10/19/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area C	C-NE-B-10	Grab	10	Confirmation	10/19/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area C	C-N-W-6	Grab	6	Confirmation	10/19/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area C	CNW-S-6	Grab	3	Confirmation	10/25/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
MTCA Method A Soil Cleanup Level[5]							**NA**	**NA**	**100/30[a]**	**100/30[a]**	**2,000**	**2,000**	**2,000**

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Table 2
Summary of Analytical Results for Total Petroleum Hydrocarbon Constituents in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth[1] (feet)	Compliance Status	Sample Date	Sampled By	Analytical Results (mg/kg) HCID[2]	TPH	GRPH[3]	Mineral Spirits/Stoddard Solvent[3]	DRPH[4]	ORPH[4]	Kerosene/Jet Fuel[4]
AREA D - Subsurface Utility													
Area D	D-E-B-12	Grab	12	Confirmation	10/06/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area D	D-E-N-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area D	D-E-S-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area D	D-W-B-12	Grab	12	Confirmation	10/06/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area D	D-W-N-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area D	D-W-S-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
Area D	D-W-W-2/3	Grab	2 to 3	Confirmation	10/06/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
SB-15 EXCAVATION													
SB-15 Excavation	E1-B	Grab	6	Confirmation	02/16/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
SB-15 Excavation	E1-N	Grab	Unknown	Confirmation	02/17/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
SB-15 Excavation	E1-E	Grab	Unknown	Confirmation	02/18/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
SB-15 Excavation	E1-W	Grab	Unknown	Confirmation	02/19/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
SB-15 Excavation	E1-S	Grab	Unknown	Confirmation	02/20/06	Hart Crowser	--	--	<5	<5	<20	<50	<20
MTCA Method A Soil Cleanup Level[5]							**NA**	**NA**	**100/30[a]**	**100/30[a]**	**2,000**	**2,000**	**2,000**

NOTES:
Red denotes concentration exceeds MTCA Method A Soil Cleanup Level.
[1]Depth in feet below ground surface.
[2]Analyzed by Hydrocarbon Identification Method NWTPH-HCID.
[3]Analyzed by Method NWTPH-Gx.
[4]Analyzed by Method NWTPH-Dx.
[5]MTCA Cleanup Regulation, Table 740-1 Method A Cleanup Levels for Soil of Chapter 174-340-900 of the Washington Administrative Code.
[a]100 mg/kg when benzene is not present and 30 mg/kg when benzene is present.
[b]SS-1, SS-2, SS-3 - Samples of yellow material on surface soil.
Laboratory Notes:
[X]Contaminant does not appear to be "typical" product.

-- = not analyzed
< = not detected at a concentration exceeding the laboratory reporting limit
DET = analyte detected at or above the reporting limit
DRPH = diesel-range petroleum hydrocarbons
FETA = Former Ecology Tank Area
Galloway = Galloway Environmental, Inc.
GRPH = gasoline-range petroleum hydrocarbons
Hart Crowser = Hart Crowser, Inc.
HCID= hydrocarbon identification
mg/kg = milligrams per kilogram

MTCA = Washington State Model Toxics Control Act
ND = analyte not detected at or above the reporting limit
NR = not reported by consultant or laboratory analytical reports not provided for review
NWTPH = Northwest Total Petroleum Hydrocarbon
ORPH= oil-range petroleum hydrocarbons
RUA = Railroad Unloading Area
SES = Sound Environmental Strategies
SRH = SRH Environmental Management
TPH = total petroleum hydrocarbons
UST = underground storage tank
NA = Not Applicable

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Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

							Analytical Results[1] (milligrams per kilogram)															
Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Benzene	Toluene	Ethylbenzene	Total Xylenes	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
FETA																						
HA-1	S-1	Boring	0.3	Investigation	07/05/90	Hart Crowser	**<0.10**	<0.10	<0.10	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	--	--	--	--	--	--
SP-5	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	**<0.05**	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-24	S-2	Boring	10	Investigation	08/15/03	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-23	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-25	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-26	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-37	S-2	Boring	4	Investigation	03/05/04	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-36	S-3	Boring	8	Investigation	03/05/04	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
DOWNGRADIENT																						
B4/MW4	S-2	Boring	9	Investigation	07/15/03	Hart Crowser	**<0.05**	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
B4/MW4	S-4	Boring	19	Investigation	07/15/03	Hart Crowser	**<0.05**	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SB-15	SB-15,14'	Boring	14	Investigation	12/06/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-15	SB-15,4'	Boring	4	Investigation	12/06/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-13	SB-13,5'	Boring	5	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-16	SB-16,12'	Boring	12	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SES-MW25	06-005-04	Boring	3.5	Investigation	06/01/10	SES	--	--	--	--	<0.0011	<0.0011	--	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	--	<0.0054
SES-MW26	06-005-02	Boring	6.5	Investigation	06/01/10	SES	--	--	--	--	<0.0010	<0.0010	--	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	--	<0.0051
SES-MW27	06-005-07	Boring	3.5	Investigation	06/01/10	SES	--	--	--	--	<0.0011	<0.0011	--	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	--	<0.0053
DRUM STORAGE YARD																						
HA-3	S-3	Boring	0.5 to 0.8	Investigation	07/05/90	Hart Crowser	**<0.10**	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	--	--	--	--
HA-4	S-4	Boring	0.5 to 1.0	Investigation	07/05/90	Hart Crowser	**<0.10**	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	--	--	--	--
B5/MW5	S-1A	Boring	4	Investigation	07/14/03	Hart Crowser	**<0.05**	<0.05	0.052	0.071	<0.05	--	0.200	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.250	<0.05
SP-6	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	**<0.05**	0.200	0.09	0.120	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.100	<0.05
SP-7	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	**<0.05**	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-13	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	**<0.05**	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-14	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	**<0.05**	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-15	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	**<0.05**	0.190	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-15	S-3	Boring	10	Investigation	07/23/03	Hart Crowser	**<0.05**	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-16	S-3	Boring	10	Investigation	07/23/03	Hart Crowser	**<0.05**	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-38	S-1	Boring	0.5	Investigation	03/05/04	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-39	S-2	Boring	2	Investigation	03/05/04	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
UNDERGROUND STORAGE TANK AREA																						
UST Area	2413-121990-3A	Grab	Unknown	Investigation	12/19/90	SRH	**<0.05**	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-3B	Grab	Unknown	Investigation	12/19/90	SRH	**<0.05**	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-4A	Grab	Unknown	Investigation	12/19/90	SRH	**<0.05**	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-4B	Grab	Unknown	Investigation	12/19/90	SRH	**<0.05**	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-6A	Grab	Unknown	Investigation	12/19/90	SRH	**<0.05**	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-6B	Grab	Unknown	Investigation	12/19/90	SRH	**<0.05**	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-12A	Grab	Unknown	Investigation	12/20/90	SRH	**<0.05**	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-12B	Grab	Unknown	Investigation	12/20/90	SRH	**<0.05**	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--
SP-2	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	**<0.05**	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-2	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	**<0.05**	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-20	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-21	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-21	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SB-8	SB-8,11'	Boring	11	Investigation	09/30/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00731	<0.00731	<0.0365	<0.00731	<0.00731	NR	NR	NR	NR	NR	NR
MTCA Cleanup Level for Soil							**0.03[a]**	**7[a]**	**6[a]**	**9[a]**	**38[b]**	**2[a]**	**5[b]**	**18[b]**	**10[b]**	**NE**	**5.6[b]**	**800[c]**	**0.14[b]**	**800[c]**	**4,000[c]**	**0.71[b]**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (milligrams per kilogram)															
							1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chloroethyl Vinyl Ether	2-Chlorotoluene	2-Hexanone (MBK)	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone
FETA																						
HA-1	S-1	Boring	0.3	Investigation	07/05/90	Hart Crowser	--	--	<0.10	<0.10	--	--	--	--	--	<1.00	--	--	<1.00	--	<1.00	<1.00
SP-5	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-24	S-2	Boring	10	Investigation	08/15/03	Hart Crowser	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
SP-23	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
SP-25	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
SP-26	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
SP-37	S-2	Boring	4	Investigation	03/05/04	Hart Crowser	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
SP-36	S-3	Boring	8	Investigation	03/05/04	Hart Crowser	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
DOWNGRADIENT																						
B4/MW4	S-2	Boring	9	Investigation	07/15/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
B4/MW4	S-4	Boring	19	Investigation	07/15/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	87	--	--
SB-15	SB-15,14'	Boring	14	Investigation	12/06/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	<0.00205	NR	NR	NR	NR	NR	NR	NR	NR
SB-15	SB-15,4'	Boring	4	Investigation	12/06/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-13	SB-13,5'	Boring	5	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-16	SB-16,12'	Boring	12	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	<0.00189	NR	NR	NR	NR	NR	NR	NR	NR
SES-MW25	06-005-04	Boring	3.5	Investigation	06/01/10	SES	--	<0.0011	<0.0011	<0.0011	--	<0.0011	<0.0011	<0.0011	<0.0011	--	<0.0054	<0.0011	--	<0.0011	--	--
SES-MW26	06-005-02	Boring	6.5	Investigation	06/01/10	SES	--	<0.0010	<0.0010	<0.0010	--	<0.0010	<0.0010	<0.0010	<0.0010	--	<0.0051	<0.0010	--	<0.0010	--	--
SES-MW27	06-005-07	Boring	3.5	Investigation	06/01/10	SES	--	<0.0011	<0.0011	<0.0011	--	<0.0011	<0.0011	<0.0011	<0.0011	--	<0.0053	<0.0011	--	<0.0011	--	--
DRUM STORAGE YARD																						
HA-3	S-3	Boring	0.5 to 0.8	Investigation	07/05/90	Hart Crowser	--	--	<0.05	<0.05	--	--	--	--	--	<0.50	--	--	<0.50	--	<0.50	<0.50
HA-4	S-4	Boring	0.5 to 1.0	Investigation	07/05/90	Hart Crowser	--	--	<0.05	<0.05	--	--	--	--	--	<0.50	--	--	<0.50	--	<0.50	<0.50
B5/MW5	S-1A	Boring	4	Investigation	07/14/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	0.110	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	0.087	--	--
SP-6	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-7	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-13	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-14	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-15	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-15	S-3	Boring	10	Investigation	07/23/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-16	S-3	Boring	10	Investigation	07/23/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-38	S-1	Boring	0.5	Investigation	03/05/04	Hart Crowser	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
SP-39	S-2	Boring	2	Investigation	03/05/04	Hart Crowser	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	NR	<0.0396	NR	NR	NR	NR	NR	NR	NR	NR
UNDERGROUND STORAGE TANK AREA																						
UST Area	2413-121990-3A	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-3B	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-4A	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-4B	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-6A	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-6B	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-12A	Grab	Unknown	Investigation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-12B	Grab	Unknown	Investigation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-2	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-2	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-20	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
SP-21	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
SP-21	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
SB-8	SB-8,11'	Boring	11	Investigation	09/30/04	SCS Engineers	NR	<0.0365	<0.0365	<0.00731	NR	<0.0365	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
MTCA Cleanup Level for Soil							**0.005[a]**	**7,200[c]**	**11[b]**	**15[b]**	**4,000[c]**	**NE**	**15[b]**	**42[b]**	**15[b]**	**48,000[c]**	**0.91[b]**	**1,600[c]**	**4,800[c]**	**1,600[c]**	**6,400[c]**	**8,000[c]**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (milligrams per kilogram)																	
							Bromobenzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachloro-1,3-butadiene	Isopropylbenzene	Isopropyltoluene
FETA							**FETA**																	
HA-1	S-1	Boring	0.3	Investigation	07/05/90	Hart Crowser	--	<0.10	<0.6	<1.00	<0.10	<0.10	<0.10	<0.10	<0.10	<1.00	--	<0.10	<0.10	--	--	--	--	--
SP-5	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-24	S-2	Boring	10	Investigation	08/15/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-23	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-25	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-26	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-37	S-2	Boring	4	Investigation	03/05/04	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-36	S-3	Boring	8	Investigation	03/05/04	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
DOWNGRADIENT							**DOWNGRADIENT**																	
B4/MW4	S-2	Boring	9	Investigation	07/15/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
B4/MW4	S-4	Boring	19	Investigation	07/15/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	110
SB-15	SB-15,14'	Boring	14	Investigation	12/06/04	SCS Engineers	NR	<0.00205	<0.00205	<0.00205	NR	<0.00205	<0.00205	<0.00205	<0.00205	<0.00205	<0.00205	<0.00205	<0.00205	NR	NR	NR	NR	NR
SB-15	SB-15,4'	Boring	4	Investigation	12/06/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0407	--	--	NR	NR	NR	NR	NR
SB-13	SB-13,5'	Boring	5	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0416	--	--	NR	NR	NR	NR	NR
SB-16	SB-16,12'	Boring	12	Investigation	12/07/04	SCS Engineers	NR	<0.00189	<0.00189	<0.00189	NR	<0.00189	<0.00189	<0.00189	<0.00189	<0.00189	<0.00189	<0.00189	<0.00189	NR	NR	NR	NR	NR
SES-MW25	06-005-04	Boring	3.5	Investigation	06/01/10	SES	--	<0.0011	--	--	--	<0.0011	<0.0011	<0.0054	<0.0011	<0.0054	<0.0011	<0.0011	<0.0011	--	<0.0011	--	--	--
SES-MW26	06-005-02	Boring	6.5	Investigation	06/01/10	SES	--	<0.0010	--	--	--	<0.0010	<0.0010	<0.0051	<0.0010	<0.0051	<0.0010	<0.0010	<0.0010	--	<0.0010	--	--	--
SES-MW27	06-005-07	Boring	3.5	Investigation	06/01/10	SES	--	<0.0011	--	--	--	<0.0011	<0.0011	<0.0053	<0.0011	<0.0053	<0.0011	<0.0011	<0.0011	--	<0.0011	--	--	--
DRUM STORAGE YARD							**DRUM STORAGE YARD**																	
HA-3	S-3	Boring	0.5 to 0.8	Investigation	07/05/90	Hart Crowser	--	<0.05	<0.6	<0.50	<0.05	<0.05	<0.05	<0.05	<0.05	<1.00	--	<0.05	<0.05	--	--	--	--	--
HA-4	S-4	Boring	0.5 to 1.0	Investigation	07/05/90	Hart Crowser	--	<0.05	<0.6	<0.50	<0.05	<0.05	<0.05	<0.05	<0.05	<1.00	--	<0.05	<0.05	--	--	--	--	--
B5/MW5	S-1A	Boring	4	Investigation	07/14/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.11
SP-6	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-7	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-13	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-14	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-15	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-15	S-3	Boring	10	Investigation	07/23/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-16	S-3	Boring	10	Investigation	07/23/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-38	S-1	Boring	0.5	Investigation	03/05/04	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-39	S-2	Boring	2	Investigation	03/05/04	Hart Crowser	NR	<0.0396	<0.0396	0.0568	--	<0.00791	<0.0396	<0.0791	<0.0396	<0.0396	<0.0396	<0.0396	<0.0396	NR	NR	NR	NR	NR
UNDERGROUND STORAGE TANK AREA							**UNDERGROUND STORAGE TANK AREA**																	
UST Area	2413-121990-3A	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-3B	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-4A	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-4B	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-6A	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-6B	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-12A	Grab	Unknown	Investigation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-12B	Grab	Unknown	Investigation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-2	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-2	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-20	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-21	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-21	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SB-8	SB-8,11'	Boring	11	Investigation	09/30/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0358	--	--	NR	NR	NR	NR	NR
MTCA Cleanup Level for Soil							**400[c]**	**16[b]**	**130[b]**	**110[c]**	**8,000[c]**	**7.7[b]**	**1,600[c]**	**345[b]**	**164[b]**	**77[b]**	**800[c]**	**5.6[b]**	**12[b]**	**800[c]**	**16[c]**	**13[b]**	**8,000[c]**	**NE**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Methyl Isobutyl Ketone	Methylene chloride	Methyl t-butyl ether	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl chloride
							Analytical Results[1] (milligrams per kilogram)															
FETA							**FETA**															
HA-1	S-1	Boring	0.3	Investigation	07/05/90	Hart Crowser	--	**0.24**B	--	--	--	--	--	<0.10	--	**<0.10**	<0.10	<0.10	**<1.00**	--	<1.00	<0.10
SP-5	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.540**	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-24	S-2	Boring	10	Investigation	08/15/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-23	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-25	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-26	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-37	S-2	Boring	4	Investigation	03/05/04	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-36	S-3	Boring	8	Investigation	03/05/04	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	--	<0.05
DOWNGRADIENT							**DOWNGRADIENT**															
B4/MW4	S-2	Boring	9	Investigation	07/15/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
B4/MW4	S-4	Boring	19	Investigation	07/15/03	Hart Crowser	--	<0.02	<0.05	<0.05	200	<0.05	76	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SB-15	SB-15,14'	Boring	14	Investigation	12/06/04	SCS Engineers	NR	<0.00205	NR	NR	NR	NR	NR	NR	NR	<0.00205	<0.00205	<0.00205	<0.00205	<0.00205	NR	<0.00205
SB-15	SB-15,4'	Boring	4	Investigation	12/06/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.00814	NR	NR	<0.00814	NR	NR	NR
SB-13	SB-13,5'	Boring	5	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.00832	NR	NR	<0.00832	NR	NR	NR
SB-16	SB-16,12'	Boring	12	Investigation	12/07/04	SCS Engineers	NR	<0.00189	NR	NR	NR	NR	NR	NR	NR	<0.00189	<0.00189	<0.00189	<0.00189	<0.00189	NR	<0.00189
SES-MW25	06-005-04	Boring	3.5	Investigation	06/01/10	SES	--	<0.0054	--	--	--	--	--	--	--	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	--	<0.0011
SES-MW26	06-005-02	Boring	6.5	Investigation	06/01/10	SES	--	<0.0051	--	--	--	--	--	--	--	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	--	<0.0010
SES-MW27	06-005-07	Boring	3.5	Investigation	06/01/10	SES	--	<0.0053	--	--	--	--	--	--	--	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	--	<0.0011
DRUM STORAGE YARD							**DRUM STORAGE YARD**															
HA-3	S-3	Boring	0.5 to 0.8	Investigation	07/05/90	Hart Crowser	--	0.24	--	--	--	--	--	<0.05	--	**0.08**	<0.05	<0.05	**<0.05**	--	<0.50	<0.05
HA-4	S-4	Boring	0.5 to 1.0	Investigation	07/05/90	Hart Crowser	--	**<0.3**	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	**<0.05**	--	<0.50	<0.05
B5/MW5	S-1A	Boring	4	Investigation	07/14/03	Hart Crowser	--	<0.02	<0.05	0.35	0.20	<0.05	0.076	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-6	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-7	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-13	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-14	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-15	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.094	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-15	S-3	Boring	10	Investigation	07/23/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-16	S-3	Boring	10	Investigation	07/23/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-38	S-1	Boring	0.5	Investigation	03/05/04	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-39	S-2	Boring	2	Investigation	03/05/04	Hart Crowser	NR	<0.00791	NR	NR	NR	NR	NR	NR	NR	<0.00791	<0.0396	<0.0396	<0.00791	<0.0396	NR	<0.00791
UNDERGROUND STORAGE TANK AREA							**UNDERGROUND STORAGE TANK AREA**															
UST Area	2413-121990-3A	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-3B	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-4A	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-4B	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-6A	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-6B	Grab	Unknown	Investigation	12/19/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-12A	Grab	Unknown	Investigation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-12B	Grab	Unknown	Investigation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-2	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-2	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-20	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-21	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-21	S-3	Boring	10	Investigation	08/15/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	--	<0.05
SB-8	SB-8,11'	Boring	11	Investigation	09/30/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.00865	NR	NR	<0.00716	NR	NR	NR
MTCA Cleanup Level for Soil							**6,400[c]**	**0.02[a]**	**0.1[a]**	**5[a]**	**NE**	**NE**	**NE**	**33[b]**	**NE**	**0.05[a]**	**1,600[c]**	**5.6[b]**	**0.03[a]**	**24,000[c]**	**80,000[c]**	**0.67[b]**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (milligrams per kilogram)															
							Benzene	Toluene	Ethylbenzene	Total Xylenes	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
PACE MAIN BUILDING																						
SP-9	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-9	S-3	Boring	9	Investigation	07/23/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-3	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-4	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-4	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-8	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-10	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-11	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-12	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SB-1	SB-1,10'	Boring	10	Investigation	09/30/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00791	<0.00791	<0.0396	<0.00791	<0.00791	NR	NR	NR	NR	NR	NR
SB-6	SB-6,8'	Boring	8	Investigation	09/30/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00791	<0.00791	<0.0395	<0.00791	<0.00791	NR	NR	NR	NR	NR	NR
SB-7	SB-7,8'	Boring	8	Investigation	09/30/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00944	<0.00944	<0.0472	<0.00944	<0.00944	NR	NR	NR	NR	NR	NR
SB-2	SB-2,11'	Boring	11	Investigation	10/01/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00709	<0.00709	<0.0355	<0.00709	<0.00709	NR	NR	NR	NR	NR	NR
SB-3	SB-3,10'	Boring	10	Investigation	10/01/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00757	<0.00757	<0.0379	<0.00757	<0.00757	NR	NR	NR	NR	NR	NR
SB-4	SB-4,10'	Boring	10	Investigation	10/01/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00838	<0.00838	<0.0419	<0.00838	<0.00838	NR	NR	NR	NR	NR	NR
SB-5	SB-5,10'	Boring	10	Investigation	10/01/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00754	<0.00754	<0.0377	<0.00754	<0.00754	NR	NR	NR	NR	NR	NR
Pace Main Buidling	SS-1[d]	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**120**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**160**	<0.05
Pace Main Buidling	SS-2[d]	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pace Main Buidling	SS-4[d]	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.05	**68**	<0.05	**320**	<0.05	<0.05	**1,200**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**430**	<0.05
YS-EC	YS-EC	Grab	Surface	Confirmation	03/29/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
YS-WC	YS-WC	Grab	Surface	Confirmation	03/29/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-H-8'	SP-H-8'	Boring	8	Investigation	06/22/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-H-4'	SP-H-4'	Boring	4	Investigation	06/22/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-G-8'	SP-G-8'	Boring	8	Investigation	06/22/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-G-4'	SP-G-4'	Boring	4	Investigation	06/22/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-E-8'	SP-E-8'	Boring	8	Investigation	06/22/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-E-4'	SP-E-4'	Boring	4	Investigation	06/22/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SUBSURFACE UTILITY																						
SB-12	SB-12,11'	Boring	11	Investigation	12/06/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-19	SB-19, 8	Boring	8	Investigation	10/01/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00189	<0.00189	<0.00189	<0.00189	<0.00189	NR	NR	NR	NR	NR	NR
SB-18	SB-18, 7	Boring	7	Investigation	09/29/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00205	<0.00205	<0.00205	<0.00205	<0.00205	NR	NR	NR	NR	NR	NR
SB-19	SB-19,11'	Boring	11	Investigation	10/01/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00914	<0.00914	<0.0457	<0.00914	<0.00914	NR	NR	NR	NR	NR	NR
SB-20	SB-20,6'	Boring	6	Investigation	10/01/04	SCS Engineers	NR	NR	NR	NR	NR	<0.0101	<0.0101	<0.0503	<0.0101	<0.0101	NR	NR	NR	NR	NR	NR
SB-23	SB-23, 10	Boring	10	Investigation	09/29/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	NR	NR	NR	NR	NR	NR
SB-24	SB-24,9'	Boring	9	Investigation	09/29/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	NR	NR	NR	NR	NR	NR
SB-25	SB-25,11'	Boring	11	Investigation	09/29/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	NR	NR	NR	NR	NR	NR
SB-27	SB-27,7'	Boring	7	Investigation	09/29/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	NR	NR	NR	NR	NR	NR
SB29	SB29,8'	Boring	8	Investigation	09/29/04	SCS Engineers	NR	NR	NR	NR	NR	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	NR	NR	NR	NR	NR	NR
SB-32	SB-32,5'	Boring	5	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-34	SB-34,6'	Boring	6	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-35	SB-35,10'	Boring	10	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
MTCA Cleanup Level for Soil							**0.03[a]**	**7[a]**	**6[a]**	**9[a]**	**38[b]**	**2[a]**	**5[b]**	**18[b]**	**10[b]**	**NE**	**5.6[b]**	**800[c]**	**0.14[b]**	**800[c]**	**4,000[c]**	**0.71[b]**

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Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

							Analytical Results[1] (milligrams per kilogram)															
Location	**Sample ID**	**Sample Type**	**Depth** (feet bgs)	**Compliance Status**	**Sample Date**	**Sampled By**	**1,2-Dibromoethane (EDB)**	**1,2-Dichlorobenzene**	**1,2-Dichloroethane (EDC)**	**1,2-Dichloropropane**	**1,3,5-Trimethylbenzene**	**1,3-Dichlorobenzene**	**1,3-Dichloropropane**	**1,4-Dichlorobenzene**	**2,2-Dichloropropane**	**2-Butanone (MEK)**	**2-Chloroethyl Vinyl Ether**	**2-Chlorotoluene**	**2-Hexanone (MBK)**	**4-Chlorotoluene**	**4-Methyl-2-Pentanone**	**Acetone**
PACE MAIN BUILDING																						
SP-9	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-9	S-3	Boring	9	Investigation	07/23/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-3	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-4	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-4	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-8	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-10	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-11	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-12	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SB-1	SB-1,10'	Boring	10	Investigation	09/30/04	SCS Engineers	NR	<0.0396	<0.0396	<0.00791	NR	<0.0396	NR	<0.0355	NR	NR	NR	NR	NR	NR	NR	NR
SB-6	SB-6,8'	Boring	8	Investigation	09/30/04	SCS Engineers	NR	<0.0395	<0.0395	<0.00791	NR	<0.0395	NR	<0.0472	NR	NR	NR	NR	NR	NR	NR	NR
SB-7	SB-7,8'	Boring	8	Investigation	09/30/04	SCS Engineers	NR	<0.0472	<0.0472	<0.00944	NR	<0.0472	NR	<0.0365	NR	NR	NR	NR	NR	NR	NR	NR
SB-2	SB-2,11'	Boring	11	Investigation	10/01/04	SCS Engineers	NR	<0.0355	<0.0355	<0.00709	NR	<0.0355	NR	<0.0379	NR	NR	NR	NR	NR	NR	NR	NR
SB-3	SB-3,10'	Boring	10	Investigation	10/01/04	SCS Engineers	NR	<0.0379	<0.0379	<0.00757	NR	<0.0379	NR	<0.0419	NR	NR	NR	NR	NR	NR	NR	NR
SB-4	SB-4,10'	Boring	10	Investigation	10/01/04	SCS Engineers	NR	<0.0419	<0.0419	<0.00838	NR	<0.0419	NR	<0.0377	NR	NR	NR	NR	NR	NR	NR	NR
SB-5	SB-5,10'	Boring	10	Investigation	10/01/04	SCS Engineers	NR	<0.0377	<0.0377	<0.00754	NR	<0.0377	NR	<0.0395	NR	NR	NR	NR	NR	NR	NR	NR
Pace Main Buidling	SS-1[d]	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pace Main Buidling	SS-2[d]	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pace Main Buidling	SS-4[d]	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
YS-EC	YS-EC	Grab	Surface	Confirmation	03/29/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
YS-WC	YS-WC	Grab	Surface	Confirmation	03/29/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-H-8'	SP-H-8'	Boring	8	Investigation	06/22/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	--	--	--
SP-H-4'	SP-H-4'	Boring	4	Investigation	06/22/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	--	--	--
SP-G-8'	SP-G-8'	Boring	8	Investigation	06/22/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	--	--	--
SP-G-4'	SP-G-4'	Boring	4	Investigation	06/22/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	--	--	--
SP-E-8'	SP-E-8'	Boring	8	Investigation	06/22/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	--	--	--
SP-E-4'	SP-E-4'	Boring	4	Investigation	06/22/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	--	--	--
SUBSURFACE UTILITY																						
SB-12	SB-12,11'	Boring	11	Investigation	12/06/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-19	SB-19, 8	Boring	8	Investigation	10/01/04	SCS Engineers	NR	<0.00189	<0.00189	<0.00189	NR	<0.00189	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-18	SB-18, 7	Boring	7	Investigation	09/29/04	SCS Engineers	NR	<0.00205	<0.00205	<0.00205	NR	<0.00205	NR	<0.0457	NR	NR	NR	NR	NR	NR	NR	NR
SB-19	SB-19,11'	Boring	11	Investigation	10/01/04	SCS Engineers	NR	<0.0457	<0.0457	<0.00914	NR	<0.0457	NR	<0.0503	NR	NR	NR	NR	NR	NR	NR	NR
SB-20	SB-20,6'	Boring	6	Investigation	10/01/04	SCS Engineers	NR	<0.0503	<0.0503	<0.0101	NR	<0.0503	NR	<0.00185	NR	NR	NR	NR	NR	NR	NR	NR
SB-23	SB-23, 10	Boring	10	Investigation	09/29/04	SCS Engineers	NR	<0.00185	<0.00185	<0.00185	NR	<0.00185	NR	<0.00202	NR	NR	NR	NR	NR	NR	NR	NR
SB-24	SB-24,9'	Boring	9	Investigation	09/29/04	SCS Engineers	NR	<0.00202	<0.00202	<0.00202	NR	<0.00202	NR	<0.00188	NR	NR	NR	NR	NR	NR	NR	NR
SB-25	SB-25,11'	Boring	11	Investigation	09/29/04	SCS Engineers	NR	<0.00188	<0.00188	<0.00188	NR	<0.00188	NR	<0.00184	NR	NR	NR	NR	NR	NR	NR	NR
SB-27	SB-27,7'	Boring	7	Investigation	09/29/04	SCS Engineers	NR	<0.00184	<0.00184	<0.00184	NR	<0.00184	NR	<0.00188	NR	NR	NR	NR	NR	NR	NR	NR
SB29	SB29,8'	Boring	8	Investigation	09/29/04	SCS Engineers	NR	<0.00188	<0.00188	<0.00188	NR	<0.00188	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-32	SB-32,5'	Boring	5	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-34	SB-34,6'	Boring	6	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-35	SB-35,10'	Boring	10	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
MTCA Cleanup Level for Soil							**0.005[a]**	**7,200[c]**	**11[b]**	**15[b]**	**4,000[c]**	**NE**	**15[b]**	**42[b]**	**15[b]**	**48,000[c]**	**0.91[b]**	**1,600[c]**	**4,800[c]**	**1,600[c]**	**6,400[c]**	**8,000[c]**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (milligrams per kilogram)																	
							Bromobenzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachloro-1,3-butadiene	Isopropylbenzene	Isopropyltoluene
PACE MAIN BUILDING																								
SP-9	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-9	S-3	Boring	9	Investigation	07/23/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-3	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-4	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-4	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-8	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-10	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-11	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-12	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SB-1	SB-1,10'	Boring	10	Investigation	09/30/04	SCS Engineers	NR	<0.0355	<0.0355	0.0507	--	<0.00709	<0.0355	<0.0709	<0.0355	<0.0355	<0.0355	<0.0355	<0.0355	NR	NR	NR	NR	NR
SB-6	SB-6,8'	Boring	8	Investigation	09/30/04	SCS Engineers	NR	<0.0472	<0.0472	0.0674	--	<0.00944	<0.0472	<0.0944	<0.0472	<0.0472	<0.0472	<0.0472	<0.0472	NR	NR	NR	NR	NR
SB-7	SB-7,8'	Boring	8	Investigation	09/30/04	SCS Engineers	NR	<0.0365	<0.0365	0.0539	--	<0.00731	<0.0365	<0.0731	<0.0365	<0.0365	<0.0365	<0.0365	<0.0365	NR	NR	NR	NR	NR
SB-2	SB-2,11'	Boring	11	Investigation	10/01/04	SCS Engineers	NR	<0.0379	<0.0379	0.0448	--	<0.00757	<0.0379	<0.0757	<0.0379	<0.0379	<0.0379	<0.0379	<0.0379	NR	NR	NR	NR	NR
SB-3	SB-3,10'	Boring	10	Investigation	10/01/04	SCS Engineers	NR	<0.0419	<0.0419	0.0614	--	<0.00838	<0.0419	<0.0838	<0.0419	<0.0419	<0.0419	<0.0419	<0.0419	NR	NR	NR	NR	NR
SB-4	SB-4,10'	Boring	10	Investigation	10/01/04	SCS Engineers	NR	<0.0377	<0.0377	0.0423	--	<0.00754	<0.0377	<0.0754	<0.0377	<0.0377	<0.0377	<0.0377	<0.0377	NR	NR	NR	NR	NR
SB-5	SB-5,10'	Boring	10	Investigation	10/01/04	SCS Engineers	NR	<0.0395	<0.0395	0.0566	--	<0.00791	<0.0395	<0.0791	<0.0395	<0.0395	<0.0395	<0.0395	<0.0395	NR	NR	NR	NR	NR
Pace Main Buidling	SS-1[d]	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
Pace Main Buidling	SS-2[d]	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
Pace Main Buidling	SS-4[d]	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
YS-EC	YS-EC	Grab	Surface	Confirmation	03/29/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
YS-WC	YS-WC	Grab	Surface	Confirmation	03/29/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SP-H-8'	SP-H-8'	Boring	8	Investigation	06/22/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
SP-H-4'	SP-H-4'	Boring	4	Investigation	06/22/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
SP-G-8'	SP-G-8'	Boring	8	Investigation	06/22/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
SP-G-4'	SP-G-4'	Boring	4	Investigation	06/22/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
SP-E-8'	SP-E-8'	Boring	8	Investigation	06/22/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
SP-E-4'	SP-E-4'	Boring	4	Investigation	06/22/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
SUBSURFACE UTILITY																								
SB-12	SB-12,11'	Boring	11	Investigation	12/06/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.045	--	--	NR	NR	NR	NR	NR
SB-19	SB-19, 8	Boring	8	Investigation	10/01/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0381	--	--	NR	NR	NR	NR	NR
SB-18	SB-18, 7	Boring	7	Investigation	09/29/04	SCS Engineers	NR	<0.0457	<0.0457	0.0525	NR	<0.00914	<0.0457	<0.00914	<0.0457	<0.0457	0.0465	<0.0457	<0.0457	NR	NR	NR	NR	NR
SB-19	SB-19,11'	Boring	11	Investigation	10/01/04	SCS Engineers	NR	<0.0503	<0.0503	0.0727	NR	<0.0101	<0.0503	<0.101	<0.0503	<0.0503	0.0465	<0.0503	<0.0503	NR	NR	NR	NR	NR
SB-20	SB-20,6'	Boring	6	Investigation	10/01/04	SCS Engineers	NR	<0.00185	<0.00185	<0.00185	NR	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	NR	NR	NR	NR	NR
SB-23	SB-23, 10	Boring	10	Investigation	09/29/04	SCS Engineers	NR	<0.00202	<0.00202	<0.00202	NR	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	NR	NR	NR	NR	NR
SB-24	SB-24,9'	Boring	9	Investigation	09/29/04	SCS Engineers	NR	<0.00188	<0.00188	<0.00188	NR	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	NR	NR	NR	NR	NR
SB-25	SB-25,11'	Boring	11	Investigation	09/29/04	SCS Engineers	NR	<0.00184	<0.00184	<0.00184	NR	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	NR	NR	NR	NR	NR
SB-27	SB-27,7'	Boring	7	Investigation	09/29/04	SCS Engineers	NR	<0.00188	<0.00188	<0.00188	NR	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	NR	NR	NR	NR	NR
SB29	SB29,8'	Boring	8	Investigation	09/29/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0411	NR	NR	NR	NR	NR	NR	NR
SB-32	SB-32,5'	Boring	5	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0503	NR	NR	NR	NR	NR	NR	NR
SB-34	SB-34,6'	Boring	6	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.543	NR	NR	NR	NR	NR	NR	NR
SB-35	SB-35,10'	Boring	10	Investigation	12/07/04	SCS Engineers	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	0.543	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
MTCA Cleanup Level for Soil							**400[c]**	**16[b]**	**130[b]**	**110[c]**	**8,000[c]**	**7.7[b]**	**1,600[c]**	**345[b]**	**164[b]**	**77[b]**	**800[c]**	**5.6[b]**	**12[b]**	**800[c]**	**16[c]**	**13[b]**	**8,000[c]**	**NE**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (milligrams per kilogram) Methyl Isobutyl Ketone	Methylene chloride	Methyl t-butyl ether	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl chloride
PACE MAIN BUILDING																						
SP-9	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-9	S-3	Boring	9	Investigation	07/23/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-3	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-4	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-4	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-8	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-10	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-11	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-12	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SB-1	SB-1,10'	Boring	10	Investigation	09/30/04	SCS Engineers	NR	<0.00709	NR	NR	NR	NR	NR	NR	NR	<0.00709	<0.0355	<0.0355	<0.00709	<0.0355	NR	<0.00709
SB-6	SB-6,8'	Boring	8	Investigation	09/30/04	SCS Engineers	NR	<0.00944	NR	NR	NR	NR	NR	NR	NR	0.0354	<0.0472	<0.0472	<0.00944	<0.0944	NR	<0.00944
SB-7	SB-7,8'	Boring	8	Investigation	09/30/04	SCS Engineers	NR	<0.00731	NR	NR	NR	NR	NR	NR	NR	0.0354	<0.0365	<0.0365	<0.00731	<0.0365	NR	<0.00731
SB-2	SB-2,11'	Boring	11	Investigation	10/01/04	SCS Engineers	NR	<0.00757	NR	NR	NR	NR	NR	NR	NR	<0.00757	<0.0379	<0.0379	<0.00757	<0.0379	NR	<0.00757
SB-3	SB-3,10'	Boring	10	Investigation	10/01/04	SCS Engineers	NR	<0.00838	NR	NR	NR	NR	NR	NR	NR	<0.00838	<0.0419	<0.0419	<0.00838	<0.0419	NR	<0.00838
SB-4	SB-4,10'	Boring	10	Investigation	10/01/04	SCS Engineers	NR	<0.00754	NR	NR	NR	NR	NR	NR	NR	<0.00754	<0.0377	<0.0377	<0.00754	<0.0377	NR	<0.00754
SB-5	SB-5,10'	Boring	10	Investigation	10/01/04	SCS Engineers	NR	<0.00791	NR	NR	NR	NR	NR	NR	NR	<0.00791	<0.0395	<0.0395	<0.00791	<0.0395	NR	<0.00791
Pace Main Buidling	SS-1[d]	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.05	<0.020	<0.05	**1,500**	180	<0.05	<0.05	<0.05	<0.05	**68**	<0.05	<0.05	<0.020	<0.05	--	<0.05
Pace Main Buidling	SS-2[d]	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.05	<0.020	<0.05	120	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	--	<0.05
Pace Main Buidling	SS-4[d]	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.05	<0.020	<0.05	65	160	94	140	--	120	**180**	<0.05	<0.05	**65**	<0.05	--	<0.05
YS-EC	YS-EC	Grab	Surface	Confirmation	03/29/06	Hart Crowser	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.020	--	<0.020
YS-WC	YS-WC	Grab	Surface	Confirmation	03/29/06	Hart Crowser	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.020	--	<0.020
SP-H-8'	SP-H-8'	Boring	8	Investigation	06/22/06	Hart Crowser	--	**<0.20**	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	--	<0.05
SP-H-4'	SP-H-4'	Boring	4	Investigation	06/22/06	Hart Crowser	--	**<0.20**	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	--	<0.05
SP-G-8'	SP-G-8'	Boring	8	Investigation	06/22/06	Hart Crowser	--	**<0.20**	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	--	<0.05
SP-G-4'	SP-G-4'	Boring	4	Investigation	06/22/06	Hart Crowser	--	**<0.20**	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	--	<0.05
SP-E-8'	SP-E-8'	Boring	8	Investigation	06/22/06	Hart Crowser	--	**<0.20**	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	--	<0.05
SP-E-4'	SP-E-4'	Boring	4	Investigation	06/22/06	Hart Crowser	--	**<0.20**	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	--	<0.05
SUBSURFACE UTILITY																						
SB-12	SB-12,11'	Boring	11	Investigation	12/06/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.009	NR	NR	<0.009	NR	NR	NR
SB-19	SB-19, 8	Boring	8	Investigation	10/01/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.00763	NR	NR	<0.00763	NR	NR	NR
SB-18	SB-18, 7	Boring	7	Investigation	09/29/04	SCS Engineers	NR	<0.00914	NR	NR	NR	NR	NR	NR	NR	<0.00914	<0.0457	<0.0457	<0.00914	<0.0457	NR	<0.00914
SB-19	SB-19,11'	Boring	11	Investigation	10/01/04	SCS Engineers	NR	<0.0101	NR	NR	NR	NR	NR	NR	NR	<0.00914	<0.0503	<0.0503	<0.00914	<0.0503	NR	<0.0101
SB-20	SB-20,6'	Boring	6	Investigation	10/01/04	SCS Engineers	NR	<0.00185	NR	NR	NR	NR	NR	NR	NR	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	NR	<0.00185
SB-23	SB-23, 10	Boring	10	Investigation	09/29/04	SCS Engineers	NR	<0.00202	NR	NR	NR	NR	NR	NR	NR	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	NR	<0.00202
SB-24	SB-24,9'	Boring	9	Investigation	09/29/04	SCS Engineers	NR	<0.00188	NR	NR	NR	NR	NR	NR	NR	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	NR	<0.00188
SB-25	SB-25,11'	Boring	11	Investigation	09/29/04	SCS Engineers	NR	<0.00184	NR	NR	NR	NR	NR	NR	NR	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	NR	<0.00184
SB-27	SB-27,7'	Boring	7	Investigation	09/29/04	SCS Engineers	NR	<0.00188	NR	NR	NR	NR	NR	NR	NR	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	NR	<0.00188
SB29	SB29,8'	Boring	8	Investigation	09/29/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.00822	NR	NR	<0.00822	NR	NR	NR
SB-32	SB-32,5'	Boring	5	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.00101	NR	NR	<0.00101	NR	NR	NR
SB-34	SB-34,6'	Boring	6	Investigation	12/07/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.010	NR	NR	<0.010	NR	NR	NR
SB-35	SB-35,10'	Boring	10	Investigation	12/07/04	SCS Engineers	--	**<0.20**	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**31.8**	NR	NR	**1.65**	<0.05	--	<0.05
MTCA Cleanup Level for Soil							**6,400[c]**	**0.02[a]**	**0.1[a]**	**5[a]**	**NE**	**NE**	**NE**	**33[b]**	**NE**	**0.05[a]**	**1,600[c]**	**5.6[b]**	**0.03[a]**	**24,000[c]**	**80,000[c]**	**0.67[b]**

SOUND ENVIRONMENTAL STRATEGIES
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Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

							Analytical Results[1] (milligrams per kilogram)																	
Location	**Sample ID**	**Sample Type**	**Depth** (feet bgs)	**Compliance Status**	**Sample Date**	**Sampled By**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**1,1,1,2-Tetrachloroethane**	**1,1,1-Trichloroethane**	**1,1,2,2-Tetrachloroethane**	**1,1,2-Trichloroethane**	**1,1-Dichloroethane**	**1,1-Dichloroethene**	**1,1-Dichloropropene**	**1,2,3-Trichlorobenzene**	**1,2,3-Trichloropropane**	**1,2,4-Trichlorobenzene**	**1,2,4-Trimethylbenzene**	**1,2-Dibromo-3-Chloropropane**
RUA																								
HA-2	S-2	Boring	1.2 to 1.5	Investigation	07/05/90	Hart Crowser	<0.25	5.5	1.0	6.9	--	<0.25	<0.25	<0.25	<0.25	<0.25	--	--	--	--	--	--
SP-1	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-1	S-3	Boring	9	Investigation	07/22/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RUA	LDA#1-Bottom	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.05	0.085	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RUA	LDA#2-North	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RUA	LDA#3-East Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RUA	LDA#4-South Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RUA	LDA#5-West Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-17	S-1	Boring	2	Investigation	08/15/03	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.360	<0.05
SP-18	S-1	Boring	2	Investigation	08/15/03	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.61	<0.05
SP-18	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.060	<0.05
AREA A -Form Main Pace Building																								
Area A	A-C-B-16	Grab	16	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-C-E-6	Grab	6	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-C-W-7	Grab	7	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-S-B-16	Grab	16	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-S-E-8	Grab	8	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-S-S-7	Grab	7	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-S-W-7	Grab	7	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-NE-9	Grab	9	Confirmation	10/10/06	Hart Crowser	<0.05	0.11	<0.05	0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-N-B-16	Grab	16	Confirmation	10/11/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-N-NW-4/8	Grab	4 to 8	Confirmation	10/11/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-N-W-11	Grab	11	Confirmation	10/11/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-C-B-16	Grab	16	Confirmation	10/13/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
AREA B - Underground Storage Tank Area																								
Area B	B-SW-B-17	Grab	17	Confirmation	10/11/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-SW-S-8/10	Grab	8 to 10	Confirmation	10/11/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-S-S-7/10	Grab	7 to 10	Confirmation	10/12/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-C-B-17	Grab	17	Confirmation	10/13/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-W-B-17	Grab	17	Confirmation	10/13/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-E-N-6/7	Grab	6 to 7	Confirmation	10/16/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-E-S-5/6	Grab	5 to 6	Confirmation	10/16/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-S-E-7/9	Grab	7 to 9	Confirmation	10/16/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	BSE-B-12	Grab	12	Confirmation	10/23/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	BSE-E-6	Grab	6	Confirmation	10/23/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	BSE-W-7	Grab	7	Confirmation	10/23/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	BSE-S-E-7	Grab	7	Confirmation	10/25/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	BSE-S-W-8	Grab	8	Confirmation	10/25/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-NE-B-17	Grab	17	Confirmation	10/27/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-SE-B-17	Grab	17	Confirmation	10/27/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MTCA Cleanup Level for Soil							**0.03[a]**	**7[a]**	**6[a]**	**9[a]**	**38[b]**	**2[a]**	**5[b]**	**18[b]**	**10[b]**	**NE**	**5.6[b]**	**800[c]**	**0.14[b]**	**800[c]**	**4,000[c]**	**0.71[b]**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (milligrams per kilogram) 1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chloroethyl Vinyl Ether	2-Chlorotoluene	2-Hexanone (MBK)	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone
RUA																						
HA-2	S-2	Boring	1.2 to 1.5	Investigation	07/05/90	Hart Crowser	--	--	<0.25	<0.25	--	--	--	--	--	<2.50	--	--	<2.50	--	<2.50	25.4
SP-1	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
SP-1	S-3	Boring	9	Investigation	07/22/03	Hart Crowser	<0.005	<0.05	<0.02	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	<0.05	--	--
RUA	LDA#1-Bottom	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
RUA	LDA#2-North	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
RUA	LDA#3-East Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
RUA	LDA#4-South Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
RUA	LDA#5-West Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
SP-17	S-1	Boring	2	Investigation	08/15/03	Hart Crowser	<0.005	<0.05	<0.05	<0.05	0.220	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
SP-18	S-1	Boring	2	Investigation	08/15/03	Hart Crowser	<0.005	<0.05	<0.05	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
SP-18	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	<0.05	--	<0.05	--	--
AREA A -Form Main Pace Building																						
Area A	A-C-B-16	Grab	16	Confirmation	10/09/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area A	A-C-E-6	Grab	6	Confirmation	10/09/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area A	A-C-W-7	Grab	7	Confirmation	10/09/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area A	A-S-B-16	Grab	16	Confirmation	10/09/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area A	A-S-E-8	Grab	8	Confirmation	10/09/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area A	A-S-S-7	Grab	7	Confirmation	10/09/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area A	A-S-W-7	Grab	7	Confirmation	10/09/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area A	A-NE-9	Grab	9	Confirmation	10/10/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area A	A-N-B-16	Grab	16	Confirmation	10/11/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area A	A-N-NW-4/8	Grab	4 to 8	Confirmation	10/11/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area A	A-N-W-11	Grab	11	Confirmation	10/11/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area A	A-C-B-16	Grab	16	Confirmation	10/13/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
AREA B - Underground Storage Tank Area																						
Area B	B-SW-B-17	Grab	17	Confirmation	10/11/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	B-SW-S-8/10	Grab	8 to 10	Confirmation	10/11/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	B-S-S-7/10	Grab	7 to 10	Confirmation	10/12/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	B-C-B-17	Grab	17	Confirmation	10/13/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	B-W-B-17	Grab	17	Confirmation	10/13/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	B-E-N-6/7	Grab	6 to 7	Confirmation	10/16/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	B-E-S-5/6	Grab	5 to 6	Confirmation	10/16/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	B-S-E-7/9	Grab	7 to 9	Confirmation	10/16/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	BSE-B-12	Grab	12	Confirmation	10/23/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	BSE-E-6	Grab	6	Confirmation	10/23/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	BSE-W-7	Grab	7	Confirmation	10/23/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	BSE-S-E-7	Grab	7	Confirmation	10/25/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	BSE-S-W-8	Grab	8	Confirmation	10/25/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	B-NE-B-17	Grab	17	Confirmation	10/27/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area B	B-SE-B-17	Grab	17	Confirmation	10/27/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
MTCA Cleanup Level for Soil							**0.005[a]**	**7,200[c]**	**11[b]**	**15[b]**	**4,000[c]**	**NE**	**15[b]**	**42[b]**	**15[b]**	**48,000[c]**	**0.91[b]**	**1,600[c]**	**4,800[c]**	**1,600[c]**	**6,400[c]**	**8,000[c]**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (milligrams per kilogram)																	
							Bromobenzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachloro-1,3-butadiene	Isopropylbenzene	Isopropyltoluene
RUA																								
HA-2	S-2	Boring	1.2 to 1.5	Investigation	07/05/90	Hart Crowser	--	<0.25	<0.6	<2.50	<0.25	<0.25	<0.25	<0.25	<0.25	<1.00	14	<0.25	<0.25	--	--	--	--	--
SP-1	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-1	S-3	Boring	9	Investigation	07/22/03	Hart Crowser	--	--	--	--	--	--	--	--	--	--	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
RUA	LDA#1-Bottom	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
RUA	LDA#2-North	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
RUA	LDA#3-East Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
RUA	LDA#4-South Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
RUA	LDA#5-West Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
SP-17	S-1	Boring	2	Investigation	08/15/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	0.064	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	<0.05
SP-18	S-1	Boring	2	Investigation	08/15/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SP-18	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	<0.05	<0.05	<0.05	<0.05	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
AREA A -Form Main Pace Building																								
Area A	A-C-B-16	Grab	16	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-C-E-6	Grab	6	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-C-W-7	Grab	7	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-S-B-16	Grab	16	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-S-E-8	Grab	8	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-S-S-7	Grab	7	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-S-W-7	Grab	7	Confirmation	10/09/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-NE-9	Grab	9	Confirmation	10/10/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-N-B-16	Grab	16	Confirmation	10/11/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-N-NW-4/8	Grab	4 to 8	Confirmation	10/11/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-N-W-11	Grab	11	Confirmation	10/11/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area A	A-C-B-16	Grab	16	Confirmation	10/13/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
AREA B - Underground Storage Tank Area																								
Area B	B-SW-B-17	Grab	17	Confirmation	10/11/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-SW-S-8/10	Grab	8 to 10	Confirmation	10/11/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-S-S-7/10	Grab	7 to 10	Confirmation	10/12/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-C-B-17	Grab	17	Confirmation	10/13/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-W-B-17	Grab	17	Confirmation	10/13/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-E-N-6/7	Grab	6 to 7	Confirmation	10/16/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-E-S-5/6	Grab	5 to 6	Confirmation	10/16/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-S-E-7/9	Grab	7 to 9	Confirmation	10/16/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	BSE-B-12	Grab	12	Confirmation	10/23/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	BSE-E-6	Grab	6	Confirmation	10/23/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	BSE-W-7	Grab	7	Confirmation	10/23/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	BSE-S-E-7	Grab	7	Confirmation	10/25/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	BSE-S-W-8	Grab	8	Confirmation	10/25/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-NE-B-17	Grab	17	Confirmation	10/27/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area B	B-SE-B-17	Grab	17	Confirmation	10/27/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
MTCA Cleanup Level for Soil							**400[c]**	**16[b]**	**130[b]**	**110[c]**	**8,000[c]**	**7.7[b]**	**1,600[c]**	**345[b]**	**164[b]**	**77[b]**	**800[c]**	**5.6[b]**	**12[b]**	**800[c]**	**16[c]**	**13[b]**	**8,000[c]**	**NE**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (milligrams per kilogram)																
							Methyl Isobutyl Ketone	Methylene chloride	Methyl t-butyl ether	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl chloride
RUA																							
HA-2	S-2	Boring	1.2 to 1.5	Investigation	07/05/90	Hart Crowser	--	**<1.5**	--	--	--	--	--	<0.25	--	**3.3**	0.17	<0.25	**1.4**	--	<2.50	<0.25
SP-1	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-1	S-3	Boring	9	Investigation	07/22/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	--	<0.05
RUA	LDA#1-Bottom	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	--	**<0.20**	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	--	<0.05
RUA	LDA#2-North	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	--	**<0.20**	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	--	<0.05
RUA	LDA#3-East Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	--	**<0.20**	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	--	<0.05
RUA	LDA#4-South Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	--	**<0.20**	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	--	<0.05
RUA	LDA#5-West Side	Grab	Unknown	Confirmation	10/10/03	Hart Crowser	--	**<0.20**	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	--	<0.05
SP-17	S-1	Boring	2	Investigation	08/15/03	Hart Crowser	--	<0.02	<0.05	0.90	<0.05	<0.05	0.069	<0.05	<0.05	**0.059**	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-18	S-1	Boring	2	Investigation	08/15/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	0.093	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	--	<0.05
SP-18	S-2	Boring	6	Investigation	08/15/03	Hart Crowser	--	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	--	<0.05
AREA A -Form Main Pace Building																							
Area A	A-C-B-16	Grab	16	Confirmation	10/09/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area A	A-C-E-6	Grab	6	Confirmation	10/09/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area A	A-C-W-7	Grab	7	Confirmation	10/09/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area A	A-S-B-16	Grab	16	Confirmation	10/09/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area A	A-S-E-8	Grab	8	Confirmation	10/09/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area A	A-S-S-7	Grab	7	Confirmation	10/09/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area A	A-S-W-7	Grab	7	Confirmation	10/09/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area A	A-NE-9	Grab	9	Confirmation	10/10/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area A	A-N-B-16	Grab	16	Confirmation	10/11/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area A	A-N-NW-4/8	Grab	4 to 8	Confirmation	10/11/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area A	A-N-W-11	Grab	11	Confirmation	10/11/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area A	A-C-B-16	Grab	16	Confirmation	10/13/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
AREA B - Underground Storage Tank Area																							
Area B	B-SW-B-17	Grab	17	Confirmation	10/11/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	B-SW-S-8/10	Grab	8 to 10	Confirmation	10/11/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	B-S-S-7/10	Grab	7 to 10	Confirmation	10/12/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	B-C-B-17	Grab	17	Confirmation	10/13/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	B-W-B-17	Grab	17	Confirmation	10/13/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	B-E-N-6/7	Grab	6 to 7	Confirmation	10/16/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	B-E-S-5/6	Grab	5 to 6	Confirmation	10/16/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	B-S-E-7/9	Grab	7 to 9	Confirmation	10/16/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	BSE-B-12	Grab	12	Confirmation	10/23/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	BSE-E-6	Grab	6	Confirmation	10/23/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	BSE-W-7	Grab	7	Confirmation	10/23/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	BSE-S-E-7	Grab	7	Confirmation	10/25/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	BSE-S-W-8	Grab	8	Confirmation	10/25/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	B-NE-B-17	Grab	17	Confirmation	10/27/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area B	B-SE-B-17	Grab	17	Confirmation	10/27/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
MTCA Cleanup Level for Soil							**6,400[c]**	**0.02[a]**	**0.1[a]**	**5[a]**	**NE**	**NE**	**NE**	**33[b]**	**NE**	**0.05[a]**	**1,600[c]**	**5.6[b]**	**0.03[a]**	**24,000[c]**	**80,000[c]**	**0.67[b]**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

							Analytical Results[1] (milligrams per kilogram)															
Location	**Sample ID**	**Sample Type**	**Depth** (feet bgs)	**Compliance Status**	**Sample Date**	**Sampled By**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**1,1,1,2-Tetrachloroethane**	**1,1,1-Trichloroethane**	**1,1,2,2-Tetrachloroethane**	**1,1,2-Trichloroethane**	**1,1-Dichloroethane**	**1,1-Dichloroethene**	**1,1-Dichloropropene**	**1,2,3-Trichlorobenzene**	**1,2,3-Trichloropropane**	**1,2,4-Trichlorobenzene**	**1,2,4-Trimethylbenzene**	**1,2-Dibromo-3-Chloropropane**
AREA C - RUA																						
Area C	C-C-B-13	Grab	13	Confirmation	10/13/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-E-8	Grab	8	Confirmation	10/13/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-W-B-13	Grab	13	Confirmation	10/16/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-NW-B-12	Grab	12	Confirmation	10/18/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-E-B-13	Grab	13	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-E-N-9	Grab	9	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-E-S-7	Grab	7	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-N-C-B-12	Grab	12	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-N-E-6	Grab	6	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-NE-B-10	Grab	10	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-N-W-6	Grab	6	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-W-N-8	Grab	8	Confirmation	10/23/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-W-S-6	Grab	6	Confirmation	10/23/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	CNW-S-6	Grab	6	Confirmation	10/25/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
AREA D - Subsurface Utility																						
Area D	D-7 (Grab)	Grab	Unknown	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-E-B-12	Grab	12	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-E-N-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-E-S-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-W-B-12	Grab	12	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-W-N-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-W-S-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-W-W-2/3	Grab	2 to 3	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	Grab (Fill)	Grab	Unknown	Confirmation	10/17/06	Hart Crowser	<0.05	<0.05	0.05	0.051	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.44	<0.05	0.45	0.19	<0.05
Area D	Grab 4	Grab	Unknown	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SB-15 EXCAVATION																						
SB-15	E1-B	Grab	6	Investigation	02/16/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MTCA Cleanup Level for Soil							**0.03[a]**	**7[a]**	**6[a]**	**9[a]**	**38[b]**	**2[a]**	**5[b]**	**18[b]**	**10[b]**	**NE**	**5.6[b]**	**800[c]**	**0.14[b]**	**800[c]**	**4,000[c]**	**0.71[b]**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (milligrams per kilogram) 1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chloroethyl Vinyl Ether	2-Chlorotoluene	2-Hexanone (MBK)	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone
AREA C - RUA																						
Area C	C-C-B-13	Grab	13	Confirmation	10/13/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area C	C-E-8	Grab	8	Confirmation	10/13/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area C	C-W-B-13	Grab	13	Confirmation	10/16/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area C	C-NW-B-12	Grab	12	Confirmation	10/18/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area C	C-E-B-13	Grab	13	Confirmation	10/19/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area C	C-E-N-9	Grab	9	Confirmation	10/19/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area C	C-E-S-7	Grab	7	Confirmation	10/19/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area C	C-N-C-B-12	Grab	12	Confirmation	10/19/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area C	C-N-E-6	Grab	6	Confirmation	10/19/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area C	C-NE-B-10	Grab	10	Confirmation	10/19/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area C	C-N-W-6	Grab	6	Confirmation	10/19/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area C	C-W-N-8	Grab	8	Confirmation	10/23/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area C	C-W-S-6	Grab	6	Confirmation	10/23/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area C	CNW-S-6	Grab	6	Confirmation	10/25/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
AREA D - Subsurface Utility																						
Area D	D-7 (Grab)	Grab	Unknown	Confirmation	10/06/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area D	D-E-B-12	Grab	12	Confirmation	10/06/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area D	D-E-N-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area D	D-E-S-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area D	D-W-B-12	Grab	12	Confirmation	10/06/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area D	D-W-N-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area D	D-W-S-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area D	D-W-W-2/3	Grab	2 to 3	Confirmation	10/06/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area D	Grab (Fill)	Grab	Unknown	Confirmation	10/17/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	0.23	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
Area D	Grab 4	Grab	Unknown	Confirmation	10/19/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
SB-15 EXCAVATION																						
SB-15	E1-B	Grab	6	Investigation	02/16/06	Hart Crowser	<0.005	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	NR	<0.05	--	<0.05	--	NR
MTCA Cleanup Level for Soil							**0.005[a]**	**7,200[c]**	**11[b]**	**15[b]**	**4,000[c]**	**NE**	**15[b]**	**42[b]**	**15[b]**	**48,000[c]**	**0.91[b]**	**1,600[c]**	**4,800[c]**	**1,600[c]**	**6,400[c]**	**8,000[c]**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (milligrams per kilogram) Bromobenzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachloro-1,3-butadiene	Isopropylbenzene	Isopropyltoluene
AREA C - RUA																								
Area C	C-C-B-13	Grab	13	Confirmation	10/13/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-E-8	Grab	8	Confirmation	10/13/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-W-B-13	Grab	13	Confirmation	10/16/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-NW-B-12	Grab	12	Confirmation	10/18/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-E-B-13	Grab	13	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-E-N-9	Grab	9	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-E-S-7	Grab	7	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-N-C-B-12	Grab	12	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-N-E-6	Grab	6	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-NE-B-10	Grab	10	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-N-W-6	Grab	6	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-W-N-8	Grab	8	Confirmation	10/23/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	C-W-S-6	Grab	6	Confirmation	10/23/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area C	CNW-S-6	Grab	6	Confirmation	10/25/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
AREA D - Subsurface Utility																								
Area D	D-7 (Grab)	Grab	Unknown	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-E-B-12	Grab	12	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-E-N-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-E-S-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-W-B-12	Grab	12	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-W-N-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-W-S-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	D-W-W-2/3	Grab	2 to 3	Confirmation	10/06/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
Area D	Grab (Fill)	Grab	Unknown	Confirmation	10/17/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	0.25	0.088	0.25
Area D	Grab 4	Grab	Unknown	Confirmation	10/19/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
SB-15 EXCAVATION																								
SB-15	E1-B	Grab	6	Investigation	02/16/06	Hart Crowser	<0.05	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05
MTCA Cleanup Level for Soil							**400[c]**	**16[b]**	**130[b]**	**110[c]**	**8,000[c]**	**7.7[b]**	**1,600[c]**	**345[b]**	**164[b]**	**77[b]**	**800[c]**	**5.6[b]**	**12[b]**	**800[c]**	**16[c]**	**13[b]**	**8,000[c]**	**NE**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (milligrams per kilogram) Methyl Isobutyl Ketone	Methylene chloride	Methyl t-butyl ether	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl chloride
AREA C - RUA																							
Area C	C-C-B-13	Grab	13	Confirmation	10/13/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area C	C-E-8	Grab	8	Confirmation	10/13/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area C	C-W-B-13	Grab	13	Confirmation	10/16/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area C	C-NW-B-12	Grab	12	Confirmation	10/18/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area C	C-E-B-13	Grab	13	Confirmation	10/19/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area C	C-E-N-9	Grab	9	Confirmation	10/19/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area C	C-E-S-7	Grab	7	Confirmation	10/19/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area C	C-N-C-B-12	Grab	12	Confirmation	10/19/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area C	C-N-E-6	Grab	6	Confirmation	10/19/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area C	C-NE-B-10	Grab	10	Confirmation	10/19/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area C	C-N-W-6	Grab	6	Confirmation	10/19/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area C	C-W-N-8	Grab	8	Confirmation	10/23/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area C	C-W-S-6	Grab	6	Confirmation	10/23/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area C	CNW-S-6	Grab	6	Confirmation	10/25/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
AREA D - Subsurface Utility																						
Area D	D-7 (Grab)	Grab	Unknown	Confirmation	10/06/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area D	D-E-B-12	Grab	12	Confirmation	10/06/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area D	D-E-N-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area D	D-E-S-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area D	D-W-B-12	Grab	12	Confirmation	10/06/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area D	D-W-N-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area D	D-W-S-3/5	Grab	3 to 5	Confirmation	10/06/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area D	D-W-W-2/3	Grab	2 to 3	Confirmation	10/06/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area D	Grab (Fill)	Grab	Unknown	Confirmation	10/17/06	Hart Crowser	--	<0.02	--	0.71	0.36	0.13	0.056	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
Area D	Grab 4	Grab	Unknown	Confirmation	10/19/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.27**	<0.05	<0.05	**0.046**	<0.05	NR	<0.05
SB-15 EXCAVATION																						
SB-15	E1-B	Grab	6	Investigation	02/16/06	Hart Crowser	--	<0.02	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	NR	<0.05
MTCA Cleanup Level for Soil							**6,400[c]**	**0.02[a]**	**0.1[a]**	**5[a]**	**NE**	**NE**	**NE**	**33[b]**	**NE**	**0.05[a]**	**1,600[c]**	**5.6[b]**	**0.03[a]**	**24,000[c]**	**80,000[c]**	**0.67[b]**

Table 3
Summary of Analytical Results for Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

NOTES:
Red denotes concentration exceeds MTCA Soil Cleanup Level.
Blue denotes result was not detected at a concentration exceeding the laboratory reporting limit, however, the laboratory reporting limit exceeds the MTCA cleanup level.
[1]Analyzed by United States Environmental Protection Agency Method 8260.
[a]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method A, Unrestricted Land Use, Standard Formula Value, CLARC Web site <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.
[b]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Carcinogen, Standard Formula Value, CLARC Web site <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.
[c]MTCA, Chapter 173-340 WAC, CLARC, Soil, Method B, Non-Carcinogen, Standard Formula Value, CLARC Web site <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.
[d] SS-1, SS-2, SS-3 - Samples of yellow material on surface soil.

-- = not analyzed
< = not detected at a concentration exceeding the laboratory reporting limit
bgs = below ground surface
CLARC = Cleanup Levels and Risk Calculations
FETA = Former Ecology Tank Area
Hart Crowser = Hart Crowser, Inc.
MTCA = Washington State Model Toxics Control Act
ND = not detected at practical quanititation limit
NE = cleanup level not established
NR = not reported by consultant or laboratory analytical reports not provided for review
RUA = railroad unloading area
SES = Sound Environmental Strategies
SRH = SRH Environmental Management
UST = underground storage tank
WAC = Washington Administrative Code

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Table 4
Summary of Analytical Results for Semi-Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

							Analytical Results[1] (milligrams per kilogram)																			
Location	**Sample ID**	**Sample Type**	**Depth** (feet bgs)	**Compliance Status**	**Sample Date**	**Sampled By**	**1,2,4-Trichlorobenzene**	**1,2-Dichlorobenzene**	**1,3-Dichlorobenzene**	**1,4-Dichlorobenzene**	**2,3,4,6-Tetrachlorophenol**	**2,4,5-Trichlorophenol**	**2,4,6-Tribromophenol**	**2,4,6-Trichlorophenol**	**2,4-Dichlorophenol**	**2,4-Dimethylphenol**	**2,4-Dinitrophenol**	**2,4-Dinitrotoluene**	**2,6-Dichlorophenol**	**2,6-Dinitrotoluene**	**2-Chloronaphthalene**	**2-Chlorophenol**	**2-Methylnaphthalene**	**2-Methylphenol (o-cresol)**	**2-Nitroaniline**	**2-Nitrophenol**
FETA																										
OWS-E-2.5	oil/water	Grab	2.5	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
S1-SE-COMP	S and E sidewall	Grab	7	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
S-2-NW-7	N and W sidewall	Grab	7	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
S-3-B-10	bottom	Grab	10	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
North wall	PN@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
West wall	PW@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bottom	PB@12	Grab	12	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
North wall	PE@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
South wall	PS@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-5	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
SP-34/HC-MW-6	S-3	Boring	8	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
SP-35	S-2	Boring	4	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
DOWNGRADIENT																										
B4/MW4	S-2	Boring	9	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
B4/MW4	S-4	Boring	19	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
DRUM STORAGE YARD																										
HA-3	S-5	Boring	0.5 to 0.8	Investigation	07/05/90	Hart Crowser	<0.34	<0.34	<0.34	<0.34	--	<0.34	--	<0.34	<0.34	<0.34	<1.7	<0.34	--	<0.34	<0.34	<0.34	<0.34	<0.34	<1.7	<0.34
HA-4	S-6	Boring	0.5 to 1.0	Investigation	07/05/90	Hart Crowser	<0.17	<0.17	<0.17	<0.17	--	<0.17	--	<0.17	<0.17	<0.17	<0.85	<0.17	--	<0.17	<0.17	<0.17	<0.17	<0.17	<0.85	<0.17
SP-15	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
B5/MW5	S-1A	Boring	4	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
SP-38	S-1	Boring	0.5	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
SP-39	S-2	Boring	2	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
UNDERGROUND STORAGE TANK AREA																										
UST Area	2413-121990-13A	Grab	Unknown	Confirmation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-13A	Grab	Unknown	Confirmation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-29	S-3	Boring	6	Investigation	03/01/04	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
SB-8	SB-8,8'	Boring	8	Investigation	09/30/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-21	SB-21,6'	Boring	6	Investigation	09/30/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-2	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
SP-2	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
PACE MAIN BUILDING																										
SP-3	S-1	Boring	2	Investigation	07/22/03	Har Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
SP-9	S-3	Boring	9	Investigation	07/23/03	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
SP-12	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
SP-30	S-2	Boring	5	Investigation	03/05/04	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
Pace Main Building	SS-4	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
SUBSURFACE UTILITY																										
SB-19	SB-19,11'	Boring	11	Investigation	10/01/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-25	SB-25,4'	Boring	4	Investigation	09/29/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RUA																										
B-2	S-3	Boring	7.5	Investigation	02/25/91	Hart Crowser	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SP-31	S-1/S-2	Boring	2	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
SP-32	S-2	Boring	6	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
SP-33	S-1/S-2	Boring	0	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
SP-1	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.50	<0.50	<0.10	<0.50	<0.50	--	<0.50	--	<0.10	<0.50	--	<0.10	--	<0.50
MTCA Cleanup Level for Soil							**800[a]**	**7,200[a]**	**NE**	**42[b]**	**2,400[a]**	**8,000[a]**	**NE**	**91[b]**	**240[a]**	**1,600[a]**	**160[a]**	**160[a]**	**NE**	**80[a]**	**6,400[a]**	**400[a]**	**NE**	**4,000[a]**	**NE**	**NE**

Table 4
Summary of Analytical Results for Semi-Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (mg/kg)																						
							3,3-Dichlorobenzidine	3,4-Methylphenol (m,p-cresc)	3-Nitroaniline	4,6-Dinitro-2-methylphenol	4-Bromophenylphenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenylphenylether	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzidine	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Ideno(1,2,3-cd)pyrene	Benzo(ghi)perylene
FETA																													
OWS-E-2.5	oil/water	Grab	2.5	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
S1-SE-COMP	S and E sidewall	Grab	7	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
S-2-NW-7	N and W sidewall	Grab	7	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
S-3-B-10	bottom	Grab	10	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
North wall	PN@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
West wall	PW@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bottom	PB@12	Grab	12	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
North wall	PE@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
South wall	PS@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-5	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SP-34/HC-MW-6	S-3	Boring	8	Investigation	Unknown	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SP-35	S-2	Boring	4	Investigation	Unknown	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
DOWNGRADIENT																													
B4/MW4	S-2	Boring	9	Investigation	Unknown	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B4/MW4	S-4	Boring	19	Investigation	Unknown	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
DRUM STORAGE YARD																													
HA-3	S-5	Boring	0.5 to 0.8	Investigation	07/05/90	Hart Crowser	<0.68	<0.34	<1.7	<1.7	<0.34	<0.34	<0.34	<0.34	<1.7	<1.7	<0.34	<0.34	<0.34	<0.34	<3.4	**<0.34**	**<0.34**	**<0.34**	**<0.34**	**<0.34**	**<0.34**	**<0.34**	<0.34
HA-4	S-6	Boring	0.5 to 1.0	Investigation	07/05/90	Hart Crowser	<0.34	<0.17	<0.85	<0.85	<0.17	<0.17	<0.17	<0.17	<0.85	<0.85	<0.17	<0.17	<0.17	<0.17	<1.7	**<0.17**	**<0.17**	**<0.17**	**<0.17**	**<0.17**	**<0.17**	**<0.17**	<0.17
SP-15	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B5/MW5	S-1A	Boring	4	Investigation	Unknown	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SP-38	S-1	Boring	0.5	Investigation	Unknown	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SP-39	S-2	Boring	2	Investigation	Unknown	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
UNDERGROUND STORAGE TANK AREA																													
UST Area	2413-121990-13A	Grab	Unknown	Confirmation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-13A	Grab	Unknown	Confirmation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-29	S-3	Boring	6	Investigation	03/01/04	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SB-8	SB-8,8'	Boring	8	Investigation	09/30/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-21	SB-21,6'	Boring	6	Investigation	09/30/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-2	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SP-2	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
PACE MAIN BUILDING																													
SP-3	S-1	Boring	2	Investigation	07/22/03	Har Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SP-9	S-3	Boring	9	Investigation	07/23/03	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SP-12	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SP-30	S-2	Boring	5	Investigation	03/05/04	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Pace Main Building	SS-4	Grab	Surface	Performance	03/17/06	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SUBSURFACE UTILITY																													
SB-19	SB-19,11'	Boring	11	Investigation	10/01/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-25	SB-25,4'	Boring	4	Investigation	09/29/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RUA																													
B-2	S-3	Boring	7.5	Investigation	02/25/91	Hart Crowser	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SP-31	S-1/S-2	Boring	2	Investigation	Unknown	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SP-32	S-2	Boring	6	Investigation	Unknown	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SP-33	S-1/S-2	Boring	0	Investigation	Unknown	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SP-1	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	<0.10	--	--	<0.10	<0.50	--	<0.50	--	<0.50	<0.10	<0.10	--	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
MTCA Cleanup Level for Soil							**2.2[b]**	**80[a]**	**NE**	**NE**	**NE**	**NE**	**320[a]**	**NE**	**NE**	**NE**	**4,800[a]**	**NE**	**180[b]**	**2,400[a]**	**0.0043[b]**	**0.1[c]**							**NE**

Table 4
Summary of Analytical Results for Semi-Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results1 (mg/kg)																
							Benzoic Acid	Benzyl Alcohol	Bis (2-chloroethoxy) methanol	Bis (2-chloroethyl) ether	Bis (2-chloroisopropyl) ether	Bis (2-ethylhexyl) ether	Bis (2-ethylhexyl) phthalate	Butylbenzylphthalate	Carbazole	Dibenzofuran	Diethlyphthalate	Diethylphthalate	Dimethlyphthalate	Dimethylphthalate	Di-n-butylphthalate	Di-n-octylphthalate	Diphenylamine
FETA																							
OWS-E-2.5	oil/water	Grab	2.5	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
S1-SE-COMP	S and E sidewall	Grab	7	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
S-2-NW-7	N and W sidewall	Grab	7	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
S-3-B-10	bottom	Grab	10	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
North wall	PN@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
West wall	PW@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bottom	PB@12	Grab	12	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
North wall	PE@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
South wall	PS@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-5	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
SP-34/HC-MW-6	S-3	Boring	8	Investigation	Unknown	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
SP-35	S-2	Boring	4	Investigation	Unknown	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
DOWNGRADIENT																							
B4/MW4	S-2	Boring	9	Investigation	Unknown	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
B4/MW4	S-4	Boring	19	Investigation	Unknown	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
DRUM STORAGE YARD																							
HA-3	S-5	Boring	0.5 to 0.8	Investigation	07/05/90	Hart Crowser	<1.7	<0.34	<0.34	<0.34	<0.34	--	<0.34	<0.34	--	<0.34	--	<0.34	--	<0.34	1.1	<0.34	--
HA-4	S-6	Boring	0.5 to 1.0	Investigation	07/05/90	Hart Crowser	<0.85	<0.17	<0.17	<0.17	<0.17	--	<0.17	<0.17	--	<0.17	--	<0.17	--	<0.17	0.79	<0.17	--
SP-15	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
B5/MW5	S-1A	Boring	4	Investigation	Unknown	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
SP-38	S-1	Boring	0.5	Investigation	Unknown	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
SP-39	S-2	Boring	2	Investigation	Unknown	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
UNDERGROUND STORAGE TANK AREA																							
UST Area	2413-121990-13A	Grab	Unknown	Confirmation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.10
UST Area	2413-121990-13A	Grab	Unknown	Confirmation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	21.4
SP-29	S-3	Boring	6	Investigation	03/01/04	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	0.84
SB-8	SB-8,8'	Boring	8	Investigation	09/30/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-21	SB-21,6'	Boring	6	Investigation	09/30/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-2	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
SP-2	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
PACE MAIN BUILDING																							
SP-3	S-1	Boring	2	Investigation	07/22/03	Har Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
SP-9	S-3	Boring	9	Investigation	07/23/03	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
SP-12	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
SP-30	S-2	Boring	5	Investigation	03/05/04	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
Pace Main Building	SS-4	Grab	Surface	Performance	03/17/06	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
SUBSURFACE UTILITY																							
SB-19	SB-19,11'	Boring	11	Investigation	10/01/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-25	SB-25,4'	Boring	4	Investigation	09/29/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RUA																							
B-2	S-3	Boring	7.5	Investigation	02/25/91	Hart Crowser	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SP-31	S-1/S-2	Boring	2	Investigation	Unknown	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
SP-32	S-2	Boring	6	Investigation	Unknown	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
SP-33	S-1/S-2	Boring	0	Investigation	Unknown	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
SP-1	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	--	--	<0.50	--	--	<0.10	--	<0.50	--	--	<0.10	--	<0.10	--	<0.10	<0.50	<0.10
MTCA Cleanup Level for Soil							**320,000[a]**	**2,400[a]**	**40,000[a]**	**0.91[b]**	**3,200[a]**	**NE**	**71[b]**	**NE**	**50[b]**	**160[b]**	**NE**	**NE**	**NE**	**NE**	**NE**	**1,600[a]**	**2,000[a]**

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Table 4
Summary of Analytical Results for Semi-Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (mg/kg)															
							Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Isophorone	Naphthalene	Nitrobenzene	N-Nitroso-di-n-propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
FETA																						
OWS-E-2.5	oil/water	Grab	2.5	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	6.4	NR	NR	NR
S1-SE-COMP	S and E sidewall	Grab	7	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	4	NR	NR	NR
S-2-NW-7	N and W sidewall	Grab	7	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.055	NR	NR	NR
S-3-B-10	bottom	Grab	10	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	--	NR	NR	NR
North wall	PN@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	<0.0067	--	--	--
West wall	PW@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	<0.0067	--	--	--
Bottom	PB@12	Grab	12	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	<0.0067	--	--	--
North wall	PE@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	<0.0067	--	--	--
South wall	PS@6	Grab	6	Confirmation	08/01/99	Galloway	--	--	--	--	--	--	--	--	--	--	--	--	<0.0067	--	--	--
SP-5	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
SP-34/HC-MW-6	S-3	Boring	8	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
SP-35	S-2	Boring	4	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
DOWNGRADIENT																						
B4/MW4	S-2	Boring	9	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
B4/MW4	S-4	Boring	19	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
DRUM STORAGE YARD																						
HA-3	S-5	Boring	0.5 to 0.8	Investigation	07/05/90	Hart Crowser	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	**<0.34**	**<0.34**	<0.34	<0.34	<0.34	<0.34	<0.34
HA-4	S-6	Boring	0.5 to 1.0	Investigation	07/05/90	Hart Crowser	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	**<0.17**	**<0.17**	<0.17	<0.17	<0.17	<0.17	<0.17
SP-15	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
B5/MW5	S-1A	Boring	4	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
SP-38	S-1	Boring	0.5	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
SP-39	S-2	Boring	2	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
UNDERGROUND STORAGE TANK AREA																						
UST Area	2413-121990-13A	Grab	Unknown	Confirmation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UST Area	2413-121990-13A	Grab	Unknown	Confirmation	12/20/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-29	S-3	Boring	6	Investigation	03/01/04	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
SB-8	SB-8,8'	Boring	8	Investigation	09/30/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	<0.00942	--	--	--
SB-21	SB-21,6'	Boring	6	Investigation	09/30/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	<0.00855	--	--	--
SP-2	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
SP-2	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
PACE MAIN BUILDING																						
SP-3	S-1	Boring	2	Investigation	07/22/03	Har Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
SP-9	S-3	Boring	9	Investigation	07/23/03	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
SP-12	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
SP-30	S-2	Boring	5	Investigation	03/05/04	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
Pace Main Building	SS-4	Grab	Surface	Performance	03/17/06	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
SUBSURFACE UTILITY																						
SB-19	SB-19,11'	Boring	11	Investigation	10/01/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	<0.011	--	--	--
SB-25	SB-25,4'	Boring	4	Investigation	09/29/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	<0.00152	--	--	--
RUA																						
B-2	S-3	Boring	7.5	Investigation	02/25/91	Hart Crowser	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	31	NR	NR	NR	NR
SP-31	S-1/S-2	Boring	2	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
SP-32	S-2	Boring	6	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
SP-33	S-1/S-2	Boring	0	Investigation	Unknown	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
SP-1	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	--	<0.10	--	--	--	<0.10	<0.50	<0.10	<0.50	<0.10
MTCA Cleanup Level for Soil							**3,200[a]**	**3,200[a]**	**0.63[b]**	**13[b]**	**480[a]**	**71[b]**	**1,100[b]**	**5[c]**	**40[a]**	**0.14[b]**	**0.02[b]**	**200[b]**	**8.3[b]**	**NE**	**4,800[a]**	**2,400[a]**

Table 4
Summary of Analytical Results for Semi-Volatile Organic Compounds in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

NOTES:
Blue denotes result was not detected at a concentration exceeding the laboratory reporting limit, however, the laboratory reporting limit exceeds the MTCA cleanup level.
[1]Analyzed by United States Environmental Protection Agency Method 8270.
[a]MTCA Cleanup Regulation, Chapter 173-340 WAC, CLARC, Soil, Method B, Non-Carcinogen, Standard Formula Value, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.
[b]MTCA Cleanup Regulation, Chapter 173-340 WAC, CLARC, Soil, Method B, Carcinogen, Standard Formula Value, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.
[c]MTCA Cleanup Regulation, Table 740-1 Method A Soil Cleanup Levels for Unrestricted Land Uses of Chapter 173-340 of the WAC. Revised November 2007.

-- = not analyzed
< = not detected at a concentration exceeding the laboratory reporting limit
bgs = below ground surface
CLARC = Cleanup Levels and Risk Calculations
FETA = Former Ecology Tank Area
Galloway = Galloway Environmental, Inc.
Hart Crowser = Hart Crowser, Inc.
MTCA = Washington State Model Toxics Control Act
NE = not established
NR = not reported by consultant or laboratory analytical reports not provided for review
PSCI = PSCI Environmental
RUA = Railroad Unloading Area
SRH = SRH Environmental Management
UST = underground storage tank
WAC = Washington Administrative Code

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Table 5
Summary of Analytical Results for Herbicides in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results[1] (milligrams per kilogram)										
							2,4,5-T	2,4-D	2,4-DB	4-Nitrophenol	Dalapon	Dicamba	Dichloroprop	Dinoseb	MCPA	MCPP	Silvex
UNDERGROUND STORAGE TANK AREA																	
SP-29	S-3	Boring	6	Investigation	03/05/04	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--
SB-8	SB-8,8'	Boring	8	Investigation	09/30/04	SCS Engineers	<0.0062	<0.00425	<0.00628	<0.00505	<0.00373	<0.0134	<0.00678	<0.00858	<0.00903	<0.00824	<0.00623
SB-21	SB-21,6'	Boring	6	Investigation	09/30/04	SCS Engineers	<0.00563	<0.00386	<0.0057	<0.00458	<0.00339	<0.0122	<0.00616	<0.00779	<0.0082	<0.00749	<0.00565
SUBSURFACE UTILITY																	
SB-25	SB-25,4'	Boring	4	Investigation	09/29/04	SCS Engineers	<0.000999	<0.000684	<0.00101	<0.000813	<0.000601	<0.00216	<0.00109	<0.00138	<0.00145	<0.00133	<0.001
SB-19	SB-19,11'	Boring	11	Investigation	10/01/04	SCS Engineers	<0.00723	<0.00495	<0.00732	<0.00588	<0.00435	<0.0156	<0.0079	<0.00999	<0.0105	<0.00961	<0.00725
MTCA Method B Cleanup Level for Soil[a]							**800**	**800**	**640**	**NE**	**2,400**	**2,400**	**240**	**80**	**40**	**NE**	**640**

NOTES:

[1]Analyzed by United States Environmental Protection Agency Method SW8151A.

[a]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Non-carcinogen, Standard Formula Value, Direct Contact (ingestion only), unrestricted land use.

-- = not analyzed

< = not detected at a concentration exceeding the laboratory reporting limit

2,4,5-T = trichlorophenoxyacetic acid

2,4-D = dichlorophenoxyacetic acid

2,4-DB = dichlorophenoxy (butyric acid)

bgs = below ground surface

CLARC = Cleanup Levels and Risk Calculations

Hart Crowser = Hart Crowser, Inc.

MCPA = methyl-4-chlorophenoxy-acetic

MCPP = 2-(2-methyl-4-chlorophenoxy) propionic acid

MTCA = Washington State Model Toxics Control Act

NE = cleanup level not established

Table 6
Summary of Analytical Results for Total Petroleum Hydrocarbon Constituents in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	**Analytical Results** (micrograms per liter)						
				HCID[1]	TPH[2]	GRPH[3]	Mineral Spirits/ Stoddard Solvent[3]	DRPH[4]	ORPH[4]	Kerosene/Jet Fuel[4]
FETA										
HC-MW-6	Groundwater	03/05/04	Hart Crowser	--	--	<100	<100	<200	<200	<200
SP-34/HC-MW-6	Reconnaissance	03/05/04	Hart Crowser	--	--	<100	<100	<200	<200	<200
DRUM STORAGE YARD										
HC-MW-5	Groundwater	07/17/03	Hart Crowser	--	--	<100	<100	<200	<500	<200
SP-14	Reconnaissance	07/22/03	Hart Crowser	--	--	<100	<100	--	--	--
SP-7	Reconnaissance	07/22/03	Hart Crowser	--	--	<100	<100	--	--	--
UNDERGROUND STORAGE TANK AREA										
2413-122190-P1	Grab	12/21/90	SRH	--	<500	--	--	--	--	--
2413-122190-P2	Grab	12/21/90	SRH	--	<500	--	--	--	--	--
SP-21	Reconnaissance	08/15/03	Hart Crowser	--	--	<100	**8,100**	--	--	--
SP-22	Reconnaissance	08/15/03	Hart Crowser	--	--	<100	<100	--	--	--
SP-28	Reconnaissance	03/05/04	Hart Crowser	--	--	<100	<100	--	--	--
SP-29	Reconnaissance	03/05/04	Hart Crowser	--	--	<100	<100	--	--	--
SB-21	Reconnaissance	09/30/04	SCS Engineers	DET	--	--	--	**16,800**[x]	**2,260**[x]	--
SP-Q	Reconnaissance	09/14/06	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-20	Groundwater	01/25/07	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-24	Groundwater	01/25/07	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-20	Groundwater	10/03/07	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-24	Groundwater	10/03/07	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-20	Groundwater	02/05/08	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-24	Groundwater	02/06/08	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-24	Groundwater	06/03/10	SES	--	--	<100	--	<280	<450	--
PACE MAIN BUILDING										
SP-40	Reconnaissance	03/05/04	Hart Crowser	--	--	<100	<100	--	--	--
SP-L	Groundwater	06/22/06	Hart Crowser	--	--	<100	<100	<200	<500	190
SP-O	Groundwater	09/14/06	Hart Crowser	--	--	<100	<100	<200	<500	<200
SP-W	Groundwater	09/14/06	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-21	Groundwater	01/25/07	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-22	Groundwater	01/25/07	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-21	Groundwater	10/03/07	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-22	Groundwater	10/03/07	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-21	Groundwater	02/05/08	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-22	Groundwater	02/05/08	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-19	Groundwater	02/06/08	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-21	Groundwater	06/03/10	SES	--	--	<100	--	<270	<430	--
MTCA Method A Cleanup Level[5]				**NA**	**800/1,000[a]**	**800/1,000[a]**	**800/1,000[a]**	**500**	**500**	**500**

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Table 6
Summary of Analytical Results for Total Petroleum Hydrocarbon
Constituents in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)						
				HCID[1]	TPH[2]	GRPH[3]	Mineral Spirits/ Stoddard Solvent[3]	DRPH[4]	ORPH[4]	Kerosene/Jet Fuel[4]
SUBSURFACE UTILITY										
HC-MW-1	Groundwater	07/16/03	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-3	Groundwater	03/05/04	Hart Crowser	--	--	<100	<100	<200	<200	<200
HC-MW-3	Groundwater	06/07/10	SES	--	--	<400	--	<290	<460	--
SB-26	Reconnaissance	09/29/04	SCS Engineers	DET	--	<122	--	448[x]	**1,230**[x]	--
SB-19	Reconnaissance	10/01/04	SCS Engineers	DET	--	--	--	**2,120**[x]	**1,670**[x]	--
SB-30	Reconnaissance	12/07/04	SCS Engineers	--	--	<200	--	278[x]	**1,130**[x]	--
SB-35	Reconnaissance	12/07/04	SCS Engineers	--	--	<200	--	--	--	--
SB-22	Reconnaissance	02/17/06	Hart Crowser	--	--	<100	<100	<200	<500	<200
SB-36	Reconnaissance	02/17/06	Hart Crowser	--	--	<100	<100	<200	<500	<200
SB-38	Reconnaissance	02/17/06	Hart Crowser	--	--	<100	<100	<200	<500	<200
SB-22	Groundwater	09/14/06	Hart Crowser	--	--	<100	<100	<200	<500	<200
SB-38	Groundwater	09/14/06	Hart Crowser	--	--	<100	<100	<200	<500	<200
SB-22	Groundwater	06/07/10	SES	--	--	<100	--	<280	<440	--
HC-MW-23	Groundwater	01/25/07	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-23	Groundwater	10/05/07	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-23	Groundwater	02/06/08	Hart Crowser	--	--	<100	<100	<200	<500	<200
HC-MW-18	Groundwater	06/04/10	SES	--	--	<100	--	<160	<250	--
RUA										
PWA-1	Grab	03/08/00	Galloway	--	--	--	--	**175,000**	--	--
HC-MW-2	Groundwater	07/16/03	Hart Crowser	--	--	210	<100	<200	<500	<200
HC-MW2R	Groundwater	11/05/03	Hart Crowser	--	--	520	<100	<200	<500	<200
HC-MW2R	Groundwater	03/04/04	Hart Crowser	--	--	<100	<100	--	--	--
HC-MW2R	Groundwater	06/03/10	SES	--	--	<100	--	<270	<430	--
SP-P	Reconnaissance	09/14/06	Hart Crowser	--	--	<100	<100	<200	<500	<200
DOWNGRADIENT										
SB01	Reconnaissance	04/26/10	SES	--	--	<100	--	<270	<430	--
SB02	Reconnaissance	04/26/10	SES	--	--	<100	--	<160	310	--
SB03	Reconnaissance	04/26/10	SES	--	--	<100	--	<260	<410	--
SB06	Reconnaissance	04/26/10	SES	--	--	<100	--	<260	<420	--
SB08	Reconnaissance	04/26/10	SES	--	--	<100	--	<160	**970**	--
SB04	Reconnaissance	04/27/10	SES	--	--	<400	--	**15,000**	<500	--
SB05	Reconnaissance	04/27/10	SES	--	--	<100	--	<270	<430	--
SB09	Reconnaissance	04/27/10	SES	--	--	<100	--	<270	<430	--
SES-MW25	Groundwater	06/07/10	SES	--	--	<100	--	<260	<420	--
SES-MW26	Groundwater	06/07/10	SES	--	--	<100	--	<300	<480	--
SES-MW27	Groundwater	06/07/10	SES	--	--	<400	--	<210	<250	--
HC-MW-4	Groundwater	03/06/04	Hart Crowser	--	--	<100	<100	<200	<200	<200
HC-MW-4	Groundwater	06/04/10	SES	--	--	<100	--	<310	<490	--
HC-MW-7	Groundwater	06/04/10	SES	--	--	<100	--	<300	<470	--
HC-MW-8	Groundwater	06/04/10	SES	--	--	<100	--	<300	<480	--
HC-MW-9	Groundwater	06/04/10	SES	--	--	<100	--	<170	<270	--
HC-MW-10	Groundwater	06/04/10	SES	--	--	<100	--	<260	<420	--
MTCA Method A Cleanup Level[5]				**NA**	**800/1,000[a]**	**800/1,000[a]**	**800/1,000[a]**	**500**	**500**	**500**

Table 6
Summary of Analytical Results for Total Petroleum Hydrocarbon Constituents in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

NOTES:

Red denotes concentration exceeds MTCA Method A Cleanup Level.

[1]Analyzed by Hydrocarbon Identification Method NWTPH-HCID.

[2]Analyzed by United States Environmental Protection Agency 8015(mod).

[3]Analyzed by Method NWTPH-Gx.

[4]Analyzed by Method NWTPH-Dx.

[5]MTCA Cleanup Regulation, Table 720-1 Method A Soil Cleanup Levels for Groundwater of Chapter 173-340 of the Washington Administrative Code. Revised November 2007.

[a]800 µg/L when benzene is present, 1,000 µg/L when benzene is not present.

Laboratory Note:

[X] Contaminant does not appear to be typical product.

-- = not analyzed
< = not detected at a concentration exceeding the laboratory reporting limit
DET = analyte detected at or above the reporting limit
DRPH = diesel-range petroleum hydrocarbons
Evergreen = Evergreen Environmental Consulting
FETA = Former Ecology Tank Area
Galloway = Galloway Environmental, Inc.
GRPH = gasoline-range petroleum hydrocarbons
Hart Crowser = Hart Crowser, Inc.
HCID= hydrocarbon identification
MTCA = Washington State Model Toxics Control Act
NA = Not Applicable
NWTPH = Northwest Total Petroleum Hydrocarbon
ORPH= oil-range petroleum hydrocarbons
RUA = Railroad Unloading Area
SES = Sound Environmental Strategies
SRH = SRH Environmental Management
TPH = total petroleum hydrocarbons

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Table 7
Summary of Analytical Results for Metals in Soil
Former Pace National Site
500 7th Avenue South
Kirkland,Washington

							Analytical Results (milligrams per kilogram)										
Location	**Sample ID**	**Sample Type**	**Depth** (feet bgs)	**Compliance Status**	**Sample Date**	**Sampled by**	**Arsenic[1]**	**Barium[1]**	**Cadmium[1]**	**Chromium[1]**	**Copper[1]**	**Lead [1]**	**Mercury[2]**	**Selenium[1]**	**Silver[1]**	**Nickel[1]**	**Zinc [1]**
FETA																	
SP-5	S-3	Boring	10	Investigation	07/22/03	Hart Crowser	<2.0	--	<1.0	10	11	14	<0.1	--	--	<0.5	<0.1
SP-34/HC-MW-6	S-3	Boring	8	Investigation	Unknown	Hart Crowser	<2.0	--	<1.0	24	3.7	2	<0.1	--	--	7.6	23
SP-35	S-2	Boring	4	Investigation	Unknown	HartCrowser	<2.0	--	<1.0	8	2.9	3.3	<0.1	--	--	3.5	22
DOWNGRADIENT																	
B4/MW4	S-2	Boring	9	Investigation	Unknown	Hart Crowser	<2.0	--	<1.0	4.7	4.2	2	<0.1	--	--	<0.5	<0.1
DRUM STORAGE YARD																	
SP-6	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	2.2	--	--	--	--	--	--	--	--	--	--
SP-7	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	<2.0	--	--	--	--	--	--	--	--	--	--
SP-14	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	<2.0	--	--	--	--	--	--	--	--	--	--
SP-15	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	<2.0	--	<1.0	24	1.1	5	<0.1	--	--	<0.5	0.1
SP-16	S-3	Boring	10	Investigation	07/23/03	Hart Crowser	<2.0	--	--	--	--	--	--	--	--	--	--
B5/MW5	S-1A	Boring	4	Investigation	Unknown	Hart Crowser	<2.0	--	<1.0	40	13	8.9	<0.1	--	--	<0.5	--
SP-38	S-1	Boring	0.5	Investigation	Unknown	Hart Crowser	<2.0	--	<1.0	16	3.3	22	<0.1	--	--	5.9	25
UNDERGROUND STORAGE TANK AREA																	
SP-2	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	<2.0	--	--	--	--	--	--	--	--	--	--
SS-1	SS-1	Unknown	1	Investigation	03/17/06	Hart Crowser	<2.0	<20	<1.0	19	8.7	1.4	<0.5	<10	<2.0	4.6	7.1
SS-2	SS-2	Unknown	2	Investigation	03/17/06	Hart Crowser	9.6	<20	<1.0	26	20	8.2	<0.5	<10	<2.0	4.1	18
PACE MAIN BUILDING																	
SP-3	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<2.0	--	<1.0	10	6.1	2.2	<0.1	--	--	<0.5	0.15
SP-4	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<2.0	--	--	--	--	--	--	--	--	--	--
SP-8	S-2	Boring	6	Investigation	07/22/03	Hart Crowser	<2.0	--	--	--	--	--	--	--	--	--	--
SP-9	S-3	Boring	9	Investigation	07/23/03	Hart Crowser	<2.0	--	<1.0	16	13	3	<0.1	--	--	<0.5	<0.1
SP-10	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	<2.0	--	--	--	--	--	--	--	--	--	--
SP-11	S-1	Boring	2	Investigation	07/23/03	Hart Crowser	<2.0	--	<1.0	10	<0.5	2.4	<0.1	--	--	<0.5	0.3
SP-12	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	<2.0	--	<1.0	6.6	<0.5	3	<0.1	--	--	<0.5	0.2
SP-13	S-2	Boring	6	Investigation	07/23/03	Hart Crowser	<2.0	--	<1.0	12	<0.5	3.7	<0.1	--	--	<0.5	<0.1
SB-1	SB-1,4'	Boring	4	Investigation	09/30/04	SCS Engineers	4.76	52.1	<0.49	22.4	--	1.89	0.0242[a]	<4.9	<0.98	--	--
SB-7	SB-7,8'	Boring	8	Investigation	09/30/04	SCS Engineers	3.87	49.9	<0.492	20.9	--	1.38	0.0311[a]	<4.92	<0.984	--	--
SB-2	SB-2,6'	Boring	6	Investigation	10/01/04	SCS Engineers	4.75	58.1	<0.475	22.4	--	1.76	0.0274[a]	<4.75	<0.949	--	--
SB-3	SB-3,3'	Boring	3	Investigation	10/01/04	SCS Engineers	5.14	60.2	<0.466	20.4	--	1.35	0.0292[a]	<4.66	<0.932	--	--
SB-4	SB-4,6'	Boring	6	Investigation	10/01/04	SCS Engineers	4.81	47.7	<0.506	22.6	--	1.24	0.0202[a]	<5.06	<1.01	--	--
SB-5	SB-5,8'	Boring	8	Investigation	10/01/04	SCS Engineers	4.36	51.2	<0.52	24.2	--	2.25	0.0297[a]	<5.2	<1.04	--	--
SS-1	SS-1	Grab	Surface	Investigation	03/17/06	Hart Crowser	<2.0	<2.0	<2.0	19	8.7	1.4	<0.5	<10	<2.0	4.6	<0.05
SS-2	SS-2	Grab	Surface	Investigation	03/17/06	Hart Crowser	9.6	<2.0	<2.0	26	20	8.2	<0.5	<10	<2.0	4.1	<0.05
RUA																	
SP-1	S-1	Boring	2	Investigation	07/22/03	Hart Crowser	<2.0	--	<1.0	11	6	2.4	<0.1	--	--	<0.5	<0.1
MTCA Cleanup Level for Soil							**20[a]**	**16,000[b]**	**2[a]**	**2,000[a]**	**3,000[b]**	**250**	**2**	**400[b]**	**400[b]**	**NE**	**24,000[b]**

NOTES:

[1]Analyzed by EPA Method 7010.

[2]Analyzed by EPA Method 7470A.

[a]MTCA Cleanup Regulation, Table 740-1 Method A Soil Cleanup Levels for Unrestricted Land Uses of Chapter 173-340-900 of the WAC. Revised November 2007.

[b]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Non-carcinogen, Standard Formula Value, Direct contact (ingestion only), Unrestricted Land Use, CLARC Web site <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

-- = not analyzed

< = not detected at a concentration exceeding the laboratory reporting limit

bgs = below ground surface

CLARC = Cleanup Levels and Risk Calculations

EPA = United States Environmental Protection Agency

FETA = Former Ecology Tank Area

Hart Croswer = Hart Crowser, Inc.

MTCA = Washington State Model Toxics Control Act

NE = cleanup level not established

RUA = Railraod Unloading Area

WAC = Washington Administrative Code

Table 8
Summary of Analytical Results for Organochlorine Pesticides in Soil
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample ID	Sample Type	Depth (feet bgs)	Compliance Status	Sample Date	Sampled By	Analytical Results (milligrams per kilogram) [1]																						
							4,4-DDD	4,4-DDE	4,4-DDT	Aldrin	BHC, alpha	Chlordane, alpha	BHC, beta	BHC, delta	Dieldrin	Endosulfan 1	Endosulfan 2	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	BHC, gamma (Lindane)	Chlordane, gamma	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Hexachlorobutadiene	Methoxychlor	Toxaphene
FETA																													
oil/water	OWS-E-2.5	Grab	2.5	Performance	02/01/99	PSCI	0.0051	NR	NR	NR	NR	NR	NR	0.050	NR	NR	NR	NR	NR	NR	NR	NR	0.32	NR	NR	NR	NR	NR	NR
South & East wall	S1-SE-COMP	Grab	7	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.10	NR	NR	NR	NR	NR	NR
North & West wall	S-2-NW-7	Grab	7	Performance	02/01/99	PSCI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.12	0.01	NR	NR	NR	NR	NR
bottom	S-3-B-10	Grab	10	Performance	02/01/99	PSCI	0.0049	2.8	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
North wall	PN@6	Grab	6	Confirmation	08/99	Galloway	<0.0033	<0.0033	NR	NR	NR	<0.0033	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0033	NR	<0.0017	NR	NR	NR	NR
West wall	PW@6	Grab	6	Confirmation	08/99	Galloway	<0.0033	<0.0033	NR	NR	NR	0.33	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0033	NR	<0.0017	NR	NR	NR	NR
Bottom	PB@12	Grab	12	Confirmation	08/99	Galloway	<0.0033	<0.0033	NR	NR	NR	<0.0033	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0033	NR	<0.0017	NR	NR	NR	NR
North wall	PE@6	Grab	6	Confirmation	08/99	Galloway	<0.0033	<0.0033	NR	NR	NR	<0.0033	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0033	NR	<0.0017	NR	NR	NR	NR
South wall	PS@6	Grab	6	Confirmation	08/99	Galloway	<0.0033	<0.0033	NR	NR	NR	<0.0033	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0017	NR	NR	NR	NR
SP-5	S3	Boring	10	Investigation	07/22/03	Hart Crowser	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	--	<0.001	--
SP-34/HC-MW-6	S3	Boring	Unknown	Investigation	03/04/04	Hart Crowser	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	--	<0.001	--
DOWNGRADIENT																													
B4/MW4	S2	Boring	9	Investigation	07/17/03	Hart Crowser	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	--	<0.001	--
DRUM STORAGE YARD																													
SP-15	S2	Boring	6	Investigation	07/23/03	Hart Crowser	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	--	<0.001	--
B5/MW5	S1A	Boring	4	Investigation	07/14/03	Hart Crowser	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	--	<0.001	--
SP-38	S1	Boring	Unknown	Investigation	03/05/04	Hart Crowser	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	--	<0.001	--
UNDERGROUND STORAGE TANK AREA																													
SB-21	SB-21,6'	Boring	6	Investigation	09/30/04	SCS Engineers	<0.00377	<0.00377	<0.00377	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00377	<0.00188	<0.00377	<0.00377	<0.00377	<0.00377	<0.00377	<0.00188	<0.00188	<0.00188	<0.00188	--	--	<18.8	<0.188
SB-8	SB-8,8'	Boring	8	Investigation	09/30/04	SCS Engineers	<0.00407	0.00879	<0.00407	<0.00203	<0.00203	<0.00203	<0.00203	<0.00203	<0.00407	<0.00203	<0.00407	<0.00407	<0.00407	<0.00407	<0.00407	<0.00203	<0.00203	<0.00203	<0.00203	<0.00203	<0.00203	<0.0203	--
PACE MAIN BUILDING																													
SP-12	S2	Boring	6	Investigation	07/23/03	Hart Crowser	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	--	<0.001	--
SUBSURFACE UTILITY																													
SB-19	SB-19,11'	Boring	11	Investigation	10/01/04	SCS Engineers	<0.00478	<0.00478	<0.00478	<0.00239	<0.00239	<0.00239	<0.00239	<0.00239	<0.00478	<0.00239	<0.00478	<0.00478	<0.00478	<0.00478	<0.00478	<0.00239	<0.00239	<0.00239	<0.00239	--	--	<0.0239	<0.239
SB-25	SB-25,4'	Boring	4	Investigation	09/29/04	SCS Engineers	<0.00313	<0.00313	<0.00313	<0.00157	<0.00157	<0.00157	<0.00157	<0.00157	<0.00313	<0.00157	<0.00313	<0.00313	<0.00313	<0.00313	<0.00313	<0.00157	<0.00157	<0.00157	<0.00157	--	--	<15.7	**<157**
RUA																													
SP-1	S1	Boring	2	Investigation	07/22/03	Hart Crowser	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	--	<0.001	--
SP-32	S2	Boring	Unknown	Investigation	03/04/04	Hart Crowser	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	--	<0.001	--
MTCA Cleanup Level for Soil							**4.2[a]**	**2.9[a]**	**2.9[a]**	**0.059[a]**	**0.16[a]**	**2.9[a]**	**0.56[a]**	**NE**	**0.063[a]**	**480[b]**	**480[b]**	**480[b]**	**24[b]**	**24[b]**	**24[b]**	**0.01[c]**	**2.9[a]**	**0.22[a]**	**0.11[a]**	**0.63[a]**	**13[a]**	**400[b]**	**0.91[a]**

NOTES:

Blue denotes result was not detected at a concentration exceeding the laboratory reporting limit, however, the laboratory reporting limit exceeds the MTCA cleanup level.

[1]Analyzed by United States Environmental Protection Agency Method SW 8081A.

[a]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Carcinogen, Standard Formula Value, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

[b]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Non-Carcinogen, Standard Formula Value, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

[c]MTCA Cleanup Regulation, Chapter 173-340 WAC, CLARC, Soil, Method A, Unrestricted Land Use, Standard Formula Value, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

-- = not analyzed
< = not detected at a concentration exceeding the laboratory reporting limit
bgs = below ground surface
BHC = hexachlorocyclohexane
CLARC = Cleanup Levels and Risk Calculations
DDD= dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
FETA = Former Ecology Tank Area

Galloway = Galloway Environmental, Inc.
Hart Crowser = Hart Crowser, Inc.
MTCA = Washington State Model Toxics Control Act
NE = cleanup level not established
NR = not reported
PSCI = PSCI Environmental Management
RUA = Railraod Unloading Area
WAC = Washington Admininstrative Code

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

				Analytical Results (micrograms per liter)[1]																	
Location	Sample Type	Sample Date	Sampled By	Benzene	Toluene	Ethylbenzene	Total Xylenes	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,2-Dibromo-3-Chloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)
FETA																					
SP-34/HC-MW-6	Reconnaissance	03/05/04	Hart Crowser	<1.0	6.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-6	Groundwater	03/05/04	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-6	Groundwater	01/14/05	SCS Engineers	NR	NR	NR	NR	<1	<1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
HC-MW-6	Groundwater	04/20/06	Hart Crowser	--	--	--	--	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	<1.0
HC-MW-6	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-6	Groundwater	07/13/06	Hart Crowser	<1.0	47	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-6	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-6	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
DOWNGRADIENT																					
HC-MW-3	Groundwater	03/05/04	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	03/06/04	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-9	Groundwater	12/06/04	SCS Engineers	--	--	--	--	<1	<1	--	--	--	--	--	--	--	--	--	--	--	--
SB-10	Groundwater	12/06/04	SCS Engineers	--	--	--	--	1.62	1.01	--	--	--	--	--	--	--	--	--	--	--	--
SB-11	Groundwater	12/06/04	SCS Engineers	--	--	--	--	<1	<1	--	--	--	--	--	--	--	--	--	--	--	--
SB-14	Groundwater	12/06/04	SCS Engineers	--	--	--	--	<1	<1	--	--	--	--	--	--	--	--	--	--	--	--
SB-9	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	<1	<1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-10	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	2.19	2.18	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-11	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	<1	<1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-14	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	<1	<1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
HC-MW-10	Groundwater	06/20/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	06/20/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-8	Groundwater	06/20/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	06/20/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	06/20/05	Hart Crowser	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-9	Groundwater	06/21/05	SCS Engineers	--	--	--	--	<1	<1	--	<1	--	<1	**<1**	--	--	--	--	--	<1	<1
SB-10	Groundwater	06/21/05	SCS Engineers	--	--	--	--	<1	<1	--	<1	--	<1	**<1**	--	--	--	--	--	<1	<1
SB-11	Groundwater	06/21/05	SCS Engineers	--	--	--	--	<1	<1	--	<1	--	<1	**<1**	--	--	--	--	--	<1	<1
SB-14	Groundwater	06/21/05	SCS Engineers	--	--	--	--	<1	<1	--	<1	--	<1	**<1**	--	--	--	--	--	<1	<1
SB-10	Groundwater	08/04/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-10	Groundwater	11/16/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-14	Groundwater	11/16/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	11/16/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	11/17/05	Hart Crowser	--	--	--	--	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-4	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-3	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-11	Groundwater	02/14/06	SCS Engineers	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
MTCA Cleanup Level				**5[a]**	**1,000[a]**	**700[a]**	**1,000[a]**	**1,600[b]**	**400[b]**	**NE**	**200[a]**	**1.7[c]**	**0.22[c]**	**0.77[c]**	**0.031[c]**	**80[b]**	**0.0063[c]**	**80[c]**	**400[b]**	**720[b]**	**5[a]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																			
				1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane	1,3,5-Trimethylbenzene	1,4-Dichlorobenzene	2-Chlorotoluene	2,2 Dichloropropane	4-Chlorotoluene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene
FETA																							
SP-34/HC-MW-6	Reconnaissance	03/05/04	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-6	Groundwater	03/05/04	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-6	Groundwater	01/14/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1	NR
HC-MW-6	Groundwater	04/20/06	Hart Crowser	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	--
HC-MW-6	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-6	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-6	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-6	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
DOWNGRADIENT																							
HC-MW-3	Groundwater	03/05/04	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	03/06/04	Hart Crowser	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.6	<1.0
SB-9	Groundwater	12/06/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--
SB-10	Groundwater	12/06/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15.1	--
SB-11	Groundwater	12/06/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.69	--
SB-14	Groundwater	12/06/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.21	--
SB-9	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1	NR
SB-10	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	13.9	NR
SB-11	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1	NR
SB-14	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	1.09	NR
HC-MW-10	Groundwater	06/20/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	06/20/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.2	<1.0
HC-MW-8	Groundwater	06/20/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	17	<1.0
HC-MW-7	Groundwater	06/20/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	06/20/05	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-9	Groundwater	06/21/05	SCS Engineers	<1	<1	--	--	<1	--	--	--	--	<1	--	<1	<1	<1	<1	<1	<1	<1	<1	<1
SB-10	Groundwater	06/21/05	SCS Engineers	<1	<1	--	--	<1	--	--	--	--	<1	--	<1	<1	<1	<1	<1	13.9	<1	<1	<1
SB-11	Groundwater	06/21/05	SCS Engineers	<1	<1	--	--	<1	--	--	--	--	<1	--	<1	<1	<1	<1	<1	<1	<1	<1	<1
SB-14	Groundwater	06/21/05	SCS Engineers	<1	<1	--	--	<1	--	--	--	--	<1	--	<1	<1	<1	<1	<1	<1	<1	<1	<1
SB-10	Groundwater	08/04/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.4	<1.0
SB-10	Groundwater	11/16/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-14	Groundwater	11/16/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10	<1.0
HC-MW-9	Groundwater	11/16/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	<1.0
HC-MW-9	Groundwater	11/17/05	Hart Crowser	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12	--
HC-MW-4	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-3	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-11	Groundwater	02/14/06	SCS Engineers	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MTCA Cleanup Level				**0.64[c]**	**NE**	**0.24[c]**	**400[b]**	**1.8[c]**	**160[b]**	**NE**	**NE**	**NE**	**0.52[c]**	**0.71[c]**	**5.5[c]**	**11[b]**	**0.34[c]**	**160[b]**	**15[c]**	**7.2[c]**	**3.4[c]**	**80[b]**	**0.24[c]**

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Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																				
				Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylene dibromide (EDB)	Hexachloro-1,3-butadiene	Isopropylbenzene	Isopropyltoluene	Methylene Chloride	Methyl t-butyl ether	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butyl-benzene	Styrene	tert-Butylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
FETA																								
SP-34/HC-MW-6	Reconnaissance	03/05/04	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.020
HC-MW-6	Groundwater	03/05/04	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.020
HC-MW-6	Groundwater	01/14/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1	NR	<0.2
HC-MW-6	Groundwater	04/20/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	<1.0	--	<1.0	--	0.2
HC-MW-6	Groundwater	06/15/06	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
HC-MW-6	Groundwater	07/13/06	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
HC-MW-6	Groundwater	02/14/06	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**<1.0**
HC-MW-6	Groundwater	09/14/06	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
DOWNGRADIENT																								
HC-MW-3	Groundwater	03/05/04	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.020
HC-MW-4	Groundwater	03/06/04	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**1.4**
SB-9	Groundwater	12/06/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	<1	--	<0.2
SB-10	Groundwater	12/06/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	<1	--	--
SB-11	Groundwater	12/06/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	<1	--	--
SB-14	Groundwater	12/06/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	<1	--	--
SB-9	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1	NR	<0.2
SB-10	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1	NR	**32.4**
SB-11	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1	NR	--
SB-14	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1	NR	**25.2**
HC-MW-10	Groundwater	06/20/05	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**1**
HC-MW-9	Groundwater	06/20/05	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**4.8**
HC-MW-8	Groundwater	06/20/05	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**7.6**
HC-MW-7	Groundwater	06/20/05	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**1.3**
HC-MW-4	Groundwater	06/20/05	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-9	Groundwater	06/21/05	SCS Engineers	**<1**	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	<1	**<1**	<1	<1	<0.2
SB-10	Groundwater	06/21/05	SCS Engineers	**<1**	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	<1	**<1**	<1	<1	**24.8**
SB-11	Groundwater	06/21/05	SCS Engineers	**<1**	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	<1	**<1**	<1	<1	**0.21**
SB-14	Groundwater	06/21/05	SCS Engineers	**<1**	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	<1	**<1**	<1	<1	**16.2**
SB-10	Groundwater	08/04/05	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**3.2**
SB-10	Groundwater	11/16/05	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**8.8**
SB-14	Groundwater	11/16/05	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**3.0**
HC-MW-9	Groundwater	11/16/05	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**1.0**
HC-MW-9	Groundwater	11/17/05	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0		--	<1.0	--	**1**
HC-MW-4	Groundwater	02/14/06	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**20**
HC-MW-3	Groundwater	02/14/06	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**<1.0**
SB-11	Groundwater	02/14/06	SCS Engineers	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**<1.0**
MTCA Cleanup Level				**0.52[c]**	**80[b]**	**1,600[b]**	**0.01[a]**	**0.56[c]**	**800[b]**	**NE**	**5[a]**	**20[a]**	**160[a]**	**NE**	**NE**	**NE**	**1.5[c]**	**NE**	**5[a]**	**5[a]**	**0.24[c]**	**5[a]**	**2,400[b]**	**0.2[a]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																	
				Benzene	Toluene	Ethylbenzene	Total Xylenes	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,2-Dibromo-3-Chloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)
DOWNGRADIENT																					
SB-9	Groundwater	02/14/06	SCS Engineers	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-8	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-10	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-12	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-C-S1	Reconnaissance	03/01/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	04/20/06	Hart Crowser	--	--	--	--	1.4	<1.0	--	--	--	--	--	--	--	--	--	--	--	<1.0
SB-11	Groundwater	04/20/06	Hart Crowser	--	--	--	--	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	<1.0
SB-9	Groundwater	04/20/06	Hart Crowser	--	--	--	--	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	<1.0
HC-MW-7	Groundwater	04/20/06	Hart Crowser	--	--	--	--	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	<1.0
HC-MW-8	Groundwater	04/20/06	Hart Crowser	--	--	--	--	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	<1.0
HC-MW-9	Groundwater	04/20/06	Hart Crowser	--	--	--	--	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	<1.0
HC-MW-10	Groundwater	04/20/06	Hart Crowser	--	--	--	--	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	<1.0
HC-MW-11	Groundwater	04/20/06	Hart Crowser	--	--	--	--	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	<1.0
HC-MW-12	Groundwater	04/20/06	Hart Crowser	--	--	--	--	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	<1.0
HC-MW-4	Groundwater	06/15/06	Hart Crowser	--	1.1	--	--	2.3	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-14	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-11	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-10	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-9	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-8	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-10	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-12	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-3	Groundwater	06/20/05	Hart Crowser	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-14	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-11	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-10	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-9	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-12	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-10	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-8	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.0	1.8	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
DWMW-1	Groundwater	08/14/06	SCS Engineers	--	--	--	--	--	<0.098	--	--	--	--	--	--	--	--	--	--	--	--
DWMW-2	Groundwater	08/14/06	SCS Engineers	--	--	--	--	--	<0.098	--	--	--	--	--	--	--	--	--	--	--	--
DWMW-3	Groundwater	08/14/06	SCS Engineers	--	--	--	--	--	<0.098	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-11	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
MTCA Cleanup Level				**5[a]**	**1,000[a]**	**700[a]**	**1,000[a]**	**1,600[b]**	**400[b]**	**NE**	**200[a]**	**1.7[c]**	**0.22[c]**	**0.77[c]**	**0.031[c]**	**80[b]**	**0.0063[c]**	**80[c]**	**400[b]**	**720[b]**	**5[a]**

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Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																			
				1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane	1,3,5-Trimethylbenzene	1,4-Dichlorobenzene	2-Chlorotoluene	2,2 Dichloropropane	4-Chlorotoluene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene
DOWNGRADIENT																							
SB-9	Groundwater	02/14/06	SCS Engineers	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	02/14/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-8	Groundwater	02/14/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	11	<1.0
HC-MW-9	Groundwater	02/14/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	4.9	<1.0
HC-MW-10	Groundwater	02/14/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	02/14/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	5.9	<1.0
HC-MW-12	Groundwater	02/14/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-C-S1	Reconnaissance	03/01/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	2.1	<1.0
HC-MW-4	Groundwater	04/20/06	Hart Crowser	2.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	39	--
SB-11	Groundwater	04/20/06	Hart Crowser	**<1.0**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	--
SB-9	Groundwater	04/20/06	Hart Crowser	**<1.0**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	--
HC-MW-7	Groundwater	04/20/06	Hart Crowser	**<1.0**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	--
HC-MW-8	Groundwater	04/20/06	Hart Crowser	**<1.0**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14	--
HC-MW-9	Groundwater	04/20/06	Hart Crowser	**<1.0**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.2	--
HC-MW-10	Groundwater	04/20/06	Hart Crowser	**<1.0**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	--
HC-MW-11	Groundwater	04/20/06	Hart Crowser	**<1.0**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.4	--
HC-MW-12	Groundwater	04/20/06	Hart Crowser	**<1.0**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	--
HC-MW-4	Groundwater	06/15/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.7	--	--	--	27	--
SB-14	Groundwater	06/15/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-11	Groundwater	06/15/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-10	Groundwater	06/15/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	9.2	<1.0
SB-9	Groundwater	06/15/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	06/15/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-8	Groundwater	06/15/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	20	<1.0
HC-MW-9	Groundwater	06/15/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	9.9	<1.0
HC-MW-10	Groundwater	06/15/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	06/15/06	Hart Crowser	1.3	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	9.2	<1.0
HC-MW-12	Groundwater	06/15/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-3	Groundwater	06/20/05	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-14	Groundwater	07/13/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	1.5	<1.0
SB-11	Groundwater	07/13/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	2.6	<1.0
SB-10	Groundwater	07/13/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	12	<1.0
SB-9	Groundwater	07/13/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-12	Groundwater	07/13/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	07/13/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	15	<1.0
HC-MW-10	Groundwater	07/13/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	1.2	<1.0
HC-MW-9	Groundwater	07/13/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	12	<1.0
HC-MW-8	Groundwater	07/13/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	1.0	23	<1.0
HC-MW-7	Groundwater	07/13/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	07/13/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	1.7	<1.0	<1.0	<1.0	25	<1.0
DWMW-1	Groundwater	08/14/06	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.079	--
DWMW-2	Groundwater	08/14/06	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.079	--
DWMW-3	Groundwater	08/14/06	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.079	--
HC-MW-11	Groundwater	09/14/06	Hart Crowser	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	8.6	<1.0
MTCA Cleanup Level				**0.64[c]**	**NE**	**0.24[c]**	**400[b]**	**1.8[c]**	**160[b]**	**NE**	**NE**	**NE**	**0.52[c]**	**0.71[c]**	**5.5[c]**	**11[b]**	**0.34[c]**	**160[b]**	**15[c]**	**7.2[c]**	**3.4[c]**	**80[b]**	**0.24[c]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)1																				
				Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylene dibromide (EDB)	Hexachloro-1,3-butadiene	Isopropylbenzene	Isopropyltoluene	Methylene Chloride	Methyl t-butyl ether	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butyl-benzene	Styrene	tert-Butylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
DOWNGRADIENT																								
SB-9	Groundwater	02/14/06	SCS Engineers	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-8	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.3
HC-MW-9	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-10	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.5
HC-MW-12	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-C-S1	Reconnaissance	03/01/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.0
HC-MW-4	Groundwater	04/20/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	<1.0	--	1	--	10
SB-11	Groundwater	04/20/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	<1.0	--	<1.0	--	0.2
SB-9	Groundwater	04/20/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	<1.0	--	<1.0	--	0.2
HC-MW-7	Groundwater	04/20/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	<1.0	--	<1.0	--	0.2
HC-MW-8	Groundwater	04/20/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	<1.0	--	<1.0	--	11
HC-MW-9	Groundwater	04/20/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	<1.0	--	<1.0	--	0.2
HC-MW-10	Groundwater	04/20/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	<1.0	--	<1.0	--	0.2
HC-MW-11	Groundwater	04/20/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	<1.0	--	<1.0	--	38
HC-MW-12	Groundwater	04/20/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	<1.0	--	<1.0	--	0.2
HC-MW-4	Groundwater	06/15/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.9
SB-14	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.7
SB-11	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.9
SB-10	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.3
SB-9	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-8	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12.0
HC-MW-9	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2
HC-MW-10	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3
HC-MW-11	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	24
HC-MW-12	Groundwater	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-3	Groundwater	06/20/05	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-14	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11
SB-11	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
SB-10	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11
SB-9	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-12	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-11	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	41
HC-MW-10	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.4
HC-MW-9	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	1.1	<1.0	1.1	<1.0	2.9
HC-MW-8	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	11
HC-MW-7	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-4	Groundwater	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	62
DWMW-1	Groundwater	08/14/06	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.088	<0.074	--	<0.074	--	<0.18
DWMW-2	Groundwater	08/14/06	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.088	<0.074	--	<0.074	--	<0.18
DWMW-3	Groundwater	08/14/06	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.088	<0.074	--	<0.074	--	<0.18
HC-MW-11	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	28
MTCA Cleanup Level				**0.52[c]**	**80[b]**	**1,600[b]**	**0.01[a]**	**0.56[c]**	**800[b]**	**NE**	**5[a]**	**20[a]**	**160[a]**	**NE**	**NE**	**NE**	**1.5[c]**	**NE**	**5[a]**	**5[a]**	**0.24[c]**	**5[a]**	**2,400[b]**	**0.2[a]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																	
				Benzene	Toluene	Ethylbenzene	Total Xylenes	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,2-Dibromo-3-Chloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)
DOWNGRADIENT																					
HC-MW-8	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	2.9	1.4	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-14	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-10	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-8	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-14	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-11	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-10	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-12	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-10	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-8	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-3	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-14	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-11	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-10	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-12	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-10	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-8	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-3	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-14	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-10	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-10	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-8	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
MTCA Cleanup Level				**5[a]**	**1,000[a]**	**700[a]**	**1,000[a]**	**1,600[b]**	**400[b]**	**NE**	**200[a]**	**1.7[c]**	**0.22[c]**	**0.77[c]**	**0.031[c]**	**80[b]**	**0.0063[c]**	**80[c]**	**400[b]**	**720[b]**	**5[a]**

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Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																				
				1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane	1,3,5-Trimethylbenzene	1,4-Dichlorobenzene	2-Chlorotoluene	2,2 Dichloropropane	4-Chlorotoluene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene
DOWNGRADIENT																								
HC-MW-8	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	17	<1.0
HC-MW-7	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<1.0
HC-MW-4	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	24	<1.0
SB-14	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-10	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.2	<1.0
HC-MW-8	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	13	<1.0
HC-MW-7	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0
SB-14	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-11	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.1	<1.0
SB-10	Groundwater	02/09/07	Hart Crowser	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	<1.0
HC-MW-12	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	02/09/07	Hart Crowser	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	14	<1.0
HC-MW-10	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0
HC-MW-9	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10	<1.0
HC-MW-8	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	15	<1.0
HC-MW-7	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	29	<1.0
HC-MW-3	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-14	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-11	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0
SB-10	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.6	<1.0
HC-MW-12	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	<1.0
HC-MW-10	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0
HC-MW-9	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.5	<1.0
HC-MW-8	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	<1.0
HC-MW-7	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	21	<1.0
HC-MW-3	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-14	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-10	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.9	<1.0
HC-MW-11	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11	<1.0
HC-MW-10	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0
HC-MW-9	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.4	<1.0
HC-MW-8	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	16	<1.0
MTCA Cleanup Level				**0.64[c]**	**NE**	**0.24[c]**	**400[b]**	**1.8[c]**	**160[b]**	**NE**	**NE**	**NE**	**0.52[c]**	**0.71[c]**	**5.5[c]**	**11[b]**	**0.34[c]**	**160[b]**	**15[c]**	**7.2[c]**	**3.4[c]**	**80[b]**	**0.24[c]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)1																				
				Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylene dibromide (EDB)	Hexachloro-1,3-butadiene	Isopropylbenzene	Isopropyltoluene	Methylene Chloride	Methyl t-butyl ether	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butyl-benzene	Styrene	tert-Butylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
DOWNGRADIENT																								
HC-MW-8	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.1
HC-MW-7	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-4	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.1
SB-14	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11
HC-MW-10	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-9	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.0
HC-MW-8	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.7
HC-MW-7	Groundwater	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
SB-14	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.7
SB-11	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.3
SB-10	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	3.2
HC-MW-12	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-11	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	37
HC-MW-10	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.5
HC-MW-9	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.7
HC-MW-8	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.4
HC-MW-7	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-4	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.3
HC-MW-3	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
SB-14	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.1
SB-11	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	22
SB-10	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
HC-MW-12	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-11	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	51
HC-MW-10	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.5
HC-MW-9	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.9
HC-MW-8	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.9
HC-MW-7	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-4	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.8
HC-MW-3	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
SB-14	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.8
SB-10	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.8
HC-MW-11	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	45
HC-MW-10	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.9
HC-MW-9	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.5
HC-MW-8	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11
MTCA Cleanup Level				0.52[c]	80[b]	1,600[b]	0.01[a]	0.56[c]	800[b]	NE	5[a]	20[a]	160[a]	NE	NE	NE	1.5[c]	NE	5[a]	5[a]	0.24[c]	5[a]	2,400[b]	0.2[a]

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Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																	
				Benzene	Toluene	Ethylbenzene	Total Xylenes	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,2-Dibromo-3-Chloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)
DOWNGRADIENT																					
HC-MW-7	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-11	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-12	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1	1	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-14	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-10	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-12	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-10	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-8	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-13	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-14	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-11	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-10	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-12	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-10	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-8	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-7	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-3	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	07/09/08	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
HC-MW-7	Groundwater	07/09/08	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
HC-MW-8	Groundwater	07/09/08	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
HC-MW-9	Groundwater	07/09/08	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
HC-MW-10	Groundwater	07/09/08	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
HC-MW-4	Groundwater	02/24/09	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
HC-MW-7	Groundwater	02/24/09	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
HC-MW-8	Groundwater	02/24/09	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
HC-MW-9	Groundwater	02/24/09	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
HC-MW-10	Groundwater	02/24/09	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
HC-MW-11	Groundwater	02/24/09	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
HC-MW-13	Groundwater	02/24/09	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
MTCA Cleanup Level				**5[a]**	**1,000[a]**	**700[a]**	**1,000[a]**	**1,600[b]**	**400[b]**	**NE**	**200[a]**	**1.7[c]**	**0.22[c]**	**0.77[c]**	**0.031[c]**	**80[b]**	**0.0063[c]**	**80[c]**	**400[b]**	**720[b]**	**5[a]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																			
				1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane	1,3,5-Trimethylbenzene	1,4-Dichlorobenzene	2-Chlorotoluene	2,2 Dichloropropane	4-Chlorotoluene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene
DOWNGRADIENT																							
HC-MW-7	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-11	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2	<1.0
HC-MW-12	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	17	<1.0
SB-14	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-10	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11	<1.0
HC-MW-12	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-11	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.1	<1.0
HC-MW-10	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.2	<1.0
HC-MW-8	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	<1.0
HC-MW-7	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-13	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	<1.0
HC-MW-11	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.6	<1.0
HC-MW-4	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	30	<1.0
SB-14	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-11	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-10	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.5	<1.0
HC-MW-12	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-10	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-9	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.5	<1.0
HC-MW-8	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.4	<1.0
HC-MW-7	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-3	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-4	Groundwater	07/09/08	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	--	--	9.2	--
HC-MW-7	Groundwater	07/09/08	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	<1	--
HC-MW-8	Groundwater	07/09/08	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	13	--
HC-MW-9	Groundwater	07/09/08	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	6.4	--
HC-MW-10	Groundwater	07/09/08	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	<1	--
HC-MW-4	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	20	--
HC-MW-7	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	<1	--
HC-MW-8	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	10	--
HC-MW-9	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	4.7	--
HC-MW-10	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	<1	--
HC-MW-11	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	3.0	--
HC-MW-13	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.4	--	--	1.4	--
MTCA Cleanup Level				**0.64[c]**	**NE**	**0.24[c]**	**400[b]**	**1.8[c]**	**160[b]**	**NE**	**NE**	**NE**	**0.52[c]**	**0.71[c]**	**5.5[c]**	**11[b]**	**0.34[c]**	**160[b]**	**15[c]**	**7.2[c]**	**3.4[c]**	**80[b]**	**0.24[c]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)1																				
				Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylene dibromide (EDB)	Hexachloro-1,3-butadiene	Isopropylbenzene	Isopropyltoluene	Methylene Chloride	Methyl t-butyl ether	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butyl-benzene	Styrene	tert-Butylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
DOWNGRADIENT																								
HC-MW-7	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
SB-11	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7
HC-MW-12	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-4	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	13
SB-14	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.9
SB-10	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.2
HC-MW-12	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-11	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	21
HC-MW-10	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.6
HC-MW-9	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-8	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.8
HC-MW-7	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-13	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-11	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	29
HC-MW-4	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10
SB-14	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.2
SB-11	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
SB-10	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.6
HC-MW-12	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-10	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.9
HC-MW-9	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2
HC-MW-8	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.6
HC-MW-7	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-3	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-4	Groundwater	07/09/08	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	2.8
HC-MW-7	Groundwater	07/09/08	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	<0.2
HC-MW-8	Groundwater	07/09/08	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	11
HC-MW-9	Groundwater	07/09/08	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	5.3
HC-MW-10	Groundwater	07/09/08	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	2.9
HC-MW-4	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	6.9
HC-MW-7	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	0.39
HC-MW-8	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	20
HC-MW-9	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	3.2
HC-MW-10	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	1.7
HC-MW-11	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	30
HC-MW-13	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	3.3
MTCA Cleanup Level				**0.52[c]**	**80[b]**	**1,600[b]**	**0.01[a]**	**0.56[c]**	**800[b]**	**NE**	**5[a]**	**20[a]**	**160[a]**	**NE**	**NE**	**NE**	**1.5[c]**	**NE**	**5[a]**	**5[a]**	**0.24[c]**	**5[a]**	**2,400[b]**	**0.2[a]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

				Analytical Results (micrograms per liter)[1]																	
Location	Sample Type	Sample Date	Sampled By	Benzene	Toluene	Ethylbenzene	Total Xylenes	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,2-Dibromo-3-Chloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)
DOWNGRADIENT																					
SB-10	Groundwater	02/24/09	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
SB-11	Groundwater	02/24/09	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
HC-MW-4	Groundwater	05/21/09	SES	--	--	--	--	0.44	0.23	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
HC-MW-7	Groundwater	05/21/09	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
HC-MW-8	Groundwater	05/21/09	SES	--	--	--	--	0.54	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
HC-MW-9	Groundwater	05/21/09	SES	--	--	--	--	0.64	0.33	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
HC-MW-10	Groundwater	05/21/09	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
HC-MW-11	Groundwater	05/21/09	SES	--	--	--	--	0.63	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
HC-MW-13	Groundwater	05/21/09	SES	--	--	--	--	0.37	0.27	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
SB-10	Groundwater	05/21/09	SES	--	--	--	--	0.58	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
SB-11	Groundwater	05/21/09	SES	--	--	--	--	0.51	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
SB-14	Groundwater	05/21/09	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
SES-MW25	Groundwater	06/07/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
MW-99	Groundwater	06/07/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
SES-MW26	Groundwater	06/07/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
SES-MW27	Groundwater	06/07/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
HC-MW-7	Groundwater	06/07/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
HC-MW-8	Groundwater	06/07/10	SES	--	--	--	--	0.60	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
HC-MW-9	Groundwater	06/07/10	SES	--	--	--	--	0.49	0.25	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
MW-98	Groundwater	06/07/10	SES	--	--	--	--	0.53	0.24	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
HC-MW-10	Groundwater	06/07/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	--	<0.20	<0.20
DRUM STORAGE YARD																					
HC-MW-5	Groundwater	07/17/03	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-14	Reconnaissance	07/22/03	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-5	Groundwater	01/14/05	SCS Engineers	NR	NR	NR	NR	<1	<1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SP-38	Reconnaissance	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	3.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
UNDERGROUND STORAGE TANK AREA																					
2413-122190-P1	Grab	12/21/90	SRH	<100	19	<1	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2413-122190-P1	Grab	12/21/90	SRH	<0.5	10	<1	4.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-21	Reconnaissance	08/15/03	Hart Crowser	<1.0	<1.0	1.6	3.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.9	1.8	<1.0
SP-22	Groundwater	08/15/03	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-28	Reconnaissance	03/05/04	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-29	Reconnaissance	03/05/04	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-8	Groundwater	09/30/04	SCS Engineers	--	--	--	--	<1	<1	--	<1	--	<1	<1	--	--	--	--	--	<1	<1
SB-21	Reconnaissance	09/30/04	SCS Engineers	--	--	--	--	<1	<1	--	<1	--	<1	<1	--	--	--	--	--	<1	<1
SB-8	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	<1	<1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-8	Groundwater	02/14/06	SCS Engineers	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-R	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-Q	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-24	Groundwater	01/25/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-20	Groundwater	01/25/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-24	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-20	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-20	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-24	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-20	Groundwater	10/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-24	Groundwater	10/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-20	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-24	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MTCA Cleanup Level				**5[a]**	**1,000[a]**	**700[a]**	**1,000[a]**	**1,600[b]**	**400[b]**	**NE**	**200[a]**	**1.7[c]**	**0.22[c]**	**0.77[c]**	**0.031[c]**	**80[b]**	**0.0063[c]**	**80[c]**	**400[b]**	**720[b]**	**5[a]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																			
				1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane	1,3,5-Trimethylbenzene	1,4-Dichlorobenzene	2-Chlorotoluene	2,2 Dichloropropane	4-Chlorotoluene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene
DOWNGRADIENT																							
SB-10	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	6.3	--
SB-11	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	1.1	--
HC-MW-4	Groundwater	05/21/09	SES	0.38	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<1.0	11	<0.20
HC-MW-7	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<1.0	<0.20	<0.20
HC-MW-8	Groundwater	05/21/09	SES	0.72	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<1.0	8.6	<0.20
HC-MW-9	Groundwater	05/21/09	SES	0.53	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<1.0	4.5	<0.20
HC-MW-10	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<1.0	0.29	<0.20
HC-MW-11	Groundwater	05/21/09	SES	1.1	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	0.20	<1.0	<0.20	<1.0	<1.0	1.8	<0.20
HC-MW-13	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	1.6	<0.20	<1.0	<1.0	0.89	<0.20
SB-10	Groundwater	05/21/09	SES	0.68	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<1.0	4.4	<0.20
SB-11	Groundwater	05/21/09	SES	0.69	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<1.0	0.61	<0.20
SB-14	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<1.0	0.42	<0.20
SES-MW25	Groundwater	06/07/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	25	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20
MW-99	Groundwater	06/07/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20
SES-MW26	Groundwater	06/07/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20
SES-MW27	Groundwater	06/07/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20
HC-MW-7	Groundwater	06/07/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	0.40	<0.20
HC-MW-8	Groundwater	06/07/10	SES	0.78	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	10	<0.20
HC-MW-9	Groundwater	06/07/10	SES	0.33	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	3.5	<0.20
MW-98	Groundwater	06/07/10	SES	0.35	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	3.4	<0.20	<0.20
HC-MW-10	Groundwater	06/07/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	0.45	<0.20
DRUM STORAGE YARD																							
HC-MW-5	Groundwater	07/17/03	Hart Crowser	3.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	48	<1.0
SP-14	Reconnaissance	07/22/03	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-5	Groundwater	01/14/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1	NR
SP-38	Reconnaissance	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
UNDERGROUND STORAGE TANK AREA				**UNDERGROUND STORAGE TANK AREA**																			
2413-122190-P1	Grab	12/21/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2413-122190-P1	Grab	12/21/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	--
SP-21	Reconnaissance	08/15/03	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	170	24	<1.0
SP-22	Groundwater	08/15/03	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-28	Reconnaissance	03/05/04	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-29	Reconnaissance	03/05/04	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	<1.0
SB-8	Groundwater	09/30/04	SCS Engineers	<1	<1	--	--	<1	--	--	--	--	<1	--	<1	<1	<1	<1	<1	<1	<1	2.64	<1
SB-21	Reconnaissance	09/30/04	SCS Engineers	<1	<1	--	--	<1	--	--	--	--	<1	--	<1	<1	<1	<1	<1	<1	<1	1.33	<1
SB-8	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	2.44	NR
SB-8	Groundwater	02/14/06	SCS Engineers	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-R	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.6	<1.0
SP-Q	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	21	<1.0
HC-MW-24	Groundwater	01/25/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-20	Groundwater	01/25/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-24	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-20	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0
HC-MW-20	Groundwater	07/02/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	<1.0
HC-MW-24	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-20	Groundwater	10/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2	<1.0
HC-MW-24	Groundwater	10/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2	<1.0
HC-MW-20	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	<1.0
HC-MW-24	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1	<1.0
MTCA Cleanup Level				**0.64[c]**	**NE**	**0.24[c]**	**400[b]**	**1.8[c]**	**160[b]**	**NE**	**NE**	**NE**	**0.52[c]**	**0.71[c]**	**5.5[c]**	**11[b]**	**0.34[c]**	**160[b]**	**15[c]**	**7.2[c]**	**3.4[c]**	**80[b]**	**0.24[c]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

				Analytical Results (micrograms per liter)[1]																				
Location	Sample Type	Sample Date	Sampled By	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylene dibromide (EDB)	Hexachloro-1,3-butadiene	Isopropylbenzene	Isopropyltoluene	Methylene Chloride	Methyl t-butyl ether	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butyl-benzene	Styrene	tert-Butylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
DOWNGRADIENT																								
SB-10	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	**9.3**
SB-11	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	**6.4**
HC-MW-4	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	0.46	<0.20	0.26	<0.20	**1.8**
HC-MW-7	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	**0.60**
HC-MW-8	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	0.56	<0.20	<0.20	<0.20	**13**
HC-MW-9	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	0.30	<0.20	<0.20	<0.20	**5.7**
HC-MW-10	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	**0.51**
HC-MW-11	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	0.82	<0.20	<0.20	<0.20	**18**
HC-MW-13	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	**1.3**
SB-10	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	0.48	<0.20	<0.20	<0.20	**9.8**
SB-11	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	0.56	<0.20	<0.20	<0.20	**16**
SB-14	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	**1.8**
SES-MW25	Groundwater	06/07/10	SES	<0.20	--	<0.20	--	--	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
MW-99	Groundwater	06/07/10	SES	<0.20	--	<0.20	--	--	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
SES-MW26	Groundwater	06/07/10	SES	<0.20	--	<0.20	--	--	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
SES-MW27	Groundwater	06/07/10	SES	<0.20	--	<0.20	--	--	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
HC-MW-7	Groundwater	06/07/10	SES	<0.20	--	<0.20	--	--	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	**1.8**
HC-MW-8	Groundwater	06/07/10	SES	<0.20	--	<0.20	--	--	--	--	<1.0	--	--	--	--	--	--	--	<0.20	0.76	<0.20	<0.20	<0.20	**16**
HC-MW-9	Groundwater	06/07/10	SES	<0.20	--	<0.20	--	--	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	**2.3**
MW-98	Groundwater	06/07/10	SES	<0.20	--	<0.20	--	--	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	**2.3**
HC-MW-10	Groundwater	06/07/10	SES	<0.20	--	<0.20	--	--	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	**0.89**
DRUM STORAGE YARD																								
HC-MW-5	Groundwater	07/17/03	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**<1.0**
SP-14	Reconnaissance	07/22/03	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**<1.0**
HC-MW-5	Groundwater	01/14/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1	NR	<0.2
SP-38	Reconnaissance	02/14/06	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**<1.0**
UNDERGROUND STORAGE TANK AREA				**UNDERGROUND STORAGE TANK AREA**																				
2413-122190-P1	Grab	12/21/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2413-122190-P1	Grab	12/21/90	SRH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SP-21	Reconnaissance	08/15/03	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	5.0	2.3	<1.0	**<1.0**	1.3	<1.0	12	2.4	<1.0	<1.0	<1.0	1.3	**<1.0**	--	<1.0	**82**
SP-22	Groundwater	08/15/03	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	--	<1.0	<0.2
SP-28	Reconnaissance	03/05/04	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.020
SP-29	Reconnaissance	03/05/04	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.6	<1.0	**<1.0**	1.3	<1.0	**1.1**
SB-8	Groundwater	09/30/04	SCS Engineers	**<1**	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	<1	**<1**	1.44	<1	**1.11**
SB-21	Reconnaissance	09/30/04	SCS Engineers	**<1**	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	<1	**<1**	<1	<1	**0.532**
SB-8	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	1.5	NR	**1.36**
SB-8	Groundwater	02/14/06	SCS Engineers	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**<1.0**
SP-R	Reconnaissance	09/14/06	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
SP-Q	Reconnaissance	09/14/06	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	**5.5**
HC-MW-24	Groundwater	01/25/07	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	1	<1.0	<0.2
HC-MW-20	Groundwater	01/25/07	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
HC-MW-24	Groundwater	04/12/07	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
HC-MW-20	Groundwater	04/12/07	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
HC-MW-20	Groundwater	07/02/07	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
HC-MW-24	Groundwater	07/03/07	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
HC-MW-20	Groundwater	10/03/07	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
HC-MW-24	Groundwater	10/03/07	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
HC-MW-20	Groundwater	02/05/08	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
HC-MW-24	Groundwater	02/06/08	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
MTCA Cleanup Level				**0.52[c]**	**80[b]**	**1,600[b]**	**0.01[a]**	**0.56[c]**	**800[b]**	**NE**	**5[a]**	**20[a]**	**160[a]**	**NE**	**NE**	**NE**	**1.5[c]**	**NE**	**5[a]**	**5[a]**	**0.24[c]**	**5[a]**	**2,400[b]**	**0.2[a]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Benzene	Toluene	Ethylbenzene	Total Xylenes	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,2-Dibromo-3-Chloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)
				Analytical Results (micrograms per liter)[1]																	
PACE MAIN BUILDING																					
SP-7	Reconnaissance	07/22/03	Hart Crowser		<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	<1.0	<1.0	<1.0	--
SP-40	Reconnaissance	03/05/04	Hart Crowser	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	<1.0	<1.0	<1.0	--
SB-1	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	1.23	<1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-5	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	1.44	<1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-1	Groundwater	02/14/06	SCS Engineers	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-5	Groundwater	02/14/06	SCS Engineers	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-D	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-E	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	2.3	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-F	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-G	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-H	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-I	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-J	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-K	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-L	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	1.3	<1.0	16	8.3	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-M	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-17	Groundwater	07/02/06	Har Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SUBSURFACE UTILITY																					
HC-MW1	Groundwater	07/16/03	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-17	Reconnaissance	09/29/04	SCS Engineers	--	--	--	--	<1.89	<1.89	--	<1.89	--	<1.89	**<1.89**	--	--	--	--	--	<1.85	<1.89
SB-18	Reconnaissance	09/29/04	SCS Engineers	--	--	--	--	<2.05	<2.05	--	<2.05	--	<2.05	**<2.05**	--	--	--	--	--	<1.89	<2.05
SB-25	Reconnaissance	09/29/04	SCS Engineers	--	--	--	--	<2	<2	--	<2	--	<2	**<2**	--	--	--	--	--	<2.05	<2
SB-19	Reconnaissance	10/01/04	SCS Engineers	--	--	--	--	<1	<1	--	<1	--	<1	**<1**	--	--	--	--	--	<1	<1
SB-22	Groundwater	10/01/04	SCS Engineers	--	--	--	--	<1	<1	--	<1	--	<1	**<1**	--	--	--	--	--	<1	<1
SB-26	Reconnaissance	09/29/04	SCS Engineers	--	--	--	--	<1	<1	--	<1	--	<1	**<1**	--	--	--	--	--	<1	<1
SB-28	Reconnaissance	09/29/04	SCS Engineers	--	--	--	--	<1	<1	--	<1	--	<1	**<1**	--	--	--	--	--	<1	<1
SB-30	Reconnaissance	12/07/04	SCS Engineers	--	--	--	--	<2	<2	--	--	--	--	--	--	--	--	--	--	--	--
SB-31	Reconnaissance	12/07/04	SCS Engineers	--	--	--	--	<2	<2	--	--	--	--	--	--	--	--	--	--	--	--
SB-35	Reconnaissance	12/07/04	SCS Engineers	--	--	--	--	<10	<10	--	--	--	--	--	--	--	--	--	--	--	--
SB-22	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	<1	<1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-36	Groundwater	06/21/05	SCS Engineers	--	--	--	--	<1	<1	--	<1	--	<1	**<1**	--	--	--	--	--	<1	<1
SB-37	Groundwater	06/21/05	SCS Engineers	--	--	--	--	<1	<1	--	<1	--	<1	**<1**	--	--	--	--	--	<1	<1
SB-38	Groundwater	06/21/05	SCS Engineers	--	--	--	--	<1	<1	--	<1	--	<1	**<1**	--	--	--	--	--	<1	<1
SB-22	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-22	Groundwater	09/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-36	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-36	Groundwater	04/20/06	Hart Crowser	--	--	--	--	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	<1.0
MTCA Cleanup Level				**5[a]**	**1,000[a]**	**700[a]**	**1,000[a]**	**1,600[b]**	**400[b]**	**NE**	**200[a]**	**1.7[c]**	**0.22[c]**	**0.77[c]**	**0.031[c]**	**80[b]**	**0.0063[c]**	**80[c]**	**400[b]**	**720[b]**	**5[a]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

				Analytical Results (micrograms per liter)[1]																			
Location	**Sample Type**	**Sample Date**	**Sampled By**	**1,2-Dichloropropane**	**1,3-Dichlorobenzene**	**1,3-Dichloropropane**	**1,3,5-Trimethylbenzene**	**1,4-Dichlorobenzene**	**2-Chlorotoluene**	**2,2 Dichloropropane**	**4-Chlorotoluene**	**Bromobenzene**	**Bromochloromethane**	**Bromodichloromethane**	**Bromoform**	**Bromomethane**	**Carbon Tetrachloride**	**Chlorobenzene**	**Chloroethane**	**Chloroform**	**Chloromethane**	**cis-1,2-Dichloroethene**	**cis-1,3-Dichloropropene**
PACE MAIN BUILDING																							
SP-7	Reconnaissance	07/22/03	Hart Crowser	<1.0	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	<1.0	--	--	<1.0	<1.0	--
SP-40	Reconnaissance	03/05/04	Hart Crowser	<1.0	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	<1.0	--	--	<1.0	<1.0	--
SB-1	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	18.3	NR
SB-5	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1	NR
SB-1	Groundwater	02/14/06	SCS Engineers	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	2.0	<1.0
SB-5	Groundwater	02/14/06	SCS Engineers	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-D	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	1.4	<1.0	<1.0	<1.0	5.1	<1.0
SP-E	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	9.6	<1.0	<1.0	1.0	<1.0
SP-F	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-G	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-H	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	1.7	<1.0
SP-I	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-J	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	10	<1.0	<1.0	1.8	<1.0
SP-K	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	2.8	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	1.4	<1.0
SP-L	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	**<1.0**	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	17.0	<1.0
SP-M	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-17	Groundwater	07/02/06	Har Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	1.4	<1.0
SUBSURFACE UTILITY																							
HC-MW1	Groundwater	07/16/03	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-17	Reconnaissance	09/29/04	SCS Engineers	<1.89	<1.89	--	--	**<1.85**	--	--	--	--	<1.89	--	<1.89	<1.89	**<1.89**	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89
SB-18	Reconnaissance	09/29/04	SCS Engineers	<2.05	<2.05	--	--	**<1.89**	--	--	--	--	<2.05	--	<2.05	<2.05	**<2.05**	<2.05	<2.05	<2.05	<2.05	<2.05	<2.05
SB-25	Reconnaissance	09/29/04	SCS Engineers	<2	<2	--	--	**<2.05**	--	--	--	--	<2	--	<2	<2	**<2**	<2	<2	<2	<2	<2	<2
SB-19	Reconnaissance	10/01/04	SCS Engineers	<1	<1	--	--	<1	--	--	--	--	<1	--	<1	<1	**<1**	<1	<1	<1	<1	<1	<1
SB-22	Groundwater	10/01/04	SCS Engineers	<1	<1	--	--	<1	--	--	--	--	<1	--	<1	<1	**<1**	<1	<1	<1	<1	**271**	<1
SB-26	Reconnaissance	09/29/04	SCS Engineers	<1	<1	--	--	<1	--	--	--	--	<1	--	<1	<1	**<1**	<1	<1	<1	<1	<1	<1
SB-28	Reconnaissance	09/29/04	SCS Engineers	<1	<1	--	--	<1	--	--	--	--	<1	--	<1	<1	**<1**	<1	<1	<1	<1	<1	<1
SB-30	Reconnaissance	12/07/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<2	--
SB-31	Reconnaissance	12/07/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<2	--
SB-35	Reconnaissance	12/07/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	29.3	--
SB-22	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	**102**	NR
SB-36	Groundwater	06/21/05	SCS Engineers	<1	<1	--	--	<1	--	--	--	--	<1	--	<1	<1	**<1**	<1	<1	<1	<1	<1	<1
SB-37	Groundwater	06/21/05	SCS Engineers	<1	<1	--	--	<1	--	--	--	--	<1	--	<1	<1	**<1**	<1	<1	<1	<1	<1	<1
SB-38	Groundwater	06/21/05	SCS Engineers	<1	<1	--	--	<1	--	--	--	--	<1	--	<1	<1	**<1**	<1	<1	<1	<1	<1	<1
SB-22	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-22	Groundwater	09/15/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	30	<1.0
SB-36	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-36	Groundwater	04/20/06	Hart Crowser	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	--
MTCA Cleanup Level				**0.64[c]**	**NE**	**0.24[c]**	**400[b]**	**1.8[c]**	**160[b]**	**NE**	**NE**	**NE**	**0.52[c]**	**0.71[c]**	**5.5[c]**	**11[b]**	**0.34[c]**	**160[b]**	**15[c]**	**7.2[c]**	**3.4[c]**	**80[b]**	**0.24[c]**

SOUND ENVIRONMENTAL STRATEGIES
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Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)1																				
				Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylene dibromide (EDB)	Hexachloro-1,3-butadiene	Isopropylbenzene	Isopropyltoluene	Methylene Chloride	Methyl t-butyl ether	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butyl-benzene	Styrene	tert-Butylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
PACE MAIN BUILDING																								
SP-7	Reconnaissance	07/22/03	Hart Crowser	--	--	--	--	--	<1.0	<1.0	--	--	<1.0	<1.0	<1.0	<1.8	--	<1.0	<1.0	<1.0	--	<1.0	--	<1
SP-40	Reconnaissance	03/05/04	Hart Crowser	--	--	--	--	--	<1.0	<1.0	--	--	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	--	--	<1.0	--	<0.2
SB-1	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1	NR	9.07
SB-5	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	<1	NR	<0.2
SB-1	Groundwater	02/14/06	SCS Engineers	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.8	<1.0	<1.0	<1.0	<1.0	<1.0
SB-5	Groundwater	02/14/06	SCS Engineers	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-D	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.0
SP-E	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.3
SP-F	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
SP-G	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.4
SP-H	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
SP-I	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.4
SP-J	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.8
SP-K	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.8
SP-L	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	20	1.2	<1.0	--	<1.0	12	32	11	<1.0	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	3.0
SP-M	Reconnaissance	06/22/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-17	Groundwater	07/02/06	Har Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.6
SUBSURFACE UTILITY																								
HC-MW1	Groundwater	07/16/03	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	13	<1.0	<1.0	<1.0	<1.0
SB-17	Reconnaissance	09/29/04	SCS Engineers	<1.89	--	--	--	--	--	--	<1.89	--	--	--	--	--	--	--	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89
SB-18	Reconnaissance	09/29/04	SCS Engineers	<2.05	--	--	--	--	--	--	<2.05	--	--	--	--	--	--	--	<2.05	<2.05	<2.05	<2.05	<2.05	<2.05
SB-25	Reconnaissance	09/29/04	SCS Engineers	<2	--	--	--	--	--	--	<2	--	--	--	--	--	--	--	<2	<2	<2	<2	<2	<0.4
SB-19	Reconnaissance	10/01/04	SCS Engineers	<1	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	0.800
SB-22	Groundwater	10/01/04	SCS Engineers	<1	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	23.3
SB-26	Reconnaissance	09/29/04	SCS Engineers	<1	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<0.2
SB-28	Reconnaissance	09/29/04	SCS Engineers	<1	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<0.2
SB-30	Reconnaissance	12/07/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<2	--	--	<2	--	<0.2
SB-31	Reconnaissance	12/07/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<2	--	--	<2	--	<0.2
SB-35	Reconnaissance	12/07/04	SCS Engineers	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	44.9	--	--	389	--	6.95
SB-22	Groundwater	01/13/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	1.3	NR	7.47
SB-36	Groundwater	06/21/05	SCS Engineers	<1	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<0.2
SB-37	Groundwater	06/21/05	SCS Engineers	<1	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<0.2
SB-38	Groundwater	06/21/05	SCS Engineers	<1	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	<1	<1	<1	<1	<0.2
SB-22	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	19
SB-22	Groundwater	09/15/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.6
SB-36	Groundwater	02/14/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
SB-36	Groundwater	04/20/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	<1.0	--	<1.0	--	0.2
MTCA Cleanup Level				0.52[c]	80[b]	1,600[b]	0.01[a]	0.56[c]	800[b]	NE	5[a]	20[a]	160[a]	NE	NE	NE	1.5[c]	NE	5[a]	5[a]	0.24[c]	5[a]	2,400[b]	0.2[a]

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																	
				Benzene	Toluene	Ethylbenzene	Total Xylenes	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,2-Dibromo-3-Chloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)
SUBSURFACE UTILITY																					
HC-MW-14	Groundwater	07/02/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-19	Groundwater	07/03/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-38	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-S	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-O	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-N	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SP-W	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-23	Groundwater	01/25/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-36	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-38	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-36	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-23	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
SB-38	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-23	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-22	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-21	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-23	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-22	Groundwater	01/25/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-21	Groundwater	01/25/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-19	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-19	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-22	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-21	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-19	Groundwater	10/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-22	Groundwater	10/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-21	Groundwater	10/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-17	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-18	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-17	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-16	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-15	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-14	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-22	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-21	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-23	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-19	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
HC-MW-21	Groundwater	02/24/09	SES	--	--	--	--	<1	<1	--	<1	--	--	--	--	--	--	--	--	--	<1
HC-MW-21	Groundwater	05/21/09	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	**<1.0**	<0.20	**<0.20**	<0.20	--	<0.20	<0.20
MTCA Cleanup Level				**5[a]**	**1,000[a]**	**700[a]**	**1,000[a]**	**1,600[b]**	**400[b]**	**NE**	**200[a]**	**1.7[c]**	**0.22[c]**	**0.77[c]**	**0.031[c]**	**80[b]**	**0.0063[c]**	**80[c]**	**400[b]**	**720[b]**	**5[a]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																			
				1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane	1,3,5-Trimethylbenzene	1,4-Dichlorobenzene	2-Chlorotoluene	2,2 Dichloropropane	4-Chlorotoluene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene
SUBSURFACE UTILITY																							
HC-MW-14	Groundwater	07/02/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.8	<1.0
HC-MW-19	Groundwater	07/03/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-38	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SP-S	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0
SP-O	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**200**	<1.0
SP-N	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	17	<1.0
SP-W	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-23	Groundwater	01/25/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.9	<1.0
SB-36	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-38	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SB-36	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-23	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	<1.0
SB-38	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-23	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	7.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-22	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-21	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.7	<1.0
HC-MW-23	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0
HC-MW-22	Groundwater	01/25/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-21	Groundwater	01/25/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.8	<1.0
HC-MW-19	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-19	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1	<1.0
HC-MW-22	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-21	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.2	<1.0
HC-MW-19	Groundwater	10/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0
HC-MW-22	Groundwater	10/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-21	Groundwater	10/03/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.9	<1.0
HC-MW-17	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-18	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-17	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0
HC-MW-16	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.2	<1.0
HC-MW-15	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.1	<1.0
HC-MW-14	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.1	<1.0
HC-MW-22	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HC-MW-21	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.3	<1.0
HC-MW-23	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0
HC-MW-19	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1	<1.0
HC-MW-21	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	--	--	2.3	--
HC-MW-21	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	4.1	<0.20
MTCA Cleanup Level				**0.64[c]**	**NE**	**0.24[c]**	**400[b]**	**1.8[c]**	**160[b]**	**NE**	**NE**	**NE**	**0.52[c]**	**0.71[c]**	**5.5[c]**	**11[b]**	**0.34[c]**	**160[b]**	**15[c]**	**7.2[c]**	**3.4[c]**	**80[b]**	**0.24[c]**

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Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)1																				
				Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylene dibromide (EDB)	Hexachloro-1,3-butadiene	Isopropylbenzene	Isopropyltoluene	Methylene Chloride	Methyl t-butyl ether	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butyl-benzene	Styrene	tert-Butylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
SUBSURFACE UTILITY																								
HC-MW-14	Groundwater	07/02/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.6
HC-MW-19	Groundwater	07/03/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<0.2
SB-38	Groundwater	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
SP-S	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	37
SP-O	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.1	<1.0	3	<1.0	75
SP-N	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	0.68
SP-W	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-23	Groundwater	01/25/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	1.5
SB-36	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
SB-38	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
SB-36	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-23	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
SB-38	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-23	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.3	<1.0	<0.2
HC-MW-22	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-21	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.1
HC-MW-23	Groundwater	07/03/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	<1.0	0.6
HC-MW-22	Groundwater	01/25/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-21	Groundwater	01/25/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1
HC-MW-19	Groundwater	02/09/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-19	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-22	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-21	Groundwater	04/12/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2
HC-MW-19	Groundwater	10/03/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-22	Groundwater	10/03/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.4
HC-MW-21	Groundwater	10/03/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	17
HC-MW-17	Groundwater	10/05/07	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.9
HC-MW-18	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-17	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.9
HC-MW-16	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-15	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-14	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.8
HC-MW-22	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-21	Groundwater	02/05/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-23	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	1	<1.0	<0.2
HC-MW-19	Groundwater	02/06/08	Hart Crowser	<1.0	<1.0	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2
HC-MW-21	Groundwater	02/24/09	SES	--	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	<1	<1	--	<1	--	0.32
HC-MW-21	Groundwater	05/21/09	SES	<0.20	<0.20	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	0.28	<0.20	<0.20	1.2	<0.20	<0.20
MTCA Cleanup Level				**0.52[c]**	**80[b]**	**1,600[b]**	**0.01[a]**	**0.56[c]**	**800[b]**	**NE**	**5[a]**	**20[a]**	**160[a]**	**NE**	**NE**	**NE**	**1.5[c]**	**NE**	**5[a]**	**5[a]**	**0.24[c]**	**5[a]**	**2,400[b]**	**0.2[a]**

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Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																	
				Benzene	Toluene	Ethylbenzene	Total Xylenes	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,2-Dibromo-3-Chloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)
RUA																					
HC-MW2	Groundwater	07/16/03	Hart Crowser	<1.0	<1.0	<1.0	3.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	9.4	<1.0	<1.0
HC-MW2R	Groundwater	11/05/03	Hart Crowser	<1.0	1.2	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	8.3	<1.0	<1.0
HC-MW2R	Groundwater	03/04/04	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	1.5	<1.0	<1.0	<1.0
HC-MW2R	Groundwater	01/14/05	SCS Engineers	NR	NR	NR	NR	<1	<1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SP-P	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0
DOWNGRADIENT																					
SB08	Reconnaissance	04/26/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	**<1.0**	<0.20	**<0.20**	<0.20	--	<0.20	<0.20
SB01	Reconnaissance	04/26/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	**<1.0**	<0.20	**<0.20**	<0.20	--	<0.20	<0.20
SB02	Reconnaissance	04/26/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	**<1.0**	<0.20	**<0.20**	<0.20	--	<0.20	<0.20
SB06	Reconnaissance	04/26/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	**<1.0**	<0.20	**<0.20**	<0.20	--	<0.20	<0.20
SB03	Reconnaissance	04/26/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	**<1.0**	<0.20	**<0.20**	<0.20	--	<0.20	<0.20
SB04	Reconnaissance	04/27/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	**<1.0**	<0.20	**<0.20**	<0.20	--	<0.20	<0.20
SB05	Reconnaissance	04/27/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	**<1.0**	<0.20	**<0.20**	<0.20	--	<0.20	<0.20
SB09	Reconnaissance	04/27/10	SES	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	**<1.0**	<0.20	**<0.20**	<0.20	--	<0.20	<0.20
MTCA Cleanup Level				**5[a]**	**1,000[a]**	**700[a]**	**1,000[a]**	**1,600[b]**	**400[b]**	**NE**	**200[a]**	**1.7[c]**	**0.22[c]**	**0.77[c]**	**0.031[c]**	**80[b]**	**0.0063[c]**	**80[c]**	**400[b]**	**720[b]**	**5[a]**

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Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																			
				1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropane	1,3,5-Trimethylbenzene	1,4-Dichlorobenzene	2-Chlorotoluene	2,2 Dichloropropane	4-Chlorotoluene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene
RUA																							
HC-MW2	Groundwater	07/16/03	Hart Crowser	<1.0	<1.0	**<1.0**	4.3	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	**1,300**	<1.0
HC-MW2R	Groundwater	11/05/03	Hart Crowser	<1.0	<1.0	**<1.0**	3.7	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	35	<1.0
HC-MW2R	Groundwater	03/04/04	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	36	<1.0
HC-MW2R	Groundwater	01/14/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	4.79	NR
SP-P	Reconnaissance	09/14/06	Hart Crowser	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**<1.0**	<1.0	<1.0	**<1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
DOWNGRADIENT																							
SB08	Reconnaissance	04/26/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20
SB01	Reconnaissance	04/26/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20
SB02	Reconnaissance	04/26/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20
SB06	Reconnaissance	04/26/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20
SB03	Reconnaissance	04/26/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	0.25	<0.20
SB04	Reconnaissance	04/27/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20
SB05	Reconnaissance	04/27/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20
SB09	Reconnaissance	04/27/10	SES	<0.20	<0.20	<0.20	--	<0.20	<0.20	<0.20	<0.20	--	<0.20	<0.20	--	--	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20
MTCA Cleanup Level				**0.64[c]**	**NE**	**0.24[c]**	**400[b]**	**1.8[c]**	**160[b]**	**NE**	**NE**	**NE**	**0.52[c]**	**0.71[c]**	**5.5[c]**	**11[b]**	**0.34[c]**	**160[b]**	**15[c]**	**7.2[c]**	**3.4[c]**	**80[b]**	**0.24[c]**

Table 9
Summary of Analytical Results for Volatile Organic Compounds
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)1																				
				Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylene dibromide (EDB)	Hexachloro-1,3-butadiene	Isopropylbenzene	Isopropyltoluene	Methylene Chloride	Methyl t-butyl ether	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butyl-benzene	Styrene	tert-Butylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
RUA																								
HC-MW2	Groundwater	07/16/03	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	1.9	<1.0	--	14	1.6	<1.0	<1.0	<1.0	9.6	**47**	<1.0	**<1.0**	**25**	<1.0	**240**
HC-MW2R	Groundwater	11/05/03	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	1.9	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	7.7	**19**	13	**<1.0**	<1.0	<1.0	**4.1**
HC-MW2R	Groundwater	03/04/04	Hart Crowser	**<1.0**	<1.0	<1.0	**<1.0**	**<1.0**	<1.0	<1.0	<1.0	--	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	2.9	1.4	**<1.0**	1.7	<1.0	**4.6**
HC-MW2R	Groundwater	01/14/05	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	1.52	NR	**3.43**
SP-P	Reconnaissance	09/14/06	Hart Crowser	**<1.0**	<1.0	<1.0	<0.01	**<1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<1.0**	<1.0	<1.0	<0.2
DOWNGRADIENT																								
SB08	Reconnaissance	04/26/10	SES	<0.20	--	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	0.22	<0.20	<0.20	<0.20	<0.20	<0.20
SB01	Reconnaissance	04/26/10	SES	<0.20	--	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
SB02	Reconnaissance	04/26/10	SES	<0.20	--	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
SB06	Reconnaissance	04/26/10	SES	<0.20	--	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
SB03	Reconnaissance	04/26/10	SES	<0.20	--	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
SB04	Reconnaissance	04/27/10	SES	<0.20	--	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
SB05	Reconnaissance	04/27/10	SES	<0.20	--	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
SB09	Reconnaissance	04/27/10	SES	<0.20	--	<0.20	--	<0.20	--	--	<1.0	--	--	--	--	--	--	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
MTCA Cleanup Level				**0.52[c]**	**80[b]**	**1,600[b]**	**0.01[a]**	**0.56[c]**	**800[b]**	**NE**	**5[a]**	**20[a]**	**160[a]**	**NE**	**NE**	**NE**	**1.5[c]**	**NE**	**5[a]**	**5[a]**	**0.24[c]**	**5[a]**	**2,400[b]**	**0.2[a]**

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Table 9
Summary of Analytical Results for Volatile Organic Compounds in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

NOTES:
Red denotes concentration exceeds MTCA cleanup level.
Blue denotes result was not detected at a concentration exceeding the laboratory reporting limit, however, the laboratory reporting limit exceeds the MTCA cleanup level.
[1]Analyzed with EPA Method 8260.
[a]MTCA Cleanup Regulation, Table 720-1 Method A Cleanup Levels for Groundwater of Chapter 173-340-900 of WAC. Revised November 2007.
[b]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Groundwater, Method B, Non-Carcinogen, Standard Formula Value, CLARC Web site <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.
cMTCA Cleanup Regulation, Chapter 173-340 of WAC, Groundwater, Method B, Carcinogen, Standard Formula Value, CLARC Web site <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

-- = not analyzed
< = not detected at a concentration exceeding the laboratory reporting limit
CLARC = Cleanup Levels and Risk Calculations
EPA = United States Environmental Protection Agency
FETA = Former Ecology Tank Area
Hart Crowser = Hart Crowser, Inc.
MTCA = Washington State Model Toxics Control Act
NE = cleanup level not established
NR = not reported
RUA = Railroad Unloading Area
SES = Sound Environmental Strategies
SRH = SRH Environmental Management
WAC = Washington Administrative Code

Table 10
Summary of Analytical Results for Metals in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Date	Sampled By	Analytical Results (micrograms per liter)							
			Arsenic [1]	Cadmium [1]	Chromium [1]	Copper [1]	Lead [1]	Mercury[2]	Nickel [1]	Zinc [1]
FETA										
HC-MW-6	03/05/04	Hart Crowser	<5	<5	<10	<10	<2	<0.2	54	35
SP-34/HC-MW-6	03/05/04	Hart Crowser	<5	<5	<10	<10	<2	<0.2	<10	<1
DRUM STORAGE YARD										
HC-MW-5	07/17/03	Hart Crowser	<5	<5	<10	<10	<2	<0.2	<10	1
SUBSURFACE UTILITY										
HC-MW-1	07/16/03	Hart Crowser	**22**	<5	<10	<10	<2.4	<0.2	<10	<1.4
RUA										
HC-MW-2	07/16/03	Hart Crowser	**43**	<5	<10	<10	<2.2	0.2	<10	<1.5
HC-MW2R	11/05/03	Hart Crowser	<5	<5	<10	<10	2.4	<0.2	<10	1.4
MTCA Cleanup Level for Groundwater			**5[a]**	**5[a]**	**50[a]**	**590[b]**	**15[a]**	**2[a]**	**NE**	**4,800[b]**

NOTES:

Red denotes concentration exceeds MTCA cleanup level.

[1]Analyzed by EPA Method 7010.

[2]Analyzed by EPA Method 7470A.

[a]MTCA Cleanup Regulation, Table 720-1 Method A Cleanup Levels for Groundwater of Chapter 173-340-900 of the Washington Administrative Code. Revised November 2007.

[b]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Method B, Non-carcinogen, Standard Formula Value for Groundwater, CLARC Web site <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

< = not detected at a concentration exceeding the laboratory reporting limit

CLARC = Cleanup Levels and Risk Calculations

EPA = United States Environmental Protection Agency

FETA = Former Ecology Tank Area

Hart Crowser = Hart Crowser, Inc.

MTCA = Washington State Model Toxics Control Act

NE = cleanup level not established

RUA = Railroad Unloading Area

WAC = Washington Administrative Code

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Table 11
Summary of Analytical Results for Organochlorine Herbicides
in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]										
				2,4,5-T	2,4-D	2,4-DB	4-Nitrophenol	Dalapon	Dicamba	Dichloroprop	Dinoseb	MCPA	MCPP	Silvex
UNDERGROUND STORAGE TANK AREA														
SB-21	Reconnaissance	09/30/04	SCS Engineers	<0.0946	<0.0947	<0.0948	<0.0949	<0.0950	<0.0951	<0.0952	<0.0953	<0.0954	<0.0955	<0.0957
SUBSURFACE UTILITY														
SB-28	Reconnaissance	09/29/04	SCS Engineers	<0.0945	<0.0945	<0.0945	<0.0946	<0.0947	<0.0948	<0.0949	<0.0950	<0.0951	<0.0952	<0.0954
SB-19	Reconnaissance	10/01/04	SCS Engineers	<0.0944	<0.0945	<0.0946	<0.0947	<0.0948	<0.0949	<0.0950	<0.0951	<0.0952	<0.0953	<0.0955
MTCA Method B Cleanup Level[2]				**NE**	**160**	**130**	**NE**	**240**	**480**	**NE**	**NE**	**8**	**NE**	**NE**

NOTES:
[1]Analyzed by United States Environmental Protection Agency Method 8151A.

[2]Cleanup Levels and Risk Calculations (CLARC), Groundwater, Method B, Non-Carcinogen, Standard Formula Value, CLARC Web site <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

< = not detected at a concentration exceeding the laboratory reporting limit
2,4,5-T = trichlorophenoxyacetic acid
2,4-D = dichlorophenoxyacetic acid
2,4-DB = dichlorophenoxy (butyric acid)
MCPA = methyl-4-chlorophenoxy-acetic
MCPP = 2-(2-methyl-4-chlorophenoxy) propionic acid
NE = cleanup level not established

Table 12
Summary of Anaytical Results for Semi-Volatile Organic Compounds in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	Analytical Results[1] (micrograms per liter)																														
				Diphenylamine	Penatchloroethane	Phenol	2-Chlorophenol	Bis (2-chloroethyl) ether	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	2-Methylphenol (o-cresol)	Bis (2-chloroisopropyl) ether	3,4-Methylphenol (m,p-cresc)	2-Nitrophenol	2,4-Dimethylphenol	Bis (2-chloroethoxy) methanol	2,4-Dichlorophenol	1,2,4-Trichlorobenzene	2,4-Dichlorophenol	1,2,4-Trichlorobenzene	2,6-Dichlorophenol	Hexachloropropylene	Hexachlorobutadiene	4-Chloro-3-Methylphenol	1,2,4,5-Tetrachlorobenzene	Hexachlorocyclopentadiene	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	2-Chloronaphthalene	Dimethylphthalate	Acenaphthylene	Acenaphthene	2,4-Dinitrophenol
FETA																																		
HC-MW-6	Groundwater	03/05/04	Hart Crowser	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<10	<10	<10	<2.0	<2.0	<10	<10	<2.0	<2.0	<0.1	<0.1	<10
SP-34/HC-MW-6	Groundwater	03/05/04	Hart Crowser	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<10	<10	<10	<2.0	<2.0	<10	<10	<2.0	<2.0	<0.1	<0.1	<10
DOWNGRADIENT																																		
HC-MW-4	Groundwater	03/06/04	Hart Crowser	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<10	<10	<10	<2.0	<2.0	<10	<10	<2.0	<2.0	<0.1	<0.1	<10
DRUM STORAGE YARD																																		
HC-MW-5	Groundwater	07/17/03	Hart Crowser	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<10	<10	<10	<2.0	<2.0	<10	<10	<2.0	<2.0	<0.1	<0.1	<10
UNDERGROUND STORAGE TANK AREA																																		
SP-29	Reconnaissance	03/05/04	Hart Crowser	2.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<10	<10	<10	<2.0	<2.0	<10	<10	<2.0	<2.0	<0.1	<0.1	<10
PACE MAIN BUILDING																																		
SP-40	Reconnaissance	03/05/04	Hart Crowser	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<10	<10	<10	<2.0	<2.0	<10	<10	<2.0	<2.0	<0.1	<0.1	<10
SB-21	Reconnaissance	09/30/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SUBSURFACE UTILITY																																		
HC-MW-1	Groundwater	07/16/03	Hart Crowser	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<10	<10	<10	<2.0	<2.0	<10	<10	<2.0	<2.0	<0.1	<0.1	<10
HC-MW-3	Groundwater	03/05/04	Hart Crowser	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<10	<10	<10	<2.0	<2.0	<10	<10	<2.0	<2.0	<0.1	<0.1	<10
SB-28	Reconnaissance	09/29/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SB-19	Reconnaissance	10/01/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
RUA																																		
HC-MW-2	Groundwater	07/16/03	Hart Crowser	3.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<10	<10	<10	<2.0	<2.0	<10	<10	<2.0	<2.0	<0.1	<0.1	<10
HC-MW2R	Groundwater	11/05/03	Hart Crowser	250	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<10	<10	<10	<2.0	<2.0	<10	<10	<2.0	<2.0	<0.1	1.10	<10
HC-MW2R	Groundwater	03/04/04	Hart Crowser	44	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<10	<2.0	<10	<2.0	<2.0	<2.0	<10	<10	<10	<10	<2.0	<2.0	<10	<10	<2.0	<2.0	<0.1	<0.1	<10
MTCA Cleanup Level				**400[a]**	**NE**	**4,800[a]**	**40**	**0.04[b]**	**NE**	**1.8[b]**	**720[a]**	**400[a]**	**320[a]**	**800[a]**	**NE**	**160[a]**	**400[a]**	**24[a]**	**80[a]**	**24[a]**	**80[a]**	**NE**	**NE**	**0.56[b]**	**NE**	**4.8[a]**	**48[a]**	**4[b]**	**800[a]**	**640[a]**	**NE**	**NE**	**960[a]**	**32[a]**

Table 12
Summary of Anaytical Results for Semi-Volatile Organic Compounds in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Type	Sample Date	Sampled By	4-Nitrophenol	Pentachlorobenzene	2,3,4,6-Tetrachlorophenol	Fluorene	Diethlyphthalate	4-Chlorophenylphenylether	N-Nitrosodiphenylamine	4-Bromophenylphenylether	Hexachlorobenzene	Pentachlorophenol	Phenanthrene	Anthracene	2-sec-Butyl-4,6-dinitrophenol	Di-n-butylphthalate	Fluoranthene	Pyrene	Butylbenzylphthalate	Bis (2-ethylhexyl) ether	Di-n-octylphthalate	Benzo(ghi)perylene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Dibenzon(a,h)anthracene	Ideno(1,2,2-cd)pyrene
FETA																														
HC-MW-6	Groundwater	03/05/04	Hart Crowser	<10	<2.0	<2.0	<0.1	<10	<2.0	<2.0	<2.0	<2.0	<0.5	<0.1	<0.1	<10	<2.0	<0.1	<0.1	<10	<2.0	<10	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP-34/HC-MW-6	Groundwater	03/05/04	Hart Crowser	<10	<2.0	<2.0	<0.1	<10	<2.0	<2.0	<2.0	<2.0	<0.5	<0.1	<0.1	<10	<2.0	<0.1	<0.1	<10	<2.0	<10	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
DOWNGRADIENT																														
HC-MW-4	Groundwater	03/06/04	Hart Crowser	<10	<2.0	<2.0	<0.1	<10	<2.0	<2.0	<2.0	<2.0	<0.5	<0.1	<0.1	<10	<2.0	<0.1	<0.1	<10	<2.0	<10	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
DRUM STORAGE YARD																														
HC-MW-5	Groundwater	07/17/03	Hart Crowser	<10	<2.0	<2.0	<0.1	<10	<2.0	<2.0	<2.0	<2.0	<0.5	<0.1	<0.1	<10	<2.0	<0.1	<0.1	<10	<2.0	<10	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
UNDERGROUND STORAGE TANK AREA																														
SP-29	Reconnaissance	03/05/04	Hart Crowser	<10	<2.0	<2.0	<0.1	<10	<2.0	<2.0	<2.0	<2.0	<0.5	<0.1	<0.1	<10	<2.0	<0.1	<0.1	<10	<2.0	<10	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PACE MAIN BUILDING																														
SP-40	Reconnaissance	03/05/04	Hart Crowser	<10	<2.0	<2.0	<0.1	<10	<2.0	<2.0	<2.0	<2.0	<0.5	<0.1	<0.1	<10	<2.0	<0.1	<0.1	<10	<2.0	<10	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SB-21	Reconnaissance	09/30/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.575	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SUBSURFACE UTILITY																														
HC-MW-1	Groundwater	07/16/03	Hart Crowser	<10	<2.0	<2.0	<0.1	<10	<2.0	<2.0	<2.0	<2.0	<0.5	<0.1	<0.1	<10	<2.0	<0.1	<0.1	<10	<2.0	<10	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
HC-MW-3	Groundwater	03/05/04	Hart Crowser	<10	<2.0	<2.0	<0.1	<10	<2.0	<2.0	<2.0	<2.0	<0.5	<0.1	<0.1	<10	<2.0	<0.1	<0.1	<10	<2.0	<10	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SB-28	Reconnaissance	09/29/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0953	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	--
SB-19	Reconnaissance	10/01/04	SCS Engineers	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0954	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	--
RUA																														
HC-MW-2	Groundwater	07/16/03	Hart Crowser	<10	<2.0	<2.0	<0.1	<10	<2.0	<2.0	<2.0	<2.0	<0.5	<0.1	<0.1	<10	<2.0	<0.1	<0.1	<10	<2.0	<10	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
HC-MW2R	Groundwater	11/05/03	Hart Crowser	<10	<2.0	<2.0	0.5	<10	<2.0	<2.0	<2.0	<2.0	<0.5	<0.1	<0.1	<10	<2.0	<0.1	<0.1	<10	<2.0	<10	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
HC-MW2R	Groundwater	03/04/04	Hart Crowser	<10	<2.0	<2.0	<0.1	<10	<2.0	<2.0	<2.0	<2.0	<0.5	<0.1	<0.1	<10	<2.0	<0.1	<0.1	<10	<2.0	<10	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MTCA Cleanup Level				**32[a]**	**1.3[a]**	**480[a]**	**640[a]**	**NE**	**NE**	**NE**	**NE**	**0.55[b]**	**0.73[b]**	**NE**	**4,800[a]**	**32[a]**	**NE**	**640[a]**	**480[a]**	**NE**	**NE**	**NE**	**NE**	**0.1[c]**						

Table 12
Summary of Anaytical Results for Semi-Volatile Organic Compounds in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

NOTES:
Blue denotes result was not detected at a concentration exceeding the laboratory reporting limit, however, the laboratory reporting limit exceeds the MTCA cleanup level.
[1]Analyzed by United States Environmental Protection Agency Method 8270.
[a]MTCA, Chapter 173-340 WAC, CLARC, Soil, Method B, Non-Carcinogen, Standard Formula Value, CLARC Web site <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.
[b]MTCA, Chapter 173-340 WAC, CLARC, Soil, Method B, Carcinogen, Standard Formula Value, CLARC website -<https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.
[c]MTCA, Chapter 173-340 WAC, CLARC, Soil, Method A, Unrestricted Land Use, Standard Formula Value, CLARC Web site <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

-- = not analyzed
< = not detected at a concentration exceeding the laboratory reporting limit
CLARC = Cleanup Levels and Risk Calculations
FETA = Former Ecology Tank Area
Hart Crowser = Hart Crowser, Inc.
MTCA = Washington State Model Toxics Control Act
NE = cleanup level not established
NR = not reported
RUA = Railroad Unloading Area
WAC = Washington Administrative Code

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Table 13
Summary of Analytical Results for Organochlorine Pesticides in Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Date	Sample Date	Sampled By	Analytical Results (micrograms per liter)[1]																				
				4,4'-DDD	4,4'-DDE	4,4-DDT	Aldrin	Hexachlorocyclohexane, alpha	Chlordane, alpha	Hexachlorocyclohexane, beta	Hexachlorocyclohexane, delta	Dieldrin	Endosulfan 1	Endosulfan 2	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	Hexachlorocyclohexane, gamma (Lindane)	Chlordane, gamma	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
FETA																								
HC-MW6	Groundwater	07/17/03	Hart Crowser	<0.02	<0.02	<0.02	**<0.02**	**<0.02**	--	<0.02	<0.02	**<0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	**<0.02**	**<0.02**	<0.02	--
HC-MW6	Groundwater	03/04/04	Hart Crowser	<0.02	<0.02	<0.02	**<0.02**	**<0.02**	--	<0.02	<0.02	**<0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	**<0.02**	**<0.02**	<0.02	--
DOWNGRADIENT																								
HC-MW3	Groundwater	03/05/04	Hart Crowser	<0.02	<0.02	<0.02	**<0.02**	**<0.02**	--	<0.02	<0.02	**<0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	**<0.02**	**<0.02**	<0.02	--
HC-MW4	Groundwater	03/06/04	Hart Crowser	<0.02	<0.02	<0.02	**<0.02**	**<0.02**	--	<0.02	<0.02	**<0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	**<0.02**	**<0.02**	<0.02	--
UNDERGROUND STORAGE TANK AREA																								
SP-29	Reconnaissance	03/05/04	Hart Crowser	<0.02	<0.02	<0.02	**<0.02**	**<0.02**	--	<0.02	<0.02	**<0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	**<0.02**	**<0.02**	<0.02	--
SB-21	Reconnaissance	09/30/04	SCS Engineers	<0.00415	<0.00415	<0.00415	<0.00207	<0.00207	<0.00207	<0.00207	<0.00207	<0.00415	<0.00207	<0.00415	<0.00415	<0.00415	<0.00415	<0.00415	<0.00207	<0.00207	<0.00207	<0.00207	<0.00207	<0.00207
SUBSURFACE UTILITY																								
HC-MW1	Groundwater	07/16/03	Hart Crowser	<0.02	<0.02	<0.02	**<0.02**	**<0.02**	--	<0.02	<0.02	**<0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	**<0.02**	**<0.02**	<0.02	--
SB-28	Reconnaissance	09/29/04	SCS Engineers	<0.0039	<0.0039	<0.0039	<0.00195	<0.00195	<0.00195	<0.00195	<0.00195	<0.0039	<0.00195	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.00195	<0.00195	<0.00195	<0.00195	<0.0195	**<0.0975**
SB-19	Reconnaissance	10/01/04	SCS Engineers	<0.00384	<0.00384	<0.00384	<0.00192	<0.00192	<0.00192	<0.00192	<0.00192	<0.00384	<0.00192	<0.00384	<0.00384	<0.00384	<0.00384	<0.00384	<0.00192	<0.00192	<0.00192	<0.00192	<0.00192	<0.00192
RUA																								
HC-MW2	Groundwater	07/16/03	Hart Crowser	<0.02	<0.02	<0.02	**<0.02**	**<0.02**	--	<0.02	<0.02	**<0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	**<0.02**	**<0.02**	<0.02	--
MTCA Cleanup Level				**0.36[a]**	**0.26[a]**	**0.3[b]**	**0.0026[a]**	**0.0142[a]**	**0.25[a]**	**0.0492[a]**	**NE**	**0.0055[a]**	**96[b]**		**NE**	**4.8[b]**	**NE**	**NE**	**0.067**	**8.0[b]**	**0.019[a]**	**0.0048[b]**	**80[b]**	**0.08[b]**

NOTES:

Blue denotes result was not detected at a concentration exceeding the laboratory reporting limit, however, the laboratory reporting limit exceeds the MTCA cleanup level.

[1]Analyzed by United States Environmental Protection Agency Method 8081.

[a]CLARC, Groundwater, Method B, Carcinogen, Standard Formula Value, CLARC Web site <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

[b]CLARC, Groundwater, Method B, Non-Carcinogen, Standard Formula Value, CLARC Web site <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

-- = not analyzed

< = not detected at a concentration exceeding the laboratory reporting limit

CLARC = Cleanup Levels and Risk Calculations

DDD= dichlorodiphenyldichloroethane

DDE = dichlorodiphenyldichloroethylene

DDT = dichlorodiphenyltrichloroethane

FETA = Former Ecology Tank Area

Hart Crowser = Hart Crowser, Inc.

MTCA = Washington State Model Toxics Control Act

NE = cleanup level not established

RUA = Railroad Unloading Area

UST = underground storage tank

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Table 14
Remedial Component Screening Matrix
Former Pace National Site
500 7th Avenue South
Krikland, Washington

Technology Group	Technology Options	Protects Human Health and the Environment	Complies with Cleanup Standards	Complies with Applicable Local, State and Federal Laws	Provides for Compliance Monitoring	Uses Permanent Solutions to the Maximum Extent Practicable	Provides Reasonable Restoration Time Frame	Considers Public Concerns	Retained Alternative for Further Evaluation	Comments
		Threshold Criteria (WAC 173-340-360 [2][a])				**Modifying Criteria** (WAC 173-340-360 [2][b])			(Yes/No)	
Institutional Controls										
	No Further Action with Institutional Controls	×	×	×	×	×	×	✓	No	Not retained as alternative is not protective of human health or the environment.
Passive Remediation										
	Monitored Natural Attenuation	✓	✓	✓	✓	✓	✓	✓	Yes	Retained for consideration as alternative is protective of downgradient exposure pathways based on primary and secondary lines of evidence.
In Situ Physical Treatment										
	Air Sparge with Soil Vapor Extraction	✓	✓	✓	✓	✓	✓	✓	Yes	Retained for consideration as alternative is protective of On-Property and downgradient exposure pathways.
Reactived Barrier Wall										
	EHC® Reactive Barrier Wall	×	×	✓	✓	×	×	✓	No	Not retained based on results from pilot testing - no observed degradation of chemicals of concern or reduction of concentrations.
In Situ Bioremediation										
	Oxygen Release Compound	×	×	✓	✓	×	×	✓	No	Not retained based on results from pilot testing - no observed degradation of chemicals of concern or reduction of concentrations.
	Bioaugmentation	×	×	✓	✓	×	×	✓	No	Not retained based on results from pilot testing - no observed degradation of chemicals of concern or reduction of concentrations.

NOTES:
× = does not meet criterion
✓ = meets criterion

WAC = Washington Administrative Code

SOUND ENVIRONMENTAL STRATEGIES
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Table 15
Summary of Groundwater Monitoring Field and Analytical Results, ORC Injections 2006
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Date	Sampled By	Volatile Organic Compounds (µg/L)															Dissolved Metals (mg/L)		Oxygen Demand (mg/L)		Field Parameters	
			Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Chloromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,2-Dichloropropane	Chlorobenzene	Ferrous Iron (Fe^{2+})	Manganese	BOD	COD	DO (mg/L)	ORP (mV)
HC-MW-3	2/14-16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	2.25	235
	11/09/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
HC-MW-4	04/20/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	39	1.1	**10**	<1.0	1.4	<1.0	**2.1**	<1.0	--	--	--	--	0.23	-165
	05/16/06	Hart Crowser	3.3	3.1	<1.0	<1.0	<1.0	4.6	3.6	39	<1.0	<0.2	<1.0	1.7	<1.0	<1.0	3.1	14	3.7	<10	26	0.05	22
	06/15/06	Hart Crowser	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	27	<1.0	**5.9**	<1.0	2.3	<1.0	<1.0	1.7	1.2	1.4	<10	35	0.74	36.4
	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	27	<1.0	**62.0**	<1.0	2.2	<1.0	<1.0	1.7	1.4	0.66	<10	41	0.06	-12
	11/09/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	29	<1.0	**4.3**	<1.0	1.4	<1.0	<1.0	1.7	--	--	--	--	--	--
	04/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	21	<1.0	**5.8**	<1.0	1.0	<1.0	<1.0	1.7	--	--	--	--	--	--
	07/03/07	Hart Crowser	--	--	--	--	--	--	--	--	--	**13.0**	--	--	--	--	--	--	--	--	--	--	--
HC-MW-6	2/14-16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	0.19	0.090	<10	26	0.60	41
	04/20/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	0.21	0.048	<10	<10	0.00	-27
	05/17/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	13	1.6	<10	18	1.08	-20
	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	0.90	0.078	<10	19	3.09	-10.5
	07/13/06	Hart Crowser	<1.0	47	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	13
HC-MW-7	06/20/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.3**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	0.94	--
	2/14-16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	2.64	150
	04/20/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	2.86	165
	05/16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	4.35	131
	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	12.1	143.6
	07/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	9.69	186
	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	02/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	04/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	07/02/07	Hart Crowser	--	--	--	--	--	--	--	--	--	<0.2	--	--	--	--	--	--	--	--	--	--	--
HC-MW-8	06/20/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	17	<1.0	**7.6**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	0.99	--
	2/14-16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11	<1.0	**2.3**	<1.0	<1.0	<1.0	<1.0	<1.0	0.018	0.19	<10	15	0.57	126
	04/20/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	14	<1.0	**11.0**	<1.0	<1.0	<1.0	<1.0	<1.0	0.025	0.15	<10	19	0	117
	05/16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	18	<1.0	**14.0**	<1.0	<1.0	<1.0	<1.0	<1.0	13	0.15	<10	11	0.36	107
	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	20	<1.0	**12.0**	<1.0	<1.0	<1.0	<1.0	<1.0	0.57	0.15	<10	22	2.39	97.7
	07/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	23	<1.0	**11.0**	<1.0	1.0	<1.0	<1.0	<1.0	0.08	0.16	<10	19	0.88	159
	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	13	<1.0	**2.7**	<1.0	1.0	<1.0	<1.0	<1.0	0.08	0.16	<10	19	0.88	159
	02/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	15	<1.0	**2.4**	<1.0	1.0	<1.0	<1.0	<1.0	0.08	0.16	<10	19	0.88	159
	04/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	<1.0	**3.9**	<1.0	1.0	<1.0	<1.0	<1.0	0.08	0.16	<10	19	0.88	159
	07/02/07	Hart Crowser	--	--	--	--	--	--	--	--	--	**11.0**	--	--	--	--	--	--	--	--	--	--	--
HC-MW-9	06/20/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.2	<1.0	**4.8**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	1.02	--
	11/16/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	<1.0	**1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	2/14-16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.9	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	5.17	123
	04/20/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.2	<1.0	**3.0**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	1.75	168
	05/16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.8	<1.0	**2.9**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	1.19	100
	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	9.9	<1.0	**1.2**	<1.0	1.3	<1.0	<1.0	<1.0	--	--	--	--	2.81	66.1
	07/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	1.1	**2.9**	<1.0	2.0	<1.0	<1.0	<1.0	--	--	--	--	0.87	193
	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.2	<1.0	**3.0**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	02/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10	<1.0	**4.7**	<1.0	1.5	<1.0	<1.0	<1.0	--	--	--	--	--	--
	04/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	9	<1.0	**8.9**	<1.0	1.1	<1.0	<1.0	<1.0	--	--	--	--	--	--
	07/02/07	Hart Crowser	--	--	--	--	--	--	--	--	--	**8.5**	--	--	--	--	--	--	--	--	--	--	--
MTCA Cleanup Level for Groundwater			**5[a]**	**1,000[a]**	**700[a]**	**1,000[a]**	**5[a]**	**5[a]**	**400[b]**	**80[b]**	**160[b]**	**0.2[a]**	**3.4[c]**	**1,600[b]**	**5[a]**	**0.64[c]**	**160[b]**	**NE**	**2,200[b]**	**NE**	**NE**	**NE**	**NE**

SOUND ENVIRONMENTAL STRATEGIES
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Table 15
Summary of Groundwater Monitoring Field and Analytical Results, ORC Injections 2006
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

			Volatile Organic Compounds (μg/L)															Dissolved Metals (mg/L)		Oxygen Demand (mg/L)		Field Parameters	
Location	**Sample Date**	**Sampled By**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**PCE**	**TCE**	**1,1-Dichloroethene**	**cis-1,2-Dichloroethene**	**trans-1,2-Dichloroethene**	**Vinyl Chloride**	**Chloromethane**	**1,1-Dichloroethane**	**1,2-Dichloroethane**	**1,2-Dichloropropane**	**Chlorobenzene**	**Ferrous Iron (Fe^{2+})**	**Manganese**	**BOD**	**COD**	**DO (mg/L)**	**ORP (mV)**
HC-MW-10	06/20/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	3.80	--
	2/14-16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	0.27	1.5	<10	15	0.14	57
	04/20/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	0.026	2.4	<10	19	0	12
	05/16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.5**	<1.0	<1.0	<1.0	<1.0	<1.0	13	6.2	<10	32	0.23	60
	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.3**	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	1.3	<10	35	0.69	15.4
	07/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	**3.4**	<1.0	<1.0	<1.0	<1.0	<1.0	0.40	0.68	<10	44	0.02	5
	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	02/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	**2.5**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	04/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	**3.5**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	07/02/07	Hart Crowser	--	--	--	--	--	--	--	--	--	**3.9**	--	--	--	--	--	--	--	--	--	--	--
HC-MW-11	2/14-16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.9	<1.0	**6.5**	<1.0	<1.0	<1.0	<1.0	<1.0	3.1	11	<10	41	0.51	20
	04/20/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.4	<1.0	**38.0**	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	2.8	<10	35	0	-54
	05/16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**40.0**	<1.0	<1.0	<1.0	<1.0	<1.0	13	6.0	<10	25	0.76	24
	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	9.2	1.5	**24.0**	<1.0	1.1	<1.0	**1.3**	<1.0	1.2	1.5	<10	50	1.29	-22.9
	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	15	<1.0	**41.0**	<1.0	1.1	<1.0	<1.0	<1.0	0.10	0.70	<10	35	0.25	-7
	11/09/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	14.0	<1.0	**37.0**	<1.0	1.3	<1.0	<1.0	<1.0	--	--	--	--	--	--
	04/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12.0	<1.0	**51.0**	<1.0	1.1	<1.0	<1.0	<1.0	--	--	--	--	--	--
	07/02/07	Hart Crowser	--	--	--	--	--	--	--	--	--	**45.0**	--	--	--	--	--	--	--	--	--	--	--
HC-MW-12	2/14-16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	0.037	2.8	--	29	1.06	41
	04/20/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	-44
	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	0.60	0.61	--	--	4.26[d]	86.7
	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	142
	11/09/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	04/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	07/03/07	Hart Crowser	--	--	--	--	--	--	--	--	--	<0.2	--	--	--	--	--	--	--	--	--	--	--
SB-1	2/14-16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	3.8	<1.0	<1.0	2.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	1.33	131
SB-4	--	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-5	2/14-16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	0.54	4
SB-9	2/14-16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	12	1.9	<10	41	0.13	20
	04/20/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	0.015	1.4	<10	26	0.05	11
	05/16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	14	2.1	<10	41	0.26	15
	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	19	1.1	<10	44	1.33	8.9
	07/14/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<0.05	0.63	12	58	0.19	-31
	11/09/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/13/07	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	04/13/07	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-10	11/16/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10	<1.0	**8.8**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	01/10/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.8	<1.0	**2.9**	<1.0	1.0	<1.0	<1.0	<1.0	--	--	--	--	1.18	--
	05/16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10	<1.0	**8.1**	<1.0	1.1	<1.0	<1.0	<1.0	24	3.6	<10	11	0.67	49
	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	9.2	<1.0	**6.3**	<1.0	1.3	<1.0	<1.0	<1.0	1.3	1.3	<10	22	2.71	165.5
	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	<1.0	**11.0**	<1.0	1.2	<1.0	<1.0	<1.0	2.1	0.64	<10	26	0.92	190
	11/09/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	<1.0	**3.2**	<1.0	1.3	<1.0	**1.3**	<1.0	--	--	--	--	--	--
	04/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7	<1.0	**5.0**	<1.0	1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	07/02/07	Hart Crowser	--	--	--	--	--	--	--	--	--	**7.8**	--	--	--	--	--	--	--	--	--	--	--
MTCA Cleanup Level for Groundwater			**5[a]**	**1000[a]**	**700[a]**	**1,000[a]**	**5[a]**	**5[a]**	**400[b]**	**80[b]**	**160[b]**	**0.2[a]**	**3.4[c]**	**1,600[b]**	**5[a]**	**0.64[c]**	**160[b]**	**NE**	**2,200[b]**	**NE**	**NE**	**NE**	**NE**

Table 15
Summary of Groundwater Monitoring Field and Analytical Results, ORC Injections 2006
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Location	Sample Date	Sampled By	Volatile Organic Compounds (µg/L)															Dissolved Metals (mg/L)		Oxygen Demand (mg/L)		Field Parameters	
			Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Chloromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,2-Dichloropropane	Chlorobenzene	Ferrous Iron (Fe^{2+})	Manganese	BOD	COD	DO (mg/L)	ORP (mV)
SB-11	2/14-16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	1.63	171
	04/20/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	6.90	174
	05/16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.7**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	2.89	118
	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.9**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	8.99	164.0
	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.6	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	3.17	60
	11/09/06	Hart Crowser	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.1	<1.0	**3.3**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	04/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	**22.0**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	07/03/07	Hart Crowser	--	--	--	--	--	--	--	--	--	**7.0**	--	--	--	--	--	--	--	--	--	--	--
SB-14	11/16/05	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**3.0**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	2/14-16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.2**	<1.0	<1.0	<1.0	<1.0	<1.0	5.9	11	<10	38	0.95	10
	04/20/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**9.8**	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	2.5	<10	35	0	-83
	05/16/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**8.2**	<1.0	<1.0	<1.0	<1.0	<1.0	13	3.3	12	15	0.20	-7
	06/15/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**5.7**	<1.0	<1.0	<1.0	<1.0	<1.0	13	1.0	<10	29	1.35	-39.6
	07/13/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	**11.0**	<1.0	<1.0	<1.0	<1.0	<1.0	0.086	0.64	<10	29	0.97	-47
	11/09/06	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**11.0**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	02/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.7**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	04/13/07	Hart Crowser	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	**4.1**	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--
	07/02/07	Hart Crowser	--	--	--	--	--	--	--	--	--	**3.8**	--	--	--	--	--	--	--	--	--	--	--
MTCA Cleanup Level for Groundwater			**5[a]**	**1,000[a]**	**700[a]**	**1,000[a]**	**5[a]**	**5[a]**	**400[b]**	**80[b]**	**160[b]**	**0.2[a]**	**3.4[c]**	**1,600[b]**	**5[a]**	**0.64[c]**	**160[b]**	**NE**	**2,200[b]**	**NE**	**NE**	**NE**	**NE**

NOTES:
Red denotes concentration exceeds MTCA cleanup level for groundwater.
[a]MTCA Cleanup Regulation, Chapter 173-340-900 of the Washington Administrative Code, Table 720-1 Method A Cleanup Levels for Groundwater, revised November 2007.
[b]MTCA Cleanup Regulation, CLARC, Groundwater, Method B, Non-Carcinogen, Standard Formula Value, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.
[c]MTCA Cleanup Regulation, CLARC, Surface Water, Method B, Carcinogen, Standard Formula Value, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.
[d]DO concentration measured prior to recalibration of probe.

-- = not analyzed/not measured
< = not detected at a concentration exceeding the laboratory reporting limit
µg/L = micrograms per liter
BOD = Biological Oxygen Demand
CLARC = Cleanup Levels and Risk Calculations
COD = Chemical Oxygen Demand
DO = Dissolved Oxygen
Hart Crowser = Hart Crowser, Inc.

mg/L = milligrams per liter
MTCA = Washington State Model Toxics Control Act
mV = millivolts
NE = not established
ORP = oxidation-reduction potential
PCE = tetrachloroethene
TCE = trichloroethene

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Table 16
Summary of Groundwater Analytical Results
EHC and DHC Pilot Test
Former PACE National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Event	Sample Date	Analytical Results[1] (micrograms per liter)											
			Tetrachloroethene	Trichloroethene	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Chloroethane	1,1-Dichloroethene	Methylene Chloride	1,1-Dichloroethane	1,2-Dichloroethane	1,1,1- Trichloroethane	1,2- Dichloropropane
HC-MW-4	Quarterly Monitoring	07/09/08	<1	<1	<1	9.2	2.8	<1	<1	<5	<1	<1	<1	<1
		02/24/09	<1	<1	<1	20	6.9	<1	<1	<5	<1	<1	<1	<1
	Post EHC Pilot Test	04/23/09	<0.20	0.41	0.57	15	3.1	<1	0.26	<1	0.64	<0.20	<0.20	0.50
		05/21/09	<0.20	0.26	0.46	11	1.8	<1.0	0.23	<1.0	0.44	<0.20	<0.20	0.38
		07/01/09	<0.20	0.38	0.53	15	4.1	<1.0	0.46	<1.0	0.54	<0.20	<0.20	0.39
HC-MW-7	Quarterly Monitoring	07/09/08	<1	<1	<1	<1	<0.2	<1	<1	<5	<1	<1	<1	<1
		02/24/09	<1	<1	<1	<1	0.39	<1	<1	<5	<1	<1	<1	<1
	Post EHC Pilot Test	04/22/09	<0.20	<0.20	<0.20	0.30	<0.20	<1	<0.20	<1	<0.20	<0.20	<0.20	<0.20
		05/21/09	<0.20	<0.20	<0.20	<0.20	0.60	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
		07/01/09	<0.20	<0.20	<0.20	0.4	0.80	<1.0	<0.20	<1.0	0.25	<0.20	<0.20	<0.20
		08/11/09	<0.20	<0.20	<0.20	0.72	3.5	<1.0	<0.20	<1.0	0.36	<0.20	<0.20	<0.20
HC-MW-8	Quarterly Monitoring	07/09/08	<1	<1	<1	13	11	<1	<1	<5	<1	<1	<1	<1
		02/24/09	<1	<1	<1	10	20	<1	<1	<5	<1	<1	<1	<1
	Post EHC Pilot Test	04/22/09	<0.20	<0.20	0.62	9.1	16	<1	<0.20	<1	0.62	<0.20	<0.20	0.67
		05/21/09	<0.20	<0.20	0.56	8.6	13	<1.0	<0.20	<1.0	0.54	<0.20	<0.20	0.72
		07/01/09	<0.20	<0.20	0.79	15.0	21	<1.0	<0.20	<1.0	0.74	<0.20	<0.20	0.81
		08/11/09	<0.20	<0.20	0.99	18	24	<1.0	<0.20	<1.0	0.95	<0.20	<0.20	0.89
HC-MW-9	Quarterly Monitoring	07/09/08	<1	<1	<1	6.4	5.3	<1	<1	<5	<1	<1	<1	<1
		02/24/09	<1	<1	<1	4.7	3.2	<1	<1	<5	<1	<1	<1	<1
	Post EHC Pilot Test	04/22/09	<0.20	<0.20	0.32	4.7	6.3	<1	0.34	<1	0.77	<0.20	<0.20	0.60
		05/21/09	<0.20	<0.20	0.30	4.5	5.7	<1.0	0.33	<1.0	0.64	<0.20	<0.20	0.53
		07/01/09	<0.20	<0.20	0.40	7.3	7.6	<1.0	0.63	<1.0	0.97	<0.20	<0.20	0.77
		08/11/09	<0.20	<0.20	0.42	8.3	5.9	<1.0	0.74	<1.0	1.30	<0.20	<0.20	0.77
HC-MW-11	Quarterly Monitoring	02/24/09	<1	<1	<1	3.0	30	<1	<1	<5	<1	<1	<1	<1
	Post EHC Pilot Test	04/22/09	<0.20	<0.20	1.3	2.6	26	<1	<0.20	<1	0.86	<0.20	<0.20	1.4
		05/21/09	<0.20	<0.20	0.82	1.8	18	<1.0	<0.20	<1.0	0.63	<0.20	<0.20	1.1
	Post DHC Pilot Test	05/30/09	<0.20	<0.20	0.82	1.9	31	<1.0	<0.20	<1.0	0.81	<0.20	<0.20	1.3
		06/04/09	<0.20	<0.20	0.85	1.3	17	<1.0	<0.20	<1.0	0.57	<0.20	<0.20	1.0
		06/10/09	<0.20	<0.20	0.86	1.2	18	<1.0	<0.20	<1.0	0.53	<0.20	<0.20	1.0
		06/17/09	<0.20	<0.20	1.1	1.4	21	<1.0	<0.20	<1.0	0.58	<0.20	<0.20	0.98
		06/25/09	0.46	<0.20	0.8	1.2	25	<1.0	<0.20	<1.0	0.53	<0.20	<0.20	4.00
		08/11/09	<0.20	<0.20	1.10	2.9	26	<1.0	<0.20	<1.0	0.63	<0.20	<0.20	0.86
HC-MW-13	Quarterly Monitoring	02/24/09	<1	<1	<1	1.4	3.3	4.4	<1	<5	<1	<1	<1	<0.20
	Post EHC Pilot Test	04/23/09	<0.20	<0.20	<0.20	1.5	2.2	3.4	0.32	<1	0.74	<0.20	<0.20	<0.20
		05/21/09	<0.20	<0.20	<0.20	0.89	1.5	1.6	0.27	<1.0	0.37	<0.20	<0.20	<0.20
		07/01/09	<0.20	<0.20	<0.20	0.77	2.2	2.5	0.45	<1.0	0.34	<0.20	<0.20	<0.20
		08/11/09	<0.20	<0.20	<0.20	2.30	2.9	3.1	0.46	<1.0	0.83	<0.20	<0.20	<0.20
Cleanup Level			**5[a]**	**5[a]**	**160[b]**	**80[b]**	**0.2[a]**	**15[b]**	**400[b]**	**5[a]**	**1,600[b]**	**5[a]**	**200[a]**	**5[c]**

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Table 16
Summary of Groundwater Analytical Results
EHC and DHC Pilot Test
Former PACE National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Event	Sample Date	Analytical Results[1] (micrograms per liter)											
			Tetrachloroethene	Trichloroethene	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Chloroethane	1,1-Dichloroethene	Methylene Chloride	1,1-Dichloroethane	1,2-Dichloroethane	1,1,1- Trichloroethane	1,2- Dichloropropane
SB-10	Quarterly Monitoring	02/24/09	<1	<1	<1	6.3	9.3	<1	<1	<5	<1	<1	<1	<1
SB-10	Post EHC Pilot Test	04/01/09	<0.20	<0.20	0.45	5.6	9.0	<1.0	0.32	<1.0	0.75	<0.20	<0.20	0.68
SB-10	Post EHC Pilot Test	04/08/09	<0.20	<0.20	0.45	5.6	9.6	<1.0	0.34	<1.0	0.78	<0.20	<0.20	0.69
SB-10	Post EHC Pilot Test	04/15/09	<0.20	<0.20	0.52	5.9	10	<1.0	0.33	<1.0	0.79	<0.20	<0.20	0.64
SB-10	Post EHC Pilot Test	04/22/09	<0.20	<0.20	0.55	6.1	11	<1	0.32	<1	0.78	<0.20	<0.20	0.68
SB-10	Post EHC Pilot Test	04/29/09	<1	<1	0.53	5.4	11	<5.0	0.32J	<5.0	0.61J	<1	<1	0.67J
SB-10	Post EHC Pilot Test	05/06/09	<0.20	<0.20	0.60	7.0	13	<1.0	0.31	<1.0	0.77	<0.20	<0.20	0.78
SB-10	Post EHC Pilot Test	05/21/09	<0.20	<0.20	0.48	4.4	9.8	<1.0	<0.20	<1.0	0.58	<0.20	<0.20	0.68
SB-10	Post EHC Pilot Test	06/03/09	<0.20	<0.20	0.55	4.4	12	<1.0	<0.20	<1.0	0.63	<0.20	<0.20	0.74
SB-10	Post EHC Pilot Test	07/01/09	<0.20	<0.20	0.64	5.8	19	<1.0	0.32	<1.0	0.70	<0.20	<0.20	0.75
SB-10	Post EHC Pilot Test	08/11/09	<0.20	<0.20	0.85	6.7	22	<1.0	0.33	<1.0	0.81	<0.20	<0.20	0.92
SB-11	Quarterly Monitoring	02/24/09	<1	<1	<1	1.1	6.4	<1	<1	<5	<1	<1	<1	<1
SB-11	Post EHC Pilot Test	04/22/09	<0.20	<0.20	0.43	0.85	9.9	<1	<0.20	<1	0.54	<0.20	<0.20	0.81
SB-11	Post EHC Pilot Test	05/21/09	<0.20	<0.20	0.56	0.61	16	<1.0	<0.20	<1.0	0.51	<0.20	<0.20	0.69
SB-11	Post EHC Pilot Test	07/01/09	<0.20	<0.20	0.87	0.57	30	<1.0	<0.20	<1.0	1.2	<0.20	<0.20	1.1
SB-14	Post EHC Pilot Test	04/22/09	<0.20	<0.20	<0.20	0.42	1.8	<1	<0.20	<1	<0.20	<0.20	<0.20	<0.20
SB-14	Post EHC Pilot Test	05/21/09	<0.20	<0.20	<0.20	0.42	1.8	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
SB-14	Post EHC Pilot Test	07/01/09	<0.20	<0.20	<0.20	0.71	3.5	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
SB-14	Post EHC Pilot Test	08/11/09	<0.20	<0.20	<0.20	0.53	2.4	1.1	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
Cleanup Level			**5[a]**	**5[a]**	**160[b]**	**80[b]**	**0.2[a]**	**15[b]**	**400[b]**	**5[a]**	**1,600[b]**	**5[a]**	**200[a]**	**5[c]**

NOTES:

Red denotes concentration exceeds MTCA cleanup level for groundwater.

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington; Analytical Resources, Incorporated of Tukwila, Washington; and/or Onsite Environmental, Inc. of Redmond, Washington.

[1]Analyzed by EPA Method 8260B.

[a]MTCA Cleanup Regulation, Method A Cleanup Level for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

[b]MTCA Cleanup Regulation, CLARC, Method B Carcinogenic and Non-Carcinogenic Standard Formula, Unrestricted Land Use.

[c]EPA and State of Washington Maximum Contaminant Level.

< = not detected at concentration exceeding the laboratory reporting limit
CLARC = Cleanup Levels and Risk Calculations
DHC = dehalococcoides
EPA = United States Environmental Protection Agency
EHC = reactive barrier wall
MTCA = Washington State Model Toxics Control Act

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Table 17
Summary of Groundwater Field Parameters
EHC and DHC Pilot Tests
Former PACE National Site
500 7th Avenue South
Kirkland, Washington

Well Identification	Sampling Event	Date Sampled	pH	Specific Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Temperature (°C)	ORP (mV)	Methane[1] (% LEL)
HC-MW-1	Quarterly Monitoring	07/09/08[a]	--	--	--	--	--	--	--
		02/24/09[a]	--	--	--	--	--	--	--
	Post EHC Pilot Test	04/08/09	6.77	0.3	61.7	0.22	10.86	-181	>50
HC-MW-4	Quarterly Monitoring	07/09/08	6.30	0.516	11.4	0.84	16.40	-51	--
		02/25/09	6.41	0.594	0.9	0.48	9.00	-161	35.0
	Post EHC Pilot Test	04/01/09	5.45	0.502	7.8	0.37	9.05	-94	37.0
		04/09/09	6.10	0.513	2.6	0.38	9.98	-93	17.0
		04/15/09	6.46	0.510	6.5	0.52	10.03	-68	1.0
		04/23/09	6.52	0.568	7.1	0.51	11.30	-54	0
		04/30/09	6.53	0.525	0.0	0.44	11.94	-56	0
		05/06/09	6.58	0.554	2.0	0.36	11.52	-68	0
		05/21/09	6.61	0.528	19.8	1.20	13.30	-46	--
		06/03/09	6.32	0.516	10.6	0.50	16.80	-55	--
		07/01/09	7.89	0.060	87.9	6.61	16.70	-38	--
HC-MW-7	Quarterly Monitoring	07/09/08	6.00	0.711	104.0	2.00	12.50	248	--
		02/24/09	6.36	0.682	49.0	1.71	10.92	73	0
	Post EHC Pilot Test	04/02/09	5.37	0.616	2.5	1.58	10.15	160	0
		04/08/09	6.04	0.649	10.0	1.35	10.79	29	1.0
		04/15/09	6.47	0.653	9.9	1.44	11.67	49	0
		04/22/09	6.51	0.695	0.0	0.90	10.56	33	0
		04/29/09	6.58	0.630	0.0	0.60	11.21	24	0
		05/07/09	6.58	0.664	0.0	0.54	10.45	51	0
		05/21/09	6.25	0.700	2.5	0.90	12.10	-184	--
		06/03/09	6.13	0.740	10.9	0.70	14.50	25	--
		07/01/09	6.90	0.084	83.6	8.91	13.40	100	--
		08/11/09	6.95	0.795	6.8	0.99	14.53	14	--
HC-MW-8	Quarterly Monitoring	07/09/08	6.05	0.685	78.5	2.06	11.90	166	--
		02/24/09	6.31	0.697	8.5	0.30	10.45	32	0
	Post EHC Pilot Test	04/02/09	5.40	0.601	21.7	0.54	9.55	139	0
		04/08/09	6.11	0.605	4.0	0.21	10.77	-37	1.0
		04/15/09	6.41	0.632	9.9	0.51	10.43	29	0
		04/22/09	6.49	0.671	0.0	0.82	10.53	56	0
		04/29/09	6.51	0.603	0.0	0.36	11.43	43	0
		05/07/09	6.51	0.638	0.0	0.41	10.37	70	0
		05/21/09	6.25	0.643	3.0	0.90	11.70	291	--
		06/03/09	6.18	0.678	10.7	0.90	15.60	113	--
		07/01/09	6.89	0.093	72.7	9.60	14.30	107	--
		08/11/09	6.28	0.933	4.9	0.37	15.14	100	--

Table 17
Summary of Groundwater Field Parameters
EHC and DHC Pilot Tests
Former PACE National Site
500 7th Avenue South
Kirkland, Washington

Well Identification	Sampling Event	Date Sampled	pH	Specific Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Temperature (°C)	ORP (mV)	Methane[1] (% LEL)
HC-MW-9	Quarterly Monitoring	07/09/08	6.14	0.861	0.0	1.86	12.40	183	--
		02/24/09	6.37	0.914	2.4	0.30	10.55	31	0
	Post EHC Pilot Test	04/02/09	5.44	0.786	10.4	0.36	9.98	63	1.0
		04/08/09	6.06	0.816	0.0	0.32	10.53	-75	3.0
		04/15/09	6.49	0.855	5.4	0.40	10.73	-48	0
		04/22/09	6.51	0.984	0.0	1.01	10.20	-16	0
		04/29/09	6.63	0.984	0.0	0.38	11.04	-15	0
		05/07/09	6.76	1.143	0.0	0.35	12.48	-28	0
		05/21/09	6.52	1.450	1.6	0.44	11.39	-109	--
		06/03/09	6.48	0.198	9.2	1.50	15.50	-66	--
		07/01/09	7.87	0.197	73.4	10.61	13.30	48	--
		08/11/09	6.50	1.920	5.3	0.26	14.13	-19	--
HC-MW-11	Quarterly Monitoring	07/09/08[b]	--	--	--	--	--	--	--
		02/25/09	6.41	0.604	2.3	0.39	10.93	-165	4.5
	Post EHC Pilot Test	04/01/09	5.44	0.459	27.6	0.39	10.64	-42	>50
		04/09/09	6.13	0.575	325.0	0.47	12.40	-57	20.0
		04/15/09	6.46	0.572	39.6	0.86	11.49	-80	0
		04/22/09	6.64	0.601	30.3	0.57	12.11	-84	0
		04/29/09	6.68	0.532	30.3	0.43	12.74	-107	0
		05/06/09	6.62	0.546	47.7	0.39	11.97	-93	16.3
	Post DHC Pilot Test	05/21/09	6.22	0.509	159.0	0.90	13.70	-73	--
		05/30/09	6.33	0.523	26.8	0.60	16.50	-81	--
		06/04/09	6.30	0.513	56.1	0.80	16.90	-83	--
		06/10/09	6.44	0.418	3.8	0.53	18.37	-81	--
		06/17/09	6.46	0.524	7.6	1.15	16.16	-82	--
		06/25/09	6.55	0.519	4.2	0.95	17.43	-65	--
		08/11/09	6.36	0.554	38.4	0.46	17.10	-33	--
HC-MW-13	Quarterly Monitoring	02/25/09	6.58	0.757	58.6	0.53	9.04	-180	3.0
	Post EHC Pilot Test	04/01/09	5.53	0.732	15.7	0.42	9.19	-90	0
		04/09/09	6.24	0.751	14.5	0.29	10.16	-116	0
		04/16/09	6.71	0.799	38.6	0.39	11.33	-113	0
		04/23/09	6.71	0.783	16.7	0.44	11.02	-113	0
		04/30/09	6.68	0.683	16.3	0.54	11.17	-110	0
		05/06/09	6.77	0.702	24.2	0.40	11.23	-115	0
		05/21/09	6.23	0.649	18.5	1.30	12.30	-71	--
		06/03/09	6.40	0.647	37.8	0.40	14.60	-93	--
		07/01/09	8.26	0.069	147.0	7.23	15.20	-47	--
		08/11/09	6.41	0.658	13.8	0.51	17.90	-49	--

Table 17
Summary of Groundwater Field Parameters
EHC and DHC Pilot Tests
Former PACE National Site
500 7th Avenue South
Kirkland, Washington

Well Identification	Sampling Event	Date Sampled	pH	Specific Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Temperature (°C)	ORP (mV)	Methane[1] (% LEL)
SB-10	Quarterly Monitoring	02/25/09	6.35	0.747	0.0	0.79	10.52	65	0
	Post EHC Pilot Test	04/01/09	5.37	0.718	27.7	0.87	9.39	-351	11.0
		04/08/09	6.09	0.834	25.6	0.27	10.82	-434	25.0
		04/15/09	6.48	0.825	38.5	0.29	10.66	-30	0
		04/22/09	6.53	0.887	15.0	0.42	10.59	-41	0
		04/29/09	6.60	0.816	0.6	0.32	11.18	-67	0
		05/06/09	6.48	0.872	11.1	0.40	10.64	-82	0
		05/21/09	6.33	0.817	4.9	1.60	12.10	-217	--
		06/03/09	6.26	0.807	12.1	0.90	14.20	-73	--
		07/01/09	7.60	0.088	79.1	7.52	14.20	36	--
		08/11/09	6.36	0.833	8.8	0.53	16.03	-27	--
SB-11	Quarterly Monitoring	02/25/09	5.86	0.527	4.0	0.65	9.68	100	0
	Post EHC Pilot Test	04/01/09	5.23	0.550	2.5	0.82	9.19	139	0
		04/09/09	5.83	0.566	14.4	0.38	10.94	100	1.0
		04/16/09	6.19	0.639	0.0	0.60	12.07	73	0
		04/22/09	6.21	0.639	1.5	0.49	10.76	83	0
		04/29/09	6.29	0.575	0.0	0.35	11.70	80	0
		05/06/09	6.16	0.597	9.3	0.30	11.11	52	0
		05/21/09	6.02	0.574	3.0	3.20	12.50	34	--
		06/04/09	5.99	0.587	10.1	1.20	15.60	48	--
		07/01/09	6.21	0.065	74.3	7.06	17.60	142	--
SB-14	Post EHC Pilot Test	04/01/09	5.57	0.767	38.8	0.40	9.74	-87	9.5
		04/09/09	6.28	0.780	30.8	0.30	11.13	-109	>50
		04/16/09	6.74	0.857	98.2	0.47	11.74	-120	35.0
		04/22/09	6.77	0.886	30.4	0.43	11.03	-119	4.0
		04/30/09	6.65	0.775	23.8	0.46	12.45	-122	0
		05/06/09	6.77	0.811	24.0	0.33	11.45	-132	4.0
		05/21/09	6.39	0.744	46.0	0.90	13.60	-85	--
		06/03/09	6.39	0.728	6.6	0.60	17.90	-106	--
		07/01/09	8.09	0.076	82.0	6.34	18.20	-29	--
		08/11/09	6.45	0.716	0.1	0.54	18.70	-61	--

NOTES:

[1]Measurement collected at wellhead immediately upon removing well cap; other combustibles that may be present are assumed to be negligible.

[a]Well not sampled; located beneath surface cover on April 1, 2009.

[b]Low-flow stabilization data not available due to no water, inadequate recharge, or equipment limitations presented by the well diameter.

-- = not measured
°C = degrees Celsius
EHC = reactive barrier wall
LEL = lower explosive limit
mg/L = milligrams per liter

mS/cm = millisiemens per centimeter
mV = millivolts
NTU = nepholometric turbidity unit
ORP = oxidation-reduction potential

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Table 18
Summary of Supplemental Geochemical Parameters
EHC and DHC Pilot Tests
Former PACE National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Event	Sample Date	Analytical Results															
			Nitrite[1] (mg/L)	Nitrate[2] (mg/L)	TKN[3] (mg/L)	Total Iron[4] (mg/L)	Ferrous Iron[5] (mg/L)	Ferric Iron[5] (mg/L)	Manganese[4] (mg/L)	Ammonium[6] (mg/L)	Sulfate[7] (mg/L)	Sulfide[8] (mg/L)	Dissolved Gases[9] (µg/L) Methane	Ethane	Ethene	TOC[10] (mg/L)	Total Volatile Fatty Acids[11] (mg/L)	Total Phosphorous[12] (mg/L)
HC-MW-1	Post EHC Pilot Test	04/08/09	--	0.056	--	6.0	--	--	1.2	--	<5.0	--	--	--	--	--	--	3.0
HC-MW-4	Quarterly Monitoring	07/09/08	--	--	--	22.2	--	--	4.65	--	--	--	1,630	4.1	<1.1	13.3	--	--
		02/25/09	--	--	--	10.8	6.20	4.60	--	--	--	--	--	--	--	--	--	--
	Post EHC Pilot Test	04/01/09	--	0.098	--	11.0	--	--	7.0	--	45	--	--	--	--	--	--	--
		04/09/09	--	--	--	11.0	--	--	--	--	--	--	--	--	--	--	--	--
		04/15/09	--	--	--	8.7	--	--	--	--	--	--	--	--	--	--	--	--
		04/23/09	--	--	--	7.6	--	--	--	--	--	--	--	--	--	--	--	--
		04/30/09	--	--	--	9.0	--	--	--	--	--	--	--	--	--	--	--	--
		05/06/09	--	--	--	10.0	--	--	--	--	--	--	--	--	--	--	--	--
		07/01/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-7	Quarterly Monitoring	07/09/08	--	--	--	--	--	--	--	--	--	--	--	--	--	8.89	--	--
		02/24/09	--	--	--	<0.250	0.00	0.00	--	--	--	--	--	--	--	--	--	--
	Post EHC Pilot Test	04/02/09	--	--	--	0.250	--	--	--	--	--	--	--	--	--	--	--	--
		04/08/09	--	--	--	0.160	--	--	--	--	--	--	--	--	--	--	--	--
		04/15/09	--	--	--	0.062	--	--	--	--	--	--	--	--	--	--	--	--
		04/22/09	--	--	--	0.330	--	--	--	--	--	--	--	--	--	--	--	--
		04/29/09	--	--	--	<0.056	--	--	--	--	--	--	--	--	--	--	--	--
		05/07/09	--	--	--	<0.056	--	--	--	--	--	--	--	--	--	--	--	--
		07/01/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-8	Quarterly Monitoring	07/09/08	0.007	1.33	--	6.230	--	--	0.212	--	9.77	--	2.02	<1.2	<1.1	8.76	--	--
		02/24/09	--	--	--	0.261	0.20	0.06	--	--	--	--	--	--	--	--	--	--
	Post EHC Pilot Test	04/02/09	--	--	--	0.500	--	--	--	--	--	--	--	--	--	--	--	--
		04/08/09	--	--	--	0.280	--	--	--	--	--	--	--	--	--	--	--	--
		04/15/09	--	--	--	0.330	--	--	--	--	--	--	--	--	--	--	--	--
		04/22/09	--	--	--	0.210	--	--	--	--	--	--	--	--	--	--	--	--
		04/29/09	--	--	--	0.130	--	--	--	--	--	--	--	--	--	--	--	--
		05/07/09	--	--	--	0.095	--	--	--	--	--	--	--	--	--	--	--	--
		07/01/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.25	--
HC-MW-9	Quarterly Monitoring	07/09/08	<0.002	<0.010	--	0.152	--	--	0.157	--	17.8	--	74.1	<1.2	<1.1	11.7	--	--
		02/24/09	--	--	--	1.060	0.00	1.06	--	--	--	--	--	--	--	--	--	--
	Post EHC Pilot Test	04/02/09	--	--	--	0.410	--	--	--	--	--	--	--	--	--	--	--	--
		04/08/09	--	--	--	0.450	--	--	--	--	--	--	--	--	--	--	--	--
		04/15/09	--	--	--	1.000	--	--	--	--	--	--	--	--	--	--	--	--
		04/22/09	--	--	--	0.800	--	--	--	--	--	--	--	--	--	--	--	--
		04/29/09	--	--	--	0.660	--	--	--	--	--	--	--	--	--	--	--	--
		05/07/09	--	--	--	0.370	--	--	--	--	--	--	--	--	--	--	--	--
		07/01/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.25	--
HC-MW-10	Quarterly Monitoring	07/09/08	0.039	0.110	--	14.6	--	--	9.51	--	6.83	--	1.0	<1.2	<1.1	18.2	--	--
		02/24/09	--	--	--	9.8	6.00	3.80	--	--	--	--	--	--	--	--	<0.25	--

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Table 18
Summary of Supplemental Geochemical Parameters
EHC and DHC Pilot Tests
Former PACE National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Event	Sample Date	Analytical Results															
			Nitrite[1] (mg/L)	Nitrate[2] (mg/L)	TKN[3] (mg/L)	Total Iron[4] (mg/L)	Ferrous Iron[5] (mg/L)	Ferric Iron[5] (mg/L)	Manganese[4] (mg/L)	Ammonium[6] (mg/L)	Sulfate[7] (mg/L)	Sulfide[8] (mg/L)	Dissolved Gases[9] (µg/L)			TOC[10] (mg/L)	Total Volatile Fatty Acids[11] (mg/L)	Total Phosphorous[12] (mg/L)
													Methane	Ethane	Ethene			
HC-MW-11	Quarterly Monitoring	02/25/09	--	--	--	18.9	--	--	--	--	--	--	--	--	--	--	--	--
	Post EHC Pilot Test	04/01/09	--	--	--	18	--	--	--	--	--	--	--	--	--	--	--	--
		04/09/09	--	--	--	35	--	--	--	--	--	--	--	--	--	--	--	--
		04/15/09	--	--	--	26	--	--	--	--	--	--	--	--	--	--	--	--
		04/22/09	--	--	--	25	--	--	--	--	--	--	--	--	--	--	--	--
		04/29/09	--	--	--	24	--	--	--	--	--	--	--	--	--	--	--	--
		05/06/09	--	--	--	24	--	--	--	--	--	--	--	--	--	--	--	--
	Post DHC Pilot Test	05/21/09	--	0.230	1.52	--	--	--	--	--	<10	--	--	--	--	16	--	0.16
		05/30/09	--	0.052	1.61	--	--	--	--	--	<10	--	--	--	--	15	--	0.14
		06/04/09	--	0.160	1.33	26	--	--	--	--	<25	--	--	--	--	16	--	0.11
		06/10/09	--	<0.05	1.39	27	--	--	--	--	<25	--	--	--	--	17	--	0.094
		06/17/09	--	0.110	1.42	26	--	--	--	--	<10	--	--	--	--	17	--	0.11
		06/25/09	--	0.100	1.48	25	--	--	--	--	<10	--	--	--	--	16	--	0.10
		08/11/09	<0.050	0.069	--	3.5	1.7	1.8	--	1.8	<10	<0.050	2,630	<1.2	<1.1	17	<0.5	--
HC-MW-13	Quarterly Monitoring	07/09/08	--	--	--	45.9	2.60	43.3	--	--	--	--	--	--	--	--	--	--
	Post EHC Pilot Test	04/01/09	--	--	--	53	--	--	--	--	--	--	--	--	--	--	--	--
		04/09/09	--	--	--	54	--	--	--	--	--	--	--	--	--	--	--	--
		04/16/09	--	--	--	49	--	--	--	--	--	--	--	--	--	--	--	--
		04/23/09	--	--	--	48	--	--	--	--	--	--	--	--	--	--	--	--
		04/30/09	--	--	--	47	--	--	--	--	--	--	--	--	--	--	--	--
		05/06/09	--	--	--	47	--	--	--	--	--	--	--	--	--	--	--	--
		07/01/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-21	Quarterly Monitoring	02/25/09	0.003	0.038	--	8.25	5.90	2.35	1.22	--	9.30	--	--	--	--	9.74	--	0.054
	Post EHC Pilot Test	05/06/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HC-MW-22	Post DHC Pilot Test	08/11/09	<0.050	0.060	--	1.0	1.0	0.0	--	0.83	<5	<0.050	<0.7	<1.2	<1.1	19	110	--
SB-10	Quarterly Monitoring	02/25/09	--	--	--	1.96	0.00	1.96	--	--	--	--	--	--	--	--	--	--
	Post EHC Pilot Test	04/01/09	--	--	--	0.89	--	--	--	--	--	--	--	--	--	--	--	--
		04/08/09	--	--	--	1.20	--	--	--	--	--	--	--	--	--	--	--	--
		04/15/09	--	--	--	1.30	--	--	--	--	--	--	--	--	--	--	--	--
		04/22/09	--	--	--	1.70	--	--	--	--	--	--	--	--	--	--	--	--
		04/29/09	--	--	--	2.00	--	--	--	--	--	--	--	--	--	--	--	--
		05/06/09	--	--	--	2.90	--	--	--	--	--	--	--	--	--	--	--	--
		05/21/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		07/01/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		08/11/09	<0.050	0.13	--	4.8	1.8	3.0	--	0.39	6.4	<0.050	587	<1.2	<1.1	19	1.60	--
SB-11	Quarterly Monitoring	02/25/09	--	--	--	0.342	0.00	0.342	--	--	--	--	--	--	--	--	--	--
	Post EHC Pilot Test	04/01/09	--	--	--	0.097	--	--	--	--	--	--	--	--	--	--	--	--
		04/09/09	--	--	--	0.150	--	--	--	--	--	--	--	--	--	--	--	--
		04/16/09	--	--	--	0.057	--	--	--	--	--	--	--	--	--	--	--	--
		04/22/09	--	--	--	0.110	--	--	--	--	--	--	--	--	--	--	--	--
		04/29/09	--	--	--	0.098	--	--	--	--	--	--	--	--	--	--	--	--
		05/06/09	--	--	--	0.057	--	--	--	--	--	--	--	--	--	--	--	--
		05/21/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		07/01/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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Table 18
Summary of Supplemental Geochemical Parameters
EHC and DHC Pilot Tests
Former PACE National Site
500 7th Avenue South
Kirkland, Washington

Well ID	Sample Event	Sample Date	Analytical Results															
			Nitrite[1] (mg/L)	Nitrate[2] (mg/L)	TKN[3] (mg/L)	Total Iron[4] (mg/L)	Ferrous Iron[5] (mg/L)	Ferric Iron[5] (mg/L)	Manganese[4] (mg/L)	Ammonium[6] (mg/L)	Sulfate[7] (mg/L)	Sulifide[8] (mg/L)	Dissolved Gases[9] (µg/L)			TOC[10] (mg/L)	Total Volatile Fatty Acids[11] (mg/L)	Total Phosphorous[12] (mg/L)
													Methane	Ethane	Ethene			
SB-14	Post EHC Pilot Test	04/01/09	--	--	--	46	--	--	--	--	--	--	--	--	--	--	--	--
		04/09/09	--	--	--	46	--	--	--	--	--	--	--	--	--	--	--	--
		04/16/09	--	--	--	48	--	--	--	--	--	--	--	--	--	--	--	--
		04/22/09	--	--	--	41	--	--	--	--	--	--	--	--	--	--	--	--
		04/30/09	--	--	--	42	--	--	--	--	--	--	--	--	--	--	--	--
		05/06/09	--	--	--	39	--	--	--	--	--	--	--	--	--	--	--	--
		05/21/09	--	--	--	39	--	--	--	--	--	--	--	--	--	--	--	--
		07/01/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NOTES:

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington; Analytical Resources, Incorporated of Tukwila, Washington; and/or Onsite Environmental, Inc. of Redmond, Washington.

[1]Analyzed by EPA Method 354.1.
[2]Analyzed by Standard Method 353.2.
[3]Analyzed by EPA Method 351.1.
[4]Analyzed by EPA Methods 200.7, 200.8, or 6010B and/or Hach Iron Field Test Kit.
[5]Analyzed by Hach Iron Field Test Kit.
[6]Analyzed by EPA Method 350.3
[7]Analyzed by EPA Method 375.4.
[8]Analyzed by EPA Method 376.2.
[9]Analyzed by Analytical Resources Method RSK175.
[10]Analyzed by Standard Method 5310B.
[11]Analyzed by EPA Method 300.0
[12]Analyzed by EPA Method 365.1

-- = not analyzed
< = not detected at concentration exceeding the laboratory practical quantitation limit
µg/L = micrograms per liter
DHC = dehalococcoides
EHC = reactive barrier wall
EPA = United States Environmental Protection Agency
mg/L = milligrams per liter
Standard Method = Standard Method for the Examination of Water and Wastewater
TKN = total kjeldahl nitrogen
TOC = total organic carbon

Table 19
Feasibility Level Cost Estimate
Cleanup Alternative 1
Monitored Natural Attenuation of Shallow Groundwater
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

CAPITAL COST ITEM	QTY	UNIT	UNIT PRICE	COST	TOTALS
Institutional Control					
Negotiate with Ecology and Implement Institutional Control	1	ea	$ 40,000	$ 40,000	
Subtotal				*$ 40,000*	
Contingency					
Scope (20% of construction subtotal)				$ 8,000	
Subtotal				*$ 8,000*	
CONSTRUCTION TOTAL					$ 48,000
Indirect Capital Costs					
Project Management & Administration (18% of construction total)				$ 8,640	
Subtotal				*$ 8,640*	
TOTAL CAPITAL COST					**$ 56,640**

O&M COST ITEM	ANNUAL COST [1]	Present Worth Cost of Annual O&M 5-Year Real Discount Rate = 1.6%
Annual MNA Sampling (4 years)	$ 68,058	$ 261,683
Confirmation Sampling, Analysis, Well Decomissioning and Reporting (Year 5)		$ 35,000
Waste Disposal - Well Purge Water	$ 1,000	$ 4,000
TOTAL PRESENT WORTH OF O&M COST		**$ 296,683**
TOTAL PRESENT WORTH COST OF CLEANUP ALTERNATIVE 1		**$353,323**

ea = each

MNA = monitored natural attenuation

n = number of years of operation and maintenance

O&M = operation and maintenance

QTY = quantity

Table 20
Feasibility Level Cost Estimate
Cleanup Alternative 2
In Situ Treatment of Shallow Groundwater with AS and SVE
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

CAPITAL COST ITEM	QTY	UNIT	UNIT PRICE	COST	TOTALS
Site Work					
Site controls (fencing)	400	lf	$ 7.55	$ 3,020	
Site controls (signage)	30	sf	$ 29.5	$ 885	
Excavate trenches	1	ls	$ 25,000	$ 25,000	
Hauling and disposal of unsuitable fill	68	ton	$ 35	$ 2,380	
Sand fill, dead or bank (not including compaction) under pipe, 6-inch thickness	7	lcy	$ 23	$ 161	
Backfill for trenches, including compaction	43	lcy	$ 44	$ 1,892	
Compact bedding in trench (excludes material)	40	cy	$ 4.96	$ 198	
PVC pipe, 3-inch schedule 40, installed - SVE line	300	lf	$ 26	$ 7,800	
Galvanized pipe, 1-inch schedule 40, installed - AS line	300	lf	$ 18.65	$ 5,595	
Pipe fittings (assume 35% of installed pipe costs)	1	ls	$ 4,688	$ 4,688	
Well vaults, installed	4	ea	$ 1,000	$ 4,000	
Pave gravel area with asphalt, including over trenches (4 inches thick)	167	sy	$ 55	$ 9,167	
Site restoration	1	ls	$ 2,000	$ 2,000	
Subtotal				*$ 66,786*	
Remediation Compound					
Remedial skid with one vapor extraction blower, knockout tank, instrumentation, telemetry (includes cover over system)	1	ls	$ 65,000	$ 65,000	
Electrical work - system master panel; breaker panel, wiring, lighting and controls	1	ls	$ 20,000	$ 20,000	
Subtotal				*$ 85,000*	
CONSTRUCTION SUBTOTAL					$ 151,786
Mobilization, Contingencies and Demobilization					
Mobilization (3% of construction subtotal)				$ 4,554	
Bid (10% of construction subtotal)				$ 15,179	
Scope (15% of construction subtotal)				$ 22,768	
Cleanup and demobilization (3% of construction subtotal)				$ 4,554	
Subtotal				*$ 47,054*	
CONSTRUCTION TOTAL					$ 198,840
Indirect Capital Costs					
Engineering design & permitting (15% of construction total)				$ 29,826	
Engineering construction services (20% of construction total)				$ 39,768	
Subtotal				*$ 69,594*	
TOTAL CAPITAL COST					**$ 268,434**

O&M COST ITEM	ANNUAL COST[1]	Present Worth Cost of Annual O&M Real Discount Rate = 1.6%
		n = 5 years
Monthly Operation and Maintenance (5 years)	$ 29,794	$ 142,078
Quarterly Groundwater Monitoring and Reporting (5 years)	$ 33,964	$ 161,964
Confirmation Sampling, Analysis, Well Decommissioning and Reporting (Year 5)		$ 35,000
TOTAL PRESENT WORTH O&M COST		**$ 339,042**
TOTAL PRESENT WORTH COST OF CLEANUP ALTERNATIVE 2		**$ 607,476**

NOTE:
[1]Annual cost is 2009 year cost.

ea = each
lcy = loose cubic yards
lf = linear feet
ls = lump sum
n = number of years of operation and maintenance
O&M = operation and maintenance
PVC = polyvinyl chloride
QTY = quantity
sf = square feet
sy = square yard

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Table 21
Remedial Alternatives Screening Summary
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

Remedial Alternatives	Remedial Details	Washington State Department of Ecology Evaluation Criteria/Relative Ranking (1 = Low 10 = High) — Weighting Factors for Evaluation Criteria: Protectiveness	Permanence	Effectiveness over the Long Term	Management of Short-Term Risks	Technical and Administrative Implementability	Consideration of Public Concerns[1]	Ranking Score[2]	Cost ($1,000)
1 - Monitored Natural Attenuation of Shallow Groundwater	Groundwater monitoring for natural attenuation.	9	6	5	9	10	8	**7.8**	**$353**
2 - In Situ Treatment of Shallow Groundwater with AS and SVE	In situ treatment of groundwater through the installation of a AS/SVE remediation system.	9	6	5	7	7	6	**6.7**	**$607**

NOTES:
[1]The public comment process has not been initiated for this document; therefore, public concerns have only been evaluated subjectively for these alternatives.
[2]The ranking scores for each alternative are equivalent to the average of the six evaluation criteria.

High (10) = Remedial components are proven under most field conditions and the alternative exhibits a high degree of compliance with the evaluation criterion
Medium (5) = Remedial components are proven under certain conditions and the alternative exhibits a moderate degree of compliance with the evaluation criterion
Low (1) = Remedial components are not reliable or proven and the alternative exhibits a low degree of compliance with the evaluation criterion

AS = air sparge
SVE = soil vapor extraction

CHARTS

Chart 1
Cost and Relative Ranking of Cleanup Alternatives
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

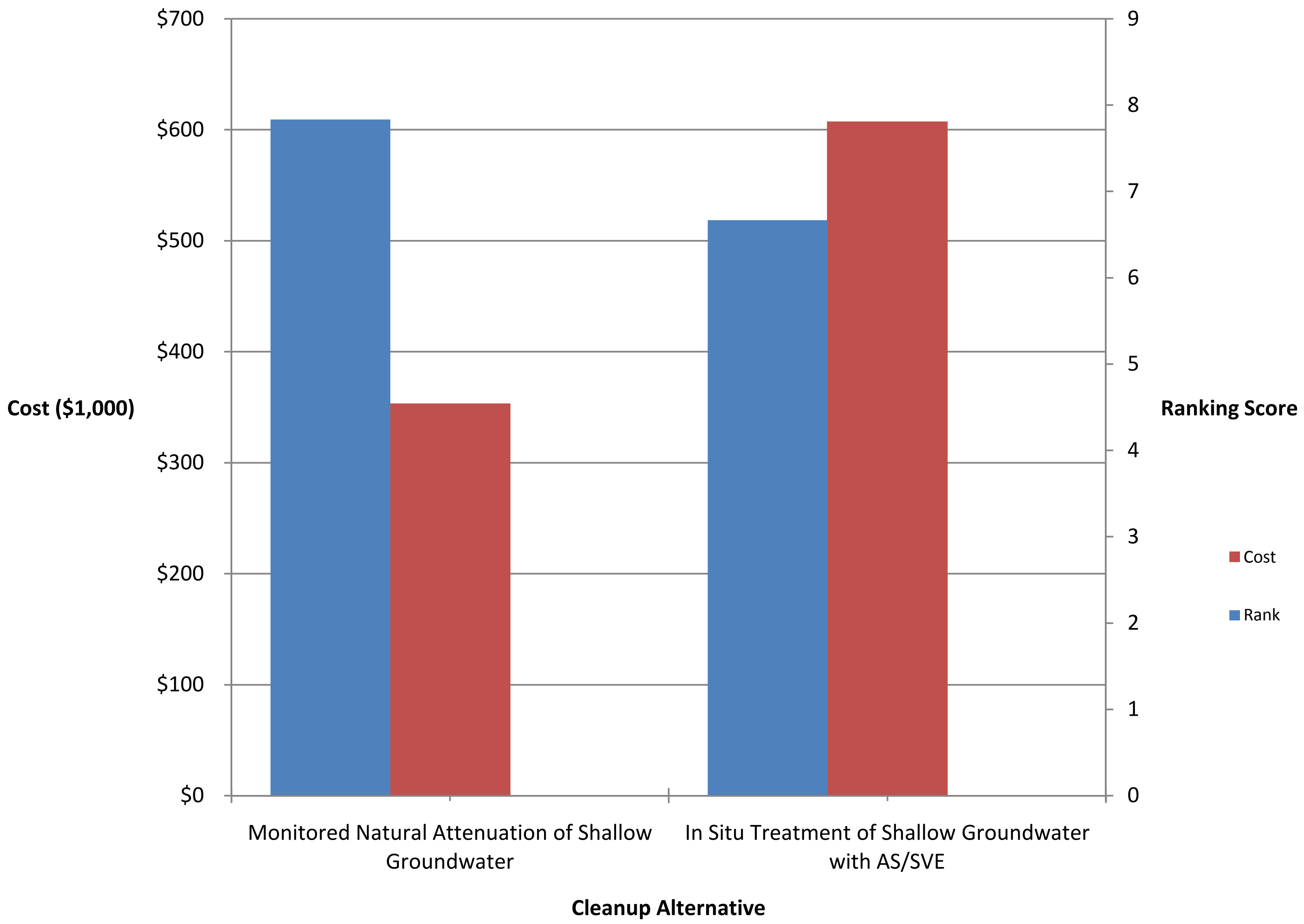
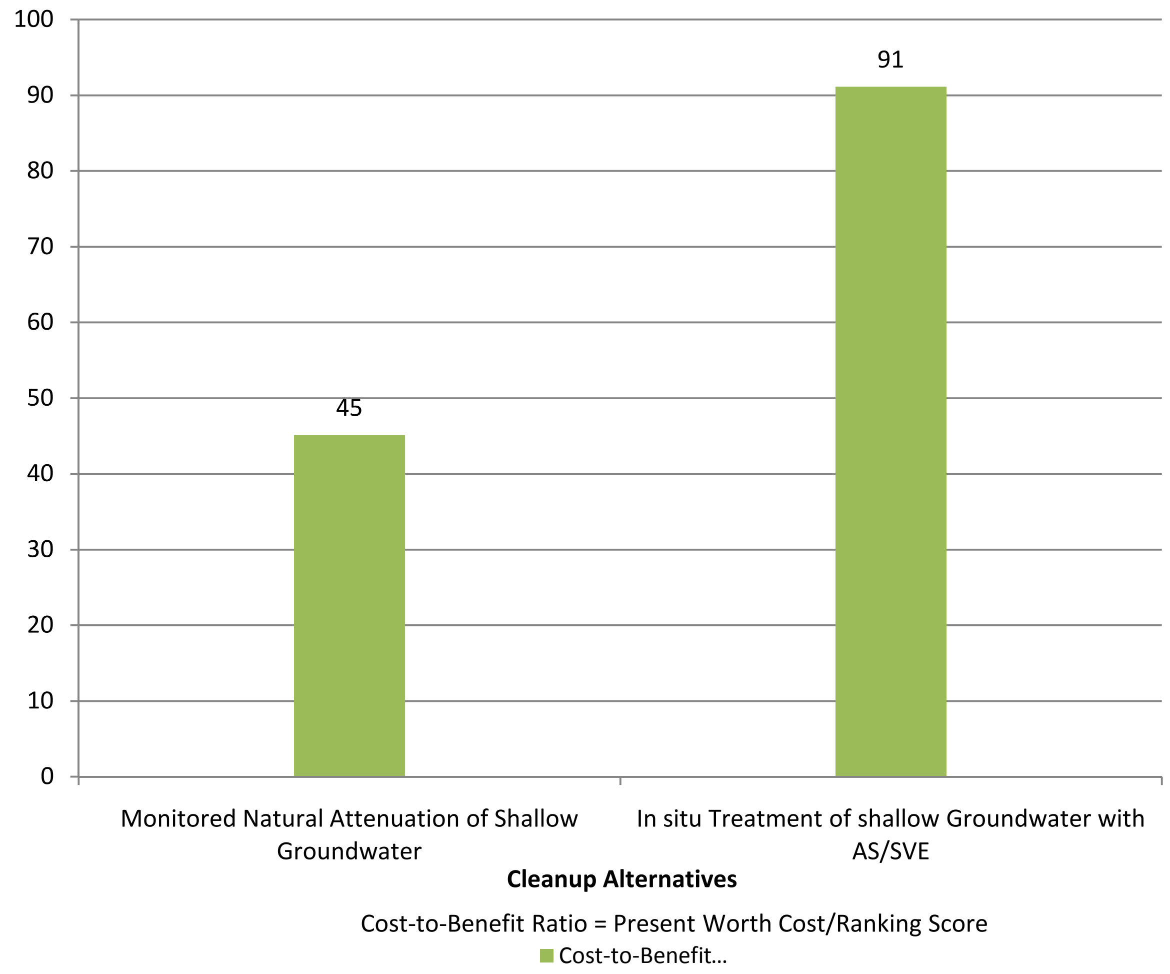


Chart 2
Cost-to-Benefit Ratios for Cleanup Alternatives
Former Pace National Site
500 7th Avenue South
Kirkland, Washington



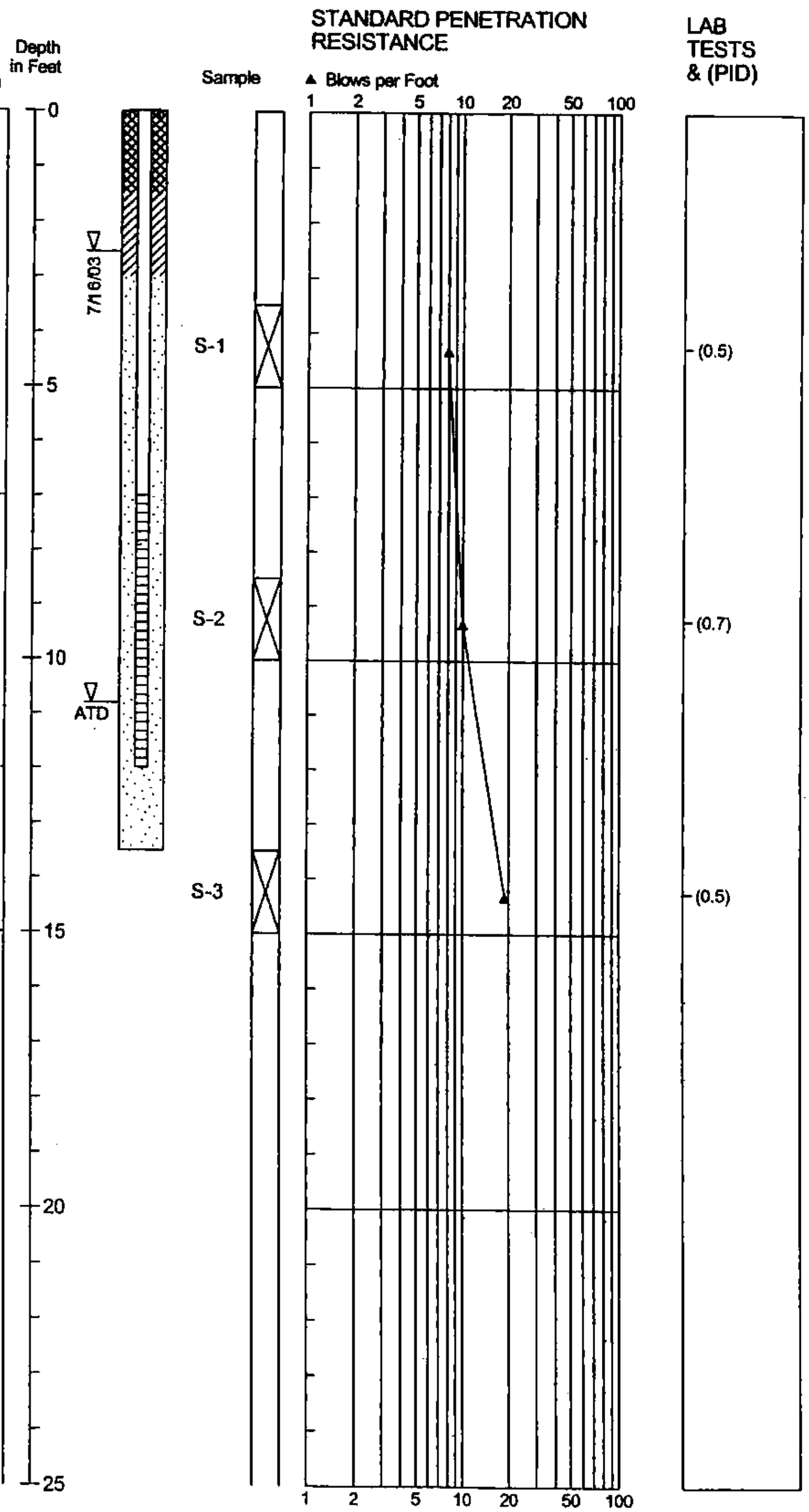
APPENDIX A
Soil Boring and Monitoring Well Logs

Boring Log B-1 & Installation Data for Monitoring Well HC-MW-1

Soil Descriptions
Approximate Ground Surface Elevation in Feet: 110.19

Soil Descriptions	Depth in Feet
Gravel surface over medium stiff, moist, brown, sandy SILT with sand stringers.	0
Stiff, damp to moist, green-brown, sandy SILT.	
Very stiff, damp, blue-gray, slightly sandy SILT with sand stringers.	
Bottom of Boring at 15.0 Feet. Completed 07/14/03.	15

Note: Well installed in 13.5-foot boring drilled adjacent to Boring B-1.
Groundwater sample collected for chemical analysis on 7/18/03.



BORING LOG 794000BL.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-2

Boring Log B-2 & Installation Data for Monitoring Well HC-MW-

Soil Descriptions
Approximate Ground Surface Elevation in Feet: 110.03

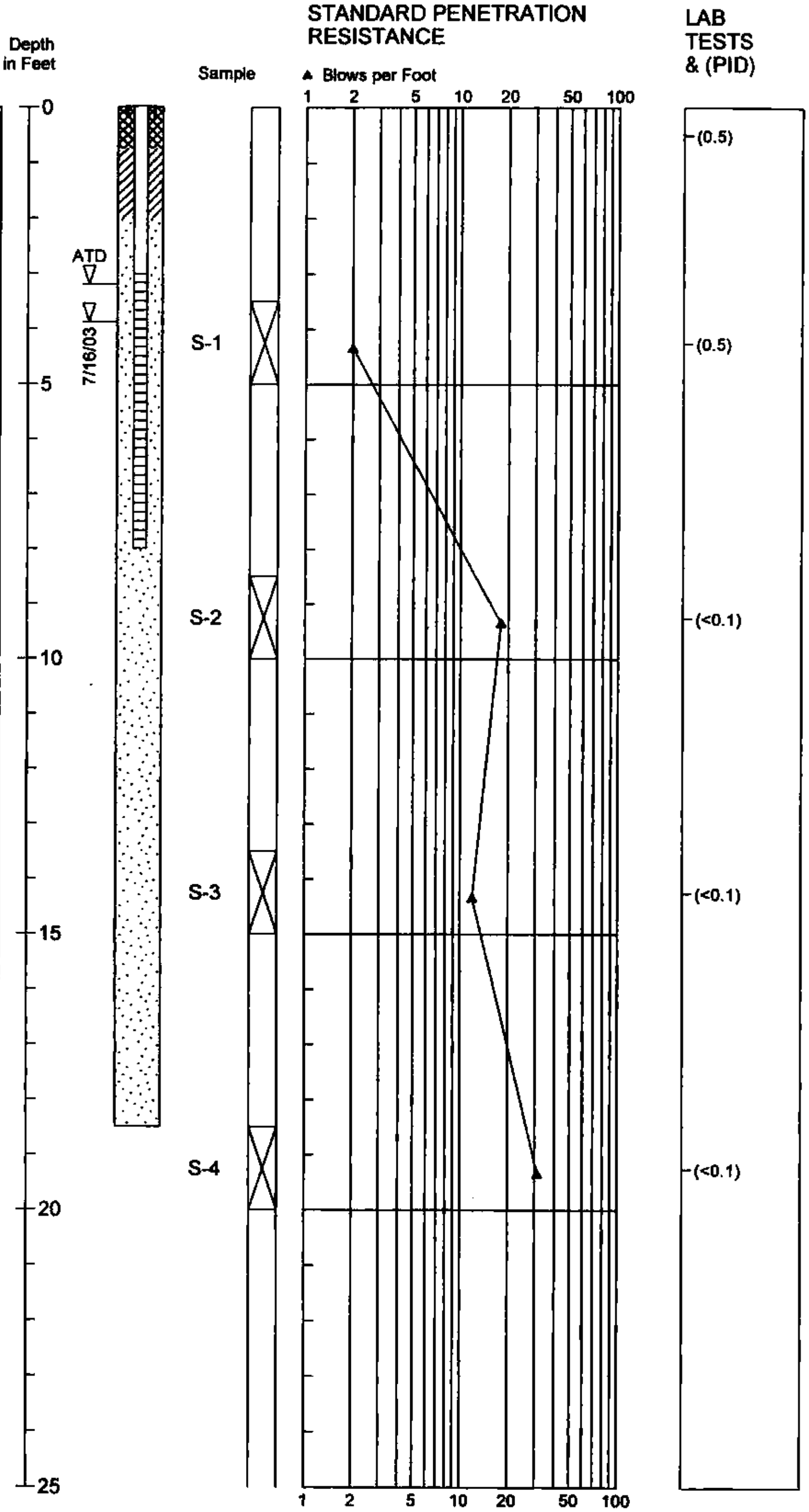
Gravel over very loose, gray-brown, slightly silty, sandy GRAVEL.

Very stiff to stiff, damp, gray-green, slightly sandy to very sandy SILT with brown wood and organic material throughout.

Hard, dry to damp, gray-green, slightly sandy SILT.

Bottom of Boring at 20.0 Feet.
Completed 07/14/03.

Note: Well installed in 18.5-foot boring drilled adjacent to Boring B-2.
Groundwater sample collected for chemical analysis on 7/18/03.



BORING LOG 794000BL.GPJ HC_CORP.GDT 5/23/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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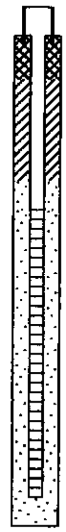
Figure A-3 1/2

Monitoring Well Log HC-MW-2R Construction

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS
Gravel over very loose, gray-brown, slightly silty, sandy GRAVEL.	0		
Very stiff to stiff, damp, gray-green, slightly sandy to very sandy SILT with brown wood and organic material throughout.	5		
Bottom of Boring at 8.5 Feet. Completed 10/29/03. Note: Well installed as replacement of HC-MW-2 destroyed during excavation. Groundwater sample collected for chemical analysis on 11/7/03. Groundwater sample collected for chemical analysis on 3/4/04.	10 15 20 25		



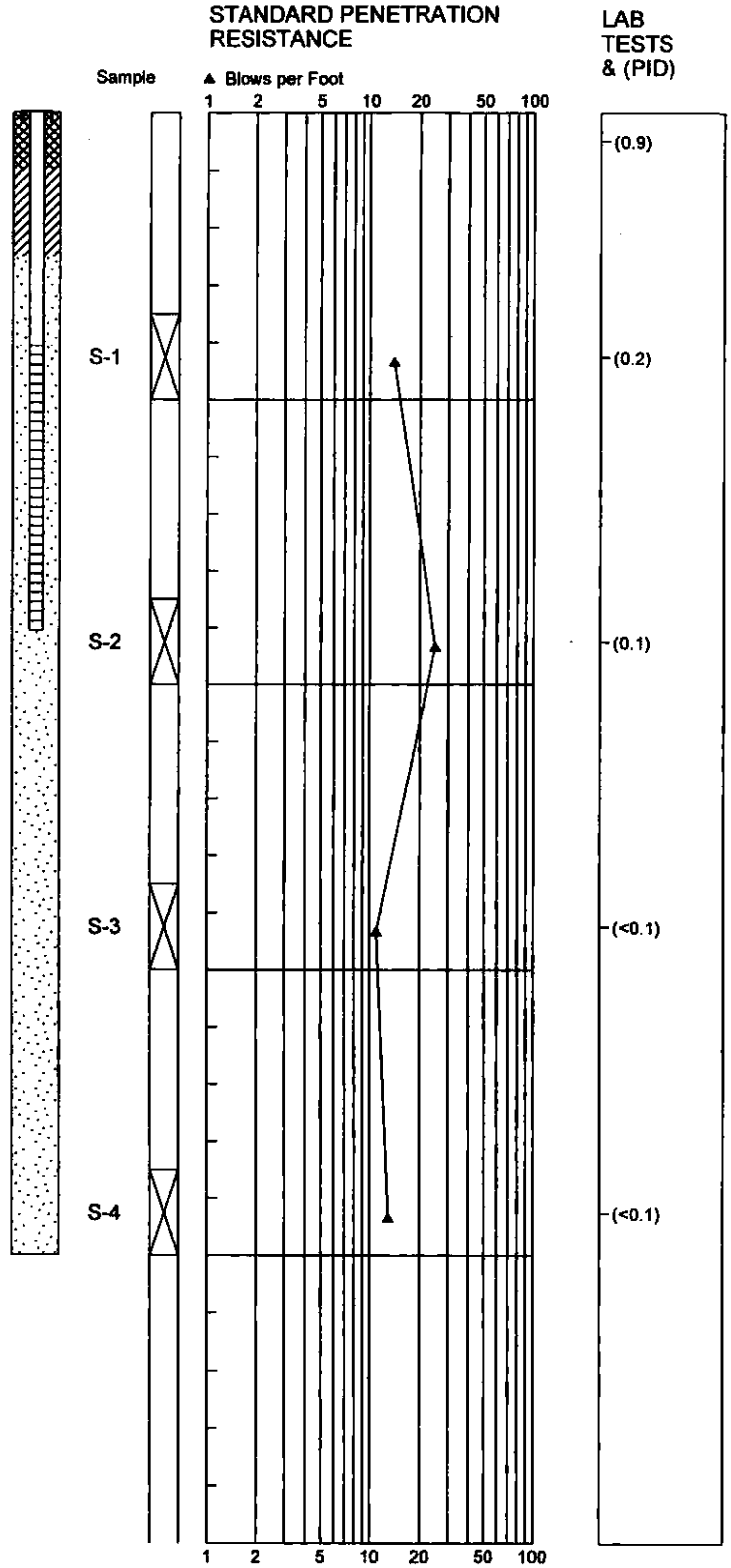
STRATAPROBE 794000BL.GPJ HC_CORP.GDT 5/23/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Boring Log B-3 & Installation Data for Monitoring Well HC-MW-3

Soil Descriptions
Approximate Ground Surface Elevation in Feet: 100.00

Soil Descriptions	Depth in Feet
3 inches of Asphalt over dry, silty SAND.	0
Medium dense, dry to damp, brown, silty, fine SAND with scattered gravel.	5
Very stiff, damp, light brown, sandy SILT with sand stringers.	10
Stiff, damp, blue-gray SILT.	15
Bottom of Boring at 20.0 Feet. Completed 07/15/03.	20
Note: Well installed in 20-foot boring drilled adjacent to Boring B-3. Well dry on 7/18/03. Groundwater sample collected for chemical analysis on 3/5/04.	25



BORING LOG 794000BL.GPJ HC_CORP.GDT 5/23/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-4

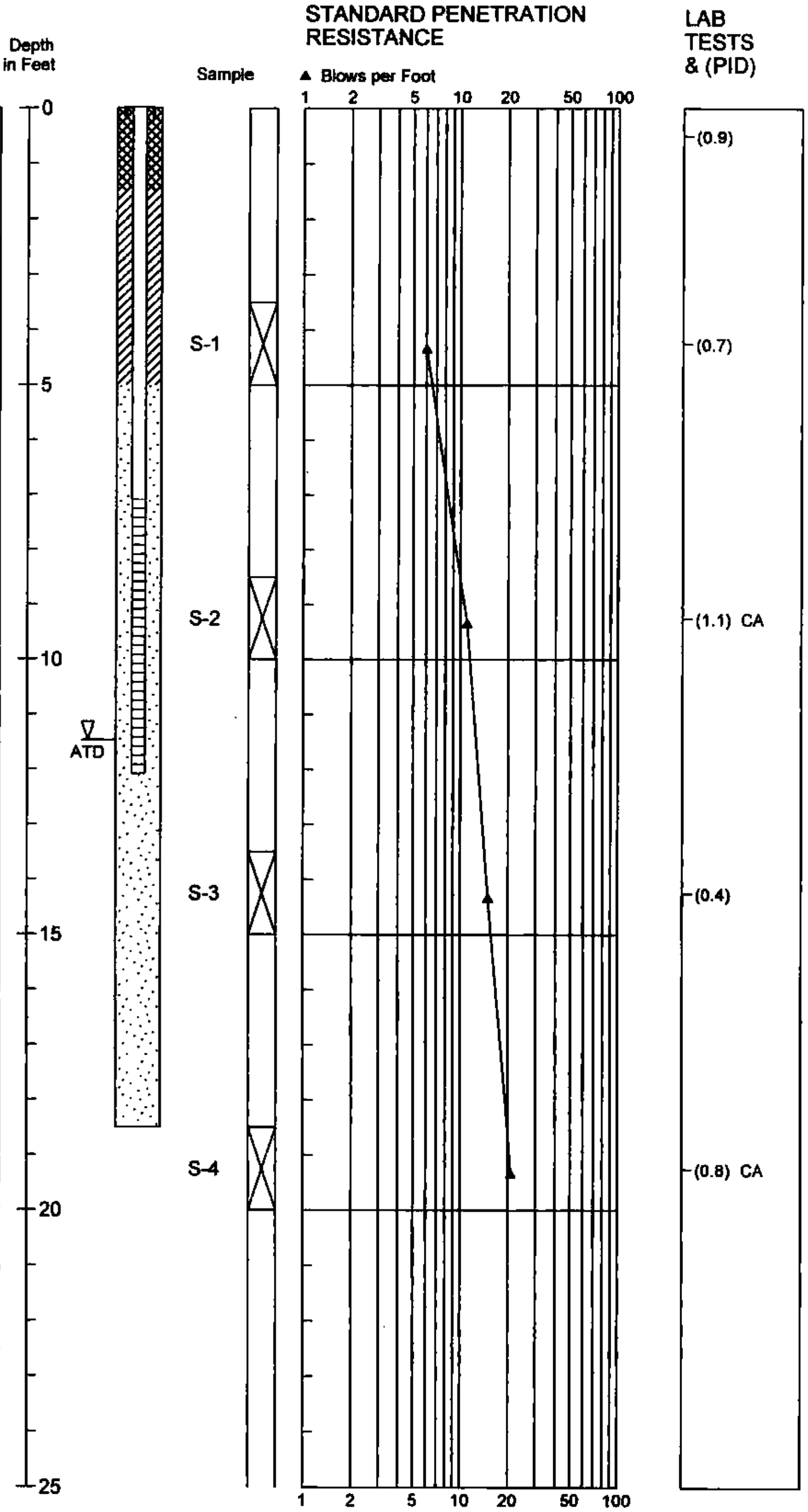
Boring Log B-4 & Installation Data for Monitoring Well HC-MW-4

Soil Descriptions
Approximate Ground Surface Elevation in Feet: 103.80

Depth in Feet

Depth (ft)	Soil Description
0	2 inches of Asphalt over damp, silty SAND.
	Loose, damp, brown, slightly gravelly, slightly silty SAND with faint plastic-like odor.
	Grading to gray-blue, gravelly, silty SAND.
	Stiff, damp, brown, slightly sandy SILT.
	Medium dense, moist, gray SAND.
	Stiff, damp, brown SILT with sand stringers and red oxide staining.
	Very stiff, dry to damp, blue-gray SILT with ash and charcoal.
20	Bottom of Boring at 20.0 Feet. Completed 07/15/03.

Note: Well installed in 18-5-foot boring drilled adjacent to Boring B-4. Well bailed dry on 7/18/03.
Groundwater sample collected for chemical analysis on 3/5/04.



BORING LOG 794000BL.GPJ HC_CORP.GDT 5/23/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-5

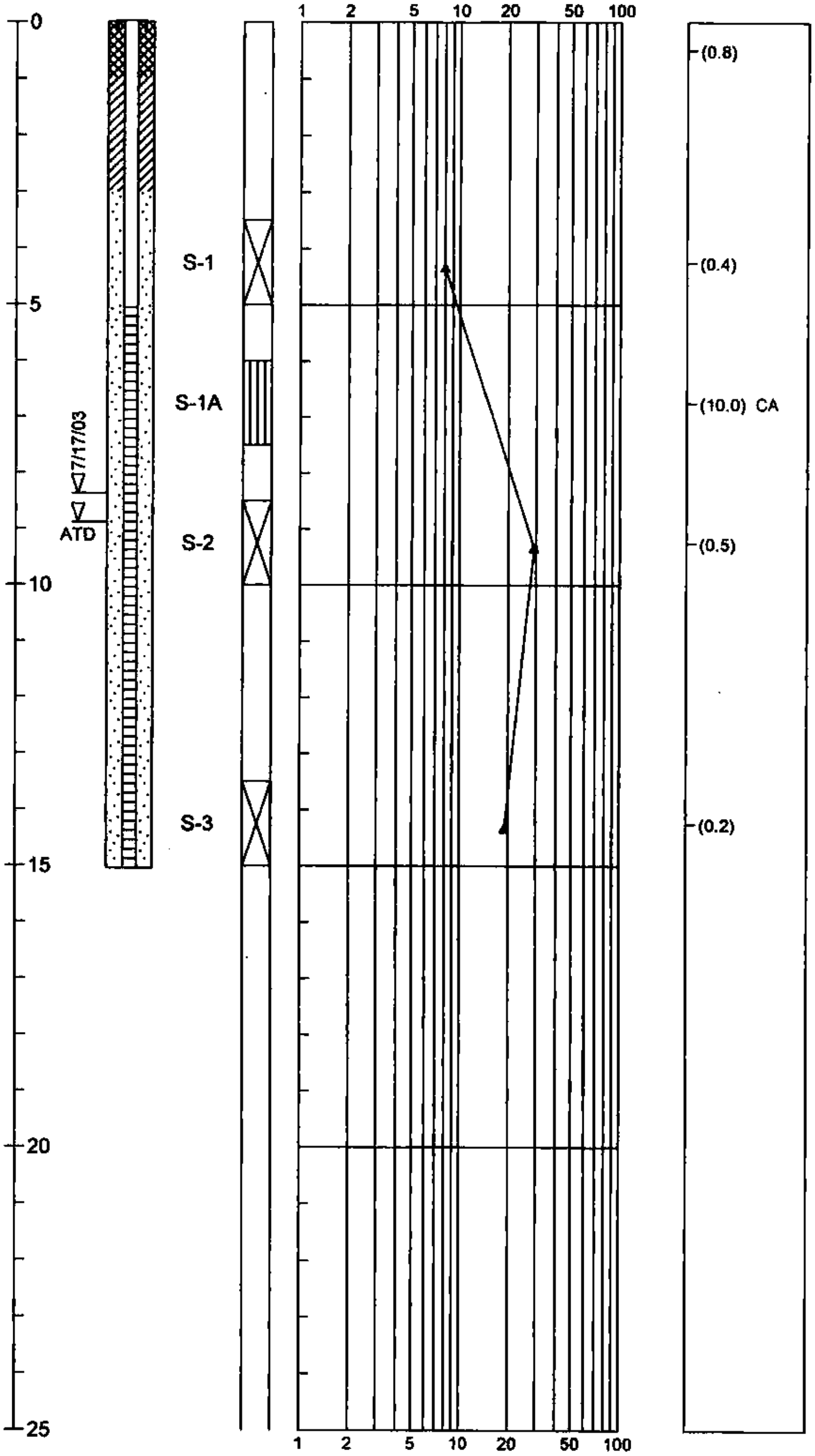
Boring Log B-5 & Installation Data for Monitoring Well HC-MW-

Soil Descriptions
Approximate Ground Surface Elevation in Feet: 106.20

Depth in Feet

Depth in Feet	Soil Descriptions
0	Grass at surface over stiff, damp, blue-gray, slightly sandy to sandy SILT with scattered gravel.
	Diesel-like odor.
	Medium dense, dry to damp, brown, very silty SAND.
	Very stiff, dry, blue-gray, sandy SILT.
	Very dense, wet, gravelly SAND.
15	Bottom of Boring at 15.0 Feet. Completed 07/14/03.

Note: Well installed in 15-foot boring drilled adjacent to Boring B-5.
Groundwater sample collected for chemical analysis on 7/18/03.



BORING LOG 794000BL.GPJ HC_CORP.GDT 5/23/08

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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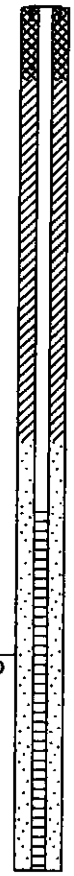
Figure A-6

Strataprobe Log SP-34 & Data for Mini Well HC-MW-6

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS & (PID)
(Medium dense), moist, brown, slightly silty, very sandy GRAVEL.	0		
		S-1	(<0.1)
	5		
		S-2	(<0.1)
Woody debris.			
(Medium dense), wet, gray SAND.	ATD		
	10	S-3	(<0.1) CA
(Medium dense), moist, gray, very silty, fine SAND.			
(Medium dense), wet, gray SAND.			
		S-4	(0.7)
(Medium dense), moist, gray-brown mottled, very silty, fine SAND.			
Bottom of Boring at 15.0 Feet. Completed 03/04/04. Note: Mini well consisting of sand-packed 3/4-inch-diameter screen installed and groundwater sample collected for chemical analysis on 3/5/04.	15		
	20		



STRATAPROBE 794000ST2.GPJ HC_CORP.GDT 5/23/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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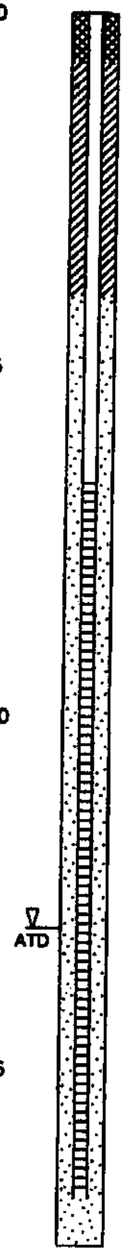
7940-00 03/04

Figure A-7

Boring Log/Construction Data Monitoring Well HC-MW-7

Soil Descriptions	Depth in Feet
(Loose), moist, brown, organic silty SAND with abundant roots and organic material.	0
(Loose), dry, brown, slightly silty SAND.	
Trace of Gravel.	
Drill action indicates Gravel.	5
(Loose to soft), damp, light brown, very silty SAND to very sandy SILT.	
(Stiff to very stiff), damp, brown-gray, slightly gravelly, fine sandy SILT.	10
Grading moist.	
	15
Bottom of Boring at 17.5 Feet. Completed 06/15/05.	
Boring drilled unsampled; soil descriptions based on auger cuttings. Monitoring well screen and riser 1-inch diameter.	20



Sample

STANDARD PENETRATION RESISTANCE

▲ Blows per Foot

1 2 5 10 20 50 100

LAB TESTS

BORING LOG 794000-BL.GPJ HC_CORP.GDT 5/23/05

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

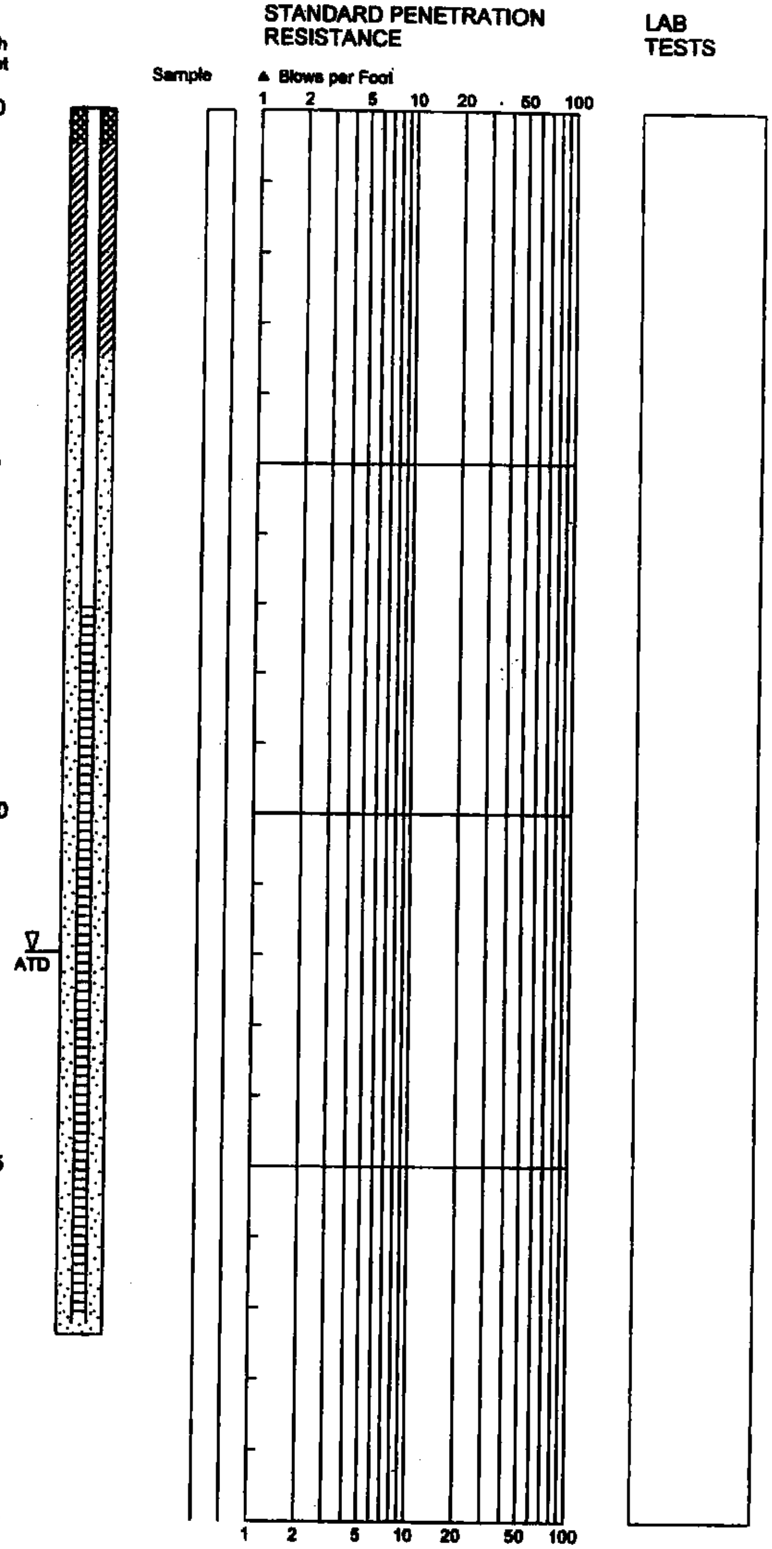
HARTCROWSER

7940-00 06/05

Figure A-8

Boring Log/Construction Data Monitoring Well HC-MW-8

Soil Descriptions	Depth in Feet
(Loose), damp, brown, organic silty SAND with abundant roots and organic material.	0
(Loose), dry, brown, slightly silty SAND.	
Rough drill action indicates Gravel. Drill refusal on Cobbles/Boulder. Pulled auger and moved boring location.	5
Moist to wet, light brown, slightly gravelly, silty SAND.	10
	15
Bottom of Boring at 17.5 Feet. Completed 06/15/05.	
Boring drilled unsampled; soil descriptions based on auger cuttings. Monitoring well screen and riser 1-inch diameter.	20



BORING LOG 794000-BL.GPJ HC_CORP.GDT 5/23/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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7940-00 06/05

Figure A-9

Boring Log/Construction Data Monitoring Well HC-MW-9

Soil Descriptions

(Loose), moist, brown, organic silty SAND with abundant roots and organic material.

(Loose), dry to damp, slightly silty, slightly gravelly SAND.

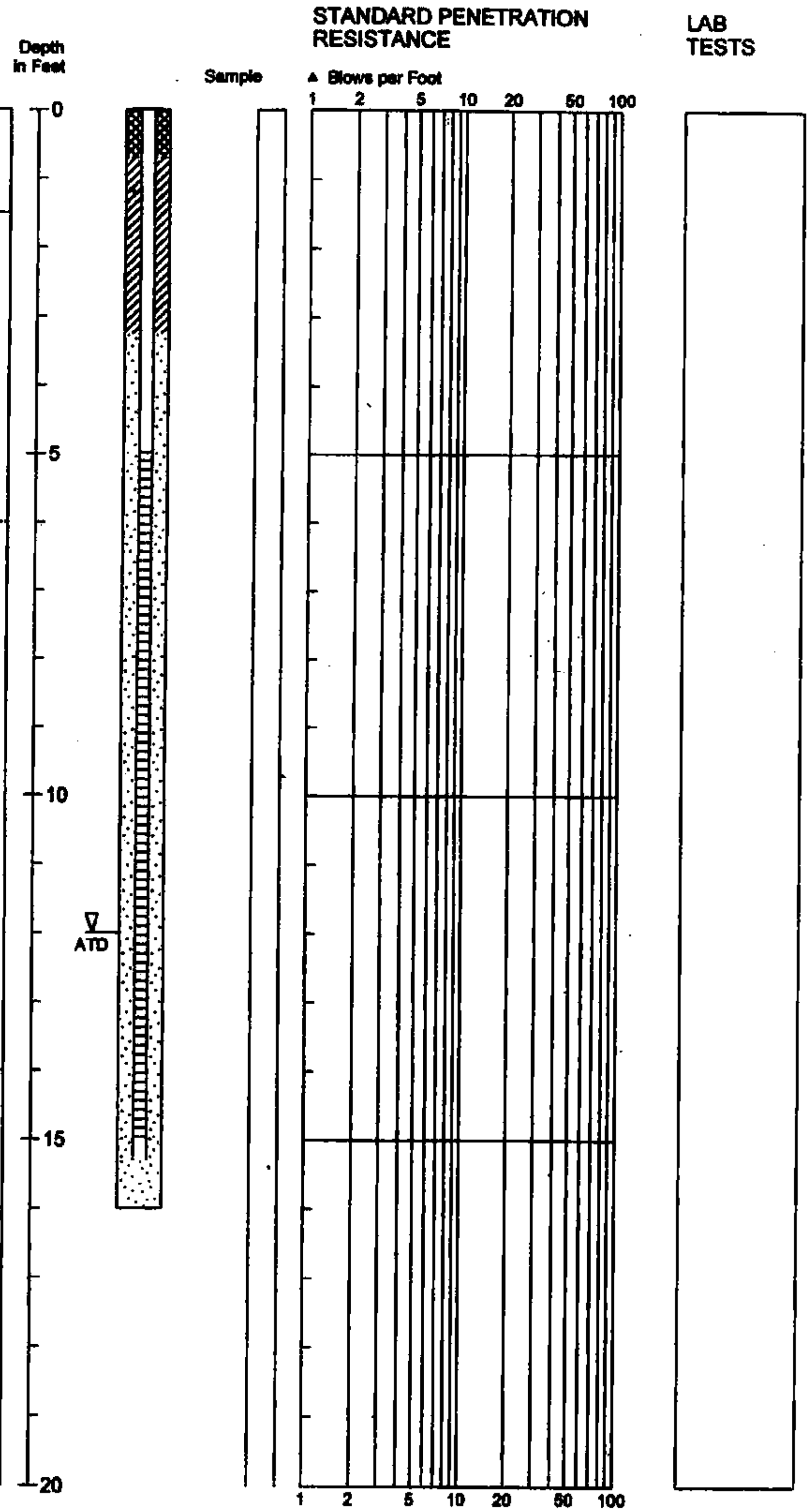
(Medium stiff to stiff to loose), wet, light brown, sandy SILT to silty SAND.

Easy drilling.

(Very stiff to hard), wet, brown-gray, slightly gravelly, sandy SILT.

Bottom of Boring at 16.0 Feet.
Completed 06/15/05.

Boring drilled unsampled; soil descriptions based on auger cuttings. Monitoring well screen and riser 2-inch diameter.



BORING LOG 794000-BL.GPJ HC_CORP.GDT 5/23/05

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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7940-00 06/05

Figure A-10

Boring Log/Construction Data Monitoring Well HC-MW-10

Soil Descriptions

(Loose), moist, brown, organic silty SAND with abundant roots and organic material.

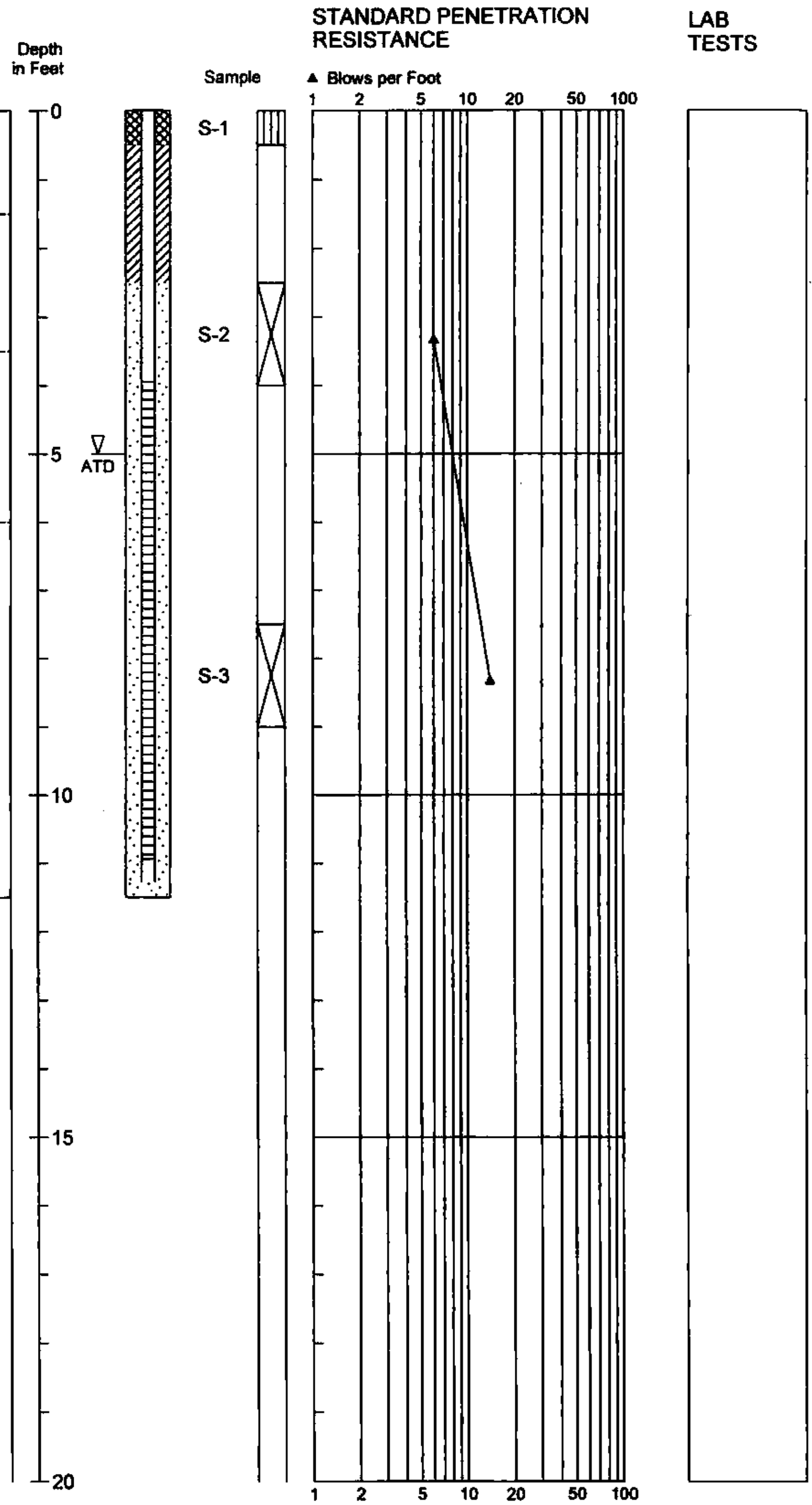
(Very loose), wet brown, very silty SAND.

(Soft), damp to moist, light brown, slightly sandy, slightly clayey SILT.

(Stiff), wet, blue-gray, gravelly, sandy SILT.

Refusal.
Bottom of Boring at 11.5 Feet.
Completed 06/15/05.

Monitoring well screen and riser 2-inch diameter.



BORING LOG 794000-BL.GPJ HC_CORP.GDT 5/23/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-11

Strataprobe Log HC-MW-11

Soil Descriptions	Depth in Feet
2 inches of Asphalt over dry to damp, brown, gravelly, silty, fine SAND.	0
Damp, red-brown, very sandy GRAVEL.	
Damp, gray, very gravelly, silty, fine SAND.	
Damp, gray-blue, fine, sandy SILT.	
Damp, light brown, sandy to fine sandy SILT with abundant wood and burnt wood.	5
Damp, brown, gravelly, sandy to fine sandy SILT with abundant wood and burnt wood.	
Damp, red-brown, slightly gravelly, medium SAND with scattered wood.	10
Damp, gray-brown, gravelly SAND.	
Dry to damp, blue-gray, slightly sandy SILT.	
Wet, gray, slightly gravelly, medium SAND.	15
Moist to wet, brown, very silty, fine SAND.	
Dry to damp, brown SILT.	
Bottom of Boring at 19.0 Feet. Completed 01/09/06.	20

Groundwater: ATD

Sample: S-1, S-2, S-3, S-4, S-5

STANDARD PENETRATION RESISTANCE

▲ Blows per Foot

1 2 5 10 20 50 100

LAB TESTS

BORING LOG 794000-BL.GPJ HC_CORP.GDT 5/23/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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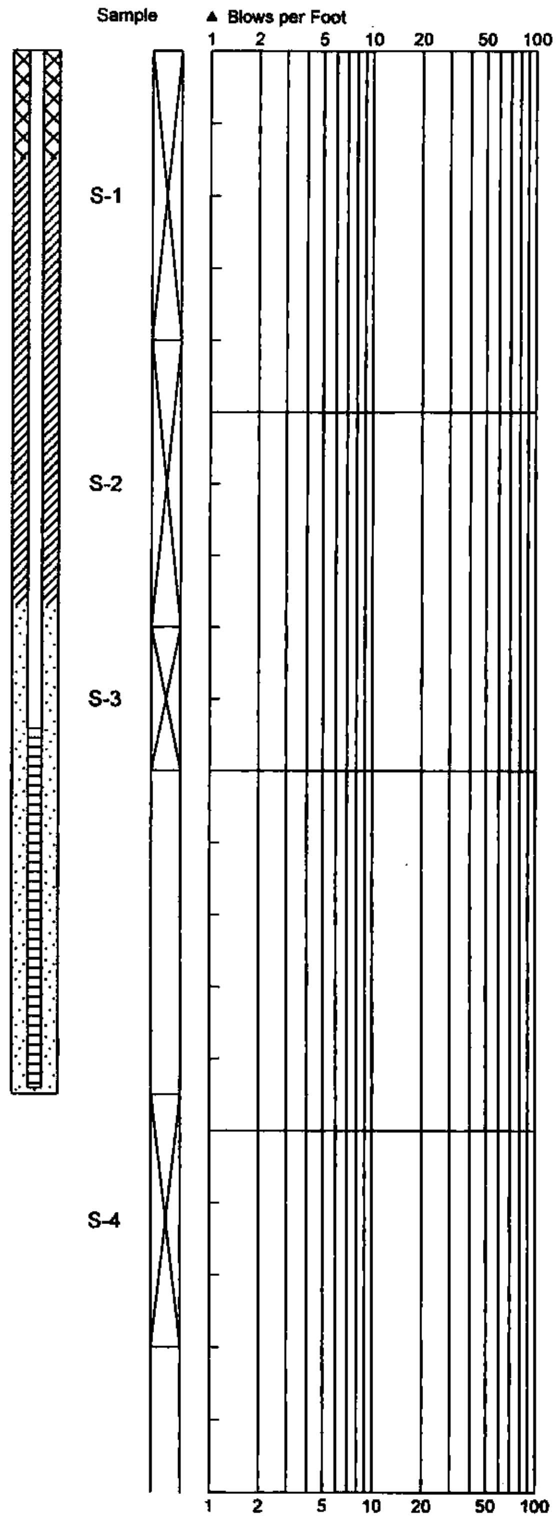
7940-00 01/06

Figure A-12

Strataprobe Log HC-MW-12

Soil Descriptions	Depth in Feet
1.5 inches of Asphalt over dry, brown, gravelly, silty, fine SAND.	0
Damp, brown, gravelly, silty, fine SAND with scattered sandy SILT layers.	5
Damp, dark brown, slightly fine sandy, slightly gravelly organic SILT.	
Brown SILT with wood.	
Damp, brown, slightly gravelly SAND.	
Damp, brown, gravelly, silty, fine SAND with wood.	
Damp, blue-green, gravelly, silty, fine to medium SAND.	
No recovery. Sampler piston did not function.	10
Wet, gray, gravelly SAND.	
Damp, brown, clayey SILT.	15
Bottom of Boring at 18.0 Feet. Completed 01/09/06.	20



LAB TESTS

BORING LOG 79400-BL.GPJ HC_CORP.GDT 5/23/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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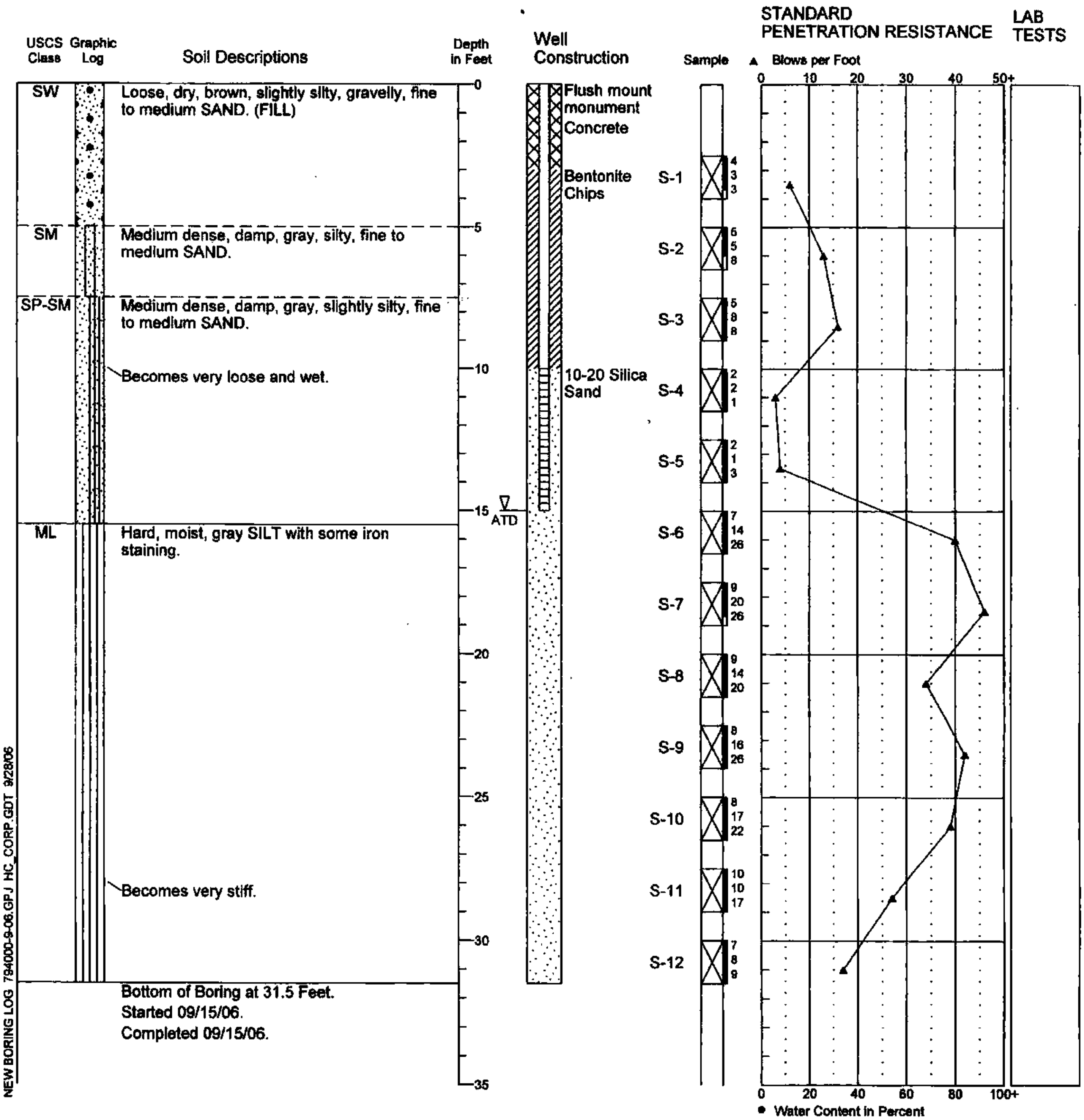
7940-00 *01/06*

Figure A-13

Boring Log & Construction Data for Monitoring Well HC-MW-13

Location:
Approximate Ground Surface Elevation: 160 Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: Hollow Stem Auger Split Spoon
Hammer Type:
Hole Diameter: 8 inches
Logged By: AJG/PRC Reviewed By: R. Jensen



1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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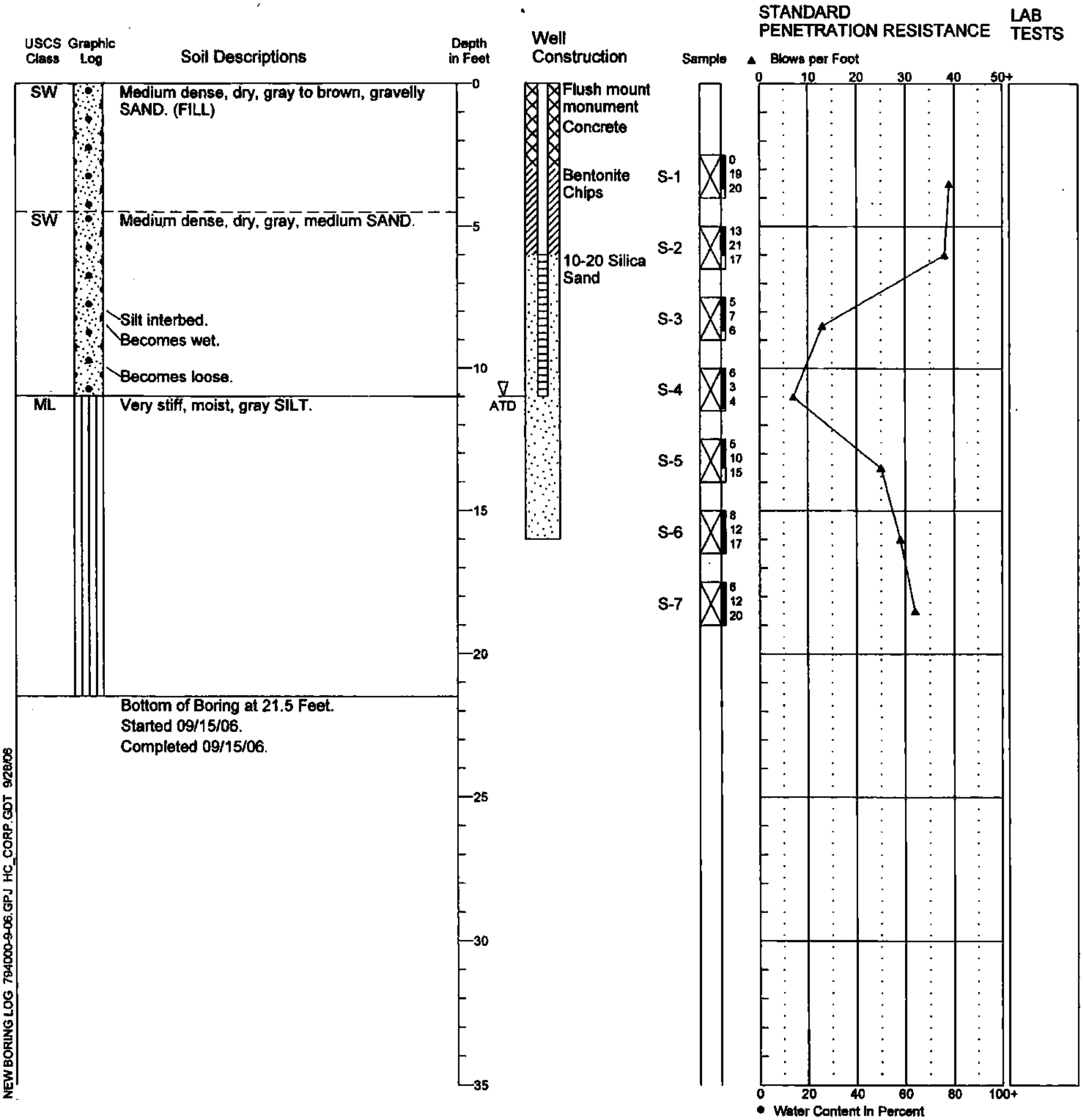
7940-00 9/06

Figure A-3

Boring Log & Construction Data for Monitoring Well HC-MW-14

Location:
Approximate Ground Surface Elevation: 160 Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: Hollow Stem Auger Split Spoon
Hammer Type:
Hole Diameter: 8 inches
Logged By: AJG/PRC Reviewed By: R. Jensen



NEW BORING LOG 794000-9-06.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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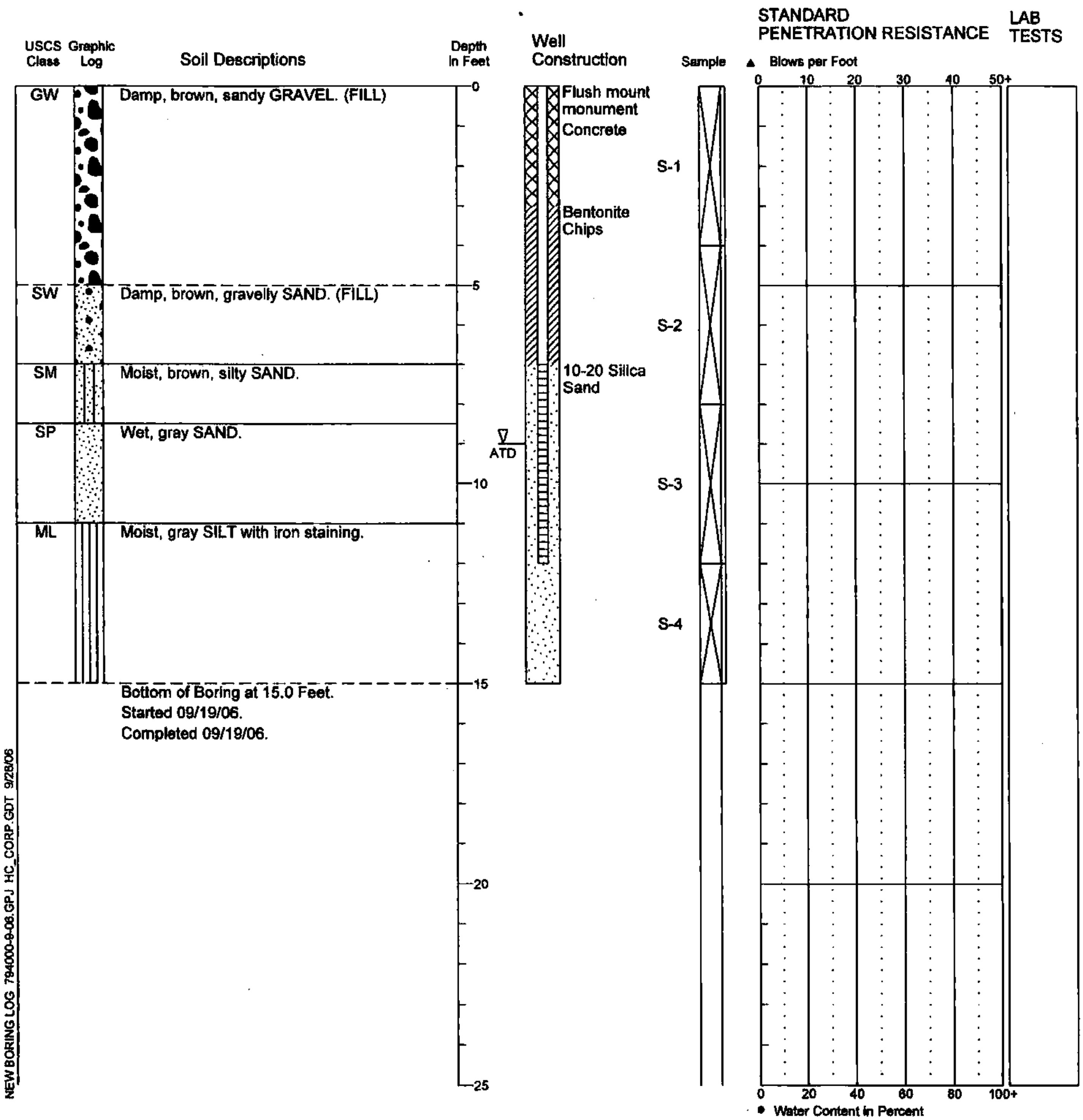
7940-00 9/06

Figure A-4

Strataprobe Log HC-MW-15

Location:
Approximate Ground Surface Elevation: 160 Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: 4' Acetate Liner
Hammer Type:
Hole Diameter: 2 inches
Logged By: AJG/PRC   Reviewed By: R. Jensen



1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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7940-00   9/06

Figure A-16

Strataprobe Log HC-MW-16

Location:
Approximate Ground Surface Elevation: 160 Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: 4' Acetate Liner
Hammer Type:
Hole Diameter: 2 inches
Logged By: AJG/PRC Reviewed By: R. Jensen

USCS Class	Soil Descriptions	Depth In Feet	Well Construction	Sample
GW	Damp, brown, sandy GRAVEL. (FILL)	0	Flush mount monument; Concrete; Bentonite Chips	S-1
				S-2
SM	Damp, brown, silty SAND.	5		
SP	Moist to wet, gray, fine to medium SAND.		10-20 Silica Sand	S-3
		▽ ATD		
ML	Moist, gray SILT with iron staining.	10		S-4
	Bottom of Boring at 12.0 Feet. Started 09/19/06. Completed 09/19/06.	12		

Depth In Feet: 0, 5, 10, 15, 20, 25

STANDARD PENETRATION RESISTANCE
▲ Blows per Foot: 0, 10, 20, 30, 40, 50+
● Water Content in Percent: 0, 20, 40, 60, 80, 100+

LAB TESTS

NEW BORING LOG 794000-9-06.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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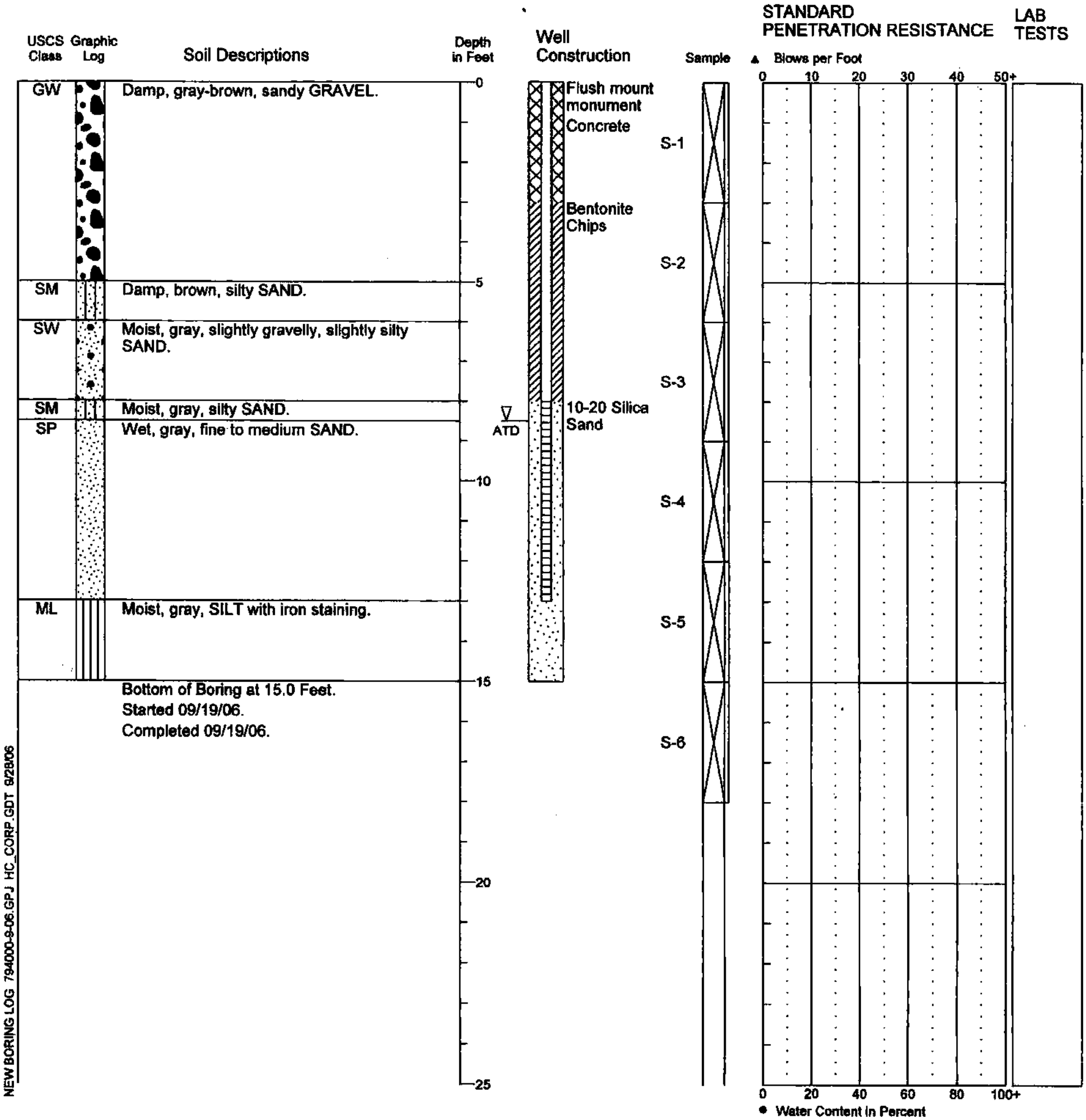
Figure A-17

Strataprobe Log HC-MW-17

Location:
Approximate Ground Surface Elevation: 160 Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: 4' Acetate Liner
Hammer Type:
Hole Diameter: 2 inches
Logged By: PRC Reviewed By: R. Jensen



1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-18

Boring Log & Construction Data for Monitoring Well HC-MW-18

Location:
Approximate Ground Surface Elevation: 160 Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: Hollow Stem Auger Split Spoon
Hammer Type:
Hole Diameter: 8 inches
Logged By: AJG/PRC Reviewed By: R. Jensen

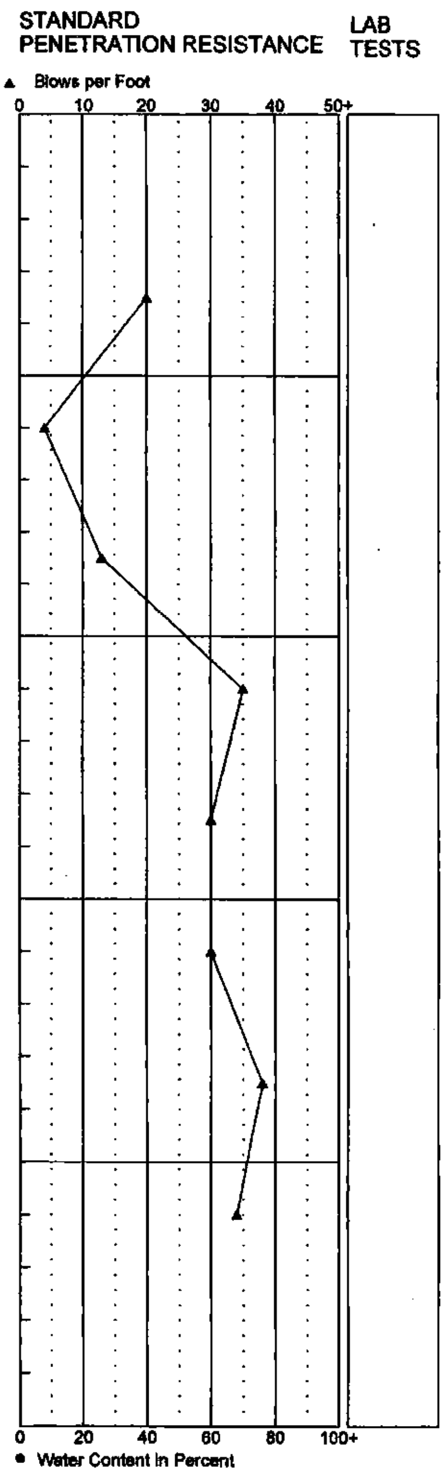
USCS Class	Soil Descriptions	Depth in Feet
GW	Medium dense, damp, brown, sandy GRAVEL. (FILL)	0
SM	Very loose to loose, wet, gray, silty SAND.	5
SP	Very loose to loose, wet, gray, fine to medium SAND.	
ML	Stiff to hard, moist, gray SILT with iron staining.	

Bottom of Boring at 21.5 Feet.
Started 09/21/06.
Completed 09/21/06.

No groundwater encountered.

Well Construction: Flush mount monument; Concrete; Bentonite Chips; 10-20 Silica Sand

Sample	Blows
S-1	1, 4, 16
S-2	0, 0, 4
S-3	2, 5, 8
S-4	6, 15, 20
S-5	8, 12, 18
S-6	7, 12, 18
	8, 16, 22
	4, 5, 29



NEW BORING LOG 794000-9-06.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Strataprobe Log and Data for Monitoring Well HC-MW-19

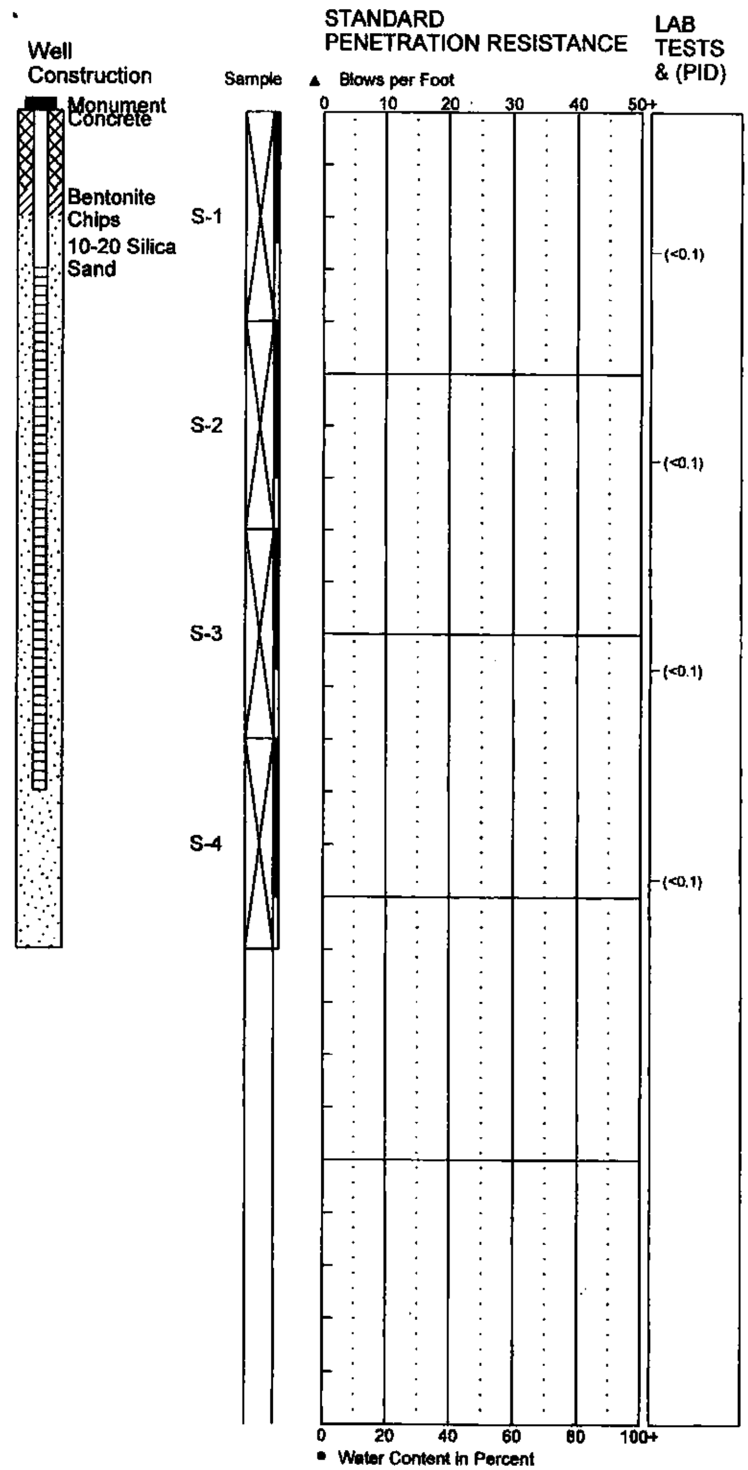
Location:
Approximate Ground Surface Elevation: 160 Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: Geoprobe (Direct Push)
Hammer Type:
Hole Diameter: 1.5 inches
Logged By: P. Cordell/A. Patel   Reviewed By: G. Both

USCS Class	Soil Descriptions	Depth in Feet
SM/GM	(Loose), dry to damp, light brown, very sandy GRAVEL.	0
MLS	(Medium stiff), damp to moist, gray to brown, very gravelly, very sandy SILT.	
SM/GM	(Loose to medium dense), damp to moist, gray to brown, silty, sandy GRAVEL.	
ML	(Soft), damp, gray, sandy, gravelly SILT.	10
ML	(Very stiff), dry, gray, sandy SILT to SILT.	15

Bottom of Boring at 16.0 Feet.
Started 01/23/07.
Completed 01/23/07.

Miniwell (prepacked, 10-foot-long, 3/4-inch inside diameter, 10-slot screen) installed from a depth of 3 to 13 feet.



NEW BORING LOG 794000-2-07.GPJ HC_CORP.GDT 4/18/07

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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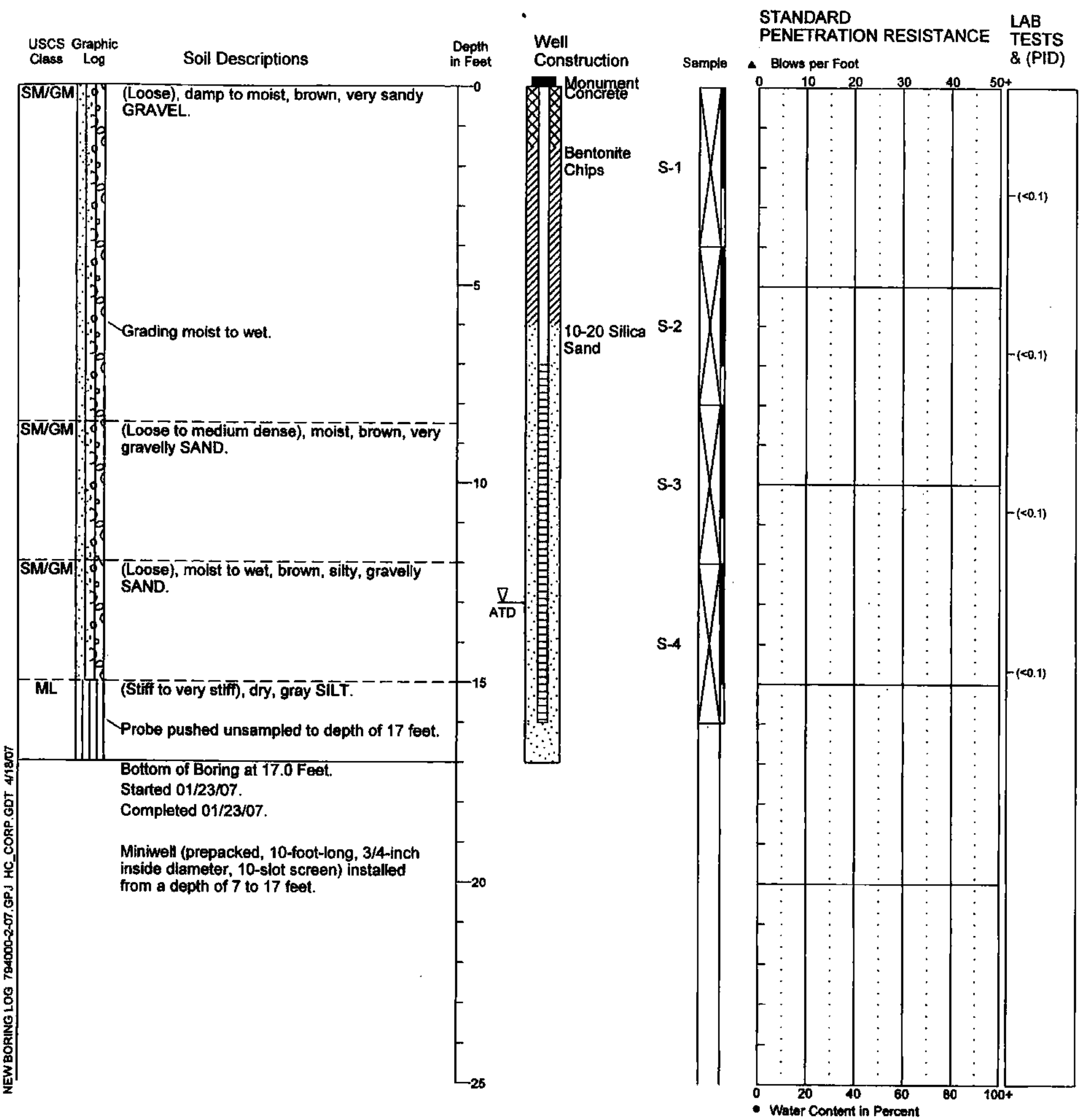
Figure A-2

Strataprobe Log and Data for Monitoring Well HC-MW-20

Location:
Approximate Ground Surface Elevation: 160 Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: Geoprobe (Direct Push)
Hammer Type:
Hole Diameter: 1.5 inches
Logged By: P. Cordell/A. Patel Reviewed By: G. Both



1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-3

Strataprobe Log and Data for Monitoring Well HC-MW-21

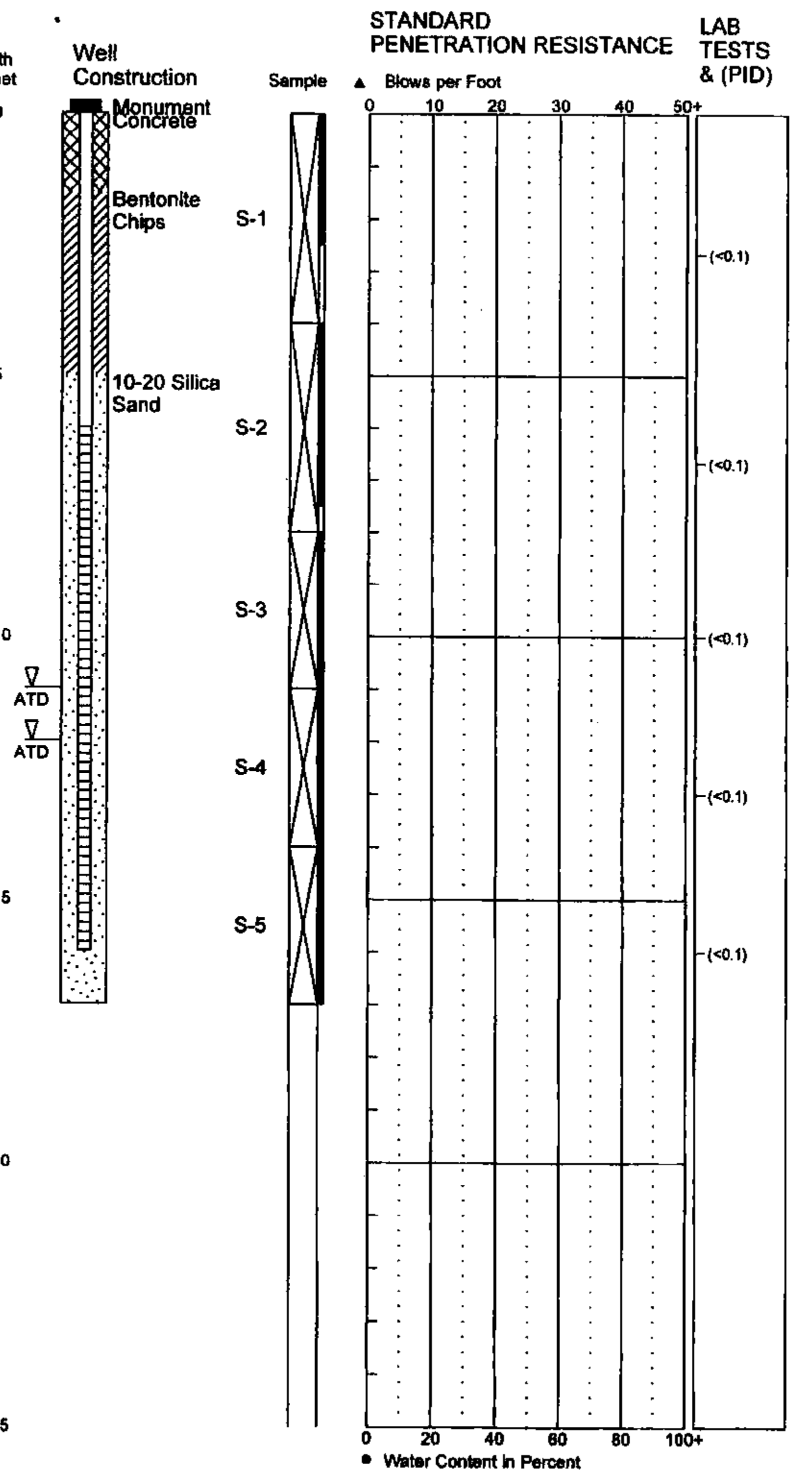
Location:
Approximate Ground Surface Elevation: 160 Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: Geoprobe (Direct Push)
Hammer Type:
Hole Diameter: 1.5 inches
Logged By: P. Cordell/A. Patel Reviewed By: G. Both

USCS Class	Soil Descriptions	Depth in Feet
SM/GM	(Medium dense to dense), damp, brown, gravelly SAND.	0
SM/GM	(Medium dense to dense), dry to damp, brown to gray, gravelly SAND with trace of silt.	
SM/GM	(Dense), dry to damp, gray, gravelly SAND.	5
SM/GM	(Medium dense to dense), damp, brown, gravelly SAND with trace of organic material.	
SM	(Dense), damp, brown to gray, gravelly, silty SAND with trace of organic material and white rock.	
SM	(Loose), dry, light brown to black SAND.	
SM	(Dense), damp, gray grading brown, slightly gravelly, silty SAND.	10
SM	(Loose), wet, gray, slightly silty SAND grading to (dense), dry, green-brown mottled, silty SAND to sandy SILT.	
SM	(Loose to medium dense), damp, gray, slightly silty SAND grading to (stiff), dry, gray, sandy SILT.	15

Bottom of Boring at 17.0 Feet.
Started 01/23/07.
Completed 01/23/07.

Miniwell (prepacked, 10-foot-long, 3/4-inch inside diameter, 10-slot screen) installed from a depth of 6 to 16 feet.



NEW BORING LOG 794000-2-07.GPJ HC_CORP.GDT 4/18/07

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-4

Strataprobe Log and Data for Monitoring Well HC-MW-22

Location:
Approximate Ground Surface Elevation: 160 Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: Geoprobe (Direct Push)
Hammer Type:
Hole Diameter: 1.5 inches
Logged By: P. Cordell/A. Patel Reviewed By: G. Both

USCS Class	Soil Descriptions
SM/GM	(Medium dense), dry to damp, light brown, gravelly SAND with trace of organic material.
SM/GM	(Loose to medium dense), dry to damp, light brown, slightly gravelly SAND.
SM/GM	(Medium dense to dense), damp, gray to brown, very gravelly SAND with trace of silt.
SM	(Medium dense), damp, gray, fine to medium SAND.
SM/GM	(Loose), dry to damp, gray to brown, slightly gravelly SAND. Organic material (wood).
SM/GM	(Medium dense), dry, gray to brown with orange mottling, slightly silty, gravelly SAND.
SM/GM	(Loose to medium dense), damp, brown, slightly gravelly SAND.
SM	(Medium dense to dense), damp, gray to brown with orange mottling, slightly silty SAND with trace of gravel.
SM	(Loose to medium dense), moist, gray, fine SAND.
SM/ML	(Medium dense), dry to damp, gray, silty SAND to (stiff), sandy SILT.
SM	(Stiff to very stiff), dry to damp, gray, sandy SILT to (medium dense), silty SAND.

Depth in Feet: 0, 5, 10, 15, 20, 25

Well Construction: Monument, Concrete, Bentonite Chips, 10-20 Silica Sand

Sample	LAB TESTS & (PID)
S-1	(<0.1)
S-2	(<0.1)
S-3	(<0.1)
S-4	(<0.1)
S-5	(<0.1)
S-6	(<0.1)
S-7	(<0.1)
S-8	(<0.1)

STANDARD PENETRATION RESISTANCE
▲ Blows per Foot: 0, 10, 20, 30, 40, 50+
● Water Content in Percent: 0, 20, 40, 60, 80, 100+

Bottom of Boring at 25.0 Feet.
Started 01/23/07.
Completed 01/23/07.

Miniwell (prepacked, 10-foot-long, 3/4-inch inside diameter, 10-slot screen) installed from a depth of 13 to 23 feet.

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

NEWBORING LOG 794000-2-07.GPJ HC_CORP.GDT 4/18/07

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Figure A-5

Strataprobe Log and Data for Monitoring Well HC-MW-23

Location:
Approximate Ground Surface Elevation: 160 Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: Geoprobe (Direct Push)
Hammer Type:
Hole Diameter: 1.5 inches
Logged By: P. Cordell/A. Patel Reviewed By: G. Both

USCS Class	Soil Descriptions	Depth in Feet
SM/GM	(Loose to medium dense), moist to wet, light brown, very sandy GRAVEL to very gravelly SAND. 3-inch dark brown layer.	0
SM/ML	(Loose to medium dense), moist, gray to brown with dark brown and orange mottling, gravelly, very silty SAND grading to (soft to medium stiff), gravelly, very sandy SILT with organic material.	5
SM/ML	(Stiff), dry, gray to brown, sandy SILT.	10
SM/ML	(Medium stiff to medium dense), dry, light brown, sandy SILT to silty SAND with trace of gravel.	
MLS	(Stiff), dry, gray, slightly sandy SILT.	15
	Bottom of Boring at 17.0 Feet. Started 01/23/07. Completed 01/23/07. Miniwell (prepacked, 10-foot-long, 3/4-inch inside diameter, 10-slot screen) installed from a depth of 5 to 15 feet.	20
		25

Well Construction: Monument, Concrete, Bentonite Chips, 10-20 Silica Sand

Sample: S-1, S-2, S-3, S-4, S-5

STANDARD PENETRATION RESISTANCE
▲ Blows per Foot: 0 10 20 30 40 50+
● Water Content in Percent: 0 20 40 60 80 100+

LAB TESTS

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

NEW BORING LOG 79400-2-07.GPJ HC_CORP.GDT 4/18/07

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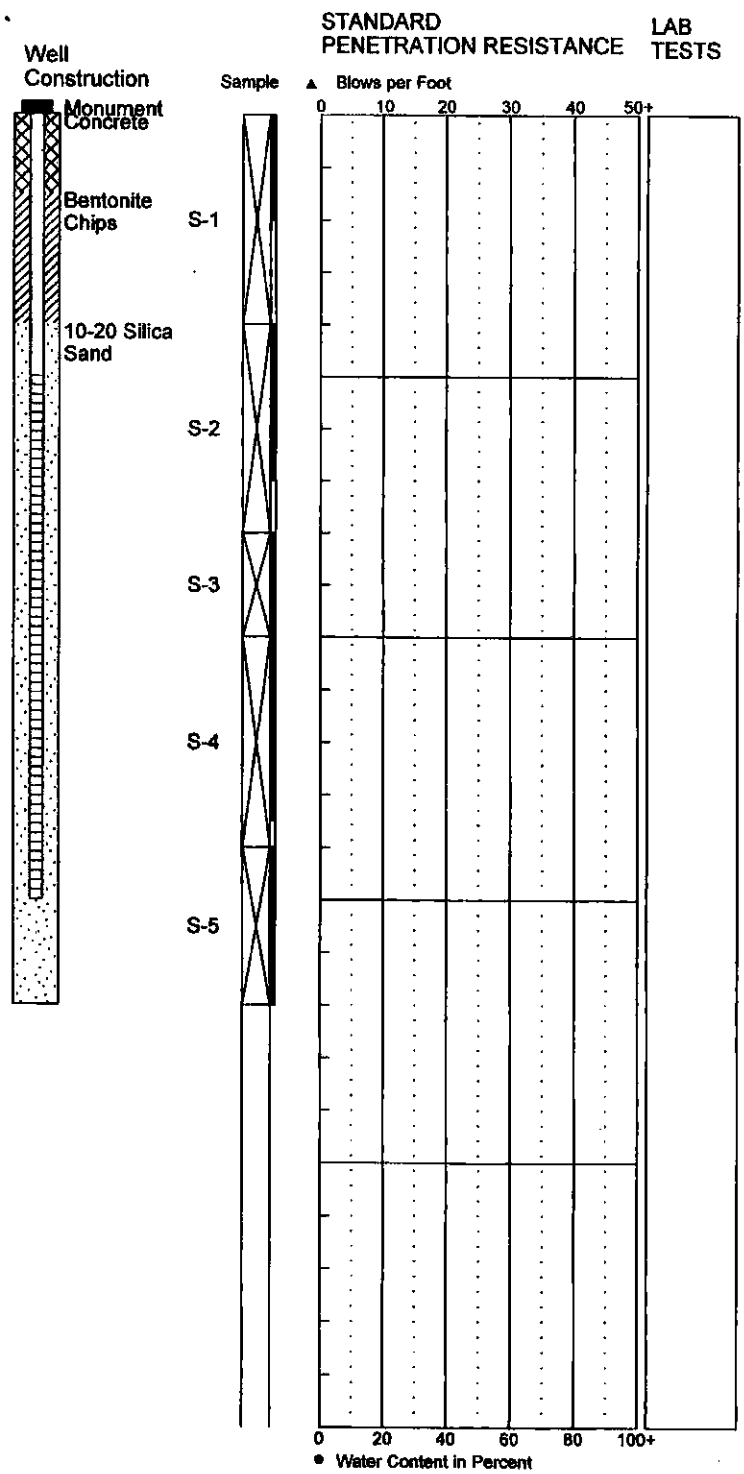
Figure A-6

Strataprobe Log and Data for Monitoring Well HC-MW-24

Location:
Approximate Ground Surface Elevation: 160 Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: Geoprobe (Direct Push)
Hammer Type:
Hole Diameter: 1.5 inches
Logged By: P. Cordell/A. Patel Reviewed By: G. Both

USCS Class	Soil Descriptions	Depth in Feet
SM/GM	(Loose), moist to wet, brown, very gravelly SAND.	0
SM/GM	(Medium dense), moist, brown to gray, gravelly, silty SAND. 2-inch layer of gray, sandy SILT.	
SM/GM	(Loose), wet, brown to gray, gravelly SAND to sandy GRAVEL.	5
SM/GM	(Medium dense), damp to moist, brown to gray, silty, very gravelly SAND with cobble.	
MLS	(Stiff), dry, gray to brown, very sandy SILT.	
		10
	Grading (medium stiff) and damp.	
		15
	Bottom of Boring at 17.0 Feet. Started 01/23/07. Completed 01/23/07.	
	Miniwell (prepacked, 10-foot-long, 3/4-inch inside diameter, 10-slot screen) installed from a depth of 5 to 15 feet.	20
		25



NEW BORING LOG 794000-2-07.GPJ HC_CORP.GDT 4/18/07

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-7

Strataprobe Boring Log SP-1

Soil Descriptions
Approximate Ground Surface Elevation in Feet:

Soil Descriptions	Sample	LAB TESTS
Dry, brown, gravelly, silty SAND.	S-1	CA
Wet, brown, silty, fine SAND.		
Damp to moist, gray-brown, fine sandy SILT.		
Dry to damp, brown, fine sandy SILT.	S-2	
Dry to damp, blue-gray, fine sandy SILT with silty Sand interbeds.	S-3	CA
	S-4	
Bottom of Boring at 13.0 Feet. Completed 07/22/03.		

Depth in Feet: 0, 5, 10, 15, 20

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-8

Strataprobe Boring Log SP-2

Soil Descriptions	Depth in Feet	Sample	LAB TESTS
Approximate Ground Surface Elevation in Feet:			
2.5 inches of Asphalt over dry, brown, gravelly, silty SAND.	0		
Damp, dark gray SILT with slight petroleum-like odor.		S-1	CA
Dry, brown, gravelly, silty SAND.	5		
Moist to wet, blue-gray, silty SAND.		S-2	CA
Damp, blue-gray, sandy SILT.			
Moist to wet, blue-gray SILT with trace of sand.			
Dry to damp, brown to blue SILT with silty Sand interbeds.	10	S-3	
Bottom of Boring at 12.0 Feet. Completed 07/22/03.	15		
	20		

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-9

Strataprobe Boring Log SP-3

Soil Descriptions	Depth in Feet	Sample	LAB TESTS
Approximate Ground Surface Elevation in Feet			
2 inches of Asphalt over dry, dark brown, sandy GRAVEL.	0		
Wet, brown SAND with trace of gravel.		S-1	CA
Damp to moist, blue-gray, slightly silty, fine to medium SAND.	5		
Damp, blue-gray SILT.		S-2	
Damp, brown, ashy/chalky SILT.			
Dry to damp, blue-gray SILT.	10	S-3	
Dry to damp, light brown SILT with Sand interbeds with red oxide staining.			
Bottom of Boring at 12.0 Feet. Completed 07/22/03.	15		
	20		

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-10

Strataprobe Boring Log SP-4

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS
2 inches to Asphalt over dry, brown, slightly silty, very sandy GRAVEL.	0		
Damp to moist, brown, gravelly SAND.		S-1	CA
Moist, blue-gray, slightly gravelly to gravelly SAND with slight petroleum-like odor.			
	5		
Moist to wet, dark brown, slightly gravelly, organic SILT with wood and organic material throughout.		S-2	
(Loose), wet, gray-brown, silty SAND.			
Damp, blue-gray SILT.	10	S-3	CA
Damp, light brown, slightly sandy SILT with red oxide staining.			
Bottom of Boring at 12.0 Feet. Completed 07/22/03.			
	15		
	20		

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-11

Strataprobe Boring Log SP-5

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS
Dry, brown, gravelly, very sandy SILT.	0	S-1	
Dry to damp, brown, fine to medium SAND to very sandy SILT.	5	S-2	
Damp, brown, slightly silty, gravelly SAND.			
CONCRETE.	10	S-3	CA
Moist, dark brown, organic SILT with wood and organic material and slight petroleum-like odor.			
Damp, blue-gray, sandy SILT.			
Dry, light brown, sandy SILT.	15	S-4	
Bottom of Boring at 16.0 Feet. Completed 07/22/03.	20		

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-12

Strataprobe Boring Log SP-6

Soil Descriptions

Approximate Ground Surface Elevation in Feet:

Soil Descriptions	Depth in Feet	Sample	LAB TESTS
2 inches of Asphalt over damp, blue-gray, gravelly, silty SAND.	0	S-1	CA
Damp, dark brown, silty, organic SAND with abundant Wood (Fill).			
Damp, green and black, interbedded WOOD and GRAVEL with green SILT with Coal and Charcoal pieces.	5		
Moist, green, slightly sandy SILT.		S-2	
Damp, light brown SILT with fine Sand interbeds.			
Dry to damp, green-blue, slightly clayey SILT.	10	S-3	
Bottom of Boring at 12.0 Feet. Completed 07/22/03.	15		
	20		

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-13

Strataprobe Boring Log SP-7

Soil Descriptions
Approximate Ground Surface Elevation in Feet:

Soil Descriptions	Depth in Feet	Sample	LAB TESTS
2 inches of Asphalt over dry, brown, gravelly, silty SAND.	0		
Damp, dark green, slightly gravelly, sandy SILT.		S-1	
Damp to moist, dark green, slightly gravelly, very silty SAND.			
Damp, brown to dark green, slightly gravelly, sandy SILT.	5		
Wet, green SAND.		S-2	CA
Damp, green, slightly sandy to sandy SILT with scattered gravel.			
Damp to moist, brown, silty SAND to sandy SILT. 6-inch wet SAND layer.	10	S-3	
Moist to wet, brown, gravelly SAND.			
Dry to damp, blue-green SILT with trace of sand and gravel.		S-4	
Bottom of Boring at 14.5 Feet. Completed 07/22/03.	15		
Note: Grab groundwater sample collected for chemical analysis.			
	20		

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-14

Strataprobe Boring Log SP-8

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS
6 inches of Concrete over damp, brown, silty, fine SAND.	0	S-1	
Damp, gray-brown, medium SAND.	5	S-2	CA
Damp, gray-brown SILT with trace of sand.			
Damp, brown SILT with trace of sand and light stringers of oxidation.	10	S-3	
Bottom of Boring at 12.0 Feet. Completed 07/22/03.	15 20		

STRATAPROBE 79400OST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-15

Strataprobe Boring Log SP-9

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS
6 inches of Concrete over damp to moist, brown, slightly gravelly, silty SAND.	0	S-1	CA
Damp to moist, brown SAND.		S-2	
Damp to moist, brown, sandy SILT.			
Moist to wet, brown, silty SAND.			
Damp to moist, brown to light brown, sandy SILT.	10	S-3	CA
Bottom of Boring at 11.5 Feet. Completed 07/23/03.			

Depth scale: 0, 5, 10, 15, 20

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-16

Strataprobe Boring Log SP-10

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS
6 inches of Concrete over GRAVEL with crushed concrete.	0		
Damp, brown, slightly gravelly SAND.		S-1	CA
Damp, brown-gray, gravelly SAND with scattered pieces of concrete.	5	S-2	
Damp, brown-gray, slightly gravelly, silty SAND.	10	S-3	
Damp, brown SAND with slightly silty layers.			
Bottom of Boring at 12.0 Feet. Completed 07/23/03.	15		
	20		

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-17

Strataprobe Boring Log SP-11

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS
6 inches of Concrete over damp, light brown SAND.	0		
Damp to moist, gray-green, gravelly, silty SAND.		S-1	CA
	5		
Damp, brown, medium SAND.		S-2	
Grading slightly silty.			
Black staining.			
Dry to damp, light brown, slightly sandy SILT.	10	S-3	
Bottom of Boring at 12.0 Feet. Completed 07/22/03.			
	15		
	20		

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-18

Strataprobe Boring Log SP-12

Soil Descriptions
Approximate Ground Surface Elevation in Feet:

Depth in Feet | Sample | LAB TESTS

Depth in Feet (approx.)	Soil Descriptions	Sample	LAB TESTS
0	6 inches of Concrete over damp to moist, brown, gravelly SAND.	S-1	
4	Damp, gray, very silty SAND.	S-2	CA
6.5	Damp to moist, brown, slightly silty SAND with scattered gravel.		
7.5	Wet SAND.		
8	Damp, brown SAND.	S-3	
9	Damp to moist, brown, gravelly SILT with black staining.		
9.5	Damp, brown-green, sandy SILT.		
11	Bottom of Boring at 11.0 Feet. Completed 07/23/03.		

Depth scale: 0, 5, 10, 15, 20

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-19

Strataprobe Boring Log SP-13

Soil Descriptions
Approximate Ground Surface Elevation in Feet:

Soil Descriptions	Depth in Feet	Sample	LAB TESTS
6 inches of Concrete over dry, light brown, slightly silty, gravelly SAND.	0		
Damp, brown, slightly gravelly SAND.		S-1	
Damp, brown, silty SAND.			
Damp, light brown, slightly gravelly, sandy SILT.	5	S-2	CA
Wet, gray, medium SAND.			
Damp, brown, silty SAND.			
Damp, brown, organic SILT with ash and wood.	10	S-3	
Wet, gray gravelly SAND.			
Damp, brown to gray, slightly sandy SILT.			
Bottom of Boring at 12.0 Feet. Completed 07/23/03.			
	15		
	20		

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-20

Strataprobe Boring Log SP-14

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS
Grass over dry to damp, brown, slightly gravelly, silty SAND.	0		
Damp to moist, green-gray, slightly gravelly, slightly sandy SILT with black staining.		S-1	
Brown, damp, very sandy SILT.	5		
		S-2	CA
Wet, gray-green, alternating layers of sandy SILT and SAND.			
Wet, gray-green, slightly silty SAND.			
Damp, brown SILT.	10	S-3	
Bottom of Boring at 12.0 Feet. Completed 07/23/03. Note: Grab groundwater sample collected for chemical analysis.	15		
	20		

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-21

Strataprobe Boring Log SP-15

Soil Descriptions Approximate Ground Surface Elevation in Feet	Depth in Feet	Sample	LAB TESTS
Grass over dry, light brown, gravelly, silty SAND with wood debris and broken glass.	0	S-1	
Wet, gray, silty SAND.	5		
WOOD.			
Wet, light gray, silty SAND with slight petroleum-like odor.		S-2	CA
Damp, gray-green, slightly gravelly, slightly clayey SILT.			
Damp, gray-green, slightly sandy SILT with scattered gravelly and moist areas.	10	S-3	CA
Bottom of Boring at 12.0 Feet. Completed 07/23/03.	15		
	20		

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-22

Strataprobe Boring Log SP-16

Soil Descriptions

Approximate Ground Surface Elevation in Feet

Grass over dry, light brown, slightly gravelly, sandy SILT.

Damp to moist, brown, gravelly, very silty SAND with black ash.

Damp to moist, gray-green, slightly silty, slightly gravelly to gravelly SAND.

Moist, green, slightly gravelly, slightly sandy SILT.

Wet, brown, medium SAND.

Damp, brown, slightly sandy, slightly gravelly SILT.

Damp, brown-green, slightly sandy SILT.

Dry to damp, light gray-green, slightly clayey SILT.

Damp, gray-green SILT with trace of fine sand and scattered sand stringers.

Dry to damp, blue-gray SILT with trace of fine sand.

Bottom of Boring at 20.0 Feet.
Completed 07/23/03.

Depth in Feet: 0, 5, 10, 15, 20

Sample: S-1, S-2, S-3, S-4, S-5, S-6

LAB TESTS: CA (at S-3, 10 ft)

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-23

Strataprobe Boring Log SP-17

Soil Descriptions
Approximate Ground Surface Elevation in Feet:

Depth in Feet	Soil Descriptions
0	Dry, brown, sandy GRAVEL.
	Moist, green, very sandy to slightly sandy SILT with petroleum-like odor.
	Dry to damp, light gray-green SILT.
5	Moist, green, very sandy SILT.
	Damp, gray-green SILT.
10	
	Dry to damp, brown, organic SILT.
	Damp, gray-green SILT.
15	Bottom of Boring at 15.0 Feet. Completed 08/15/03.
20	

Sample	LAB TESTS & (PID)
S-1 A	(30) CA
S-1 B	(4)
S-2 A	(0.2)
S-2 B	(<0.1)
S-3	(0.1)
S-4	(<0.1)

STRATAPROBE 7940DOST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-24

Strataprobe Boring Log SP-18

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS & (PID)
Dry to damp, brown, very gravelly SAND.	0		
2 inches of black stained SAND over moist to wet, green, slightly silty SAND with strong petroleum-like odor.		S-1	(48) CA
Damp, green SILT with trace of sand and very slight petroleum-like odor.	5	S-2	(8.3) CA
No odor.	10	S-3	(0.1)
		S-4	(0.1)
Bottom of Boring at 15.0 Feet. Completed 08/15/03.	15		
	20		

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-25

Strataprobe Boring Log SP-19

Soil Descriptions
Approximate Ground Surface Elevation in Feet:

Depth in Feet | Sample | LAB TESTS & (PID)

Depth in Feet	Soil Descriptions	Sample	LAB TESTS & (PID)
0	Dry, brown, gravelly SAND.		
	Damp, black stained, very sandy GRAVEL.		
	Damp to moist, gray-green, sandy SILT.	S-1	(<0.1) CA
5			
	Damp, gray-green SILT.	S-2	(<0.1)
10		S-3	(<0.1)
	Damp, gray to brown SILT with interbedded Sand layers.	S-4	(<0.1)
15	Bottom of Boring at 15.0 Feet. Completed 08/15/03.		
20			

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-26

Strataprobe Boring Log SP-20

Soil Descriptions

Approximate Ground Surface Elevation in Feet:

Depth in Feet	Soil Descriptions	Sample	LAB TESTS & (PID)
0	3 inches of Asphalt over dry, light brown, gravelly SILT with trace of sand.	S-1	(<0.1)
4	Damp, gray to brown, very gravelly SAND with trace of silt and slight petroleum-like odor.	S-2	(0.3) CA
8	Moist, gray-brown, gravelly SAND.	S-3	(<0.1)
12	Wet, gray, very gravelly SAND. (Groundwater ATD at approx. 11.5 ft)	S-4	(<0.1)
16	Bottom of Boring at 16.0 Feet. Completed 08/15/03.		

Depth scale: 0, 5, 10, 15, 20

∇ ATD

STRATAPROBE 79400OST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-27

Strataprobe Boring Log SP-21

Soil Descriptions
Approximate Ground Surface Elevation in Feet:

Depth in Feet	Soil Descriptions
0	3 inches Asphalt over dry, brown, very gravelly SAND with trace of silt.
7.25	Moist, brown, gravelly SAND to sandy GRAVEL with petroleum-like odor.
10	Very slight petroleum-like odor.
12	Wet, gray, very gravelly SAND.
14.4	Damp, brown SILT with wood and organic material.
15	Bottom of Boring at 15.0 Feet. Completed 08/15/03.

Note: Grab groundwater sample collected for chemical analysis.

Depth in Feet	Sample	LAB TESTS & (PID)
2	S-1	(<0.1)
6	S-2	CA
7	A	(0.2)
7.5	B	(6.0)
10	S-3	(4.1) CA
13.5	S-4	(0.3)

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-28

Strataprobe Boring Log SP-22

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS & (PID)
3 inches of Asphalt over dry, brown, silty, gravelly SAND.	0	S-1	(<0.1)
Damp, brown, very gravelly SAND.	5	S-2	(<0.1)
Grading wet.	10 ∇ ATD	S-3	(<0.1)
Damp to moist, gray-green, slightly sandy SILT.		S-4 (A/B)	(<0.1)
Bottom of Boring at 15.0 Feet. Completed 08/15/03. Note: Grab groundwater sample collected for chemical analysis.	15		
	20		

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-29

Strataprobe Boring Log SP-23

Soil Descriptions
Approximate Ground Surface Elevation in Feet:

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
3 inches of Asphalt over dry to damp, brown, gravelly SAND.	0	S-1	
Moist, brown, slightly silty, gravelly SAND.		S-1 A / B	(<0.1) / (0.4)
Moist to wet, gray, gravelly SAND.	5	S-2	(1.3)
Wet, gray, slightly gravelly SAND with ash and wood.		S-3 A	(1.4) CA
Moist, gray-green SILT with trace of sand.	10	S-3 B	(0.2)
Damp to moist, gray to brown SILT.		S-4 A / B	(<0.1)
Damp to moist, blue-gray SILT.	15		
Bottom of Boring at 16.3 Feet. Completed 08/15/03.	20		

STRATAPROBE 79400DST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-30

Strataprobe Boring Log SP-24

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS & (PID)
3 inches of Asphalt over dry to damp, brown, slightly gravelly to gravelly SAND.	0		
		S-1	(3.0)
Grading light gray-brown and slightly silty.	5		
		S-2	(0.1) CA
	10	*S-3	
Damp to moist, gray-green, slightly sandy SILT with interbedded Sand layers.			
		S-4	(<0.1)
	15		
Bottom of Boring at 16.3 Feet. Completed 08/15/03.			
	20		

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-31

Strataprobe Boring Log SP-25

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS & (PID)
Dry, light brown, gravelly SILT with trace of sand.	0	S-1	(<0.1)
Dry, light brown, slightly sandy, gravelly SILT.	5	S-2	(<0.1)
Dry, brown, gravelly, sandy SILT. 6-inch layer of damp, brown SAND. Pieces of black, fibrous Wood.	10	S-3	(<0.1) CA
Damp, brown SILT.	15	S-4	(<0.1)
Bottom of Boring at 16.0 Feet. Completed 08/15/03. Note: Boring required three attempts - first two met refusal and no recovery in 4- to 8-foot-depth interval.	20		

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Strataprobe Boring Log SP-26

Soil Descriptions
Approximate Ground Surface Elevation in Feet:

Depth in Feet

Sample

LAB TESTS & (PID)

3 inches of Concrete over dry, light brown, gravelly SAND.

S-1 (<0.1)

Grading damp and slightly gravelly.

S-2 (<0.1)

Grading moist and silty.

S-3 (<0.1) CA

Moist, green-brown, sandy SILT.

Damp to moist, brown SILT.

S-4 (<0.1)

Bottom of Boring at 15.5 Feet.
Completed 08/15/03.

0
5
10
15
20

STRATAPROBE 794000ST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-33

Strataprobe Boring Log SP-27

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS & (PID)
Dry, brown, gravelly, silty SAND.	0		
Moist, black, gravelly SAND.			
Wet, brown, organic SILT with black burnt material.		S-1	(<0.1)
Damp, green SILT with trace of sand.	5	S-2	(<0.1)
Bottom of Boring at 8.0 Feet. Completed 08/15/03.	10		
	15		
	20		

STRATAPROBE 79400OST.GPJ HC_CORP.GDT 3/23/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-34

Strataprobe Boring Log SP-28

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS & (PID)
4 inches of Asphalt over (dense), damp, brown-gray, sandy GRAVEL.	0		
		S-1	(<0.1)
	5 (▽ ATD)		
Grading moist.		S-2	(<0.1)
(Medium dense), wet, brown, gravelly SAND with wood fragments.			
Bottom of Boring at 8.0 Feet. Completed 03/05/04. Note: Grab groundwater sample collected for chemical analysis.	10		
	15		
	20		

STRATAPROBE 794000ST2.GPJ HC_CORP.GDT 3/24/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-35

Strataprobe Boring Log SP-29

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS & (PID)
4 inches of GRAVEL over (medium dense), moist, brown, gravelly SAND.	0		
		S-1	(<0.1)
Grading gray with slight petroleum-like odor.	5	S-2 S-2A	(1.8)
(Very dense), wet, gray-brown, sandy GRAVEL.	ATD		
		S-3	(0.3) CA
Bottom of Boring at 10.0 Feet. Completed 03/05/04. Note: Grab groundwater sample collected for chemical analysis.	10		
	15		
	20		

STRATAPROBE 79400ST2.GPJ HC_CORP.GDT 3/24/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-36

Strataprobe Boring Log SP-30

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS & (PID)
6 inches of Concrete over (dense), damp, brown to gray, slightly silty, sandy GRAVEL.	0		
		S-1	(<0.1)
(Medium dense), moist, gray, slightly silty, slightly gravelly SAND.	5		
		S-2	(<0.1) CA
(Medium dense), moist, gray-brown, gravelly, very silty, fine SAND. 2-inch layer of woody material.		S-3	(<0.1)
	10		
(Stiff), moist, brown, sandy SILT.		S-4	(<0.1)
Bottom of Boring at 13.5 Feet. Completed 03/05/04. Note: Attempt to collect grab groundwater sample unsuccessful.	15		
	20		

STRATAPROBE 794000ST2.GPJ HC_CORP.GDT 3/24/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-37

Strataprobe Boring Log SP-31

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS & (PID)
6 inches of GRAVEL over (medium dense), moist, dark brown, slightly gravelly, silty SAND.	0		
(Medium dense), moist, gray-brown, very silty, fine to medium SAND.		S-1	(<0.1) CA
(Stiff), moist, gray, fine sandy SILT.	5	S-2	(<0.1)
Bottom of Boring at 7.0 Feet. Completed 03/04/04. Note: No groundwater encountered.	10 15 20		

STRATAPROBE 794000ST2.GPJ HC_CORP.GDT 3/25/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-38

Strataprobe Boring Log SP-32

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Approximate Ground Surface Elevation in Feet:			
1 foot of GRAVEL over (medium dense), moist, brown, slightly sandy, silty GRAVEL.	0		
	ATD (groundwater)		
(Medium dense), wet, brown, slightly gravelly, slightly silty SAND.		S-1	(<0.1)
(Loose), wet, gray GRAVEL.	5		
(Stiff), moist, gray SILT.		S-2	(<0.1) CA
Bottom of Boring at 8.0 Feet. Completed 03/04/04.			
	10		
	15		
	20		

STRATAPROBE 794000ST2.GPJ HC_CORP.GDT 4/1/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-39

Strataprobe Boring Log SP-33

Soil Descriptions
Approximate Ground Surface Elevation in Feet:

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
6 inches of GRAVEL over (medium dense), moist, dark brown, slightly silty, gravelly SAND.	0		
(Medium dense), moist, tan, silty, fine to medium SAND with occasional Gravel.		S-1	(<0.1)
			CA
	5	S-2	(<0.1)
(Medium dense), moist, gray, slightly silty SAND.			
Bottom of Boring at 7.0 Feet. Completed 03/04/04. Note: No groundwater encountered.	10		
	15		
	20		

STRATAPROBE 794000ST2.GPJ HC_CORP.GDT 3/25/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-40

Strataprobe Boring Log SP-35

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS & (PID)
4 inches of Asphalt over (medium dense), moist, brown, slightly silty, gravelly SAND.	0		
		S-1	(<0.1)
	5		
		S-2	(<0.1) CA
Grading to gray.			
	10	S-3	(<0.1)
(Stiff), moist, gray, sandy SILT.			
		S-4	(<0.1)
Bottom of Boring at 14.0 Feet. Completed 03/04/04. Note: No groundwater encountered.			
	15		
	20		

STRATAPROBE 79400OST2.GPJ HC_CORP.GDT 3/25/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-41

Strataprobe Boring Log SP-36

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Approximate Ground Surface Elevation in Feet:	0		
(Loose), moist, gray, silty SAND with Gravel.		S-1	(<0.1)
(Medium dense), moist, brown, silty SAND.			
Layers of organic material.	5	S-2	(<0.1)
	10	S-3	(<0.1) CA
(Medium dense), moist, dark brown, slightly gravelly, silty, fine to medium SAND with organic material.			
(Dense), moist, gray, very silty, fine SAND.		S-4	(<0.1)
Grading slightly gravelly.			
Bottom of Boring at 14.0 Feet. Completed 03/04/04.			
Note: No groundwater encountered.	15		
	20		

STRATAPROBE 79400OST2.GPJ HC_CORP.GDT 3/25/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-42

Strataprobe Boring Log SP-37

Soil Descriptions

Approximate Ground Surface Elevation in Feet:

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
(Loose), moist, brown, slightly silty, very sandy GRAVEL.	0		
		S-1	(<0.1)
(Medium dense), moist, brown-gray SAND.			
(Medium dense), moist, brown, slightly gravelly, silty SAND.	5		
		S-2	(<0.1) CA
Grading to gray.			
		S-3	(<0.1)
Grading to dark brown with organic material.	10		
(Medium dense), moist, gray, silty, fine SAND.			
		S-4	(<0.1)
Bottom of Boring at 14.0 Feet. Completed 03/04/04.			
	15		
Note: No groundwater encountered.			
	20		

STRATAPROBE 794000ST2.GPJ HC_CORP.GDT 3/25/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-43

Strataprobe Boring Log SP-38

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS & (PID)
4 inches of Asphalt over (medium dense), moist, gray, slightly silty, sandy GRAVEL.	0		
		S-1	(<0.1) CA
(Dense), moist, gray, silty SAND with occasional Gravel.			
		S-2	(<0.1)
Bottom of Boring at 4.0 Feet. Completed 03/05/04. Note: No groundwater encountered.	5		
	10		
	15		
	20		

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-44

Strataprobe Boring Log SP-39

Soil Descriptions Approximate Ground Surface Elevation in Feet:	Depth in Feet	Sample	LAB TESTS & (PID)
4 inches of Asphalt over (medium dense), moist, brown, slightly silty, sandy GRAVEL.	0	S-1	(<0.1)
2 inches of Asphalt over (loose), moist, brown, very silty SAND with scattered Gravel. Grading to brown-gray and gravelly.		S-2	(<0.1) CA
Bottom of Boring at 4.0 Feet. Completed 03/05/04. Note: No groundwater encountered.	5		
	10		
	15		
	20		

STRATAPROBE 794000ST2.GPJ HC_CORP.GDT 3/25/04

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-45

Strataprobe Boring Log SP-40

Soil Descriptions
Approximate Ground Surface Elevation in Feet:

Depth in Feet	Soil Descriptions	Sample	LAB TESTS & (PID)
0	4 inches of Asphalt over (medium dense), moist, brown, silty SAND with occasional Gravel and minor seepage zones.		
	ATD	S-6	
		S-1	(<0.1)
	Grading to gray.		
5	(Medium dense), moist to wet, gray-brown SAND.		
	Grading to gray and gravelly.	S-2	(<0.1)
	(Medium dense), moist, gray-brown, silty SAND with charcoal pieces.		
	(Stiff), moist, gray, sandy SILT.		
10	(Stiff to dense), moist, brown, sandy SILT to silty SAND.	S-3	(<0.1)
		*S-4	
15			
	(Stiff), moist, gray, sandy SILT.		
		S-5	(<0.1)
	Bottom of Boring at 19.0 Feet. Completed 03/04/04.		
20			

STRATAPROBE 794000ST2.GPJ HC_CORP.GDT 3/25/04

Note: Grab groundwater sample collected for chemical analysis.

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-46

Strataprobe Log SP-A

Soil Descriptions	Depth in Feet
3.5 inches of Asphalt over damp, gray-brown, sandy, gravelly FILL.	0
(Medium stiff), damp, brown to gray, silty, gravelly, fine SAND to slightly gravelly, sandy SILT.	5
(Medium stiff), damp, blue-gray, slightly sandy, clayey SILT.	
(Medium stiff), moist, brown to dark gray, slightly gravelly, sandy SILT to very silty SAND.	10
(Medium stiff), moist, slightly gravelly, sandy SILT grading to damp, blue-gray, fine, sandy SILT.	15
(Medium dense), moist, gray, very silty, fine SAND grading to silty, fine SAND.	
(Medium dense), wet, gray, silty, fine SAND.	∇ ATD
(Very stiff), damp, blue-gray, fine-sandy SILT.	20, 25
Bottom of Boring at 28.0 Feet. Completed 02/24/06.	30

Sample: S-1, S-2, S-3, S-4

STANDARD PENETRATION RESISTANCE

▲ Blows per Foot

1 2 5 10 20 50 100

LAB TESTS

OLD BORING LOG 794000-BL.GPJ HC_CORP.GDT 4/23/07

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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7940-00 2/06

Figure A-4

Strataprobe Log SP-B

Soil Descriptions
3.5 inches of Asphalt over damp, brown, silty, sandy, gravelly FILL with abundant asphalt fragments.
(Loose), damp to moist, gray-brown, gravelly, silty, fine to medium SAND. Grades to reddish-brown color.
(Loose), moist, brown, gravelly, very silty, fine to coarse SAND with crushed rock fragments at 5.5 foot depth.
(Medium stiff), damp to moist, gray, gravelly, very sandy SILT with wood fragments.
(Medium dense), damp to moist, light brown, slightly silty, fine SAND.
(Medium dense/stiff), moist to wet, light brown-gray, fine, sandy SILT to very silty, fine SAND with marbled, oxidized zones apparent.
(Medium dense to dense), wet, brown, slightly gravelly to very silty, fine to medium SAND.
(Stiff), damp, brown, fine sandy SILT.
(Very stiff), damp, gray, fine sandy SILT.
(Dense), wet, gray, slightly silty, fine SAND for upper 6 inches. Grades to wet, gray, fine SAND for remainder of interval.
(Very stiff to hard), damp, blue-gray, fine sandy SILT.

Depth in Feet: 0, 5, 10, 15, 20 ATD, 25, 30

Sample: S-1, S-2, S-3, S-4, S-5, S-6, S-7, S-8, S-9, S-10, S-11, S-12, S-13

STANDARD PENETRATION RESISTANCE

▲ Blows per Foot

1 2 5 10 20 50 100

LAB TESTS

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-5 1/2

Strataprobe Log SP-B

Soil Descriptions

Depth in Feet

Sample

STANDARD PENETRATION RESISTANCE

▲ Blows per Foot

1 2 5 10 20 50 100

LAB TESTS

30

Bottom of Boring at 31.0 Feet.
Completed 02/24/06.

35

40

45

50

55

60

1 2 5 10 20 50 100

OLD BORING LOG 794000-BL.GPJ HC_CORP.GDT 4/23/07

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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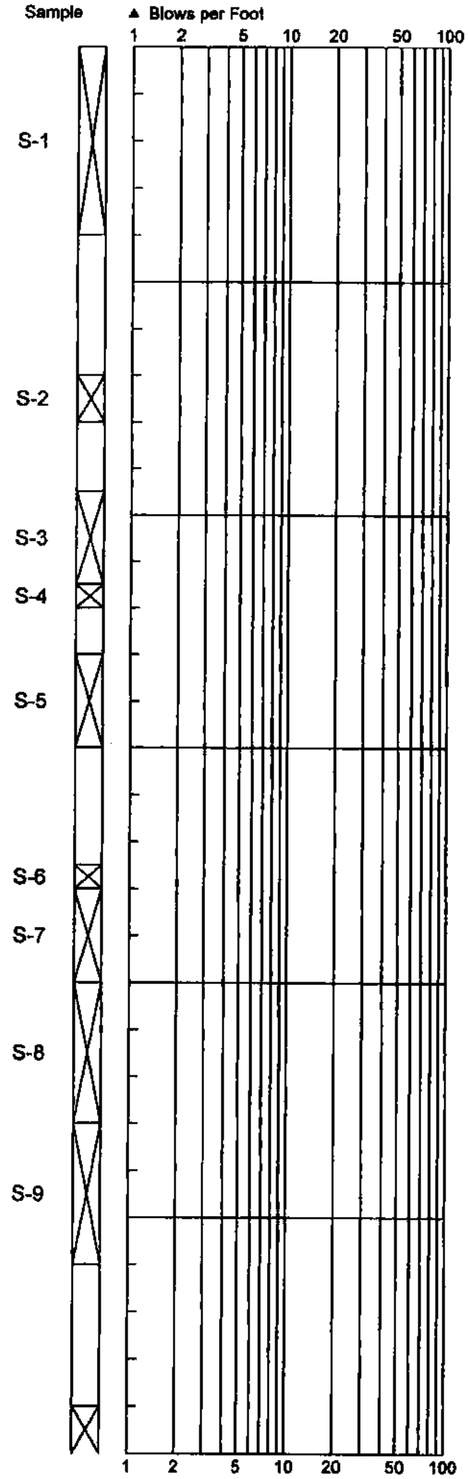
Figure A-5 2/2

Strataprobe Log SP-C

Soil Descriptions	Depth in Feet
3 inches of Asphalt over (medium dense), damp, gray to brown, gravelly, very silty, fine sandy FILL.	0
(Medium dense), damp, brown, very silty, fine SAND.	
(Medium dense), damp, gray, very silty, fine SAND.	5
(Medium stiff), damp, dark gray, slightly gravelly, slightly sandy SILT with wood fragments.	
(Medium stiff/dense), moist to wet, blue-gray, slightly gravelly, very silty, fine SAND. Grades to very fine, sandy SILT.	∇ ATD; 10
(Stiff), damp, dark gray-blue, slightly sandy SILT with abundant roots and wood fragments.	
(Medium dense), moist to wet, gray, silty, fine to medium SAND. Grades to sandy SILT.	
(Medium dense), wet, gray, slightly silty, fine to medium SAND.	
(Stiff), moist, gray, slightly sandy SILT.	15
Slough in sampler.	
(Stiff), damp, brown marbled with blue-gray, slightly sandy SILT.	
Grows rusty colored.	
(Stiff to very stiff), damp, blue-gray, slightly fine, sandy SILT.	20
1/2-inch sand layer.	25
No recovery due to faulty pin in sampler that failed to release.	
	30



LAB TESTS

OLD BORING LOG 794000-BL.GPJ HC_CORP.GDT 4/23/07

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-6 1/2

Strataprobe Log SP-C

Soil Descriptions	Depth In Feet	Sample	STANDARD PENETRATION RESISTANCE ▲ Blows per Foot	LAB TESTS
(Very stiff), damp, blue-gray, fine sandy SILT (approaches clayey SILT in some drive sections).	30	S-10		
Bottom of Boring at 32.5 Feet. Completed 03/01/06.				
	35			
	40			
	45			
	50			
	55			
	60			

Blows per Foot scale: 1 2 5 10 20 50 100

OLD BORING LOG 794000-BL.GPJ HC_CORP.GDT 4/23/07

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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Figure A-6 2/2

Strataprobe Log SP-E

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Dry, brown, slightly silty, slightly gravelly SAND.	0		
			(ND)
Moist to wet, gray SAND.	5		
			(ND)
	ATD		
Wet, brown, silty CLAY.	10		
Bottom of Probe at 12.0 Feet. Completed 06/22/06.			
	15		
	20		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

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7940-00 06/06

Figure A-2

Strataprobe Log SP-G

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Slightly moist, brown, slightly gravelly, silty SAND.	0		(ND)
Dry, gray-brown, silty SAND.	5		
Moist grading to wet, gray-brown SAND.	∇ ATD		(ND)
Stiff, moist, red-brown, clayey SILT.	10		
Bottom of Probe at 12.0 Feet. Completed 06/22/06.	15 20		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

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Figure A-3

Strataprobe Log SP-H

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Wet, brown, slightly silty, slightly gravelly SAND with some woody debris at 3 feet.	0		(ND)
Moist, gray, slightly gravelly SILT.	ATD (groundwater)		
Stiff, gray-brown, clayey SILT.	5		
Wet, gray-brown SAND.			(ND)
Stiff, gray, clayey SILT.			
Stiff, red-brown, clayey SILT.			
Bottom of Probe at 10.0 Feet. Completed 06/22/06.	10		
	15		
	20		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

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7940-00 06/06

Figure A-4

Strataprobe Log SP-N

Soil Descriptions

Depth in Feet

Sample

LAB TESTS & (PID)

3 inches of Asphalt over damp, brown, sandy GRAVEL. (FILL)

Moist to wet, brown, silty, gravelly, fine SAND.

Bottom of Probe at 8.0 Feet.
Completed 09/18/06.

ATD

Sample	LAB TESTS & (PID)
S-1	(ND)
S-2	(ND)

0
5
10
15
20

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

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Figure A-5

Strataprobe Log SP-O

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Loose, damp, brown, sandy GRAVEL. (FILL)	0	S-1	(ND)
Loose, damp, brown, gravelly SAND.	5	S-2	(ND)
Moist, gray, slightly gravelly, sandy SILT.			
Moist, gray, silty SAND.			
Moist, gray, gravelly SAND.	10	S-3	(ND)
Moist, gray SILT.		S-4	(ND)
Moist, gray to brown, silty SAND.	15		
Moist, gray SILT.		S-5	(ND)
Wet, gray, silty SAND.			
Moist, gray SILT.	∇ ATD	S-6	(ND)
Bottom of Probe at 20.0 Feet. Completed 09/18/06.	20		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

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Figure A-6

Strataprobe Log SP-P

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Moist, gray to brown, sandy GRAVEL. (FILL)	0		
		S-1	(ND)
	5		
		S-2	(ND)
Becomes wet.	ATD		
	10	S-3	(12)
Bottom of Probe at 12.0 Feet. Completed 09/18/06.			
	15		
	20		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.
5. PID is in ppm

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Figure A-7

Strataprobe Log SP-Q

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Dry, brown to gray, sandy GRAVEL. (FILL)	0		
		S-1	(4.2)
	5		
		S-2	(11)
		S-3	(ND)
	10		
Becomes wet.	ATD		
Bottom of Probe at 14.0 Feet. Completed 09/18/06.			
	15		
	20		

STRATAPROBE WO WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.
5. PID is in ppm

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Figure A-8

Strataprobe Log SP-R

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Damp, brown, gravelly SAND. (FILL)	0		
		S-1	(ND)
Damp, brown SAND.			
	5		
Damp, gray GRAVEL.		S-2	(ND)
Damp to moist, gray-brown SAND.			
	10	S-3	(ND)
Moist, gray SILT with some iron staining.	∇ ATD		
		S-4	(ND)
Bottom of Probe at 15.0 Feet. Completed 09/18/06.	15		
	20		

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

Strataprobe Log SP-S

Soil Descriptions	Depth In Feet	Sample	LAB TESTS & (PID)
Damp, brown, sandy GRAVEL. (FILL)	0	S-1	(ND)
Damp, gray-brown, gravelly, silty SAND. (FILL)	5	S-2	(15)
Moist, brown-gray, sandy GRAVEL.	∇ ATD		
Moist, brown, silty SAND.	10	S-3	(ND)
Moist, brown, sandy GRAVEL.		S-4	(ND)
Wet, gray, sandy SILT to SILT.			
Bottom of Probe at 15.0 Feet. Completed 09/18/06.	15		
	20		

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.
5. PID is in ppm

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Figure A-10

Strataprobe Log SP-T

Soil Descriptions	Depth In Feet
Damp, brown, slightly silty, sandy GRAVEL. (FILL)	0
Damp, gray-brown, sandy SILT to SAND.	
Wet, gray, fine to medium SAND.	▽ ATD
Moist, gray SILT.	
Moist, gray, silty SAND.	
Moist, gray SILT.	
Bottom of Probe at 30.0 Feet. Completed 09/19/06.	30

Sample	LAB TESTS & (PID)
S-1	(ND)
S-2	(ND)
S-3	(ND)
S-4	(ND)
S-5	(ND)
S-6	(ND)
S-7	
S-8	
S-9	

Depth scale: 0, 5, 10, 15, 20, 25, 30

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

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Figure A-13

Strataprobe Log SP-U1

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Damp, brown-gray, sandy GRAVEL. (FILL)	0		
		S-1	(ND)
	5	S-2	(ND)
Moist, brown, sandy SILT with pockets of sand and some organic material.			
	10	S-3	(ND)
	∇ ATD		
Wet, gray, fine to medium SAND.		S-4	(ND)
Moist, gray SILT with silty SAND interbeds from 16.5 to 17.0 feet.	15		
		S-5	(ND)
Bottom of Probe at 20.0 Feet. Completed 09/19/06.	20		
	25		
	30		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

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7940-00 09/06

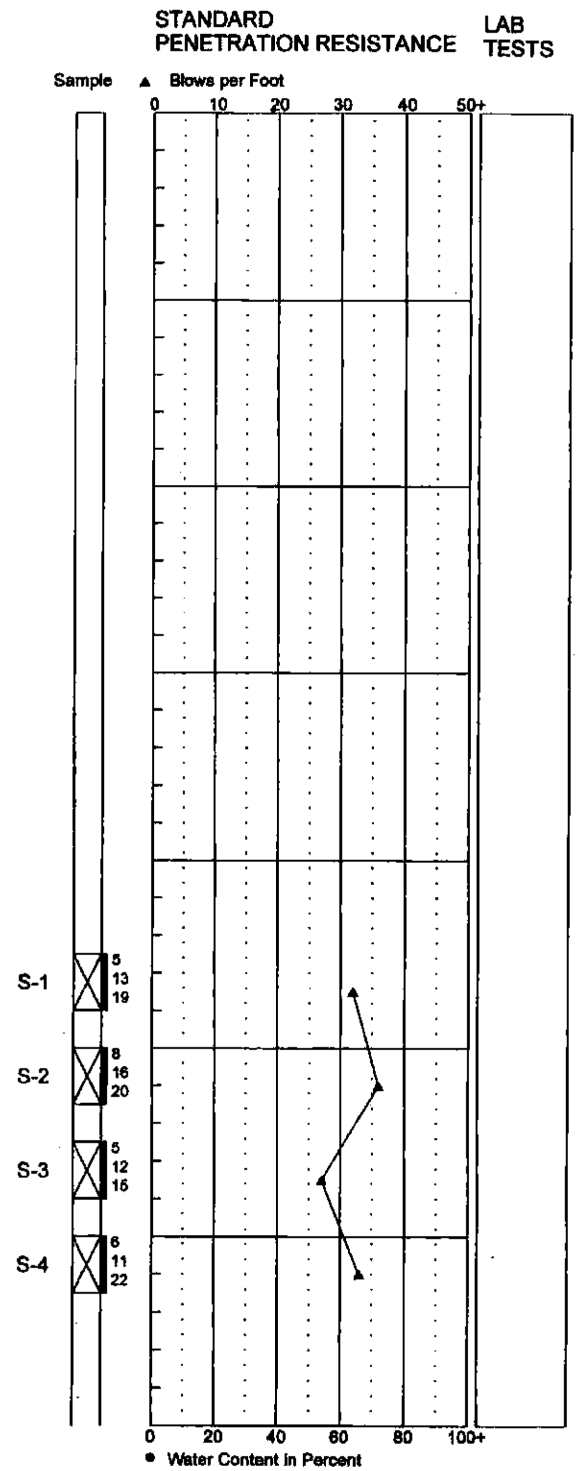
Figure A-14

Boring Log SP-U2

Location:
Approximate Ground Surface Elevation: Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: Hollow Stem Auger Split Spoon
Hammer Type:
Hole Diameter: 8 inches
Logged By: AJG Reviewed By: R. Jensen

USCS Class	Graphic Log	Soil Descriptions	Depth in Feet
		Strataprobe Log SP-U1	0
ML		Hard, moist, gray SILT.	20
		Bottom of Boring at 31.5 Feet. Started 09/21/06. Completed 09/21/06.	



NEW BORING LOG 794000-9-06.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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7940-00 9/06

Figure A-15

Strataprobe Log SP-V

Soil Descriptions	Depth in Feet
Damp, brown, sandy GRAVEL. (FILL)	0
Moist, gray SILT with some iron staining.	

Bottom of Probe at 17.0 Feet.
Completed 09/18/06.

No groundwater encountered.

Sample	LAB TESTS & (PID)
S-1	(40)
S-2	(284)
S-3	(750)
S-4	(ND)
S-5	(15)

Depth in Feet: 0, 5, 10, 15, 20

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.
5. PID is in ppm

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7940-00 09/06

Figure A-11

Strataprobe Log SP-W

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Moist, gray-brown, sandy GRAVEL. (FILL)	0		
		S-1	(ND)
Becomes wet.			
Damp, gray-brown, sandy SILT.	5 ATD		
		S-2	(ND)
Bottom of Probe at 8.0 Feet. Completed 09/18/06.			
	10		
	15		
	20		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

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Figure A-12

Strataprobe Log SP-A

Soil Descriptions | Depth in Feet

3.5 inches of Asphalt over damp, gray-brown, sandy, gravelly FILL.

(Medium stiff), damp, brown to gray, silty, gravelly, fine SAND to slightly gravelly, sandy SILT.

(Medium stiff), damp, blue-gray, slightly sandy, clayey SILT.

(Medium stiff), moist, brown to dark gray, slightly gravelly, sandy SILT to very silty SAND.

(Medium stiff), moist, slightly gravelly, sandy SILT grading to damp, blue-gray, fine, sandy SILT.

(Medium dense), moist, gray, very silty, fine SAND grading to silty, fine SAND.

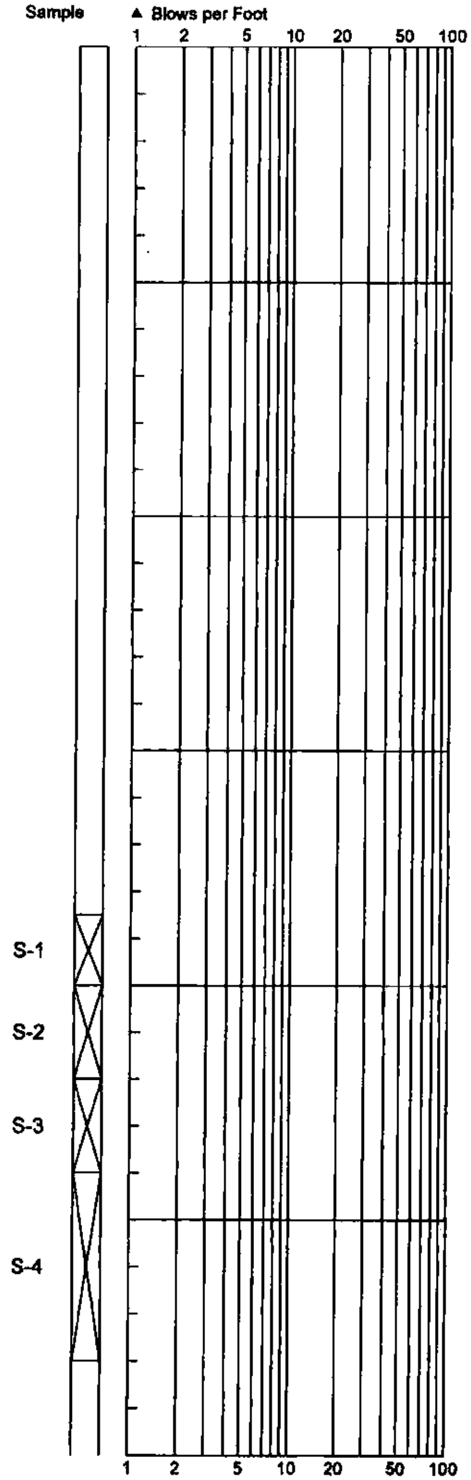
(Medium dense), wet, gray, silty, fine SAND.

(Very stiff), damp, blue-gray, fine-sandy SILT.

Bottom of Boring at 28.0 Feet.
Completed 02/24/06.

Depth scale: 0, 5, 10, 15, 20, 25, 30

ATD



LAB TESTS

OLD BORING LOG 794000-BL.GPJ HC_CORP.GDT 4/23/07

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

HARTCROWSER

7940-00 *2/06*

Figure A-4

Strataprobe Log SP-B

Soil Descriptions	Depth in Feet	Sample
3.5 inches of Asphalt over damp, brown, silty, sandy, gravelly FILL with abundant asphalt fragments.	0	
(Loose), damp to moist, gray-brown, gravelly, silty, fine to medium SAND. Grades to reddish-brown color.		S-1
(Loose), moist, brown, gravelly, very silty, fine to coarse SAND with crushed rock fragments at 5.5 foot depth.	5	S-2
(Medium stiff), damp to moist, gray, gravelly, very sandy SILT with wood fragments.		S-3
(Medium dense), damp to moist, light brown, slightly silty, fine SAND.		S-4, S-5
(Medium dense/stiff), moist to wet, light brown-gray, fine, sandy SILT to very silty, fine SAND with marbled, oxidized zones apparent.	10	S-6
(Medium dense to dense), wet, brown, slightly gravelly to very silty, fine to medium SAND.		S-7
(Stiff), damp, brown, fine sandy SILT.	15	S-8, S-9
(Very stiff), damp, gray, fine sandy SILT.		S-10
(Dense), wet, gray, slightly silty, fine SAND for upper 6 inches. Grades to wet, gray, fine SAND for remainder of interval.	20 ATD	S-11
(Very stiff to hard), damp, blue-gray, fine sandy SILT.	25	S-12, S-13
	30	

STANDARD PENETRATION RESISTANCE

▲ Blows per Foot

1 2 5 10 20 50 100

LAB TESTS

OLD BORING LOG 794000-BL.GPJ HC_CORP.GDT 4/23/07

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

HARTCROWSER

7940-00 2/06

Figure A-5 1/2

Strataprobe Log SP-B

Soil Descriptions	Depth in Feet	Sample	STANDARD PENETRATION RESISTANCE ▲ Blows per Foot (1 2 5 10 20 50 100)	LAB TESTS
	30			
Bottom of Boring at 31.0 Feet. Completed 02/24/06.				
	35			
	40			
	45			
	50			
	55			
	60			

OLD BORING LOG 794000-BL.GPJ HC_CORP.GDT 4/23/07

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

HARTCROWSER

7940-00 2/06

Figure A-5 2/2

Strataprobe Log SP-C

Soil Descriptions	Depth in Feet	Sample
3 inches of Asphalt over (medium dense), damp, gray to brown, gravelly, very silty, fine sandy FILL.	0	S-1
(Medium dense), damp, brown, very silty, fine SAND.		
(Medium dense), damp, gray, very silty, fine SAND.	5	
(Medium stiff), damp, dark gray, slightly gravelly, slightly sandy SILT with wood fragments.		S-2
(Medium stiff/dense), moist to wet, blue-gray, slightly gravelly, very silty, fine SAND. Grades to very fine, sandy SILT.	ATD; 10	
(Stiff), damp, dark gray-blue, slightly sandy SILT with abundant roots and wood fragments.		S-3, S-4
(Medium dense), moist to wet, gray, silty, fine to medium SAND. Grades to sandy SILT.		
(Medium dense), wet, gray, slightly silty, fine to medium SAND.		S-5
(Stiff), moist, gray, slightly sandy SILT.	15	
Slough in sampler.		
(Stiff), damp, brown marbled with blue-gray, slightly sandy SILT.		S-6
Grows rusty colored.		S-7
(Stiff to very stiff), damp, blue-gray, slightly fine, sandy SILT.	20	S-8
		S-9
1/2-inch sand layer.	25	
No recovery due to faulty pin in sampler that failed to release.		
	30	

STANDARD PENETRATION RESISTANCE

▲ Blows per Foot

1 2 5 10 20 50 100

LAB TESTS

OLD BORING LOG 794000-BL.GPJ HC_CORP.GDT 4/23/07

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

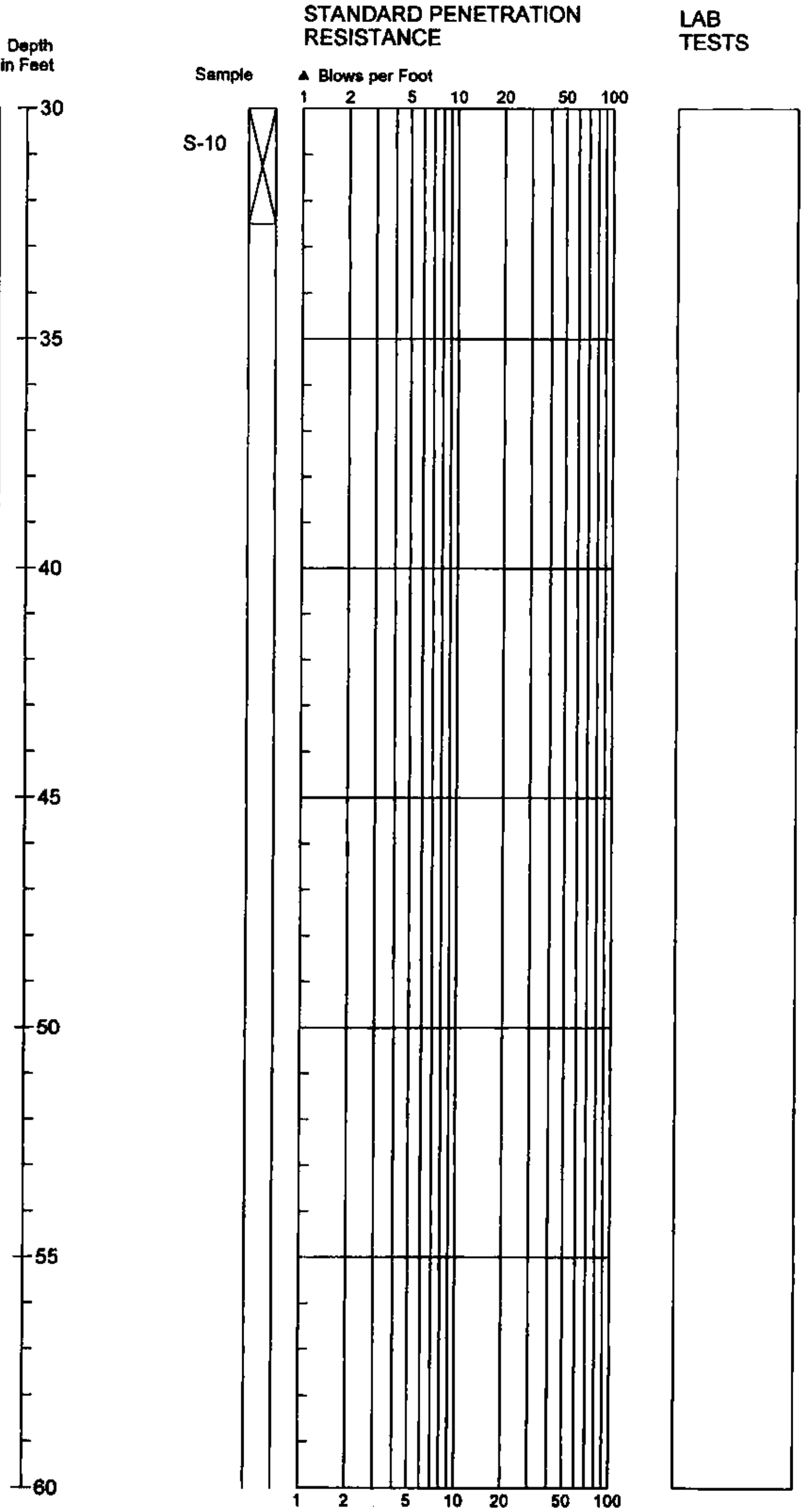
HARTCROWSER

7940-00 3/06

Figure A-6 1/2

Strataprobe Log SP-C

Soil Descriptions	Depth in Feet	Sample
(Very stiff), damp, blue-gray, fine sandy SILT (approaches clayey SILT in some drive sections).	30	S-10
Bottom of Boring at 32.5 Feet. Completed 03/01/06.		



OLD BORING LOG 794000-BL.GPJ HC_CORP.GDT 4/23/07

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

HARTCROWSER

7940-00 3/06

Figure A-6 2/2

Strataprobe Log SP-E

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Dry, brown, slightly silty, slightly gravelly SAND.	0		(ND)
Moist to wet, gray SAND.	5		(ND)
	∇ ATD		
Wet, brown, silty CLAY.	10		
Bottom of Probe at 12.0 Feet. Completed 06/22/06.			
	15		
	20		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

HARTCROWSER

7940-00 06/06

Figure A-2

Strataprobe Log SP-G

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Slightly moist, brown, slightly gravelly, silty SAND.	0		(ND)
Dry, gray-brown, silty SAND.	5		
Moist grading to wet, gray-brown SAND.	∇ ATD		(ND)
Stiff, moist, red-brown, clayey SILT.	10		
Bottom of Probe at 12.0 Feet. Completed 06/22/06.	15		
	20		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

HARTCROWSER

7940-00 06/06

Figure A-3

Strataprobe Log SP-H

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Wet, brown, slightly silty, slightly gravelly SAND with some woody debris at 3 feet.	0		(ND)
Moist, gray, slightly gravelly SILT.	∇ ATD		
Stiff, gray-brown, clayey SILT.	5		
Wet, gray-brown SAND.			(ND)
Stiff, gray, clayey SILT.			
Stiff, red-brown, clayey SILT.			
Bottom of Probe at 10.0 Feet. Completed 06/22/06.	10		
	15		
	20		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

HARTCROWSER

7940-00 06/06

Figure A-4

Strataprobe Log SP-N

Soil Descriptions

Depth in Feet

Sample

LAB TESTS & (PID)

0

3 inches of Asphalt over damp, brown, sandy GRAVEL. (FILL)

S-1

(ND)

Moist to wet, brown, silty, gravelly, fine SAND.

ATD

5

S-2

(ND)

Bottom of Probe at 8.0 Feet.
Completed 09/18/06.

10

15

20

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

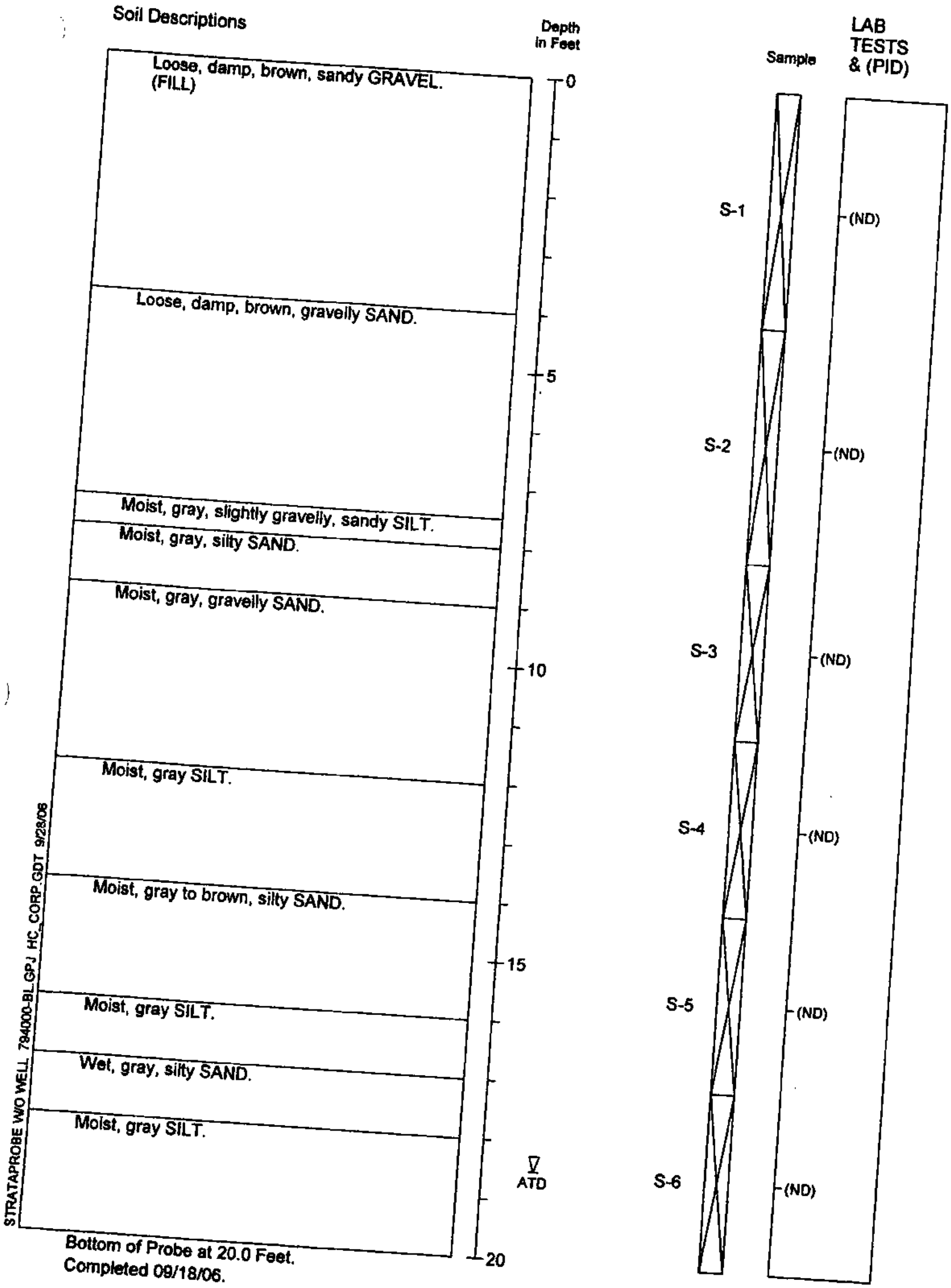
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

HARTCROWSER

7940-00 09/06

Figure A-5

Strataprobe Log SP-O



1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

HARTCROWSER

7940-00 09/06

Figure A-6

Strataprobe Log SP-P

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Moist, gray to brown, sandy GRAVEL. (FILL)	0		
		S-1	(ND)
	5		
		S-2	(ND)
Becomes wet.	∇ ATD		
	10	S-3	(12)
Bottom of Probe at 12.0 Feet. Completed 09/18/06.			
	15		
	20		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.
5. PID is in ppm

HARTCROWSER

7940-00 09/06

Figure A-7

Strataprobe Log SP-Q

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Dry, brown to gray, sandy GRAVEL. (FILL)	0		
		S-1	(4.2)
	5		
		S-2	(11)
		S-3	(ND)
	10		
Becomes wet.	∇ ATD		
Bottom of Probe at 14.0 Feet. Completed 09/18/06.			
	15		
	20		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.
5. PID is in ppm

HARTCROWSER

7940-00 *09/06*

Figure A-8

Strataprobe Log SP-R

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Damp, brown, gravelly SAND. (FILL)	0		
		S-1	(ND)
Damp, brown SAND.			
	5		
Damp, gray GRAVEL.		S-2	(ND)
Damp to moist, gray-brown SAND.			
	10	S-3	(ND)
Moist, gray SILT with some iron staining.	▽ ATD		
		S-4	(ND)
Bottom of Probe at 15.0 Feet. Completed 09/18/06.	15		
	20		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

HARTCROWSER

7940-00 09/06

Figure A-9

Strataprobe Log SP-S

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Damp, brown, sandy GRAVEL. (FILL)	0	S-1	(ND)
Damp, gray-brown, gravelly, silty SAND. (FILL)	5	S-2	(15)
Moist, brown-gray, sandy GRAVEL.	∇ ATD		
Moist, brown, silty SAND.	10	S-3	(ND)
Moist, brown, sandy GRAVEL.		S-4	(ND)
Wet, gray, sandy SILT to SILT.			
Bottom of Probe at 15.0 Feet. Completed 09/18/06.	15		
	20		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

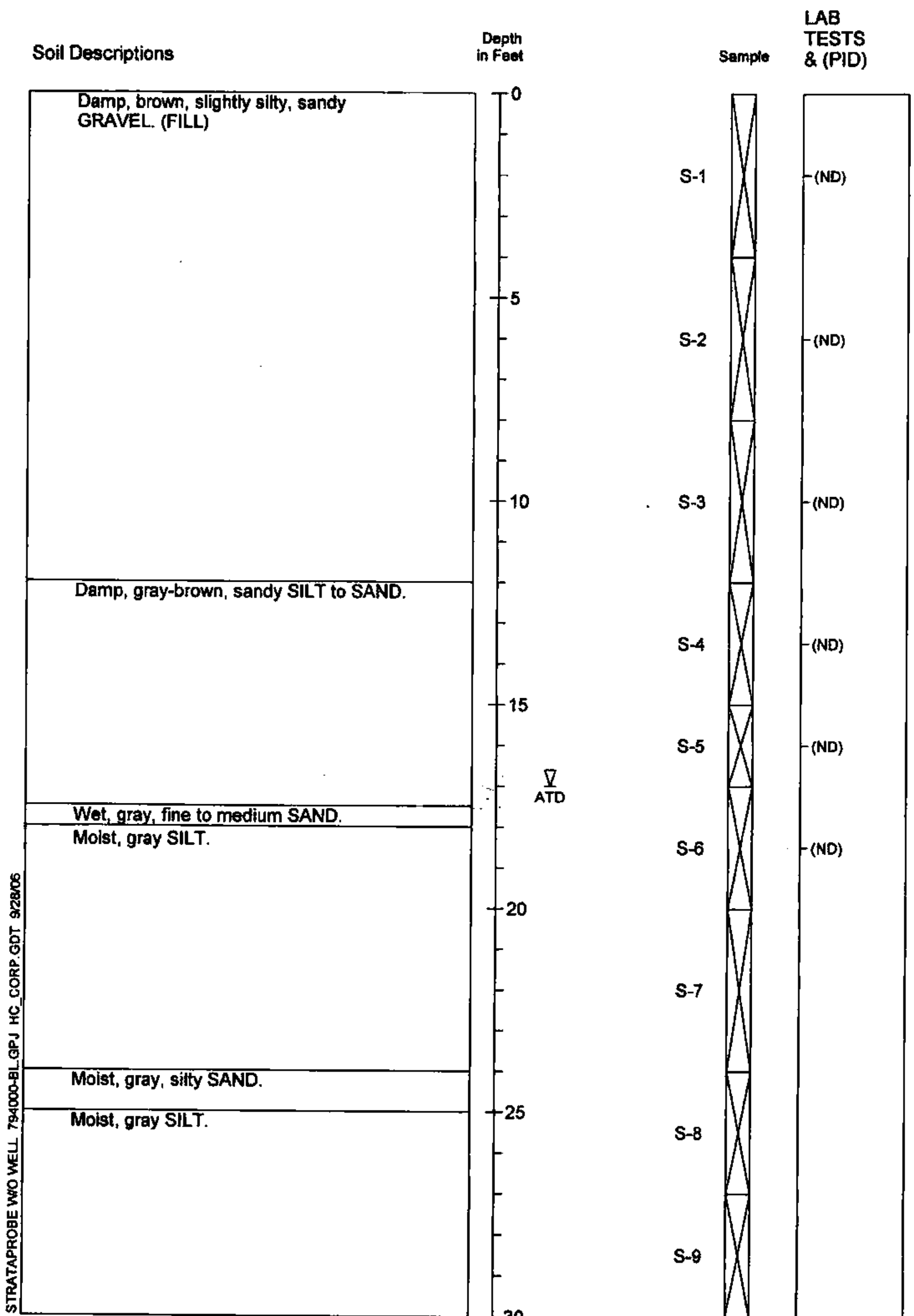
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.
5. PID is in ppm

HARTCROWSER

7940-00 *09/06*

Figure A-10

Strataprobe Log SP-T



Bottom of Probe at 30.0 Feet.
Completed 09/19/06.

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

HARTCROWSER

7940-00 09/06

Figure A-13

Strataprobe Log SP-U1

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Damp, brown-gray, sandy GRAVEL. (FILL)	0		
		S-1	(ND)
	5	S-2	(ND)
Moist, brown, sandy SILT with pockets of sand and some organic material.			
	10	S-3	(ND)
	ATD		
Wet, gray, fine to medium SAND.		S-4	(ND)
Moist, gray SILT with silty SAND interbeds from 16.5 to 17.0 feet.	15		
		S-5	(ND)
Bottom of Probe at 20.0 Feet. Completed 09/19/06.	20		
	25		
	30		

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

HARTCROWSER

7940-00 09/06

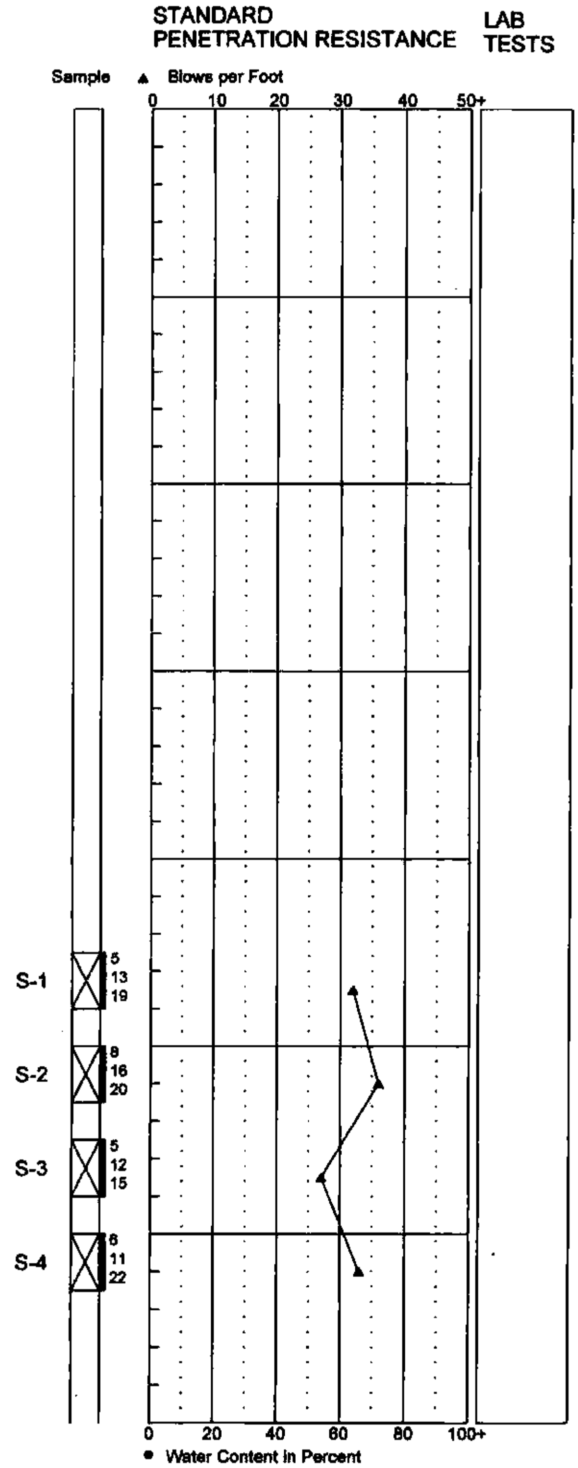
Figure A-14

Boring Log SP-U2

Location:
Approximate Ground Surface Elevation: Feet
Horizontal Datum:
Vertical Datum:

Drill Equipment: Hollow Stem Auger Split Spoon
Hammer Type:
Hole Diameter: 8 inches
Logged By: AJG Reviewed By: R. Jensen

USCS Class	Graphic Log	Soil Descriptions	Depth in Feet
		Strataprobe Log SP-U1	0
ML		Hard, moist, gray SILT.	20
		Bottom of Boring at 31.5 Feet. Started 09/21/06. Completed 09/21/06.	31.5



NEW BORING LOG 794000-9-06.GPJ HC_CORP.GDT 9/28/06

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. USCS designations are based on visual manual classification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

HARTCROWSER

7940-00 9/06

Figure A-15

Strataprobe Log SP-V

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Damp, brown, sandy GRAVEL. (FILL)	0	S-1	(40)
Moist, gray SILT with some iron staining.	5	S-2	(284)
	10	S-3	(750)
		S-4	(ND)
	15	S-5	(15)
Bottom of Probe at 17.0 Feet. Completed 09/18/06. No groundwater encountered.	20		

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.
5. PID is in ppm

HARTCROWSER

7940-00 09/06

Figure A-11

Strataprobe Log SP-W

Soil Descriptions	Depth in Feet	Sample	LAB TESTS & (PID)
Moist, gray-brown, sandy GRAVEL. (FILL)	0		
		S-1	(ND)
Becomes wet.			
Damp, gray-brown, sandy SILT.			
	5 ATD		
		S-2	(ND)
Bottom of Probe at 8.0 Feet. Completed 09/18/06.			
	10		
	15		
	20		

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. ND = Not Detected.

STRATAPROBE W/O WELL 794000-BL.GPJ HC_CORP.GDT 9/28/06

HARTCROWSER

7940-00 09/06

Figure A-12

SCS ENGINEERS	BORING SB-1 (Page 1 of 1)

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 9/30/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 12 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Depth ft	GRAPHI	DESCRIPTION	Soil Sample No.	OVM
0		concrete surface		
1				0
2		dry, brown, silty, gravelly, fine to medium-grained SAND (gravel is fine to coarse-grained)		0
3				0
4			SB-1, 4'	0
5				0
6		dry, grey, silty, gravelly fine to medium-grained SAND		0
7		damp, grey, fine to coarse-grained SAND		0
8		damp, very dark brown, silty, sandy, fine to coarse-grained GRAVEL to silty, gravelly, medium-grained SAND	SB-1, 8'	0
9		dry, grey, slightly clayey SILT (<5% fine-grained sand) 1-inch organic layer at 10 feet bgs	SB-1, 9'	0
10		damp to moist, grey-brown, very silty, fine-grained SAND	SB-1, 10'	0
11		dry, grey-brown, SILT (<5% fine-grained sand)		0
		no groundwater detected in boring		0
12				

Well: SB-1
Elev.:

SCS ENGINEERS

BORING SB-2

(Page 1 of 1)

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 10/1/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 11 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Depth ft	GRAPHI	DESCRIPTION	Soil Sample No.	OVM	Well: SB-2 Elev.:
0		concrete surface			Concrete
1				0	
2				0	
3				0	
4				0	
5		dry, brown, slightly silty, very gravelly, fine to medium-grained SAND (gravel is fine to coarse-grained) to dry, brown, very silty, fine to medium-grained SAND (in intervals)		0	
6			SB-2, 6'	0	Bentonite Chips
7				0	
8				0	
9				0	
10		dry to damp, grey, silty, fine to medium-grained SAND refusal at 11 feet bgs (had difficulty with caving and cuttings retrieval) no groundwater detected in boring		0	
11			SB-2, 11'	0	

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SCS ENGINEERS	BORING SB-3
	(Page 1 of 1)

Former PACE Property Kirkland, WA 04204004.02	Started/Completed Drilling Method Diameter Sampling Device	: 10/1/04 : Direct Push with Probe Rig : 2-inch : continuous sampling with plastic sleeve or split spoon	Drilled By Total Depth Logged By Reviewed By	: Environmental Services Network : 13 feet : Elaine Dilley : Dan Venchiarutti

Depth ft	GRAPHI	DESCRIPTION	Soil Sample No.	OVM	Well: SB-3 Elev.:
0		concrete surface			Concrete
1				0	
2				0	
3		dry, brown, slightly silty, gravelly, fine to medium-grained SAND (at 5 feet bgs: dry, brown, slightly silty, slightly sandy, fine-grained GRAVEL)	SB-3, 3'	0	
4				0	
5			SB-3, 5'	0	
6				0	
7				0	Bentonite Chips
8		dry, grey, slightly silty, slightly gravelly, fine-grained SAND		0	
9				0	
10		No groundwater detected to 10 feet bgs. Attempted to collect a soil sample for the 10-13 feet bgs interval with a discrete sampler. A piece of rod broke, leaving the sampler at the base of the boring. Attempts to retreive the sampler failed. The boring had to be terminated at 13 feet bgs.	SB-3, 10'	0	
11					
12					
13					

10-14-20... :\04204004.02\Borin Lo s\SB-3.bo

SCS ENGINEERS

BORING SB-4

(Page 1 of 1)

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 10/1/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 12 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Depth (ft)	GRAPHIC	DESCRIPTION	Soil Sample No.	OVM
0		concrete surface		
1				0
2				0
3				0
4				0
5				0
6		dry, brown, slightly silty, slightly gravelly, fine to medium-grained SAND (gravel is fine to coarse-grained)	SB-4, 6'	0
7				0
8				0
9				0
10			SB-4, 10'	0
11		Having difficulty with caving and cuttings retrieval. Terminated boring at 12 feet bgs.		0
12		No groundwater detected in boring.		0

Well: SB-4
Elev.:

10-15-2004 G:\04204004.02\Boring Logs\SB-4.bor

SCS ENGINEERS

BORING SB-5

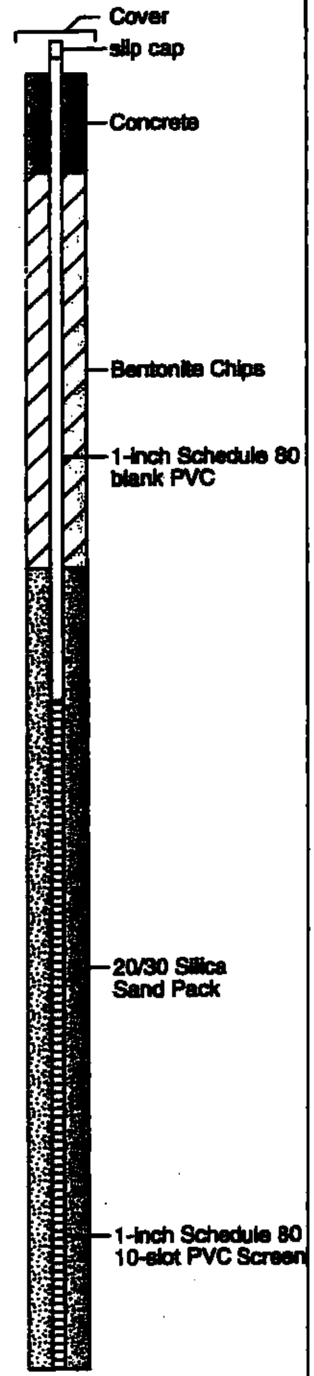
(Page 1 of 1)

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 10/1/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig	Total Depth	: 12 feet
Diameter	: 2-inch	Logged By	: Elaine Dilley
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Reviewed By	: Dan Venchiarutti

Depth (ft)	GRAPHIC	DESCRIPTION	Soil Sample No.	OVM
0		concrete surface		
1				0
2				0
3				0
4				0
5				0
6		dry, brown, slightly silty, slightly gravelly, fine to medium-grained SAND (gravel is fine to coarse-grained)		0
7				0
8			SB-5, 8'	0
9				0
10			SB-5, 10'	0
11				0
12		Having difficulty with caving and cuttings retrieval. No groundwater detected in boring to 12 feet bgs.		0
13				
14				
15				
16				
17				
18				
19		Drove casing to 20 feet bgs to facilitate completion of a monitoring well. Could not collect soil samples for the interval from 12-20 feet bgs.		
20				

Well: SB-5
Elev.:



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SCS ENGINEERS

BORING SB-6

(Page 1 of 1)

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 9/30/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 12 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Well: SB-6
Elev.:

Depth ft	GRAPHI	DESCRIPTION	Soil Sample No.	OVM	Well
0		concrete surface			Concrete
1				0	
2		dry, brown, slightly silty, slightly gravelly, fine to medium-grained SAND (gravel is fine to coarse-grained)		0	
3				0	
4				0	
5				0	
6		dry, grey-brown, very sandy, gravelly SILT	SB-6, 6'	0	Bentonite Chips
7				0	
8		damp to moist, grey, medium-grained SAND (<5% silt)		0	
9		damp, very dark brown, silty, sandy, fine to coarse-grained GRAVEL		0	
10		damp, brown-grey, very silty, fine-grained SAND		0	
11		dry, green-grey, slightly clayey SILT (with rust-colored staining)		0	
		no groundwater detected in boring		0	
12					

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SCS ENGINEERS

BORING SB-7

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 9/30/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 15 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Depth (ft)	DESCRIPTION	Soil Sample No.	OVM
0–0.5	concrete surface		
0.5–4	dry, brown, gravelly, slightly silty, fine to medium-grained SAND (gravel is fine-grained)		0 (1), 0 (2), 0 (3), 0 (4)
4–7	damp, grey, very silty, gravelly, fine-grained SAND (gravel is fine to coarse-grained)		0 (5), 0 (6), 0 (7)
7–9	damp to moist, brown, medium to coarse-grained SAND (rust-colored staining)	SB-7, 8'	0 (8), 0 (9)
9–10	damp, very dark brown, silty, sandy fine to coarse-grained GRAVEL		0 (10)
10–11	dry, brown-grey, slightly clayey SILT (rust-colored staining)		0 (11)
11–12	dry, grey, sandy, gravelly SILT (fine to coarse-grained sand; fine to coarse-grained gravel; some rust-colored staining)		0 (12)
12–15	dry, brown-grey, slightly clayey SILT (with pebbles)		0 (13), 0 (14), 0 (15)
15	no groundwater detected in boring		

Well: SB-7
Elev.:

- Concrete
- Bentonite Chips

SCS ENGINEERS

BORING SB-8

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 9/30/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 13.5 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Depth ft	GRAPHI	DESCRIPTION	Water Sample No.	Soil Sample No.	OVM
0		asphalt surface			
1		dry, brown and gray, gravelly SILT (reworked fill)			
2					0
3					
4					0
5		dry, brown, gravelly, coarse-grained SAND			
6					0
7			SB-8		
8				SB-8, 8'	8.1
9		moist, green-grey, gravelly SAND (appears to be stained) to wet, green-grey, gravelly, silty SAND			
10					0
11				SB-8, 11'	0
12					0
13		moist to wet, green-grey, sandy GRAVEL (with a zone of pea gravel, grading to coarse-grained gravel)			0
		Refusal at 13.5 feet			

Well: SB-8
Elev.:

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SCS ENGINEERS

BORING SB-9

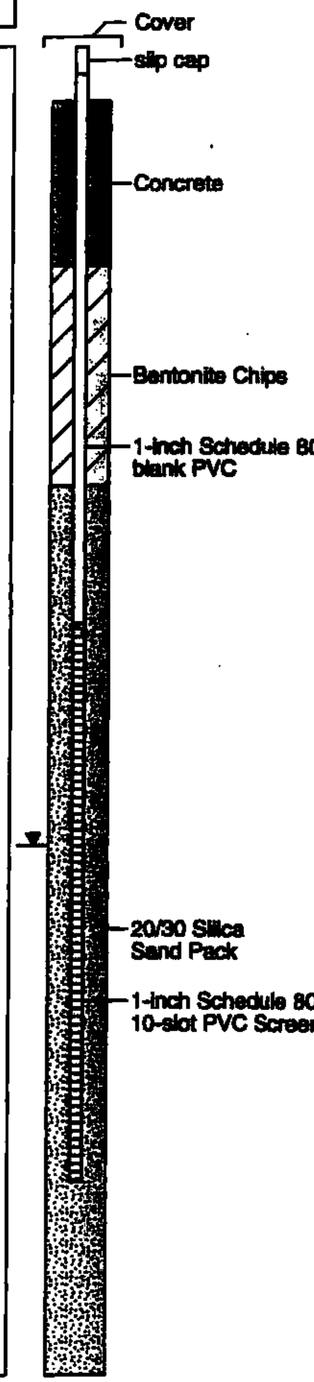
(Page 1 of 1)

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 12/6/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 12 feet
Sampling Device	: continuous sampling with plastic sleeve	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Depth (ft)	DESCRIPTION	Water Sample No.	Soil Sample No.
0–0.4	asphalt surface		
0.4–4	damp, dark grey/dark brown, very silty, gravelly, fine-grained SAND with organic material to very sandy, gravelly, SILT with organic material (fine to coarse-grained gravel; fine-grained sand)		
4–6.5	damp, brown, fine to medium-grained SAND with organic material		
6.5–7	damp to moist, grey, slightly gravelly, very silty, very fine-grained SAND		
7–10	wet, grey, fine to medium-grained SAND	SB-9	SB-9, 8'
10–12	dry, grey-brown, SILT with rust-colored staining		

Well: SB-9
Elev.:



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SCS ENGINEERS

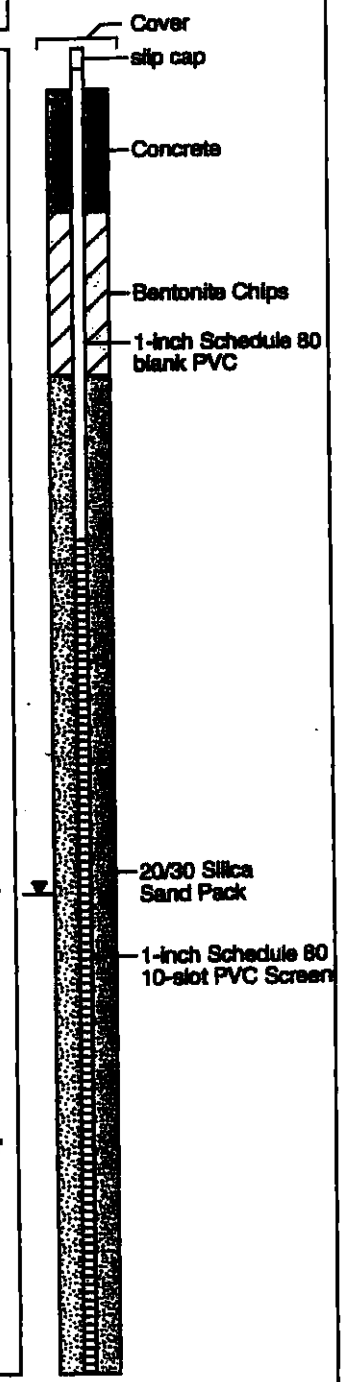
BORING SB-10

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 12/6/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 16 feet
Sampling Device	: continuous sampling with plastic sleeve	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Depth (ft)	GRAPHIC	DESCRIPTION	Water Sample No.	Soil Sample No.
0		asphalt surface		
3		dry, grey, very silty, very gravelly, fine to coarse-grained SAND (fine to coarse-grained gravel)		
7		dry, brown, fine to medium-grained SAND (<5% fine-grained gravel)		
10			SB-10	SB-10, 10'
12		damp to wet, grey-brown, very silty, slightly gravelly, fine to coarse-grained SAND (fine to coarse-grained gravel) alternating with damp to wet, grey-brown, very sandy, SILT with rust-colored staining		
13				SB-10, 13'
16				

Well: SB-10
Elev.:



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SCS ENGINEERS

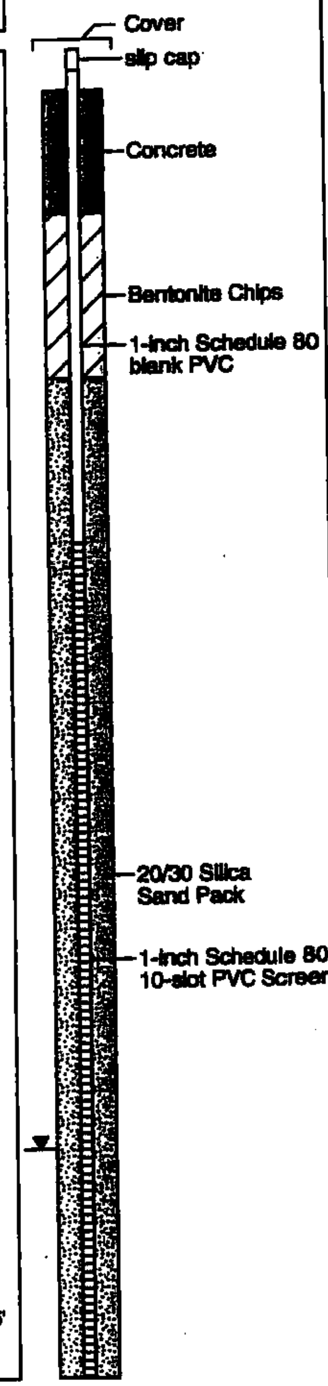
BORING SB-11

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 12/6/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig	Total Depth	: 16 feet
Diameter	: 2-inch	Logged By	: Elaine Dilley
Sampling Device	: continuous sampling with plastic sleeve	Reviewed By	: Dan Venchiarutti

Depth (ft)	GRAPHIC	DESCRIPTION	Water Sample No.	Soil Sample No.
0–0.5		asphalt surface		
0.5–7		dry, dark brown, very gravelly, silty, fine to coarse-grained SAND with some organic material (fine to coarse-grained gravel)		
7–13		dry, brown, fine to medium-grained SAND (<5% fine-grained gravel) dry, tan, fine to coarse-grained SAND with some rust-colored staining(<5% silt and <5% fine-grained gravel)		
13–16		damp to wet, brown, silty, fine to medium-grained SAND alternating with grey SILT with rust-colored staining (<5% fine to coarse-grained gravel)	SB-11	SB-11, 15'

Well: SB-11
Elev.:



SCS ENGINEERS

BORING SB-14

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 12/8/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 16 feet
Sampling Device	: continuous sampling with plastic sleeve	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Depth (ft)	DESCRIPTION	Water Sample No.	Soil Sample No.
0–0.5	asphalt surface		
0.5–3	dry, brown, very silty, slightly gravelly, fine to medium-grained SAND with rust-colored staining (fine to coarse-grained gravel)		
3–7	damp, grey, slightly silty, slightly gravelly, fine to medium-grained SAND (fine to coarse-grained gravel)		
7–11	damp, dark brown, very sandy, slightly gravelly, SILT with organic material (fine-grained gravel; some green-gray, clayey silt)		
11–15.5	damp to wet, grey, slightly silty, fine to coarse-grained SAND	SB-14	SB-14, 15'
15.5–16	damp, grey, very sandy, SILT		

Well: SB-14
Elev.:

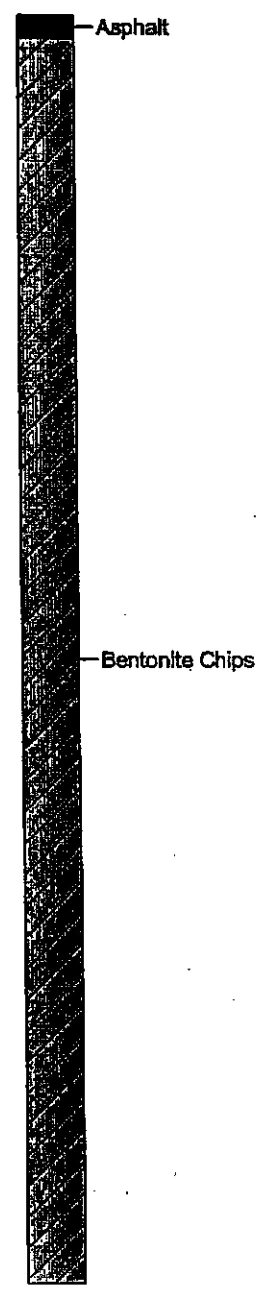
12-16-2004 G:\04204004.02\Boring Logs\SB-14.bor

SCS ENGINEERS	BORING SB-17
	(Page 1 of 1)

Former PACE Property Kirkland, WA 04204004.02	Started/Completed : 9/29/04 Drilling Method : Direct Push with Probe Rig Diameter : 2-inch Sampling Device : continuous sampling with plastic sleeve or split spoon	Drilled By : Environmental Services Network Total Depth : 14 feet Logged By : Elaine Dilley Reviewed By : Dan Venchiarutti	

Depth ft	GRAPHI	DESCRIPTION	Soil Sample No.	OVM
0		asphalt surface		
		fill		
1		dry, brown, slightly silty, gravelly, fine to medium-grained SAND (rust-colored staining)		0
2		dry, very dark brown, very sandy SILT to very silty fine-grained SAND		0
3				0
4		dry, grey, very silty, fine-grained SAND to very sandy SILT		0
5				0
6				0
7				0
8		dry, brown, very silty, fine-grained SAND to very sandy SILT (rust-colored staining)	SB-17, 8'	0
9				0
10				0
11		dry, green-grey, slightly clayey SILT		0
12				0
13				0
14		no groundwater detected in boring		0

Well: SB-17
Elev.:



SCS ENGINEERS

BORING SB-18

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 9/29/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 14 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Well: SB-18
Elev.:

Depth ft	GRAPHI	DESCRIPTION	Soil Sample No.	OVM
0		asphalt surface		
		fill		
1				6
2		dry, dark grey, silty, gravelly, fine to coarse-grained SAND (fine-grained gravel)		1
3		dry, grey to brown, sandy SILT (sand is fine-grained; rust-colored staining)		0
4				0
5		dry, brown, slightly sandy SILT (with rust-colored staining)		0
6				0
7			SB-18, 7'	0
8				0
9				0
10		dry, green-grey, slightly clayey SILT		0
11				0
12				0
13		no groundwater detected in boring		0
14				0

SCS ENGINEERS

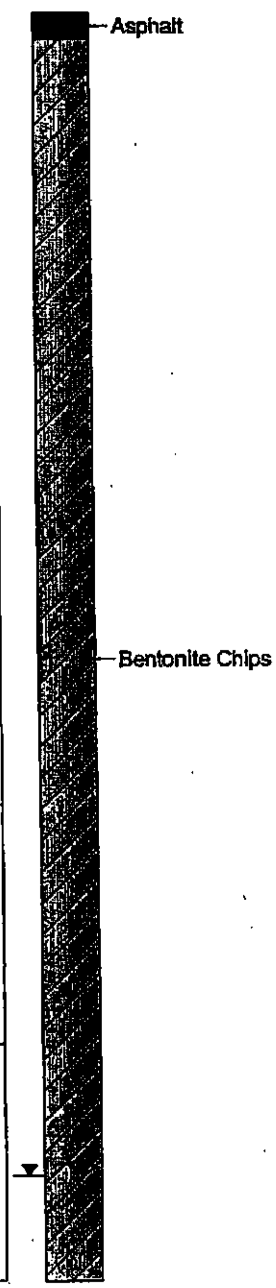
BORING SB-19

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 10/1/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 12 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Depth ft	DESCRIPTION	Water Sample No.	Soil Sample No.	OVM
0	asphalt surface			
	fill			
1				0
2	dry, brown-grey, slightly sandy SILT (fine to medium-grained sand)			0
	lots of organic matter in the first 4-foot sampling interval			
3	dry to damp, dark brown SILT			0
4				0
5				0
6	damp, grey, clayey SILT with brown, silty SAND			0
7				0
8				
9	damp to moist, grey, clayey SILT		SB-19, 8'	24
10				
11	wet, grey, very silty, sandy, fine-grained GRAVEL	SB-19	SB-19, 11'	40
	damp to moist, green-grey, clayey SILT			
12				

Well: SB-19
Elev.:



SCS ENGINEERS

BORING SB-20

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 10/1/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 12 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Well: SB-20
Elev.:

Depth ft	DESCRIPTION	Soil Sample No.	OVM	Well
0	asphalt surface			Asphalt
	fill			
1			0	
2			0	
3	damp to moist, brown-grey, slightly gravelly, sandy SILT (fine to medium-grained sand)		0	
4			0	
5			0	
6		SB-20, 6'	24	Bentonite Chips
7			0	
8			0	
9	damp, brown-grey, slightly sandy SILT (with rust-colored staining) grading to dry, grey, slightly clayey SILT		0	
10			0	
11			0	
12	no groundwater detected in boring		0	

SCS ENGINEERS

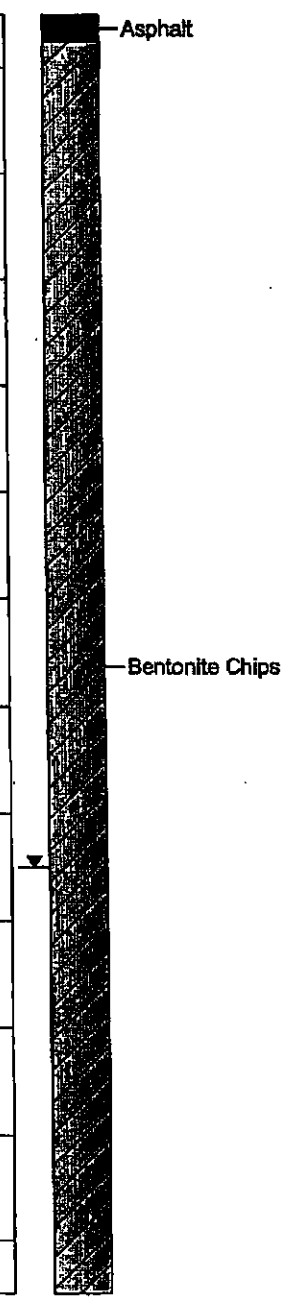
BORING SB-21

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 9/30/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 12 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Depth ft	GRAPHI	DESCRIPTION	Water Sample No.	Soil Sample No.	OVM
0		asphalt surface			
1					0
2					0
3		dry, grey, very sandy GRAVEL (fill)			0
4					0
5					0
6				SB-21, 6'	0
7					0
8			SB-21		0
9		wet, brown, very sandy, silty, fine to coarse-grained GRAVEL			0
10					0
11				SB-21, 11'	0
12		wet, grey, very gravelly, silty, fine to coarse-grained SAND (gravel is fine to coarse-grained)			0

Well: SB-21
Elev.:



SCS ENGINEERS

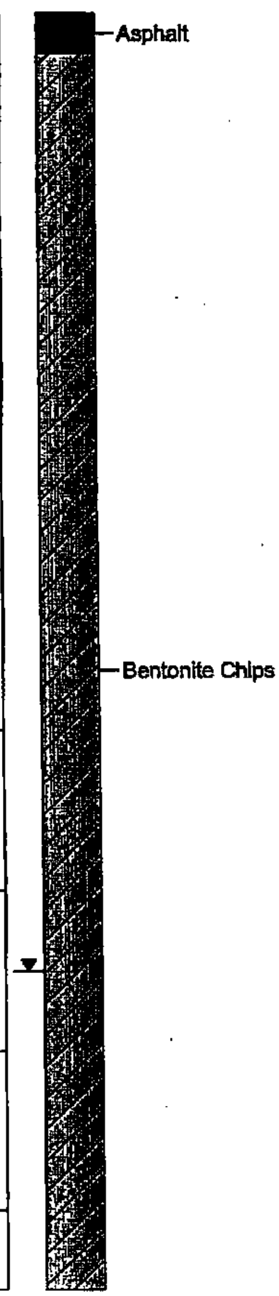
BORING SB-22

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 10/1/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 8 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Well: SB-22
Elev.:

Depth ft	GRAPHI	DESCRIPTION	Water Sample No.	Soil Sample No.	OVM
0		asphalt surface			
		fill			
1		damp, dark brown, very sandy, very gravelly SILT			0
2					0
3		damp, grey, fine to medium-grained SAND			0
4					0
5		dry to damp, dark brown, very silty, gravelly, fine to medium-grained SAND			0
6			SB-22	SB-22, 6'	0
		damp to wet, grey, sandy SILT (rust-colored staining; fine-grained sand)			0
7		dry, green-grey, clayey SILT			0
8					0



SCS ENGINEERS

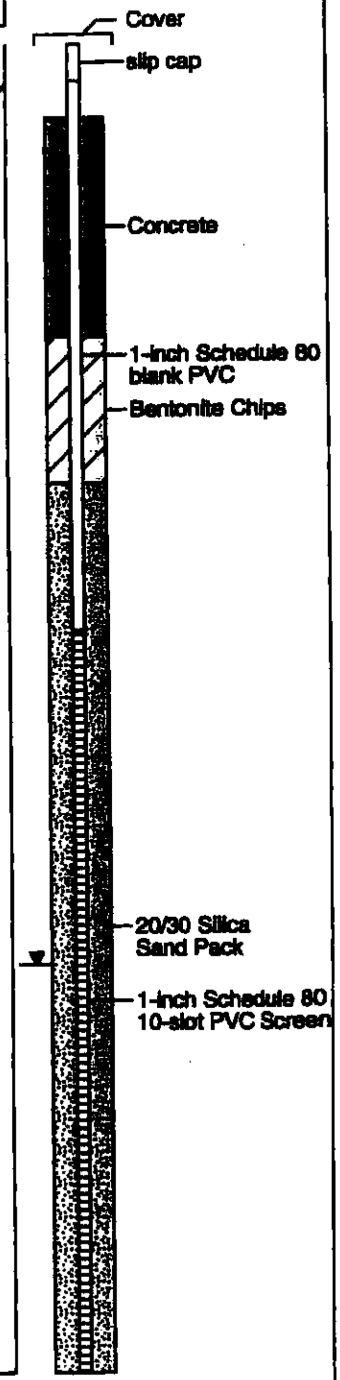
BORING SB-22 (B)

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 12/7/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig	Total Depth	: 9 feet
Diameter	: 2-inch	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Depth (ft)	GRAPHIC	DESCRIPTION
0		asphalt surface
		no sampling conducted; see boring log for SB-22 (A)
1		
2		
3		
4		
5		
6		
7		
8		
9		

Well: SB-22 (B)
Elev.:

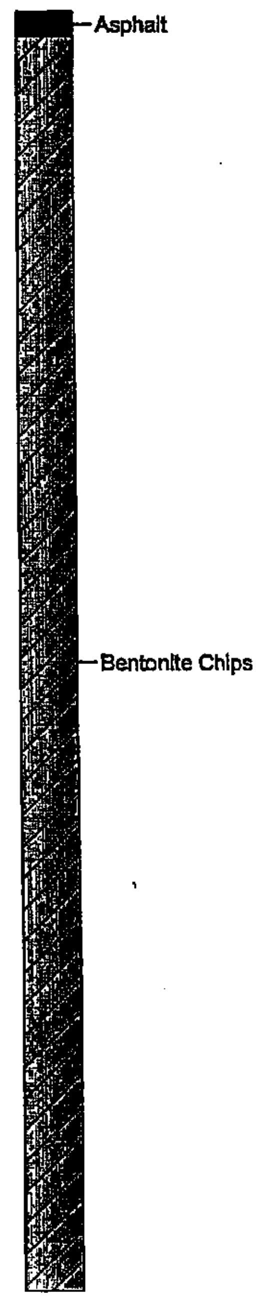


SCS ENGINEERS	BORING SB-23 (Page 1 of 1)

Former PACE Property Kirkland, WA 04204004.02	Started/Completed Drilling Method Diameter Sampling Device	: 9/29/04 : Direct Push with Probe Rig : 2-inch : continuous sampling with plastic sleeve or split spoon	Drilled By Total Depth Logged By Reviewed By	: Environmental Services Network : 13 feet : Elaine Dilley : Dan Venchiarutti

Depth ft	GRAPHI	DESCRIPTION	Soil Sample No.	OVM
0		asphalt surface		
		fill		
1				0
2				0
3				0
4				0
5		dry, brown, very silty, fine to medium-grained SAND (<5% fine-grained gravel; rust-colored staining) alternating with dry, brown, very sandy SILT (fine-grained sand; rust-colored staining)		0
6				0
7				0
8				0
9				0
10			SB-23, 10'	0
11				0
12		dry, green-grey, slightly clayey SILT		0
13		no groundwater detected in boring		0

Well: SB-23
Elev.:



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SCS ENGINEERS

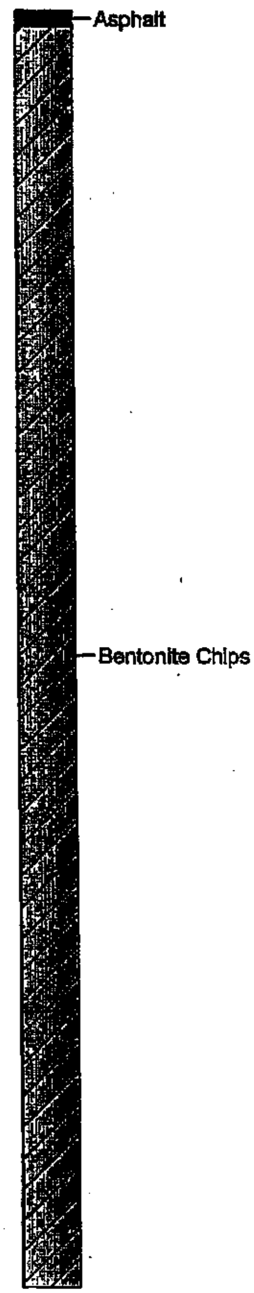
BORING SB-24

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 9/29/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 21 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Depth ft	DESCRIPTION	Soil Sample No.	OVM
0	asphalt surface		
1	fill		0
2	dry, grey and brown, slightly gravelly, silty, fine to medium-grained SAND (gravel is fine-grained, sub-rounded; with rust-colored staining from 2-3 feet bgs)		0
3			0
4			0
5	dry, brown, slightly gravelly, silty, fine to medium-grained SAND (5% fine-grained, sub-rounded gravel; with rust-colored staining throughout)		0
6			0
7	dry, grey, slightly clayey SILT	SB-24, 7'	0
8	dry, brown, silty, fine to medium-grained SAND (with rust-colored staining)		0
9	dry, grey, slightly clayey SILT	SB-24,9'	0
10	dry, brown, silty, fine to medium-grained SAND (with rust-colored staining)		0
11	dry, grey, slightly clayey SILT		0
12	damp, brown, silty, fine to medium-grained SAND (with rust-colored staining)		0
13	dry, green-grey, slightly clayey SILT		0
14			0
15			0
16			0
17			0
18	(damp from 18-19 feet bgs)		0
19			0
20	no groundwater detected in boring		0
21			0

Well: SB-24
Elev.:



SCS ENGINEERS

BORING SB-25

(Page 1 of 1)

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 9/29/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 15 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Well: SB-25
Elev.:

Depth ft	GRAPHI	DESCRIPTION	Water Sample No.	Soil Sample No.	OVM	Well
0		asphalt surface				Asphalt
		fill				
1					9	
2					0	
3					0	
4		dry, brown, slightly gravelly, silty, fine to medium-grained SAND (gravel is fine-grained, sub-rounded; with rust-colored staining throughout; dark-colored staining at 4 feet bgs)		SB-25, 4'	37	
5					5	
6					0	
7		damp, brown, slightly gravelly, silty, fine to medium-grained SAND (gravel is fine-grained, sub-rounded; with rust-colored staining throughout)			0	
8					0	Bentonite Chips
		dry, brown, slightly gravelly, silty, fine to medium-grained SAND (gravel is fine-grained, sub-rounded; with rust-colored staining throughout)				
9					4	
10		wet, brown, slightly gravelly, silty, fine to medium-grained SAND (gravel is fine-grained, sub-rounded; with rust-colored staining throughout)			0	
11			SB-25	SB-25, 11'	0	▼
12					0	
13		dry, green-grey, slightly clayey SILT			0	
14					0	
15					0	

10-14-2... G:\04204004.02\Borin Lo s\SB-25.bo

SCS ENGINEERS	BORING SB-26
	(Page 1 of 1)

Former PACE Property Kirkland, WA 04204004.02	Started/Completed : 9/29/04 Drilling Method : Direct Push with Probe Rig Diameter : 2-inch Sampling Device : continuous sampling with plastic sleeve or split spoon	Drilled By : Environmental Services Network Total Depth : 15 feet Logged By : Elaine Dilley Reviewed By : Dan Venchiarutti

Well: SB-26
Elev.:

Depth ft	DESCRIPTION	Water Sample No.	Soil Sample No.	OVM
0	asphalt surface			
	fill			
1				0
2				0
3	dry, dark brown, silty, fine to coarse-grained SAND (<5% fine-grained gravel)			0
4				0
5				0
6	damp to wet, very dark brown and grey, silty, fine to coarse-grained SAND (with organic material; some patchy black areas)			0
7		SB-26	SB-26, 7'	0
8				0
9				0
10	dry, green-grey, slightly clayey SILT			0
11				0
12				0
13				0
14	dry, grey, slightly clayey, sandy SILT (fine-grained sand)			0
15				0

10-14-2004 G:\04204004.02\Borin Lo s\SB-26.bo

SCS ENGINEERS

BORING SB-27

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 9/29/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 14 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Well: SB-27
Elev.:

Depth ft	GRAPHI	DESCRIPTION	Water Sample No.	Soil Sample No.	OVM
0		asphalt surface			
		fill			
1					0
2					0
3		dry, brown to very dark brown, silty, fine to coarse-grained SAND (<5% fine-grained gravel; organic material)			0
4					0
5					0
6		damp to wet, grey, sandy SILT (sand is fine to medium-grained)			0
7				SB-27, 7'	0
8					0
9					0
		dry, green-grey, slightly clayey SILT (sandier with depth)			
10					0
11					0
12			SB-27		0
13		dry, brown, slightly sandy SILT (with organic mateial; sand is fine-grained)			0
14					0

Asphalt

Bentonite Chips

10-14-20ws G:\04204004.02\Borin Lo s\SB-27.bo

SCS ENGINEERS

BORING SB-28

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 9/29/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 8 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Well: SB-28
Elev.:

Depth ft	GRAPHI	DESCRIPTION	Water Sample No.	Soil Sample No.	OVM	Well
0		asphalt surface				Asphalt
		fill				
1					0	
2					0	
3					0	
4		dry, brown, slightly silty, fine to medium-grained SAND (with rust-colored staining)			0	Bentonite Chips
5					0	
6					0	
7					0	
		wet, brown, fine to coarse-grained SAND (<5% silt)	SB-28	SB-28, 8'	0	
8						

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SCS ENGINEERS

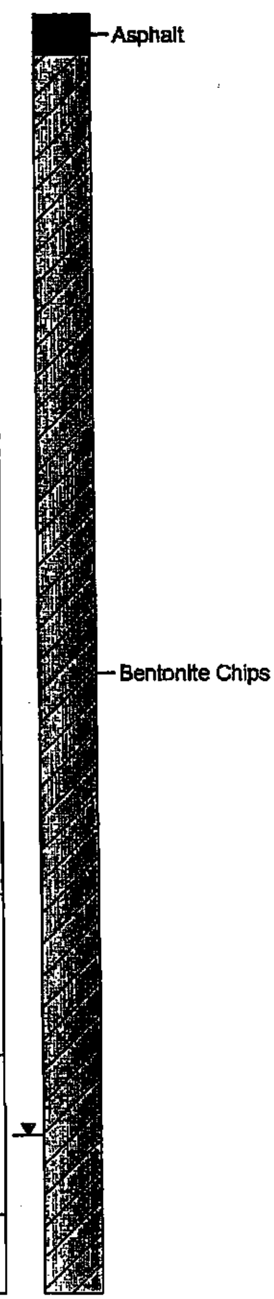
BORING SB-29

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 9/29/04	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push with Probe Rig		
Diameter	: 2-inch	Total Depth	: 8 feet
Sampling Device	: continuous sampling with plastic sleeve or split spoon	Logged By	: Elaine Dilley
		Reviewed By	: Dan Venchiarutti

Depth ft	GRAPHI	DESCRIPTION	Water Sample No.	Soil Sample No.	OVM
0		asphalt surface			
1		fill			0
2		dry, brown, gravelly, silty, fine to medium-grained SAND			0
3					0
4		dry, grey, slightly clayey SILT			0
5					0
6					0
7		damp to wet, brown to dark brown, silty, fine to medium-grained SAND			0
8			SB-29	SB-29, 8'	0

Well: SB-29
Elev.:



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SCS ENGINEERS

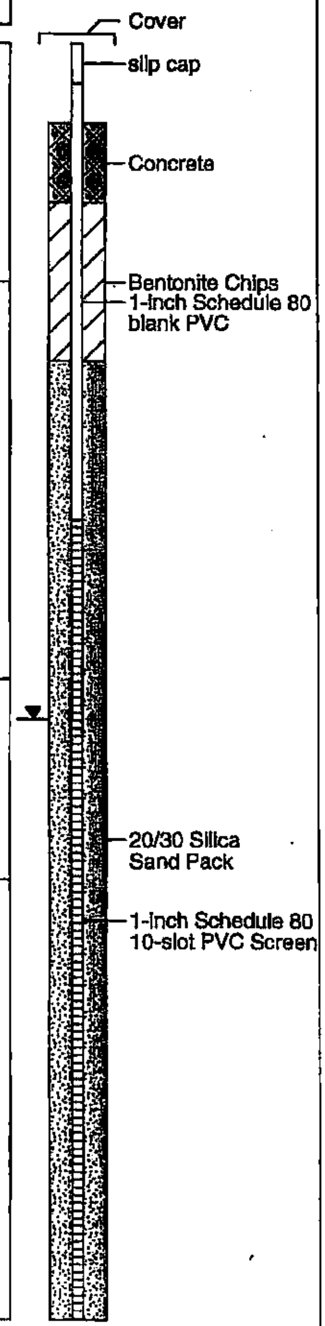
BORING SB-36

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 6/16/05	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push/AMS Power Probe 9630		
Diameter	: 2-inch boring	Total Depth	: 8 feet
Sampling Device	: continuous sampling with 2" x 4' Macro Core Sampler	Logged By	: Brian Doan
		Reviewed By	: Dan Venchiarutti

Depth (ft)	GRAPHIC	DESCRIPTION
0–1.5		dry, grey, very gravelly, fine to coarse-grained SAND (gravel is fine-grained)
1.5–4		slightly moist, green-gray, silty CLAY (firm)
4–5.3		wet, brown, very gravelly, fine to coarse-grained SAND (gravel is fine-grained; <5% silt)
5.3–8		slightly moist, green-gray, silty CLAY (firm)
		moist, green-gray, silty CLAY (soft)
		moist to wet, clayey, gravelly SILT
		slightly moist, green-gray, silty CLAY (firm)

Well: SB-36
Elev.:



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SCS ENGINEERS

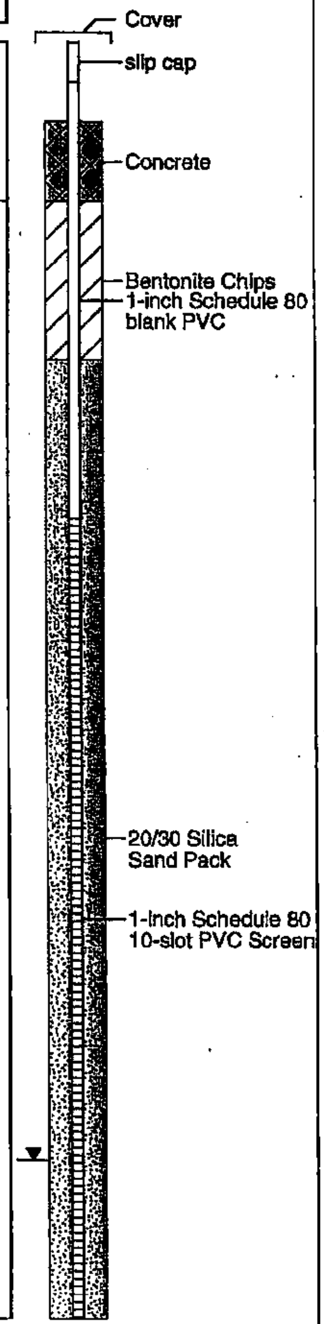
BORING SB-37

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 6/16/05	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push/AMS Power Probe 9630		
Diameter	: 2-inch boring	Total Depth	: 8 feet
Sampling Device	: continuous sampling with 2" x 4' Macro Core Sampler	Logged By	: Brian Doan
		Reviewed By	: Dan Venchiarutti

Depth (ft)	GRAPHIC	DESCRIPTION
0		
		dry, brown, very gravelly, fine to coarse-grained SAND (gravel is fine-grained)
1		
		green-gray, silty CLAY (hard)
2		
3		moist, green-gray, silty CLAY (soft) with a 1" thick layer of dark grey gravelly SAND
4		
5		
6		3" thick layer of dark grey gravelly SAND
7		slightly moist, green-gray, silty CLAY (firm)
		1.25' of water after being left open ~3.5 hours
8		

Well: SB-37
Elev.:



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SCS ENGINEERS

BORING SB-38

(Page 1 of 1)

Former PACE Property
Kirkland, WA
04204004.02

Started/Completed	: 6/16/05	Drilled By	: Environmental Services Network
Drilling Method	: Direct Push/AMS Power Probe 9630		
Diameter	: 2-inch boring	Total Depth	: 12 feet
Sampling Device	: continuous sampling with 2" x 4' Macro Core Sampler	Logged By	: Brian Doan
		Reviewed By	: Dan Venchiarutti

Depth (ft)	GRAPHIC	DESCRIPTION
0–1		dry, grey, very gravelly, SAND (gravel is fine to medium-grained)
1–3		dry, dark grey, silty CLAY (hard)
3–4		moist, green-gray, silty CLAY (soft; with iron oxide staining from 3' to 3.5'; 1" thin layer of sand at 3.75')
4–5		slightly moist, tan-brown, silty CLAY (firm; with iron oxide staining)
5–10		slightly moist, green-gray, silty CLAY (firm; with iron oxide staining from 8' to 10')
10–12		very moist, green-gray, silty CLAY (soft)

Well: SB-38
Elev.:

08-22-2005 G:\04204004.02\Boring Logs\SB-38.bor

SCS ENGINEERS

Well DWMW-1

Pace (Offsite Wells)
Kirkland, Washington
04204004.03

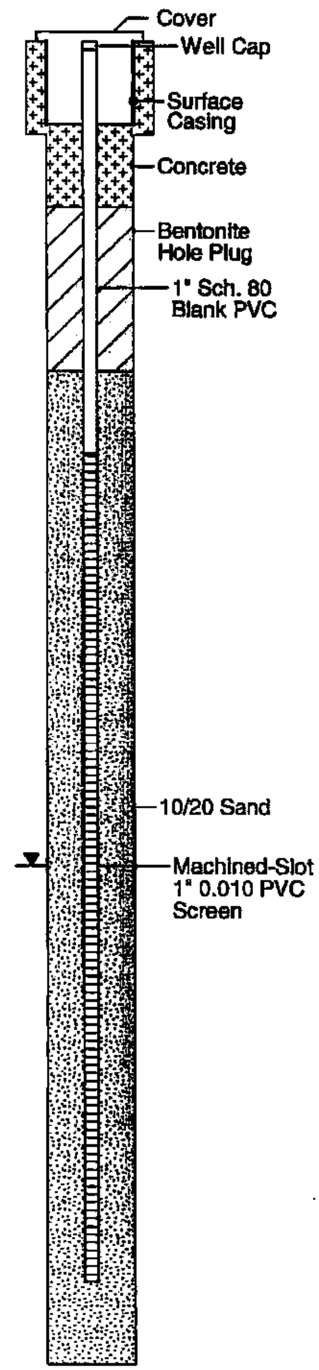
Started/Completed	: 08-09-06/08-09-06		
Drilling Method	: Direct Push	Total Depth	: 15'
Diameter	: 1"	Logged By	: Stephen Bond
Sampling Device	: Continuous/Plastic Sleeve	Reviewed By	:
Drilled By	: ESN NW		

Sample Type: Plastic Sleeve

Water Levels (bgs): After Drilling; During Drilling

Depth (ft)	USCS	DESCRIPTION	REMARKS
0		Asphalt cover	
0–5	SW	Damp, brown fine to coarse-grained SAND with fine to coarse-grained, sub-rounded gravel and organic matter	No liner from 0-4' Description from material in drill stem
5–6	SW	Damp to moist, grey, fine to coarse-grained SAND with silt and trace fine to coarse-grained gravel	
6–8	ML	Damp, blue-grey, very fine to medium-grained sandy SILT with trace coars-grained sand and fine-grained gravel	Noticed odor at 6'
8–9	SW	Moist to wet, grey, fine to coarse-grained SAND with fine-grained gravel	
9–11	ML	Same as 6-8'	Noticed odor at 9'
11–13	SW	Wet, grey, fine to coarse-grained SAND with silt and trace fine-grained gravel	Noticed odor at 12'
13–15	SM	Damp, dark brown, very silty, very fine-grained SAND	

Well: DWMW-1



SCS ENGINEERS

Well DWMW-2

Pace (Offsite Wells)
Kirkland, Washington
04204004.03

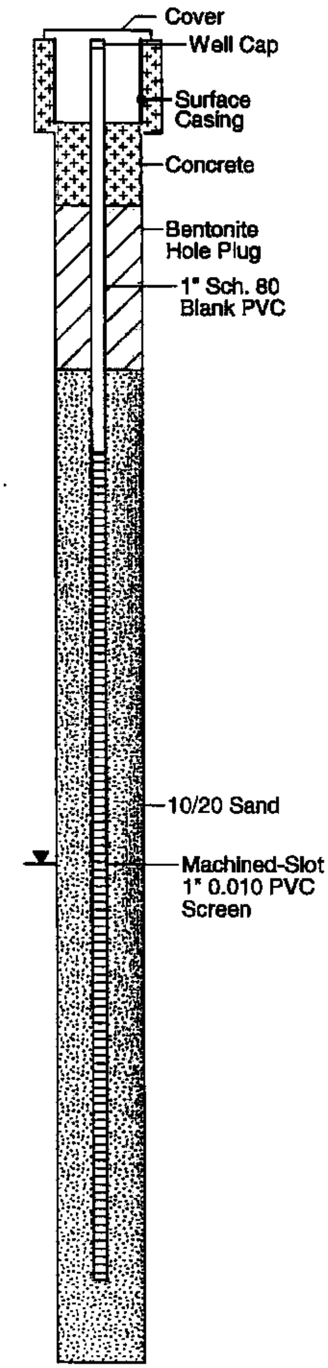
Started/Completed	: 08-09-06/08-09-06		
Drilling Method	: Direct Push	Total Depth	: 15'
Diameter	: 1"	Logged By	: Stephen Bond
Sampling Device	: Continuous/Plastic Sleeve	Reviewed By	:
Drilled By	: ESN NW		

Sample Type: Plastic Sleeve

Water Levels (bgs): ▼ After Drilling; ▽ During Drilling

Depth (ft)	USCS	DESCRIPTION	REMARKS
0–3	SM	Damp, orange-brown slightly silty, fine to coarse-grained SAND with fine-grained, sub-rounded gravel and organic matter	
3–4.5	SW	Damp to moist, grey-brown, fine to coarse-grained SAND with sub-rounded, fine to coarse-grained gravel	
4.5–6	SM	Damp, grey, silty, very fine to medium-grained SAND with oxidation staining	
6–11	SM	Very damp, blue-grey, sandy (very fine to medium-grained) SILT with trace coarse-grained sand and fine-grained gravel	1" layer of coarse sand at transition between sand and silt units'
11–12	SM	Moist to wet, grey, silty, fine to medium-grained SAND with trace fine to coarse-grained gravel	
12–14	SW	Wet, grey, slightly gravelly, fine to coarse-grained SAND with trace silt	
14–15	SM	Same as 11-12'	
15–16	SM	Damp, dark brown, very silty, very fine-grained SAND	

Well: DWMW-2



SCS ENGINEERS

Well DWMW-3

Pace (Offsite Wells)
Kirkland, Washington
04204004.03

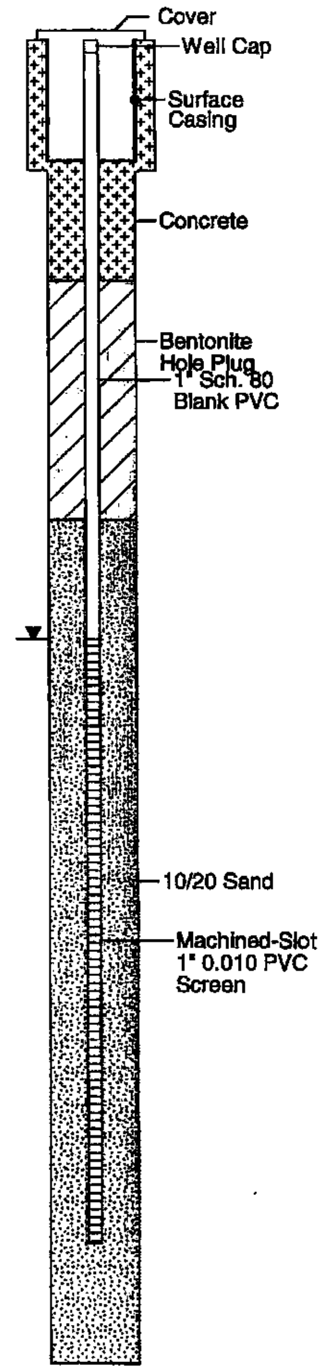
Started/Completed	: 08-09-06/08-09-06		
Drilling Method	: Direct Push	Total Depth	: 15'
Diameter	: 1"	Logged By	: Stephen Bond
Sampling Device	: Continuous/Plastic Sleeve	Reviewed By	:
Drilled By	: ESN NW		

Sample Type: Plastic Sleeve

Water Levels (bgs): ▼ After Drilling; ∇ During Drilling

Depth (ft)	USCS	GRAPHIC	DESCRIPTION	REMARKS	Sample
0–4				No sample from 0-4' Driller removed material with hand tools prior to drilling	
4–5	SW		Moist, brown, fine to coarse-grained SAND with trace silt and fine-grained gravel		
5–6	SW		Moist, grey, medium to coarse-grained SAND with trace fine to coarse-grained gravel and fine-grained sand		
6–10	ML		Moist, blue-grey, sandy (very-fine to medium-grained) SILT with trace coarse-grained sand and fine to coarse-grained gravel		
10–11	SM		Damp, dark brown, very silty, very fine-grained SAND		

Well: DWMW-3



Log of Exploratory Boring:

Notes
PVC screen set at 6 to 11 feet below ground surface.

Drilling Co./Driller:	Cascade Drilling / Lynn
Drilling Method:	Push-probe
Location:	
Surface Condition:	Asphalt
Total Depth:	15
First GW Depth:	4.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt (2 inches thick)		
0–1								Damp to moist, silty SAND with gravel, dark brown, no solvent or hydrocarbon odor (Fill).		
2.5			60%				SM			
3								Damp to wet, silty, fine-grained SAND, gray, no solvent or hydrocarbon odor (Fill).		
4		0.2			SB01-4-4.5					
4.5									▽	
5							ML	Moist to damp, fine-grained sandy SILT, dark brown, with organic matter (roots).		
6								Saturated, silty, fine-grained SAND, gray.		
7.5		0.5	80%		Screening sample at 7.5 to 8 feet bgs					
8.5								Damp to wet, silty, fine-grained SAND w/ gravel, gray mottled with brown to brown.		
9							SM			
10.5								Saturated, silty, fine-grained SAND, gray (25-75-0)		
11.5								Wet, silty, fine-grained SAND, minor gravel, brown, no solvent or hydrocarbon odor.		
12.5			90%							
13								Moist, SILT with clay, dark gray, no solvent or hydrocarbon odor (100-0-0).		
13.5		0.7			Screening sample at 14 to 14.5 feet bgs					
14							ML			
15								Boring SB01 terminated at 15 feet below ground surface (bgs). Temporary PVC screen set at 6 to 11 feet bgs. Boring SB01 was abandoned by backfilling with bentonite chips after collecting a reconnaissance groundwater sample.		
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Pace Chemical
431 7th Avenue South
Kirland, Washington

Date Started: 4/26/2010
Date Finished: 4/26/2010
Logged By: CCC
Chk By: JAC
SES Project No.: 0698-001-02

BORING LOG
SB01

Log of Exploratory Boring:

Notes
PVC screen set at 3 to 11 feet below ground surface.

Drilling Co./Driller:	Cascade Drilling / Lynn
Drilling Method:	Push-probe
Location:	
Surface Condition:	Asphalt
Total Depth:	15
First GW Depth:	6

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
After Completion
During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt (2 inches thick)		
1								Moist, silty, gravelly, fine-grained SAND, grayish brown with oxidation, no solvent or hydrocarbon odor (Fill).		
2										
3			50%					Damp to wet, silty, fine-grained SAND, brown with oxidation, no solvent or hydrocarbon odor		
4		0.0			Screening sample at 4.5 feet bgs					
5							SM			
6								Wet, silty, fine-grained SAND, some gravel, brown, no solvent or hydrocarbon odor (30-60-10).	∇	
7										
8		0.4	30%		Screening sample at 8 feet bgs					
9										
10							ML	Moist, SILT, tan/gray, no solvent or hydrocarbon odor.		
11								No recovery.		
12										
13			0%							
14										
15								Boring SB02 terminated at 15 feet below ground surface (bgs). Temporary PVC screen set at 3 to 13 feet bgs. Boring SB02 was abandoned by backfilling with bentonite chips after collecting a reconnaissance groundwater sample.		
16										
17										
18										
19										
20										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Pace Chemical
431 7th Avenue South
Kirland, Washington

Date Started: 4/26/2010
Date Finished: 4/26/2010
Logged By: CCC
Chk By: JAC
SES Project No.: 0698-001-02

BORING LOG
SB02

Log of Exploratory Boring:

Notes
PVC screen set at 5 to 10 feet below ground surface.

Drilling Co./Driller:	Cascade Drilling / Lynn
Drilling Method:	Push-probe
Location:	
Surface Condition:	Asphalt
Total Depth:	10
First GW Depth:	2.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
After Completion
During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
0.5								Damp to wet, silty, fine- to medium-grained SAND with gravel, brown, no solvent or petroleum odor (15-70-15).		
2.5			70%						▽	
4		2.7			Screening sample at 4 - 4.5 feet bgs					
5							SM	Saturated, silty, fine- to medium-grained SAND, some gravel, brown, no solvent or petroleum odor.		
7.5			90%							
9		0.8			Screening sample at 9 - 9.5 feet bgs			Damp to wet, silty, fine-grained SAND with gravel, gray, no solvent or petroleum odor. (70-70-10).		
10								Boring SB03 terminated at 10 feet below ground surface (bgs). Temporary PVC screen set at 5 to 10 feet bgs. Boring SB03 was abandoned by backfilling with bentonite chips after collecting a reconnaissance groundwater sample.		
11										
12										
13										
14										
15										

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade Drilling / Frank
Drilling Method:	Push-probe
Location:	
Surface Condition:	Asphalt
Total Depth:	10
First GW Depth:	3

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt (2 inches thick)		
								Coarse gravel base - Moist to wet, silty, fine-grained SAND, some gravel, brown (Fill).		
1										
2			70%							
3									▽	
		7.6						Stained gray, moderate diesel fuel odor		
4								Saturated, silty, fine-grained SAND, some gravel, stained gray (20-65-15).		
5		17.1			SB04-5-6		SM			
6			95%							
7		2.2			SB04-7-7.5			Damp, silty, fine-grained SAND, some gravel, brown, increased coarse gravel with depth, faint diesel odor.		
8										
9		2.5	100%							
10								Boring SB04 had refusal at approximately 10 feet below ground surface (bgs) due to a rock. No reconnaissance groundwater sample was collected. Boring SB04 was abandoned by backfilling with bentonite chips.		
11										
12										
13										
14										
15										

Log of Exploratory Boring:

Notes
PVC screen set at 4 to 12 feet below ground surface.

Drilling Co./Driller:	Cascade Drilling / Frank
Drilling Method:	Push-probe
Location:	
Surface Condition:	Asphalt
Total Depth:	11.5
First GW Depth:	3

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt (2 inches thick)		
0–1								Damp to wet, silty fine- to medium-grained SAND with gravel, dark brown with gray, no solvent or hydrocarbon odor (Fill).		
2			75%							
3									▽	
3.5		2.2			Screening sample at 3.5 to 4 feet bgs					
6			70%				SM			
7		2.5			Screening sample at 7 to 8 feet bgs					
8.5								Damp to wet, silty, fine-grained SAND with gravel, gray, no odor, no solvent or hydrocarbon odor.		
10			95%							
10.5		1.9			Screening sample at 11 to 11.5 feet bgs					
12								Boring SB05 terminated at 11.5 feet below ground surface (bgs). Temporary PVC screen set at 4 to 11.5 feet bgs. Boring SB05 was abandoned by backfilling with bentonite chips after collecting a reconnaissance groundwater sample.		
13										
14										
15										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Pace Chemical
431 7th Avenue South
Kirland, Washington

Date Started: 4/27/2010
Date Finished: 4/27/2010
Logged By: CCC
Chk By: JAC
SES Project No.: 0698-001-02

BORING LOG
SB05

Log of Exploratory Boring:

Notes
PVC screen set at 10 to 15 feet below ground surface.

Drilling Co./Driller:	Cascade Drilling / Lynn
Drilling Method:	Push-probe
Location:	
Surface Condition:	Asphalt
Total Depth:	15
First GW Depth:	5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt (2 inches thick)		
0–7.5			30%	0–5			SM	Moist to wet, silty SAND wtih gravel, some roots/organics, dark gray to brown, no solvent or hydrocarbon odor (Fill).		
4.5		0.9			Screening sample at 5 feet bgs					
5									▽	
5–7.5				5–10				Silty, fine-grained SAND with gravel, brown, no solvent or hydrocarbon odor (20-60-20).		
7.5		1.8	80%		Screening sample at 7.5 feet bgs					
7.5–10							ML	Damp, SILT with clay, gray, no solvent or hydrocarbon odor		
10									▼	
10–14			80%	10–15			SM	Saturated, silty SAND with gravel, with clayey SILT inclusion, gray with brown, no solvent or hydrocarbon odor.		
14		1.0			Screening sample at 14 feet bgs					
14–15							CL-ML	Damp, clayey SILT, some fine-grained sand and gravel, no solvent or hydrocarbon odor.		
15–20								Boring SB06 terminated at 15 feet below ground surface (bgs). Temporary PVC screen set at 10 to 15 feet bgs. Boring SB06 was abandoned by backfilling with bentonite chips after collecting a reconnaissance groundwater sample.		

SOUND ENVIRONMENTAL STRATEGIES www.soundenvironmental.com	Pace Chemical 431 7th Avenue South Kirland, Washington	Date Started: 4/26/2010 Date Finished: 4/26/2010 Logged By: CCC Chk By: JAC SES Project No.: 0698-001-02	BORING LOG SB06 Page 1 of 1

Log of Exploratory Boring:

Notes
No groundwater sample collected

Drilling Co./Driller:	Cascade Drilling / Lynn
Drilling Method:	Push-probe
Location:	
Surface Condition:	Asphalt
Total Depth:	20
First GW Depth:	10

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
1								Moist, sillty SAND with gravel, brown w/ black and gray, no solvent or hydrocarbon odor (Fill).		
2			100%				SM	Silty SAND with some gravel, local silt inclusions, brown, no solvent or hydrocarbon odor		
3										
4		1.6			Screening sample at 4 at 5 feet bgs					
5										
6								Moist, SILT, some clay, with thin, oxidizedl fine-grained sand layers, gray with brown, no solvent or hydrocarbon odor.		
7			90%							
8										
9		1.3			Screening sample at 9 to 10 feet bgs					
10									▽	
11								Damp to moist, SILT with clay, trace fine-grained SAND, grayish brown, no solvent or hydrocarbon odor.		
12										
13							ML			
14		2.0	95%		Screening sampleat 14 to 15 feet bgs					
15										
16								Damp to moist, SILT with clay, dark gray, no solvent or hydrocarbon odor.		
17			100%							
18										
19		1.1			Screening sample at 19 to 20 feet bgs					
20										
21								Boring SB07 terminated at 20 feet below ground surface (bgs). No reconnaissance groundwater sample was collected. Boring SB07 was abandoned by backfilling with bentonite chips.		
22										
23										
24										
25										

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Pace Chemical
431 7th Avenue South
Kirland, Washington

Date Started: 4/26/2010
Date Finished: 4/26/2010
Logged By: CCC
Chk By: JAC
SES Project No.: 0698-001-02

BORING LOG
SB07

Log of Exploratory Boring:

Notes
PVC screen set at ~6.5 to 10 feet below ground surface.

Drilling Co./Driller:	Cascade Drilling / Lynn
Drilling Method:	Push-probe
Location:	
Surface Condition:	Asphalt
Total Depth:	10
First GW Depth:	6

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
After Completion
During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
0.5			100%	0–5			SM	Moist, silty, fine-grained SAND with gravel, brown with oxidation (FILL).		
2.5								Moist, silty SAND with gravel, brown. no solvent or hydrocarbon odor.		
4		1.1			Screening sample at 4 to 5 feet bgs					
5.5			90%	5–10				Medium dense, wet, silty, fine-grained SAND, brown, no solvent or hydrocarbon odor.	▽ (6)	
8.5		0.9			Screening sample at 8.5 to 9 feet bgs					
9							ML	Moist, SILT with clay, dark gray, no solvent or hydrocarbon odor (100-0-0).		
10								Boring SB08 terminated at 10 feet below ground surface (bgs). Temporary PVC screen set at ~6.5 to 10 feet bgs. Boring SB08 was abandoned by backfilling with bentonite chips after collecting a reconnaissance groundwater sample.		

Depth scale: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Pace Chemical
431 7th Avenue South
Kirland, Washington

Date Started: 4/26/2010
Date Finished: 4/26/2010
Logged By: CCC
Chk By: JAC
SES Project No.: 0698-001-02

BORING LOG
SB08

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	Cascade Drilling / Frank
Drilling Method:	Push-probe
Location:	
Surface Condition:	Asphalt
Total Depth:	10
First GW Depth:	3

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
0–5			75% (0–4)		Screening sample at 3.5 to 4 feet bgs		SM	Coarse gravel over damp to wet, silty, fine-grained SAND, some gravel, brown, no solvent or hydrocarbon odor (15-75-10).	▽ (3)	
5–6.5		2.9 (6)	90% (4–8)				SP	Saturated, fine- to medium-grained SAND, some silt, salt and pepper, gray-brown, no solvent or hydrocarbon odor (7-93-0).		
6.5–10		3.1 (7); 2.6 (9)	15% (8–10)		Screening sample at 7 feet bgs; Screening sample at 10 feet bgs		SM	Damp to wet, silty, fine-grained SAND, some gravel, brown, no solvent or hydrocarbon odor (20-60-20). Minor recovery - Moist, gravelly, silty, fine-grained SAND, medium olive gray, no solvent or hydrocarbon odor (20-60-20).		
10–15								Boring SB09 terminated at 10 feet below ground surface (bgs). Boring SB09 was abandoned by backfilling with bentonite chips after collecting a reconnaissance groundwater sample.		

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Pace Chemical
431 7th Avenue South
Kirland, Washington

Date Started: 4/27/2010
Date Finished: 4/27/2010
Logged By: CCC
Chk By: JAC
SES Project No.: 0698-001-02

BORING LOG
SB09

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	ESN / Noel & John
Drilling Method:	Combo Auger-Probe
Location:	Located ~18 feet North of boring SB01.
Surface Condition:	Grass
Total Depth:	11
First GW Depth:	7

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Grass		
0–4		0	85		SES-MW25-3.5		SP-SM	Moist to wet (wet at approximately 2 feet below ground surface [bgs], fine-grained SAND to silty SAND with gravel, brown (5-95-0) to (20-60-20) (Fill).		
4–7.5		0	60		SES-MW25-6.5		SM	Damp to wet (saturated at approximately 7 feet bgs), silty, fine-grained SAND with some gravel, tannish gray, no odor (10-75-15) (Fill).	▽	
7.5–9							ML	Wet, SILT, trace sand and gravel, organic matter (fine rootlets), dark brown to black, no odor (90-5-5).		
9–11		0	60		SES-MW25-9.5		ML	Damp, fine-grained, sandy SILT, trace to some gravel, greyish green, no odor (60-30-10).		
11–15								Boring terminated at 11 feet bgs and completed as 2-inch-diameter monitoring well SES-MW25, screened from 6 to 11 feet bgs. Concrete from 0 to 1.5 feet bgs, bentonite seal from 1.5 to 5 feet bgs, and sand filter pack from 5 to 11 feet bgs.		

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Pace Chemical
431 7th Avenue South
Kirland, Washington

Date Started: 6/1/2010
Date Finished: 6/1/2010
Logged By: CCC
Chk By: JAC
SES Project No.: 0698-001-02

BORING LOG
SES-MW25

Log of Exploratory Boring:

Notes

Drilling Co./Driller:	ESN / Noel & John
Drilling Method:	Combo Auger-Probe
Location:	Located ~10 feet North of boring SB02.
Surface Condition:	Asphalt
Total Depth:	10
First GW Depth:	7

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
0–2.25							SM	Moist, silty SAND, some gravel, varigated dark brown, no odor (25-60-15) (Fill).		
2.25–5		0	75		SES-MW26-3.5		SM	Damp to moist, silty, fine-grained SAND, some gravel, tannish brown with oxidation, no odor (20-70-10).		
5–7		0	100		SES-MW26-6.5		ML	Damp, fine-grained sandy SILT to silty, fine-grained SAND, some gravel, tannish gray with oxidation, no odor (50-40-10).		
7–8.5		0	100		SES-MW26-8		SM	Saturated, silty, fine-grained SAND with gravel, brown, no odor (15-75-10).	▽	
8.5–9.25							ML	Damp, fine-grained, sandy SILT, brown, no odor (80-20-0).		
9.25–10							SM	Moist, silty SAND with gravel, gray with oxidation, no odor (20-60-20).		
10–15								Boring terminated at 10 feet bgs and completed as 2-inch-diameter monitoring well SES-MW26, screened from 5 to 10 feet bgs. Concrete from 0 to 1.5 feet bgs, bentonite seal from 1.5 to 4 feet bgs, and sand filter pack from 4 to 10 feet bgs.		

Depth scale: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Pace Chemical
431 7th Avenue South
Kirland, Washington

Date Started: 6/1/2010
Date Finished: 6/1/2010
Logged By: CCC
Chk By: JAC
SES Project No.: 0698-001-02

BORING LOG
SES-MW26

Log of Exploratory Boring:

Notes

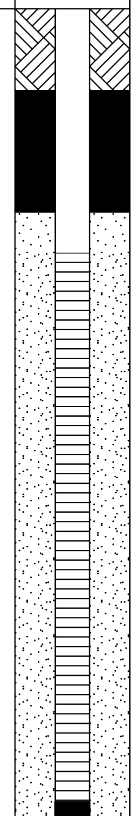
Drilling Co./Driller:	ESN / Noel & John
Drilling Method:	Combo Auger-Probe
Location:	Located ~6 feet North of boring SB04.
Surface Condition:	Asphalt
Total Depth:	10
First GW Depth:	3

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Asphalt		
0–4								Moist to wet, silty, fine-grained SAND with gravel, tannish brown with oxidation, diesel odor below 3.5 feet below ground surface (bgs) (15-70-15).		
2			55							
3									▽	
3.5		0			SES-MW27-3.5					
4.5		22			SES-MW27-4.5			Saturated, damp at 6.25 feet bgs, silty, fine-grained SAND, some gravel, stained gray, grades to brown at 6.25 feet bgs, moderate diesel odor (15-65-20).		
5							SM			
5.5			100							
6		0.9			SES-MW27-6					
7		0			SES-MW27-7			Damp, silty, fine- to medium-grained SAND with gravel, tannish gray with oxidation, faint diesel odor (15-70-15).		
8.5			100							
9		0			SES-MW27-9					
10								Boring terminated at 10 feet bgs and completed as 2-inch-diameter monitoring well SES-MW27, screened from 3 to 10 feet bgs. Concrete from 0 to 1 feet bgs, bentonite seal from 1 to 2.5 feet bgs, and sand filter pack from 2.5 to 10 feet bgs.		



Depth scale: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Pace Chemical
431 7th Avenue South
Kirland, Washington

Date Started: 6/1/2010
Date Finished: 6/1/2010
Logged By: CCC
Chk By: JAC
SES Project No.: 0698-001-02

BORING LOG
SES-MW27

APPENDIX B

Contents of USTs, Former Underground Storage Tank Area

SOUND ENVIRONMENTAL STRATEGIES
www.soundenvironmental.com

Contents of Underground Storage Tanks
Former Underground Storage Tank Area
Pace National Corporation
500 7th Avenue South
Kirkland, Washington

Tank Number	Capacity (in gallons)	Historic Contents of Tank
1	8,000	Defoamer (98% Polypropylene Glycol) Methanol Diphenylamine (DPA)/TW80 (Fatty Acid) T-41 (Fatty Acid)
2	8,000	Deadline Premix (Mixed Fatty Acid) Mixed Fatty Acid
3	8,000	325 Thinner NaOH (45-50%)
4	8,000	GP-1700 (Aromatic Solvent) Base Stock 70L (Oil) Polypropylene Glycol Shell Med. Aromatic (Aromatic Solvent)
5	8,000	50 Sec. Pale Oil Polypropylene Glycol Isopropanol
6	5,000	Sani Mop Oil 450 Thinner 325 Thinner
7	3,000	Rossoe Select #1 (Mineral Spirits) Shell LV1 60 Pale Oil 60-100 Base Stock (Oil) T-40 (Fatty Acid)
8	5,000	T-40
9	5,000	Polypropylene Glycol Methanol
10	4,000	Polypropylene Glycol Cottonseed Oil TW-80
11	4,000	Defoamer Shell LV1 100 Pale Oil Hodag ME-110 (Fatty Acid) T-41
12	3,000	Base Oil A (400W) Isopropanol Propylene Glycol Base Stock 70L 450 Thinner
13	4,000	Liquid Bulldozer (Oil) Isopropanol 15% Diphenylamine/Isopropanol
14	1,000	Isopropanol

APPENDIX C

Terrestrial Ecological Evaluation Form

Table 749-1

Simplified Terrestrial Ecological Evaluation-Exposure Analysis Procedure

Estimate the area of contiguous (connected) undeveloped land on the site or within 500 feet of any area of the site to the nearest 1/2 acre (1/4 acre if the area is less than 0.5 acre).	
1) From the table below, find the number of points corresponding to the area and enter this number in the field to the right.	
Area (acres) / Points: 0.25 or less — 4 0.5 — 5 1.0 — 6 1.5 — 7 2.0 — 8 2.5 — 9 3.0 — 10 3.5 — 11 4.0 or more — 12	4
2) Is this an industrial or commercial property? If yes, enter a score of 3. If no, enter a score of 1	3
3)[a] Enter a score in the box to the right for the habitat quality of the site, using the following rating system[b]. High=1, Intermediate=2, Low=3	3
4) Is the undeveloped land likely to attract wildlife? If yes, enter a score of 1 in the box to the right. If no, enter a score of 2.[c]	2
5) Are there any of the following soil contaminants present: Chlorinated dioxins/furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene? If yes, enter a score of 1 in the box to the right. If no, enter a score of 4.	4
6) Add the numbers in the boxes on lines 2-5 and enter this number in the box to the right. If this number is larger than the number in the box on line 1, the simplified evaluation may be ended.	12

Notes for Table 749-1

[a] It is expected that this habitat evaluation will be undertaken by an experienced field biologist. If this is not the case, enter a conservative score of (1) for questions 3 and 4.

[b] **Habitat rating system.** Rate the quality of the habitat as high, intermediate or low based on your professional judgment as a field biologist. The following are suggested factors to consider in making this evaluation:

> **Low:** Early successional vegetative stands; vegetation predominantly noxious, nonnative, exotic plant species or weeds. Areas severely disturbed by human activity, including intensively cultivated croplands. Areas isolated from other habitat used by wildlife.

High: Area is ecologically significant for one or more of the following reasons: Late-successional native plant communities present; relatively high species diversity; used by an uncommon or rare species; priority habitat (as defined by the Washington Department of fish and Wildlife); part of a larger area of habitat where size or fragmentation may be important for the retention of some species.

Intermediate: Area does not rate as either high or low.

[c] Indicate "yes" if the area attracts wildlife or is likely to do so. Examples: Birds frequently visit the area to feed; evidence of high use b mammals (tracks, scat, etc.); habitat "island" in an industrial area; unusual features of an area that make it important for feeding animals; heavy use during seasonal migrations.

[Area Calculation Aid] [Aerial Photo with Area Designations] [TEE Table 749-1] [Index of Tables]

[Exclusions Main] [TEE Definitions] [Simplified or Site-Specific?] [Simplified Ecological Evaluation] [Site-Specific Ecological Evaluation] [WAC 173-340-7493]

[TEE Home]

APPENDIX D
Laboratory Analytical Reports

AQUATIC RESEARCH INCORPORATED

LABORATORY & CONSULTING SERVICES
3927 AURORA AVENUE NORTH, SEATTLE, WA 98103
PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	ONS001-94		PAGE 2
REPORT DATE:	05/30/09		
DATE SAMPLED:	05/21/09	DATE RECEIVED:	05/27/09

FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM ONSITE ENVIRONMENTAL

QA/QC DATA

QC PARAMETER	TKN (mg/l)
METHOD	EPA 351.1
DATE ANALYZED	05/29/09
DETECTION LIMIT	0.200
DUPLICATE	
SAMPLE ID	BATCH
ORIGINAL	1.92
DUPLICATE	1.86
RPD	3.17%
SPIKE SAMPLE	
SAMPLE ID	BATCH
ORIGINAL	1.92
SPIKED SAMPLE	4.01
SPIKE ADDED	2.00
% RECOVERY	104.10%
QC CHECK	
FOUND	5.42
TRUE	5.79
% RECOVERY	93.69%
BLANK	<0.200

RPD = RELATIVE PERCENT DIFFERENCE.
NA = NOT APPLICABLE OR NOT AVAILABLE.
NC = NOT CALCULABLE DUE TO ONE OR MORE VALUES BEING BELOW THE DETECTION LIMIT.
OR = RECOVERY NOT CALCULABLE DUE TO SPIKE SAMPLE OUT OF RANGE OR SPIKE TOO LOW RELATIVE TO SAMPLE CONCENTRATION.

SUBMITTED BY:

Steven Lazoff
Laboratory Director

Analytical Technologies, Inc. 560 Naches Avenue, S.W., Suite 101, Renton, WA 98055, (206) 228-8335

ATI I.D. # 9007-028

July 27, 1990

Hart Crowser, Inc.
1910 Fairview Avenue E.
Seattle, WA 98102-3699

Attention : Stuart Triolo

Project Number : 3024

Project Name : Pace Chemicals

On July 6, 1990 Analytical Technologies, Inc. received six soil samples for analysis. The samples were analyzed with EPA methodology or equivalent methods as specified in the attached analytical schedule. The results, sample cross reference, and the quality control data are enclosed.

Dana M. Walker
Dana M. Walker
Project Manager

Frederick W. Grothkopp
Frederick W. Grothkopp
Technical Manager

FWG/tc

SAMPLE CROSS REFERENCE SHEET

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS

ATI #	CLIENT DESCRIPTION	DATE SAMPLED	MATRIX
9007-028-1	S-1	07/05/90	SOIL
9007-028-2	S-2	07/05/90	SOIL
9007-028-3	S-3	07/05/90	SOIL
9007-028-4	S-4	07/05/90	SOIL
9007-028-5	S-5	07/05/90	SOIL
9007-028-6	S-6	07/05/90	SOIL

----- TOTALS -----

MATRIX	# SAMPLES
SOIL	6

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

ATI I.D. # 9007-028

ANALYTICAL SCHEDULE

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS

ANALYSIS	TECHNIQUE	REFERENCE	LAB
VOLATILE ORGANIC COMPOUNDS	GCMS	EPA 8240	T
SEMI-VOLATILE COMPOUNDS	GCMS	EPA 8270	R
PURGEABLE HALOCARBONS	GC/ELCD	EPA 8010	R
FUEL HYDROCARBONS	GC/FID	EPA 8015 MODIFIED	R

R = ATI - Renton
SD = ATI - San Diego
T = ATI - Tempe
PNR = ATI - Pensacola
FC = ATI - Fort Collins
SUB = Subcontract

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : REAGENT BLANK
SAMPLE MATRIX : SOIL
EPA METHOD : 8240
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : N/A
DATE RECEIVED : N/A
DATE EXTRACTED : 07/09/90
DATE ANALYZED : 07/14/90
UNITS : mg/Kg
DILUTION FACTOR : 1

COMPOUND	RESULT
ACETONE	<0.50
BENZENE	<0.05
BROMODICHLOROMETHANE	<0.05
BROMOFORM	<0.3
BROMOMETHANE	<0.50
2-BUTANONE (MEK)	<0.50
CARBON DISULFIDE	<0.05
CARBON TETRACHLORIDE	<0.05
CHLOROBENZENE	<0.05
CHLOROETHANE	<0.05
CHLOROFORM	<0.05
CHLOROMETHANE	<0.50
DIBROMOCHLOROMETHANE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHANE	<0.05
1,1-DICHLOROETHENE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
1,2-DICHLOROPROPANE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
ETHYLBENZENE	<0.05
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
METHYLENE CHLORIDE	0.6
STYRENE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
1,1,1-TRICHLOROETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
TRICHLOROETHENE	<0.05
VINYL ACETATE	<0.50
VINYL CHLORIDE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-d4	97
TOLUENE-d8	105
BROMOFLUOROBENZENE	88

VOLATILE ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : REAGENT BLANK
SAMPLE MATRIX : SOIL
EPA METHOD : 8240
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : N/A
DATE RECEIVED : N/A
DATE EXTRACTED : 07/09/90
DATE ANALYZED : 07/14/90
UNITS : mg/Kg
DILUTION FACTOR : 1

COMPOUND	SCAN NUMBER	ESTIMATED CONCENTRATION

NO NON-HSL COMPOUNDS FOUND > 10% OF NEAREST INTERNAL STANDARD.

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : S-1
SAMPLE MATRIX : SOIL
EPA METHOD : 8240
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : 07/05/90
DATE RECEIVED : 07/06/90
DATE EXTRACTED : 07/09/90
DATE ANALYZED : 07/14/90
UNITS : mg/Kg
DILUTION FACTOR : 2

COMPOUND	RESULT
ACETONE	<1.00
BENZENE	<0.10
BROMODICHLOROMETHANE	<0.10
BROMOFORM	<0.6
BROMOMETHANE	<1.00
2-BUTANONE (MEK)	<1.00
CARBON DISULFIDE	<0.10
CARBON TETRACHLORIDE	<0.10
CHLOROBENZENE	<0.10
CHLOROETHANE	<0.10
CHLOROFORM	<0.10
CHLOROMETHANE	<1.00
DIBROMOCHLOROMETHANE	<0.10
1,1-DICHLOROETHANE	<0.10
1,2-DICHLOROETHANE	<0.10
1,1-DICHLOROETHENE	<0.10
1,2-DICHLOROETHENE (TOTAL)	<0.10
1,2-DICHLOROPROPANE	<0.10
CIS-1,3-DICHLOROPROPENE	<0.10
TRANS-1,3-DICHLOROPROPENE	<0.10
ETHYLBENZENE	<0.10
2-HEXANONE (MBK)	<1.00
4-METHYL-2-PENTANONE (MIBK)	<1.00
METHYLENE CHLORIDE	<0.6
STYRENE	<0.10
1,1,2,2-TETRACHLOROETHANE	<0.10
TETRACHLOROETHENE	<0.10
TOLUENE	<0.10
1,1,1-TRICHLOROETHANE	<0.10
1,1,2-TRICHLOROETHANE	<0.10
TRICHLOROETHENE	<0.10
VINYL ACETATE	<1.00
VINYL CHLORIDE	<0.10
TOTAL XYLENES	<0.10

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-d4	102
TOLUENE-d8	102
BROMOFLUOROBENZENE	101

VOLATILE ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : S-1
SAMPLE MATRIX : SOIL
EPA METHOD : 8240
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : 07/05/90
DATE RECEIVED : 07/06/90
DATE EXTRACTED : 07/09/90
DATE ANALYZED : 07/14/90
UNITS : mg/Kg
DILUTION FACTOR : 2

COMPOUND	SCAN NUMBER	ESTIMATED CONCENTRATION

NO NON-HSL COMPOUNDS FOUND > 10% OF NEAREST INTERNAL STANDARD.

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.
PROJECT #	: 3024
PROJECT NAME	: PACE CHEMICALS
CLIENT I.D.	: S-2
SAMPLE MATRIX	: SOIL
EPA METHOD	: 8240
RESULTS BASED ON DRY WEIGHT	
DATE SAMPLED	: 07/05/90
DATE RECEIVED	: 07/06/90
DATE EXTRACTED	: 07/09/90
DATE ANALYZED	: 07/14/90
UNITS	: mg/Kg
DILUTION FACTOR	: 5

COMPOUND	RESULT
ACETONE	25.4
BENZENE	<0.25
BROMODICHLOROMETHANE	<0.25
BROMOFORM	<1.5
BROMOMETHANE	<2.50
2-BUTANONE (MEK)	<2.50
CARBON DISULFIDE	<0.25
CARBON TETRACHLORIDE	<0.25
CHLOROBENZENE	<0.25
CHLOROETHANE	<0.25
CHLOROFORM	<0.25
CHLOROMETHANE	<2.50
DIBROMOCHLOROMETHANE	<0.25
1,1-DICHLOROETHANE	<0.25
1,2-DICHLOROETHANE	<0.25
1,1-DICHLOROETHENE	<0.25
1,2-DICHLOROETHENE (TOTAL)	23.0
1,2-DICHLOROPROPANE	<0.25
CIS-1,3-DICHLOROPROPENE	<0.25
TRANS-1,3-DICHLOROPROPENE	<0.25
ETHYLBENZENE	1.0
2-HEXANONE (MBK)	<2.50
4-METHYL-2-PENTANONE (MIBK)	<2.50
METHYLENE CHLORIDE	<1.5
STYRENE	<0.25
1,1,2,2-TETRACHLOROETHANE	<0.25
TETRACHLOROETHENE	3.3
TOLUENE	5.5
1,1,1-TRICHLOROETHANE	<0.25
1,1,2-TRICHLOROETHANE	<0.25
TRICHLOROETHENE	1.4
VINYL ACETATE	<2.50
VINYL CHLORIDE	<0.25
TOTAL XYLENES	6.9

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-d4	102
TOLUENE-d8	102
BROMOFLUOROBENZENE	101

ATI I.D. # 9007-028-2

VOLATILE ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : S-2
SAMPLE MATRIX : SOIL
EPA METHOD : 8240
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : 07/05/90
DATE RECEIVED : 07/06/90
DATE EXTRACTED : 07/09/90
DATE ANALYZED : 07/14/90
UNITS : mg/Kg
DILUTION FACTOR : 5

COMPOUND	SCAN NUMBER	ESTIMATED CONCENTRATION
HYDROCARBON C9	-	50
HYDROCARBON C10	-	40

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: 07/05/90
PROJECT #	: 3024	DATE RECEIVED	: 07/06/90
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/09/90
CLIENT I.D.	: S-3	DATE ANALYZED	: 07/14/90
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8240	DILUTION FACTOR	: 1

RESULTS BASED ON DRY WEIGHT

COMPOUND	RESULT	
ACETONE	<0.50	
BENZENE	<0.05	
BROMODICHLOROMETHANE	<0.05	
BROMOFORM	<0.3	
BROMOMETHANE	<0.50	
2-BUTANONE (MEK)	<0.50	
CARBON DISULFIDE	<0.05	
CARBON TETRACHLORIDE	<0.05	
CHLOROBENZENE	<0.05	
CHLOROETHANE	<0.05	
CHLOROFORM	<0.05	
CHLOROMETHANE	<0.50	
DIBROMOCHLOROMETHANE	<0.05	
1,1-DICHLOROETHANE	<0.05	
1,2-DICHLOROETHANE	<0.05	
1,1-DICHLOROETHENE	<0.05	
1,2-DICHLOROETHENE (TOTAL)	<0.05	
1,2-DICHLOROPROPANE	<0.05	
CIS-1,3-DICHLOROPROPENE	<0.05	
TRANS-1,3-DICHLOROPROPENE	<0.05	
ETHYLBENZENE	<0.05	
2-HEXANONE (MBK)	<0.50	
4-METHYL-2-PENTANONE (MIBK)	<0.50	
METHYLENE CHLORIDE	<0.3	
STYRENE	<0.05	
1,1,2,2-TETRACHLOROETHANE	<0.05	
TETRACHLOROETHENE		0.08
TOLUENE	<0.05	
1,1,1-TRICHLOROETHANE	<0.05	
1,1,2-TRICHLOROETHANE	<0.05	
TRICHLOROETHENE	<0.05	
VINYL ACETATE	<0.50	
VINYL CHLORIDE	<0.05	
TOTAL XYLENES	<0.05	

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-d4	110
TOLUENE-d8	112
BROMOFLUOROBENZENE	85

ATI I.D. # 9007-028-3

VOLATILE ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: 07/05/90
PROJECT #	: 3024	DATE RECEIVED	: 07/06/90
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/09/90
CLIENT I.D.	: S-3	DATE ANALYZED	: 07/14/90
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8240	DILUTION FACTOR	: 1

RESULTS BASED ON DRY WEIGHT

COMPOUND	SCAN NUMBER	ESTIMATED CONCENTRATION

NO NON-HSL COMPOUNDS FOUND > 10% OF NEAREST INTERNAL STANDARD.

VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : S-4
SAMPLE MATRIX : SOIL
EPA METHOD : 8240
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : 07/05/90
DATE RECEIVED : 07/06/90
DATE EXTRACTED : 07/09/90
DATE ANALYZED : 07/14/90
UNITS : mg/Kg
DILUTION FACTOR : 1

COMPOUND	RESULT
ACETONE	<0.50
BENZENE	<0.05
BROMODICHLOROMETHANE	<0.05
BROMOFORM	<0.3
BROMOMETHANE	<0.50
2-BUTANONE (MEK)	<0.50
CARBON DISULFIDE	<0.05
CARBON TETRACHLORIDE	<0.05
CHLOROBENZENE	<0.05
CHLOROETHANE	<0.05
CHLOROFORM	<0.05
CHLOROMETHANE	<0.50
DIBROMOCHLOROMETHANE	<0.05
1,1-DICHLOROETHANE	<0.05
1,2-DICHLOROETHANE	<0.05
1,1-DICHLOROETHENE	<0.05
1,2-DICHLOROETHENE (TOTAL)	<0.05
1,2-DICHLOROPROPANE	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05
ETHYLBENZENE	<0.05
2-HEXANONE (MBK)	<0.50
4-METHYL-2-PENTANONE (MIBK)	<0.50
METHYLENE CHLORIDE	<0.3
STYRENE	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05
TETRACHLOROETHENE	<0.05
TOLUENE	<0.05
1,1,1-TRICHLOROETHANE	<0.05
1,1,2-TRICHLOROETHANE	<0.05
TRICHLOROETHENE	<0.05
VINYL ACETATE	<0.50
VINYL CHLORIDE	<0.05
TOTAL XYLENES	<0.05

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-d4	102
TOLUENE-d8	107
BROMOFLUOROBENZENE	91

VOLATILE ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : S-4
SAMPLE MATRIX : SOIL
EPA METHOD : 8240
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : 07/05/90
DATE RECEIVED : 07/06/90
DATE EXTRACTED : 07/09/90
DATE ANALYZED : 07/14/90
UNITS : mg/Kg
DILUTION FACTOR : 1

COMPOUND	SCAN NUMBER	ESTIMATED CONCENTRATION

NO NON-HSL COMPOUNDS FOUND > 10% OF NEAREST INTERNAL STANDARD.

VOLATILE ORGANICS
QUALITY CONTROL DATA

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
EPA METHOD : 8240

SAMPLE I.D. : 00768001
DATE EXTRACTED : 07/09/90
DATE ANALYZED : 07/17/90
MATRIX : SOIL
UNITS : mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
1,1-DICHLOROETHENE	<0.05	5.0	4.8	96	5.1	102	6
TRICHLOROETHENE	<0.05	5.0	4.5	90	5.5	110	20
BENZENE	<0.05	5.0	4.8	96	5.0	100	4
TOLUENE	<0.05	5.0	4.9	98	5.0	100	2
CHLOROBENZENE	<0.05	5.0	4.9	98	5.1	102	4

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 700$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

ATI I.D. # 9007-028

SEMI-VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: N/A
PROJECT #	: 3024	DATE RECEIVED	: N/A
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/11/90
CLIENT I.D.	: REAGENT BLANK	DATE ANALYZED	: 07/17/90
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8270	DILUTION FACTOR	: 1

RESULTS BASED ON DRY WEIGHT

COMPOUND	RESULT
N-NITROSODIMETHYLAMINE	<0.17
PHENOL	<0.17
ANILINE	<0.17
BIS(2-CHLOROETHYL)ETHER	<0.17
2-CHLOROPHENOL	<0.17
1,3-DICHLOROBENZENE	<0.17
1,4-DICHLOROBENZENE	<0.17
BENZYL ALCOHOL	<0.17
1,2-DICHLOROBENZENE	<0.17
2-METHYLPHENOL	<0.17
BIS(2-CHLOROISOPROPYL)ETHER	<0.17
4-METHYLPHENOL	<0.17
N-NITROSO-DI-N-PROPYLAMINE	<0.17
HEXACHLOROETHANE	<0.17
NITROBENZENE	<0.17
ISOPHORONE	<0.17
2-NITROPHENOL	<0.17
2,4-DIMETHYLPHENOL	<0.17
BENZOIC ACID	<0.85
BIS(2-CHLOROETHOXY)METHANE	<0.17
2,4-DICHLOROPHENOL	<0.17
1,2,4-TRICHLOROBENZENE	<0.17
NAPHTHALENE	<0.17
4-CHLOROANILINE	<0.17
HEXACHLOROBUTADIENE	<0.17
4-CHLORO-3-METHYLPHENOL	<0.17
2-METHYLNAPHTHALENE	<0.17
HEXACHLOROCYCLOPENTADIENE	<0.17
2,4,6-TRICHLOROPHENOL	<0.17
2,4,5-TRICHLOROPHENOL	<0.85
2-CHLORONAPHTHALENE	<0.17
2-NITROANILINE	<0.85
DIMETHYLPHTHALATE	<0.17
ACENAPHTHYLENE	<0.17
3-NITROANILINE	<0.85
ACENAPHTHENE	<0.17
2,4-DINITROPHENOL	<0.85
4-NITROPHENOL	<0.85

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SEMI-VOLATILE ORGANICS ANALYSIS
DATA SUMMARY (CONTINUED)

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : REAGENT BLANK
SAMPLE MATRIX : SOIL
EPA METHOD : 8270
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : N/A
DATE RECEIVED : N/A
DATE EXTRACTED : 07/11/90
DATE ANALYZED : 07/17/90
UNITS : mg/Kg
DILUTION FACTOR : 1

COMPOUND	RESULT
DIBENZOFURAN	<0.17
2,4-DINITROTOLUENE	<0.17
2,6-DINITROTOLUENE	<0.17
DIETHYLPHTHALATE	<0.17
4-CHLOROPHENYL-PHENYLETHER	<0.17
FLUORENE	<0.17
4-NITROANILINE	<0.85
4,6-DINITRO-2-METHYLPHENOL	<0.85
N-NITROSODIPHENYLAMINE	<0.17
4-BROMOPHENYL-PHENYLETHER	<0.17
HEXACHLOROBENZENE	<0.17
PENTACHLOROPHENOL	<0.85
PHENANTHRENE	<0.17
ANTHRACENE	<0.17
DI-N-BUTYLPHTHALATE	0.81
FLUORANTHENE	<0.17
BENZIDINE	<1.7
PYRENE	<0.17
BUTYLBENZYLPHTHALATE	<0.17
3,3-DICHLOROBENZIDINE	<0.34
BENZO(a)ANTHRACENE	<0.17
BIS(2-ETHYLHEXYL)PHTHALATE	<0.17
CHRYSENE	<0.17
DI-N-OCTYLPHTHALATE	<0.17
BENZO(b)FLUORANTHENE	<0.17
BENZO(k)FLUORANTHENE	<0.17
BENZO(a)PYRENE	<0.17
INDENO(1,2,3-cd)PYRENE	<0.17
DIBENZ(a,h,)ANTHRACENE	<0.17
BENZO(g,h,i)PERYLENE	<0.17

SURROGATE PERCENT RECOVERIES

NITROBENZENE-d5	65
2-FLUOROBIPHENYL	57
TERPHENYL-d14	79
PHENOL-d6	69
2-FLUOROPHENOL	62
2,4,6-TRIBROMOPHENOL	75

SEMI-VOLATILE ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : REAGENT BLANK
SAMPLE MATRIX : SOIL
EPA METHOD : 8270
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : N/A
DATE RECEIVED : N/A
DATE EXTRACTED : 07/11/90
DATE ANALYZED : 07/17/90
UNITS : mg/Kg
DILUTION FACTOR : 1

COMPOUND	SCAN NUMBER	ESTIMATED CONCENTRATION
BRANCHED ALCOHOL	17	0.39
TRICHLOROETHANE	44	0.15 J
TETRACHLOROETHANE	256	0.34

J = Estimated value.

SEMI-VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : S-5
SAMPLE MATRIX : SOIL
EPA METHOD : 8270
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : 07/05/90
DATE RECEIVED : 07/06/90
DATE EXTRACTED : 07/11/90
DATE ANALYZED : 07/19/90
UNITS : mg/Kg
DILUTION FACTOR : 2

COMPOUND	RESULT
N-NITROSODIMETHYLAMINE	<0.34
PHENOL	<0.34
ANILINE	<0.34
BIS(2-CHLOROETHYL)ETHER	<0.34
2-CHLOROPHENOL	<0.34
1,3-DICHLOROBENZENE	<0.34
1,4-DICHLOROBENZENE	<0.34
BENZYL ALCOHOL	<0.34
1,2-DICHLOROBENZENE	<0.34
2-METHYLPHENOL	<0.34
BIS(2-CHLOROISOPROPYL)ETHER	<0.34
4-METHYLPHENOL	<0.34
N-NITROSO-DI-N-PROPYLAMINE	<0.34
HEXACHLOROETHANE	<0.34
NITROBENZENE	<0.34
ISOPHORONE	<0.34
2-NITROPHENOL	<0.34
2,4-DIMETHYLPHENOL	<0.34
BENZOIC ACID	<1.7
BIS(2-CHLOROETHOXY)METHANE	<0.34
2,4-DICHLOROPHENOL	<0.34
1,2,4-TRICHLOROBENZENE	<0.34
NAPHTHALENE	<0.34
4-CHLOROANILINE	<0.34
HEXACHLOROBUTADIENE	<0.34
4-CHLORO-3-METHYLPHENOL	<0.34
2-METHYLNAPHTHALENE	<0.34
HEXACHLOROCYCLOPENTADIENE	<0.34
2,4,6-TRICHLOROPHENOL	<0.34
2,4,5-TRICHLOROPHENOL	<1.7
2-CHLORONAPHTHALENE	<0.34
2-NITROANILINE	<1.7
DIMETHYLPHTHALATE	<0.34
ACENAPHTHYLENE	<0.34
3-NITROANILINE	<1.7
ACENAPHTHENE	<0.34
2,4-DINITROPHENOL	<1.7
4-NITROPHENOL	<1.7

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ATI I.D. # 9007-028-5

SEMI-VOLATILE ORGANICS ANALYSIS
DATA SUMMARY (CONTINUED)

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : S-5
SAMPLE MATRIX : SOIL
EPA METHOD : 8270
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : 07/05/90
DATE RECEIVED : 07/06/90
DATE EXTRACTED : 07/11/90
DATE ANALYZED : 07/19/90
UNITS : mg/Kg
DILUTION FACTOR : 2

COMPOUND	RESULT
DIBENZOFURAN	<0.34
2,4-DINITROTOLUENE	<0.34
2,6-DINITROTOLUENE	<0.34
DIETHYLPHTHALATE	<0.34
4-CHLOROPHENYL-PHENYLETHER	<0.34
FLUORENE	<0.34
4-NITROANILINE	<1.7
4,6-DINITRO-2-METHYLPHENOL	<1.7
N-NITROSODIPHENYLAMINE	<0.34
4-BROMOPHENYL-PHENYLETHER	<0.34
HEXACHLOROBENZENE	<0.34
PENTACHLOROPHENOL	<1.7
PHENANTHRENE	<0.34
ANTHRACENE	<0.34
DI-N-BUTYLPHTHALATE	1.1 B
FLUORANTHENE	<0.34
BENZIDINE	<3.4
PYRENE	<0.34
BUTYLBENZYLPHTHALATE	<0.34
3,3-DICHLOROBENZIDINE	<0.68
BENZO(a)ANTHRACENE	<0.34
BIS(2-ETHYLHEXYL)PHTHALATE	<0.34
CHRYSENE	<0.34
DI-N-OCTYLPHTHALATE	<0.34
BENZO(b)FLUORANTHENE	<0.34
BENZO(k)FLUORANTHENE	<0.34
BENZO(a)PYRENE	<0.34
INDENO(1,2,3-cd)PYRENE	<0.34
DIBENZ(a,h,)ANTHRACENE	<0.34
BENZO(g,h,i)PERYLENE	<0.34

SURROGATE PERCENT RECOVERIES

NITROBENZENE-d5	65
2-FLUOROBIPHENYL	84
TERPHENYL-d14	68
PHENOL-d6	74
2-FLUOROPHENOL	64
2,4,6-TRIBROMOPHENOL	103

B = Found in blank.

ATI I.D. # 9007-028-5

SEMI-VOLATILE ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : S-5
SAMPLE MATRIX : SOIL
EPA METHOD : 8270
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : 07/05/90
DATE RECEIVED : 07/06/90
DATE EXTRACTED : 07/11/90
DATE ANALYZED : 07/19/90
UNITS : mg/Kg
DILUTION FACTOR : 2

COMPOUND	SCAN NUMBER	ESTIMATED CONCENTRATION
DICHLOROBENZONITRILE	790	0.89
POLYAROMATIC HYDROCARBON	1327	2.2
ALIPHATIC HYDROCARBON	1518	0.53
HYDROCARBON	1743	4.6
ALIPHATIC HYDROCARBON	1847	2.5

SEMI-VOLATILE ORGANICS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: 07/05/90
PROJECT #	: 3024	DATE RECEIVED	: 07/06/90
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/11/90
CLIENT I.D.	: S-6	DATE ANALYZED	: 07/18/90
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8270	DILUTION FACTOR	: 1

RESULTS BASED ON DRY WEIGHT

COMPOUND	RESULT
N-NITROSODIMETHYLAMINE	<0.17
PHENOL	<0.17
ANILINE	<0.17
BIS(2-CHLOROETHYL)ETHER	<0.17
2-CHLOROPHENOL	<0.17
1,3-DICHLOROBENZENE	<0.17
1,4-DICHLOROBENZENE	<0.17
BENZYL ALCOHOL	<0.17
1,2-DICHLOROBENZENE	<0.17
2-METHYLPHENOL	<0.17
BIS(2-CHLOROISOPROPYL)ETHER	<0.17
4-METHYLPHENOL	<0.17
N-NITROSO-DI-N-PROPYLAMINE	<0.17
HEXACHLOROETHANE	<0.17
NITROBENZENE	<0.17
ISOPHORONE	<0.17
2-NITROPHENOL	<0.17
2,4-DIMETHYLPHENOL	<0.17
BENZOIC ACID	<0.85
BIS(2-CHLOROETHOXY)METHANE	<0.17
2,4-DICHLOROPHENOL	<0.17
1,2,4-TRICHLOROBENZENE	<0.17
NAPHTHALENE	<0.17
4-CHLOROANILINE	<0.17
HEXACHLOROBUTADIENE	<0.17
4-CHLORO-3-METHYLPHENOL	<0.17
2-METHYLNAPHTHALENE	<0.17
HEXACHLOROCYCLOPENTADIENE	<0.17
2,4,6-TRICHLOROPHENOL	<0.17
2,4,5-TRICHLOROPHENOL	<0.85
2-CHLORONAPHTHALENE	<0.17
2-NITROANILINE	<0.85
DIMETHYLPHTHALATE	<0.17
ACENAPHTHYLENE	<0.17
3-NITROANILINE	<0.85
ACENAPHTHENE	<0.17
2,4-DINITROPHENOL	<0.85
4-NITROPHENOL	<0.85

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ATI I.D. # 9007-028-6

SEMI-VOLATILE ORGANICS ANALYSIS
DATA SUMMARY (CONTINUED)

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : S-6
SAMPLE MATRIX : SOIL
EPA METHOD : 8270
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : 07/05/90
DATE RECEIVED : 07/06/90
DATE EXTRACTED : 07/11/90
DATE ANALYZED : 07/18/90
UNITS : mg/Kg
DILUTION FACTOR : 1

COMPOUND	RESULT
DIBENZOFURAN	<0.17
2,4-DINITROTOLUENE	<0.17
2,6-DINITROTOLUENE	<0.17
DIETHYLPHTHALATE	<0.17
4-CHLOROPHENYL-PHENYLETHER	<0.17
FLUORENE	<0.17
4-NITROANILINE	<0.85
4,6-DINITRO-2-METHYLPHENOL	<0.85
N-NITROSODIPHENYLAMINE	<0.17
4-BROMOPHENYL-PHENYLETHER	<0.17
HEXACHLOROBENZENE	<0.17
PENTACHLOROPHENOL	<0.85
PHENANTHRENE	<0.17
ANTHRACENE	<0.17
DI-N-BUTYLPHTHALATE	0.79 B
FLUORANTHENE	<0.17
BENZIDINE	<1.7
PYRENE	<0.17
BUTYLBENZYLPHTHALATE	<0.17
3,3-DICHLOROBENZIDINE	<0.34
BENZO(a)ANTHRACENE	<0.17
BIS(2-ETHYLHEXYL)PHTHALATE	<0.17
CHRYSENE	<0.17
DI-N-OCTYLPHTHALATE	<0.17
BENZO(b)FLUORANTHENE	<0.17
BENZO(k)FLUORANTHENE	<0.17
BENZO(a)PYRENE	<0.17
INDENO(1,2,3-cd)PYRENE	<0.17
DIBENZ(a,h,)ANTHRACENE	<0.17
BENZO(g,h,i)PERYLENE	<0.17

SURROGATE PERCENT RECOVERIES

NITROBENZENE-d5	60
2-FLUOROBIPHENYL	71
TERPHENYL-d14	58
PHENOL-d6	63
2-FLUOROPHENOL	55
2,4,6-TRIBROMOPHENOL	96

B = Found in blank.

SEMI-VOLATILE ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : S-6
SAMPLE MATRIX : SOIL
EPA METHOD : 8270
RESULTS BASED ON DRY WEIGHT

DATE SAMPLED : 07/05/90
DATE RECEIVED : 07/06/90
DATE EXTRACTED : 07/11/90
DATE ANALYZED : 07/18/90
UNITS : mg/Kg
DILUTION FACTOR : 1

COMPOUND	SCAN NUMBER	ESTIMATED CONCENTRATION
OXYGENATED HYDROCARBON	33	0.73

SEMI-VOLATILE ORGANIC
QUALITY CONTROL DATA

CLIENT	: HART CROWSER, INC.		SAMPLE I.D.	: 9006-028-6
PROJECT #	: 3024		DATE EXTRACTED	: 07/11/90
PROJECT NAME	: PACE CHEMICALS		DATE ANALYZED	: 07/18/90
EPA METHOD	: 8270		MATRIX	: SOIL
			UNITS	: mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
1,2,4-TRICHLOROBENZENE	<0.17	3.3	2.3	68	1.9	56	19
ACENAPHTHENE	<0.17	3.3	2.4	73	2.5	75	3
2,4-DINITROTOLUENE	<0.17	3.3	2.6	80	2.8	85	6
PYRENE	<0.17	3.3	2.2	67	1.9	57	17
N-NITROSO-DI-N-PROPYLAMINE	<0.17	3.3	2.2	67	1.9	58	15
1,4-DICHLOROBENZENE	<0.17	3.3	1.7	50	1.6	49	1
PENTACHLOROPHENOL	<0.85	6.6	6.0	90	6.2	92	2
PHENOL	<0.17	6.6	3.3	49	3.0	45	8
2-CHLOROPHENOL	<0.17	6.6	3.0	44	2.7	40	10
4-CHLORO-3-METHYLPHENOL	<0.17	6.6	4.4	66	3.9	59	10
4-NITROPHENOL	<0.85	6.6	5.7	85	6.2	93	9

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

PURGEABLE HALOCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: N/A
PROJECT #	: 3024	DATE RECEIVED	: N/A
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/10/90
CLIENT I.D.	: REAGENT BLANK	DATE ANALYZED	: 07/24/90
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8010	DILUTION FACTOR	: 1

RESULTS BASED ON DRY WEIGHT

COMPOUND	RESULT
BROMODICHLOROMETHANE	<0.010
BROMOFORM	<0.010
BROMOMETHANE	<0.025
CARBON TETRACHLORIDE	<0.010
CHLOROBENZENE	<0.025
CHLOROETHANE	<0.025
CHLOROFORM	<0.010
CHLOROMETHANE	<0.10
DIBROMOCHLOROMETHANE	<0.010
1,1-DICHLOROETHANE	<0.010
1,2-DICHLOROETHANE	<0.010
1,1-DICHLOROETHENE	<0.010
CIS-1,2-DICHLOROETHENE	<0.010
TRANS-1,2-DICHLOROETHENE	<0.010
1,2-DICHLOROPROPANE	<0.010
CIS-1,3-DICHLOROPROPENE	<0.010
TRANS-1,3-DICHLOROPROPENE	<0.010
METHYLENE CHLORIDE	<0.10
1,1,2,2-TETRACHLOROETHANE	<0.010
TETRACHLOROETHENE	<0.010
1,1,1-TRICHLOROETHANE	<0.010
1,1,2-TRICHLOROETHANE	<0.010
TRICHLOROETHENE	<0.010
TRICHLOROFLUOROMETHANE	<0.025
VINYL CHLORIDE	<0.025

SURROGATE PERCENT RECOVERY

BROMOCHLOROMETHANE	118

PURGEABLE HALOCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: 07/05/90
PROJECT #	: 3024	DATE RECEIVED	: 07/06/90
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/10/90
CLIENT I.D.	: S-1	DATE ANALYZED	: 07/24/90*
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8010	DILUTION FACTOR	: 1

RESULTS BASED ON DRY WEIGHT

COMPOUND	RESULT
BROMODICHLOROMETHANE	<0.010
BROMOFORM	<0.010
BROMOMETHANE	<0.025
CARBON TETRACHLORIDE	<0.010
CHLOROBENZENE	<0.025
CHLOROETHANE	<0.025
CHLOROFORM	<0.010
CHLOROMETHANE	<0.10
DIBROMOCHLOROMETHANE	<0.010
1,1-DICHLOROETHANE	<0.010
1,2-DICHLOROETHANE	<0.010
1,1-DICHLOROETHENE	<0.010
CIS-1,2-DICHLOROETHENE	<0.010
TRANS-1,2-DICHLOROETHENE	<0.010
1,2-DICHLOROPROPANE	<0.010
CIS-1,3-DICHLOROPROPENE	<0.010
TRANS-1,3-DICHLOROPROPENE	<0.010
METHYLENE CHLORIDE	0.24
1,1,2,2-TETRACHLOROETHANE	<0.010
TETRACHLOROETHENE	<0.010
1,1,1-TRICHLOROETHANE	<0.010
1,1,2-TRICHLOROETHANE	<0.010
TRICHLOROETHENE	<0.010
TRICHLOROFLUOROMETHANE	<0.025
VINYL CHLORIDE	<0.025

SURROGATE PERCENT RECOVERY

BROMOCHLOROMETHANE	56

* Analyzed past 14 day hold time.

PURGEABLE HALOCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: 07/05/90
PROJECT #	: 3024	DATE RECEIVED	: 07/06/90
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/10/90
CLIENT I.D.	: S-2	DATE ANALYZED	: 07/24/90*
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8010	DILUTION FACTOR	: 10

RESULTS BASED ON DRY WEIGHT

COMPOUND	RESULT
BROMODICHLOROMETHANE	<0.10
BROMOFORM	<0.10
BROMOMETHANE	<0.25
CARBON TETRACHLORIDE	<0.10
CHLOROBENZENE	<0.25
CHLOROETHANE	<0.25
CHLOROFORM	<0.10
CHLOROMETHANE	<1.0
DIBROMOCHLOROMETHANE	<0.10
1,1-DICHLOROETHANE	<0.10
1,2-DICHLOROETHANE	<0.10
1,1-DICHLOROETHENE	<0.10
CIS-1,2-DICHLOROETHENE	14
TRANS-1,2-DICHLOROETHENE	0.17
1,2-DICHLOROPROPANE	<0.10
CIS-1,3-DICHLOROPROPENE	<0.10
TRANS-1,3-DICHLOROPROPENE	<0.10
METHYLENE CHLORIDE	<1.0
1,1,2,2-TETRACHLOROETHANE	<0.10
TETRACHLOROETHENE	1.9
1,1,1-TRICHLOROETHANE	<0.10
1,1,2-TRICHLOROETHANE	<0.10
TRICHLOROETHENE	1.1
TRICHLOROFLUOROMETHANE	<0.25
VINYL CHLORIDE	<0.25

SURROGATE PERCENT RECOVERY

BROMOCHLOROMETHANE	100

* Analyzed past 14 day hold time.

ATI I.D. # 9007-028-3

PURGEABLE HALOCARBONS ANALYSIS
DATA SUMMARY

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
CLIENT I.D. : S-3
SAMPLE MATRIX : SOIL
EPA METHOD : 8010

DATE SAMPLED : 07/05/90
DATE RECEIVED : 07/06/90
DATE EXTRACTED : 07/10/90
DATE ANALYZED : 07/24/90*
UNITS : mg/Kg
DILUTION FACTOR : 1

RESULTS BASED ON DRY WEIGHT

COMPOUND	RESULT
BROMODICHLOROMETHANE	<0.010
BROMOFORM	<0.010
BROMOMETHANE	<0.025
CARBON TETRACHLORIDE	<0.010
CHLOROBENZENE	<0.025
CHLOROETHANE	0.025
CHLOROFORM	<0.010
CHLOROMETHANE	<0.10
DIBROMOCHLOROMETHANE	<0.010
1,1-DICHLOROETHANE	<0.010
1,2-DICHLOROETHANE	<0.010
1,1-DICHLOROETHENE	<0.010
CIS-1,2-DICHLOROETHENE	<0.010
TRANS-1,2-DICHLOROETHENE	<0.010
1,2-DICHLOROPROPANE	<0.010
CIS-1,3-DICHLOROPROPENE	<0.010
TRANS-1,3-DICHLOROPROPENE	<0.010
METHYLENE CHLORIDE	0.24
1,1,2,2-TETRACHLOROETHANE	<0.010
TETRACHLOROETHENE	0.058
1,1,1-TRICHLOROETHANE	<0.010
1,1,2-TRICHLOROETHANE	<0.010
TRICHLOROETHENE	0.016
TRICHLOROFLUOROMETHANE	<0.025
VINYL CHLORIDE	<0.025

SURROGATE PERCENT RECOVERY

BROMOCHLOROMETHANE	65

* Analyzed past 14 day hold time.

ATI I.D. # 9007-028-4

PURGEABLE HALOCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: 07/05/90
PROJECT #	: 3024	DATE RECEIVED	: 07/06/90
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/10/90
CLIENT I.D.	: S-4	DATE ANALYZED	: 07/24/90*
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8010	DILUTION FACTOR	: 1

RESULTS BASED ON DRY WEIGHT

COMPOUND	RESULT
BROMODICHLOROMETHANE	<0.010
BROMOFORM	<0.010
BROMOMETHANE	<0.025
CARBON TETRACHLORIDE	<0.010
CHLOROBENZENE	<0.025
CHLOROETHANE	<0.025
CHLOROFORM	<0.010
CHLOROMETHANE	<0.10
DIBROMOCHLOROMETHANE	<0.010
1,1-DICHLOROETHANE	<0.010
1,2-DICHLOROETHANE	<0.010
1,1-DICHLOROETHENE	<0.010
CIS-1,2-DICHLOROETHENE	<0.010
TRANS-1,2-DICHLOROETHENE	<0.010
1,2-DICHLOROPROPANE	<0.010
CIS-1,3-DICHLOROPROPENE	<0.010
TRANS-1,3-DICHLOROPROPENE	<0.010
METHYLENE CHLORIDE	<0.10
1,1,2,2-TETRACHLOROETHANE	<0.010
TETRACHLOROETHENE	<0.010
1,1,1-TRICHLOROETHANE	<0.010
1,1,2-TRICHLOROETHANE	<0.010
TRICHLOROETHENE	<0.010
TRICHLOROFLUOROMETHANE	<0.025
VINYL CHLORIDE	<0.025

SURROGATE PERCENT RECOVERY

BROMOCHLOROMETHANE	65

* Analyzed past 14 day hold time.

PURGEABLE HALOCARBONS
QUALITY CONTROL DATA

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
EPA METHOD : 8010

SAMPLE I.D. : 9007-036-1
DATE EXTRACTED : 07/10/90
DATE ANALYZED : 07/24/90
MATRIX : SOIL
UNITS : mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
CHLOROBENZENE	<0.025	0.60	0.619	103	0.598	100	3
1,1-DICHLOROETHENE	<0.010	0.20	0.246	123	0.140	70	55*
TETRACHLOROETHENE	0.359	0.20	0.362	2*	0.448	45*	21*
TRICHLOROETHENE	<0.010	0.20	0.191	96	0.177	89	8

* Out of limits.

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

ATI I.D. # 9007-028

PURGEABLE HALOCARBONS
QUALITY CONTROL DATA

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
EPA METHOD : 8010

SAMPLE I.D. : BLANK SPIKE
DATE EXTRACTED : 07/10/90
DATE ANALYZED : 07/23/90
MATRIX : SOIL
UNITS : mg/Kg

COMPOUND	SAMPLE RESULT	SPIKE ADDED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % REC	RPD
CHLOROBENZENE	<0.025	0.60	0.510	85	N/A	N/A	N/A
1,1-DICHLOROETHENE	<0.010	0.20	0.167	83	N/A	N/A	N/A
TETRACHLOROETHENE	<0.010	0.20	0.177	89	N/A	N/A	N/A
TRICHLOROETHENE	<0.010	0.20	0.161	81	N/A	N/A	N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

FUEL HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: N/A
PROJECT #	: 3024	DATE RECEIVED	: N/A
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/11/90
CLIENT I.D.	: REAGENT BLANK	DATE ANALYZED	: 07/18/90
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8015 MODIFIED	DILUTION FACTOR	: 1

COMPOUND	RESULT
FUEL HYDROCARBONS	<5
HYDROCARBON RANGE	-
HYDROCARBONS QUANTITATED USING	GASOLINE
FUEL HYDROCARBONS	<5
HYDROCARBON RANGE	-
HYDROCARBONS QUANTITATED USING	DIESEL

FUEL HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: N/A
PROJECT #	: 3024	DATE RECEIVED	: N/A
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/19/90
CLIENT I.D.	: REAGENT BLANK	DATE ANALYZED	: 07/19/90
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8015 MODIFIED	DILUTION FACTOR	: 1

COMPOUND	RESULT
FUEL HYDROCARBONS	<5
HYDROCARBON RANGE	-
HYDROCARBONS QUANTITATED USING	GASOLINE
FUEL HYDROCARBONS	<5
HYDROCARBON RANGE	-
HYDROCARBONS QUANTITATED USING	DIESEL

FUEL HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: 07/05/90
PROJECT #	: 3024	DATE RECEIVED	: 07/06/90
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/19/90
CLIENT I.D.	: S-1	DATE ANALYZED	: 07/20/90
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8015 MODIFIED	DILUTION FACTOR	: 1

COMPOUND	RESULT
FUEL HYDROCARBONS	<5
HYDROCARBON RANGE	-
HYDROCARBONS QUANTITATED USING	GASOLINE
FUEL HYDROCARBONS	<5
HYDROCARBON RANGE	-
HYDROCARBONS QUANTITATED USING	DIESEL

ATI I.D. # 9007-028-2

FUEL HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: 07/05/90
PROJECT #	: 3024	DATE RECEIVED	: 07/06/90
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/11/90
CLIENT I.D.	: S-2	DATE ANALYZED	: 07/13/90
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8015 MODIFIED	DILUTION FACTOR	: 10

COMPOUND	RESULT
FUEL HYDROCARBONS	<50
HYDROCARBON RANGE	-
HYDROCARBONS QUANTITATED USING	GASOLINE
FUEL HYDROCARBONS	5,300
HYDROCARBON RANGE	C6 - C24
HYDROCARBONS QUANTITATED USING	DIESEL

FUEL HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: 07/05/90
PROJECT #	: 3024	DATE RECEIVED	: 07/06/90
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/11/90
CLIENT I.D.	: S-3	DATE ANALYZED	: 07/18/90
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8015 MODIFIED	DILUTION FACTOR	: 1

COMPOUND	RESULT
FUEL HYDROCARBONS	13
HYDROCARBON RANGE	C6 - C14
HYDROCARBONS QUANTITATED USING	GASOLINE
FUEL HYDROCARBONS	64
HYDROCARBON RANGE	C14 - C24
HYDROCARBONS QUANTITATED USING	DIESEL

BEST ESTIMATE OF FUEL TYPE : 1 PART GASOLINE : 3 PARTS DIESEL

ATI I.D. # 9007-028-4

FUEL HYDROCARBONS ANALYSIS
DATA SUMMARY

CLIENT	: HART CROWSER, INC.	DATE SAMPLED	: 07/05/90
PROJECT #	: 3024	DATE RECEIVED	: 07/06/90
PROJECT NAME	: PACE CHEMICALS	DATE EXTRACTED	: 07/11/90
CLIENT I.D.	: S-4	DATE ANALYZED	: 07/13/90
SAMPLE MATRIX	: SOIL	UNITS	: mg/Kg
EPA METHOD	: 8015 MODIFIED	DILUTION FACTOR	: 1

COMPOUND	RESULT
FUEL HYDROCARBONS	<5
HYDROCARBON RANGE	-
HYDROCARBONS QUANTITATED USING	GASOLINE
FUEL HYDROCARBONS	<5
HYDROCARBON RANGE	-
HYDROCARBONS QUANTITATED USING	DIESEL

ATI I.D. # 9007-028

FUEL HYDROCARBONS
QUALITY CONTROL DATA

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
EPA METHOD : 8015 MODIFIED

SAMPLE I.D. : 9007-072-1
DATE EXTRACTED : 07/11/90
DATE ANALYZED : 07/12/90
MATRIX : SOIL
UNITS : mg/Kg

COMPOUND	SAMPLE RESULT	CONC SPIKED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % RECOVERY	RPD
FUEL HYDROCARBONS	<5	500	562	112	541	108	4

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

FUEL HYDROCARBONS
QUALITY CONTROL DATA

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
EPA METHOD : 8015 MODIFIED

SAMPLE I.D. : 9007-096-9
DATE EXTRACTED : 07/19/90
DATE ANALYZED : 07/20/90
MATRIX : SOIL
UNITS : mg/Kg

COMPOUND	SAMPLE RESULT	CONC SPIKED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % RECOVERY	RPD
FUEL HYDROCARBONS	1300	500	1362	8*	1365	8*	0

* Out of limits.

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

FUEL HYDROCARBONS
QUALITY CONTROL DATA

CLIENT : HART CROWSER, INC.
PROJECT # : 3024
PROJECT NAME : PACE CHEMICALS
EPA METHOD : 8015 MODIFIED

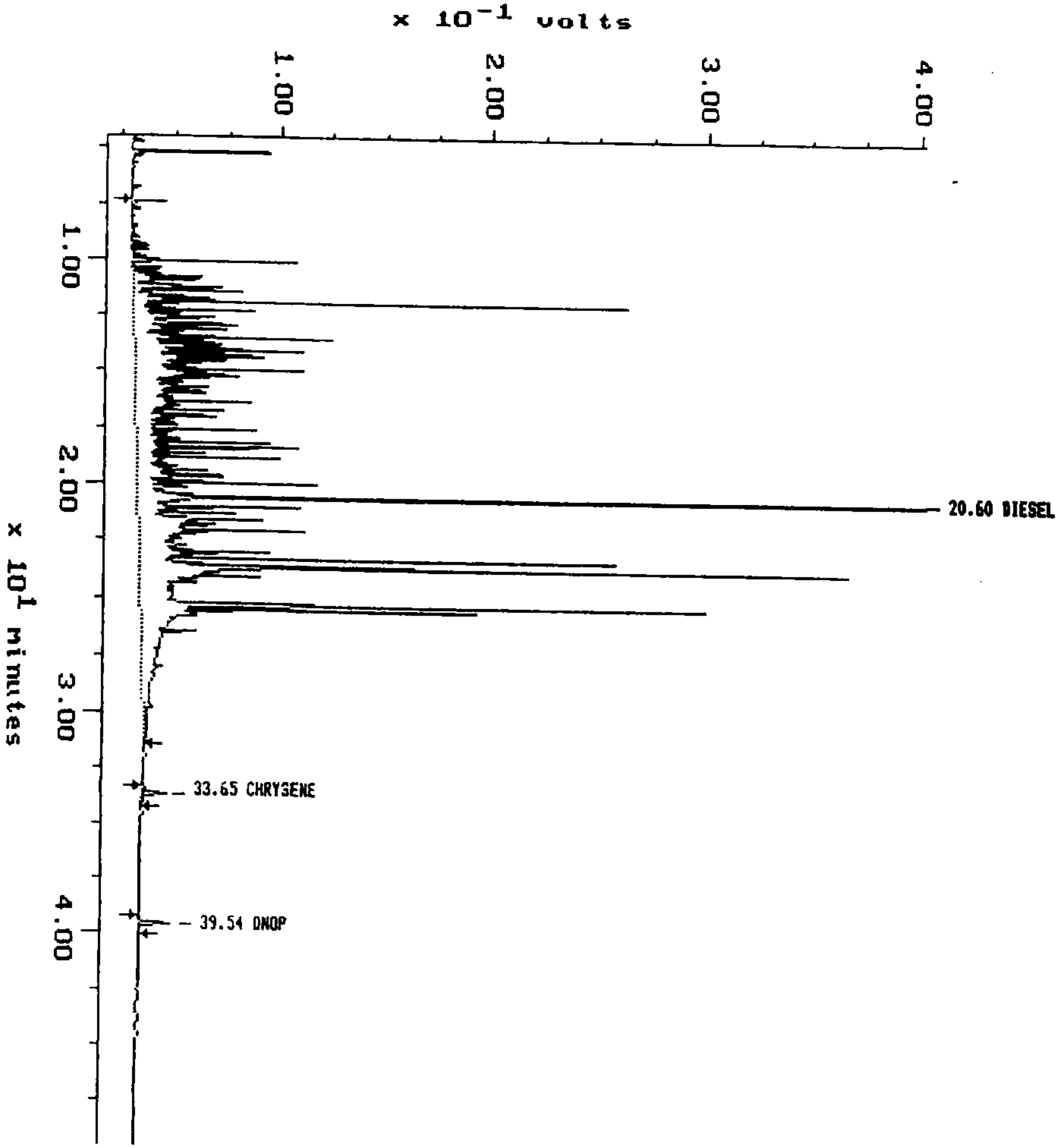
SAMPLE I.D. : BLANK SPIKE
DATE EXTRACTED : 07/19/90
DATE ANALYZED : 07/21/90
MATRIX : SOIL
UNITS : mg/Kg

COMPOUND	SAMPLE RESULT	CONC SPIKED	SPIKED SAMPLE	% REC	DUP SPIKED SAMPLE	DUP % RECOVERY	RPD
FUEL HYDROCARBONS	<5	500	416	83	N/A	N/A	N/A

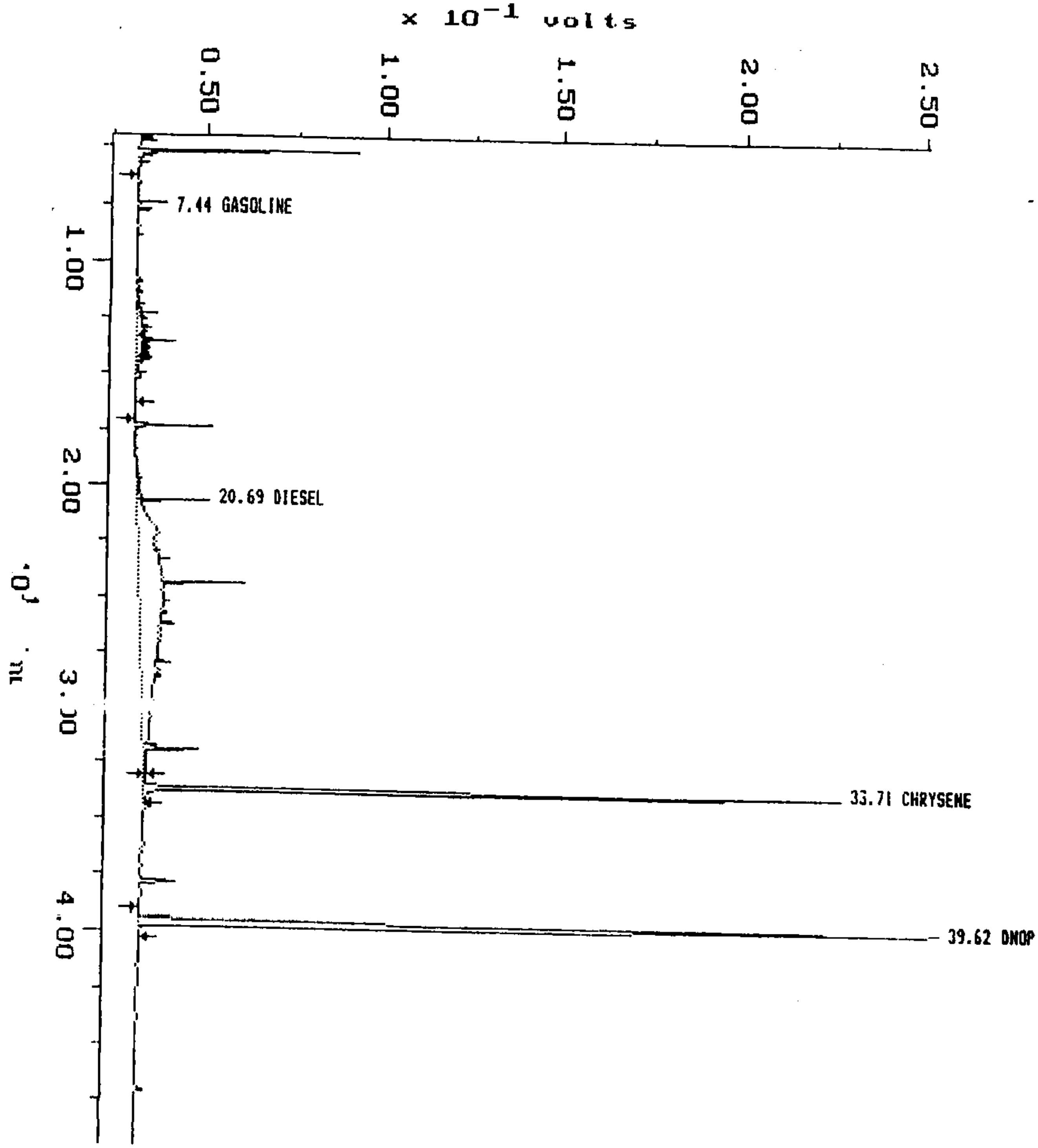
$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Sample: 9007-028-2 Channel: detector 1 Filename: 0PF02089
Acquired: 13-JUL-90 22:58 Method: L:\MAXDATA\PACK-F\FUEL713B Operator: LAL
Dilution: 1 : 10.000
Comments: 8015 FUEL FINGERPRINT/ 1UL INJECT ON PACKIE



Sample: 9007-028-3 R   Channel: detector 1   Filename: OPF02169
Acquired: 18-JUL-90 10:50   Method: L:\MAXDATA\PACK-F\FUEL717   Operator: LAL
Comments: 8015 FUEL FINGERPRINT/ 1UL INJECT ON PACKIE



9007-608

Sample Custody Record

DATE 7/5/90 PAGE 1 OF 1

HARTCROWSER

Crowser, Inc.
1910 Fairview Avenue East
Seattle, Washington 98102-3699

JOB NUMBER 3024 LAB NUMBER

PROJECT MANAGER Stuart Trask

PROJECT NAME PACE Chemicals

SAMPLED BY: Stuart Trask

LAB NO.	SAMPLE	TIME	STATION	MATRIX	VOA - 8240	8015	8010	BNA - 8270							NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
-1	S-1	7/5/90		soil	X	X	X								1	
	S-2				X	X	X								1	
-3	S-3				X	X	X	X							1	
	S-4				X	X	X								1	
	S-5							X							1	
	S-6							X							1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
Stuart Trask (SIGNATURE)	7/5/90	(SIGNATURE)	7/6/90
Stuart Trask (PRINTED NAME)	TIME	(PRINTED NAME)	TIME
Hart Crowser (COMPANY)	1709	(COMPANY)	9:?

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE		SIGNATURE	
PRINTED NAME	TIME	PRINTED NAME	TIME
COMPANY		COMPANY	

TOTAL NUMBER OF CONTAINERS 6

METHOD OF SHIPMENT

SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS

DISTRIBUTION: Laboratory Services Work Order No. 1079

1. PROVIDE WHITE AND YELLOW COPIES TO LABORATORY
2. RETURN PINK COPY TO PROJECT MANAGER
3. LABORATORY TO FILL IN SAMPLE NUMBER AND SIGN FOR RECEIPT
4. LABORATORY TO RETURN WHITE COPY TO HART CROWSER

RECEIVED JAN 18 1991

Columbia Analytical Services inc.

January 17, 1991

Dan Havens
SRH Environmental Management
P.O. Box 301008
Portland, OR 97230

Re: **Pace/Project #7-2413**

Dear Dan:

Enclosed are the results of the soil and liquid samples submitted to our lab on December 21, 1990. Preliminary results were transmitted via facsimile on January 11, 1991. For your reference, our service request number for this work is K904995.

We were not able to perform an analysis for trace residues of polypropylene glycol. There are no approved EPA procedures for this compound and our modifications of EPA procedures were not successful.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

Dave Edelman

David L. Edelman
Vice President

DLE/das

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
WORK ORDER #: K904995

Soil pH Measured in Water
EPA Method 9045

Sample Name	Lab Code	Result
2413-122090-3A	4995-34	6.51
2413-122090-3B	4995-35	6.69

Approved by Dave Edelman Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 01/04/91
DATE ANALYZED: 01/08/91
WORK ORDER #: K904995

TRPH-IR
16th Standard Methods 503 D / EPA Method 418.1
mg/Kg (ppm)
Dry Weight Basis

Sample Name	Lab Code	MRL	Result
2413-121990-12A	4995-11	25	ND
2413-121990-12B	4995-12	25	ND
2413-121890-7A	4995-14	25	ND
2413-121890-7B	4995-15	25	ND
2413-122090-11A	4995-30	25	ND
2413-122090-11B	4995-31	25	ND
2413-122090-3A	4995-34	25	ND
2413-122090-3B	4995-35	25	ND
2413-122090-4A	4995-37	25	ND
2413-122090-4B	4995-38	25	61
2413-122090-5A	4995-40	25	ND
2413-122090-5B	4995-41	25	ND
2413-122090-6A	4995-43	25	27
2413-122090-6B	4995-44	25	ND
Method Blank	4995-MB	25	ND

ND means None Detected at or above the MRL
MRL means Method Reporting Limit

Approved by Dave Edelman, A Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 01/04/91
DATE ANALYZED: 01/10/91
WORK ORDER #: K904995

Hydrocarbon Scan
EPA Method Modified 8015*
mg/Kg (ppm)
Dry Weight Basis

Sample Name	Lab Code	MRL	Diesel	Jet Fuel	Gasoline	Kerosene	Mineral Spirits	Oil**
2413-122090-4B	4995-38	20	20	ND	ND	ND	ND	ND
2413-122090-6A	4995-43	20	ND	ND	ND	ND	ND	ND

* Using the extract from Method 418.1.
** Quantitated using hydraulic oil as a standard. The MRL for oil is five times the MRL shown above.
MRL means Method Reporting Limit
ND means None Detected at or above the MRL

Approved by Dave Edelman / Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
WORK ORDER #: K904995

Total Metals
mg/Kg
Dry Weight Basis

Sample Name:			2413-122090-3A	2413-122090-3B	Method Blank
Lab Code:			4995-34	4995-35	4995-MB
	Method	MRL			
Sodium	6010	20	167	205	ND

ND means None Detected at or above the MRL.
MRL means Method Reporting Limit.

Approved by Dave Edelman Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 12/31/90
DATE ANALYZED: 01/03/91
WORK ORDER #: K904995

Diphenylamine Analysis
EPA Methods 3550/Modified 8015
mg/Kg (ppm)
Dry Weight Basis

Sample Name	Lab Code	MRL	Result
2413-121990-13A	4995-27	0.10	*ND
2413-121990-13B	4995-28	0.10	*21.4
Method Blank	4995-MB	0.10	ND

MRL means Method Reporting Limit
ND means None Detected at or above the MRL
* Confirmed by GC/MS analysis

Approved by Dave Edel..f Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 12/28/90
DATE ANALYZED: 12/30,31/90
WORK ORDER #: K904995

Isopropanol Analysis
EPA Methods 3550/Modified 8015
mg/Kg (ppm)
Dry Weight Basis

Sample Name	Lab Code	MRL	Result
2413-121990-14A	4995-8	1.0	ND
2413-121990-14B	4995-9	1.0	ND
2413-121990-12A	4995-11	1.0	ND
2413-121990-12B	4995-12	1.0	ND
2413-121990-13A	4995-27	1.0	320
2413-121990-13B	4995-28	1.0	ND
2413-122090-5A	4995-40	1.0	4
2413-122090-5B	4995-41	1.0	ND
Method Blank	4995-MB	1.0	ND

MRL means Method Reporting Limit
ND means None Detected at or above the MRL

Approved by Dave Edelman.l Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 12/21/90
DATE ANALYZED: 12/31/90
WORK ORDER #: K904995

Isopropanol Analysis
EPA Method Modified 8015
mg/L (ppm)

Sample Name	Lab Code	MRL	Result
2413-122190-P1	4995-46	1.0	44
2413-122190-P2	4995-47	1.0	12,000

MRL means Method Reporting Limit

Approved by Dave Edelman Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 12/28/90
DATE ANALYZED: 12/30/90
WORK ORDER #: K904995

Methanol Analysis
EPA Methods 3550/Modified 8015
mg/Kg (ppm)
Dry Weight Basis

Sample Name	Lab Code	MRL	Result
2413-121990-1A	4995-1	1.0	ND
2413-121990-1B	4995-2	1.0	ND
2413-121890-9A	4995-21	1.0	ND
2413-121890-9B	4995-22	1.0	ND
Method Blank	4995-MB	1.0	ND

MRL means Method Reporting Limit
ND means None Detected at or above the MRL

Approved by Dave Edelman Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 12/21/90
DATE ANALYZED: 12/31/91
WORK ORDER #: K904995

Methanol Analysis
EPA Method Modified 8015
mg/L (ppm)

Sample Name	Lab Code	MRL	Result
2413-122190-P1	4995-46	1.0	33
2413-122190-P2	4995-47	1.0	2,400

MRL means Method Reporting Limit

Approved by Dave Ebelman Jr. Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 12/21/90
DATE ANALYZED: 12/26/90
WORK ORDER #: K904995

BTEX
EPA Methods 5030/8020

Sample Name:			2413-122190-P1	2413-122190-P2	Method Blank
Lab Code:			4995-46	4995-47	4995-MB
Analytes	Units	MRL			
Benzene	µg/L (ppb)	0.5	ND	*<100	ND
Toluene	µg/L (ppb)	1	10	19	ND
Ethylbenzene	µg/L (ppb)	1	ND	ND	ND
Total Xylenes	µg/L (ppb)	1	4.8	11	ND

MRL means Method Reporting Limit
ND means None Detected at or above the MRL
* Elevated MRL because of matrix interferences.

Approved by Dave Ebel.. Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 12/26/90
DATE ANALYZED: 12/26/90
WORK ORDER #: K904995

BTEX
EPA Methods 5030/8020
mg/Kg (ppm)
Dry Weight Basis

Sample Name: / Lab Code:		2413-121990-12A / 4995-11	2413-121990-12B / 4995-12	2413-122090-3A / 4995-34
Analytes	MRL			
Benzene	0.05	ND	ND	ND
Toluene	0.1	ND	ND	ND
Ethylbenzene	0.1	ND	ND	ND
Total Xylenes	0.1	ND	ND	ND

MRL means Method Reporting Limit
ND means None Detected at or above the MRL

Approved by Dave Eldeman.? Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 12/26/90
DATE ANALYZED: 12/26/90
WORK ORDER #: K904995

BTEX
EPA Methods 5030/8020
mg/Kg (ppm)
Dry Weight Basis

Sample Name:		2413-122090-3B	2413-122090-4A	2413-122090-4B
Lab Code:		4995-35	4995-37	4995-38
Analytes	MRL			
Benzene	0.05	ND	ND	ND
Toluene	0.1	ND	ND	ND
Ethylbenzene	0.1	ND	ND	ND
Total Xylenes	0.1	ND	ND	ND

MRL means Method Reporting Limit
ND means None Detected at or above the MRL

Approved by Dave Eilers Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 12/26/90
DATE ANALYZED: 12/26/90
WORK ORDER #: K904995

BTEX
EPA Methods 5030/8020
mg/Kg (ppm)
Dry Weight Basis

Sample Name:		2413-122090-6A	2413-122090-6B	Method Blank
Lab Code:		4995-43	4995-44	4995-MB
Analytes	MRL			
Benzene	0.05	ND	ND	ND
Toluene	0.1	ND	ND	ND
Ethylbenzene	0.1	ND	ND	ND
Total Xylenes	0.1	ND	ND	ND

MRL means Method Reporting Limit
ND means None Detected at or above the MRL

Approved by Dave Eldon, J Date 1/18/91

APPENDIX A

LABORATORY QC RESULTS

COLUMBIA ANALYTICAL SERVICES, INC.

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 01/04/91
DATE ANALYZED: 01/08/91
WORK ORDER #: K904995

QA/QC Report
Duplicate Results
TRPH-IR
16th Standard Methods 503 D/EPA Method 418.1
mg/Kg (ppm)
Dry Weight Basis

Sample Name	Lab Code	MRL	A	B	Average	% Relative Difference
2413-121990-12B	4995-12	25	ND	ND	ND	–

MRL means Method Reporting Limit
ND means None Detected at or above the MRL

Approved by Dave Ehrlen.f Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 01/04/91
DATE ANALYZED: 01/08/91
WORK ORDER #: K904995

QA/QC Report
Matrix Spike Results
TRPH-IR
16th Standard Methods 503 D/EPA Method 418.1
mg/Kg (ppm)
Dry Weight Basis

Sample Name	Lab Code	MRL	Spike Level	Unspiked Sample Result	Spiked Result	% Recovery
2413-121990-12B	4995-12	25	942	ND	890	94

MRL means Method Reporting Limit
ND means None Detected at or above the MRL

Approved by Dave Ehl. / Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 12/28/90
DATE ANALYZED: 12/31/90
WORK ORDER #: K904995

QA/QC Report
Matrix Spike Results
Methanol and Isopropanol
EPA Methods 3550/Modified 8015
mg/Kg (ppm)
Dry Weight Basis

Sample Name: 2413-121990-13B

Lab Code	Compound	MRL	Spike Level	Sample Result	Spike Result	% Recovery
4995-28MS	Methanol	1.0	54.5	ND	20.9	38.3
4995-28MS	Isopropanol	1.0	54.5	ND	30.1	55.2

ND means None Detected at or above the MRL
MRL means Method Reporting Limit

Approved by Dave Eden, ? Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 12/28/90
DATE ANALYZED: 12/31/90
WORK ORDER #: K904995

QA/QC Report
Duplicate Matrix Spike Results
Methanol and Isopropanol
EPA Methods 3550/Modified 8015
mg/Kg (ppm)
Dry Weight Basis

Sample Name: 2413-121990-13B

Lab Code	Compound	MRL	Spike Level	Sample Result	Spike Result	% Recovery
4995-28DMS	Methanol	1.0	55.4	ND	20.9	37.7
4995-28DMS	Isopropanol	1.0	55.4	ND	30.0	54.2

ND means None Detected at or above the MRL
MRL means Method Reporting Limit

Approved by Dave Sh... Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Water

DATE RECEIVED: 12/21/90
DATE ANALYZED: 12/26/90
WORK ORDER #: K904995

QA/QC Report
Surrogate Recovery Summary
BTEX
EPA Methods 5030/8020

Sample Name	Lab Code	Percent Recovery 4-Bromofluorobenzene
2413-122190-P1	4995-46	74.6
2413-122190-P2	4995-47	77.2
Method Blank	4995-MB	60.6
CAS Acceptance Criteria		60-120

Approved by Dave Eldon, / Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 12/26/90
DATE ANALYZED: 12/26/90
WORK ORDER #: K904995

QA/QC Report
Surrogate Recovery Summary
BTEX
EPA Methods 5030/8020

Sample Name	Lab Code	Percent Recovery 4-Bromofluorobenzene
2413-121990-12A	4995-11	87.8
2413-121990-12A	4995-11MS	78.6
2413-121990-12B	4995-11DMS	79.7
2413-121990-12B	4995-12	72.7
2413-122090-3A	4995-34	69.9
2413-122090-3B	4995-35	88.2
2413-122090-4A	4995-37	72.5
2413-122090-4B	4995-38	79.3
2413-122090-6A	4995-43	90.8
2413-122090-6B	4995-44	88.3
Method Blank	4995-MB	93.2
CAS Acceptance Criteria		50-130

Approved by Dave [illegible] Date 1/18/91

COLUMBIA ANALYTICAL SERVICES, INC.

CLIENT: SRH Environmental Management
SUBMITTED BY: Dan Havens
PROJECT: Pace/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/21/90
DATE EXTRACTED: 12/26/90
DATE ANALYZED: 12/26/90
WORK ORDER #: K904995

QA/QC Report
Matrix Spike/Duplicate Matrix Spike Summary
BTEX
EPA Methods 5030/8020
mg/Kg (ppm)
Dry Weight Basis

Sample Name: 2413-121990-12A
Lab Code: 4995-11MS/DMS

Analytes	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	CAS Percent Recovery Acceptance Criteria
Benzene	1.12	1.07	ND	0.98	0.88	87	82	39-150
Toluene	1.12	1.07	ND	1.02	0.95	91	89	46-148
Ethylbenzene	1.12	1.07	ND	1.13	1.05	101	98	32-160

ND means None Detected at or above the method reporting limit.

Approved by Dave Sh..., Date 1/18/91

APPENDIX B

CHAIN OF CUSTODY INFORMATION

2493

Columbia Analytical Services Inc.

1317 South 13th Avenue • Kelso, WA 98626 • 206/577-7222, Fax 206/636-1068

Chain of Custody/ Laboratory Analysis Request

DATE 12/21/90 PAGE 1 OF 5

PROJECT PACE NATIONAL # 7-2413

SEND REPORT TO DAN HAVENS

ADDRESS P O BOX 301008

TELEPHONE# (503) 252-8316

SAMPLERS NAME BOB JANAK/ DAN HAVENS PHONE# SAME

SAMPLERS SIGNATURE D A Havens

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	ORGANIC ANALYSIS: Base/Neu/Acid Organics GC/MS 625/8270	Volatile Organics GC/MS 624/8240	Halogenated Volatiles 601/8010	Aromatic Volatiles 602/8020 BTEX	Gas/BTEX MOD 8015/8020	Pesticides/PCBs 608/8080	Total Petroleum Hydrocarbons - Mod 8015	Total Petroleum Hydrocarbons - 418.1	Total Organic Halides (TOX) 9020	Total Organic Carbon (TOC) 415/9060	INORGANIC ANALYSIS: EPTOX Metals As, Ba, Cd, Cr, Pb, Hg, Se, Ag	Metals (total or dissolved) List Below	Cyanide	Ph, Cond, Cl, SO^4, PO^4, F, Br NO^3, NO^2, (Circle)	NH^3-N, COD, Total-P, TKN (Circle)	OTHER: Coliform (Circle) Total, Fecal				NUMBER OF CONTAINERS
1. SEE ATTACHED PAGES 2 – 5																								
2.																								
3.																								
4.																								
5.																								
6.																								
7.																								
8.																								

Relinquished By	Relinquished By	Invoice Information:	Project Information	Sample Receipt
D A HAVENS		P.O.#		
Signature D A Havens	Signature	Bill to: SRH	Site Contact:	Shipped Via:
Printed Name SRH	Printed Name			Seals Intact:
Firm	Firm		Site Address:	Condition:
Date/Time 12/21/90 12:30	Date/Time			Lab No.
Received By: Fran Adair	Received By:	Special Instruction/Comments:		SR Number:
Signature FRAN ADAIR	Signature			
Printed Name CAS	Printed Name			
Firm 12/21/90 232	Firm			
Date/Time	Date/Time			

11.4, 15

COFFEY LABORATORIES INC.
2423 N.E. WHITAKER WAY, PORTLAND, OR 97230
(503) 254-1794 • FAX (503) 254-1452

COFFEY LABORATORIES - PENDLETON BRANCH
287 S.E. FIRST PENDLETON, OR 97801
(503) 276-0385

CHAIN OF CUSTODY

PROJECT #:	PROJECT NAME:	P.O. #:	PAGE 2 of 5 PAGES / PLEASE PRINT OR TYPE	FOR LABORATORY USE ONLY
7-2413	Pacc			

COMPANY NAME: SRH Environmental Management

REPORT ATTENTION: ~~Bob Jonak~~

JOB #:

SAMPLES COLLECTED BY: Bob Jonak / Dan Havens

CUSTABBR:

FIELD IDENTIFICATION: ONE LINE PER SAMPLE CONTAINER		LAB LOG ID	COLLECTION DATE	COLLECTION TIME	MEDIA	ANALYSIS REQUESTED	ANALYSIS REMARKS
2413-121890-7A	TANK 7		12-18-90	10:10	Soil	TPH (418.1), HC10 (8015M) → ONLY IF TPH POSITIVE	
2413-121890-7B	↓			10:12		TPH (418.1), HC10 (8015M) → " " " "	
2413-121890-7C	↓			10:15		NCSI FATTY ACID → HOLD	
2413-121890-8A	TANK 8			11:20		NCSI FATTY ACID → HOLD	
2413-121890-8B	↓			11:20		NCSI FATTY ACID → HOLD	
2413-121890-8C	↓			11:25		↓ ↓	
2413-121890-8D	↓			11:40			
2413-121890-9A	TANK 9			13:40		8015M FOR METANOL AND POLYPROPYLENE GLYCOL	
2413-121890-9B	↓			13:40		8015M " " " " "	
2413-121890-9C	↓			13:40		HOLD	
2413-121890-10A	TANK 10			14:10		8015M FOR POLYPROPYLENE GLYCOL	
2413-121890-10B				14:15		" " " "	
2413-121890-10C	↓			14:15		NCSI FATTY ACID - HOLD	

RELINQUISHED BY: Dan Havens DATE/TIME 12/21/90 2:30

RECEIVED BY: DATE/TIME

LAB USE:

RELINQUISHED BY: DATE/TIME

RECEIVED BY LAB: Fran Adair DATE/TIME 12/21/90 1230

SAMPLE REMARKS:

LEVEL 1 2 3 4 EXPRESS UPS MAIL CXX GREY TAXI LAB

WHITE COPY - COFFEY LABORATORIES

PINK COPY - CLIENTS COPY

SHADED AREA FORLABORATORY USE ONLY

CHAIN OF CUSTODY INSTRUCTIONS ON BACK OF PINK COPY

7-90

K10145

COFFEY LABORATORIES INC.
12423 N.E. WHITAKER WAY, PORTLAND, OR 97230
(503) 254-1794 • FAX (503) 254-1452

COFFEY LABORATORIES - PENDLETON BRANCH
287 S.E. FIRST PENDLETON, OR 97801
(503) 276-0385

CHAIN OF CUSTODY

PROJECT #:	PROJECT NAME:	P.O. #:	PAGE	FOR LABORATORY USE ONLY
7-2413	Pace		PAGE 3 of 5 PAGES PLEASE PRINT OR TYPE	

COMPANY NAME: SBH Environmental Management

REPORT ATTENTION: ~~Bob Janak~~

JOB #:

SAMPLES COLLECTED BY: Bob Janak / Dan Havens

CUSTABBR:

FIELD IDENTIFICATION: ONE LINE PER SAMPLE CONTAINER		LAB LOC	LAB ID	COLLECTION DATE	COLLECTION TIME	MEDIA	ANALYSIS REQUESTED	ANALYSIS REMARKS
2413-121990-1A	TANK 1			12-19	13:20	Soil	8015 M - METHANOL	
2413-121990-1B	↓			12-19	13:20	Soil	" "	
2413-121990-1C	↓			12-19	13:25	Soil	NCSI FATTY ACID - HOLD	
2413-121990-2A	TANK 2			12-19	14:10	Soil	NCSI FATTY ACID - HOLD	
2413-121990-2B	↓			12-19	14:10	Soil	↓ ↓ ↓	
2413-121990-2C	↓			12-19	14:10	Soil	↓ ↓ ↓	
2413-121990-S1	SUMP 1			12-19	14:20	Soil	HOLD	
2413-121990-14A	TANK 14				1610		8015 M - ISOPROPANOL	
2413-121990-14B	↓				1610		" "	
2413-121990-14C	↓				1610		HOLD	
2413-121990-12A	TANK 12				16:20		TPH (418.1), ① 8015 M - ACID → ONLY	IF TPH POSITIVE
2413-121990-12B	↓				16:20		TPH (418.1), ① " " "	" " "
2413-121990-12C	↓				16:20		HOLD 12C ② 8015 M - ISOPROPANOL	③ 8015 M - POLYPROP GLYCOL
							② 8015 M - ISOPROPANOL	③ " "

④ BTEX
④ BTEX

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	LAB USE
D A Havens	12/21/90 2:30			

RELINQUISHED BY:	DATE/TIME	RECEIVED BY LAB:	DATE/TIME
		[signature]	12/21/90 2:30

SAMPLE REMARKS:

EXPRESS UPS MAIL CXX GREY TAXI LAB

WHITE COPY - COFFEY LABORATORIES

PINK COPY - CLIENTS COPY

SHADED AREA FOR LABORATORY USE ONLY

CHAIN OF CUSTODY INSTRUCTIONS ON BACK OF PINK COPY

COFFEY LABORATORIES INC.
12423 N.E. WHITAKER WAY, PORTLAND, OR 97230
(503) 254-1794 • FAX (503) 254-1452

COFFEY LABORATORIES - PENDLETON BRANCH
287 S.E. FIRST PENDLETON, OR 97801
(503) 276-0385

CHAIN OF CUSTODY

PROJECT #:	PROJECT NAME:	P.O. #:	PAGE 4 of 5 PAGES PLEASE PRINT OR TYPE	FOR LABORATORY USE ONLY
7-2413	Pace			

COMPANY NAME: SRH Environmental Management

REPORT ATTENTION: Bob Janak

JOB #:

SAMPLES COLLECTED BY: Bob Janak / Dan Havens

CUSTABBR:

FIELD IDENTIFICATION: ONE LINE PER SAMPLE CONTAINER	LAB ID	COLLECTION DATE	COLLECTION TIME	MEDIA	ANALYSIS REQUESTED	ANALYSIS REMARKS
2413-121990-13A TANK 13		12-19	16:45	Soil	8015 M - ISOPROPANOL & DIPHENYLAMINE	
2413-121990-13B ↓		12-19	16:45	Soil	8015 M - " "	
2413-121990-13C ↓		12-19	16:45	Soil	HOLD	
2413-122090-11A TANK 11		12-20	10:30		TPH (418.1), HCID (8015M) → ONLY	IF TPH POSITIVE
2413-122090-11B ↓		12-20	10:30		" "	"
2413 122090-11C ↓		12-20	10:30		NCSI FATTY ACID - HOLD	
2413-122090-S2 SUMP 2		12-20	11:00	Soil	HOLD	
2413-122090-3A TANK 3		12-20	11:45	Soil	SODIUM, PH, TPH, BTEX, 8015M-HCID	IF TPH POS.
2413-122090-3B ↓		12-20	11:50	Soil	" " " "	"
2413-122090-3C ↓		12-20	11:50	Soil	HOLD	
2413-122090-4A TANK 4		12-20	~~11:30~~ 1135	Soil	TPH, BTEX, ① HCID-8015M IF TPH POS.	
2413-122090-4B ↓		12-20	11:30	Soil	② 8015M - POLYPROPYLENE GLYCOL	
2413-122090-4C ↓		12-20	11:45	Soil	HOLD	

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	LAB USE
D A Havens	12/21/90 2:30			
RELINQUISHED BY:	DATE/TIME	RECEIVED BY LAB: [signature]	DATE/TIME 12/21/90 232	

SAMPLE REMARKS:

WHITE COPY - COFFEY LABORATORIES

PINK COPY - CLIENTS COPY

SHADED AREA FOR LABORATORY USE ONLY

CHAIN OF CUSTODY INSTRUCTIONS ON BACK OF PINK COPY

K4,715

H Env. onmental Management

5 NE Whitaker Way
ond, Oregon 97230
252-8316 Fax 503-255-7030

LAB NAME
LOG #

PAGE 5 OF 5

CHAIN OF CUSTODY RECORD

OJ. NO.: 2413
SITE/LOCATION: Pacc
PLERS: (Signature) ab Janak / Dan Havens

NO.	DATE	TIME	SAMP. TYPE	MCLA	SAMPLE IDENTIFICATION	NO. OF CONTAINERS							SEAL NO.	SEAL INTACT? (Y or N)	REMARKS (with initials)
	12-20	1330	Grab	Soil	2413-122090-5A TANK 5	1									TPH, DHCID-8015M if TPH pos.
	12-20	12:55	Grab	Soil	2413-122090-5B	1									② 8015M - Isopropanol ③ 8015M - Poly prop. glycol
	12-20	12:35	Grab	Soil	2413-122090-5C	1									HOLD
	12-20	13:15	Grab	Soil	2413-122090-6A TANK 6	1									TPH, HCID-8015M if TPH pos.
	12-20	13:15	Grab	Soil	2413-122090-6B	1									BTEX
	12-20	13:15	Grab	Soil	2413-122090-6C	1									Hold
	12-21	0810	Grab	Liqu	2413-122190-P1	2 (VOA)									No HCL BTEX
	12-21	0810	Grab	Liqu	2413-122190-P1	2 (HCL)									TPH HCID (8015m) if TPH pos. 8015m - methanol, Isopropanol & Polyprop. Glycol
	12-21	0910	Grab	Liq	2413-122190-P2	2 (VOA)									No HCL BTEX
	12-21	0910	Grab	Liq	2413-122190-P2	2 (HCL)									same

Relinquished by: (Signature/Firm)	Date/Time	Received by: (Signature/Firm)	Relinquished by: (Signature/Firm)	Date/Time	Received by: (Signature/Firm)
D. Havens	12/21/90 2:30	Fran Fuller 12/21/90 2:35			
Relinquished by: (Signature/Firm)	Date/Time	Received by: (Signature/Firm)	Relinquished by: (Signature/Firm)	Date/Time	Received by: (Signature/Firm)
Relinquished by: (Signature/Firm)	Date/Time	Received by: (Signature/Firm)	Date/Time	Remarks (attachments if necessary)	

RECEIVED JAN 11 1991 ✓

Columbia Analytical Services inc.

January 8, 1991

Dan Haven
SRH & Associates
P.O. Box 301008
Portland, OR 97230

Re: **Pace National/Project #7-2413**

Dear Dan:

Enclosed are the results of the soil sample submitted to our lab on December 28, 1990. For your reference, our service request number for this work is K905043.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

Jeff Christian

JC/mbm

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH & Associates
SUBMITTED BY: Dan Haven
PROJECT: Pace National/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/28/90
WORK ORDER #: K905043

Total Metals
Sodium
EPA Method 6010
mg/Kg (ppm)
Dry Weight Basis

Sample Name	Lab Code	MRL	Result
2413-122190-BR1	5043-1	20	104
Method Blank	5043-MB	20	ND

MRL means Method Reporting Limit
ND means None Detected at or above the MRL

Approved by Jeff Christian Date 1-9-91

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

CLIENT: SRH & Associates
SUBMITTED BY: Dan Haven
PROJECT: Pace National/#7-2413
SAMPLE DESCRIPTION: Soil

DATE RECEIVED: 12/28/90
WORK ORDER #: K905043

Soil pH Measured in Water
EPA Method 9045

Sample Name	Lab Code	Result
2413-122190-BR1	5043-1	7.25

Approved by Jeff Chri[illegible] Date 1-9-91

K5045

Columbia Analytical Services inc.

1317 South 13th Avenue • Kelso, WA 98626 • 206/577-7222, Fax 206/636-1068

Chain of Custody/ Laboratory Analysis Request

DATE 12/28/90 PAGE 1 OF 1

PROJECT PACE NATIONAL #7-2413

SEND REPORT TO DAN HAVENS

ADDRESS P.O. BOX 301008

TELEPHONE# 503 252-8316

SAMPLERS NAME BOB JANAK PHONE# SAME

SAMPLERS SIGNATURE Bob Janak

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	Base/Neu/Acid Organics GC/MS 625/8270	Volatile Organics GC/MS 624/8240	Halogenated Volatiles 601/8010	Aromatic Volatiles 602/8020 BTEX	Gas/BTEX MOD 8015/8020	Pesticides/PCBs 608/8080	Total Petroleum Hydrocarbons - Mod 8015	Total Petroleum Hydrocarbons - 418.1	Total Organic Halides (TOX) 9020	Total Organic Carbon (TOC) 415/9060	EPTOX Metals As, Ba, Cd, Cr, Pb, Hg, Se, Ag	Metals (total or dissolved) List Below	Cyanide	Ph, Cond, Cl, SO4, PO4, F, Br NO3, NO2 (Circle)	NH3-N, COD, Total-P, TKN (Circle)	Coliform (Circle) Total, Fecal	Sodium	pH		NUMBER OF CONTAINERS
1. 2413-122190-BR1	12/21/90	13:15		SOIL																	X	X		1
2.																								
3.																								
4.																								
5.																								
6.																								
7.																								
8.																								

ORGANIC ANALYSIS / INORGANIC ANALYSIS / OTHER

Relinquished By	Relinquished By
Bob Janak (Signature)	D.A. Havens (Signature)
BOB JANAK (Printed Name)	D A HAVENS (Printed Name)
SRH (Firm)	SRH (Firm)
Date/Time 12/28/90 2:14	Date/Time 12/28/90 2:14
Received By:	Received By:
D.A. Havens (Signature)	Richard James (Signature)
D A HAVENS (Printed Name)	RICHARD JAMES (Printed Name)
SRH (Firm)	C.A.S (Firm)
12/28/90 Date/Time 12/28/90 2:14	Date/Time 12/28/90 1419 PM

Invoice Information:
P.O.# 01-01495
Bill to: SRH

Project Information
Site Contact:
Site Address:

Sample Receipt
Shipped Via:
Seals Intact:
Condition:
Lab No.
SR Number:

Special Instruction/Comments:
Ruth allison 12/28/90 1610

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

February 16, 2007

John Funderburk and Erin Rothman, Project Managers
Sound Environmental Strategies Corporation
2400 Airport Way S., Suite 200
Seattle, WA 98134-2020

Dear Mr. Funderburk and Ms. Rothman:

Included are the results from the testing of material submitted on February 6, 2007 from the SOU_0553-001-01_20070206, F&BI 702062 project. There are 8 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SOU0216R

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on February 6, 2007 by Friedman & Bruya, Inc. from the Sound Environmental Strategies SOU_0553-001-01_20070206, F&BI 702062 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Sound Environmental Strategies
702062-01	Stormwater-E
702062-02	Stormwater-C
702062-03	Stormwater-W

The samples were received with nitric acid preservative, therefore pH analysis was not performed. All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stormwater-E	Client:	Sound Environmental Strategies
Date Received:	02/06/07	Project:	SOU_0553-001-01_20070206, F&BI 702062
Date Extracted:	02/06/07	Lab ID:	702062-01
Date Analyzed:	02/06/07	Data File:	702062-01.024
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	HR

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	96	60	125
Indium	94	60	125
Bismuth	95	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	2.21
Arsenic	1.54
Selenium	<1
Silver	<1
Cadmium	<1
Barium	21.4
Lead	3.33

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stormwater-C	Client:	Sound Environmental Strategies
Date Received:	02/06/07	Project:	SOU_0553-001-01_20070206, F&BI 702062
Date Extracted:	02/06/07	Lab ID:	702062-02
Date Analyzed:	02/06/07	Data File:	702062-02.027
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	HR

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	100	60	125
Indium	100	60	125
Bismuth	100	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	2.14
Arsenic	1.43
Selenium	<1
Silver	<1
Cadmium	<1
Barium	20.3
Lead	3.27

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stormwater-W	Client:	Sound Environmental Strategies
Date Received:	02/06/07	Project:	SOU_0553-001-01_20070206, F&BI 702062
Date Extracted:	02/06/07	Lab ID:	702062-03
Date Analyzed:	02/06/07	Data File:	702062-03.028
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	HR

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	103	60	125
Indium	102	60	125
Bismuth	104	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	1.86
Arsenic	1.55
Selenium	<1
Silver	<1
Cadmium	<1
Barium	20.7
Lead	4.54

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	Not Applicable	Project:	SOU_0553-001-01_20070206, F&BI 702062
Date Extracted:	02/06/07	Lab ID:	I7-42 mb
Date Analyzed:	02/06/07	Data File:	I7-42 mb.022
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	HR

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	104	60	125
Indium	106	60	125
Bismuth	106	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/07
Date Received: 02/06/07
Project: SOU_0553-001-01_20070206, F&BI 702062
Date Extracted: 02/07/07
Date Analyzed: 02/08/07

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES
FOR TOTAL MERCURY
USING EPA METHOD 1631E
Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Total Mercury
Stormwater-E 702062-01	<0.2
Stormwater-C 702062-02	<0.2
Stormwater-W 702062-03	<0.2
Method Blank	<0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/07
Date Received: 02/06/07
Project: SOU_0553-001-01_20070206, F&BI 702062

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS BY EPA METHOD 200.8

Laboratory Code: 702062-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	ug/L (ppb)	2.21	2.02	9	0-20
Arsenic	ug/L (ppb)	1.54	1.50	3	0-20
Selenium	ug/L (ppb)	<1	<1	nm	0-20
Silver	ug/L (ppb)	<1	<1	nm	0-20
Cadmium	ug/L (ppb)	<1	<1	nm	0-20
Barium	ug/L (ppb)	21.4	20.7	3	0-20
Lead	ug/L (ppb)	3.33	3.25	2	0-20

Laboratory Code: 702062-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Chromium	ug/L (ppb)	20	2.21	98	50-150
Arsenic	ug/L (ppb)	10	1.54	97	50-150
Selenium	ug/L (ppb)	5	<1	97	50-150
Silver	ug/L (ppb)	5	<1	101	50-150
Cadmium	ug/L (ppb)	5	<1	95	50-150
Barium	ug/L (ppb)	50	21.4	101 b	50-150
Lead	ug/L (ppb)	10	3.33	102 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	ug/L (ppb)	20	99	70-130
Arsenic	ug/L (ppb)	10	93	70-130
Selenium	ug/L (ppb)	5	97	70-130
Silver	ug/L (ppb)	5	103	70-130
Cadmium	ug/L (ppb)	5	94	70-130
Barium	ug/L (ppb)	50	99	70-130
Lead	ug/L (ppb)	10	99	70-130

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/16/07
Date Received: 02/06/07
Project: SOU_0553-001-01_20070206, F&BI 702062

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 702062-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Mercury	µg/L (ppb)	<0.2	<0.2	nm

Laboratory Code: 702062-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Mercury	µg/L (ppb)	0.5	<0.2	93	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	µg/L (ppb)	0.5	95	70-130

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

702062

SAMPLE CHAIN OF CUSTODY

ME 02/06/07

IS

Send Report To John F. & Erin R.

Company SES

Address 2400 Airport Way S

City, State, ZIP Seattle, WA

Phone # 206 306 1100 Fax # 206 306 1407

SAMPLERS (signature)

PROJECT NAME/NO. Kenyon St./0553-001-01

PO #

REMARKS

Page # 1 of 1

TURNAROUND TIME
☒ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	pH	RCRA-8 (tot.)				Notes
Stormwater-E	01	2-5-07	1240	W	1												
Stormwater-C	02	↓	1245	↓	1												
Stormwater-W	03		1250		1												

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Pete Kingston	SES	2-6-07	0820
Received by:		S. [illegible]	F&B, Inc	2-6-07	8:20A
Relinquished by:					
Received by:					

FORMS\COC\COC.DOC

Samples received at 4 °C

ESN
NORTHWEST
Environmental
Services Network

August 28, 2003

Julie Wukelic
Hart Crowser, Inc.
1910 Fairview Avenue East
Seattle, WA 98102-3699

Dear Ms. Wukelic:

Please find enclosed the analytical data report for Pace International Project in Kirkland, Washington. Soil and water samples were analyzed for Hydrocarbon Identification by NWTPH-HCID, Diesel and Oil by NWTPH-Dx/Dx Extended, Gasoline by NWTPH-Gx, and VOC's by Method 8260 on August 20 – 22, 2003.

The results of these analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this work has been sent to your accounting department.

ESN Northwest appreciates the opportunity to have provided analytical services to Hart Crowser for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A Korosec

Michael A. Korosec
President

677 Woodland Square Lp. SE, Suite D Lacey, Washington 98503 360.459.4670 FAX 360.459.3432
Web Site: *www.ESN-USA.com* E-Mail: *esnnw@aol.com*

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number:	S30820-1
Client:	HART CROWSER
Client Job Name:	PACE (KIRKLAND)
Client Job Number:	7940-01

NWTPH-Gx

Analytical Results

NWTPH-Gx, mg/kg		MTH BLK	SP-17/S-1	SP-18/S-1	SP-18/S-2
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/20/03	08/20/03	08/20/03	08/20/03
Date analyzed	Limits	08/20/03	08/20/03	08/20/03	08/20/03
Moisture, %			15%	12%	16%
Mineral spirits/Stoddard solvent	5.0	nd	nd	**650**	**21**
Gasoline	5.0	nd	nd	nd	nd
Surrogate recoveries:					
Fluorobiphenyl		104%	126%	130%	107%
o-Terphenyl		107%	C	116%	110%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
M - matrix interference
J - estimated value
Results reported on dry-weight basis
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number:	S30820-1
Client:	HART CROWSER
Client Job Name:	PACE (KIRKLAND)
Client Job Number:	7940-01

NWTPH-Gx

Analytical Results			DUP		
NWTPH-Gx, mg/kg		SP-20/S-2	SP-20/S-2	SP-21/S-2	SP-21/S-3
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/20/03	08/20/03	08/20/03	08/20/03
Date analyzed	Limits	08/20/03	08/20/03	08/20/03	08/20/03
Moisture, %		7%	7%	6%	12%
Mineral spirits/Stoddard solvent	5.0	nd	nd	nd	280
Gasoline	5.0	nd	nd	nd	nd
Surrogate recoveries:					
Fluorobiphenyl		116%	123%	106%	128%
o-Terphenyl		122%	132%	110%	C

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
M - matrix interference
J - estimated value
Results reported on dry-weight basis
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number:	S30820-1
Client:	HART CROWSER
Client Job Name:	PACE (KIRKLAND)
Client Job Number:	7940-01

NWTPH-Gx

Analytical Results

NWTPH-Gx, mg/l		MTH BLK	SP-21	SP-21 DUP	SP-22
Matrix	Water	Water	Water	Water	Water
Date extracted	Reporting	08/20/03	08/20/03	08/20/03	08/20/03
Date analyzed	Limits	08/20/03	08/21/03	08/21/03	08/20/03
Mineral spirits/Stoddard solvent	0.10	nd	**8.1**	**11**	nd
Gasoline	0.10	nd	nd	nd	nd
Surrogate recoveries:					
Fluorobiphenyl		104%	117%	124%	96%
o-Terphenyl		115%	C	C	100%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
M - matrix interference
J - estimated value
Results reported on dry-weight basis
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number:	S30820-1
Client:	HART CROWSER
Client Job Name:	PACE (KIRKLAND)
Client Job Number:	7940-01

Analytical Results

NWTPH-Dx, mg/kg		MTH BLK	SP-18/S-1	SP-20/S-2	DUP SP-20/S-2	SP-21/S-2
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03
Date analyzed	Limits	08/20/03	08/20/03	08/22/03	08/23/03	08/20/03
Moisture, %			12%	7%	7%	6%
Kerosene/Jet fuel	20	nd	nd	nd	nd	nd
Diesel/Fuel oil	20	nd	nd	**42**	**60**	nd
Heavy oil	50	nd	nd	nd	nd	nd

Surrogate recoveries:	MTH BLK	SP-18/S-1	SP-20/S-2	DUP SP-20/S-2	SP-21/S-2
Fluorobiphenyl	104%	130%	116%	123%	106%
o-Terphenyl	107%	116%	122%	132%	110%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
M - matrix interference
J - estimated value
Results reported on dry-weight basis
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number:	S30820-1
Client:	HART CROWSER
Client Job Name:	PACE (KIRKLAND)
Client Job Number:	7940-01

Analytical Results

NWTPH-HCID, mg/kg		MTH BLK	SP-19/S-1	SAMPLE	SAMPLE DUP
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/20/03	08/20/03	08/20/03	08/20/03
Date analyzed	Limits	08/20/03	08/20/03	08/20/03	08/20/03
Gasoline	20	nd	nd	nd	nd
Stoddard solvent/Mineral spirits	20	nd	nd	nd	nd
Kensol	20	nd	nd	nd	nd
Kerosene/Jet fuel	20	nd	nd	nd	nd
Diesel/Fuel oil	50	nd	nd	D	D
Bunker C	50	nd	nd	nd	nd
Heavy oil	100	nd	nd	nd	nd
Unidentifiable petroleum products	20	nd	nd	nd	nd

Surrogate recoveries:				
Fluorobiphenyl	104%	109%	107%	113%
o-Terphenyl	107%	113%	108%	124%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
D - detected at or above listed reporting limits
C - coelution with sample peaks
M - matrix interference
J - estimated value
Results reported on dry-weight basis
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number: S30820-1
Client: HART CROWSER
Client Job Name: PACE (KIRKLAND)
Client Job Number: 7940-01

Analytical Results

8260, mg/kg		MTH BLK	LCS	SP-17/S-1	SP-18/S-1	SP-18/S-2	SP-20/S-2	SP-21/S-2	SP-21/S-3
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/20/03		08/20/03	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03
Date analyzed	Limits	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03
Moisture, %				15%	12%	16%	7%	6%	12%
Dichlorodifluoromethane	0.05	nd		nd	nd	nd	nd	nd	nd
Chloromethane	0.05	nd		nd	nd	nd	nd	nd	nd
Vinyl chloride	0.05	nd		nd	nd	nd	nd	nd	nd
Bromomethane	0.05	nd		nd	nd	nd	nd	nd	nd
Chloroethane	0.05	nd		nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd		nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	105%	nd	nd	nd	nd	nd	nd
Methylene chloride	0.02	nd		nd	nd	nd	nd	nd	nd
Methyl t-butyl ether	0.05	nd		nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd		nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd		nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd		**0.064**	nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd		nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd		nd	nd	nd	nd	nd	nd
Bromochloromethane	0.05	nd		nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd		nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	0.05	nd		nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd		nd	nd	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd		nd	nd	nd	nd	nd	nd
Benzene	0.02	nd	107%	nd	nd	nd	nd	nd	nd
Trichloroethene (tce)	0.02	nd	106%	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd		nd	nd	nd	nd	nd	nd
Dibromomethane	0.05	nd		nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.05	nd		nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd		nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	114%	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd		nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd		nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd		nd	nd	nd	nd	nd	nd
Dibromochloromethane	0.05	nd		nd	nd	nd	nd	nd	nd
Tetrachloroethene (pce)	0.02	nd		**0.059**	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)(*)	0.005	nd		nd	nd	nd	nd	nd	nd
Chlorobenzene	0.05	nd	112%	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd		nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd		nd	nd	nd	nd	nd	nd
Xylenes	0.05	nd		nd	nd	nd	nd	nd	nd
Styrene	0.05	nd		nd	nd	nd	nd	nd	nd
Bromoform	0.05	nd		nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd		nd	nd	nd	nd	nd	nd
Isopropylbenzene	0.05	nd		nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd		nd	nd	nd	nd	nd	nd
Bromobenzene	0.05	nd		nd	nd	nd	nd	nd	nd
n-Propylbenzene	0.05	nd		**0.093**	nd	nd	nd	nd	nd
2-Chlorotoluene	0.05	nd		nd	nd	nd	nd	nd	nd
4-Chlorotoluene	0.05	nd		nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd		**0.22**	**0.17**	nd	nd	nd	nd
tert-Butylbenzene	0.05	nd		nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd		**0.36**	**0.61**	**0.060**	nd	nd	nd
sec-Butylbenzene	0.05	nd		**0.069**	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd		nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd		nd	nd	nd	nd	nd	nd
Isopropyltoluene	0.05	nd		**0.12**	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd		nd	nd	nd	nd	nd	nd
n-Butylbenzene	0.05	nd		nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd		nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd		nd	nd	nd	nd	nd	nd
Naphthalene	0.05	nd		**0.90**	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd		nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd		nd	nd	nd	nd	nd	nd

*-instrument detection limits

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number:	S30820-1
Client:	HART CROWSER
Client Job Name:	PACE (KIRKLAND)
Client Job Number:	7940-01

Analytical Results

8260, mg/kg		MTH BLK	LCS	SP-17/S-1	SP-18/S-1	SP-18/S-2	SP-20/S-2	SP-21/S-2	SP-21/S-3
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/20/03		08/20/03	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03
Date analyzed	Limits	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03
Moisture, %				15%	12%	16%	7%	6%	12%
Surrogate recoveries									
Dibromofluoromethane		82%	98%	82%	85%	86%	81%	85%	81%
Toluene-d8		101%	102%	101%	101%	102%	102%	103%	101%
4-Bromofluorobenzene		100%	100%	99%	98%	100%	100%	100%	98%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number: S30820-1
Client: HART CROWSER
Client Job Name: PACE (KIRKLAND)
Client Job Number: 7940-01

Analytical Results

8260, mg/kg		SP-23/S-3	SP-24/S-2	SP-25/S-3	SP-26/S-3	SP-24/S-2 MS	SP-24/S-2 MSD	RPD
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03	
Date analyzed	Limits	08/21/03	08/21/03	08/21/03	08/21/03	08/21/03	08/22/03	
Moisture, %		15%	6%	10%	9%	6%	6%	
Dichlorodifluoromethane	0.05	nd	nd	nd	nd			
Chloromethane	0.05	nd	nd	nd	nd			
Vinyl chloride	0.05	nd	nd	nd	nd			
Bromomethane	0.05	nd	nd	nd	nd			
Chloroethane	0.05	nd	nd	nd	nd			
Trichlorofluoromethane	0.05	nd	nd	nd	nd			
1,1-Dichloroethene	0.05	nd	nd	nd	nd	67%	72%	6%
Methylene chloride	0.02	nd	nd	nd	nd			
Methyl t-butyl ether	0.05	nd	nd	nd	nd			
trans-1,2-Dichloroethene	0.05	nd	nd	nd	nd			
1,1-Dichloroethane	0.05	nd	nd	nd	nd			
cis-1,2-Dichloroethene	0.05	nd	nd	nd	nd			
2,2-Dichloropropane	0.05	nd	nd	nd	nd			
Chloroform	0.05	nd	nd	nd	nd			
Bromochloromethane	0.05	nd	nd	nd	nd			
1,1,1-Trichloroethane	0.05	nd	nd	nd	nd			
1,2-Dichloroethane	0.05	nd	nd	nd	nd			
1,1-Dichloropropene	0.05	nd	nd	nd	nd			
Carbon tetrachloride	0.05	nd	nd	nd	nd			
Benzene	0.02	nd	nd	nd	nd	84%	85%	1%
Trichloroethene (tce)	0.02	nd	nd	nd	nd	84%	86%	2%
1,2-Dichloropropane	0.05	nd	nd	nd	nd			
Dibromomethane	0.05	nd	nd	nd	nd			
Bromodichloromethane	0.05	nd	nd	nd	nd			
cis-1,3-Dichloropropene	0.05	nd	nd	nd	nd			
Toluene	0.05	nd	nd	nd	nd	85%	87%	1%
trans-1,3-Dichloropropene	0.05	nd	nd	nd	nd			
1,1,2-Trichloroethane	0.05	nd	nd	nd	nd			
1,3-Dichloropropane	0.05	nd	nd	nd	nd			
Dibromochloromethane	0.05	nd	nd	nd	nd			
Tetrachloroethene (pce)	0.02	nd	nd	nd	nd			
1,2-Dibromoethane (EDB)(*)	0.005	nd	nd	nd	nd			
Chlorobenzene	0.05	nd	nd	nd	nd	84%	85%	2%
1,1,1,2-Tetrachloroethane	0.05	nd	nd	nd	nd			
Ethylbenzene	0.05	nd	nd	nd	nd			
Xylenes	0.05	nd	nd	nd	nd			
Styrene	0.05	nd	nd	nd	nd			
Bromoform	0.05	nd	nd	nd	nd			
1,1,2,2-Tetrachloroethane	0.05	nd	nd	nd	nd			
Isopropylbenzene	0.05	nd	nd	nd	nd			
1,2,3-Trichloropropane	0.05	nd	nd	nd	nd			
Bromobenzene	0.05	nd	nd	nd	nd			
n-Propylbenzene	0.05	nd	nd	nd	nd			
2-Chlorotoluene	0.05	nd	nd	nd	nd			
4-Chlorotoluene	0.05	nd	nd	nd	nd			
1,3,5-Trimethylbenzene	0.05	nd	nd	nd	nd			
tert-Butylbenzene	0.05	nd	nd	nd	nd			
1,2,4-Trimethylbenzene	0.05	nd	nd	nd	nd			
sec-Butylbenzene	0.05	nd	nd	nd	nd			
1,3-Dichlorobenzene	0.05	nd	nd	nd	nd			
1,4-Dichlorobenzene	0.05	nd	nd	nd	nd			
Isopropyltoluene	0.05	nd	nd	nd	nd			
1,2-Dichlorobenzene	0.05	nd	nd	nd	nd			
n-Butylbenzene	0.05	nd	nd	nd	nd			
1,2-Dibromo-3-Chloropropane	0.05	nd	nd	nd	nd			
1,2,4-Trichlorobenzene	0.05	nd	nd	nd	nd			
Naphthalene	0.05	nd	nd	nd	nd			
Hexachloro-1,3-butadiene	0.05	nd	nd	nd	nd			
1,2,3-Trichlorobenzene	0.05	nd	nd	nd	nd			

*-Instrument detection limits

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number:	S30820-1
Client:	HART CROWSER
Client Job Name:	PACE (KIRKLAND)
Client Job Number:	7940-01

Analytical Results

8260, mg/kg		SP-23/S-3	SP-24/S-2	SP-25/S-3	SP-26/S-3	SP-24/S-2 MS	SP-24/S-2 MSD	RPD
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03	08/20/03	
Date analyzed	Limits	08/21/03	08/21/03	08/21/03	08/21/03	08/21/03	08/22/03	
Moisture, %		15%	6%	10%	9%	6%	6%	
Surrogate recoveries								
Dibromofluoromethane		89%	87%	81%	89%	92%	90%	
Toluene-d8		100%	99%	116%	106%	99%	100%	
4-Bromofluorobenzene		100%	100%	107%	106%	101%	99%	

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number:	S30820-1
Client:	HART CROWSER
Client Job Name:	PACE (KIRKLAND)
Client Job Number:	7940-01

Analytical Results

8260, µg/L		MTH BLK	LCS	SP-21	SP-22	SP-22 MS	SP-22 MSD	RPD
Matrix	Water	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting							
Date analyzed	Limits	08/21/03	08/21/03	08/21/03	08/21/03	08/21/03	08/21/03	
Dichlorodifluoromethane	1.0	nd		nd	nd			
Chloromethane	1.0	nd		**170**	nd			
Vinyl chloride	0.2	nd		**82**	nd			
Bromomethane	1.0	nd		nd	nd			
Chloroethane	1.0	nd		nd	nd			
Trichlorofluoromethane	1.0	nd		nd	nd			
1,1-Dichloroethene	1.0	nd	72%	nd	nd	69%	77%	12%
Methylene chloride	1.0	nd		nd	nd			
Methyl t-butyl ether	1.0	nd		nd	nd			
trans-1,2-Dichloroethene	1.0	nd		**1.3**	nd			
1,1-Dichloroethane	1.0	nd		nd	nd			
cis-1,2-Dichloroethene	1.0	nd		**24**	nd			
2,2-Dichloropropane	1.0	nd		nd	nd			
Chloroform	1.0	nd		nd	nd			
Bromochloromethane	1.0	nd		nd	nd			
1,1,1-Trichloroethane	1.0	nd		nd	nd			
1,2-Dichloroethane	1.0	nd		nd	nd			
1,1-Dichloropropene	1.0	nd		nd	nd			
Carbon tetrachloride	1.0	nd		nd	nd			
Benzene	1.0	nd	86%	nd	nd	79%	87%	9%
Trichloroethene	1.0	nd	89%	nd	nd	85%	93%	9%
1,2-Dichloropropane	1.0	nd		nd	nd			
Dibromomethane	1.0	nd		nd	nd			
Bromodichloromethane	1.0	nd		nd	nd			
cis-1,3-Dichloropropene	1.0	nd		nd	nd			
Toluene	1.0	nd	89%	nd	nd	81%	89%	9%
trans-1,3-Dichloropropene	1.0	nd		nd	nd			
1,1,2-Trichloroethane	1.0	nd		nd	nd			
1,3-Dichloropropane	1.0	nd		nd	nd			
Dibromochloromethane	1.0	nd		nd	nd			
Tetrachloroethene	1.0	nd		nd	nd			
1,2-Dibromoethane (EDB)(*)	0.01	nd		nd	nd			
Chlorobenzene	1.0	nd	87%	**1.3**	nd	80%	87%	9%
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd			
Ethylbenzene	1.0	nd		**1.6**	nd			
Xylenes	1.0	nd		**3.1**	nd			
Styrene	1.0	nd		nd	nd			
Bromoform	1.0	nd		nd	nd			
1,1,2,2-Tetrachloroethane	1.0	nd		nd	nd			
Isopropylbenzene	1.0	nd		**5.0**	nd			
1,2,3-Trichloropropane	1.0	nd		nd	nd			
Bromobenzene	1.0	nd		nd	nd			
n-Propylbenzene	1.0	nd		**12**	nd			
2-Chlorotoluene	1.0	nd		nd	nd			
4-Chlorotoluene	1.0	nd		nd	nd			
1,3,5-Trimethylbenzene	1.0	nd		nd	nd			
tert-Butylbenzene	1.0	nd		nd	nd			
1,2,4-Trimethylbenzene	1.0	nd		**6.9**	nd			
sec-Butylbenzene	1.0	nd		**2.4**	nd			
1,3-Dichlorobenzene	1.0	nd		nd	nd			
1,4-Dichlorobenzene	1.0	nd		nd	nd			
Isopropyltoluene	1.0	nd		**2.3**	nd			
1,2-Dichlorobenzene	1.0	nd		**1.8**	nd			
n-Butylbenzene	1.0	nd		nd	nd			
1,2-Dibromo-3-Chloropropane	1.0	nd		nd	nd			
1,2,4-Trichlorobenzene	1.0	nd		nd	nd			
Naphthalene	1.0	nd		**1.3**	nd			
Hexachloro-1,3-butadiene	1.0	nd		nd	nd			
1,2,3-Trichlorobenzene	1.0	nd		nd	nd			

*-instrument detection limits

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number:	S30820-1
Client:	HART CROWSER
Client Job Name:	PACE (KIRKLAND)
Client Job Number:	7940-01

Analytical Results

8260, µg/L		MTH BLK	LCS	SP-21	SP-22	SP-22 MS	SP-22 MSD	RPD
Matrix	Water	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting							
Date analyzed	Limits	08/21/03	08/21/03	08/21/03	08/21/03	08/21/03	08/21/03	
Surrogate recoveries								
Dibromofluoromethane		99%	91%	101%	104%	102%	88%	
Toluene-d8		100%	99%	98%	100%	98%	98%	
4-Bromofluorobenzene		99%	100%	101%	100%	98%	100%	

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

Sample Custody Record

Samples Shipped to: ____________

HARTCROWSER
Hart Crowser, Inc.
1910 Fairview Avenue East
Seattle, Washington 98102-3699
Phone: 206-324-9530 FAX: 206-328-5581

JOB 7940-01 LAB NUMBER ____________

PROJECT NAME PACE (KIRKLAND)

HART CROWSER CONTACT JULIE WUKELIC

SAMPLED BY: WILLIAM DAMON

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	VOC's (8260)	TPH-G	HCID	TPH-Dx	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	SP-17/S-1	8oz. JAR	8/15/03	1232	SOIL	X	X			1	
	SP-18/S-1	↓	↓	1302	↓	X	X		X	1	
	SP-18/S-2			1305		X	X			1	
	SP-19/S-1			1123				X		1	
	SP-20/S-2			1404		X	X		X	1	
	SP-21/S-2			1432		X	X		X	1	
	SP-21/S-3			1437	↓	X	X			1	
	SP-21/GW	↓		1510	H2O	X	X			1	
	SP-22/GW	500 ml Amber + VOAs		1620	H2O	X	X			4	
	SP-23/S-3	↓ ↓		0827	SOIL	X				4	
	SP-24/S-2	8oz. JAR		0904	↓	X				1	
	SP-25/S-3	↓	↓	1035	↓	X				1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE: [signature]	8/19/03	SIGNATURE: Kevin Boone	8/19/03
PRINT NAME: William Damon	TIME	PRINT NAME: Kevin Boone	TIME
COMPANY: Hart Crowser	1710	COMPANY: ESN	2030

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE		SIGNATURE	
PRINT NAME	TIME	PRINT NAME	TIME
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

18/18 TOTAL NUMBER OF CONTAINERS

[illegible]

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. ____________ for Other Contract Requirements

TURNAROUND TIME:

☐ 24 HOURS ☐ 1 WEEK
☐ 48 HOURS ☑ STANDARD
☐ 72 HOURS OTHER ____

White and Yellow Copies to Lab   Pink to Project Manager   Lab to Return White Copy to Hart Crowser   Gold to Sample Custodian

ample C 'tody Record

S30 82u-1

-.2 + .

HARTCROWSER

Hart Crowser, Inc
1910 Fairvie' Avenue East
Seattle, Washing.)8102-3699
Phone: 206-324-9530 FAX: 206-328-5581

ıples Shipped to: ____________

)B 7940-01 LAB NUMBER ____________

ROJECT NAME PACE (KIRKLAND)

ART CROWSER CONTACT JULIE WURTZ

AMPLED BY: WILL DAMON

REQUESTED ANALYSIS: VOC's (8260)

AB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	VOC's (8260)	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	SP-26/S-3	8oz. Jar	8/15/03	1058	Soil	X	1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE: [signature]	8/19/03	SIGNATURE	
PRINT NAME: William Damon	TIME	PRINT NAME	TIME
COMPANY: Hart Crowser	1710	COMPANY	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE		SIGNATURE	
PRINT NAME	TIME	PRINT NAME	TIME
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

1/1 TOTAL NUMBER OF CONTAINERS

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. ____________ for Other Contract Requirements

TURNAROUND TIME:

☐ 24 HOURS ☐ 1 WEEK
☐ 48 HOURS ☐ STANDARD
☐ 72 HOURS OTHER ____________

ite and Yellow Copies to Lab Pink to Project Manager Lab to Return White Copy to Hart Crowser Gold to Sample Custodian

MTC *Analytical/Environmental Services*

Materials Testing & Consulting, Inc

WSDOH Laboratory #46092090

P.O. Box 309
Mount Vernon, WA 98273
(206)424-7560 · FAX (206)424-7550

12

Client: Evergreen Environmental Consulting
P.O. Box 17177
Seattle, WA. 98107

Date: 5/12/91
Reference: 91-0115

Attn: Mr. John Resoe

Project: #9103

Data Report

Lab Number	Sample Description	ug/gm	ng/gm			
		TPH	Benzene	Toluene	Ethlybenzene	Xylenes
30-91-00480.0S	SS-1	<1	<5	<5	<5	<5
30-91-00481.0S	SS-2	<1	<5	<5	<5	<5
30-91-00482.0S	SS-3	<1	<5	<5	<5	<5
30-91-00483.0S	SS-4	<1	<5	<5	<5	<5
30-91-00484.0S	SS-5	40-D	<5	<5	<5	<5
30-91-00485.0S	SS-6	68-D	<5	<5	<5	<5
30-91-00486.0S	SS-7	22-D	<5	<5	<5	<5
	Methods: BTEX/TPH SW846 8020/8015mod.					
	G- Gasoline D-Diesel	Soil/Water	Soil/Water	Soil/Water	Soil/Water	Soil/Water
	Method Reporting Limit (MRL)	0.05/0.01	5/1	5/1	5/1	5/1
	Maximum Contamination Levels	100/1	500/5	30000/20	40000/40	20000/20

Kurt W. Larsen
Sr. Enviromental Chemist

Post-It™ brand fax transmittal memo 7671 # of pages ▸ 2

To WILL FERGUSON	From KURT LARSEN
Co. PACE NATIONAL	Co. MTC INC.
Dept.	Phone # 424-7560
Fax # 515-4831	Fax # 424-7550

MTC

Analytical/Environmental Services

Materials Testing & Consulting, Inc

P.O. Box 309
Mount Vernon, WA 98273
(206)424-7560 - FAX (206)424-7550

Client: Evergreen Environmental Consulting
P.O. Box 17177
Seattle, WA. 98107

Date: 5/17/91
Reference: 91-0115

Attn: Mr. John Reece

Project: #9103

Data Report

Lab Number	Sample Description	Units ug/gm	Methanol	Isoproanol	Propylene Glycol	Di-Phenyl Amine
30-91-00480.0S	SS-1		<0.1	<0.1	<0.1	<0.001
30-91-00481.0S	SS-2		<0.1	<0.1	<0.1	<0.001
30-91-00482.0S	SS-3		<0.1	<0.1	<0.1	<0.001
30-91-00483.0S	SS-4		<0.1	<0.1	<0.1	<0.001
30-91-00484.0S	SS-5		<0.1	<0.1	<0.1	<0.001
30-91-00485.0S	SS-6		<0.1	<0.1	<0.1	<0.001
30-91-00486.0S	SS-7		<0.1	<0.1	<0.1	<0.001
	Method Reporting Limit (MRL)	ug/gm (ppm)	0.1	0.1	0.1	0.001

Kurt W. Larsen
Sr. Enviromental Chemist

MTC *Analytical/Environmental Services*

Materials Testing & Consulting, Inc

P.O. Box 909
Mount Vernon, WA 98273
(206)424-7560 - FAX (206)424-7550

WSDOH Laboratory #46092090

12

Client: Evergreen Environmental Consulting
P.O. Box 17177
Seattle, WA. 98107

Date: 5/12/91
Reference: 91-0115

Attn: Mr. John Reece

Project: #9103

Data Report

Lab Number	Sample Description	ug/gm Na	pH			
30-91-00480.0S	SS-1	302	8.6			
30-91-00481.0S	SS-2	353	7.8			
30-91-00482.0S	SS-3	292	6.3			
30-91-00483.0S	SS-4	244	6.9			
30-91-00484.0S	SS-5	348	7.7			
30-91-00485.0S	SS-6	273	7.2			
30-91-00486.0S	SS-7	331	8.1			

Kurt W. Larsen
Sr. Enviromental Chemist

MTC

Analytical/Environmental Services

Materials Testing & Consulting, Inc

P.O. Box 309
Mount Vernon, WA 98273
(206)424-7560 - FAX (206)424-7550

WSDOH Laboratory #46092090

12

Client: Evergreen Environmental Consulting
P.O. Box 17177
Seattle, WA 98107

Date: 5/23/91
Reference: 91-0115

Attn: Mr. John Reese

Project: #9103

Data Report

Lab Number	Sample Description	Na ug/gm	pH	Methanol	Isopropanol	Propylene Glycol	Di-Phenyl Amine
30-91-00647.0S	MW-1	114	7.9	<0.1	<0.1	<0.1	<0.001

Kurt W. Larsen
Sr. Enviromental Chemist.

November 14, 1997

Carsten Thomsen
Seattle - King County
Department of Public Health
1st Interstate Center
999 3rd Avenue, Suite 700
Seattle, WA 98104-4099

Re. Analytical Data for Project Pace National
Laboratory Reference No. 9711-015

Dear Carsten:

Enclosed are the analytical results and associated quality control data for samples submitted on November 5, 1997.

The standard policy of OnSite Environmental Inc., is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely.

David Baumeister
Project Chemist

Enclosures

Date of Report: November 14, 1997
Samples Submitted November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 1 of 2

Date Extracted:	11-06-97
Date Analyzed:	11-06-97
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	11-015-1
Client ID:	**PN-1**
Dilution Factor:	50

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.058
Chloromethane	ND		0.058
Vinyl Chloride	ND		0.058
Bromomethane	ND		0.058
Chloroethane	ND		0.058
Trichlorofluoromethane	ND		0.058
1,1-Dichloroethene	ND		0.058
Methylene Chloride	0.27	B	0.058
(trans) 1,2-Dichloroethene	ND		0.058
1,1-Dichloroethane	ND		0.058
2,2-Dichloropropane	ND		0.058
(cis) 1,2-Dichloroethene	ND		0.058
Chloroform	ND		0.058
1,1,1-Trichloroethane	ND		0.058
Carbon Tetrachloride	ND		0.29
1,1-Dichloropropene	ND		0.058
1,2-Dichloroethane	ND		0.058
Trichloroethene	ND		0.058
1,2-Dichloropropane	ND		0.058
Dibromomethane	ND		0.058
Bromodichloromethane	ND		0.058
(cis) 1,3-Dichloropropene	ND		0.058
(trans) 1,3-Dichloropropene	ND		0.058
1,1,2-Trichloroethane	ND		0.058
Tetrachloroethene	0.073		0.058
1,3-Dichloropropane	ND		0.058
Dibromochloromethane	ND		0.058

Date of Report: November 14 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 2 of 2

Lab ID: 11-015-1
Client ID: **PN-1**

Dilution Factor: 50

Compound	Results	Flags	PQL
1,2-Dibromoethane	ND		0.29
Chlorobenzene	ND		0.058
1,1,1,2-Tetrachloroethane	ND		0.058
Bromoform	ND		0.058
Bromobenzene	ND		0.058
1,1,2,2-Tetrachloroethane	ND		0.058
1,2,3-Trichloropropane	ND		0.058
2-Chlorotoluene	ND		0.058
4-Chlorotoluene	ND		0.058
1,3-Dichlorobenzene	ND		0.058
1,4-Dichlorobenzene	ND		0.058
1,2-Dichlorobenzene	ND		0.058
1,2-Dibromo-3-chloropropane	ND		0.29
1,2,4-Trichlorobenzene	ND		0.058
Hexachlorobutadiene	ND		0.058
1,2,3-Trichlorobenzene	ND		0.058

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	91	80-120
Toluene-d8	102	81-117
4-Bromofluorobenzene	91	74-121

Date of Report: November 14 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 1 of 2

Date Extracted: 11-06-97
Date Analyzed: 11-06-97

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID. 11-015-2
Client ID: **PN-2**

Dilution Factor: 50

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.057
Chloromethane	ND		0.057
Vinyl Chloride	ND		0.057
Bromomethane	ND		0.057
Chloroethane	ND		0.057
Trichlorofluoromethane	ND		0.057
1,1-Dichloroethene	ND		0.057
Methylene Chloride	0.28	B	0.057
(trans) 1,2-Dichloroethene	ND		0.057
1,1-Dichloroethane	ND		0.057
2,2-Dichloropropane	ND		0.057
(cis) 1,2-Dichloroethene	ND		0.057
Chloroform	ND		0.057
1,1,1-Trichloroethane	ND		0.057
Carbon Tetrachloride	ND		0.28
1,1-Dichloropropene	ND		0.057
1,2-Dichloroethane	ND		0.057
Trichloroethene	ND		0.057
1,2-Dichloropropane	ND		0.057
Dibromomethane	ND		0.057
Bromodichloromethane	ND		0.057
(cis) 1,3-Dichloropropene	ND		0.057
(trans) 1,3-Dichloropropene	ND		0.057
1,1,2-Trichloroethane	ND		0.057
Tetrachloroethene	ND		0.057
1,3-Dichloropropane	ND		0.057
Dibromochloromethane	ND		0.057

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 2 of 2

Lab ID: 11-015-2
Client ID: **PN-2**

Dilution Factor: 50

Compound	Results	Flags	PQL
1,2-Dibromoethane	ND		0.28
Chlorobenzene	ND		0.057
1,1,1,2-Tetrachloroethane	ND		0.057
Bromoform	ND		0.057
Bromobenzene	ND		0.057
1,1,2,2-Tetrachloroethane	ND		0.057
1,2,3-Trichloropropane	ND		0.057
2-Chlorotoluene	ND		0.057
4-Chlorotoluene	ND		0.057
1,3-Dichlorobenzene	ND		0.057
1,4-Dichlorobenzene	ND		0.057
1,2-Dichlorobenzene	ND		0.057
1,2-Dibromo-3-chloropropane	ND		0.28
1,2,4-Trichlorobenzene	ND		0.057
Hexachlorobutadiene	ND		0.057
1,2,3-Trichlorobenzene	ND		0.057

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	88	80-120
Toluene-d8	100	81-117
4-Bromofluorobenzene	85	74-121

Date of Report. November 14, 1997
Samples Submitted: November 5 1997
Lab Traveler. 11-015
Project. Pace National

HALOGENATED VOLATILES by EPA 8260
page 1 of 2

Date Extracted: 11-06-97
Date Analyzed: 11-06-97

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID: 11-015-3
Client ID: PN-3

Dilution Factor: 50

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.066
Chloromethane	ND		0.066
Vinyl Chloride	ND		0.066
Bromomethane	ND		0.066
Chloroethane	ND		0.066
Trichlorofluoromethane	ND		0.066
1,1-Dichloroethene	ND		0.066
Methylene Chloride	0.31	B	0.066
(trans) 1,2-Dichloroethene	ND		0.066
1,1-Dichloroethane	ND		0.066
2,2-Dichloropropane	ND		0.066
(cis) 1,2-Dichloroethene	ND		0.066
Chloroform	ND		0.066
1,1,1-Trichloroethane	ND		0.066
Carbon Tetrachloride	ND		0.33
1,1-Dichloropropene	ND		0.066
1,2-Dichloroethane	ND		0.066
Trichloroethene	ND		0.066
1,2-Dichloropropane	ND		0.066
Dibromomethane	ND		0.066
Bromodichloromethane	ND		0.066
(cis) 1,3-Dichloropropene	ND		0.066
(trans) 1,3-Dichloropropene	ND		0.066
1,1,2-Trichloroethane	ND		0.066
Tetrachloroethene	ND		0.066
1,3-Dichloropropane	ND		0.066
Dibromochloromethane	ND		0.066

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 2 of 2

Lab ID: 11-015-3
Client ID: **PN-3**

Dilution Factor: 50

Compound	Results	Flags	PQL
1,2-Dibromoethane	ND		0.33
Chlorobenzene	ND		0.066
1,1,1,2-Tetrachloroethane	ND		0.066
Bromoform	ND		0.066
Bromobenzene	ND		0.066
1,1,2,2-Tetrachloroethane	ND		0.066
1,2,3-Trichloropropane	ND		0.066
2-Chlorotoluene	ND		0.066
4-Chlorotoluene	ND		0.066
1,3-Dichlorobenzene	ND		0.066
1,4-Dichlorobenzene	ND		0.066
1,2-Dichlorobenzene	ND		0.066
1,2-Dibromo-3-chloropropane	ND		0.33
1,2,4-Trichlorobenzene	ND		0.066
Hexachlorobutadiene	ND		0.066
1,2,3-Trichlorobenzene	ND		0.066

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	91	80-120
Toluene-d8	101	81-117
4-Bromofluorobenzene	90	74-121

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 1 of 2

Date Extracted:	11-06-97
Date Analyzed:	11-06-97
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	11-015-4
Client ID:	**PN-4**
Dilution Factor:	50

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.058
Chloromethane	ND		0.058
Vinyl Chloride	ND		0.058
Bromomethane	ND		0.058
Chloroethane	ND		0.058
Trichlorofluoromethane	ND		0.058
1,1-Dichloroethene	ND		0.058
Methylene Chloride	0.28	B	0.058
(trans) 1,2-Dichloroethene	ND		0.058
1,1-Dichloroethane	ND		0.058
2,2-Dichloropropane	ND		0.058
(cis) 1,2-Dichloroethene	ND		0.058
Chloroform	ND		0.058
1,1,1-Trichloroethane	ND		0.058
Carbon Tetrachloride	ND		0.29
1,1-Dichloropropene	ND		0.058
1,2-Dichloroethane	ND		0.058
Trichloroethene	ND		0.058
1,2-Dichloropropane	ND		0.058
Dibromomethane	ND		0.058
Bromodichloromethane	ND		0.058
(cis) 1,3-Dichloropropene	ND		0.058
(trans) 1,3-Dichloropropene	ND		0.058
1,1,2-Trichloroethane	ND		0.058
Tetrachloroethene	ND		0.058
1,3-Dichloropropane	ND		0.058
Dibromochloromethane	ND		0.058

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 2 of 2

Lab ID: 11-015-4
Client ID: **PN-4**

Dilution Factor: 50

Compound	**Results**	**Flags**	**PQL**
1,2-Dibromoethane	ND		0.29
Chlorobenzene	ND		0.058
1,1,1,2-Tetrachloroethane	ND		0.058
Bromoform	ND		0.058
Bromobenzene	ND		0.058
1,1,2,2-Tetrachloroethane	ND		0.058
1,2,3-Trichloropropane	ND		0.058
2-Chlorotoluene	ND		0.058
4-Chlorotoluene	ND		0.058
1,3-Dichlorobenzene	ND		0.058
1,4-Dichlorobenzene	ND		0.058
1,2-Dichlorobenzene	ND		0.058
1,2-Dibromo-3-chloropropane	ND		0.29
1,2,4-Trichlorobenzene	ND		0.058
Hexachlorobutadiene	ND		0.058
1,2,3-Trichlorobenzene	ND		0.058

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	91	80-120
Toluene-d8	101	81-117
4-Bromofluorobenzene	87	74-121

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
METHOD BLANK QUALITY CONTROL
page 1 of 2

Date Extracted:	11-06-97
Date Analyzed:	11-06-97
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	MB1106S1
Dilution Factor:	50

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.05
Chloromethane	ND		0.05
Vinyl Chloride	ND		0.05
Bromomethane	ND		0.05
Chloroethane	ND		0.05
Trichlorofluoromethane	ND		0.05
1,1-Dichloroethene	ND		0.05
Methylene Chloride	0.24		0.05
(trans) 1,2-Dichloroethene	ND		0.05
1,1-Dichloroethane	ND		0.05
2,2-Dichloropropane	ND		0.05
(cis) 1,2-Dichloroethene	ND		0.05
Chloroform	ND		0.05
1,1,1-Trichloroethane	ND		0.05
Carbon Tetrachloride	ND		0.05
1,1-Dichloropropene	ND		0.25
1,2-Dichloroethane	ND		0.05
Trichloroethene	ND		0.05
1,2-Dichloropropane	ND		0.05
Dibromomethane	ND		0.05
Bromodichloromethane	ND		0.05
(cis) 1,3-Dichloropropene	ND		0.05
(trans) 1,3-Dichloropropene	ND		0.05
1,1,2-Trichloroethane	ND		0.05
Tetrachloroethene	ND		0.05
1,3-Dichloropropane	ND		0.05
Dibromochloromethane	ND		0.05

Date of Report: November 14 1997
Samples Submitted: November 5, 1997
Lab Traveler. 11-015
Project. Pace National

HALOGENATED VOLATILES by EPA 8260
METHOD BLANK QUALITY CONTROL
page 2 of 2

Lab ID: MB1106S1

Dilution Factor: 50

Compound	Results	Flags	PQL
1,2-Dibromoethane	ND		0 25
Chlorobenzene	ND		0.05
1,1,1,2-Tetrachloroethane	ND		0.05
Bromoform	ND		0.05
Bromobenzene	ND		0 05
1,1,2.2-Tetrachloroethane	ND		0.05
1,2,3-Trichloropropane	ND		0.05
2-Chlorotoluene	ND		0.05
4-Chlorotoluene	ND		0.05
1,3-Dichlorobenzene	ND		0.05
1.4-Dichlorobenzene	ND		0.05
1,2-Dichlorobenzene	ND		0 05
1,2-Dibromo-3-chloropropane	ND		0 25
1,2,4-Trichlorobenzene	ND		0.05
Hexachlorobutadiene	ND		0.05
1,2,3-Trichlorobenzene	ND		0.05

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	90	80-120
Toluene-d8	96	81-117
4-Bromofluorobenzene	86	74-121

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
MS/MSD QUALITY CONTROL

Date Extracted: 11-03-97
Date Analyzed: 11-05-97

Matrix: Soil
Units: mg/Kg (ppm)

Dilution Factor: 50

Lab ID: 10-148-1MS

Compound	Spike Amount	MS	Percent Recovery	MSD	Percent Recovery	RPD
1,1-Dichloroethene	2.50	2.58	103	2.62	104	1.4
Benzene	2.50	2.42	94	2.44	95	1.0
Trichloroethene	2.50	2.63	104	2.52	99	4.3
Toluene	2 50	2.31	92	2 17	86	6.3
Chlorobenzene	2.50	2.28	91	2.35	94	2 8

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

Date Analyzed: 11-6-97

% MOISTURE

Client ID	Lab ID	% Moisture
PN-1	11-015-1	14
PN-2	11-015-2	12
PN-3	11-015-3	24
PN-4	11-015-4	14

OnSite Environmental Inc.

DATA QUALIFIERS AND ABBREVIATIONS

A - Due to high sample concentration, amount spiked insufficient for meaningful MS/MSD data recovery.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD outside control limits due to analyte concentration within five times the quantitation limit.

D - Data from 1:____ dilution.

E - Value reported exceeds the quantitation range. Value is an estimate.

F - Surrogate recovery data not available due to the high concentration in the sample.

G - Insufficient sample quantity for duplicate analysis.

J - The value reported was below the practical quantitation limit. The value is an estimate

K - Sample duplicate RPD outside control limits due to sample inhomogeniety. Sample re-extracted and re-analyzed with similar results.

L - Quantitated from C7-C34 as diesel fuel #2.

M - Predominantly ____________ range hydrocarbons present in the sample.

N - Hydrocarbons in the gasoline range (C7-toluene) present in the sample.
N1 - Hydrocarbons in the gasoline range (C7-toluene) present in the sample which are elevating the diesel result.

O - Hydrocarbons in the heavy oil range (>C24) present in the sample.
O1 - Hydrocarbons in the heavy oil range (>C24) present in the sample which are elevating the diesel result.

R - Hydrocarbons outside defined gasoline range present in the sample.

S - Surrogate recovery data not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - Matrix Spike/Matrix Spike Duplicate RPD outside control limits due to matrix effects.

V - Matrix Spike/Matrix Spike Duplicate recoveries outside control limits due to matrix effects.

Z - Interferences were present which prevented the quantitation of the analyte below the detection limit reported.

ND - Not Detected

MRL - Method Reporting Limit

PQL - Practical Quantitation

OnSite Environmental Inc.

Analytical Testing and Mobile Laboratory Services

April 4, 1997

Carla Gundermann
Seattle - King County
Department of Public Health
1st Interstate Center
999 3rd Avenue, Suite 700
Seattle, WA 98104-4099

Re: Analytical Data for Project Pace
Laboratory Reference No. 9703-103

Dear Carla:

Enclosed are the results of the analyses, and associated quality control data, of samples submitted on March 28, 1997.

The standard policy of OnSite Environmental Inc., is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Chemist

Enclosures

14924 NE 31st Circle • Redmond, WA 98052 • (206) 883-3881 • Fax (206) 885-4603

Date of Report: April 4, 1997
Samples Submitted: March 28, 1997
Lab Traveler: 03-103
Project: Pace

WTPH-D

Date Extracted: 3-28-97
Date Analyzed: 3-28-97

Matrix: Soil
Units: mg/Kg (ppm)

Client ID	Lab ID	Dilution Factor	TPH-Diesel C12-C24	TPH-Oil C24-C34	o-Terphenyl Surrogate Recovery	Diesel PQL	Oil PQL	Flags
PACE-1S	03-103-1	1.0	64	180	81%	27	54	
PACE-2S	03-103-2	1.0	150	210	98%	29	58	

Date of Report: April 4, 1997
Samples Submitted: March 28, 1997
Lab Traveler: 03-103
Project: Pace

WTPH-D
METHOD BLANK QUALITY CONTROL

Date Extracted: 3-28-97
Date Analyzed: 3-28-97

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID	Dilution Factor	TPH-Diesel C12-C24	TPH-Oil C24-C34	o-Terphenyl Surrogate Recovery	Diesel PQL	Oil PQL
MB0328S1	1.0	ND	ND	85%	25	50

Date of Report: April 4, 1997
Samples Submitted: March 28, 1997
Lab Traveler: 03-103
Project: Pace

WTPH-D
DUPLICATE QUALITY CONTROL

Date Extracted: 3-28-97
Date Analyzed: 3-28-97

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID	Dilution Factor	Total Petroleum Hydrocarbons	o-Terphenyl Surrogate Recovery	Diesel PQL	Flags
03-098-1	1.0	ND	85%	25	
03-098-1 DUP	1.0	ND	90%	25	
RPD		NA			

Date of Report: April 4, 1997
Samples Submitted: March 28, 1997
Lab Traveler: 03-103
Project: Pace

WTPH-D
SB/SBD QUALITY CONTROL

Date Extracted: 3-28-97
Date Analyzed: 3-31-97

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID	Dilution Factor	Spike Level	Total Petroleum Hydrocarbons	Percent Recovery	o-Terphenyl Surrogate Recovery	Diesel PQL
SB0328S1	1.0	100	88.1	88	102%	25
SB0328S1 DUP	1.0	100	94.9	95	104%	25
RPD			7.4			

Date of Report: April 4, 1997
Samples Submitted: March 28, 1997
Lab Traveler: 03-103
Project: Pace

HALOGENATED VOLATILES by EPA 8260
page 1 of 2

Date Extracted:	3-31-97
Date Analyzed:	4-03-97
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	03-103-1
Client ID:	**PACE-1S**
Dilution Factor:	50

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.054
Chloromethane	ND		0.054
Vinyl Chloride	ND		0.054
Bromomethane	ND		0.054
Chloroethane	ND		0.054
Trichlorofluoromethane	ND		0.054
1,1-Dichloroethene	ND		0.054
Methylene Chloride	0.1	B	0.054
(trans) 1,2-Dichloroethene	ND		0.054
1,1-Dichloroethane	ND		0.054
2,2-Dichloropropane	ND		0.054
(cis) 1,2-Dichloroethene	ND		0.054
Chloroform	ND		0.054
1,1,1-Trichloroethane	ND		0.054
Carbon Tetrachloride	ND		0.27
1,1-Dichloropropene	ND		0.054
1,2-Dichloroethane	ND		0.054
Trichloroethene	ND		0.054
1,2-Dichloropropane	ND		0.054
Dibromomethane	ND		0.054
Bromodichloromethane	ND		0.054
(cis) 1,3-Dichloropropene	ND		0.054
(trans) 1,3-Dichloropropene	ND		0.054
1,1,2-Trichloroethane	ND		0.054
Tetrachloroethene	ND		0.054
1,3-Dichloropropane	ND		0.054
Dibromochloromethane	ND		0.054

Date of Report: April 4, 1997
Samples Submitted: March 28, 1997
Lab Traveler: 03-103
Project: Pace

HALOGENATED VOLATILES by EPA 8260
page 2 of 2

Lab ID:	03-103-1
Client ID:	**PACE-1S**
Dilution Factor:	50

Compound	**Results**	**Flags**	**PQL**
1,2-Dibromoethane	ND		0.054
Chlorobenzene	ND		0.054
1,1,1,2-Tetrachloroethane	ND		0.054
Bromoform	ND		0.054
Bromobenzene	ND		0.054
1,1,2,2-Tetrachloroethane	ND		0.054
1,2,3-Trichloropropane	ND		0.054
2-Chlorotoluene	ND		0.054
4-Chlorotoluene	ND		0.054
1,3-Dichlorobenzene	ND		0.054
1,4-Dichlorobenzene	ND		0.054
1,2-Dichlorobenzene	ND		0.054
1,2-Dibromo-3-chloropropane	ND		0.27
1,2,4-Trichlorobenzene	ND		0.054
Hexachlorobutadiene	ND		0.054
1,2,3-Trichlorobenzene	ND		0.054

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	85	80-120
Toluene-d8	91	81-117
4-Bromofluorobenzene	80	74-121

Date of Report: April 4, 1997
Samples Submitted: March 28, 1997
Lab Traveler: 03-103
Project: Pace

HALOGENATED VOLATILES by EPA 8260
page 1 of 2

Date Extracted:	3-31-97
Date Analyzed:	4-04-97
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	03-103-2
Client ID:	**PACE-2S**
Dilution Factor:	50

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.058
Chloromethane	ND		0.058
Vinyl Chloride	ND		0.058
Bromomethane	ND		0.058
Chloroethane	ND		0.058
Trichlorofluoromethane	ND		0.058
1,1-Dichloroethene	ND		0.058
Methylene Chloride	0.12	B	0.058
(trans) 1,2-Dichloroethene	ND		0.058
1,1-Dichloroethane	ND		0.058
2,2-Dichloropropane	ND		0.058
(cis) 1,2-Dichloroethene	ND		0.058
Chloroform	ND		0.058
1,1,1-Trichloroethane	ND		0.058
Carbon Tetrachloride	ND		0.58
1,1-Dichloropropene	ND		0.058
Benzene	ND		0.058
1,2-Dichloroethane	ND		0.058
Trichloroethene	ND		0.058
1,2-Dichloropropane	ND		0.058
Dibromomethane	ND		0.058
Bromodichloromethane	ND		0.058
(cis) 1,3-Dichloropropene	ND		0.058
Toluene	ND		0.058
(trans) 1,3-Dichloropropene	ND		0.058
1,1,2-Trichloroethane	ND		0.058
Tetrachloroethene	0.16		0.058
1,3-Dichloropropane	ND		0.058

Date of Report: April 4, 1997
Samples Submitted: March 28, 1997
Lab Traveler: 03-103
Project: Pace

HALOGENATED VOLATILES by EPA 8260
page 2 of 2

Lab ID: 03-103-2
Client ID: PACE-2S

Dilution Factor: 50

Compound	Results	Flags	PQL
Dibromochloromethane	ND		0.058
1,2-Dibromoethane	ND		0.058
Chlorobenzene	ND		0.058
1,1,1,2-Tetrachloroethane	ND		0.058
Ethylbenzene	ND		0.058
m,p-Xylene	ND		0.12
o-Xylene	ND		0.058
Styrene	ND		0.058
Bromoform	ND		0.058
Isopropylbenzene	ND		0.058
Bromobenzene	ND		0.058
1,1,2,2-Tetrachloroethane	ND		0.058
1,2,3-Trichloropropane	ND		0.058
n-Propylbenzene	ND		0.058
2-Chlorotoluene	ND		0.058
4-Chlorotoluene	ND		0.058
1,3,5-Trimethylbenzene	ND		0.058
tert-Butylbenzene	ND		0.058
1,2,4-Trimethylbenzene	ND		0.058
sec-Butylbenzene	ND		0.058
1,3-Dichlorobenzene	ND		0.058
p-Isopropyltoluene	ND		0.058
1,4-Dichlorobenzene	ND		0.058
1,2-Dichlorobenzene	ND		0.058
n-Butylbenzene	ND		0.058
1,2-Dibromo-3-chloropropane	ND		0.58
1,2,4-Trichlorobenzene	ND		0.058
Hexachlorobutadiene	ND		0.058
Naphthalene	ND		0.58
1,2,3-Trichlorobenzene	ND		0.058

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	105	80-120
Toluene-d8	110	81-117
4-Bromofluorobenzene	101	74-121

page 1 of 2Date of Report: April 4, 1997
Samples Submitted: March 28, 1997
Lab Traveler: 03-103
Project: Pace

HALOGENATED VOLATILES by EPA 8260
METHOD BLANK QUALITY CONTROL
page 1 of 2

Date Extracted: 3-31-97
Date Analyzed: 4-03-97

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID: MB0331S1
Client ID: **METHOD BLANK**

Dilution Factor: 50

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.05
Chloromethane	ND		0.05
Vinyl Chloride	ND		0.05
Bromomethane	ND		0.05
Chloroethane	ND		0.05
Trichlorofluoromethane	ND		0.05
1,1-Dichloroethene	ND		0.05
Methylene Chloride	0.19		0.05
(trans) 1,2-Dichloroethene	ND		0.05
1,1-Dichloroethane	ND		0.05
2,2-Dichloropropane	ND		0.05
(cis) 1,2-Dichloroethene	ND		0.05
Chloroform	ND		0.05
1,1,1-Trichloroethane	ND		0.05
Carbon Tetrachloride	ND		0.25
1,1-Dichloropropene	ND		0.05
1,2-Dichloroethane	ND		0.05
Trichloroethene	ND		0.05
1,2-Dichloropropane	ND		0.05
Dibromomethane	ND		0.05
Bromodichloromethane	ND		0.05
(cis) 1,3-Dichloropropene	ND		0.05
(trans) 1,3-Dichloropropene	ND		0.05
1,1,2-Trichloroethane	ND		0.05
Tetrachloroethene	ND		0.05
1,3-Dichloropropane	ND		0.05
Dibromochloromethane	ND		0.05

Date of Report: April 4, 1997
Samples Submitted: March 28, 1997
Lab Traveler: 03-103
Project: Pace

HALOGENATED VOLATILES by EPA 8260
METHOD BLANK QUALITY CONTROL
page 2 of 2

Lab ID: MB0331S1
Client ID: **METHOD BLANK**

Dilution Factor: 50

Compound	Results	Flags	PQL
1,2-Dibromoethane	ND		0.05
Chlorobenzene	ND		0.05
1,1,1,2-Tetrachloroethane	ND		0.05
Bromoform	ND		0.05
Bromobenzene	ND		0.05
1,1,2,2-Tetrachloroethane	ND		0.05
1,2,3-Trichloropropane	ND		0.05
2-Chlorotoluene	ND		0.05
4-Chlorotoluene	ND		0.05
1,3-Dichlorobenzene	ND		0.05
1,4-Dichlorobenzene	ND		0.05
1,2-Dichlorobenzene	ND		0.05
1,2-Dibromo-3-chloropropane	ND		0.25
1,2,4-Trichlorobenzene	ND		0.05
Hexachlorobutadiene	ND		0.05
1,2,3-Trichlorobenzene	ND		0.05

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	100	80-120
Toluene-d8	106	81-117
4-Bromofluorobenzene	95	74-121

Date of Report: April 4, 1997
Samples Submitted: March 28, 1997
Lab Traveler: 03-103
Project: Pace

HALOGENATED VOLATILES by EPA 8260
MS/MSD QUALITY CONTROL

Date Extracted: 3-31-97
Date Analyzed: 4-03-97

Matrix: Soil
Units: mg/Kg (ppm)

Dilution Factor: 50

Lab ID: 03-092-2

Compound	Spike Amount	MS	Percent Recovery	MSD	Percent Recovery	RPD
1,1-Dichloroethene	2.50	1.54	62	1.54	61	0.22
Benzene	2.50	1.94	78	1.98	79	1.8
Trichloroethene	2.50	2.13	85	2.09	83	2.3
Toluene	2.50	2.08	83	2.01	80	3.2
Chlorobenzene	2.50	2.20	87	2.20	87	0.29

Date of Report: April 4, 1997
Samples Submitted: March 28, 1997
Lab Traveler: 03-103
Project: Pace

EPA 9045

Date Analyzed: 4-2-97

Matrix: Soil

Client ID	Lab ID	pH
PACE 1S	03-103-1	8.2
PACE 2S	03-103-2	9.1

Date of Report: April 4, 1997
Samples Submitted: March 28, 1997
Lab Traveler: 03-103
Project: Pace

Date Analyzed: 3-28-97

% MOISTURE

Client ID	Lab ID	% Moisture
PACE 1S	03-103-1	7.0
PACE 2S	03-103-2	14

OnSite
Environmental Inc.

DATA QUALIFIERS AND ABBREVIATIONS

A - Due to high sample concentration, amount spiked insufficient for meaningful MS/MSD data recovery.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD outside control limits due to analyte concentration within five times the quantitation limit.

D - Data from 1:____ dilution.

E - Value reported exceeds the quantitation range. Value is an estimate.

F - Surrogate recovery data not available due to the high concentration in the sample.

G - Insufficient sample quantity for duplicate analysis.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD outside control limited due to sample inhomogeniety. Sample re-extracted and re-analyzed with similar results.

L - Quantitated from C7-C34 as diesel fuel #2.

M - Predominantly ____________ range hydrocarbons present in the sample.

N - Hydrocarbons in the gasoline range (C7-toluene) present in the sample.
N1 - Hydrocarbons in the gasoline range (C7-toluene) present in the sample which are elevating the diesel result.

O - Hydrocarbons in the heavy oil range (>C24) present in the sample.
O1 - Hydrocarbons in the heavy oil range (>C24) present in the sample which are elevating the diesel result.

R - Hydrocarbons outside defined gasoline range present in the sample.

S - Surrogate recovery data not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - Matrix Spike/Matrix Spike Duplicate RPD outside control limits due to matrix effects.

V - Matrix Spike/Matrix Spike Duplicate recoveries outside control limits due to matrix effects.

Z - Interferences were present which prevented the quantitation of the analyte below the detection limit reported.

ND - Not Detected

MRL - Method Reporting Limit

PQL - Practical Quantitation

Chain Of Custody

OnSite Environmental Inc.
14924 NE 31st Circle • Redmond, WA 98052
Fax: (206) 885-4603 • **Phone: (206) 883-3881**

Company: King Co Health Dept

Project No:

Project Name: PACE

Project Manager: CARLA GUNDERMANN 296-4724

Turn Around Requested (Check One)

- [ ] Same Day
- [ ] 24 Hours
- [ ] 48 Hours
- [x] Standard
- [ ] ______ (other)

Project Chemist: DAP

Laboratory No.

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	WTPH-HCID	WTPH-G/BTEX	WTPH-D	WTPH-418.1	Volatiles by 8240/624	Volatiles by 8260	Chlorinated Volatiles by 8240/8260/624	Semivolatiles by 8270/625	PAHs by 8270/625	PCB's by 8080/608	Total RCRA Metals (8)	TCLP Metals	PH							% Moisture
1	PACE-1S	3/28/97	10:05a	Soil	1			X				X						X							X
2	PACE-2S	3/28/97	10:09a	Soil	1			X				X						X							X

RELINQUISHED BY	DATE	RECEIVED BY	DATE
Carla Gundermann	3/28/97	V. Honzi	3/28/97
FIRM: SKCDPH	TIME: 1:53P	FIRM: OSE	TIME: 1:55 pm
RELINQUISHED BY	DATE	RECEIVED BY	DATE
FIRM	TIME	FIRM	TIME
REVIEWED BY		DATE REVIEWED	

COMMENTS:

X Added by Carla 3/28/97 BG

OnSite
Environmental Inc.
Analytical Testing and Mobile Laboratory Services

November 14, 1997

Carsten Thomsen
Seattle - King County
Department of Public Health
1st Interstate Center
999 3rd Avenue, Suite 700
Seattle, WA 98104-4099

Re: Analytical Data for Project Pace National
Laboratory Reference No. 9711-015

Dear Carsten:

Enclosed are the analytical results and associated quality control data for samples submitted on November 5, 1997.

The standard policy of OnSite Environmental Inc., is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Chemist

Enclosures

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 1 of 2

Date Extracted:	11-06-97
Date Analyzed:	11-06-97
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	11-015-1
Client ID:	**PN-1**
Dilution Factor:	50

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.058
Chloromethane	ND		0.058
Vinyl Chloride	ND		0.058
Bromomethane	ND		0.058
Chloroethane	ND		0.058
Trichlorofluoromethane	ND		0.058
1,1-Dichloroethene	ND		0.058
Methylene Chloride	0.27	B	0.058
(trans) 1,2-Dichloroethene	ND		0.058
1,1-Dichloroethane	ND		0.058
2,2-Dichloropropane	ND		0.058
(cis) 1,2-Dichloroethene	ND		0.058
Chloroform	ND		0.058
1,1,1-Trichloroethane	ND		0.058
Carbon Tetrachloride	ND		0.29
1,1-Dichloropropene	ND		0.058
1,2-Dichloroethane	ND		0.058
Trichloroethene	ND		0.058
1,2-Dichloropropane	ND		0.058
Dibromomethane	ND		0.058
Bromodichloromethane	ND		0.058
(cis) 1,3-Dichloropropene	ND		0.058
(trans) 1,3-Dichloropropene	ND		0.058
1,1,2-Trichloroethane	ND		0.058
Tetrachloroethene	0.073		0.058
1,3-Dichloropropane	ND		0.058
Dibromochloromethane	ND		0.058

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 2 of 2

Lab ID: 11-015-1
Client ID: **PN-1**

Dilution Factor: 50

Compound	Results	Flags	PQL
1,2-Dibromoethane	ND		0.29
Chlorobenzene	ND		0.058
1,1,1,2-Tetrachloroethane	ND		0.058
Bromoform	ND		0.058
Bromobenzene	ND		0.058
1,1,2,2-Tetrachloroethane	ND		0.058
1,2,3-Trichloropropane	ND		0.058
2-Chlorotoluene	ND		0.058
4-Chlorotoluene	ND		0.058
1,3-Dichlorobenzene	ND		0.058
1,4-Dichlorobenzene	ND		0.058
1,2-Dichlorobenzene	ND		0.058
1,2-Dibromo-3-chloropropane	ND		0.29
1,2,4-Trichlorobenzene	ND		0.058
Hexachlorobutadiene	ND		0.058
1,2,3-Trichlorobenzene	ND		0.058

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	91	80-120
Toluene-d8	102	81-117
4-Bromofluorobenzene	91	74-121

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 1 of 2

Date Extracted: 11-06-97
Date Analyzed: 11-06-97

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID: 11-015-2
Client ID: **PN-2**

Dilution Factor: 50

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.057
Chloromethane	ND		0.057
Vinyl Chloride	ND		0.057
Bromomethane	ND		0.057
Chloroethane	ND		0.057
Trichlorofluoromethane	ND		0.057
1,1-Dichloroethene	ND		0.057
Methylene Chloride	0.28	B	0.057
(trans) 1,2-Dichloroethene	ND		0.057
1,1-Dichloroethane	ND		0.057
2,2-Dichloropropane	ND		0.057
(cis) 1,2-Dichloroethene	ND		0.057
Chloroform	ND		0.057
1,1,1-Trichloroethane	ND		0.057
Carbon Tetrachloride	ND		0.28
1,1-Dichloropropene	ND		0.057
1,2-Dichloroethane	ND		0.057
Trichloroethene	ND		0.057
1,2-Dichloropropane	ND		0.057
Dibromomethane	ND		0.057
Bromodichloromethane	ND		0.057
(cis) 1,3-Dichloropropene	ND		0.057
(trans) 1,3-Dichloropropene	ND		0.057
1,1,2-Trichloroethane	ND		0.057
Tetrachloroethene	ND		0.057
1,3-Dichloropropane	ND		0.057
Dibromochloromethane	ND		0.057

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 2 of 2

Lab ID:	11-015-2
Client ID:	**PN-2**
Dilution Factor:	50

Compound	Results	Flags	PQL
1,2-Dibromoethane	ND		0.28
Chlorobenzene	ND		0.057
1,1,1,2-Tetrachloroethane	ND		0.057
Bromoform	ND		0.057
Bromobenzene	ND		0.057
1,1,2,2-Tetrachloroethane	ND		0.057
1,2,3-Trichloropropane	ND		0.057
2-Chlorotoluene	ND		0.057
4-Chlorotoluene	ND		0.057
1,3-Dichlorobenzene	ND		0.057
1,4-Dichlorobenzene	ND		0.057
1,2-Dichlorobenzene	ND		0.057
1,2-Dibromo-3-chloropropane	ND		0.28
1,2,4-Trichlorobenzene	ND		0.057
Hexachlorobutadiene	ND		0.057
1,2,3-Trichlorobenzene	ND		0.057

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	88	80-120
Toluene-d8	100	81-117
4-Bromofluorobenzene	85	74-121

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 1 of 2

Date Extracted:	11-06-97
Date Analyzed:	11-06-97
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	11-015-3
Client ID:	**PN-3**
Dilution Factor:	50

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.066
Chloromethane	ND		0.066
Vinyl Chloride	ND		0.066
Bromomethane	ND		0.066
Chloroethane	ND		0.066
Trichlorofluoromethane	ND		0.066
1,1-Dichloroethene	ND		0.066
Methylene Chloride	0.31	B	0.066
(trans) 1,2-Dichloroethene	ND		0.066
1,1-Dichloroethane	ND		0.066
2,2-Dichloropropane	ND		0.066
(cis) 1,2-Dichloroethene	ND		0.066
Chloroform	ND		0.066
1,1,1-Trichloroethane	ND		0.066
Carbon Tetrachloride	ND		0.33
1,1-Dichloropropene	ND		0.066
1,2-Dichloroethane	ND		0.066
Trichloroethene	ND		0.066
1,2-Dichloropropane	ND		0.066
Dibromomethane	ND		0.066
Bromodichloromethane	ND		0.066
(cis) 1,3-Dichloropropene	ND		0.066
(trans) 1,3-Dichloropropene	ND		0.066
1,1,2-Trichloroethane	ND		0.066
Tetrachloroethene	ND		0.066
1,3-Dichloropropane	ND		0.066
Dibromochloromethane	ND		0.066

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 2 of 2

Lab ID: 11-015-3
Client ID: PN-3

Dilution Factor: 50

Compound	Results	Flags	PQL
1,2-Dibromoethane	ND		0.33
Chlorobenzene	ND		0.066
1,1,1,2-Tetrachloroethane	ND		0.066
Bromoform	ND		0.066
Bromobenzene	ND		0.066
1,1,2,2-Tetrachloroethane	ND		0.066
1,2,3-Trichloropropane	ND		0.066
2-Chlorotoluene	ND		0.066
4-Chlorotoluene	ND		0.066
1,3-Dichlorobenzene	ND		0.066
1,4-Dichlorobenzene	ND		0.066
1,2-Dichlorobenzene	ND		0.066
1,2-Dibromo-3-chloropropane	ND		0.33
1,2,4-Trichlorobenzene	ND		0.066
Hexachlorobutadiene	ND		0.066
1,2,3-Trichlorobenzene	ND		0.066

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	91	80-120
Toluene-d8	101	81-117
4-Bromofluorobenzene	90	74-121

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 1 of 2

Date Extracted:	11-06-97
Date Analyzed:	11-06-97
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	11-015-4
Client ID:	**PN-4**
Dilution Factor:	50

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.058
Chloromethane	ND		0.058
Vinyl Chloride	ND		0.058
Bromomethane	ND		0.058
Chloroethane	ND		0.058
Trichlorofluoromethane	ND		0.058
1,1-Dichloroethene	ND		0.058
Methylene Chloride	0.28	B	0.058
(trans) 1,2-Dichloroethene	ND		0.058
1,1-Dichloroethane	ND		0.058
2,2-Dichloropropane	ND		0.058
(cis) 1,2-Dichloroethene	ND		0.058
Chloroform	ND		0.058
1,1,1-Trichloroethane	ND		0.058
Carbon Tetrachloride	ND		0.29
1,1-Dichloropropene	ND		0.058
1,2-Dichloroethane	ND		0.058
Trichloroethene	ND		0.058
1,2-Dichloropropane	ND		0.058
Dibromomethane	ND		0.058
Bromodichloromethane	ND		0.058
(cis) 1,3-Dichloropropene	ND		0.058
(trans) 1,3-Dichloropropene	ND		0.058
1,1,2-Trichloroethane	ND		0.058
Tetrachloroethene	ND		0.058
1,3-Dichloropropane	ND		0.058
Dibromochloromethane	ND		0.058

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
page 2 of 2

Lab ID:	11-015-4
Client ID:	**PN-4**
Dilution Factor:	50

Compound	**Results**	**Flags**	**PQL**
1,2-Dibromoethane	ND		0.29
Chlorobenzene	ND		0.058
1,1,1,2-Tetrachloroethane	ND		0.058
Bromoform	ND		0.058
Bromobenzene	ND		0.058
1,1,2,2-Tetrachloroethane	ND		0.058
1,2,3-Trichloropropane	ND		0.058
2-Chlorotoluene	ND		0.058
4-Chlorotoluene	ND		0.058
1,3-Dichlorobenzene	ND		0.058
1,4-Dichlorobenzene	ND		0.058
1,2-Dichlorobenzene	ND		0.058
1,2-Dibromo-3-chloropropane	ND		0.29
1,2,4-Trichlorobenzene	ND		0.058
Hexachlorobutadiene	ND		0.058
1,2,3-Trichlorobenzene	ND		0.058

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	91	80-120
Toluene-d8	101	81-117
4-Bromofluorobenzene	87	74-121

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
METHOD BLANK QUALITY CONTROL
page 1 of 2

Date Extracted:	11-06-97
Date Analyzed:	11-06-97
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	MB1106S1
Dilution Factor:	50

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.05
Chloromethane	ND		0.05
Vinyl Chloride	ND		0.05
Bromomethane	ND		0.05
Chloroethane	ND		0.05
Trichlorofluoromethane	ND		0.05
1,1-Dichloroethene	ND		0.05
Methylene Chloride	0.24		0.05
(trans) 1,2-Dichloroethene	ND		0.05
1,1-Dichloroethane	ND		0.05
2,2-Dichloropropane	ND		0.05
(cis) 1,2-Dichloroethene	ND		0.05
Chloroform	ND		0.05
1,1,1-Trichloroethane	ND		0.05
Carbon Tetrachloride	ND		0.25
1,1-Dichloropropene	ND		0.05
1,2-Dichloroethane	ND		0.05
Trichloroethene	ND		0.05
1,2-Dichloropropane	ND		0.05
Dibromomethane	ND		0.05
Bromodichloromethane	ND		0.05
(cis) 1,3-Dichloropropene	ND		0.05
(trans) 1,3-Dichloropropene	ND		0.05
1,1,2-Trichloroethane	ND		0.05
Tetrachloroethene	ND		0.05
1,3-Dichloropropane	ND		0.05
Dibromochloromethane	ND		0.05

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
METHOD BLANK QUALITY CONTROL
page 2 of 2

Lab ID: MB1106S1

Dilution Factor: 50

Compound	Results	Flags	PQL
1,2-Dibromoethane	ND		0.25
Chlorobenzene	ND		0.05
1,1,1,2-Tetrachloroethane	ND		0.05
Bromoform	ND		0.05
Bromobenzene	ND		0.05
1,1,2,2-Tetrachloroethane	ND		0.05
1,2,3-Trichloropropane	ND		0.05
2-Chlorotoluene	ND		0.05
4-Chlorotoluene	ND		0.05
1,3-Dichlorobenzene	ND		0.05
1,4-Dichlorobenzene	ND		0.05
1,2-Dichlorobenzene	ND		0.05
1,2-Dibromo-3-chloropropane	ND		0.25
1,2,4-Trichlorobenzene	ND		0.05
Hexachlorobutadiene	ND		0.05
1,2,3-Trichlorobenzene	ND		0.05

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	90	80-120
Toluene-d8	96	81-117
4-Bromofluorobenzene	86	74-121

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

HALOGENATED VOLATILES by EPA 8260
MS/MSD QUALITY CONTROL

Date Extracted: 11-03-97
Date Analyzed: 11-05-97

Matrix: Soil
Units: mg/Kg (ppm)

Dilution Factor: 50

Lab ID: 10-148-1MS

Compound	Spike Amount	MS	Percent Recovery	MSD	Percent Recovery	RPD
1,1-Dichloroethene	2.50	2.58	103	2.62	104	1.4
Benzene	2.50	2.42	94	2.44	95	1.0
Trichloroethene	2.50	2.63	104	2.52	99	4.3
Toluene	2.50	2.31	92	2.17	86	6.3
Chlorobenzene	2.50	2.28	91	2.35	94	2.8

Date of Report: November 14, 1997
Samples Submitted: November 5, 1997
Lab Traveler: 11-015
Project: Pace National

Date Analyzed: 11-6-97

% MOISTURE

Client ID	Lab ID	% Moisture
PN-1	11-015-1	14
PN-2	11-015-2	12
PN-3	11-015-3	24
PN-4	11-015-4	14

OnSite
Environmental Inc.

DATA QUALIFIERS AND ABBREVIATIONS

A - Due to high sample concentration, amount spiked insufficient for meaningful MS/MSD data recovery.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD outside control limits due to analyte concentration within five times the quantitation limit.

D - Data from 1:____ dilution.

E - Value reported exceeds the quantitation range. Value is an estimate.

F - Surrogate recovery data not available due to the high concentration in the sample.

G - Insufficient sample quantity for duplicate analysis.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD outside control limits due to sample inhomogeniety. Sample re-extracted and re-analyzed with similar results.

L - Quantitated from C7-C34 as diesel fuel #2.

M - Predominantly ____________ range hydrocarbons present in the sample.

N - Hydrocarbons in the gasoline range (C7-toluene) present in the sample.
N1 - Hydrocarbons in the gasoline range (C7-toluene) present in the sample which are elevating the diesel result.

O - Hydrocarbons in the heavy oil range (>C24) present in the sample.
O1 - Hydrocarbons in the heavy oil range (>C24) present in the sample which are elevating the diesel result.

R - Hydrocarbons outside defined gasoline range present in the sample.

S - Surrogate recovery data not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - Matrix Spike/Matrix Spike Duplicate RPD outside control limits due to matrix effects.

V - Matrix Spike/Matrix Spike Duplicate recoveries outside control limits due to matrix effects.

Z - Interferences were present which prevented the quantitation of the analyte below the detection limit reported.

ND - Not Detected

MRL - Method Reporting Limit

PQL - Practical Quantitation

Chain Of Custody

Page 1 of 1

OnSite Environmental Inc.
14924 NE 31st Circle • Redmond, WA 98052
Fax: (206) 885-4603 • **Phone: (206) 883-3881**

Company: KING CO. HEALTH DEPT.

Project No:

Project Name: PACE NATIONAL

Project Manager: CARSTEN THOMSEN (296-4830)

Turn Around Requested (Check One)

- ☐ Same Day
- ☐ 24 Hours
- ☐ 48 Hours
- ☒ Standard
- ☐ ______ (other)

Project Chemist: DB

Laboratory No.

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	WTPH-HCID	WTPH-G/BTEX	WTPH-D	WTPH-418.1	Volatiles by 8240/624	Volatiles by 8260	Chlorinated Volatiles by 8240/8260/624	Semivolatiles by 8270/625	PAHs by 8270/625	PCB's by 8080/608	Total RCRA Metals (8)	TCLP Metals								% Moisture
1	PN-1	11/5/97	11:20	S	1							X													X
2	PN-2	11/5/97	11:25	S	1							X													X
3	PN-3	11/5/97	11:30	S	1							X													X
4	PN-4	11/5/97	11:38	S	1							X													X

RELINQUISHED BY	DATE	RECEIVED BY	DATE
Carsten Thomsen	11/5/97	[illegible signature]	11/5/97
FIRM: K.C. HEALTH	TIME:	FIRM: OSE	TIME: 1158
RELINQUISHED BY	DATE	RECEIVED BY	DATE
FIRM	TIME	FIRM	TIME
REVIEWED BY		DATE REVIEWED	

COMMENTS:

DISTRIBUTION LEGEND: White - OnSite Copy Yellow - Report Copy Pink - Client Copy

OnSite Environmental Inc.
Analytical Testing and Mobile Laboratory Services

December 18, 2000

Gary Galloway
Galloway Environmental, Inc.
3102 220th Place SE
Issaquah, WA 98027

Re: Analytical Data for Project 20031
Laboratory Reference No. 0012-066

Dear Gary:

Enclosed are the analytical results and associated quality control data for samples submitted on December 11, 2000.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881 • Fax (425) 885-4603

Date of Report: December 18, 2000
Samples Submitted: December 11, 2000
Lab Traveler: 12-066
Project: 20031

NWTPH-HCID

Date Extracted:	12-11-00
Date Analyzed:	12-12-00
Matrix:	Water
Units:	mg/L (ppm)
Client ID:	PACE 1211 GW-1 (2W)
Lab ID:	12-066-02
Gasoline:	ND
PQL:	5.0
Diesel Fuel:	Diesel Fuel #2
PQL:	13
Heavy Oil:	Heavy Oil
PQL:	13
Surrogate Recovery:	
o-Terphenyl	---
Flags:	S

Date of Report: December 18, 2000
Samples Submitted: December 11, 2000
Lab Traveler: 12-066
Project: 20031

NWTPH-HCID
METHOD BLANK QUALITY CONTROL

Date Extracted:	12-11-00
Date Analyzed:	12-12-00
Matrix:	Water
Units:	mg/L (ppm)

Lab ID:	MB1211W1
Gasoline:	ND
PQL:	0.25
Diesel Fuel:	ND
PQL:	0.63
Heavy Oil:	ND
PQL:	0.63
Surrogate Recovery:	
o-Terphenyl	86%

Flags

Date of Report: December 18, 2000
Samples Submitted: December 11, 2000
Lab Traveler: 12-066
Project: 20031

NWTPH-Dx

Date Extracted:	12-11-00
Date Analyzed:	12-14-00
Matrix:	Water
Units:	mg/L (ppm)
Client ID:	PACE 1211 GW-1 (2W)
Lab ID:	12-066-02
Diesel Fuel:	48
PQL:	5.0
Heavy Oil:	48
PQL:	10
Surrogate Recovery:	
o-Terphenyl	---
Flags:	S,Y

Date of Report: December 18, 2000
Samples Submitted: December 11, 2000
Lab Traveler: 12-066
Project: 20031

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted:	12-11-00
Date Analyzed:	12-14-00
Matrix:	Water
Units:	mg/L (ppm)
Lab ID:	MB1211W1
Diesel Fuel:	ND
PQL:	0.25
Heavy Oil:	ND
PQL:	0.50
Surrogate Recovery:	
o-Terphenyl	97%
Flags:	Y

Date of Report: December 18, 2000
Samples Submitted: December 11, 2000
Lab Traveler: 12-066
Project: 20031

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted: 12-11-00
Date Analyzed: 12-12-00

Matrix: Water
Units: mg/L (ppm)

Lab ID:	12-048-03	12-048-03 DUP
Diesel Fuel:	ND	ND
PQL:	0.25	0.25
RPD:	N/A	
Surrogate Recovery:		
o-Terphenyl	98%	94%

Flags:

OnSite
Environmental Inc.

DATA QUALIFIERS AND ABBREVIATIONS

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

D - Data from 1:____ dilution.

E - The value reported exceeds the quantitation range, and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeniety. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons outside the defined gasoline range are present in the sample; NWTPH-Dx recommended.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid cleanup procedure.

Z -

ND - Not Detected at PQL
MRL - Method Reporting Limit
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Fax: (425) 885-4603 • Phone: (425) 883-3881

Project Chemist: DB

Laboratory No. 12-066

Company: Galloway Environmental Inc
Project No.: 20031
Project Name: Pace
Project Manager: Gary Galloway

Turnaround Request (in working days)
(Check One)
- [ ] Same Day
- [ ] 1 Day
- [x] 2 Day
- [ ] 3 Day
- [ ] Standard (Hydrocarbon analyses: 5 days, All other analyses: 7 days)
- [ ] 12/13 (other)

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C	PCB's by 8082	Pesticides by 8081	Total RCRA Metals (8)	TCLP Metals	VPH	EPH								% Moisture
1	Pace1211 SS@6'	12/11/00	11:30	Soil	1	X																				X
2	PACE1211GW-1 (2 W)	"	12:00	H_2O	3	X		⊗																		
	~~PACE 1211 GW-1~~																									

RELINQUISHED BY	DATE	RECEIVED BY	DATE
Dylan Galloway	12/11/00	R Watson	12.11.00
FIRM: Galloway Env/Inc	TIME: 14:00	FIRM: OSE	TIME: 2:00 PM
RELINQUISHED BY	DATE	RECEIVED BY	DATE
FIRM	TIME	FIRM	TIME
REVIEWED BY		DATE REVIEWED	

COMMENTS: Please hold soil sample - DON'T TEST Unless Gary says to. Thanks

⊗ Added 12/13/00. DB

Chromatograms with final report ☐

OnSite Environmental Inc.
Analytical Testing and Mobile Laboratory Services

March 28, 2000

Gary Galloway
Galloway Environmental, Inc.
3102 220th Place SE
Issaquah, WA 98027

Re: Analytical Data for Project 20004
Laboratory Reference No. 0003-181

Dear Gary:

Enclosed are the analytical results and associated quality control data for samples submitted on March 23, 2000.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: March 28, 2000
Samples Submitted: March 23, 2000
Lab Traveler: 03-181
Project: 20004

NWTPH-Dx

Date Extracted: 2-24-00
Date Analyzed: 2-24-00 wrong

Matrix: Soil
Units: mg/Kg (ppm)

Client ID:	PAST-N@3'-6'	PAST-BOT@8'	PAST-W@3'-6'
Lab ID:	03-181-01	03-181-02	03-181-03
Diesel Fuel:	ND	ND	110
PQL:	29	29	27
Heavy Oil:	ND	ND	ND
PQL:	58	58	54
Surrogate Recovery:			
o-Terphenyl	110%	92%	148%

Flags:

Date of Report: March 28, 2000
Samples Submitted: March 23, 2000
Lab Traveler: 03-181
Project: 20004

NWTPH-Dx

Date Extracted: 2-24-00
Date Analyzed: 2-24-00

Matrix: Soil
Units: mg/Kg (ppm)

Client ID:	PAST-S@3'-6'	PAST-SPI
Lab ID:	03-181-04	03-181-05
Diesel Fuel:	ND	ND
PQL:	27	26
Heavy Oil:	ND	ND
PQL:	53	52
Surrogate Recovery:		
o-Terphenyl	103%	101%

Flags:

Date of Report: March 28, 2000
Samples Submitted: March 23, 2000
Lab Traveler: 03-181
Project: 20004

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted:	2-24-00
Date Analyzed:	2-24-00

Matrix:	Soil
Units:	mg/Kg (ppm)

Lab ID:	MB0324S1
Diesel Fuel:	ND
PQL:	25
Heavy Oil:	ND
PQL:	50
Surrogate Recovery:	
o-Terphenyl	85%

Flags:

Date of Report: March 28, 2000
Samples Submitted: March 23, 2000
Lab Traveler: 03-181
Project: 20004

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted: 2-24-00
Date Analyzed: 2-24-00

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID:	03-181-05	03-181-05 DUP
Diesel Fuel:	ND	ND
PQL:	25	25
RPD:	N/A	
Surrogate Recovery:		
o-Terphenyl	101%	118%

Flags:

Date of Report: March 28, 2000
Samples Submitted: March 23, 2000
Lab Traveler: 03-181
Project: 20004

Date Analyzed: 3-24-00

% MOISTURE

Client ID	Lab ID	% Moisture
PAST-N@3'-6'	03-181-01	14
PAST-BOT @8'	03-181-02	14
PAST-W @3'-6'	03-181-03	8.0
PAST-S @3'-6'	03-181-04	6.0
PAST- SP1	03-181-05	4.0

OnSite
Environmental Inc.

DATA QUALIFIERS AND ABBREVIATIONS

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

D - Data from 1:____ dilution.

E - The value reported exceeds the quantitation range, and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeniety. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons outside the defined gasoline range are present in the sample; NWTPH-Dx recommended.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid cleanup procedure.

Z -

ND - Not Detected
MRL - Method Reporting Limit
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Page 1 of 1

Chain of Custody

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Fax: (425) 885-4603 • Phone: (425) 883-3881

Turnaround Request (in working days)

(Check One)

- ☐ Same Day ☐ 1 Day
- ☐ 2 Day ☐ 3 Day
- ☐ Standard (Hydrocarbon analyses: 5 days, All other analyses: 7 days)
- ☐ 3/27 (other)

Project Chemist: DB

Laboratory No. 03 - 181

Company: Galloway Envl. Inc. (GEI)

Project No.: 20004

Project Name: Ultra Corp

Project Manager: Gary Galloway

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C	PCB's by 8082	Pesticides by 8081	Total RCRA Metals (8)	TCLP Metals	VPH	EPH							% Moisture
1	PAST-N @ 3'-6'	3/23/00	13:00		1			X																	X
2	PAST-BOT @ 8'	"	13:10		1			X																	X
3	PAST-W @ 3'-6'	"	13:15		1			X																	X
4	PAST-S @ 3'-6'	"	13:23		1			X																	X
5	PAST-SP1	"	13:35		1			X																	X

RELINQUISHED BY	DATE	RECEIVED BY	DATE
Dylan Galloway	3/23/00	[signature]	3/23/00
FIRM: GEI	TIME: 15:45	FIRM: OSC	TIME: 3:45 pm
RELINQUISHED BY	DATE	RECEIVED BY	DATE
FIRM	TIME	FIRM	TIME

REVIEWED BY

DATE REVIEWED

COMMENTS:

Chromatographs with final report ☐

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OnSite Environmental Inc.
Analytical Testing and Mobile Laboratory Services

March 16, 2000

Gary Galloway
Galloway Environmental, Inc.
3102 220th Place SE
Issaquah, WA 98027

Re: Analytical Data for Project 20004
Laboratory Reference No. 0003-073

Dear Gary:

Enclosed are the analytical results and associated quality control data for samples submitted on March 10, 2000.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: March 16, 2000
Samples Submitted: March 10, 2000
Lab Traveler: 03-073
Project: 20004

NWTPH-Dx

Date Extracted: 3-10-00
Date Analyzed: 3-10-00

Matrix: Soil
Units: mg/Kg (ppm)

Client ID:	PWW@3-2	PNW@3-2
Lab ID:	03-073-01	03-073-02
Diesel Fuel:	1300	ND
PQL:	31	30
Heavy Oil:	ND	ND
PQL:	61	60
Surrogate Recovery:		
o-Terphenyl	127%	118%

Flags:

Date of Report: March 16, 2000
Samples Submitted: March 10, 2000
Lab Traveler: 03-073
Project: 20004

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted:	3-10-00
Date Analyzed:	3-10-00
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	MB0310S1
Diesel Fuel:	ND
PQL:	25
Heavy Oil:	ND
PQL:	50
Surrogate Recovery:	
o-Terphenyl	121%

Flags:

Date of Report: March 16, 2000
Samples Submitted: March 10, 2000
Lab Traveler: 03-073
Project: 20004

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted: 3-10-00
Date Analyzed: 3-10-00

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID:	03-060-10	03-060-10 DUP
Diesel Fuel:	ND	ND
PQL:	25	25
RPD:	N/A	
Surrogate Recovery:		
o-Terphenyl	109%	105%

Flags:

Date of Report: March 16, 2000
Samples Submitted: March 10, 2000
Lab Traveler: 03-073
Project: 20004

NWTPH-Dx

Date Extracted:	3-10-00
Date Analyzed:	3-11-00
Matrix:	Water
Units:	mg/L (ppm)
Client ID:	PWA-1
Lab ID:	03-073-03
Diesel Fuel:	175
PQL:	5.0
Heavy Oil:	ND
PQL:	10
Surrogate Recovery:	
o-Terphenyl	---
Flags:	S

Date of Report: March 16, 2000
Samples Submitted: March 10, 2000
Lab Traveler: 03-073
Project: 20004

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted: 3-10-00
Date Analyzed: 3-10-00

Matrix: Water
Units: mg/L (ppm)

Lab ID:	MB0310W1
Diesel Fuel:	ND
PQL:	0.25
Heavy Oil:	ND
PQL:	0.50
Surrogate Recovery:	
o-Terphenyl	99%

Flags:

Date of Report: March 16, 2000
Samples Submitted: March 10, 2000
Lab Traveler: 03-073
Project: 20004

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted: 3-10-00
Date Analyzed: 3-10-00

Matrix: Water
Units: mg/L (ppm)

Lab ID:	03-071-03	03-071-03 DUP
Diesel Fuel:	ND	ND
PQL:	0.25	0.25
RPD:	N/A	
Surrogate Recovery:		
o-Terphenyl	133%	114%

Flags:

OnSite Environmental Inc.

DATA QUALIFIERS AND ABBREVIATIONS

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

D - Data from 1:____ dilution.

E - The value reported exceeds the quantitation range, and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeniety. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons outside the defined gasoline range are present in the sample; NWTPH-Dx recommended.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid cleanup procedure.

Z -

ND - Not Detected
MRL - Method Reporting Limit
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Fax: (425) 885-4603 • Phone: (425) 883-3881

Turnaround Request (in working days)

(Check One)

- [ ] Same Day
- [x] 1 Day
- [ ] 2 Day
- [ ] 3 Day
- [ ] Standard (Hydrocarbon analyses: 5 days, All other analyses: 7 days)
- [ ] ______ (other)

Project Chemist: DB

Laboratory No.

Company: GALLOWAY ENV

Project No.: 20004

Project Name: PACE

Project Manager: GARY GALLOWAY

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C	PCB's by 8082	Pesticides by 8081	Total RCRA Metals (8)	TCLP Metals	VPH	EPH							% Moisture
1	PWW @ 3-2	3/8/00	16:00	S	1			X																	X
2	PNW @ 3-2	"	16:30	S	1			X																	X
3	PWA-1	"	17:10	W	1			X																	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
[signature]	3/9/00	[signature]	3/10/00
FIRM: Galloway Env.	TIME: 09:20	FIRM: OnSite Env.	TIME: 9:20
RELINQUISHED BY	DATE	RECEIVED BY	DATE
FIRM	TIME	FIRM	TIME

REVIEWED BY

DATE REVIEWED

COMMENTS:

Chromatographs with final report ☐

OnSite
Environmental Inc.
Analytical Testing and Mobile Laboratory Services

March 6, 2000

Gary Galloway
Galloway Environmental, Inc.
3102 220th Place SE
Issaquah, WA 98027

Re: Analytical Data for Project 20004
Laboratory Reference No. 0002-163

Dear Gary:

Enclosed are the analytical results and associated quality control data for samples submitted on February 25, 2000.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: March 6, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

NWTPH-Dx

Date Extracted: 3-3-00
Date Analyzed: 3-3&4-00

Matrix: Soil
Units: mg/Kg (ppm)

Client ID:	PEW@3'	PWW@3'	PNW@3'
Lab ID:	02-163-01	02-163-02	02-163-03
Diesel Fuel:	ND	4500	110
PQL:	29	29	29
Heavy Oil:	ND	ND	200
PQL:	58	57	58
Surrogate Recovery:			
o-Terphenyl	93%	---	74%
Flags:		F	Y,Z

Date of Report: March 6, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

NWTPH-Dx

Date Extracted: 3-3-00
Date Analyzed: 3-3-00

Matrix: Soil
Units: mg/Kg (ppm)

Client ID:	PSW@3'	PB@8'
Lab ID:	02-163-04	02-163-05
Diesel Fuel:	ND	95
PQL:	28	31
Heavy Oil:	ND	67
PQL:	56	61
Surrogate Recovery:		
o-Terphenyl	109%	114%

Flags:

Date of Report: March 6, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted: 3-3-00
Date Analyzed: 3-3-00

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID:	MB0303S1
Diesel Fuel:	ND
PQL:	25
Heavy Oil:	ND
PQL:	50
Surrogate Recovery:	
o-Terphenyl	138%

Flags:

Date of Report: March 6, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted: 3-3-00
Date Analyzed: 3-4-00

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID:	MB0303S1
Diesel Fuel:	ND
PQL:	25
Heavy Oil:	ND
PQL:	50
Surrogate Recovery:	
o-Terphenyl	74%
Flags:	Y

Date of Report: March 6, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted: 3-3-00
Date Analyzed: 3-3-00

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID:	02-163-04	02-163-04 DUP
Diesel Fuel:	ND	ND
PQL:	25	25
RPD:	N/A	
Surrogate Recovery:		
o-Terphenyl	109%	98%

Flags:

OnSite
Environmental Inc.

DATA QUALIFIERS AND ABBREVIATIONS

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

D - Data from 1:____ dilution.

E - The value reported exceeds the quantitation range, and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeniety. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons outside the defined gasoline range are present in the sample; NWTPH-Dx recommended.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid cleanup procedure.

Z – Diesel Fuel quantitated as Diesel Fuel #1.

ND - Not Detected
MRL - Method Reporting Limit
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.

14648 NE 95th Street • Redmond, WA 98052
Fax: (425) 885-4603 • Phone: (425) 883-3881

Chain of Custody

Turnaround Request (in working days) (Check One)

- [ ] Same Day
- [ ] 1 Day
- [ ] 2 Day
- [ ] 3 Day
- [x] Standard (Hydrocarbon analyses: 5 days, All other analyses: 7 days) 3/3
- [ ] (other)

Project Chemist: DB

Laboratory No. 02-163

Company: Galloway Environmental Inc.

Project No.: 20004

Project Name: Pace

Project Manager: Gary Galloway

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C	PCB's by 8082	Pesticides by 8081	Total RCRA Metals (8)	TCLP Metals	VPH	EPH							% Moisture
1	PEW@3'	2/25	11:40	S	1			X																	X
2	PWW@3'	"	11:45					X																	X
3	PNW @3'	"	11:50					X																	X
4	PSW @3'	"	11:55					X																	X
5	PB@8'	"	12:00					X																	X
6	PSP1	"	12:05																						
7	PSP2	"	12:10					⊗	⊗		⊗														⊗
8	PSP3	"	12:15																						

RELINQUISHED BY: Dylan Galloway	DATE: 2/25/00	RECEIVED BY: [signature]	DATE: 2/25/00
FIRM: GEI	TIME: 13:10	FIRM: OnSite Env.	TIME: 1:10pm
RELINQUISHED BY	DATE	RECEIVED BY	DATE
FIRM	TIME	FIRM	TIME
REVIEWED BY		DATE REVIEWED	

COMMENTS:
Hold for analysis
⊗ Added 2/28/00. DB (2 DAY TAT.)
X: Added 3/2/00. DB. 2 DAY TAT

Chromatographs with final report ☐

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OnSite Environmental Inc.
Analytical Testing and Mobile Laboratory Services

March 2, 2000

Gary Galloway
Galloway Environmental, Inc.
3102 220th Place SE
Issaquah, WA 98027

Re: Analytical Data for Project 20004
Laboratory Reference No. 0002-163

Dear Gary:

Enclosed are the analytical results and associated quality control data for samples submitted on February 25, 2000.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted:	2-29-00
Date Analyzed:	2-29-00
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	MB0229S1
Diesel Fuel:	ND
PQL:	25
Heavy Oil:	ND
PQL:	50
Surrogate Recovery:	
o-Terphenyl	94%
Flags:	

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

VOLATILES by EPA 8260B
Page 1 of 2

Date Extracted:	2-28-00
Date Analyzed:	2-29-00
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	02-163-07
Client ID:	**PSP2**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.059
Chloromethane	ND		0.059
Vinyl Chloride	ND		0.059
Bromomethane	ND		0.059
Chloroethane	ND		0.059
Trichlorofluoromethane	ND		0.059
1,1-Dichloroethene	ND		0.059
Acetone	ND		0.29
Carbon Disulfide	ND		0.059
Methylene Chloride	0.47	B	0.29
(trans) 1,2-Dichloroethene	ND		0.059
1,1-Dichloroethane	ND		0.059
Vinyl Acetate	ND		0.29
2,2-Dichloropropane	ND		0.059
(cis) 1,2-Dichloroethene	ND		0.059
2-Butanone	ND		1.2
Chloroform	ND		0.059
1,1,1-Trichloroethane	ND		0.059
Carbon Tetrachloride	ND		0.059
1,1-Dichloropropene	ND		0.059
Benzene	ND		0.059
1,2-Dichloroethane	ND		0.059
Trichloroethene	ND		0.059
1,2-Dichloropropane	ND		0.059
Dibromomethane	ND		0.059
Bromodichloromethane	ND		0.059
2-Chloroethyl Vinyl Ether	ND		0.29
(cis) 1,3-Dichloropropene	ND		0.059
Toluene	ND		0.059
(trans) 1,3-Dichloropropene	ND		0.059
1,1,2-Trichloroethane	ND		0.059
Tetrachloroethene	0.11		0.059
1,3-Dichloropropane	ND		0.059

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Date Extracted: 2-28-00
Date Analyzed: 2-29-00

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID: MB0228S1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.050
Chloromethane	ND		0.050
Vinyl Chloride	ND		0.050
Bromomethane	ND		0.050
Chloroethane	ND		0.050
Trichlorofluoromethane	ND		0.050
1,1-Dichloroethene	ND		0.050
Acetone	ND		0.25
Carbon Disulfide	ND		0.050
Methylene Chloride	0.41		0.25
(trans) 1,2-Dichloroethene	ND		0.050
1,1-Dichloroethane	ND		0.050
Vinyl Acetate	ND		0.25
2,2-Dichloropropane	ND		0.050
(cis) 1,2-Dichloroethene	ND		0.050
2-Butanone	ND		1.0
Chloroform	ND		0.050
1,1,1-Trichloroethane	ND		0.050
Carbon Tetrachloride	ND		0.050
1,1-Dichloropropene	ND		0.050
Benzene	ND		0.050
1,2-Dichloroethane	ND		0.050
Trichloroethene	ND		0.050
1,2-Dichloropropane	ND		0.050
Dibromomethane	ND		0.050
Bromodichloromethane	ND		0.050
2-Chloroethyl Vinyl Ether	ND		0.25
(cis) 1,3-Dichloropropene	ND		0.050
Toluene	ND		0.050
(trans) 1,3-Dichloropropene	ND		0.050
1,1,2-Trichloroethane	ND		0.050
Tetrachloroethene	ND		0.050
1,3-Dichloropropane	ND		0.050

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

VOLATILES by EPA 8260B
MS/MSD QUALITY CONTROL

Date Extracted: 2-28-00
Date Analyzed: 2-29-00

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID: 02-163-07MS

Compound	Spike Amount	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
1,1-Dichloroethene	2.50	2.11	84	2.13	85	0.75	
Benzene	2.50	1.76	70	1.78	71	1.1	
Trichloroethene	2.50	2.22	89	2.23	89	0.40	
Toluene	2.50	2.39	96	2.46	98	2.9	
Chlorobenzene	2.50	2.28	91	2.28	91	0.072	

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

SEMIVOLATILES by EPA 8270C
page 2 of 3

Lab ID: 02-163-07
Client ID: **PSP2**

Compound:	**Results**	**Flags**	**PQL**
Hexachlorocyclopentadiene	ND		0.39
2,4,6-Trichlorophenol	ND		0.39
2,4,5-Trichlorophenol	ND		0.39
2-Chloronaphthalene	ND		0.039
2-Nitroaniline	ND		0.039
Acenaphthylene	ND		0.039
Dimethylphthalate	ND		0.039
2,6-Dinitrotoluene	ND		0.039
Acenaphthene	ND		0.039
3-Nitroaniline	ND		0.039
2,4-Dinitrophenol	ND		0.39
Dibenzofuran	ND		0.039
2,4-Dinitrotoluene	ND		0.039
4-Nitrophenol	ND		0.39
Fluorene	0.086		0.039
4-Chlorophenyl-phenylether	ND		0.039
Diethylphthalate	ND		0.039
4-Nitroaniline	ND		0.039
4,6-Dinitro-2-methylphenol	ND		0.39
n-Nitrosodiphenylamine	85		0.78
4-Bromophenyl-phenylether	ND		0.039
Hexachlorobenzene	ND		0.039
Pentachlorophenol	ND		0.39
Phenanthrene	0.92		0.039
Anthracene	0.071		0.039
Carbazole	0.047		0.039
Di-n-butylphthalate	ND		0.039
Fluoranthene	ND		0.039
Benzidine	ND		0.039
Pyrene	0.12		0.039

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

SEMIVOLATILES by EPA 8270C
METHOD BLANK QUALITY CONTROL
page 1 of 3

Date Extracted:	2-28-00
Date Analyzed:	2-28-00
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	MB0228S1

Compound:	Results	Flags	PQL
Aniline	ND		0.033
bis(2-Chloroethyl)ether	ND		0.033
Phenol	ND		0.033
2-Chlorophenol	ND		0.033
1,3-Dichlorobenzene	ND		0.033
1,4-Dichlorobenzene	ND		0.033
1,2-Dichlorobenzene	ND		0.033
Benzyl alcohol	ND		0.033
bis(2-chloroisopropyl)ether	ND		0.033
2-Methylphenol	ND		0.033
Hexachloroethane	ND		0.033
N-Nitroso-di-n-propylamine	ND		0.033
4-Methylphenol	ND		0.033
Nitrobenzene	ND		0.033
Isophorone	ND		0.033
2-Nitrophenol	ND		0.33
2,4-Dimethylphenol	ND		0.033
bis(2-Chloroethoxy)methane	ND		0.033
2,4-Dichlorophenol	ND		0.33
Benzoic acid	ND		0.33
1,2,4-Trichlorobenzene	ND		0.033
Naphthalene	ND		0.033
4-Chloroaniline	ND		0.033
Hexachlorobutadiene	ND		0.033
4-Chloro-3-methylphenol	ND		0.33
2-Methylnaphthalene	ND		0.033

OnSite
Environmental Inc.

DATA QUALIFIERS AND ABBREVIATIONS

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

D - Data from 1:____ dilution.

E - The value reported exceeds the quantitation range, and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeniety. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons outside the defined gasoline range are present in the sample; NWTPH-Dx recommended.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid cleanup procedure.

Z –

ND - Not Detected
MRL - Method Reporting Limit
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
Analytical Testing and Mobile Laboratory Services

March 2, 2000

Gary Galloway
Galloway Environmental, Inc.
3102 220th Place SE
Issaquah, WA 98027

Re: Analytical Data for Project 20004
Laboratory Reference No. 0002-163

Dear Gary:

Enclosed are the analytical results and associated quality control data for samples submitted on February 25, 2000.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

NWTPH-Dx

Date Extracted:	2-29-00
Date Analyzed:	2-29-00

Matrix:	Soil
Units:	mg/Kg (ppm)

Client ID:	PSP2
Lab ID:	02-163-07
Diesel Fuel:	530
PQL:	29
Heavy Oil:	ND
PQL:	59
Surrogate Recovery:	
o-Terphenyl	125%

Flags:

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted:	2-29-00
Date Analyzed:	2-29-00
Matrix:	Soil
Units:	mg/Kg (ppm)

Lab ID:	MB0229S1
Diesel Fuel:	ND
PQL:	25
Heavy Oil:	ND
PQL:	50
Surrogate Recovery:	
o-Terphenyl	94%

Flags:

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted: 2-29-00
Date Analyzed: 2-29-00

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID:	02-173-03	02-173-03 DUP
Diesel Fuel:	ND	ND
PQL:	25	25
RPD:	N/A	
Surrogate Recovery:		
o-Terphenyl	110%	110%

Flags:

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

VOLATILES by EPA 8260B
Page 1 of 2

Date Extracted:	2-28-00
Date Analyzed:	2-29-00
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	02-163-07
Client ID:	**PSP2**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.059
Chloromethane	ND		0.059
Vinyl Chloride	ND		0.059
Bromomethane	ND		0.059
Chloroethane	ND		0.059
Trichlorofluoromethane	ND		0.059
1,1-Dichloroethene	ND		0.059
Acetone	ND		0.29
Carbon Disulfide	ND		0.059
Methylene Chloride	0.47	B	0.29
(trans) 1,2-Dichloroethene	ND		0.059
1,1-Dichloroethane	ND		0.059
Vinyl Acetate	ND		0.29
2,2-Dichloropropane	ND		0.059
(cis) 1,2-Dichloroethene	ND		0.059
2-Butanone	ND		1.2
Chloroform	ND		0.059
1,1,1-Trichloroethane	ND		0.059
Carbon Tetrachloride	ND		0.059
1,1-Dichloropropene	ND		0.059
Benzene	ND		0.059
1,2-Dichloroethane	ND		0.059
Trichloroethene	ND		0.059
1,2-Dichloropropane	ND		0.059
Dibromomethane	ND		0.059
Bromodichloromethane	ND		0.059
2-Chloroethyl Vinyl Ether	ND		0.29
(cis) 1,3-Dichloropropene	ND		0.059
Toluene	ND		0.059
(trans) 1,3-Dichloropropene	ND		0.059
1,1,2-Trichloroethane	ND		0.059
Tetrachloroethene	0.11		0.059
1,3-Dichloropropane	ND		0.059

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

VOLATILES by EPA 8260B
Page 2 of 2

Lab ID: 02-163-07
Client ID: **PSP2**

Compound	**Results**	**Flags**	**PQL**
Methyl Isobutyl Ketone	ND		0.29
Dibromochloromethane	ND		0.059
1,2-Dibromoethane	ND		0.059
Chlorobenzene	ND		0.059
1,1,1,2-Tetrachloroethane	ND		0.059
Ethylbenzene	ND		0.059
m,p-Xylene	ND		0.12
o-Xylene	ND		0.059
Styrene	ND		0.059
Bromoform	ND		0.059
Isopropylbenzene	ND		0.059
Bromobenzene	ND		0.059
1,1,2,2-Tetrachloroethane	ND		0.059
1,2,3-Trichloropropane	ND		0.059
n-Propylbenzene	ND		0.059
2-Chlorotoluene	ND		0.059
4-Chlorotoluene	ND		0.059
1,3,5-Trimethylbenzene	0.13		0.059
tert-Butylbenzene	ND		0.059
1,2,4-Trimethylbenzene	0.28		0.059
sec-Butylbenzene	ND		0.059
1,3-Dichlorobenzene	ND		0.059
p-Isopropyltoluene	0.15		0.059
1,4-Dichlorobenzene	ND		0.059
1,2-Dichlorobenzene	ND		0.059
n-Butylbenzene	ND		0.059
1,2-Dibromo-3-chloropropane	ND		0.29
1,2,4-Trichlorobenzene	ND		0.059
Hexachlorobutadiene	ND		0.059
Naphthalene	0.54		0.059
1,2,3-Trichlorobenzene	ND		0.059

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	74	65-125
Toluene-d8	96	77-116
4-Bromofluorobenzene	84	67-133

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Date Extracted:	2-28-00
Date Analyzed:	2-29-00
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	MB0228S1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.050
Chloromethane	ND		0.050
Vinyl Chloride	ND		0.050
Bromomethane	ND		0.050
Chloroethane	ND		0.050
Trichlorofluoromethane	ND		0.050
1,1-Dichloroethene	ND		0.050
Acetone	ND		0.25
Carbon Disulfide	ND		0.050
Methylene Chloride	0.41		0.25
(trans) 1,2-Dichloroethene	ND		0.050
1,1-Dichloroethane	ND		0.050
Vinyl Acetate	ND		0.25
2,2-Dichloropropane	ND		0.050
(cis) 1,2-Dichloroethene	ND		0.050
2-Butanone	ND		1.0
Chloroform	ND		0.050
1,1,1-Trichloroethane	ND		0.050
Carbon Tetrachloride	ND		0.050
1,1-Dichloropropene	ND		0.050
Benzene	ND		0.050
1,2-Dichloroethane	ND		0.050
Trichloroethene	ND		0.050
1,2-Dichloropropane	ND		0.050
Dibromomethane	ND		0.050
Bromodichloromethane	ND		0.050
2-Chloroethyl Vinyl Ether	ND		0.25
(cis) 1,3-Dichloropropene	ND		0.050
Toluene	ND		0.050
(trans) 1,3-Dichloropropene	ND		0.050
1,1,2-Trichloroethane	ND		0.050
Tetrachloroethene	ND		0.050
1,3-Dichloropropane	ND		0.050

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Lab ID: MB0228S1

Compound	Results	Flags	PQL
Methyl Isobutyl Ketone	ND		0.25
Dibromochloromethane	ND		0.050
1,2-Dibromoethane	ND		0.050
Chlorobenzene	ND		0.050
1,1,1,2-Tetrachloroethane	ND		0.050
Ethylbenzene	ND		0.050
m,p-Xylene	ND		0.10
o-Xylene	ND		0.050
Styrene	ND		0.050
Bromoform	ND		0.050
Isopropylbenzene	ND		0.050
Bromobenzene	ND		0.050
1,1,2,2-Tetrachloroethane	ND		0.050
1,2,3-Trichloropropane	ND		0.050
n-Propylbenzene	ND		0.050
2-Chlorotoluene	ND		0.050
4-Chlorotoluene	ND		0.050
1,3,5-Trimethylbenzene	ND		0.050
tert-Butylbenzene	ND		0.050
1,2,4-Trimethylbenzene	ND		0.050
sec-Butylbenzene	ND		0.050
1,3-Dichlorobenzene	ND		0.050
p-Isopropyltoluene	ND		0.050
1,4-Dichlorobenzene	ND		0.050
1,2-Dichlorobenzene	ND		0.050
n-Butylbenzene	ND		0.050
1,2-Dibromo-3-chloropropane	ND		0.25
1,2,4-Trichlorobenzene	ND		0.050
Hexachlorobutadiene	ND		0.050
Naphthalene	ND		0.050
1,2,3-Trichlorobenzene	ND		0.050

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	86	65-125
Toluene-d8	102	77-116
4-Bromofluorobenzene	96	67-133

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

VOLATILES by EPA 8260B
MS/MSD QUALITY CONTROL

Date Extracted: 2-28-00
Date Analyzed: 2-29-00

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID: 02-163-07MS

Compound	Spike Amount	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
1,1-Dichloroethene	2.50	2.11	84	2.13	85	0.75	
Benzene	2.50	1.76	70	1.78	71	1.1	
Trichloroethene	2.50	2.22	89	2.23	89	0.40	
Toluene	2.50	2.39	96	2.46	98	2.9	
Chlorobenzene	2.50	2.28	91	2.28	91	0.072	

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

SEMIVOLATILES by EPA 8270C
page 1 of 3

Date Extracted:	2-28-00
Date Analyzed:	2-29-00
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	02-163-07
Client ID:	**PSP2**

Compound:	**Results**	**Flags**	**PQL**
Aniline	ND		0.039
bis(2-Chloroethyl)ether	ND		0.039
Phenol	ND		0.039
2-Chlorophenol	ND		0.039
1,3-Dichlorobenzene	ND		0.039
1,4-Dichlorobenzene	ND		0.039
1,2-Dichlorobenzene	ND		0.039
Benzyl alcohol	ND		0.039
bis(2-chloroisopropyl)ether	ND		0.039
2-Methylphenol	ND		0.039
Hexachloroethane	ND		0.039
N-Nitroso-di-n-propylamine	ND		0.039
4-Methylphenol	ND		0.039
Nitrobenzene	ND		0.039
Isophorone	ND		0.039
2-Nitrophenol	ND		0.39
2,4-Dimethylphenol	ND		0.039
bis(2-Chloroethoxy)methane	ND		0.039
2,4-Dichlorophenol	ND		0.39
Benzoic acid	ND		0.39
1,2,4-Trichlorobenzene	ND		0.039
Naphthalene	0.37		0.039
4-Chloroaniline	ND		0.039
Hexachlorobutadiene	ND		0.039
4-Chloro-3-methylphenol	ND		0.39
2-Methylnaphthalene	2.3		0.039

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

SEMIVOLATILES by EPA 8270C
page 2 of 3

Lab ID:	02-163-07
Client ID:	**PSP2**

Compound:	**Results**	**Flags**	**PQL**
Hexachlorocyclopentadiene	ND		0.39
2,4,6-Trichlorophenol	ND		0.39
2,4,5-Trichlorophenol	ND		0.39
2-Chloronaphthalene	ND		0.039
2-Nitroaniline	ND		0.039
Acenaphthylene	ND		0.039
Dimethylphthalate	ND		0.039
2,6-Dinitrotoluene	ND		0.039
Acenaphthene	ND		0.039
3-Nitroaniline	ND		0.039
2,4-Dinitrophenol	ND		0.39
Dibenzofuran	ND		0.039
2,4-Dinitrotoluene	ND		0.039
4-Nitrophenol	ND		0.39
Fluorene	0.086		0.039
4-Chlorophenyl-phenylether	ND		0.039
Diethylphthalate	ND		0.039
4-Nitroaniline	ND		0.039
4,6-Dinitro-2-methylphenol	ND		0.39
n-Nitrosodiphenylamine	85		0.78
4-Bromophenyl-phenylether	ND		0.039
Hexachlorobenzene	ND		0.039
Pentachlorophenol	ND		0.39
Phenanthrene	0.92		0.039
Anthracene	0.071		0.039
Carbazole	0.047		0.039
Di-n-butylphthalate	ND		0.039
Fluoranthene	ND		0.039
Benzidine	ND		0.039
Pyrene	0.12		0.039

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

SEMIVOLATILES by EPA 8270C
page 3 of 3

Lab ID:	02-163-07
Client ID:	**PSP2**

Compound:	**Results**	**Flags**	**PQL**
Butylbenzylphthalate	ND		0.039
3,3'-Dichlorobenzidine	ND		0.039
Benzo[a]anthracene	ND		0.039
Chrysene	ND		0.039
bis(2-Ethylhexyl)phthalate	0.21		0.20
Di-n-octylphthalate	ND		0.039
Benzo[b]fluoranthene	ND		0.039
Benzo[k]fluoranthene	ND		0.039
Benzo[a]pyrene	ND		0.039
Indeno[1,2,3-cd]pyrene	ND		0.039
Dibenz[a,h]anthracene	ND		0.039
Benzo[g,h,i]perylene	ND		0.039

Surrogate :	**Percent Recovery**	**Control Limits**
2-Fluorophenol	63	25 - 121
Phenol-d6	72	24 - 113
Nitrobenzene-d5	76	23 - 120
2-Fluorobiphenyl	87	30 - 115
2,4,6-Tribromophenol	65	19 - 122
Terphenyl-d14	91	18 - 137

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

SEMIVOLATILES by EPA 8270C
METHOD BLANK QUALITY CONTROL
page 1 of 3

Date Extracted:	2-28-00
Date Analyzed:	2-28-00
Matrix:	Soil
Units:	mg/Kg (ppm)
Lab ID:	MB0228S1

Compound:	**Results**	**Flags**	**PQL**
Aniline	ND		0.033
bis(2-Chloroethyl)ether	ND		0.033
Phenol	ND		0.033
2-Chlorophenol	ND		0.033
1,3-Dichlorobenzene	ND		0.033
1,4-Dichlorobenzene	ND		0.033
1,2-Dichlorobenzene	ND		0.033
Benzyl alcohol	ND		0.033
bis(2-chloroisopropyl)ether	ND		0.033
2-Methylphenol	ND		0.033
Hexachloroethane	ND		0.033
N-Nitroso-di-n-propylamine	ND		0.033
4-Methylphenol	ND		0.033
Nitrobenzene	ND		0.033
Isophorone	ND		0.033
2-Nitrophenol	ND		0.33
2,4-Dimethylphenol	ND		0.033
bis(2-Chloroethoxy)methane	ND		0.033
2,4-Dichlorophenol	ND		0.33
Benzoic acid	ND		0.33
1,2,4-Trichlorobenzene	ND		0.033
Naphthalene	ND		0.033
4-Chloroaniline	ND		0.033
Hexachlorobutadiene	ND		0.033
4-Chloro-3-methylphenol	ND		0.33
2-Methylnaphthalene	ND		0.033

Date of Report: March 2, 2000
Samples Submitted: February 25, 2000
Lab Traveler: 02-163
Project: 20004

Date Analyzed: 2-28-00

% MOISTURE

Client ID	Lab ID	% Moisture
PSP2	02-163-07	15

OnSite
Environmental Inc.

DATA QUALIFIERS AND ABBREVIATIONS

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

D - Data from 1:____ dilution.

E - The value reported exceeds the quantitation range, and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeniety. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons outside the defined gasoline range are present in the sample; NWTPH-Dx recommended.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid cleanup procedure.

Z –

ND - Not Detected
MRL - Method Reporting Limit
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

SEVERN TRENT **STL**

STL Seattle
5755 8th Street East
Tacoma, WA 98424

Tel: 253 922 2310
Fax: 253 922 5047
www.stl-inc.com

TRANSMITTAL MEMORANDUM

DATE: July 6, 2005

TO: Daniel Venchiarutti
SCS Engineers
2405 140th Ave. N. E., Suite 107
Bellevue, WA 98005

PROJECT: PACE Property, Kirkland, WA

REPORT NUMBER: 128533

TOTAL NUMBER OF PAGES: ______

Enclosed are the test results for seven samples received at STL Seattle on June 22, 2005.

The report consists of this transmittal memo, analytical results, quality control reports, a copy of the chain-of-custody, a list of data qualifiers and analytical narrative when applicable, and a copy of any requested raw data.

Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,

Darla Powell

Darla Powell
Project Manager

STL Seattle

Sample Identification:

Lab. No.	Client ID	Date/Time Sampled	Matrix
128533-1	SB-36	06-21-05 09:29	Liquid
128533-2	SB-37	06-21-05 09:49	Liquid
128533-3	SB-38	06-21-05 10:14	Liquid
128533-4	SB-9	06-21-05 10:52	Liquid
128533-5	SB-11	06-21-05 11:14	Liquid
128533-6	SB-14	06-21-05 12:03	Liquid
128533-7	SB-10	06-21-05 12:41	Liquid

STL Seattle

Client Name:	SCS Engineers
Client ID:	SB-36
Lab ID:	128533-01
Date Received:	6/22/2005
Date Prepared:	6/24/2005
Date Analyzed:	6/25/2005
% Solids	-
Dilution Factor	1

Halogenated Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits Low	Recovery Limits High
Dibromofluoromethane	93.5		80	120
Fluorobenzene	105		80	120
Toluene-D8	110		80	120
Ethylbenzene-d10	110		80	120
Bromofluorobenzene	109		80	120
Trifluorotoluene	116		80	120

Analyte	Result (ug/L)	RL	Flags
Chloromethane	ND	1	
Vinyl chloride	ND	0.2	
Bromomethane	ND	1	
Chloroethane	ND	1	
Trichlorofluoromethane	ND	1	
1,1-Dichloroethene	ND	1	
Methylene chloride	ND	1	
trans-1,2-Dichloroethene	ND	1	
1,1-Dichloroethane	ND	1	
cis-1,2-Dichloroethene	ND	1	
Chloroform	ND	1	
1,1,1-Trichloroethane	ND	1	
Carbon Tetrachloride	ND	1	
1,2-Dichloroethane	ND	1	
Trichloroethene	ND	1	
1,2-Dichloropropane	ND	1	
Bromodichloromethane	ND	1	
cis-1,3-Dichloropropene	ND	1	
trans-1,3-Dichloropropene	ND	1	
1,1,2-Trichloroethane	ND	1	
Tetrachloroethene	ND	1	
Dibromochloromethane	ND	1	
Chlorobenzene	ND	1	
Bromoform	ND	1	
1,1,2,2-Tetrachloroethane	ND	1	
1,3-Dichlorobenzene	ND	1	

STL Seattle

Halogenated Volatile Organics by USEPA Method 5035\8260B data for 128533-01 continued...

Analyte	Result (ug/L)	RL	Flags
1,4-Dichlorobenzene	ND	1	
1,2-Dichlorobenzene	ND	1	

STL Seattle

Client Name:	SCS Engineers
Client ID:	SB-37
Lab ID:	128533-02
Date Received:	6/22/2005
Date Prepared:	6/24/2005
Date Analyzed:	6/25/2005
% Solids	-
Dilution Factor	1

Halogenated Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits Low	High
Dibromofluoromethane	98.3		80	120
Fluorobenzene	110		80	120
Toluene-D8	110		80	120
Ethylbenzene-d10	104		80	120
Bromofluorobenzene	109		80	120
Trifluorotoluene	108		80	120

Analyte	Result (ug/L)	RL	Flags
Chloromethane	ND	1	
Vinyl chloride	ND	0.2	
Bromomethane	ND	1	
Chloroethane	ND	1	
Trichlorofluoromethane	ND	1	
1,1-Dichloroethene	ND	1	
Methylene chloride	ND	1	
trans-1,2-Dichloroethene	ND	1	
1,1-Dichloroethane	ND	1	
cis-1,2-Dichloroethene	ND	1	
Chloroform	ND	1	
1,1,1-Trichloroethane	ND	1	
Carbon Tetrachloride	ND	1	
1,2-Dichloroethane	ND	1	
Trichloroethene	ND	1	
1,2-Dichloropropane	ND	1	
Bromodichloromethane	ND	1	
cis-1,3-Dichloropropene	ND	1	
trans-1,3-Dichloropropene	ND	1	
1,1,2-Trichloroethane	ND	1	
Tetrachloroethene	ND	1	
Dibromochloromethane	ND	1	
Chlorobenzene	ND	1	
Bromoform	ND	1	
1,1,2,2-Tetrachloroethane	ND	1	
1,3-Dichlorobenzene	ND	1	

STL Seattle

Halogenated Volatile Organics by USEPA Method 5035\8260B data for 128533-02 continued...

Analyte	Result (ug/L)	RL	Flags
1,4-Dichlorobenzene	ND	1	
1,2-Dichlorobenzene	ND	1	

STL Seattle

Client Name:	SCS Engineers
Client ID:	SB-38
Lab ID:	128533-03
Date Received:	6/22/2005
Date Prepared:	6/24/2005
Date Analyzed:	6/25/2005
% Solids	-
Dilution Factor	1

Halogenated Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits Low	Recovery Limits High
Dibromofluoromethane	94.5		80	120
Fluorobenzene	107		80	120
Toluene-D8	105		80	120
Ethylbenzene-d10	105		80	120
Bromofluorobenzene	112		80	120
Trifluorotoluene	102		80	120

Analyte	Result (ug/L)	RL	Flags
Chloromethane	ND	1	
Vinyl chloride	ND	0.2	
Bromomethane	ND	1	
Chloroethane	ND	1	
Trichlorofluoromethane	ND	1	
1,1-Dichloroethene	ND	1	
Methylene chloride	ND	1	
trans-1,2-Dichloroethene	ND	1	
1,1-Dichloroethane	ND	1	
cis-1,2-Dichloroethene	ND	1	
Chloroform	ND	1	
1,1,1-Trichloroethane	ND	1	
Carbon Tetrachloride	ND	1	
1,2-Dichloroethane	ND	1	
Trichloroethene	ND	1	
1,2-Dichloropropane	ND	1	
Bromodichloromethane	ND	1	
cis-1,3-Dichloropropene	ND	1	
trans-1,3-Dichloropropene	ND	1	
1,1,2-Trichloroethane	ND	1	
Tetrachloroethene	ND	1	
Dibromochloromethane	ND	1	
Chlorobenzene	ND	1	
Bromoform	ND	1	
1,1,2,2-Tetrachloroethane	ND	1	
1,3-Dichlorobenzene	ND	1	

STL Seattle

Halogenated Volatile Organics by USEPA Method 5035\8260B data for 128533-03 continued...

Analyte	Result (ug/L)	RL	Flags
1,4-Dichlorobenzene	ND	1	
1,2-Dichlorobenzene	ND	1	

STL Seattle

Client Name:	SCS Engineers
Client ID:	SB-9
Lab ID:	128533-04
Date Received:	6/22/2005
Date Prepared:	6/24/2005
Date Analyzed:	6/25/2005
% Solids	-
Dilution Factor	1

Halogenated Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits Low	High
Dibromofluoromethane	92.7		80	120
Fluorobenzene	109		80	120
Toluene-D8	109		80	120
Ethylbenzene-d10	104		80	120
Bromofluorobenzene	107		80	120
Trifluorotoluene	109		80	120

Analyte	Result (ug/L)	RL	Flags
Chloromethane	ND	1	
Vinyl chloride	ND	0.2	
Bromomethane	ND	1	
Chloroethane	ND	1	
Trichlorofluoromethane	ND	1	
1,1-Dichloroethene	ND	1	
Methylene chloride	ND	1	
trans-1,2-Dichloroethene	ND	1	
1,1-Dichloroethane	ND	1	
cis-1,2-Dichloroethene	ND	1	
Chloroform	ND	1	
1,1,1-Trichloroethane	ND	1	
Carbon Tetrachloride	ND	1	
1,2-Dichloroethane	ND	1	
Trichloroethene	ND	1	
1,2-Dichloropropane	ND	1	
Bromodichloromethane	ND	1	
cis-1,3-Dichloropropene	ND	1	
trans-1,3-Dichloropropene	ND	1	
1,1,2-Trichloroethane	ND	1	
Tetrachloroethene	ND	1	
Dibromochloromethane	ND	1	
Chlorobenzene	ND	1	
Bromoform	ND	1	
1,1,2,2-Tetrachloroethane	ND	1	
1,3-Dichlorobenzene	ND	1	

STL Seattle

Halogenated Volatile Organics by USEPA Method 5035\8260B data for 128533-04 continued...

Analyte	Result (ug/L)	RL	Flags
1,4-Dichlorobenzene	ND	1	
1,2-Dichlorobenzene	ND	1	

STL Seattle

Client Name:	SCS Engineers
Client ID:	SB-11
Lab ID:	128533-05
Date Received:	6/22/2005
Date Prepared:	6/24/2005
Date Analyzed:	6/25/2005
% Solids	-
Dilution Factor	1

Halogenated Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits Low	Recovery Limits High
Dibromofluoromethane	96.1		80	120
Fluorobenzene	104		80	120
Toluene-D8	100		80	120
Ethylbenzene-d10	99.4		80	120
Bromofluorobenzene	103		80	120
Trifluorotoluene	104		80	120

Analyte		Result (ug/L)	RL	Flags
Chloromethane	ND		1	
Vinyl chloride		0.21	0.2	
Bromomethane	ND		1	
Chloroethane	ND		1	
Trichlorofluoromethane	ND		1	
1,1-Dichloroethene	ND		1	
Methylene chloride	ND		1	
trans-1,2-Dichloroethene	ND		1	
1,1-Dichloroethane	ND		1	
cis-1,2-Dichloroethene	ND		1	
Chloroform	ND		1	
1,1,1-Trichloroethane	ND		1	
Carbon Tetrachloride	ND		1	
1,2-Dichloroethane	ND		1	
Trichloroethene	ND		1	
1,2-Dichloropropane	ND		1	
Bromodichloromethane	ND		1	
cis-1,3-Dichloropropene	ND		1	
trans-1,3-Dichloropropene	ND		1	
1,1,2-Trichloroethane	ND		1	
Tetrachloroethene	ND		1	
Dibromochloromethane	ND		1	
Chlorobenzene	ND		1	
Bromoform	ND		1	
1,1,2,2-Tetrachloroethane	ND		1	
1,3-Dichlorobenzene	ND		1	

STL Seattle

Halogenated Volatile Organics by USEPA Method 5035\8260B data for 128533-05 continued...

Analyte		Result (ug/L)	RL	Flags
1,4-Dichlorobenzene	ND		1	
1,2-Dichlorobenzene	ND		1	

STL Seattle

Client Name:	SCS Engineers
Client ID:	SB-14
Lab ID:	128533-06
Date Received:	6/22/2005
Date Prepared:	6/24/2005
Date Analyzed:	6/25/2005
% Solids	-
Dilution Factor	1

Halogenated Volatile Organics by USEPA Method 5035\8260B

Surrogate	**% Recovery**	**Flags**	**Recovery Limits**	
			Low	**High**
Dibromofluoromethane	96		80	120
Fluorobenzene	110		80	120
Toluene-D8	104		80	120
Ethylbenzene-d10	104		80	120
Bromofluorobenzene	105		80	120
Trifluorotoluene	106		80	120

Analyte	**Result (ug/L)**	**RL**	**Flags**
Chloromethane	ND	1	
Vinyl chloride	16.2	0.2	
Bromomethane	ND	1	
Chloroethane	ND	1	
Trichlorofluoromethane	ND	1	
1,1-Dichloroethene	ND	1	
Methylene chloride	ND	1	
trans-1,2-Dichloroethene	ND	1	
1,1-Dichloroethane	ND	1	
cis-1,2-Dichloroethene	ND	1	
Chloroform	ND	1	
1,1,1-Trichloroethane	ND	1	
Carbon Tetrachloride	ND	1	
1,2-Dichloroethane	ND	1	
Trichloroethene	ND	1	
1,2-Dichloropropane	ND	1	
Bromodichloromethane	ND	1	
cis-1,3-Dichloropropene	ND	1	
trans-1,3-Dichloropropene	ND	1	
1,1,2-Trichloroethane	ND	1	
Tetrachloroethene	ND	1	
Dibromochloromethane	ND	1	
Chlorobenzene	ND	1	
Bromoform	ND	1	
1,1,2,2-Tetrachloroethane	ND	1	
1,3-Dichlorobenzene	ND	1	

STL Seattle

Halogenated Volatile Organics by USEPA Method 5035\8260B data for 128533-06 continued...

Analyte	Result (ug/L)	RL	Flags
1,4-Dichlorobenzene	ND	1	
1,2-Dichlorobenzene	ND	1	

STL Seattle

Client Name:	SCS Engineers
Client ID:	SB-10
Lab ID:	128533-07
Date Received:	6/22/2005
Date Prepared:	6/24/2005
Date Analyzed:	6/25/2005
% Solids	-
Dilution Factor	1

Halogenated Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits Low	Recovery Limits High
Dibromofluoromethane	95.4		80	120
Fluorobenzene	105		80	120
Toluene-D8	102		80	120
Ethylbenzene-d10	99.6		80	120
Bromofluorobenzene	104		80	120
Trifluorotoluene	103		80	120

Analyte	Result (ug/L)	RL	Flags
Chloromethane	ND	1	
Vinyl chloride	24.8	0.2	
Bromomethane	ND	1	
Chloroethane	ND	1	
Trichlorofluoromethane	ND	1	
1,1-Dichloroethene	ND	1	
Methylene chloride	ND	1	
trans-1,2-Dichloroethene	ND	1	
1,1-Dichloroethane	ND	1	
cis-1,2-Dichloroethene	13.9	1	
Chloroform	ND	1	
1,1,1-Trichloroethane	ND	1	
Carbon Tetrachloride	ND	1	
1,2-Dichloroethane	ND	1	
Trichloroethene	ND	1	
1,2-Dichloropropane	ND	1	
Bromodichloromethane	ND	1	
cis-1,3-Dichloropropene	ND	1	
trans-1,3-Dichloropropene	ND	1	
1,1,2-Trichloroethane	ND	1	
Tetrachloroethene	ND	1	
Dibromochloromethane	ND	1	
Chlorobenzene	ND	1	
Bromoform	ND	1	
1,1,2,2-Tetrachloroethane	ND	1	
1,3-Dichlorobenzene	ND	1	

STL Seattle

Halogenated Volatile Organics by USEPA Method 5035\8260B data for 128533-07 continued...

Analyte	Result (ug/L)	RL	Flags
1,4-Dichlorobenzene	ND	1	
1,2-Dichlorobenzene	ND	1	

STL Seattle

Lab ID:	Method Blank - VOA1382
Date Received:	-
Date Prepared:	6/24/2005
Date Analyzed:	6/24/2005
% Solids	-
Dilution Factor	1

Halogenated Volatile Organics by USEPA Method 5035\8260B

Surrogate	% Recovery	Flags	Recovery Limits Low	High
Dibromofluoromethane	96		80	120
Fluorobenzene	104		80	120
Toluene-D8	109		80	120
Ethylbenzene-d10	107		80	120
Bromofluorobenzene	107		80	120
Trifluorotoluene	112		80	120

Analyte	Result (ug/L)	RL	Flags
Chloromethane	ND	1	
Vinyl chloride	ND	0.2	
Bromomethane	ND	1	
Chloroethane	ND	1	
Trichlorofluoromethane	ND	1	
1,1-Dichloroethene	ND	1	
Methylene chloride	ND	1	
trans-1,2-Dichloroethene	ND	1	
1,1-Dichloroethane	ND	1	
cis-1,2-Dichloroethene	ND	1	
Chloroform	ND	1	
1,1,1-Trichloroethane	ND	1	
Carbon Tetrachloride	ND	1	
1,2-Dichloroethane	ND	1	
Trichloroethene	ND	1	
1,2-Dichloropropane	ND	1	
Bromodichloromethane	ND	1	
cis-1,3-Dichloropropene	ND	1	
trans-1,3-Dichloropropene	ND	1	
1,1,2-Trichloroethane	ND	1	
Tetrachloroethene	ND	1	
Dibromochloromethane	ND	1	
Chlorobenzene	ND	1	
Bromoform	ND	1	
1,1,2,2-Tetrachloroethane	ND	1	
1,3-Dichlorobenzene	ND	1	

STL Seattle

Halogenated Volatile Organics by USEPA Method 5035\8260B data for VOA1382 continued...

Analyte	Result (ug/L)	RL	Flags
1,4-Dichlorobenzene	ND	1	
1,2-Dichlorobenzene	ND	1	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID:	VOA1382
Date Prepared:	6/24/2005
Date Analyzed:	6/24/2005
QC Batch ID:	VOA1382

Halogenated Volatile Organics by USEPA Method 5035\8260B

Compound Name	**Blank Result (ug/L)**	**Spike Amount (ug/L)**	**BS Result (ug/L)**	**BS % Rec.**	**BSD Result (ug/L)**	**BSD % Rec.**	**RPD**	**Flag**
1,1-Dichloroethene	0	5	5.06	101	4.77	95.4	-5.7	
Benzene	0	5	5.17	103	5.01	100	-3	
Trichloroethene	0	5	4.65	93	5	99.9	7.2	
Toluene	0	5	4.79	95.7	4.96	99.3	3.7	
Chlorobenzene	0	5	4.96	99.1	4.74	94.8	-4.4	

SEVERN TRENT **STL**

STL Seattle
5755 8th Street East
Tacoma, WA 98424

Tel: 253 922 2310
Fax: 253 922 5047
www.stl-inc.com

DATA QUALIFIERS AND ABBREVIATIONS

B1: This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).

B2: This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).

C1: Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be < 40%.

C2: Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 40%. The higher result was reported unless anomalies were noted.

C3: Second analysis confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be ≤ 30%.

C4: Second analysis confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 30%. The original analysis was reported unless anomalies were noted.

M: GC/MS confirmation was performed. The result derived from the original analysis was reported.

D: The reported result for this analyte was calculated based on a secondary dilution factor.

E: The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.

The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.

MCL: Maximum Contaminant Level

MDL: Method Detection Limit

RL: Reporting Limit

N: See analytical narrative

ND: Not Detected

X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be ___________.

X2: Contaminant does not appear to be "typical" product.

X3: Identification and quantitation of the analyte or surrogate was complicated by matrix interference.

X4: RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.

X4a: RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.

X5: Matrix spike recovery was not determined due to the required dilution.

X6: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.

X7: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.

X7a: Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.

,: Surrogate recovery was not determined due to the required dilution.

X9: Surrogate recovery outside advisory QC limits due to matrix interference.

00020

Chain of Custody Record

STL Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.stl-inc.com

← °C
6/22 [initials]
128533

SEVERN TRENT **STL**

Client	SLS Engineers
Project Manager	Dan Venchiarutti
Date	6/21/05
Chain of Custody Number	15573
Address	2405 140th Ave NE Ste. 107
Telephone Number (Area Code)/Fax Number	(425) 746-4600 / (425) 746-6747
Lab Number	
Page	1 of 1
City	Bellevue
State	WA
Zip Code	98005
Site Contact	Elaine Dilley
Lab Contact	Darla Powell
Project Name and Location (State)	PACE Property, Kirkland, WA
Carrier/Waybill Number	
Contract/Purchase Order/Quote No.	

Analysis (Attach list if more space is needed): HVOCs 8260

Special Instructions/ Conditions of Receipt

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	HVOCs 8260
SB-36	6/21/05	929		X						X			X
SB-37		949											
SB-38		1014											
SB-9		1052											
SB-11		1114											
SB-14		1203											
SB-10		1241											

Cooler ☐ Yes ☐ No Cooler Temp: ______

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ______ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days) ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☐ Other ______

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Elaine Dilley	6/22/05		1. Received By: [signature] STL	6/22/05	11:00
2. Relinquished By: [signature]	6/22/05	12:00	2. Received By: [signature]	6/22/5	1220
3. Relinquished By			3. Received By		

Comments

12000

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

STL8274-580 (12/02)

SEVERN TRENT STL

ANALYTICAL REPORT

Job Number: 580-3316-1

Job Description: PACE Offiste Wells

For:
SCS Engineers
2405 140th Avenue NE
Suite 107
Bellevue, WA 98005-1877

Attention: Mr. Dan Venchiarutti

Terri L Torres
Project Manager II
ttorres@stl-inc.com
08/24/2006

Project Manager: Terri L Torres

STL Seattle is a part of Severn Trent Laboratories, Inc.

METHOD SUMMARY

Client: SCS Engineers

Job Number: 580-3316-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	STL SEA	SW846 8260B	
Purge-and-Trap	STL SEA		SW846 5030B

LAB REFERENCES:

STL SEA = STL Seattle

METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: SCS Engineers

Job Number: 580-3316-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-3316-1	DWMW-1	Water	08/14/2006 0000	08/16/2006 1340
580-3316-2	DWMW-2	Water	08/14/2006 0000	08/16/2006 1340
580-3316-3	DWMW-3	Water	08/14/2006 0000	08/16/2006 1340

Client: SCS Engineers

Job Number: 580-3316-1

Client Sample ID: DWMW-1

Lab Sample ID: 580-3316-1
Client Matrix: Water

Date Sampled: 08/14/2006 0000
Date Received: 08/16/2006 1340

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 08/23/2006 1928
Date Prepared: 08/23/2006 1928

Analysis Batch: 580-10157

Instrument ID: SEA036
Lab File ID: HP12388.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.18	1.0
1,1-Dichloroethene	ND		0.098	1.0
trans-1,2-Dichloroethene	ND		0.074	1.0
cis-1,2-Dichloroethene	ND		0.079	1.0
Trichloroethene	ND		0.074	1.0
Tetrachloroethene	ND		0.088	1.0

Surrogate	%Rec	Acceptance Limits
Fluorobenzene (Surr)	108	80 - 120
Toluene-d8 (Surr)	97	80 - 120
Ethylbenzene-d10	103	80 - 120
4-Bromofluorobenzene (Surr)	85	80 - 120
Trifluorotoluene (Surr)	97	80 - 120

Client: SCS Engineers | Job Number: 580-3316-1

Client Sample ID: DWMW-2

Lab Sample ID:	580-3316-2	Date Sampled:	08/14/2006 0000
Client Matrix:	Water	Date Received:	08/16/2006 1340

8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-10157	Instrument ID:	SEA036
Preparation:	5030B		Lab File ID:	HP12389.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	08/23/2006 1954		Final Weight/Volume:	5 mL
Date Prepared:	08/23/2006 1954			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.18	1.0
1,1-Dichloroethene	ND		0.098	1.0
trans-1,2-Dichloroethene	ND		0.074	1.0
cis-1,2-Dichloroethene	ND		0.079	1.0
Trichloroethene	ND		0.074	1.0
Tetrachloroethene	ND		0.088	1.0

Surrogate	%Rec	Acceptance Limits
Fluorobenzene (Surr)	108	80 - 120
Toluene-d8 (Surr)	100	80 - 120
Ethylbenzene-d10	104	80 - 120
4-Bromofluorobenzene (Surr)	86	80 - 120
Trifluorotoluene (Surr)	96	80 - 120

Analytical Data

Client: SCS Engineers

Job Number: 580-3316-1

Client Sample ID: **DWMW-3**

Lab Sample ID:	580-3316-3	Date Sampled:	08/14/2006 0000
Client Matrix:	Water	Date Received:	08/16/2006 1340

8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-10157	Instrument ID:	SEA036
Preparation:	5030B		Lab File ID:	HP12390.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	08/23/2006 2020		Final Weight/Volume:	5 mL
Date Prepared:	08/23/2006 2020			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.18	1.0
1,1-Dichloroethene	ND		0.098	1.0
trans-1,2-Dichloroethene	ND		0.074	1.0
cis-1,2-Dichloroethene	ND		0.079	1.0
Trichloroethene	ND		0.074	1.0
Tetrachloroethene	ND		0.088	1.0

Surrogate	%Rec	Acceptance Limits
Fluorobenzene (Surr)	104	80 - 120
Toluene-d8 (Surr)	100	80 - 120
Ethylbenzene-d10	103	80 - 120
4-Bromofluorobenzene (Surr)	82	80 - 120
Trifluorotoluene (Surr)	95	80 - 120

Client: SCS Engineers

Job Number: 580-3316-1

Method Blank - Batch: 580-10157

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 580-10157/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 08/23/2006 1422
Date Prepared: 08/23/2006 1422

Analysis Batch: 580-10157
Prep Batch: N/A
Units: ug/L

Instrument ID: SEA036
Lab File ID: hp12377.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Vinyl chloride	ND		0.18	1.0
1,1-Dichloroethene	ND		0.098	1.0
trans-1,2-Dichloroethene	ND		0.074	1.0
cis-1,2-Dichloroethene	ND		0.079	1.0
Trichloroethene	ND		0.074	1.0
Tetrachloroethene	ND		0.088	1.0

Surrogate	% Rec	Acceptance Limits
Fluorobenzene (Surr)	97	80 - 120
Toluene-d8 (Surr)	98	80 - 120
Ethylbenzene-d10	101	80 - 120
4-Bromofluorobenzene (Surr)	91	80 - 120
Trifluorotoluene (Surr)	98	80 - 120

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: SCS Engineers

Job Number: 580-3316-1

Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 580-10157

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID:	LCS 580-10157/2	Analysis Batch:	580-10157	Instrument ID:	SEA036
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	HP12374.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	08/23/2006 1305			Final Weight/Volume:	5 mL
Date Prepared:	08/23/2006 1305				

LCSD Lab Sample ID:	LCSD 580-10157/3	Analysis Batch:	580-10157	Instrument ID:	SEA036
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	HP12375.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	08/23/2006 1331			Final Weight/Volume:	5 mL
Date Prepared:	08/23/2006 1331				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Vinyl chloride	106	108	50 - 145	2	20		
1,1-Dichloroethene	109	106	70 - 130	2	15		
trans-1,2-Dichloroethene	108	104	60 - 140	4	20		
cis-1,2-Dichloroethene	105	104	70 - 125	1	20		
Trichloroethene	97	96	75 - 125	1	13		
Tetrachloroethene	100	99	45 - 150	1	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Fluorobenzene (Surr)	95	97	80 - 120
Toluene-d8 (Surr)	99	99	80 - 120
Ethylbenzene-d10	103	105	80 - 120
4-Bromofluorobenzene (Surr)	97	97	80 - 120
Trifluorotoluene (Surr)	101	97	80 - 120

Calculations are performed before rounding to avoid round-off errors in calculated results.

[redacted]

Chain of Custody Record

STL Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.stl-inc.com

SEVERN TRENT STL®

Client: SCS Engineers	Project Manager: Dan Venchiarutti	Date: 8/15/06	Chain of Custody Number: 25781
Address: 2405 140th Ave NE Suite 107	Telephone Number (Area Code)/Fax Number: 425-746-4600 / 746-6747	Lab Number: 33~~16~~	Page 1 of 1
City: Bellevue; State: WA; Zip Code: 98052	Site Contact: Dan V.	Lab Contact: Darla Powell	
Project Name and Location (State): PACE Offsite Wells	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Analysis (Attach list if more space is needed)

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOCs 8260	Limited Suite *	Special Instructions/ Conditions of Receipt
DW MW-1	8/14/06			X						X			X	X	* For VOC 8260, only report PCE, TCE and breakdown products DCE and vinyl chloride.
DW MW-2	"			X						X			X	X	
DW MW-3	"			X						X			X	X	

Cooler: ☒ Yes ☐ No Cooler Temp: ____

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☒ Other Normal turn

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/16/06	11 20 AM	1. Received By: [signature] STL	8/16/06	11:20
2. Relinquished By: [signature]	8/16/06	13:40	2. Received By: [signature]	8/16/06	1340
3. Relinquished By			3. Received By		

Comments: Rep. abbreviated 8260 - Only PCE + breakdown products (PCE, TCE, DCE's, vinyl chloride)

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

STL 8274 580 (12/02)

LOGIN SAMPLE RECEIPT CHECK LIST

Client: SCS Engineers

Job Number: 580-3316-1

Login Number: 3316

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

RECEIVED JUL 28 2008

July 24, 2008

Tom Cammarata, Project Manager
Sound Environmental Strategies Corporation
2400 Airport Way S., Suite 200
Seattle, WA 98134-2020

Dear Mr. Cammarata:

Included are the results from the testing of material submitted on July 10, 2008 from the SOU_0587-001-02_20080710, F&BI 807111 project. There are 10 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SOU0724R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on July 10, 2008 by Friedman & Bruya, Inc. from the Sound Environmental Strategies SOU_0587-001-02_20080710, F&BI 807111 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Sound Environmental Strategies
807111-01	MW04-20080709
807111-02	MW07-20080709
807111-03	MW08-20080709
807111-04	MW09-20080709
807111-05	MW10-20080709

The samples were sent to Aquatic Research for alkalinity, hardness, sulfate, nitrate, total organic carbon, dissolved organic carbon, and metals analyses. In addition, the samples were sent to Analytical Resources for dissolved gasses analysis and to Amtest for volatile fatty acids analysis. The reports are enclosed.

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW04-20080709	Client:	Sound Environmental Strategies
Date Received:	07/10/08	Project:	SOU_0587-001-02_20080710
Date Extracted:	07/10/08	Lab ID:	807111-01
Date Analyzed:	07/10/08	Data File:	071012.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	83	69	124
1,2-Dichloroethane-d4	88	67	131
Toluene-d8	98	73	132
4-Bromofluorobenzene	123	81	146

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	2.8
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	9.2
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW07-20080709	Client:	Sound Environmental Strategies
Date Received:	07/10/08	Project:	SOU_0587-001-02_20080710
Date Extracted:	07/10/08	Lab ID:	807111-02
Date Analyzed:	07/10/08	Data File:	071013.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	90	69	124
1,2-Dichloroethane-d4	93	67	131
Toluene-d8	95	73	132
4-Bromofluorobenzene	118	81	146

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW08-20080709	Client:	Sound Environmental Strategies
Date Received:	07/10/08	Project:	SOU_0587-001-02_20080710
Date Extracted:	07/10/08	Lab ID:	807111-03
Date Analyzed:	07/10/08	Data File:	071014.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	90	69	124
1,2-Dichloroethane-d4	93	67	131
Toluene-d8	94	73	132
4-Bromofluorobenzene	118	81	146

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	11
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	13
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW09-20080709	Client:	Sound Environmental Strategies
Date Received:	07/10/08	Project:	SOU_0587-001-02_20080710
Date Extracted:	07/10/08	Lab ID:	807111-04
Date Analyzed:	07/10/08	Data File:	071015.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	92	69	124
1,2-Dichloroethane-d4	95	67	131
Toluene-d8	97	73	132
4-Bromofluorobenzene	121	81	146

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	5.3
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	6.4
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	MW10-20080709	Client:	Sound Environmental Strategies
Date Received:	07/10/08	Project:	SOU_0587-001-02_20080710
Date Extracted:	07/10/08	Lab ID:	807111-05
Date Analyzed:	07/10/08	Data File:	071016.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	88	69	124
1,2-Dichloroethane-d4	92	67	131
Toluene-d8	95	73	132
4-Bromofluorobenzene	118	81	146

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	2.9
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	Not Applicable	Project:	SOU_0587-001-02_20080710
Date Extracted:	07/10/08	Lab ID:	081084 mb
Date Analyzed:	07/10/08	Data File:	071005.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	90	69	124
1,2-Dichloroethane-d4	94	67	131
Toluene-d8	97	73	132
4-Bromofluorobenzene	121	81	146

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 07/24/08
Date Received: 07/10/08
Project: SOU_0587-001-02_20080710, F&BI 807111

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 807117-05 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Vinyl chloride	ug/L (ppb)	<0.2	<0.2	nm
Chloroethane	ug/L (ppb)	<1	<1	nm
1,1-Dichloroethene	ug/L (ppb)	<1	<1	nm
Methylene chloride	ug/L (ppb)	<5	<5	nm
trans-1,2-Dichloroethene	ug/L (ppb)	<1	<1	nm
1,1-Dichloroethane	ug/L (ppb)	<1	<1	nm
cis-1,2-Dichloroethene	ug/L (ppb)	<1	<1	nm
1,2-Dichloroethane (EDC)	ug/L (ppb)	<1	<1	nm
1,1,1-Trichloroethane	ug/L (ppb)	<1	<1	nm
Trichloroethene	ug/L (ppb)	<1	<1	nm
Tetrachloroethene	ug/L (ppb)	<1	<1	nm

Laboratory Code: 807111-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	116	35-159
Chloroethane	ug/L (ppb)	50	<1	112	19-172
1,1-Dichloroethene	ug/L (ppb)	50	<1	103	34-149
Methylene chloride	ug/L (ppb)	50	<5	95	64-126
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	102	65-131
1,1-Dichloroethane	ug/L (ppb)	50	<1	99	59-132
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	103	64-134
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	102	67-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	106	59-142
Trichloroethene	ug/L (ppb)	50	<1	99	71-121
Tetrachloroethene	ug/L (ppb)	50	<1	111	71-130

Date of Report: 07/24/08
Date Received: 07/10/08
Project: SOU_0587-001-02_20080710, F&BI 807111

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	95	48-142
Chloroethane	ug/L (ppb)	50	93	28-161
1,1-Dichloroethene	ug/L (ppb)	50	93	61-127
Methylene chloride	ug/L (ppb)	50	85	56-136
trans-1,2-Dichloroethene	ug/L (ppb)	50	94	78-118
1,1-Dichloroethane	ug/L (ppb)	50	92	78-117
cis-1,2-Dichloroethene	ug/L (ppb)	50	93	81-118
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	94	74-128
1,1,1-Trichloroethane	ug/L (ppb)	50	98	70-135
Trichloroethene	ug/L (ppb)	50	93	80-114
Tetrachloroethene	ug/L (ppb)	50	108	83-115

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

807 111

SAMPLE CHAIN OF CUSTODY

ME 07-10-08 AI6/V3

Send Report To Tom Cammarata

Company Sound Environmental Strategies

Address 2400 Airport Way South #200

City, State, ZIP Seattle, WA 98134

Phone # 2063061400 Fax # 2063061907

SAMPLERS (signature)

PROJECT NAME/NO. 0587-001-02 CamWest/Pace Chemical

PO #

REMARKS Confirm Analyses w/Tom & report Estimated Reporting Date.

GEMS Y (N)

Page # 1 of 1

TURNAROUND TIME
- ☒ ~~Standard (2 Weeks)~~
- ☒ RUSH 1 Week Turn BC
- ~~Rush charges authorized by:~~

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☒ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Ethane, Ethene, Methane ~~NWTPH-Dx~~	Volatile Fatty Acids ~~NWTPH-Gx~~	Alkalinity, Hardness ~~BTEX by 8021B~~	VOC's by 8260	Anions, Cl, Sulfate, Nitrate, Nitrite ~~SVOC's by 8270~~	Fe, Ca, Mg, Mn ~~RCRA-8 Metals~~	Total Organic Carbon	Dissolved Organic Carbon	COD/BOD	Notes
MW04-20080709	MW04		01 A-H	7/9/08	1455	W	8	X			X		X	X			
MW07-20080709	MW07		02 A-E	"	1120	W	5				X			X			
MW08-20080709	MW08		03 A-K	"	1230	W	11	X	X		X	X	X	X			
MW09-20080709	MW09		04 A-P	"	1310	W	16	X	X	X	X	X	X	X	X	X	
MW10-20080709	MW10		05 A-K	"	1400	W	11	X	X		X	X	X	X			

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Brett T. Card	SES	7/10	0955
Received by:	Nhan Phan	FeBI	7/10/08	09:55
Relinquished by:				
Received by:				

Samples received at 2 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

March 11, 2009

Tom Cammarata, Project Manager
Sound Environmental Strategies Corporation
2400 Airport Way S., Suite 200
Seattle, WA 98134-2020

Dear Mr. Cammarata:

Included are the results from the testing of material submitted on February 26, 2009 from the SOU_0698-001-01_20090226, F&BI 902265 project. There are 26 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: David Buser
SOU0311R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 26, 2009 by Friedman & Bruya, Inc. from the Sound Environmental Strategies SOU_0698-001-01_20090226, F&BI 902265 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Sound Environmental Strategies
902265-01	HCMW07-20090224
902265-02	HCMW08-20090224
902265-03	HCMW09-20090224
902265-04	HCMW10-20090224
902265-05	SB11-20090225
902265-06	SB10-20090225
902265-07	HCMW11-20090225
902265-08	HCMW04-20090225
902265-09	HCMW13-20090225
902265-10	HCMW21-20090225

Sample HCMW21-20090225 was sent to Aquatic Research for nitrate, sulfate, phosphate, and total organic carbon analyses. Review of the enclosed report indicates that all quality assurance was acceptable.

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 200.8

Client ID:	HCMW07-20090224	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/06/09	Lab ID:	902265-01
Date Analyzed:	03/06/09	Data File:	902265-01.025
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	92	60	125

Analyte:	Concentration ug/L (ppb)
Iron (screen)	<250

Analysis For Total Metals By EPA Method 200.8

Client ID:	HCMW08-20090224	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/06/09	Lab ID:	902265-02
Date Analyzed:	03/06/09	Data File:	902265-02.027
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	84	60	125

Analyte:	Concentration ug/L (ppb)
Iron (screen)	261

Analysis For Total Metals By EPA Method 200.8

Client ID:	HCMW09-20090224	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/06/09	Lab ID:	902265-03
Date Analyzed:	03/06/09	Data File:	902265-03.031
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	90	60	125

Analyte:	Concentration ug/L (ppb)
Iron (screen)	1,060

Analysis For Total Metals By EPA Method 200.8

Client ID:	HCMW10-20090224	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/06/09	Lab ID:	902265-04
Date Analyzed:	03/06/09	Data File:	902265-04.032
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	101	60	125

Analyte:	Concentration ug/L (ppb)
Iron (screen)	9,800

Analysis For Total Metals By EPA Method 200.8

Client ID:	SB11-20090225	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/06/09	Lab ID:	902265-05
Date Analyzed:	03/06/09	Data File:	902265-05.033
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	95	60	125

Analyte:	Concentration ug/L (ppb)
Iron (screen)	342

Analysis For Total Metals By EPA Method 200.8

Client ID:	SB10-20090225	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/06/09	Lab ID:	902265-06
Date Analyzed:	03/06/09	Data File:	902265-06.034
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	93	60	125

Analyte:	Concentration ug/L (ppb)
Iron (screen)	1,960

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	HCMW11-20090225	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/06/09	Lab ID:	902265-07
Date Analyzed:	03/06/09	Data File:	902265-07.035
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	115	60	125

Analyte:	Concentration ug/L (ppb)
Iron (screen)	18,900

Analysis For Total Metals By EPA Method 200.8

Client ID:	HCMW04-20090225	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/06/09	Lab ID:	902265-08
Date Analyzed:	03/06/09	Data File:	902265-08.036
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	105	60	125

Analyte:	Concentration ug/L (ppb)
Iron (screen)	10,800

Analysis For Total Metals By EPA Method 200.8

Client ID:	HCMW13-20090225	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/06/09	Lab ID:	902265-09 x20
Date Analyzed:	03/10/09	Data File:	902265-09 x20.017
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	91	60	125

Analyte:	Concentration ug/L (ppb)
Iron (screen)	45,900

Analysis For Total Metals By EPA Method 200.8

Client ID:	HCMW21-20090225	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/06/09	Lab ID:	902265-10
Date Analyzed:	03/10/09	Data File:	902265-10.016
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	93	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	1,220
Iron (screen)	8,250

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	Not Applicable	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/06/09	Lab ID:	I9-095 mb
Date Analyzed:	03/06/09	Data File:	I9-095 mb.023
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	90	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	<1
Iron (screen)	<250

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HCMW07-20090224	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/02/09	Lab ID:	902265-01
Date Analyzed:	03/02/09	Data File:	030207.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	58	118
Toluene-d8	103	59	117
4-Bromofluorobenzene	118	45	141

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HCMW08-20090224	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/02/09	Lab ID:	902265-02
Date Analyzed:	03/02/09	Data File:	030208.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	58	118
Toluene-d8	101	59	117
4-Bromofluorobenzene	116	45	141

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	20
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	10
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HCMW09-20090224	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/02/09	Lab ID:	902265-03
Date Analyzed:	03/02/09	Data File:	030210.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	58	118
Toluene-d8	105	59	117
4-Bromofluorobenzene	122	45	141

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	3.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	4.7
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HCMW10-20090224	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/02/09	Lab ID:	902265-04
Date Analyzed:	03/02/09	Data File:	030211.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	58	118
Toluene-d8	105	59	117
4-Bromofluorobenzene	121	45	141

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	1.7
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SB11-20090225	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/02/09	Lab ID:	902265-05
Date Analyzed:	03/02/09	Data File:	030212.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	58	118
Toluene-d8	103	59	117
4-Bromofluorobenzene	120	45	141

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	6.4
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	1.1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SB10-20090225	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/02/09	Lab ID:	902265-06
Date Analyzed:	03/02/09	Data File:	030213.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	58	118
Toluene-d8	105	59	117
4-Bromofluorobenzene	123	45	141

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	9.3
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	6.3
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HCMW11-20090225	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/02/09	Lab ID:	902265-07
Date Analyzed:	03/02/09	Data File:	030214.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	58	118
Toluene-d8	106	59	117
4-Bromofluorobenzene	123	45	141

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	30
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	3.0
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HCMW04-20090225	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/02/09	Lab ID:	902265-08
Date Analyzed:	03/02/09	Data File:	030215.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	58	118
Toluene-d8	104	59	117
4-Bromofluorobenzene	121	45	141

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	6.9
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	20
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HCMW13-20090225	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/02/09	Lab ID:	902265-09
Date Analyzed:	03/02/09	Data File:	030216.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	58	118
Toluene-d8	106	59	117
4-Bromofluorobenzene	122	45	141

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	3.3
Chloroethane	4.4
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	1.4
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	HCMW21-20090225	Client:	Sound Environmental Strategies
Date Received:	02/26/09	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/02/09	Lab ID:	902265-10
Date Analyzed:	03/02/09	Data File:	030217.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	58	118
Toluene-d8	102	59	117
4-Bromofluorobenzene	117	45	141

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	2.3
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Sound Environmental Strategies
Date Received:	Not Applicable	Project:	SOU_0698-001-01_20090226
Date Extracted:	03/02/09	Lab ID:	090269 mb
Date Analyzed:	03/02/09	Data File:	030206.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	58	118
Toluene-d8	104	59	117
4-Bromofluorobenzene	119	45	141

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 03/11/09
Date Received: 02/26/09
Project: SOU_0698-001-01_20090226, F&BI 902265

QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 902265-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Manganese	ug/L (ppb)	101	98.2	3	0-20

Laboratory Code: 902265-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Manganese	ug/L (ppb)	20	101	116 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Manganese	ug/L (ppb)	20	110	70-130

Date of Report: 03/11/09
Date Received: 02/26/09
Project: SOU_0698-001-01_20090226, F&BI 902265

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

Laboratory Code: 902265-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Vinyl chloride	ug/L (ppb)	20	21	5
Chloroethane	ug/L (ppb)	<1	<1	nm
1,1-Dichloroethene	ug/L (ppb)	<1	<1	nm
Methylene chloride	ug/L (ppb)	<5	<5	nm
trans-1,2-Dichloroethene	ug/L (ppb)	<1	<1	nm
1,1-Dichloroethane	ug/L (ppb)	<1	<1	nm
cis-1,2-Dichloroethene	ug/L (ppb)	10	10	0
1,2-Dichloroethane (EDC)	ug/L (ppb)	<1	<1	nm
1,1,1-Trichloroethane	ug/L (ppb)	<1	<1	nm
Trichloroethene	ug/L (ppb)	<1	<1	nm
Tetrachloroethene	ug/L (ppb)	<1	<1	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	104	101	33-158	3
Chloroethane	ug/L (ppb)	50	108	108	35-157	0
1,1-Dichloroethene	ug/L (ppb)	50	89	86	55-139	3
Methylene chloride	ug/L (ppb)	50	87	84	52-129	4
trans-1,2-Dichloroethene	ug/L (ppb)	50	94	91	73-120	3
1,1-Dichloroethane	ug/L (ppb)	50	96	94	75-118	2
cis-1,2-Dichloroethene	ug/L (ppb)	50	100	98	78-119	2
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	97	96	74-129	1
1,1,1-Trichloroethane	ug/L (ppb)	50	106	102	68-130	4
Trichloroethene	ug/L (ppb)	50	98	95	76-118	3
Tetrachloroethene	ug/L (ppb)	50	107	103	79-119	4

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates. .

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

AQUATIC RESEARCH INCORPORATED
LABORATORY & CONSULTING SERVICES
3927 AURORA AVENUE NORTH, SEATTLE, WA 98103
PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	**FBI003-87**		**PAGE 1**
REPORT DATE:	**03/10/09**		
DATE SAMPLED:	**02/25/09**	**DATE RECEIVED:**	**02/27/09**

FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM FRIEDMAN & BRUYA, INC. / PROJECT NO. 902265

CASE NARRATIVE

One water sample was received by the laboratory in good condition. Analysis was performed according to the chain of custody received with the sample. No difficulties were encountered in the preparation or analysis of this sample. Sample data follows while QA/QC data is contained on the following page.

SAMPLE DATA

SAMPLE ID	SULFATE (mg/l)	NITRATE (mg/l)	NITRITE (mg/l)	SRP (mg/l)	TOC (mg/l)
HCMW21-20090225	9.30	0.038	0.003	0.054	9.74

AQUATIC RESEARCH INCORPORATED

LABORATORY & CONSULTING SERVICES

3927 AURORA AVENUE NORTH, SEATTLE, WA 98103

PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	**FBI003-87**		**PAGE 2**
REPORT DATE:	**03/10/09**		
DATE SAMPLED:	**02/25/09**	**DATE RECEIVED:**	**02/27/09**

FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM FRIEDMAN & BRUYA, INC. / PROJECT NO. 902265

QA/QC DATA

QC PARAMETER	SULFATE (mg/l)	NITRATE (mg/l)	NITRITE (mg/l)	SRP (mg/l)	TOC (mg/l)
METHOD	SM184500SO4E	SM184500N03F	EPA354.1	EPA 365.1	SM18 5310B
DATE ANALYZED	03/03/09	02/27/09	02/27/09	02/27/09	03/09/09
DETECTION LIMIT	1.00	0.010	0.002	0.001	0.250
DUPLICATE					
SAMPLE ID	HCMW21-20090225	BATCH	HCMW21-20090225	HCMW21-20090225	HCMW21-20090225
ORIGINAL	9.30	0.021	0.003	0.054	9.74
DUPLICATE	9.39	0.019	0.003	0.056	9.75
RPD	1.01%	13.42%	0.00%	2.77%	0.06%
SPIKE SAMPLE					
SAMPLE ID	HCMW21-20090225	BATCH	HCMW21-20090225	HCMW21-20090225	HCMW21-20090225
ORIGINAL	9.30	0.021	0.003	0.054	9.74
SPIKED SAMPLE	19.1	0.222	0.043	0.074	14.6
SPIKE ADDED	10.0	0.200	0.040	0.020	4.50
% RECOVERY	98.33%	100.41%	100.00%	97.61%	106.89%
QC CHECK					
FOUND	9.17	0.400	0.040	0.033	4.20
TRUE	10.0	0.408	0.040	0.033	4.00
% RECOVERY	91.66%	97.93%	100.00%	99.92%	104.88%
BLANK	<1.00	<0.010	<0.002	<0.001	<0.250

RPD = RELATIVE PERCENT DIFFERENCE.
NA = NOT APPLICABLE OR NOT AVAILABLE.
NC = NOT CALCULABLE DUE TO ONE OR MORE VALUES BEING BELOW THE DETECTION LIMIT.
OR = RECOVERY NOT CALCULABLE DUE TO SPIKE SAMPLE OUT OF RANGE OR SPIKE TO LOW RELATIVE TOO SAMPLE CONCENTRATION.

SUBMITTED BY:

Steven Lazoff
Laboratory Director

402265

SAMPLE CHAIN OF CUSTODY

ME 02/26/09 V4/ BT4

Page # 1 of 1

Send Report To: TOM Cammarata, ~~John Funderburk~~, ~~Tony Montoya~~ (DMB) David Buser

Company: SES

Address: 2400 AIRPORT WAY S

City, State, ZIP: SEATTLE WA 98134

Phone #: 2063061900 Fax #: 2063061907

SAMPLERS (signature):

PROJECT NAME/NO.: 0698.001.01 PACE Chemical - ULTRA

PO #: 0698.001.01

REMARKS: Please call Tom Cammarata or David Buser w/ any questions

TURNAROUND TIME
- ☑ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☑ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

						ANALYSES REQUESTED													
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	CVOC	Total Iron EPA 200.7	Sulfate EPA	Nitrate	Phosphate	Manganese	Total Organic Carbon	Notes
HCMW07-20090224	01 A-D	02/24/09	1331	Water	4							✓	✓						
HCMW08-20090224	02 A-D	02/24/09	1443		4							✓	✓						
HCMW09-20090224	03 A-D	02/24/09	1545		4							✓	✓						
HCMW10-20090224	04 A-D	02/24/09	1635		4							✓	✓						
SB11-20090225	05 A-D	02/25/09	1048		4							✓	✓						
SB10-20090225	06 A-D	02/25/09	1139		4							✓	✓						
HCMW11-20090225	07 A-D	02/25/09	1241		4							✓	✓						
HCMW04-20090225	08 A-D	02/25/09	1530		4							✓	✓						
HCMW13-20090225	09 A-D	02/25/09	1615		4							✓	✓						
HCMW21-20090225	10 A-G	02/25/09	1722	↓	7							✓	✓	✓	✓	✓	✓	~~✓~~	Total Organic Carbon

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	David M. Buser	SES	2/26/09	14:50
Received by:	Michael Erdahl	FEBinc		
Relinquished by:				
Received by:		Samples received at 4 °C		

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

FBI003.87

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER	
PROJECT NAME/NO. 902265	PO # H-1787
REMARKS Please Email Results merdahl@friedmanandbruya.com	

Page # 1 of 1

TURNAROUND TIME
☐ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Oil and Grease	EPH	VPH	Nitrate	Sulfate	Alkalinity	Phosphate ORTHO	Total O. Carbon			Notes
HCMW21-20090225		2/25/09	1722	W	3				✓	✓		✓	✓			

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Michael Erdahl	Friedman & Bruya	2/27/09	10 AM
Received by:	S. NELSON	ARI	2/27/09	10:40
Relinquished by:				
Received by:				

OnSite Environmental Inc.

Analytical Testing and Mobile Laboratory Services

RECEIVED JUN 0 5 2009

June 2, 2009

Tom Cammarata
Sound Environmental Strategies
2400 Airport Way South, Suite 200
Seattle, WA 98134-2020

Re: Analytical Data for Project 0698-001-01
Laboratory Reference No. 0905-134

Dear Tom:

Enclosed are the analytical results and associated quality control data for samples submitted on May 22, 2009.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

Case Narrative

Samples were collected on May 21, 2009, and received by the laboratory on May 22, 2009. They were maintained at the laboratory at a temperature of 2°C to 6°C except as noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Sulfate EPA 375.4 Analysis

Sample HCMW11-20090521 (05-134-8) PQL was increased due to sample interference.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	5-27-09
Date Analyzed:	5-27-09
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-134-01
Client ID:	**HCMW10-20090521**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	0.51		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	0.29		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-134-01
Client ID: **HCMW10-20090521**

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	82	71-126
Toluene-d8	89	76-116
4-Bromofluorobenzene	86	70-123

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 5-27-09
Date Analyzed: 5-27-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-134-02
Client ID: **HCMW09-20090521**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	5.7		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	0.33		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-dichloroethene	0.30		0.20
1,1-Dichloroethane	0.64		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	4.5		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	0.53		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-134-02
Client ID: **HCMW09-20090521**

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	88	71-126
Toluene-d8	82	76-116
4-Bromofluorobenzene	86	70-123

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	5-27-09
Date Analyzed:	5-27-09
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-134-03
Client ID:	**HCMW08-20090521**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	13		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-dichloroethene	0.56		0.20
1,1-Dichloroethane	0.54		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	8.6		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	0.72		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-134-03
Client ID: **HCMW08-20090521**

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	84	71-126
Toluene-d8	92	76-116
4-Bromofluorobenzene	91	70-123

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	5-27-09
Date Analyzed:	5-27-09
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-134-04
Client ID:	**HCMW07-20090521**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	0.60		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-134-04
Client ID: **HCMW07-20090521**

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	82	71-126
Toluene-d8	86	76-116
4-Bromofluorobenzene	82	70-123

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	5-27-09
Date Analyzed:	5-27-09
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-134-05
Client ID:	**SB10-20090521**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	9.8		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-dichloroethene	0.48		0.20
1,1-Dichloroethane	0.58		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	4.4		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	0.68		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

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Lab ID: 05-134-05
Client ID: SB10-20090521

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	83	71-126
Toluene-d8	90	76-116
4-Bromofluorobenzene	92	70-123

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

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Date Extracted:	5-27-09
Date Analyzed:	5-27-09
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-134-06
Client ID:	**SB11-20090521**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	16		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-dichloroethene	0.56		0.20
1,1-Dichloroethane	0.51		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	0.61		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	0.69		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
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Project: 0698-001-01

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Lab ID: 05-134-06
Client ID: SB11-20090521

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	81	71-126
Toluene-d8	85	76-116
4-Bromofluorobenzene	90	70-123

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

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Date Extracted:	5-27-09
Date Analyzed:	5-27-09
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-134-07
Client ID:	**HCMW21-20090521**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	4.1		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	1.2		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

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Lab ID: 05-134-07
Client ID: **HCMW21-20090521**

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	0.28		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	94	71-126
Toluene-d8	94	76-116
4-Bromofluorobenzene	90	70-123

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

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Date Extracted:	5-27-09
Date Analyzed:	5-27-09
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-134-08
Client ID:	**HCMW11-20090521**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	18		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-dichloroethene	0.82		0.20
1,1-Dichloroethane	0.63		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	1.8		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	1.1		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

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Lab ID: 05-134-08
Client ID: HCMW11-20090521

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	0.20		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	87	71-126
Toluene-d8	86	76-116
4-Bromofluorobenzene	85	70-123

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

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Date Extracted: 5-27-09
Date Analyzed: 5-27-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-134-09
Client ID: HCMW04-20090521

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	1.8		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	0.23		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-dichloroethene	0.46		0.20
1,1-Dichloroethane	0.44		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	11		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	0.26		0.20
1,2-Dichloropropane	0.38		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

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Lab ID: 05-134-09
Client ID: HCMW04-20090521

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	92	71-126
Toluene-d8	89	76-116
4-Bromofluorobenzene	91	70-123

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

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Date Extracted:	5-27-09
Date Analyzed:	5-27-09
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-134-10
Client ID:	**HCMW13-20090521**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	1.5		0.20
Bromomethane	ND		0.20
Chloroethane	1.6		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	0.27		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-dichloroethene	ND		0.20
1,1-Dichloroethane	0.37		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	0.89		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
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Lab ID: 05-134-10
Client ID: HCMW13-20090521

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	89	71-126
Toluene-d8	90	76-116
4-Bromofluorobenzene	94	70-123

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

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Date Extracted: 5-27-09
Date Analyzed: 5-27-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-134-11
Client ID: SB14-20090521

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	1.8		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	0.42		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

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Lab ID: 05-134-11
Client ID: **SB14-20090521**

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	82	71-126
Toluene-d8	86	76-116
4-Bromofluorobenzene	86	70-123

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
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HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
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Date Extracted: 5-27-09
Date Analyzed: 5-27-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0527W2

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

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METHOD BLANK QUALITY CONTROL
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Lab ID: MB0527W2

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	92	71-126
Toluene-d8	90	76-116
4-Bromofluorobenzene	85	70-123

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Date Extracted: 5-27-09
Date Analyzed: 5-27-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0527W2

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	10.0	11.4	114	10.9	109	70-130	
Benzene	10.0	10.1	101	9.94	99	70-130	
Trichloroethene	10.0	11.1	111	10.0	100	70-123	
Toluene	10.0	10.4	104	9.59	96	77-120	
Chlorobenzene	10.0	10.6	106	10.1	101	73-115	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	4	21	
Benzene	2	18	
Trichloroethene	10	18	
Toluene	8	17	
Chlorobenzene	5	18	

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Lab Traveler: 0905-134
Project: 0698-001-01

TOTAL ORGANIC CARBON
SM5310B

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HCMW11-20090521**					
Laboratory ID:	05-134-08					
Total Organic Carbon	**16**	1.0	SM 5310 B	5-28-09	5-28-09	

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Lab Traveler: 0905-134
Project: 0698-001-01

TOTAL ORGANIC CARBON
SM5310B
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0528W1					
Total Organic Carbon	**ND**	1.0	SM 5310 B	5-28-09	5-28-09	

Analyte	Result		PQL	RPD	Limit	Flags
DUPLICATE						
Laboratory ID:	05-127-01					
	Sample	Duplicate				
Total Organic Carbon	**2.33**	**2.36**	1.0	1	20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	Flags
SPIKE BLANK						
Laboratory ID:	SB0528W1					
Total Organic Carbon	**5.67**	5.0	ND	**113**	80-120	
MATRIX SPIKE						
Laboratory ID:	05-127-01					
Total Organic Carbon	**8.10**	5.0	2.33	**115**	75-125	

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

SULFATE
EPA 375.4

Matrix: Water
Units: mg/L

Client ID	Lab ID	**Result**	PQL
HCMW11-20090521	05-134-08	**ND**	10

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

SULFATE
EPA 375.4
QUALITY CONTROL

Date Analyzed: 5-28-09

Matrix: Water
Units: mg/L

METHOD BLANK QUALITY CONTROL

Lab ID	Result	PQL
MB0528W1	ND	5.0

SPIKE BLANK QUALITY CONTROL

Lab ID	Result	Spiked Amount	Percent Recovery	Control Limit	Flag
SB0528W1	9.86	10.0	99	93-115	

MATRIX SPIKE QUALITY CONTROL

Lab ID	Result	Spiked Amount	Percent Recovery	Control Limit	Flag
05-127-01	45.3				
Matrix Spike	94.5	50.0	98	87-114	

DUPLICATE QUALITY CONTROL

Lab ID	Sample Result	Duplicate Result	RPD	Control Limit	Flag
05-127-01	45.3	43.4	4	11	

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

TOTAL PHOSPHOROUS
EPA 365.1

Date Analyzed: 5-27-09

Matrix: Water
Units: mg /L

Client ID	Lab ID	Result	PQL
HCMW11-20090521	05-134-08	**0.16**	0.010

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

TOTAL PHOSPHOROUS
EPA 365.1
QUALITY CONTROL

Date Analyzed: 5-27-09

Matrix: Water
Units: mg /L

METHOD BLANK QUALITY CONTROL

Lab ID	Result	PQL
MB0526F1	ND	0.010

SPIKE BLANK QUALITY CONTROL

Lab ID	Result	Spiked Amount	Percent Recovery	Control Limit	Flag
SB0526F1	0.237	0.250	95	82-127	

MATRIX SPIKE QUALITY CONTROL

Lab ID	Result	Spiked Amount	Percent Recovery	Control Limit	Flag
05-094-02	0.0323				
Matrix Spike	0.303	0.250	108	76-134	

DUPLICATE QUALITY CONTROL

Lab ID	Result	Duplicate Result	RPD	Control Limit	Flag
05-094-02	0.0323	0.0308	5	8	

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

NITRATE (as Nitrogen)
EPA 353.2

Date Analyzed: 5-26-09

Matrix: Water
Units: mg /L

Client ID	Lab ID	**Result**	PQL
HCMW11-20090521	05-134-08	**0.23**	0.050

Date of Report: June 2, 2009
Samples Submitted: May 22, 2009
Laboratory Reference: 0905-134
Project: 0698-001-01

NITRATE (as Nitrogen)
EPA 353.2
QUALITY CONTROL

Date Analyzed: 5-26-09

Matrix: Water
Units: mg /L

METHOD BLANK QUALITY CONTROL

Lab ID	Result	PQL
MB0526W1	ND	0.050

SPIKE BLANK QUALITY CONTROL

Lab ID	Result	Spiked Amount	Percent Recovery	Control Limit	Flag
SB0526W1	1.83	2.00	92	82-119	

MATRIX SPIKE QUALITY CONTROL

Lab ID	Result	Spiked Amount	Percent Recovery	Control Limit	Flag
05-134-08	0.233				
Matrix Spike	2.21	2.00	99	81-121	

DUPLICATE QUALITY CONTROL

Lab ID	Result	Duplicate Result	RPD	Control Limit	Flag
05-134-08	0.233	0.231	1	12	

OnSite
Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

AQUATIC RESEARCH INCORPORATED

LABORATORY & CONSULTING SERVICES

3927 AURORA AVENUE NORTH, SEATTLE, WA 98103

PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	**ONS001-94**		**PAGE 1**
REPORT DATE:	**05/30/09**		
DATE SAMPLED:	**05/21/09**	**DATE RECEIVED:**	**05/27/09**

FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM ONSITE ENVIRONMENTAL

CASE NARRATIVE

One water sample was delivered to the laboratory in good condition. The sample was analyzed according to the chain of custody. No difficulties were encountered in the preparation or analysis of this sample. Sample data follows while QA/QC data is contained on subsequent pages.

SAMPLE DATA

SAMPLE ID	TKN (mg/l)
HCMW11-20090521	1.52

AQUATIC RESEARCH INCORPORATED

LABORATORY & CONSULTING SERVICES
3927 AURORA AVENUE NORTH, SEATTLE, WA 98103
PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	**ONS001-94**		**PAGE 2**
REPORT DATE:	**05/30/09**		
DATE SAMPLED:	**05/21/09**	**DATE RECEIVED:**	**05/27/09**

FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM ONSITE ENVIRONMENTAL

QA/QC DATA

QC PARAMETER	TKN (mg/l)
METHOD	EPA 351.1
DATE ANALYZED	05/29/09
DETECTION LIMIT	0.200
DUPLICATE	
SAMPLE ID	BATCH
ORIGINAL	1.92
DUPLICATE	1.86
RPD	3.17%
SPIKE SAMPLE	
SAMPLE ID	BATCH
ORIGINAL	1.92
SPIKED SAMPLE	4.01
SPIKE ADDED	2.00
% RECOVERY	104.10%
QC CHECK	
FOUND	5.42
TRUE	5.79
% RECOVERY	93.69%
BLANK	<0.200

RPD = RELATIVE PERCENT DIFFERENCE.
NA = NOT APPLICABLE OR NOT AVAILABLE.
NC = NOT CALCULABLE DUE TO ONE OR MORE VALUES BEING BELOW THE DETECTION LIMIT.
OR = RECOVERY NOT CALCULABLE DUE TO SPIKE SAMPLE OUT OF RANGE OR SPIKE TOO LOW RELATIVE TO SAMPLE CONCENTRATION.

SUBMITTED BY:

Steven Lazoff
Laboratory Director

ONS001-94

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

Subcontract Laboratory: ~~Analytical Resources~~ AQUATIC RESEARCH, Inc.

Attention: ~~Mark Harris~~

~~4611 S 134th Pl, Ste. 100 Tukwila, WA 98168~~

Phone Number: (206) ~~695-6200~~ 632-2715

Date/Time:

Turnaround Request:

1 Day 2 Day 3 Day

Standard

Other:

Laboratory Reference #: 05-134

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: 0698-001-01

Project Name:

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analysis
	HCMW11-20090521	5/21/09	1720	W	1	TKN EPA 351.1

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished by:	[signature]	OSE	5/26/09	1530	PLEASE RETURN COOLER!
Received by:		UPS			
Relinquished by:					
Received by:	[signature]	AKR	5/27/09	1000	
Relinquished by:					
Received by:					

OnSite Environmental Inc.

Phone: (425) 883-3881 • Fax: (425) 885-4603

Chain of Custody

Company:	
Project Number:	
Project Name:	
Project Manager:	
Sampled by:	

Turnaround Request (in working days)

(Check One)

- [ ] Same Day
- [ ] 1 Day
- [ ] 2 Day
- [ ] 3 Day
- [x] Standard (7 working days) (TPH analysis 5 working days)
- [ ] ______ (other)

Laboratory Number: 05-134

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	CVOC						% Moisture
11	SB12-W-052021	[illegible]	1430	W	3														X						

	Signature	Company	Date	Time
Relinquished by	[illegible]	SES	5-22-09	0815
Received by	[illegible]	OSE	5-22-09	815
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Comments/Special Instructions:

Chromatograms with final report ☐

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OnSite Environmental Inc.

Phone: (425) 883-3881 • Fax: (425) 885-4603

Chain of Custody

Page 1 of [illegible]

Company: [illegible]

Project Number: [illegible]

Project Name: [illegible]

Project Manager: [illegible]

Sampled by: [illegible]

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Day
- ☐ 3 Day
- ☐ Standard (7 working days) (TPH analysis 5 working days)
- ☐ ______ (other)

Laboratory Number: 05-134

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	CVOC	* [illegible]					% Moisture
1	[illegible]		[illegible]	[illegible]	3														X						
2	[illegible]		[illegible]																						
3	[illegible]		[illegible]35																						
4	[illegible]		[illegible]5																						
5	[illegible]		[illegible]50																						
6	[illegible]		[illegible]																						
7	[illegible]		[illegible]																						
8	[illegible]		[illegible]		8															X					
9	[illegible]		[illegible]00		3																				
10	[illegible]		1900		3														X						

	Signature	Company	Date	Time
Relinquished by	[illegible]	[illegible]	[illegible]	[illegible]5
Received by	[illegible]	[illegible]	[illegible]	[illegible]
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Comments/Special Instructions:

* [illegible]

Chromatograms with final report ☐

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OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 4, 2010

Tom Cammarata
Sound Environmental Strategies
2811 Fairview Avenue E., Suite 2000
Seattle, WA 98102

Re: Analytical Data for Project 0698-001-02
Laboratory Reference No. 1004-179

Dear Tom:

Enclosed are the analytical results and associated quality control data for samples submitted on April 26, 2010.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

Case Narrative

Samples were collected on April 26, 2010 and received by the laboratory on April 26, 2010. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**20100426-SB08W**					
Laboratory ID:	04-179-01					
Gasoline	**ND**	100	NWTPH-Gx	4-28-10	4-28-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*74-121*				
Client ID:	**20100426-SB01W**					
Laboratory ID:	04-179-02					
Gasoline	**ND**	100	NWTPH-Gx	4-28-10	4-28-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*74-121*				
Client ID:	**20100426-SB02W**					
Laboratory ID:	04-179-03					
Gasoline	**ND**	100	NWTPH-Gx	4-28-10	4-28-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*74-121*				
Client ID:	**20100426-SB06W**					
Laboratory ID:	04-179-04					
Gasoline	**ND**	100	NWTPH-Gx	4-28-10	4-28-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*101*	*74-121*				
Client ID:	**20100426-SB03W**					
Laboratory ID:	04-179-05					
Gasoline	**ND**	100	NWTPH-Gx	4-28-10	4-28-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*74-121*				

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0428W1					
Gasoline	**ND**	100	NWTPH-Gx	4-28-10	4-28-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*74-121*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-168-06										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*99*	*99*	*74-121*			

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Date Prepared	Date Analyzed	Flags
Lab ID:	04-179-01				
Client ID:	**20100426-SB08W**				
Diesel Range	**ND**	0.16	4-30-10	4-30-10	Y
Lube Oil	**0.97**	0.26	4-30-10	4-30-10	Y
Surrogate: o-terphenyl	83%	50-150			
Lab ID:	04-179-02				
Client ID:	**20100426-SB01W**				
Diesel Range	**ND**	0.27	4-30-10	4-30-10	Y
Lube Oil Range	**ND**	0.43	4-30-10	4-30-10	Y
Surrogate: o-terphenyl	69%	50-150			
Lab ID:	04-179-03				
Client ID:	**20100426-SB02W**				
Diesel Range	**ND**	0.16	4-30-10	4-30-10	Y
Lube Oil	**0.31**	0.26	4-30-10	4-30-10	Y
Surrogate: o-terphenyl	77%	50-150			
Lab ID:	04-179-04				
Client ID:	**20100426-SB06W**				
Diesel Range	**ND**	0.26	4-30-10	4-30-10	Y
Lube Oil Range	**ND**	0.42	4-30-10	4-30-10	Y
Surrogate: o-terphenyl	78%	50-150			
Lab ID:	04-179-05				
Client ID:	**20100426-SB03W**				
Diesel Range	**ND**	0.26	4-30-10	4-30-10	Y
Lube Oil Range	**ND**	0.41	4-30-10	4-30-10	Y
Surrogate: o-terphenyl	88%	50-150			

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted:	4-30-10
Date Analyzed:	4-30-10
Matrix:	Water
Units:	mg/L (ppm)

Lab ID:	MB0430W1
Diesel Range:	**ND**
PQL:	0.050
Identification:	---
Lube Oil Range:	**ND**
PQL:	0.080
Identification:	---
Surrogate Recovery	
o-Terphenyl:	69%
Flags:	Y

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted: 4-30-10
Date Analyzed: 4-30-10

Matrix: Water
Units: mg/L (ppm)

Lab ID:	04-212-01	04-212-01 DUP
Diesel Range:	**ND**	**ND**
PQL:	0.26	0.26
RPD:	N/A	
Surrogate Recovery		
o-Terphenyl:	73%	86%
Flags:	Y	Y

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
Page 1 of 2

Date Extracted: 4-28-10
Date Analyzed: 4-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: 04-179-01
Client ID: 20100426-SB08W

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
Page 2 of 2

Lab ID: 04-179-01
Client ID: 20100426-SB08W

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	0.22		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	86	71-126
Toluene-d8	90	76-116
4-Bromofluorobenzene	90	70-123

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
Page 1 of 2

Date Extracted: 4-28-10
Date Analyzed: 4-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: 04-179-02
Client ID: **20100426-SB01W**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
Page 2 of 2

Lab ID: 04-179-02
Client ID: 20100426-SB01W

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	86	71-126
Toluene-d8	92	76-116
4-Bromofluorobenzene	92	70-123

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
Page 1 of 2

Date Extracted:	4-28-10
Date Analyzed:	4-28-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	04-179-03
Client ID:	**20100426-SB02W**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
Page 2 of 2

Lab ID: 04-179-03
Client ID: 20100426-SB02W

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	88	71-126
Toluene-d8	91	76-116
4-Bromofluorobenzene	89	70-123

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
Page 1 of 2

Date Extracted:	4-28-10
Date Analyzed:	4-28-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	04-179-04
Client ID:	**20100426-SB06W**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
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Lab ID: 04-179-04
Client ID: 20100426-SB06W

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	88	71-126
Toluene-d8	92	76-116
4-Bromofluorobenzene	87	70-123

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
Page 1 of 2

Date Extracted: 4-28-10
Date Analyzed: 4-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: 04-179-05
Client ID: 20100426-SB03W

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	0.25		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
Page 2 of 2

Lab ID: 04-179-05
Client ID: 20100426-SB03W

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	90	71-126
Toluene-d8	91	76-116
4-Bromofluorobenzene	89	70-123

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Date Extracted: 4-28-10
Date Analyzed: 4-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0428W1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Lab ID: MB0428W1

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	88	71-126
Toluene-d8	92	76-116
4-Bromofluorobenzene	88	70-123

Date of Report: May 4, 2010
Samples Submitted: April 26, 2010
Laboratory Reference: 1004-179
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Date Extracted: 4-28-10
Date Analyzed: 4-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0428W1

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	10.0	10.3	103	10.3	103	70-130	
Benzene	10.0	9.94	99	10.3	103	73-130	
Trichloroethene	10.0	10.2	102	9.99	100	79-122	
Toluene	10.0	10.2	102	10.1	101	80-121	
Chlorobenzene	10.0	10.1	101	10.1	101	83-116	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	0	15	
Benzene	3	14	
Trichloroethene	2	14	
Toluene	1	13	
Chlorobenzene	0	13	

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in the diesel range are impacting the lube oil range result.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 04-179

Company: SES

Project Number: 0698-001-02

Project Name: Former Pacc National Site

Project Manager: Tom Cammarata

Sampled by: Chuck Cacek

Turnaround Request (in working days)

(Check One)

- [ ] Same Day
- [ ] 1 Day
- [ ] 2 Day
- [ ] 3 Day
- [x] Standard (7 working days) (TPH analysis 5 working days)
- [ ] ~~Hold for testing requests~~ DB (other)

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/~~BTEX~~ DB	NWTPH-Dx (Acid/SG)	Volatiles by 8260B	Halogenated Volatiles by 8260B CHLORINATED ONLY	Semivolatiles by 8270D / SIM	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	~~Hold~~ DB						% Moisture
1	20100426-SB08W	4/26/10	1132	Water	7		O	O		O															
2	20100426-SB01W	↓	1224	↓	↓		O	O		O															
3	20100426-SB02W	↓	1317	↓	5		O	O		O															
4	20100426-SB06W	↓	1465	↓	7		O	O		O															
5	20100426-SB03W	↓	1550	↓	7		O	O		O															

	Signature	Company	Date	Time
Relinquished by	CCC	SES	4/26/10	1740
Received by	[signature]	OSE	4/26/10	1740
Relinquished by				
Received by				
Relinquished by				
Received by				

Reviewed by/Date

Reviewed by/Date

Comments/Special Instructions: O Added 4/28/10. DB

Chromatograms with final report [x]

DISTRIBUTION LEGEND: White - OnSite Copy Yellow - Client Copy

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 3, 2010

Tom Cammarata
Sound Environmental Strategies
2811 Fairview Avenue E., Suite 2000
Seattle, WA 98102

Re:	Analytical Data for Project 0698-001-02
	Laboratory Reference No. 1004-188

Dear Tom:

Enclosed are the analytical results and associated quality control data for samples submitted on April 27, 2010.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference :1004-188
Project: 0698-001-02

Case Narrative

Samples were collected on April 27, 2010 and received by the laboratory on April 27, 2010. They were maintained at the laboratory at a temperature of 2^oC to 6^oC.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**20100427-SB04W**					
Laboratory ID:	04-188-01					
Gasoline	**ND**	400	NWTPH-Gx	4-28-10	4-28-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*74-121*				
Client ID:	**20100427-SB09W**					
Laboratory ID:	04-188-02					
Gasoline	**ND**	100	NWTPH-Gx	4-28-10	4-28-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*74-121*				
Client ID:	**20100427-SB05W**					
Laboratory ID:	04-188-03					
Gasoline	**ND**	100	NWTPH-Gx	4-28-10	4-28-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*74-121*				

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0428W1					
Gasoline	**ND**	100	NWTPH-Gx	4-28-10	4-28-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*74-121*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-168-06										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*99*	*99*	*74-121*			

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Date Prepared	Date Analyzed	Flags
Lab ID:	04-188-01				
Client ID:	**20100427-SB04W**				
Diesel Fuel#2	**15**	0.26	4-28-10	4-28-10	Y
Lube Oil Range	**ND**	0.50	4-28-10	4-28-10	Y,U1
Surrogate: o-terphenyl	93%	50-150			
Lab ID:	04-188-02				
Client ID:	**20100427-SB09W**				
Diesel Range	**ND**	0.27	4-28-10	4-28-10	Y
Lube Oil Range	**ND**	0.43	4-28-10	4-28-10	Y
Surrogate: o-terphenyl	66%	50-150			
Lab ID:	04-188-03				
Client ID:	**20100427-SB05W**				
Diesel Range	**ND**	0.27	4-28-10	4-28-10	Y
Lube Oil Range	**ND**	0.43	4-28-10	4-28-10	Y
Surrogate: o-terphenyl	80%	50-150			

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted:	4-28-10
Date Analyzed:	4-28-10
Matrix:	Water
Units:	mg/L (ppm)
Lab ID:	MB0428W1
Diesel Range:	**ND**
PQL:	0.25
Identification:	---
Lube Oil Range:	**ND**
PQL:	0.40
Identification:	---
Surrogate Recovery	
o-Terphenyl:	107%
Flags:	Y

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted: 4-28-10
Date Analyzed: 4-28-10

Matrix: Water
Units: mg/L (ppm)

Lab ID:	04-165-03	04-165-03 DUP
Diesel Range:	**ND**	**ND**
PQL:	0.25	0.25
RPD:	N/A	
Surrogate Recovery		
o-Terphenyl:	88%	84%
Flags:	Y	Y

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	4-28-10
Date Analyzed:	4-28-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	04-188-01
Client ID:	**20100427-SB04W**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 04-188-01
Client ID: 20100427-SB04W

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	85	71-126
Toluene-d8	94	76-116
4-Bromofluorobenzene	90	70-123

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 4-28-10
Date Analyzed: 4-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: 04-188-02
Client ID: **20100427-SB09W**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID:	04-188-02
Client ID:	**20100427-SB09W**

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	86	71-126
Toluene-d8	93	76-116
4-Bromofluorobenzene	90	70-123

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	4-28-10
Date Analyzed:	4-28-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	04-188-03
Client ID:	**20100427-SB05W**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 04-188-03
Client ID: 20100427-SB05W

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	88	71-126
Toluene-d8	90	76-116
4-Bromofluorobenzene	91	70-123

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Date Extracted:	4-28-10
Date Analyzed:	4-28-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB0428W1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL

Lab ID: MB0428W1

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	88	71-126
Toluene-d8	92	76-116
4-Bromofluorobenzene	88	70-123

Date of Report: May 3, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-188
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Date Extracted: 4-28-10
Date Analyzed: 4-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0428W1

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	10.0	10.3	103	10.3	103	70-130	
Benzene	10.0	9.94	99	10.3	103	73-130	
Trichloroethene	10.0	10.2	102	9.99	100	79-122	
Toluene	10.0	10.2	102	10.1	101	80-121	
Chlorobenzene	10.0	10.1	101	10.1	101	83-116	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	0	15	
Benzene	3	14	
Trichloroethene	2	14	
Toluene	1	13	
Chlorobenzene	0	13	

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
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Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 1

Company: SES

Project Number: 0698-001-02

Project Name: Forum Pace National Site

Project Manager: Tom Cammarata

Sampled by: Chuck Cacek

Turnaround Request (in working days)

(Check One)

- ☐ Same Day ☐ 1 Day
- ☐ 2 Day ☐ 3 Day
- ☑ Standard (7 working days) (TPH analysis 5 working days)
- ☐ ______ (other)

Laboratory Number: 04-188

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/~~BTEX~~	NWTPH-Dx (ACU/SG)	Volatiles by 8260B	Halogenated Volatiles by 8260B Chlorinated only	Semivolatiles by 8270D / SIM	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664							% Moisture
1	20100427-SB04W	4/27/10	0940	W	7		X	X		X															
2	20100427-SB08W	↓	1050	↓	↓		X	X		X															
3	20100427-SB05W	↓	1200	↓	↓		X	X		X															

	Signature	Company	Date	Time
Relinquished by	[signature]	SES	4/27/10	1340
Received by	[signature]	OSE	4/27/10	1340
Relinquished by				
Received by				
Relinquished by				
Received by				

Reviewed by/Date

Reviewed by/Date

Comments/Special Instructions:

Chromatograms with final report ☐

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May 11, 2010

Tom Cammarata
Sound Environmental Strategies
2811 Fairview Avenue East
Suite 2000
Seattle, WA 98102

Re: Analytical Data for Project 0698-001-02
Laboratory Reference No. 1004-189

Dear Tom:

Enclosed are the analytical results and associated quality control data for samples submitted on April 27, 2010.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: May 11, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-189
Project: 0698-001-02

Case Narrative

Samples were collected on April 27, 2010 and received by the laboratory on April 27 2010. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: May 11, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-189
Project: 0698-001-02

NWTPH-Dx

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Date Prepared	Date Analyzed	Flags
Lab ID:	04-189-01				
Client ID:	**SB04-6**				
Diesel Fuel#2	**3400**	29	5-7-10	5-7-10	Y
Lube Oil Range	**ND**	92	5-7-10	5-7-10	Y,U1
Surrogate: o-terphenyl	94%	50-150			
Lab ID:	04-189-02				
Client ID:	**SB04-7 1/2**				
Diesel Range	**ND**	28	5-7-10	5-7-10	Y
Lube Oil Range	**ND**	56	5-7-10	5-7-10	Y
Surrogate: o-terphenyl	75%	50-150			

Date of Report: May 11, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-189
Project: 0698-001-02

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted:	5-7-10
Date Analyzed:	5-7-10
Matrix:	Soil
Units:	mg/kg (ppm)

Lab ID:	MB0507S1
Diesel Range:	**ND**
PQL:	25
Identification:	---
Lube Oil Range:	**ND**
PQL:	50
Identification:	---
Surrogate Recovery	
o-Terphenyl:	74%
Flags:	Y

Date of Report: May 11, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-189
Project: 0698-001-02

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted: 5-7-10
Date Analyzed: 5-7-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID:	05-032- 04	05-032-04 DUP
Diesel Range:	**ND**	**ND**
PQL:	25	25
RPD:	N/A	
Surrogate Recovery		
o-Terphenyl:	63%	73%
Flags:	Y	Y

Date of Report: May 11, 2010
Samples Submitted: April 27, 2010
Laboratory Reference: 1004-189
Project: 0698-001-02

% MOISTURE

Date Analyzed: 5-7-10

Client ID	Lab ID	% Moisture
SB04-6	04-189-01	15
SB04-71/2	04-189-02	11

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Chain of Custody

Laboratory Number: 04-189

Company: SES
Project Number: 0698-001-02
Project Name: Former Pace National Site
Project Manager: Tom Cammarata
Sampled by: Charles Cacek

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Day ☐ 3 Day
☒ Standard (7 working days) (TPH analysis 5 working days)
☐ ~~Hold~~ DB (other)

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D / SIM	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	~~Hold~~ DB 5/6/10						% Moisture
1	SB04-6	4/23/10	0905	S	5			X											~~X~~						X
2	SB04-7½	↓	0918	S	5			X											~~X~~						X

	Signature	Company	Date	Time
Relinquished by	C.C.C.	SES	4/22/10	1340
Received by	[signature]	OSE	4/27/10	1340
Relinquished by				
Received by				
Relinquished by				
Received by				

Reviewed by/Date

Reviewed by/Date

Comments/Special Instructions:
X Added 5/6/10 . DB (STANDARD)

Chromatograms with final report ☐

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Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 8, 2010

Tom Cammarata
Sound Environmental Strategies
2811 Fairview Avenue East, Suite 2000
Seattle, WA 98102

Re: Analytical Data for Project 0698-001-02
Laboratory Reference No. 1006-005

Dear Tom:

Enclosed are the analytical results and associated quality control data for samples submitted on June 1, 2010.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

Case Narrative

Samples were collected on June 1, 2010 and received by the laboratory on June 1, 2010. They were maintained at the laboratory at a temperature of 2^oC to 6^oC.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Halogenated Volatiles EPA 8260B Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7^oC and -20^oC until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

NWTPH-Dx

Matrix: Soil
Units: mg/kg (ppm)

Analyte	**Result**	**PQL**	**Date Prepared**	**Date Analyzed**	**Flags**
Lab ID:	06-005-07				
Client ID:	**SES-MW27-3 1/2**				
Diesel Range	**ND**	30	6-4-10	6-4-10	Y
Lube Oil Range	**ND**	60	6-4-10	6-4-10	Y
Surrogate: o-terphenyl	90%	50-150			

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted: 6-4-10
Date Analyzed: 6-4-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID:	MB0604S1
Diesel Range:	**ND**
PQL:	25
Identification:	---
Lube Oil Range:	**ND**
PQL:	50
Identification:	---
Surrogate Recovery	
o-Terphenyl:	111%
Flags:	Y

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted: 6-4-10
Date Analyzed: 6-4-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID:	06-035-02	06-035-02 DUP
Diesel Range:	**ND**	**ND**
PQL:	25	25
RPD:	N/A	
Surrogate Recovery		
o-Terphenyl:	94%	89%
Flags:	Y	Y

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-2-10
Date Analyzed:	6-2-10
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	06-005-02
Client ID:	**SES-MW26-6 1/2'**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0010
Chloromethane	ND		0.0051
Vinyl Chloride	ND		0.0010
Chloroethane	ND		0.0051
Trichlorofluoromethane	ND		0.0010
1,1-Dichloroethene	ND		0.0010
Methylene Chloride	ND		0.0051
(trans) 1,2-Dichloroethene	ND		0.0010
1,1-Dichloroethane	ND		0.0010
2,2-Dichloropropane	ND		0.0010
(cis) 1,2-Dichloroethene	ND		0.0010
Bromochloromethane	ND		0.0010
Chloroform	ND		0.0010
1,1,1-Trichloroethane	ND		0.0010
Carbon Tetrachloride	ND		0.0010
1,1-Dichloropropene	ND		0.0010
1,2-Dichloroethane	ND		0.0010
Trichloroethene	ND		0.0010
1,2-Dichloropropane	ND		0.0010
Bromodichloromethane	ND		0.0010
2-Chloroethyl Vinyl Ether	ND		0.0051
(cis) 1,3-Dichloropropene	ND		0.0010
(trans) 1,3-Dichloropropene	ND		0.0010

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B

Lab ID: 06-005-02
Client ID: SES-MW26-6 1/2'

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0010
Tetrachloroethene	ND		0.0010
1,3-Dichloropropane	ND		0.0010
Dibromochloromethane	ND		0.0010
Chlorobenzene	ND		0.0010
1,1,1,2-Tetrachloroethane	ND		0.0010
1,1,2,2-Tetrachloroethane	ND		0.0010
1,2,3-Trichloropropane	ND		0.0010
2-Chlorotoluene	ND		0.0010
4-Chlorotoluene	ND		0.0010
1,3-Dichlorobenzene	ND		0.0010
1,4-Dichlorobenzene	ND		0.0010
1,2-Dichlorobenzene	ND		0.0010
1,2-Dibromo-3-chloropropane	ND		0.0051
1,2,4-Trichlorobenzene	ND		0.0010
Hexachlorobutadiene	ND		0.0051
1,2,3-Trichlorobenzene	ND		0.0010

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	111	66-128
Toluene-d8	119	68-126
4-Bromofluorobenzene	102	53-134

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-2-10
Date Analyzed:	6-2-10
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	06-005-04
Client ID:	**SES-MW25-3 1/2**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.0011
Chloromethane	ND		0.0054
Vinyl Chloride	ND		0.0011
Chloroethane	ND		0.0054
Trichlorofluoromethane	ND		0.0011
1,1-Dichloroethene	ND		0.0011
Methylene Chloride	ND		0.0054
(trans) 1,2-Dichloroethene	ND		0.0011
1,1-Dichloroethane	ND		0.0011
2,2-Dichloropropane	ND		0.0011
(cis) 1,2-Dichloroethene	ND		0.0011
Bromochloromethane	ND		0.0011
Chloroform	ND		0.0011
1,1,1-Trichloroethane	ND		0.0011
Carbon Tetrachloride	ND		0.0011
1,1-Dichloropropene	ND		0.0011
1,2-Dichloroethane	ND		0.0011
Trichloroethene	ND		0.0011
1,2-Dichloropropane	ND		0.0011
Bromodichloromethane	ND		0.0011
2-Chloroethyl Vinyl Ether	ND		0.0054
(cis) 1,3-Dichloropropene	ND		0.0011
(trans) 1,3-Dichloropropene	ND		0.0011

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-005-04
Client ID: SES-MW25-3 1/2

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.0011
Tetrachloroethene	ND		0.0011
1,3-Dichloropropane	ND		0.0011
Dibromochloromethane	ND		0.0011
Chlorobenzene	ND		0.0011
1,1,1,2-Tetrachloroethane	ND		0.0011
1,1,2,2-Tetrachloroethane	ND		0.0011
1,2,3-Trichloropropane	ND		0.0011
2-Chlorotoluene	ND		0.0011
4-Chlorotoluene	ND		0.0011
1,3-Dichlorobenzene	ND		0.0011
1,4-Dichlorobenzene	ND		0.0011
1,2-Dichlorobenzene	ND		0.0011
1,2-Dibromo-3-chloropropane	ND		0.0054
1,2,4-Trichlorobenzene	ND		0.0011
Hexachlorobutadiene	ND		0.0054
1,2,3-Trichlorobenzene	ND		0.0011

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	107	66-128
Toluene-d8	117	68-126
4-Bromofluorobenzene	102	53-134

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-2-10
Date Analyzed:	6-2-10
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	06-005-07
Client ID:	**SES-MW27-3 1/2**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.0011
Chloromethane	ND		0.0053
Vinyl Chloride	ND		0.0011
Chloroethane	ND		0.0053
Trichlorofluoromethane	ND		0.0011
1,1-Dichloroethene	ND		0.0011
Methylene Chloride	ND		0.0053
(trans) 1,2-Dichloroethene	ND		0.0011
1,1-Dichloroethane	ND		0.0011
2,2-Dichloropropane	ND		0.0011
(cis) 1,2-Dichloroethene	ND		0.0011
Bromochloromethane	ND		0.0011
Chloroform	ND		0.0011
1,1,1-Trichloroethane	ND		0.0011
Carbon Tetrachloride	ND		0.0011
1,1-Dichloropropene	ND		0.0011
1,2-Dichloroethane	ND		0.0011
Trichloroethene	ND		0.0011
1,2-Dichloropropane	ND		0.0011
Bromodichloromethane	ND		0.0011
2-Chloroethyl Vinyl Ether	ND		0.0053
(cis) 1,3-Dichloropropene	ND		0.0011
(trans) 1,3-Dichloropropene	ND		0.0011

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-005-07
Client ID: SES-MW27-3 1/2

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.0011
Tetrachloroethene	ND		0.0011
1,3-Dichloropropane	ND		0.0011
Dibromochloromethane	ND		0.0011
Chlorobenzene	ND		0.0011
1,1,1,2-Tetrachloroethane	ND		0.0011
1,1,2,2-Tetrachloroethane	ND		0.0011
1,2,3-Trichloropropane	ND		0.0011
2-Chlorotoluene	ND		0.0011
4-Chlorotoluene	ND		0.0011
1,3-Dichlorobenzene	ND		0.0011
1,4-Dichlorobenzene	ND		0.0011
1,2-Dichlorobenzene	ND		0.0011
1,2-Dibromo-3-chloropropane	ND		0.0053
1,2,4-Trichlorobenzene	ND		0.0011
Hexachlorobutadiene	ND		0.0053
1,2,3-Trichlorobenzene	ND		0.0011

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	115	66-128
Toluene-d8	124	68-126
4-Bromofluorobenzene	109	53-134

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
page 1 of 2

Date Extracted: 6-2-10
Date Analyzed: 6-2-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB0602S1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0010
Chloromethane	ND		0.0050
Vinyl Chloride	ND		0.0010
Chloroethane	ND		0.0050
Trichlorofluoromethane	ND		0.0010
1,1-Dichloroethene	ND		0.0010
Methylene Chloride	ND		0.0050
(trans) 1,2-Dichloroethene	ND		0.0010
1,1-Dichloroethane	ND		0.0010
2,2-Dichloropropane	ND		0.0010
(cis) 1,2-Dichloroethene	ND		0.0010
Bromochloromethane	ND		0.0010
Chloroform	ND		0.0010
1,1,1-Trichloroethane	ND		0.0010
Carbon Tetrachloride	ND		0.0010
1,1-Dichloropropene	ND		0.0010
1,2-Dichloroethane	ND		0.0010
Trichloroethene	ND		0.0010
1,2-Dichloropropane	ND		0.0010
Bromodichloromethane	ND		0.0010
2-Chloroethyl Vinyl Ether	ND		0.0050
(cis) 1,3-Dichloropropene	ND		0.0010
(trans) 1,3-Dichloropropene	ND		0.0010

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
page 2 of 2

Lab ID: MB0602S1

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0010
Tetrachloroethene	ND		0.0010
1,3-Dichloropropane	ND		0.0010
Dibromochloromethane	ND		0.0010
Chlorobenzene	ND		0.0010
1,1,1,2-Tetrachloroethane	ND		0.0010
1,1,2,2-Tetrachloroethane	ND		0.0010
1,2,3-Trichloropropane	ND		0.0010
2-Chlorotoluene	ND		0.0010
4-Chlorotoluene	ND		0.0010
1,3-Dichlorobenzene	ND		0.0010
1,4-Dichlorobenzene	ND		0.0010
1,2-Dichlorobenzene	ND		0.0010
1,2-Dibromo-3-chloropropane	ND		0.0050
1,2,4-Trichlorobenzene	ND		0.0010
Hexachlorobutadiene	ND		0.0050
1,2,3-Trichlorobenzene	ND		0.0010

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	114	66-128
Toluene-d8	122	68-126
4-Bromofluorobenzene	109	53-134

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Date Extracted: 6-2-10
Date Analyzed: 6-2-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: SB0602S1

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	0.0500	0.0613	123	0.0608	122	70-130	
Benzene	0.0500	0.0555	111	0.0526	105	70-121	
Trichloroethene	0.0500	0.0524	105	0.0500	100	70-124	
Toluene	0.0500	0.0540	108	0.0535	107	70-123	
Chlorobenzene	0.0500	0.0493	99	0.0453	91	71-119	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	1	14	
Benzene	5	10	
Trichloroethene	5	12	
Toluene	1	12	
Chlorobenzene	8	9	

Date of Report: June 8, 2010
Samples Submitted: June 1, 2010
Laboratory Reference: 1006-005
Project: 0698-001-02

% MOISTURE

Date Analyzed: 6-2-10

Client ID	Lab ID	% Moisture
SES-MW26-6½'	06-005-02	17
SES-MW25-3½'	06-005-04	7
SES-MW27-3½'	06-005-07	16

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 06-005

Company: SES
Project Number: 0698-001-02
Project Name: Pacc National
Project Manager: Tom Cameratta
Sampled by: Chuck Carey

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Day
- ☐ 3 Day
- ☒ Standard (7 working days) (TPH analysis 5 working days)
- ☐ ______ (other)

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B CVOCs	Halogenated Volatiles by 8260B	Semivolatiles by 8270D / SIM	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664					Hold		% Moisture
1	SES-MW26-3½'	6/1/10	0845	S	5																		↓		
2	SES-MW26-6½'	↓	0858	↓	↓				⊗														~~↓~~ DB		⊗
3	SES-MW26-8'	↓	0910	↓	↓																		↓		
4	SES-MW25-3½	↓	1050	↓	↓				⊗														~~↓~~ DB		⊗
5	SES-MW25-6½	↓	1108	↓	↓																		↓		
6	SES-MW28-9½	↓	1120	↓	↓																		↓		
7	SES-MW27-3½	↓	1332	↓	↓			⊗	⊗														~~↓~~ DB		⊗
8	SES-MW27-4½	↓	1340	↓	↓																		↓		
9	SES-MW27-6'	↓	1345	↓	↓																		↓		
10	SES-MW27-7'	↓	1355	↓	↓																		↓		

	Signature	Company	Date	Time
Relinquished by	C. C.	SES	6/1/10	3:00pm
Received by	[signature]	OSE	6/1/10	3:00pm
Relinquished by				
Received by				
Relinquished by				
Received by				

Reviewed by/Date

Reviewed by/Date

Comments/Special Instructions:
⊗ Added 6/2/10. DB

Chromatograms with final report ☐

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Chain of Custody

Laboratory Number: 06-005

Company: SES

Project Number: 0698-001-02

Project Name: Pace National

Project Manager: Tom Cammarata

Sampled by: Chuck Cacek

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Day
- ☐ 3 Day
- ☐ Standard (7 working days) (TPH analysis 5 working days)
- ☐ ______ (other)

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D / SIM	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664					Hold		% Moisture
11	SES-MW27-9'	6/1/10	1359	S	5																		X		

	Signature	Company	Date	Time
Relinquished by	[signature]	SES	6/1/10	3:00 pm
Received by	[signature]	OSE	6/1/10	3:00 pm
Relinquished by				
Received by				
Relinquished by				
Received by				

Comments/Special Instructions:

Reviewed by/Date

Reviewed by/Date

Chromatograms with final report ☐

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OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 11, 2010

Tom Cammarata
Sound Environmental Strategies
2811 Fairview Avenue East, Suite 2000
Seattle, WA 98102

Re: Analytical Data for Project 0698-001-02
Laboratory Reference No. 1006-047

Dear Tom:

Enclosed are the analytical results and associated quality control data for samples submitted on June 7, 2010.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

Case Narrative

Samples were collected on June 3 and 4, 2010 and received by the laboratory on June 7, 2010. They were maintained at the laboratory at a temperature of $2^{o}C$ to $6^{o}C$.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SES-MW-25-20100603**					
Laboratory ID:	06-047-01					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*94*	*74-121*				
Client ID:	**HC-MW-2R-20100603**					
Laboratory ID:	06-047-02					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*91*	*74-121*				
Client ID:	**MW99-20100603**					
Laboratory ID:	06-047-03					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*74-121*				
Client ID:	**HC-MW-21-20100603**					
Laboratory ID:	06-047-04					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*74-121*				
Client ID:	**SES-MW-26-20100603**					
Laboratory ID:	06-047-05					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*74-121*				
Client ID:	**SES-MW-27-20100603**					
Laboratory ID:	06-047-06					
Gasoline	**ND**	400	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*74-121*				

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HC-MW-24-20100603**					
Laboratory ID:	06-047-07					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*74-121*				
Client ID:	**SB-22-20100603**					
Laboratory ID:	06-047-08					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*74-121*				
Client ID:	**HC-MW-18-20100604**					
Laboratory ID:	06-047-09					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*91*	*74-121*				
Client ID:	**HC-MW-04-20100604**					
Laboratory ID:	06-047-10					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*74-121*				
Client ID:	**HC-MW-03-20100604**					
Laboratory ID:	06-047-11					
Gasoline	**ND**	400	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*83*	*74-121*				
Client ID:	**HC-MW-07-20100604**					
Laboratory ID:	06-047-12					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*74-121*				
Client ID:	**HC-MW-08-20100604**					
Laboratory ID:	06-047-13					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*74-121*				

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NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HC-MW-09-20100604**					
Laboratory ID:	06-047-14					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*74-121*				
Client ID:	**MW-98-20100604**					
Laboratory ID:	06-047-15					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*91*	*74-121*				
Client ID:	**HC-MW-10-20100604**					
Laboratory ID:	06-047-16					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*74-121*				

Date of Report: June 11, 2010
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NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
METHOD BLANK						
Laboratory ID:	MB0608W1					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*94*	*74-121*				
Laboratory ID:	MB0608W2					
Gasoline	**ND**	100	NWTPH-Gx	6-8-10	6-8-10	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*93*	*74-121*				

Analyte	**Result**		**Spike Level**		**Source Result**	**Percent Recovery**		**Recovery Limits**	**RPD**	**RPD Limit**	**Flags**
DUPLICATE											
Laboratory ID:	06-047-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*94*	*93*	*74-121*			
Laboratory ID:	06-047-02										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*91*	*91*	*74-121*			

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NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Date Prepared	Date Analyzed	Flags
Lab ID:	06-047-01				
Client ID:	**SES-MW-25-20100603**				
Diesel Range	**ND**	0.26	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.42	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	94%	50-150			
Lab ID:	06-047-02				
Client ID:	**HC-MW-2R-20100603**				
Diesel Range	**ND**	0.27	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.43	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	91%	50-150			
Lab ID:	06-047-03				
Client ID:	**MW99-20100603**				
Diesel Range	**ND**	0.16	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.25	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	88%	50-150			
Lab ID:	06-047-04				
Client ID:	**HC-MW-21-20100603**				
Diesel Range	**ND**	0.27	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.43	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	71%	50-150			
Lab ID:	06-047-05				
Client ID:	**SES-MW-26-20100603**				
Diesel Range	**ND**	0.30	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.48	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	89%	50-150			

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NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Date Prepared	Date Analyzed	Flags
Lab ID:	06-047-06				
Client ID:	**SES-MW-27-20100603**				
Diesel Range Organics	**0.21**	0.16	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.25	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	91%	50-150			
Lab ID:	06-047-07				
Client ID:	**HC-MW-24-20100603**				
Diesel Range	**ND**	0.28	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.45	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	85%	50-150			
Lab ID:	06-047-08				
Client ID:	**SB-22-20100603**				
Diesel Range	**ND**	0.28	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.44	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	84%	50-150			
Lab ID:	06-047-09				
Client ID:	**HC-MW-18-20100604**				
Diesel Range	**ND**	0.16	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.25	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	71%	50-150			
Lab ID:	06-047-10				
Client ID:	**HC-MW-04-20100604**				
Diesel Range	**ND**	0.31	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.49	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	76%	50-150			

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NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Date Prepared	Date Analyzed	Flags
Lab ID:	06-047-11				
Client ID:	**HC-MW-03-20100604**				
Diesel Range	**ND**	0.29	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.46	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	73%	50-150			
Lab ID:	06-047-12				
Client ID:	**HC-MW-07-20100604**				
Diesel Range	**ND**	0.30	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.47	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	75%	50-150			
Lab ID:	06-047-13				
Client ID:	**HC-MW-08-20100604**				
Diesel Range	**ND**	0.30	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.48	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	72%	50-150			
Lab ID:	06-047-14				
Client ID:	**HC-MW-09-20100604**				
Diesel Range	**ND**	0.17	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.27	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	77%	50-150			
Lab ID:	06-047-15				
Client ID:	**MW-98-20100604**				
Diesel Range	**ND**	0.17	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.27	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	72%	50-150			

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NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Date Prepared	Date Analyzed	Flags
Lab ID:	06-047-16				
Client ID:	**HC-MW-10-20100604**				
Diesel Range	**ND**	0.26	6-8-10	6-8-10	Y
Lube Oil Range	**ND**	0.42	6-8-10	6-8-10	Y
Surrogate: o-terphenyl	89%	50-150			

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NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted:	6-8-10
Date Analyzed:	6-8-10
Matrix:	Water
Units:	mg/L (ppm)

Lab ID:	MB0608W1
Diesel Range:	**ND**
PQL:	0.13
Identification:	---
Lube Oil Range:	**ND**
PQL:	0.20
Identification:	---
Surrogate Recovery	
o-Terphenyl:	61%
Flags:	Y

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Laboratory Reference: 1006-047
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NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted: 6-8-10
Date Analyzed: 6-8-10

Matrix: Water
Units: mg/L (ppm)

Lab ID:	06-008-01	06-008-01 DUP
Diesel Range:	**ND**	**ND**
PQL:	0.25	0.25
RPD:	N/A	
Surrogate Recovery		
o-Terphenyl:	68%	70%
Flags:	Y	Y

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NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted: 6-8-10
Date Analyzed: 6-8-10

Matrix: Water
Units: mg/L (ppm)

Lab ID:	06-044-01	06-044-01 DUP
Diesel Range:	**ND**	**ND**
PQL:	0.25	0.25
RPD:	N/A	
Surrogate Recovery		
o-Terphenyl:	63%	65%
Flags:	Y	Y

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Date Extracted:	6-9-10
Date Analyzed:	6-9-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-047-01
Client ID:	**SES-MW-25-20100603**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

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Lab ID: 06-047-01
Client ID: SES-MW-25-20100603

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	97	71-126
Toluene-d8	93	76-116
4-Bromofluorobenzene	85	70-123

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Date Extracted:	6-9-10
Date Analyzed:	6-9-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-047-03
Client ID:	**MW99-20100603**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

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Lab ID: 06-047-03
Client ID: MW99-20100603

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	96	71-126
Toluene-d8	94	76-116
4-Bromofluorobenzene	83	70-123

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Date Extracted:	6-9-10
Date Analyzed:	6-9-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-047-05
Client ID:	**SES-MW-26-20100603**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

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Lab ID: 06-047-05
Client ID: SES-MW-26-20100603

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	95	71-126
Toluene-d8	93	76-116
4-Bromofluorobenzene	82	70-123

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Date Extracted:	6-9-10
Date Analyzed:	6-9-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-047-06
Client ID:	**SES-MW-27-20100603**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

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Lab ID: 06-047-06
Client ID: SES-MW-27-20100603

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	96	71-126
Toluene-d8	93	76-116
4-Bromofluorobenzene	89	70-123

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Date Extracted:	6-9-10
Date Analyzed:	6-9-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-047-12
Client ID:	**HC-MW-07-20100604**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	1.8		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	0.40		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-047-12
Client ID: HC-MW-07-20100604

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	95	71-126
Toluene-d8	94	76-116
4-Bromofluorobenzene	83	70-123

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-9-10
Date Analyzed:	6-9-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-047-13
Client ID:	**HC-MW-08-20100604**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	16		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	0.76		0.20
1,1-Dichloroethane	0.60		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	10		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	0.78		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-047-13
Client ID: HC-MW-08-20100604

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	94	71-126
Toluene-d8	95	76-116
4-Bromofluorobenzene	87	70-123

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-9-10
Date Analyzed:	6-9-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-047-14
Client ID:	**HC-MW-09-20100604**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	2.3		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	0.25		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	0.49		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	3.5		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	0.33		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-047-14
Client ID: HC-MW-09-20100604

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	92	71-126
Toluene-d8	88	76-116
4-Bromofluorobenzene	84	70-123

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-9-10
Date Analyzed:	6-9-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-047-15
Client ID:	**MW-98-20100604**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	2.3		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	0.24		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	0.53		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	3.4		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	0.35		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-047-15
Client ID: MW-98-20100604

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	91	71-126
Toluene-d8	88	76-116
4-Bromofluorobenzene	83	70-123

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-9-10
Date Analyzed:	6-9-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-047-16
Client ID:	**HC-MW-10-20100604**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	0.89		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	0.45		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-047-16
Client ID: HC-MW-10-20100604

Compound	**Results**	**Flags**	**PQL**
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	**Percent Recovery**	**Control Limits**
Dibromofluoromethane	90	71-126
Toluene-d8	90	76-116
4-Bromofluorobenzene	82	70-123

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Date Extracted:	6-9-10
Date Analyzed:	6-9-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB0609W1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Lab ID: MB0609W1

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	95	71-126
Toluene-d8	94	76-116
4-Bromofluorobenzene	83	70-123

Date of Report: June 11, 2010
Samples Submitted: June 7, 2010
Laboratory Reference: 1006-047
Project: 0698-001-02

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Date Extracted: 6-9-10
Date Analyzed: 6-9-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0609W1

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	10.0	11.4	114	11.4	114	70-130	
Benzene	10.0	10.4	104	10.7	107	73-130	
Trichloroethene	10.0	10.3	103	9.99	100	79-122	
Toluene	10.0	10.6	106	10.6	106	80-121	
Chlorobenzene	10.0	10.8	108	10.5	105	83-116	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	0	15	
Benzene	3	14	
Trichloroethene	3	14	
Toluene	0	13	
Chlorobenzene	3	13	

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Chain of Custody

Page 1 of 2

Company: SOUND ENVIRONMENTAL STRATEGIES
Project Number: 0698-001-02
Project Name: PACE CHEMICAL
Project Manager: TOM CAMMARATA
Sampled by: KMT

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Day ☐ 3 Day
☑ Standard (7 working days)
(TPH analysis 5 working days)
☐ ____ (other)

Laboratory Number: 06-047 06-047

Requested Analysis

	Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/~~BTEX~~ 1	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B CVOCs 2	Semivolatiles by 8270D / SIM	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664							% Moisture
1	1	SES-MW-25-20100603	06/03/10	1510	W	7		X	X		X															
2	2	HC-MW-2R-20100603	06/03/10	1511	W	5		X	X																	
3	3	MW99-20100603	06/03/10	1600	W	7		X	X		X															
4	4	HC-MW-21-20100603	06/03/10	1602	W	5		X	X																	
5	5	SES-~~MW~~MW-26-20100603	06/03/10	1637	W	7		X	X		X															
6	6	SES-MW-27-20100603	06/03/10	1753	W	7		X	X		X															
7	7	HC-MW-24-20100603	06/03/10	1837	W	5		X	X																	
8	8	SB-22-20100603	06/03/10	1920	W	5		X	X																	
9	9	HC-MW-18-20100604	06/04/10	0951	W	5		X	X																	
10	10	HC-MW-04-20100604	06/04/10	1045	W	5		X	X																	

	Signature	Company	Date	Time
Relinquished by	[signature]	SES.	06/07/10	1100
Received by	[signature]	SPEEDY	6/7/10	1505
Relinquished by	[signature]	"	"	1625
Received by	[signature]	OSE	6/7/10	1625
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Comments/Special Instructions:
NWTPH-Gx ONLY = 1
CVOCs by 8260B = 2

Chromatograms with final report ☐

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Chain of Custody

Laboratory Number: 06-047

Company: SES.

Project Number: 0698-001-02

Project Name: PACE CHEMICAL

Project Manager: TOM CAMMARATA

Sampled by: KM, T

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Day
- ☐ 3 Day
- ☑ Standard (7 working days) (TPH analysis 5 working days)
- ☐ ______ (other)

Requested Analysis

	Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/~~BTEX~~ 1	NWTPH-Dx	Volatiles by 8260B	~~Halogenated~~ Volatiles by 8260B CVOCs 2	Semivolatiles by 8270D / SIM	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664							% Moisture
11	11	HC-MW-03-20100604	06/04/10	1136	W	5		X	X																	
12	12	HC-MW-07-20100604	06/04/10	1356	W	7		X	X		X															
13	13	HC-MW-08-20100604	06/04/10	1448	W	7		X	X		X															
14	14	HC-MW-09-20100604	06/04/10	1538	W	7		X	X		X															
15	15	MW-98-20100604	06/04/10	1515	W	7		X	X		X															
16	16	HC-MW-10-20100604	06/04/10	1652	W	7		X	X		X															

	Signature	Company	Date	Time
Relinquished by	[signature]	SES.	06/07/10	1100
Received by	[signature]	SPEEDY	6/7/10	1505
Relinquished by	[signature]	"	"	1625
Received by	[signature]	OSE	6/7/10	1625
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Comments/Special Instructions:
NWTPH-Gx Only = 1
CVOCs by 8260B = 2

Chromatograms with final report ☐

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APPENDIX E
BIOCHLOR Model Results

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

Pace National
Kirkland, WA

Run Name

Data Input Instructions:

115 → 1. Enter value directly....or
or 2. Calculate by filling in gray
0.02 cells. Press Enter, then C
(To restore formulas, hit "Restore Formulas" button)
Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	197.4	(ft/yr)
or			
Hydraulic Conductivity	K	5.3E-04	(cm/sec)
Hydraulic Gradient	i	0.09	(ft/ft)
Effective Porosity	n	0.25	(-)

2. DISPERSION

Alpha x*	16	(ft)
(Alpha y) / (Alpha x)*	5.28	(-)
(Alpha z) / (Alpha x)*	4.E-01	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R

or

Soil Bulk Density, rho	1.6	(kg/L)		
FractionOrganicCarbon, foc	1.8E-3	(-)		
Partition Coefficient	Koc			
PCE	426	(L/kg)	5.91	(-)
TCE	130	(L/kg)	2.50	(-)
DCE	125	(L/kg)	2.44	(-)
VC	30	(L/kg)	1.34	(-)
ETH	302	(L/kg)	4.48	(-)

Common R (used in model)* = 2.50

4. BIOTRANSFORMATION **-1st Order Decay Coefficient***

Zone 1

	λ (1/yr)	half-life (yrs)	Yield
PCE → TCE	0.000		0.79
TCE → DCE	0.000		0.74
DCE → VC	0.000		0.64
VC → ETH	0.000		0.45

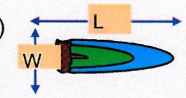
Zone 2

	λ (1/yr)	half-life (yrs)
PCE → TCE	0.000	
TCE → DCE	0.000	
DCE → VC	0.000	
VC → ETH	0.000	

λ HELP

5. GENERAL

Simulation Time*	10	(yr)
Modeled Area Width*	110	(ft)
Modeled Area Length*	160	(ft)
Zone 1 Length*	160	(ft)
Zone 2 Length*	0	(ft)



Zone 2= L - Zone 1

6. SOURCE DATA TYPE: Continuous Single Planar

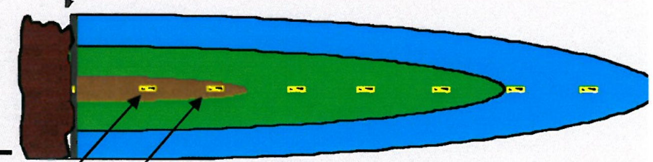
Source Options

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations

Source Thickness in Sat. Zone* 10 (ft)

Width* (ft) Y1: 110

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE	.0	0
TCE	.0	0
DCE	.0	0
VC	.016	0
ETH	0	0



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

PCE Conc. (mg/L)											
TCE Conc. (mg/L)											
DCE Conc. (mg/L)											
VC Conc. (mg/L)											
ETH Conc. (mg/L)											
Distance from Source (ft)											
Date Data Collected											

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | RUN ARRAY | *Help* | Restore Formulas | RESET | *SEE OUTPUT* | Paste Example

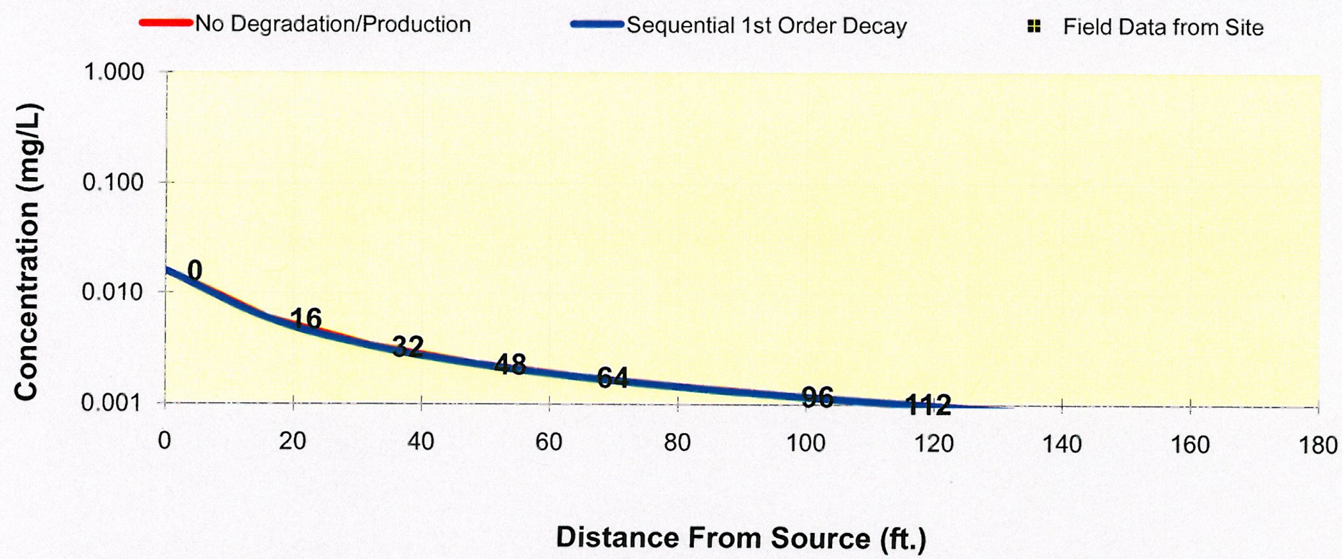
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

Distance from Source (ft)

VC	0	16	32	48	64	80	96	112	128	144	160
No Degradation	0.016	0.006	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001
Biotransformation	0.0160	0.006	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001

Monitoring Well Locations (ft)

Field Data from Site											



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

10.0 Years

Log ⟺ Linear

Return to Input

To All

To Array