

# SHELL-BRANDED WHOLESALE FACILITY 2805 SOUTHWEST ROXBURY STREET SEATTLE, WASHINGTON

SAP CODE

121038

INCIDENT NO.

90877719

AGENCY NO.

71459562

VCP NO.

NW2054

### **Prepared For:**

Shell Oil Products US 20945 S. Wilmington Ave Carson, CA 90810

> Prepared by: Conestoga-Rovers & Associates

1420 80<sup>th</sup> Street SW, Suite A Everett, Washington U.S.A. 98203

Office: 425-212-5100 Fax: 425-212-5199

web: http:\\www.CRAworld.com

March 21, 2011 Ref. no. 241799 (6)



## SHELL-BRANDED WHOLESALE FACILITY 2805 SOUTHWEST ROXBURY STREET SEATTLE, WASHINGTON

**SAP CODE** 

121038

INCIDENT NO.

90877719

AGENCY NO.

71459562

VCP NO.

NW2054

**Prepared For:** 

**Shell Oil Products US** 

20945 S. Wilmington Ave

Carson, CA 90810

Christina McClelland

Brian Peters, LG

BRIAN C. PETERS

Prepared by: Conestoga-Rovers & Associates

1420 80<sup>th</sup> Street SW, Suite A Everett, Washington U.S.A. 98203

Office: 425-212-5100 Fax: 425-212-5199

web: http:\\www.CRAworld.com

MARCH 21, 2011 Ref. No. 241799 (6)



# SHELL-BRANDED WHOLESALE FACILITY 2805 SOUTHWEST ROXBURY STREET SEATTLE, WASHINGTON

 SAP CODE
 121038

 INCIDENT NO.
 90877719

 AGENCY NO.
 71459562

 VCP NO.
 NW2054

**Prepared For:** 

Shell Oil Products US 20945 S. Wilmington Ave Carson, CA 90810

> Prepared by: Conestoga-Rovers & Associates

1420 80<sup>th</sup> Street SW, Suite A Everett, Washington U.S.A. 98203

Office: 425-212-5100 Fax: 425-212-5199

web: <a href="http://www.CRAworld.com">http://www.CRAworld.com</a>

MARCH 21, 2011 Ref. no. 241799 (6)



# SHELL-BRANDED WHOLESALE FACILITY 2805 SOUTHWEST ROXBURY STREET SEATTLE, WASHINGTON

 SAP CODE
 121038

 INCIDENT NO.
 90877719

 AGENCY NO.
 71459562

 VCP NO.
 NW2054

Prepared For:
Shell Oil Products US
20945 S. Wilmington Av

20945 S. Wilmington Ave Carson, CA 90810

Christina McClelland

Prepared by: Conestoga-Rovers & Associates

1420 80<sup>th</sup> Street SW, Suite A Everett, Washington U.S.A. 98203

Office: 425-212-5100 Fax: 425-212-5199

web: http:\\www.CRAworld.com

MARCH 21, 2011 Ref. no. 241799 (6)

Brian Peters, LG

### TABLE OF CONTENTS

			Page
1.0	INTRO	ODUCTION	1
1.0	1.1	SITE INFORMATION	
	1.2	PURPOSE	
2.0	SITE II	DENTIFICATION AND DESCRIPTION	1
	2.1	SITE DISCOVERY AND REGULATORY STATUS	1
	2.2	SITE AND PROPERTY LOCATION/DEFINITION	2
	2.3	NEIGHBORHOOD SETTING	
	2.4	PHYSIOGRAPHIC SETTING/TOPOGRAPHY	3
3.0	PROP	ERTY DEVELOPMENT AND HISTORY	3
	3.1	PAST PROPERTY USES AND FACILITIES	3
	3.2	CURRENT PROPERTY USE AND FACILITIES	4
	3.3	PROPOSED OR POTENTIAL FUTURE PROPERTY USES	4
	3.4	ZONING	4
	3.5	TRANSPORTATION/ROADS	4
	3.6	UTILITIES AND WATER SUPPLY	
	3.7	POTENTIAL SOURCES OF SITE CONTAMINATION	5
	3.8	POTENTIAL SOURCES OF CONTAMINATION FROM NEIGH	IBORING
		PROPERTIES	5
4.0	ENVII	RONMENTAL INVESTIGATION AND INTERIM ACTION SUMMA	.RY5
	4.1	POTENTIAL CONSTITUENTS OF CONCERN	6
	4.2	SOIL	7
	4.3	SURFACE WATER	8
	4.4	GROUNDWATER	8
	4.5	SEDIMENT	8
	4.6	AIR/SOIL VAPOR	8
	4.7	NATURAL RESOURCES/WILDLIFE	8
	4.8	CULTURAL HISTORY/ARCHAEOLOGY	9
	4.9	INTERIM ACTIONS	9
5.0	NATU	JRAL CONDITIONS	9
	5.1	GEOLOGY	9
	5.2	SURFACE WATER	10
	5.3	GROUNDWATER	10
	5.4	NATURAL RESOURCES AND ECOLOGICAL RECEPTORS	10
6.0	CONT	AMINANT OCCURRENCE AND MOVEMENT	11
	6.1	WASTE MATERIAL	11
	6.2	SOIL	11
	6.3	SURFACE WATER	11
	6.4	GROUNDWATER	11
	6.5	SEDIMENT	13
	6.6	AIR/SOIL VAPOR	13
7.0	CONC	CEPTUAL MODEL	13

8.0	CLEAN	NUP STANDARDS – SOIL AND GROUNDWATER	14
	8.1	GROUNDWATER CLEANUP LEVELS	15
	8.2	SOIL CLEANUP LEVELS	15
9.0	AREAS	S REQUIRING FUTURE MANAGEMENT AND CONCLUSIONS	15
	9.1	CONSTITUENTS OF CONCERN	15
	9.2	SOIL - VERTICAL AND LATERAL	15
	9.3	GROUNDWATER - VERTICAL AND LATERAL	15
	9.4	SEDIMENT	16
	9.5	SURFACE WATER	16
	9.6	SOIL VAPOR/AIR	16
10.0	REFER	ENCES	16

# LIST OF FIGURES (Following Text)

VICINITY MAP
SITE PLAN
AREA MAP
SOIL INVESTIGATION DATA MAP
CROSS SECTION A-A'
CROSS SECTION B-B'
GROUNDWATER CONTOUR AND CONCENTRATION MAPDECEMBER 8, 2010
<u>LIST OF TABLES</u>
HISTORICAL SOIL ANALYTICAL DATA
HISTORICAL GROUNDWATER ANALYTICAL DATA
LIST OF APPENDICES
ENVIRONMENTAL DOCUMENT LIST
LEGAL DESCRIPTION OF PROPERTY, PRESENT OWNER AND OPERATOR, KNOWN PAST OWNERS AND OPERATORS
SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIVITIES
AVAILABLE HISTORICAL SOIL BORING LOGS
BORING LOGS FOR AGW-13, AGW-14, AND SB-2
LABORATORY ANALYTICAL REPORTS

SENSITIVE RECEPTOR SURVEY

TERRESTRIAL ECOLOGICAL EVALUATION

APPENDIX G

APPENDIX H

#### 1.0 INTRODUCTION

#### 1.1 SITE INFORMATION

Site Name: Shell-Branded Wholesale Facility

Site Address: 2805 Southwest Roxbury Street, Seattle, WA

Voluntary Cleanup Program Number: NW2054

Project Consultant: Conestoga-Rovers & Associates

Project Consultant Contact Information: Brian Peters, LG

20818 44th Avenue West, Suite 190 Lynnwood, Washington 98026

Office - 425.563.6506 Direct - 425.563.6599

Current Owner/Operator: Henry W, Inc.

#### 1.2 PURPOSE

Conestoga-Rovers & Associates (CRA) prepared this Remedial Investigation (RI) report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (SOPUS) for the Shell-branded wholesale facility located at the southwest corner of Southwest Roxbury Street and 28th Avenue Southwest with the address 2805 Southwest Roxbury Street, Seattle, King County, Washington (Property; Figure 1).

This RI was prepared to satisfy the items required by Washington Administrative Code (WAC) 173-340 and summarizes environmental investigation findings for the petroleum hydrocarbon release associated with the Property. The previous investigation and remediation activities described in this report are a summary of historical investigations and documents prepared by CRA and previous consultants. A list of historical documents associated with this release is included as Appendix A.

#### 2.0 <u>SITE IDENTIFICATION AND DESCRIPTION</u>

#### 2.1 SITE DISCOVERY AND REGULATORY STATUS

In April 1988, four fuel underground storage tanks (USTs), one heating oil UST, one waste oil UST, and one concrete septic cistern were excavated and removed as part of the station remodeling associated with the transfer of ownership from Gull Industries, Inc. (Gull) to Texaco Refining and Marketing, Inc. (TRMI). Petroleum hydrocarbon impacts above Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A cleanup levels were detected in soil adjacent to the USTs, and the septic cistern. A release was not reported to Ecology at this time.

In 1993, compliance sampling was completed at the Site in association with Stage II Vapor Recovery retrofitting activities. Laboratory analysis of the soil samples indicated concentrations of petroleum hydrocarbons exceeding the MTCA Method A cleanup levels beneath the northwest and northeast product dispenser islands.

A petroleum release impacting soil was reported to Ecology in July 1993 and the site was listed with Ecology's leaking UST (LUST) program, identification number 4796. The Site was entered into Ecology's Voluntary Cleanup Program (VCP) in 2009 and issued site number NW2054. The current status of the Site with Ecology is "Cleanup Started".

MTCA Method A cleanup levels for soil and groundwater will be used as screening levels for purposes of discussion of investigation results.

#### 2.2 SITE AND PROPERTY LOCATION/DEFINITION

The Property is an active Shell-branded service station located at the southwest corner of Southwest Roxbury Street and 28th Avenue Southwest in Seattle, King County, Washington (Figure 1). The Property is comprised of two parcels. The address 9619 28th Street Southwest was formerly associated with the north parcel (number 0123039482), and is no longer used. The current address is 2805 Southwest Roxbury, and is associated with the south parcel (number 0123039481). The service station currently operates on both parcels. A legal description of the Property, including past and present owners and operators, is included in Appendix B.

In this RI report, the MTCA site (Site) is defined as all affected areas from the petroleum release associated with the Property and any potentially impacted adjacent parcels. The MTCA Site boundary is present on Figure 2.

#### 2.3 NEIGHBORHOOD SETTING

The Property and adjacent properties are located within a commercially-zoned area. The nearest residential area is located approximately 250 feet to the south and southwest. The Property is bounded on the north by Southwest Roxbury Street with Roxhill Elementary School beyond and a chiropractic clinic to the northeast. The Property is bounded on the east by 28th Avenue Southwest, with a Safeway Grocery store and gas station beyond. The Property is bounded on the south by the parking lot for Roxbury Lanes and Casino located southwest of the Property. The Property is bounded on the west by Roxbury Auto Repair (Figure 3).

#### 2.4 PHYSIOGRAPHIC SETTING/TOPOGRAPHY

The Property is located at approximately 287 feet above mean sea level (msl) at the bottom of a relatively flat broad swale (Figure 1). Seola Creek is located approximately ½ mile to the south of the Property and flows south, ultimately discharging to Puget Sound. Puget Sound is located within 1.5 miles west of the Property. Surface cover at the Property is primarily asphalt and concrete pavement.

#### 3.0 PROPERTY DEVELOPMENT AND HISTORY

#### 3.1 PAST PROPERTY USES AND FACILITIES

The Property is currently identified by the King County Assessor as two separate parcels, a northern and southern parcel. King County permits indicate the southern parcel of the Property was developed from 1957 to 1965 with a building containing offices and a garage bay which was occupied by the Washington State Patrol. From 1965 to present, the Property has operated as a retail gasoline service station, with an automotive repair facility reportedly operating from 1965 to 1988. In 1988, the Property was transferred from Gull to TRMI and was remodeled without an automotive repair facility. Former facilities include a station building, four fuel USTs, three dispenser islands, a 200-gallon waste oil UST, a 550-gallon heating oil UST, an 845-gallon concrete cistern, and an unknown number of in-ground hydraulic hoists. The former UST system configuration is presented in Figure 2. A car wash was constructed at the Property in 1988 during remodeling activities. In 1998, Equilon acquired the Property from TRMI and in 2009 the Property was sold to Henry W, Inc.

Don's Office Machine Repair is listed in association with the northern parcel of the Property in city directories from 1980 to 1985, indicating the office machine repair business may have operated simultaneously with the service station.

USTs that were historically present at the Property, the contents, and the dates of installation and decommission are presented below.

UST Volume			Date
(gallons)	Content	Date Installed	Decommissioned
6,000	Fuel	1965	1988
8,000	Fuel	1965	1988
10,000	Fuel	1965	1988
12,000	Fuel	1965	1988
200	Waste Oil	Not Documented	1988
550	Heating Oil	Not Documented	1988
845 (cistern)	Solvent-like compound	Not Documented	1983

#### 3.2 CURRENT PROPERTY USE AND FACILITIES

The Property currently includes an operating Shell-branded wholesale facility. Facilities include a station building, car wash building, four dispenser islands, one 12,000-gallon gasoline UST, two 10,000-gallon gasoline USTs, and one 10,000-gallon diesel UST (Figure 2). The USTs are located within a common excavation in the southern portion of the Property.

#### 3.3 PROPOSED OR POTENTIAL FUTURE PROPERTY USES

Planned use for the Property is uncertain; however, due to its location and zoning, it will likely continue as a commercial-use property.

#### 3.4 ZONING

The Property and surrounding parcels south of Southwest Roxbury Street, are considered urban unincorporated King County, and zoned as community business according to the King County Official Zoning Map (2009). The surrounding parcels north of Southwest Roxbury Street, are considered City of Seattle, and are zoned as Single Family according to the City of Seattle Official Zoning Map (2009).

#### 3.5 TRANSPORTATION/ROADS

Southwest Roxbury Street is a main east-west arterial that extends from the Property 1.5 miles east to State Route 509 and ½ mile west to Fauntleroy Park. 28th Avenue Southwest is a main north-south arterial that extends from the Property approximately 500 feet north to a residential area and approximately 1 mile south to Marine View Drive Southwest. A public bus stop is located east of the intersection of Southwest Roxbury Street and 28th Avenue Southwest.

#### 3.6 UTILITIES AND WATER SUPPLY

Utilities are present in the subsurface throughout the Property. Subsurface electrical lines run from the station building to 28th Avenue Southwest, and along Southwest Roxbury Street. Catch basins are located throughout the Property and connect into the municipal storm water system. Several catch basins located in the vicinity of the dispenser islands are connected to a storm water vault for filtration and debris

separation prior to discharge to municipal storm water system. Drinking water is supplied by the City of Seattle and is sourced primarily from surface water diversions from the Cedar and Tolt River watersheds (City of Seattle Consumer Confidence Report, 2008).

#### 3.7 POTENTIAL SOURCES OF SITE CONTAMINATION

Potential sources of contamination on the Property include the current and former dispenser islands, located in the northern portion of the Property, the former gasoline USTs, former waste oil UST, and former concrete cistern located in the north portion of the property, the former heating oil UST located in the southwestern portion of the Site, and the current USTs located in the southern portion of the Property. All former facilities were identified as likely sources of the original release of hydrocarbons at the Site (Figure 2).

# 3.8 POTENTIAL SOURCES OF CONTAMINATION FROM NEIGHBORING PROPERTIES

Two LUST sites are located within ¼ mile of the Property. Both sites are located cross-gradient of the Site within 400 feet. Based on the proximity of these properties to the Site, they are considered potential sources of contamination to the Property. A Safeway-branded service station is located at 2615 Southwest Roxbury Street, approximately 100 feet east of the Site. The Safeway-branded service station is not identified on Ecology's LUST list. Based on the proximity of this property to the Site, it is considered a potential source of contamination to the Property.

#### 4.0 ENVIRONMENTAL INVESTIGATION AND INTERIM ACTION SUMMARY

Eight soil borings have been completed, fourteen monitoring wells, and six soil vapor probes have been installed, and fifteen soil samples have been collected at the Site to date. A total of eleven investigations and/or interim remedial actions have occurred at the Site and are summarized in the following reports:

- 1989 Hydrocarbon Contamination Assessment, Applied Geotechnology Inc. (AGI)
- 1993 Compliance Sampling Results, EMCON Northwest Inc. (EMCON)
- 1994 Subsurface Site Investigation Report, GeoEngineers, Inc. (GeoEngineers)
- 1995 Supplemental Environmental Services, GeoEngineers
- 1997 Report of SVE Pilot Test Results, GeoEngineers

- 1997 Vacuum-Enhanced Recovery System Pilot Test, GeoEngineers
- 1998 Supplemental Environmental Drilling, Ground Water Sampling, and High Vacuum Ground Water Extraction Services March and April 1998, GeoEngineers
- 1998 Environmental Ground Water Monitoring and High Vacuum Ground Water Extraction Services June 1998, GeoEngineers
- 1998 Environmental Ground Water Monitoring and High Vacuum Ground Water Extraction Services September/October 1998, GeoEngineers
- 1999 Environmental Ground Water Monitoring and High Vacuum Ground Water Extraction Services December 1998, GeoEngineers
- 2009 Subsurface Investigation, CRA (data included herein)

A complete chronological summary of work completed during the investigations listed above at the Site is included as Appendix C. Reports summarized in Appendix C represent all available investigation reports obtained by or provided to CRA. A summary of historical soil analytical data is presented in Table 1 and a summary of groundwater monitoring results are summarized in Table 2. All available historical boring logs for the previous investigations are included in Appendix D. Soil boring logs from CRA's 2009 investigation are included in Appendix E. Laboratory analytical reports for soil samples collected in association with CRA's 2009 investigation and subsequent groundwater monitoring results are included as Appendix F.

#### 4.1 POTENTIAL CONSTITUENTS OF CONCERN

Potential constituents of concern (COCs) based on current and past use of the Property, include the compounds listed in MTCA 173-340-900 Table 830-1 Required Testing for Petroleum Releases. The following is the list of potential constituents of concern for the Site:

Potential Source	Potential COCs
Historical and	Total petroleum hydrocarbons (TPH) as gasoline (TPHg)
current gasoline	<ul> <li>TPH as diesel (TPHd) and TPH as oil (TPHo)</li> </ul>
USTs and	Benzene, toluene, ethylbenzene, xylenes (BTEX)
distribution system	Methyl tert butyl ether (MTBE)
	Total lead
	• 1,2-dichloroethane (EDC)
	• 1,2-dibromoethane (EDB)
Historical waste oil	• TPHg
and heating oil	• TPHd and TPHo
USTs, and cistern	• BTEX
with solvent	• EDB
substance	• EDC
	• MTBE
	<ul> <li>Halogenated volatile organic compounds (HVOCs)</li> </ul>
	Polycyclic aromatic hydrocarbons (PAHs)
	<ul> <li>Polychlorinated biphenyls (PCBs)</li> </ul>
	Total lead

Based on the results of environmental activities conducted at the Site, the COCs for the Site in soil and groundwater requiring further evaluation are TPHg, TPHd, TPHo, BTEX, MTBE, HVOCs, and total lead sourced from the on-Property facilities. These analytes were detected above MTCA Method A screening levels in soil or groundwater. PCBs have not been analyzed in groundwater; however, select soil samples were analyzed for PCBs and none were detected above MTCA Method A screening levels. Soil and groundwater have been analyzed for cPAHs and none were detected. EDB and EDC have not been detected at concentrations above the MTCA screening levels in soil or groundwater. Therefore, PCBs, cPAHs, EDB, and EDC are not considered COCs for the Site.

#### 4.2 <u>SOIL</u>

Multiple soil investigations have been conducted at the Site from 1988 through 2009. Figure 4 presents the locations of all soil samples collected during the investigation activities conducted at the Site. A summary of all soil sample locations submitted for analyses, including the date of the sample, depth, consultant performing sampling, and analytical methods and results are presented in Table 1. The majority of the soil sampling has been conducted in the vicinity of the former USTs, dispenser islands, and product conveyance system. The depths of soil samples collected ranged from 2.5 to 25 feet bgs.

#### 4.3 SURFACE WATER

No surface water has been sampled as there has been no indication that the surface water has been impacted from the Property or Site.

#### 4.4 GROUNDWATER

A total of fourteen groundwater monitoring wells have been installed at the Site. Monitoring wells AGW-1 through AGW-8 were installed in 1994, monitoring wells AGW-9 through AGW-11 were installed in 1995, monitoring well AGW-12 was installed in 1998, and monitoring wells AGW-13 and AGW-14 were installed in 2009. Additionally, in 2009, one temporary well, SB-2 was installed at the western extent of excavation and a groundwater sample was collected and analyzed for petroleum hydrocarbon constituents and subsequently abandoned. In 1995, a grab sample was collected from boring SB-1 located north of the Property in Southwest Roxbury Street (Figure 4). The locations of all monitoring wells installed at the Site are presented in Figure 2. Sampling has been conducted on Site monitoring wells since 1994. Table 2 presents the dates sampled, groundwater elevations, and the analytical results for each sampling event.

#### 4.5 <u>SEDIMENT</u>

No sediment has been sampled as there has been no indication that surface water has been impacted from the Property or Site.

#### 4.6 <u>AIR/SOIL VAPOR</u>

A total of six soil vapor probes were installed in 1996 on the Property. Vapor concentrations were periodically measured at the six soil vapor points and monitoring wells AGW-1, AGW-3, AGW-7 and AGWW-10. The locations of the soil vapor sampling points are presented on Figure 2.

#### 4.7 NATURAL RESOURCES/WILDLIFE

A Terrestrial Ecological Evaluation (TEE) Exclusion Form is included in this report (see Section 5.4).

#### 4.8 CULTURAL HISTORY/ARCHAEOLOGY

No prior information or results of historical investigations have indicated a need for additional investigation of Site history or archaeology.

#### 4.9 INTERIM ACTIONS

During UST decommissioning activities in 1988, approximately 2,240 cubic yards of petroleum-impacted soil was removed from the Site. In July 1995, a passive separate phase hydrocarbon (SPH) recovery system was installed. In 1997, soil vapor extraction (SVE) and vacuum-enhanced recovery (VER) pilot tests were conducted at the Site. Based on the results of the SVE test, SVE was determined to not be an effective remedial alternative at the Site due to low permeability in subsurface soil. In 1998, five high vacuum groundwater extraction events were conducted at monitoring wells AGW-1, AGW-3, AGW-7, and AGW-12 removing approximately 2,800 gallons of water. No additional interim actions have occurred at the Site.

#### 5.0 NATURAL CONDITIONS

#### 5.1 GEOLOGY

The regional geological setting and property geological conditions are summarized below:

Regional Geological Setting: The Site is located in the Puget Lowland Physiographic province of Washington and is characterized by a broad low lying region situated between the Cascade Range to the east and the Olympic Range to the west. Generally, unconsolidated sediments including gravels, cobbles, and silts deposited during the Quaternary era overlay sedimentary and volcanic bedrock (Lasmanis, 1991). The general area of the Site is comprised of deposits of pre-Fraser glaciation age sediments, including interbedded sand, gravel, silts, and poorly sorted sediments of indeterminate age and origin divided up into coarse-grained deposits, up to 15 meters thick and fine-grained deposits, up to 7 meters thick (Booth & Troost 2004).

*Site Geological Conditions:* The Site is underlain by weathered glacial till comprised of silty sand, sandy silt with varying amounts of gravel to about 12 feet bgs. The weathered sediments are underlain by glacial till consisting of dense, compacted mixture of clay, silt, sand, and gravels to a total explored depth of approximately 36 feet bgs. Cross sections describing subsurface soil conditions are included as Figures 5 and 6.

#### 5.2 SURFACE WATER

Surface waters near the Site include Seola Creek, located approximately ½ mile to the south of the Property and Puget Sound, at its closest point, located within 1.5 miles to the west of the Property.

#### 5.3 GROUNDWATER

Regional and local groundwater conditions are summarized below:

Regional Groundwater Conditions: Seattle, Washington is located in the Puget-Willamette Trough lowland regional aquifer between the Cascade and Olympic Mountain ranges in Washington. Groundwater exists as the uppermost aquifer in unconsolidated glacial deposits and till material. Unconsolidated glacial deposits consist of particles that range in size from clay to boulders. There are no drinking water wells identified within 1 mile of the Site.

Site Groundwater Conditions: Shallow groundwater beneath the Site varies seasonally, from approximately 8 to 14 feet bgs in winter and spring and approximately 15 to 22 feet bgs in summer and fall in Site monitoring wells. Based on monitoring events conducted since 1995, shallow groundwater flow direction at the Site is predominantly to the southwest. A rose diagram is included as Figure 7. Table 2 presents historical groundwater elevations and groundwater monitoring results for all Site monitoring wells.

#### 5.4 NATURAL RESOURCES AND ECOLOGICAL RECEPTORS

A sensitive receptor survey and a TEE were completed for the Site. Details of the evaluations are summarized below:

Sensitive Receptor Survey (SRS) Analysis: Surface waters near the Site include Seola Creek, located approximately ½ mile to the south of the Property and the Puget Sound located approximately 1.5 miles to the west of the Property. Based on distance to the surface waters, it is unlikely that impacted groundwater or soil beneath the Site pose any future risk or impact to these surface waters. No hospitals are located within ¼ mile of the Site. No water wells were located within approximately 1 mile of the Site. Three schools are located within ½ mile of the Site. Roxhill Elementary school is located approximately 125 feet north, Explorer West Middle School is located approximately 1,500 feet south, and Community School West Seattle is located approximately 1,800 feet east of the Site A SRS for the Site was completed by Delta Environmental in 2005 (Appendix G).

*Terrestrial Ecological Evaluation:* A TEE Exclusion Form was completed for the Site indicating that further evaluation is not required and is included as Appendix H, in addition to an aerial map depicting a 500-foot radius around the Site.

#### 6.0 CONTAMINANT OCCURRENCE AND MOVEMENT

#### 6.1 WASTE MATERIAL

No waste material is present on the surface or in the subsurface of this Site. Investigative-derived waste is transported from the Site and disposed of properly.

#### 6.2 <u>SOIL</u>

Table 1 summarizes soil analytical data for the Site. Figure 4 depicts areas of the Site that contain soil samples exceeding the MTCA Method A screening levels. Analytical results from soil samples collected from the UST and dispenser island excavation during 1988 indicated the presence of petroleum-impacted soil. TPH was analyzed in soil samples by EPA Method 418.1, therefore quantification based on specific hydrocarbon ranges was not conducted and direct comparison to screening levels cannot be made. Soil samples collected during the Stage II Vapor Recovery retrofitting activities indicated petroleum-impacted soil beneath the northwest and northeast dispenser islands. Soil samples from AGW-3 located in southwest corner of the Property at a depth of 20.5 feet bgs contained petroleum compounds exceeding the MTCA Method A screening levels. No other soil samples collected have contained petroleum compounds exceeding MTCA Method A screening levels.

#### 6.3 SURFACE WATER

Based on the distance to the nearest surface water bodies, no investigation of surface water associated with this release is necessary.

#### 6.4 GROUNDWATER

Table 2 summarizes historical groundwater analytical results for Site monitoring wells. A groundwater contour map for the fourth quarter 2010 and Rose diagram depicting groundwater flow directions since 1994 are presented in Figure 7.

There are currently nine on-Property groundwater monitoring wells (AGW-1 through AGW-8 and AGW-12) and five off-Property monitoring wells (AGW-9 through AGW-11, AGW-13, and AGW-14). Historically, all Site monitoring wells have had groundwater samples that contained TPHg, TPHd, TPHo, BTEX, HVOCs, dissolved lead, and/or total lead compounds that exceeded MTCA Method A screening levels with the exception of monitoring wells AGW-10 and AGW-14.

Monitoring well AGW-1 has contained TPHg, TPHd, and BTEX compounds exceeding MTCA Method A screening levels since 1994, however, there has been a steady decrease in the concentration of petroleum hydrocarbon compounds in this monitoring well, and concentrations of all constituents have been below MTCA Method A screening levels for the past four events. Monitoring wells AGW-2, AGW-6, and AGW-8 have historically contained TPHg and BTEX compounds exceeding the MTCA Method A screening levels, however, there has been a steady decrease in the concentration of petroleum hydrocarbon compounds in these monitoring wells, and no analytes have exceeded the MTCA Method A screening levels during the past five or more sampling events. Monitoring wells AGW-3, AGW-7, AGW-9, AGW-12, and AGW-13 contain concentrations of TPHg, TPHd, and BTEX exceeding the MTCA Method A screening levels. Monitoring well AGW-9 has contained concentrations of tetrachloroethene (PCE) exceeding the MTCA Method A screening levels since installation, although concentrations have decreased over time. Trichloroethene (TCE) has also been detected intermittently in well AGW-9 at concentrations exceeding the MTCA Method A screening levels. Monitoring well AGW-3 has contained PCE in the past. More recent analytical results have not contained detectable concentrations of PCE; however, the analytical reporting limits were elevated due to sample dilution because of the high concentrations of petroleum hydrocarbons in the samples. Chloroform and methylene chloride have been detected periodically in wells AGW-1 through AGW-3, AGW-7, AGW-9, AGW-12, and AGW-13 at concentrations exceeding the MTCA Method A screening levels; however, both constituents are common laboratory contaminants.

The groundwater plume is defined to the north, east, and south by wells AGW-1, AGW-6, and AGW-10 to the north, AGW-4 and AGW-8 to the east, and AGW-11 and AGW-14 to the south. Based on analytical results from a grab groundwater sample collected in SB-2, the groundwater plume is currently not defined to the west.

Groundwater impacts appear to occur in two potentially separate plumes; one focused near AGW-12 and likely the result of the a release associated with the former dispenser islands, and one focused near AGW-3 and likely the result of a release associated with the former gasoline USTs and/or heating oil UST.

#### 6.5 SEDIMENT

No discussion of the occurrence or movement of contaminants in this media is necessary.

#### 6.6 AIR/SOIL VAPOR

A total of six soil vapor probes were installed in 1996 on the Property. Vapor concentrations were periodically measured at the six soil vapor points and monitoring wells AGW-1, AGW-3, AGW-7 and AGW-10. The locations of the soil vapor sampling points are presented on Figure 2. Soil vapor samples were collected in July 1996 during the soil vapor extraction pilot test from monitoring wells AGW-1 through AGW-3. Vapor samples were analyzed for TPHg, BTEX, and methane. Soil vapor concentrations were detected above laboratory detection limits in monitoring well AGW-1 for TPHg, BTEX, and methane. No soil vapor concentrations were detected above laboratory detection limits in monitoring wells AGW-2 and AGW-3.

#### 7.0 CONCEPTUAL MODEL

Petroleum was released into soil at the service station sometime prior to 1988. It is not certain when or how the release occurred but based on environmental investigations the release likely occurred from the former fuel and waste oil USTs, the concrete septic cistern, and/or product conveyance system. A solvent-like substance containing PCE and TCE appears to have also been released into soil beneath the Site. TCE and other HVOCs have been detected in groundwater from well AGW-9; these constituents are considered degradation daughter products of the PCE. Based on known operations at the Property, the likely source of the PCE appears to have been the former concrete septic cistern. However, concentrations of PCE and its daughter products have not been detected in well AGW-7 located between the former cistern and well AGW-9, and therefore the source of the PCE has not been adequately identified. HVOCs, including PCE, have not been detected in soil samples collected from the Site.

All potential sources contributing to the original release have been removed from the Property. A total of 2,240 cubic yards of petroleum-impacted soil was excavated from the Site during the removal of the USTs in 1988. Soil containing residual hydrocarbon concentrations above MTCA Method A screening levels were left in place at the Site in the vicinity of the former fuel USTs, at the northeast and northwest former dispenser islands, and in the southwest corner of the Property.

The Property has been capped by asphalt and concrete since it was developed in 1957 and therefore has not been exposed to infiltrating surface water. Subsurface soils at the

13

241799 (6)

Site consist of several feet of weathered till, consisting of poorly sorted sands with variable amounts of silt and gravel, underlain by glacial till at a depth of approximately 12 feet bgs and are saturated at depths ranging from approximately 9 to 24 feet bgs. Shallow perched water has likely come into contact with the petroleum-impacted soil in the vicinity of the former USTs and dispenser islands. Shallow groundwater flow is to the southwest. Monitoring wells located at the southwestern corner of the Property are impacted with petroleum hydrocarbons and PCE. A monitoring well situated near the southwestern corner of the adjacent casino building has not contained detectable hydrocarbon concentrations.

Based on the distribution of hydrocarbon-impacted groundwater at the Site, it appears that two releases may have contributed to groundwater impact. The reported release in 1993 appeared to be associated with the former USTs and dispenser islands, however, based on the presence of elevated petroleum hydrocarbon constituents and PCE and associated daughter products in the southwestern portion of the Site, an additional release may have occurred at sometime in the past associated with the former heating oil UST.

There are no water supply wells located within one mile of the Property. There are no surface water bodies or terrestrial ecological receptors located in close proximity to the Site.

Based on the concentrations of benzene and PCE in wells located near the casino building to the southwest and direction of groundwater flow, preliminary assessment indicates the need to further evaluate the vapor intrusion pathway. However, based on the current and likely future use of the Property and adjacent properties and the depth to groundwater, the cleanup action will likely be driven by protection of groundwater for potential drinking water use.

#### 8.0 CLEANUP STANDARDS - SOIL AND GROUNDWATER

In accordance with MTCA, development of cleanup levels includes identifying potential exposure pathways for humans and environmental impacts based on the planned land use. The Property is currently zoned for commercial use and future zoning is not anticipated to change. As previously noted, the Property is currently used as a gasoline service station.

241799 (6)

#### 8.1 GROUNDWATER CLEANUP LEVELS

Although shallow groundwater in the vicinity of the Site is not currently a drinking water resource, it could potentially be used for drinking water beneficial use in the future. Therefore, the MTCA Method A groundwater cleanup level for COCs at the Site will be used. The point of compliance for this Site is defined as the point at which the groundwater cleanup level must be attained; thus, the point of compliance is the entire Site. Groundwater cleanup levels are presented in Table 2.

#### 8.2 <u>SOIL CLEANUP LEVELS</u>

Based on the classification of groundwater in this area, MTCA Method A soil cleanup levels will be used for COCs at the Site. The point of compliance for soil cleanup levels based on protection of groundwater is all soil throughout the Site.

#### 9.0 AREAS REQUIRING FUTURE MANAGEMENT AND CONCLUSIONS

#### 9.1 CONSTITUENTS OF CONCERN

Based on a comparison to MTCA Method A cleanup levels, COCs remaining at the Site include TPHg, TPHd, and BTEX in soil, and TPHg, TPHd, TPHo, BTEX, MTBE, PCE, TCE, and total lead in groundwater.

#### 9.2 SOIL - VERTICAL AND LATERAL

Figure 4 identifies soil sample locations containing petroleum hydrocarbon concentrations above the MTCA Method A screening levels. The areas requiring future management of petroleum hydrocarbons are in the vicinity of the former fuel UST system, in the vicinity of the former and current dispenser islands, and in the southwest corner of the Property. Results of Site investigation activities indicate that soil impacts are not fully defined to the southwest of the Property.

#### 9.3 GROUNDWATER - VERTICAL AND LATERAL

Groundwater at the Site currently exceeds the MTCA Method A cleanup levels for Site COCs in monitoring wells AGW-3, AGW-7, AGW-9, AGW-12, and AGW-13. Further delineation is required to the west beyond SB-2. Based on historical groundwater analytical data for the Site monitoring wells, the groundwater plume appears to be migrating off-Property to the southwest beneath Roxbury Lanes and Casino. Due to the

presence of Roxbury Lanes and Casino, additional investigation in this area is not feasible.

#### 9.4 <u>SEDIMENT</u>

No areas of impacted sediment exist at the Site.

#### 9.5 SURFACE WATER

There is no indication that surface water has been impacted by the release originating from this Site; therefore, no additional action is necessary.

#### 9.6 <u>SOIL VAPOR/AIR</u>

Based on the proximity of the Roxbury Lanes and Casino building to the southwest and the potential migration of impacted groundwater in this area, the vapor intrusion pathway will likely require further evaluation once the cleanup action is implemented.

#### 10.0 REFERENCES

AGI, Hydrocarbon Contamination Assessment, July 1989

Booth, D. & Troost, K. (2004). *Geology of Seattle Field Trip Guide*. University of Washington, Department of Earth and Space Sciences, May 22, 2004.

City of Seattle, City of Seattle Generalized Zoning, March 21, 2009.

E Data Resources, Inc., EDR-Radius Map with GeoCheck, July 20, 2007.

EMCON, Compliance Sampling Results, October 1993

GeoEngineers, Site Investigation, November 1994

GeoEngineers, Supplemental Environmental Services, October 1995

GeoEngineers, Report of SVE Pilot Test Results, July 2, 1997

GeoEngineers, Vacuum-Enhanced Recovery System - Pilot Test, July 2, 1997

GeoEngineers, Supplemental Environmental Drilling Groundwater Sampling High Vac Extraction Test - March and April 1998, June 17, 1998

GeoEngineers, Environmental Ground Water Monitoring and High Vacuum Ground Water Extraction Services - June 1998, September 25, 1998

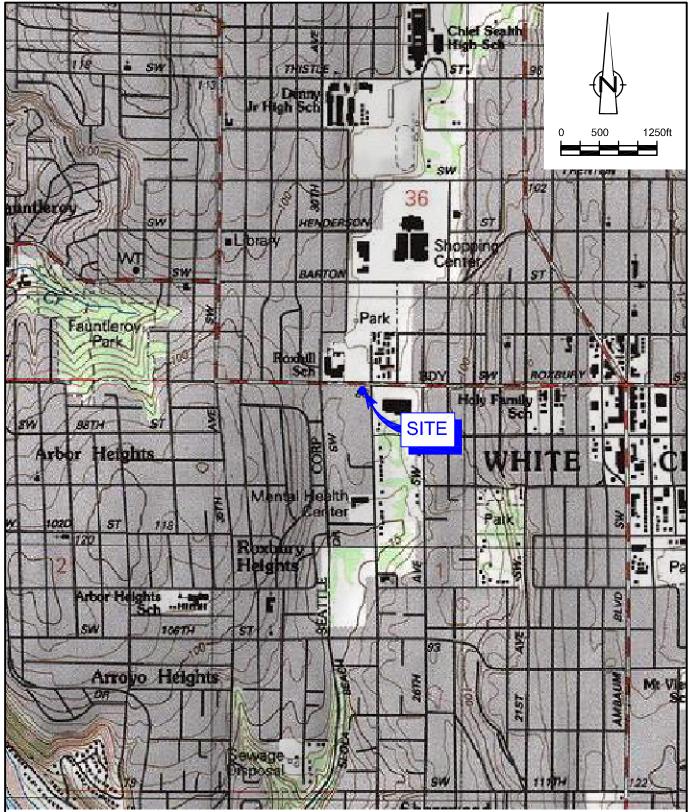
GeoEngineers, Environmental Ground Water Monitoring and High Vacuum Ground Water Extraction Services - September/October 1998, December 8, 1999

GeoEngineers, Environmental Ground Water Monitoring and High Vacuum Ground Water Extraction Services - December 1998, February 8, 1999

King County Zoning Map for Unincorporated Areas of King County, 2004.

Lasmanis, Raymond, The Geology of Washington: Rocks and Minerals, v. 66, no. 4, p. 262-277, 1991

#### **FIGURES**

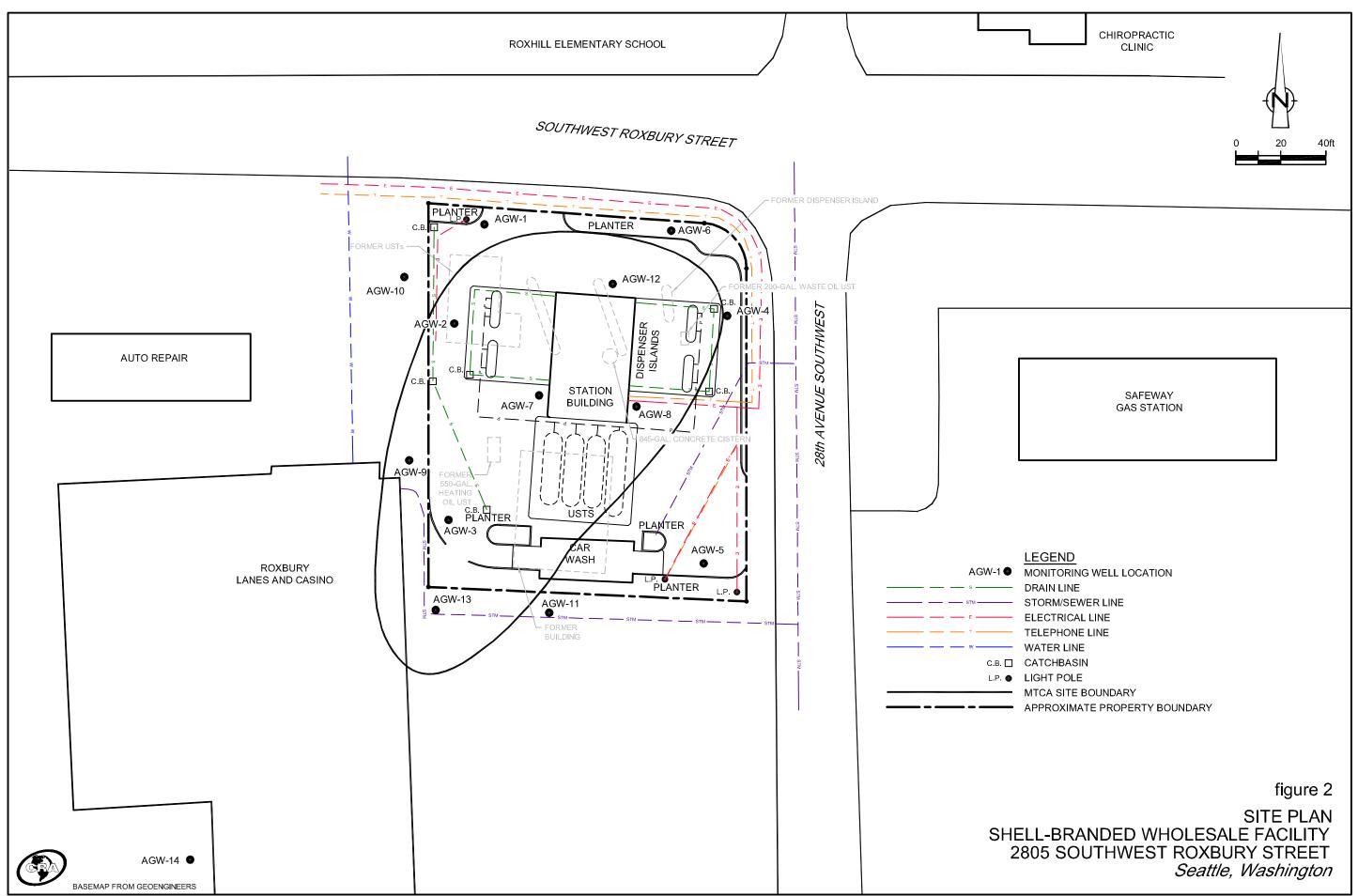


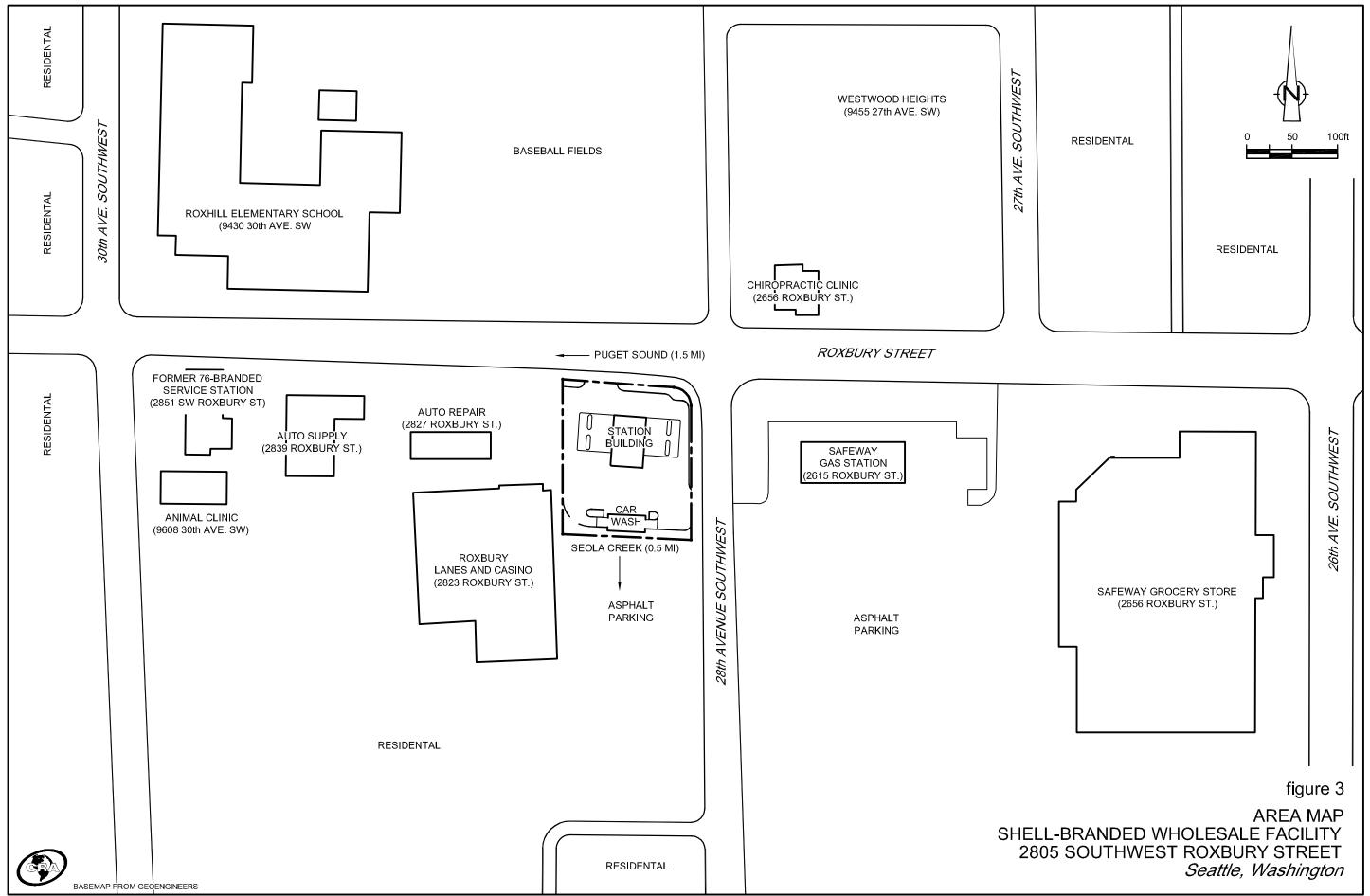
SOURCE: TOPO! MAPS.

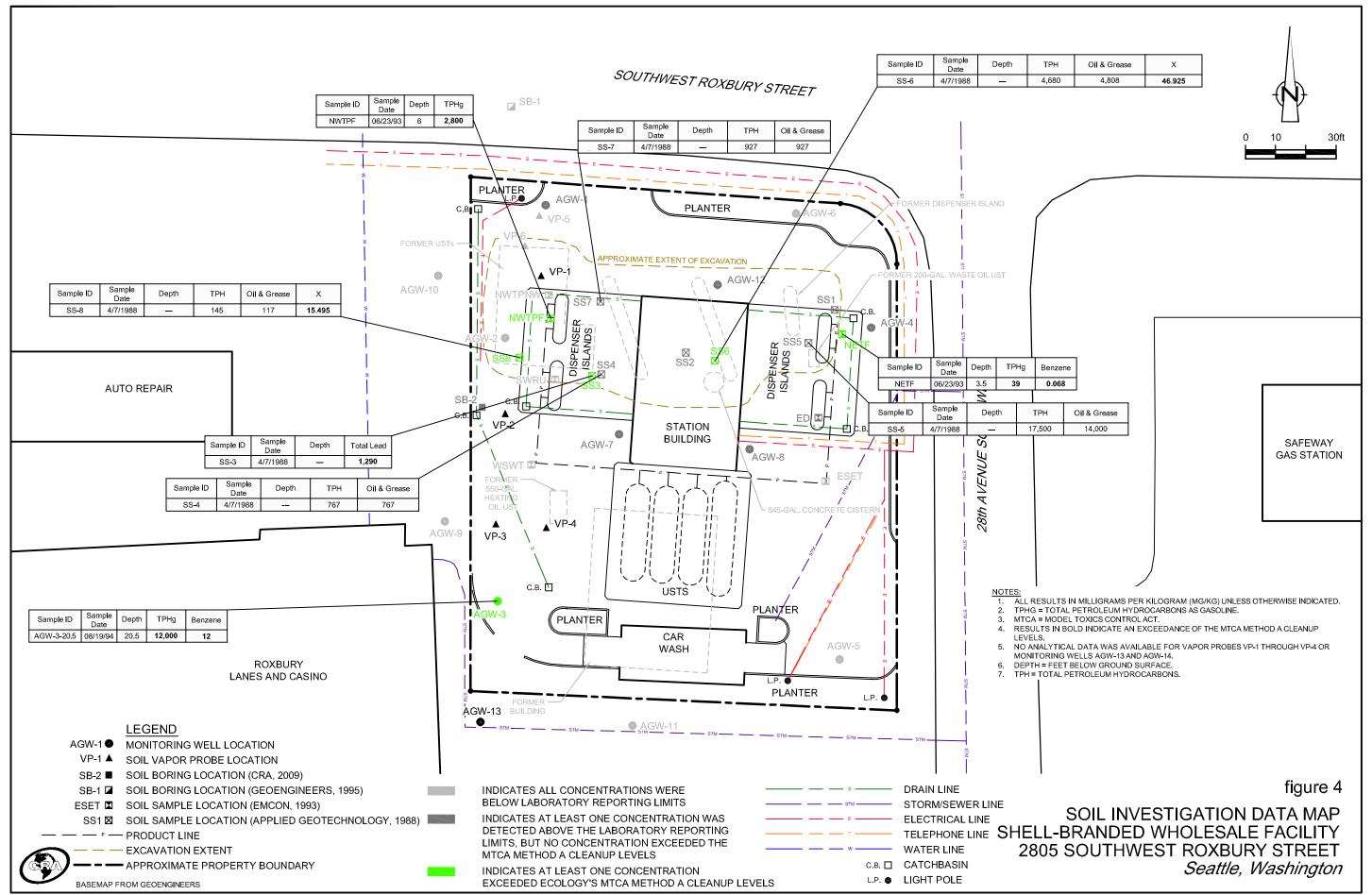
figure 1

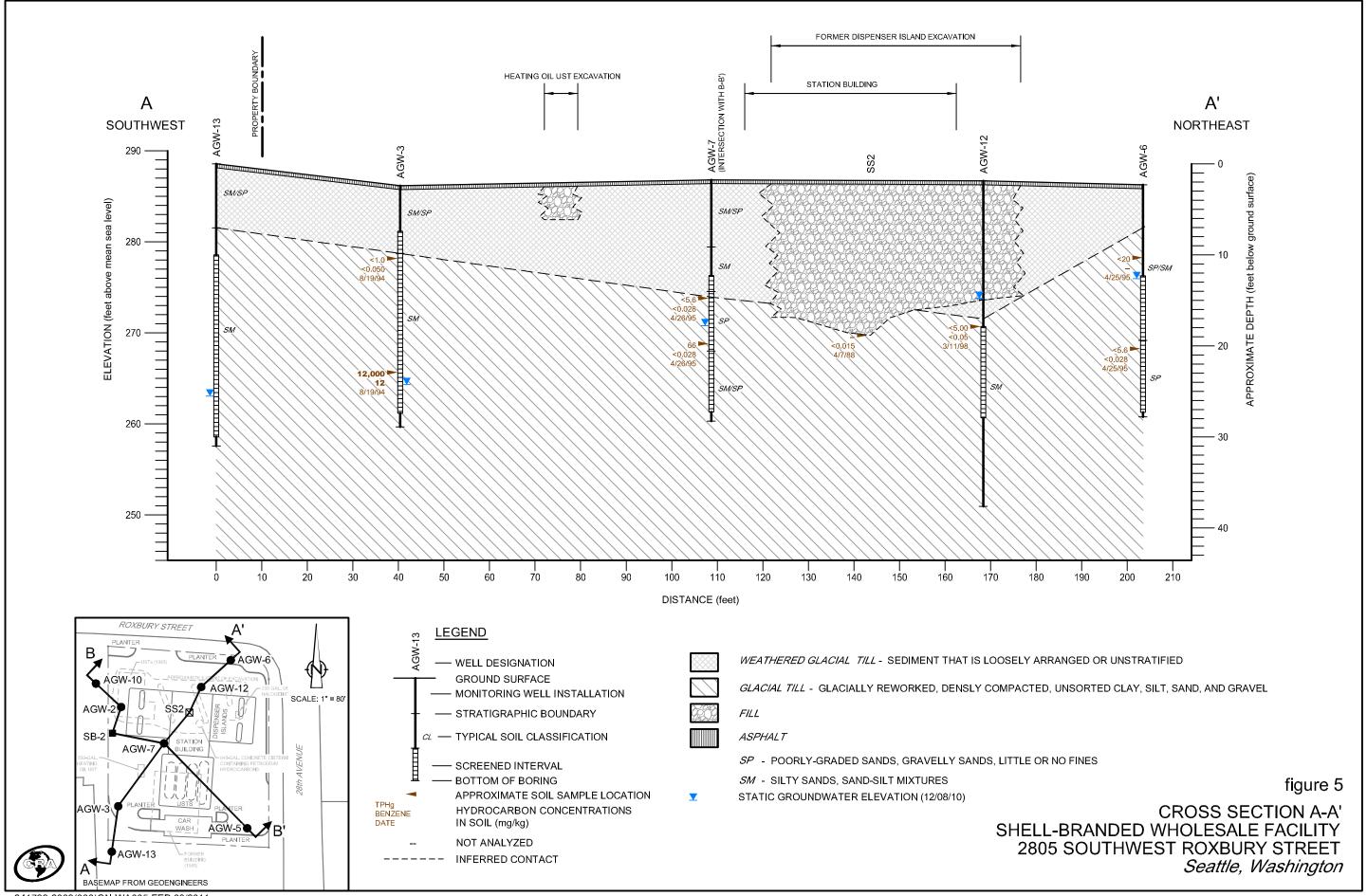
VICINITY MAP SHELL-BRANDED WHOLESALE FACILITY 2805 SOUTHWEST ROXBURY STREET Seattle, Washington

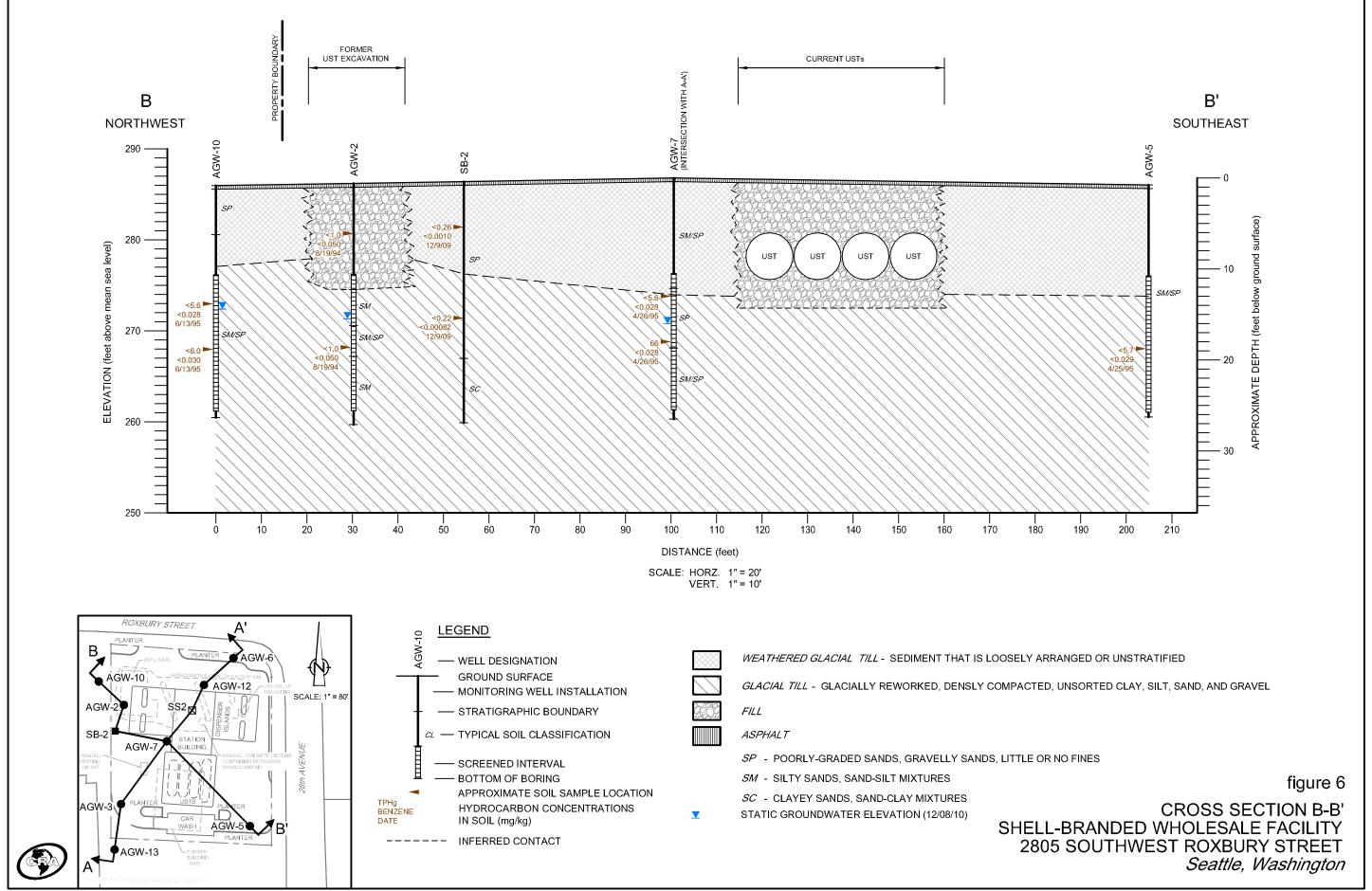


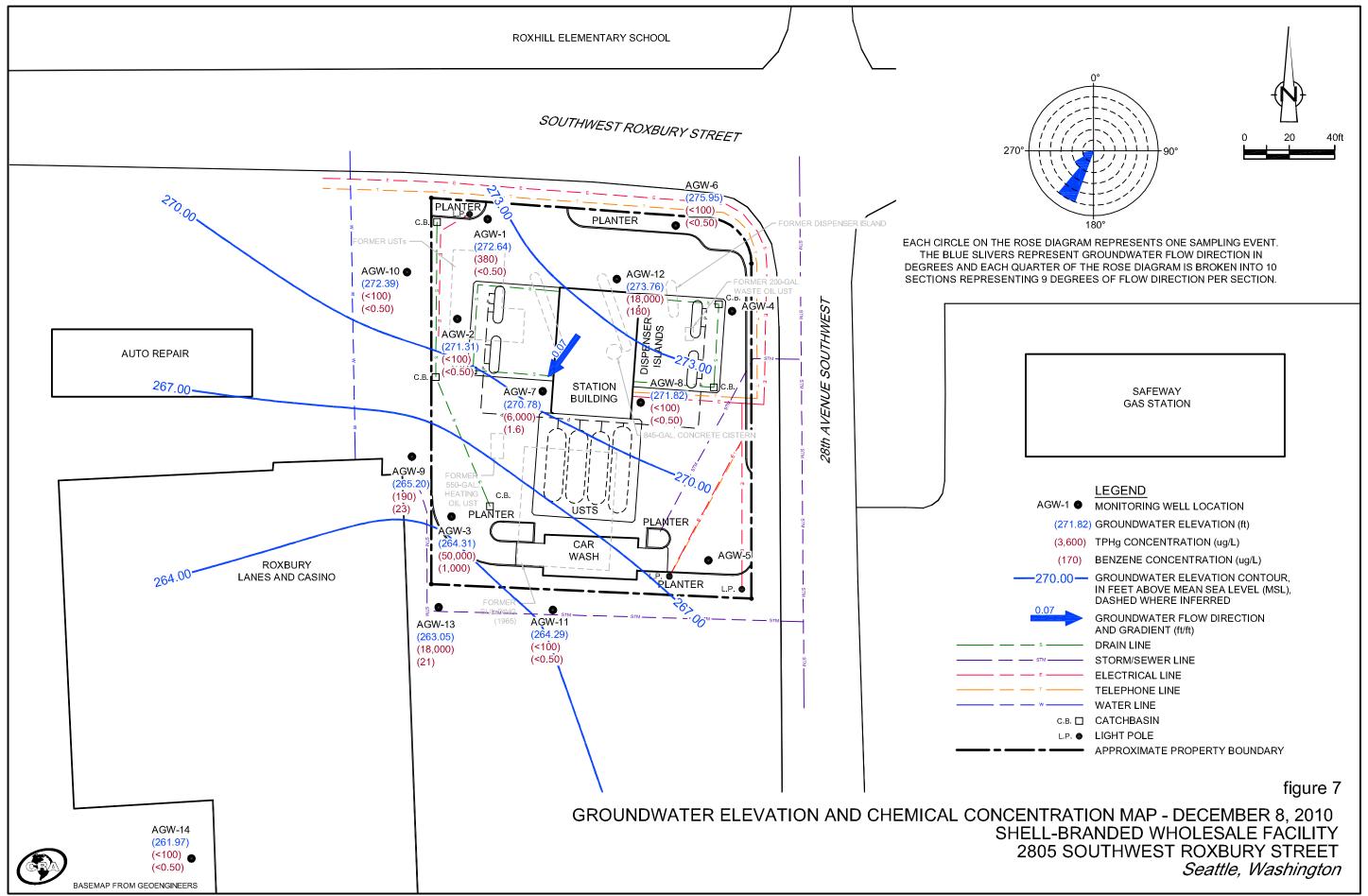












**TABLES** 

# SUMMARY OF HISTORICAL SOIL ANALYTICAL DATA SHELL-BRANDED SERVICE STATION 2805 SOUTHWEST ROXBURY STREET SEATTLE, WASHINGTON

			<del>-</del>		HYDROC	ARBONS					LEAD	PCBs				
Sample ID	Consultant	Sample Date Sample Depth MTCA Method A Screening Leve		TPH <sup>a</sup> NE	Oil & Grease a  NE	TPHg 30/100	TPHd 2,000	TPHo 2,000	B 0.03	T 7	E 6	X 9	EDB 0.005	EDC N/A	Total 250	Aroclor 1242
SS-1	ACI (1000)	04/07/00	ft	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SS-2	AGI (1989) AGI (1989)	04/07/88 04/07/88	 17 b	38.0 15.8	22.5 <5.0				<0.015 <0.015	<0.015 <0.015		0.928 <0.045			13.0 26.0	<0.02 <0.02
SS-4	AGI (1989) AGI (1989)	04/07/88	17 b 	767	767				<0.015	<0.015		0.591			42	<0.02
SS-5	AGI (1989)	04/07/88		17,500	14,000				<0.013	<0.013		0.695			88	0.11
SS-6	AGI (1989)	04/07/88		4,680	4,808				<0.040	<0.040		46.925			34	<0.02
SS-7	AGI (1989)	04/07/88		927	927				<0.040	0.078		3.015			13	<0.02
SS-8	AGI (1989)	04/07/88		145	117				<0.015	1.575		15.495			23	<0.02
B-4	AGI (1989)	08/18/88	7.5	7.2												
B-4	AGI (1989)	08/18/88	17.5	8.4												
B-4	AGI (1989)	08/18/88	22.5	<5												
NETF	EMCON (1993)	6/23/1993	3.5			39			0.068	< 0.050	< 0.050	<0.10				
ED	EMCON (1993)	6/23/1993	2.5				27									
ESET	EMCON (1993)	6/23/1993	3.5			<1.0	<10		< 0.050	< 0.050	< 0.050	< 0.10				
WSWT	EMCON (1993)	6/22/1993	3.5			<1.0	<10		< 0.050	< 0.050	< 0.050	< 0.10				
SWRU	EMCON (1993)	6/22/1993	2.5			<1.0			< 0.050	< 0.050	< 0.050	< 0.10				
NWTPF	EMCON (1993)	6/23/1993	6			2,800			< 0.050	57	42	260				
NWTPNW	EMCON (1993)	6/23/1993	3			<1.0			<0.050	< 0.050	<0.050	<0.10				
AGW-1-5.5	GeoEngineers (1994)	8/19/1994	5.5			<1.0	<10		< 0.050	<0.050	<0.050	<0.10			<10	
AGW-1-18.0	GeoEngineers (1994)	8/19/1994	18			<1.0	10		< 0.050	< 0.050	< 0.050	< 0.10			<10	
AGW-2-5.5	GeoEngineers (1994)	8/19/1994	5.5			<1.0	<10		< 0.050	< 0.050	< 0.050	< 0.10			<10	
AGW-2-18.0	GeoEngineers (1994)	8/19/1994	18			<1.0	<10		< 0.050	< 0.050	< 0.050	< 0.10			<10	
AGW-3-8.0	GeoEngineers (1994)	8/19/1994	8			<1.0	620		< 0.050	< 0.050	< 0.050	< 0.10			<10	
AGW-3-20.5	GeoEngineers (1994)	8/19/1994	20.5			12,000	280		12	120	110	560			<10	
AGW-4-18.0	GeoEngineers (1994)	8/19/1994	18			<1.0	39		<0.050	<0.050	<0.050	<0.10			12	
AGW-5-18.0	GeoEngineers (1995)	4/25/1995	18			<5.7	<11	<46	< 0.029	<0.029	<0.029	<0.029				
AGW-6-8.0	GeoEngineers (1995)	4/25/1995	8			<20	<50	<100								
AGW-6-18.0	GeoEngineers (1995)	4/25/1995	18			< 5.6	<11	<45	< 0.028	< 0.028	< 0.028	< 0.028				
AGW-7-13.0 **	GeoEngineers (1995)	4/26/1995	13			< 5.6	16	<45	< 0.028	< 0.028	< 0.028	< 0.028				
AGW-7-18.0 **	GeoEngineers (1995)	4/26/1995	18			66	74	<45	< 0.028	0.17	0.051	0.63				
AGW-8-18.0	GeoEngineers (1995)	4/26/1995	18			<6.0	13	<48	< 0.030	< 0.030	< 0.030	< 0.030				
SB-1-10.5	GeoEngineers (1995)	4/25/1995	10.5			<5.6	<11	<45	< 0.028	< 0.028	< 0.028	< 0.028				
SB-1-18.0	GeoEngineers (1995)	4/25/1995	18			<6.2	<12	<49	<0.031	<0.031	<0.031	<0.031				

Page 2 of 2

#### SUMMARY OF HISTORICAL SOIL ANALYTICAL DATA SHELL-BRANDED SERVICE STATION 2805 SOUTHWEST ROXBURY STREET SEATTLE, WASHINGTON

			_		HYDROCARBONS PRIMARY VOCs						LEAD	PCBs				
Sample ID	Consultant	Sample Date	Sample Depth	TPH <sup>a</sup>	Oil & Grease <sup>a</sup>	ТРНд	ТРНа	ТРНо	В	T	E	X	EDB	EDC	Total	Aroclor 1242
		MTCA Method A	A Screening Levels	NE	NE	30/100	2,000	2,000	0.03	7	6	9	0.005	N/A	250	1
			ft	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
AGW-9-13.0	GeoEngineers (1995)	6/13/1995	13			< 5.6	<11	<45	< 0.028	< 0.028	< 0.028	< 0.028				
AGW-9-18.0	GeoEngineers (1995)	6/13/1995	18			< 5.4	<11	<43	< 0.027	< 0.027	< 0.027	< 0.027				
AGW-10-13.0	GeoEngineers (1995)	6/13/1995	13			< 5.6	<11	<44	< 0.028	< 0.028	< 0.028	< 0.028				
AGW-10-18.0	GeoEngineers (1995)	6/13/1995	18			<6.0	<12	<48	< 0.030	< 0.030	< 0.030	< 0.030				
AGW-11-13.0	GeoEngineers (1995)	6/13/1995	13			< 5.8	<12	<47	< 0.029	< 0.029	< 0.029	< 0.029				
AGW-11-17.5	GeoEngineers (1995)	6/13/1995	17.5			<5.6	<11	<45	<0.028	<0.028	<0.028	<0.028				
VP-5-10.5 **	GeoEngineers (1997)	12/3/1996	10.5			<5.00	<10.0	<25.0								
VP-6-14 **	GeoEngineers (1997)	12/3/1996	14			< 5.00	<10.0	<25.0								
VP-6-25 **	GeoEngineers (1997)	12/3/1996	25			<5.00	<10.0	<25.0								
AGW-12-16 **	GeoEngineers (1998)	3/11/1998	16			<5.00	<10.0	<25.0	<0.0500	<0.0500	<0.0500	<0.100			1.91	
SO-241799-120909-JS-SB2-5	CRA (2009)	12/9/2009	5			< 0.26	46	290	<0.0010	<0.0010	<0.0010	<0.0021			10.4	
SO-241799-120909-JS-SB2-15	CRA (2009)	12/9/2009	15			< 0.22	< 5.0	< 5.0	< 0.00082	< 0.00082	< 0.00082	< 0.0016			2.11	

#### Notes:

MTCA = Model Toxics Control Act

-- = Not analyzed

All results in milligrams per kilogram (mg/kg) unless otherwise indicated.

Results in bold indicate an exceedance of the MTCA Method A cleanup level.

bgs = below ground surface (in feet)

TPH = Total recoverable petroleum hydrocarbons by EPA Method 418.1

Oil and Grease = Total Oil and grease by EPA method 418.1

TPHg = Total petroleum hydrocarbons as gasoline range organics analyzed by NWTPH-Gx unless otherwise noted

TPHd = Total petroleum hydrocarbons as diesel range organics analyzed by NWTPH-Dx unless otherwise noted

TPHo = Total petroleum hydrocarbons as heavy oil range organics analyzed by NWTPH-Dx unless otherwise noted

BTEX = Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B; before February 26, 2008, analyzed by EPA Method 8020 unless otherwise noted

EDB = 1,2-Dibromoethane analyzed by EPA Method 8011

EDC = 1,2-Dichloroethane analyzed by EPA Method 8260B

VOCs = volatile organic compounds

HVOCs = halogenated volatile organic compounds

Total Lead analyzed by EPA Method 6020

PCBs = Polychlorinated biphenyls analyzed by EPA Method 8080

<x = Not detected at reporting limit x

NA = Not applicable

CRA 241799 (6)

a = Analysis conducted for TPH via method 418.1.

b = Depth of sample not provided in reference report. Depth of sample inferred from narrative of investigation provided in report text.

<sup>\*\*</sup> Indicates that soil samples were additionally analyzed for HVOCs by EPA Method 8010. HVOCs were not detected above laboratory detection limits (with the exception of methylene chloride in the 1995 samples, which was also detected in the Method Blank).

#### SUMMARY OF GROUNDWATER MONITORING DATA SHELL-BRANDED WHOLESALE FACILITY 2805 SOUTHWEST ROXBURY STREET SEATTLE, WASHINGTON

					HYD	PRIMARY VOCs							OXYGENATES		LEAD		HVOCs				
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	Е	T	X	EDB	EDC	MTBE	TBA	Total	Dissolved	PCE	TCE	Chloroform	Methylene Chloride
Model To	oxics Control Act Met	thod A Clea	nup Levels		800/1000	500	500	5	700	1000	1000	0.01	5	20	NE	15	15	5	5	7.2	5
AGW-1	08/25/94	99.64	15.70	83.94	54,000	1,600	<750 f	280	5,200	1,300	8,300						7.6				
AGW-1	12/07/94	99.64	17.82	81.82	75,000	5,100	1,000	250	4,500	2,000	9,600						4.2				
AGW-1	04/28/95	99.64	12.18	87.46 a																	
AGW-1	06/19/95	99.64	13.44	86.30 a																	
AGW-1	12/06/95	99.64	15.15	84.50																	
AGW-1	03/08/96	99.64	10.86	88.36 a																	
AGW-1	04/02/96	99.64	10.91	88.76 a																	
AGW-1	05/23/96	99.64	11.09	88.55																	
AGW-1	07/31/96	99.64	12.52	87.12	15,600	1,080	<750 f	51.7	232	242	898		1.25				<2.0	<2.50	<2.50	<2.50	<12.5 f
AGW-1	10/22/96	99.22	14.06	85.16													<2.0				
AGW-1	02/03/97	99.22	8.59	90.63	32,000	8,720	<750 f	<50.0 f	323	382	1,800						3.87	<10.0 f	<10.0 f	<10.0 f	<50.0 f
AGW-1	03/31/98	99.22	10.37	88.85																	
AGW-1	06/15/98	99.22	11.50	87.72	15,100	689 b	<750 f	27.2	320	343	1,460		<10				40	<10.0 f	<10.0 f	<10.0 f	<100 f
AGW-1	09/25/98	99.22	15.63	83.59																	
AGW-1	12/07/98	99.22	14.23	84.99	102,000	6,000	<3,750 f	38	598	497	2,620		<20					<20.0 f	<20.0 f	<20.0 f	112 i
AGW-1	07/19/99	99.22	11.37	87.85																	
AGW-1	11/05/99	99.22	15.41	83.81 a																	
AGW-1	06/16/00	99.22	12.25	86.97	12,800	11,400	578	<12.0 f	258	310	1,240						3.27	<1.00	<1.00	<1.00	< 5.00
AGW-1	11/09/00	99.22	16.53	82.69	7,650	987	< 500	<11.5 f	110	176	599						4.02	<1.00	<1.00	<1.00	< 5.00
AGW-1	02/15/01	99.22	16.55	82.67	10,900	295	< 500	<10.0 f	884	410	2,040						2.49	<1.00	<1.00	<1.00	< 5.00
AGW-1	05/25/01	99.22	16.01	83.21	17,700	691	< 500	17.3	736	686	3,530		<1.0				2.98	<1.00	<1.00	<1.00	<5.00
AGW-1	10/12/01	99.22	17.68	81.61 a																	
AGW-1	01/29/02	99.22	11.45	87.77	16,200	361	< 500	14.1	502	623	2,790		<1.0				1.64	<1.00	<1.00	<1.00	<5.00
AGW-1	04/23/02	99.22	10.92	88.30	16,400	273	< 500	11.3	343	572	2,410						1.92	ND	ND	ND	ND
AGW-1	07/11/02	99.22	12.61	86.61	26,000	1,100	<750 f	21	240	400	1,860	<5.0 f	< 5.0	<5.0			<5.0	<5	<b>&lt;</b> 5	<5	<25 f
AGW-1	01/14/03	99.22	15.28	83.94	49,000	<250	< 500	<50 f	480	730	3,600	<50 f	<50 f	<50 f			<5.0	<50 f	<50 f	<50 f	<250 f
AGW-1	05/09/03	99.22	11.93	87.29	18,000	2,500	<2,500 f	<25 f	130	360	1,510	<25 f	<25 f	<25 f			<5.0	<25 f	<25 f	<25 f	<120 f
AGW-1	10/14/03	99.22	16.99	82.23																	
AGW-1	03/26/04	99.22	11.44	87.78	9,100	1,100	< 500	<10	98	200	620	<10 f	<10 f	<10				<10 f	<10 f	<10 f	110
AGW-1	09/28/05	99.22	12.71	86.51	5,300	1,500	<1,000 f	<10	85	130	400	<10 f	<10 f	<10				<10 f	<10 f	<10 f	<50 f
AGW-1	04/19/07	99.22	9.47	89.75	300	<243	<485	<1.0	2.34	8.32	7.55			<1.0			<1.0	ND	ND		
AGW-1 *	10/10/07	99.22	13.17	86.05	<250	853 d,e	<105	<1.0	<1.0	<1.0	<3.0	<1.0 f	<1.0	<1.0			<2.0	<1.00	<1.00	<1.00	<5.00
AGW-1	04/03/08	99.22	12.24	86.98	120	<250	<400	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0			<5.0	<1	<1	<1	<1
AGW-1 *	10/14/08	99.22	16.38	82.84	1,400	2,100	<100	<0.5	18	61	34	<1.0 f	<0.50	<1.0	<10	7.66		<1.0	<1.0	<1.0	<10 f
AGW-1 *	04/14/09	99.22	12.37	86.85	160	<100	<100	<0.50	1.7	2.2	7.5			<0.50	4.8	15.6		< 0.50	<0.50	< 0.50	<0.50
AGW-1 *	12/30/09	285.63	12.54	273.09	<100	<100	<100	<0.50	<1.0	<1.0	1.7			<1.0	<10						
AGW-1	06/22/10	285.63	11.14	274.49	<100	<100	<250	<0.50	<1.0	<1.0	<1.0										
AGW-1 *	12/08/10	285.63	12.99	274.49				<0.50													
AGVV-1 "	12/08/10	203.03	12.99	Z/Z.0 <del>4</del>	380	160 g	<100	<b>\0.50</b>	14	6.9	24			<1.0	<10						

Page 1 of 12

					HYD	ROCARE	SONS			PRIMAR	Y VOCs			OXYGE	NATES	L	EAD			HVOCs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	Е	T	X	EDB	EDC	MTBE	TBA	Total	Dissolved	PCE	TCE	Chloroform 1	Methylene Chloride
Mode	el Toxics Control Act Me	thod A Clea	nup Levels		800/1000	500	500	5	700	1000	1000	0.01	5	20	NE	15	15	5	5	7.2	5
AGW-2	08/25/94	100.28	17.26	83.02	1,200	510	<750 f	510	58	86	200						<2.0				
AGW-2	12/07/94	100.28	19.51	80.77	940	490	1,200	590	25	21	91						<2.0				
AGW-2	04/28/95	100.28	15.05	85.23	7,000	<240	<710 f	980	500	360	950						<3.0	2.3	ND	ND	ND
AGW-2	06/19/95	100.28	16.11	84.17																	
AGW-2	12/06/95	100.28	17.46	82.82	3,100	<250	<750 f	740	170	270	250						<2.0	ND	ND	ND	ND
AGW-2	04/02/96	100.28	12.52	87.76	870	<250	<750 f	130	70	35	110		< 0.50					2.0	<1.0	<1.0	<5.0
AGW-2	07/31/96	100.28	12.30	87.98	369	1,210	<750 f	65.3	26.0	23.6	43.4						<2.0	2.83	<1.00	<1.00	<5.00
AGW-2	10/22/96	99.77	15.87	83.90	833	<250	<750 f	166	21.4	45.3	63.7						<2.0	1.60	ND	ND	ND
AGW-2	02/03/97	99.77	9.66	90.11	122	<250	<750 f	122	5.82	5.82	17.8		<1.0				<2.0	2.61	<1.00	<1.00	<5.00
AGW-2	03/31/98	99.77	12.36	87.41	2,210	<250	<750 f	351	163	84.9	277						<1	3.64	<2.00	<2.00	<10.0 f
AGW-2	06/15/98	99.77	13.88	85.89	1,870	<250	<750 f	466	202	88.9	302		<1.0				<1	3.24	<1.00	<1.00	<10.0 f
AGW-2	09/25/98	99.77	17.15	82.62	4,250	<250	<750 f	1,040	405	175	702		<1.0				<1	1.33	<1.00	<1.00	<5.00
AGW-2	12/07/98	99.77	17.51	82.26	12,300	341	<751 f	2,260	730	549	2,130		<20 f				1.74	<20.0 f	<20.0 f	<20.0 f	119 i
AGW-2	07/19/99	99.77	13.65	86.12	85	<250	<752 f	33.9	4.78	4.52	2.1						<1	3.17	ND	ND	ND
AGW-2	11/05/99	99.77	16.92	82.85	111	<250	< 500	15.4	0.618	1.97	<1.00		<1.0				<1.0	1.61	<1.00	<1.00	<5.00
AGW-2	06/16/00	99.77	14.32	85.45	<50.0	<250	< 500	8.06	3.06	2.48	3.08						<1.0	2.10	<1.00	<1.00	<5.00
AGW-2	11/09/00	99.77	18.03	81.74	576	<250	< 500	9.18	0.734	0.599	<1.00						<1.0	<1.00	<1.00	<1.00	< 5.00
AGW-2	02/15/01	99.77	18.87	80.90	15,100	341	< 500	2,500	577	735	1,520						1.45	<1.00	<1.00	<1.00	<5.00
AGW-2	05/25/01	99.77	18.51	81.26	25,400	880	< 500	4,230	2,080	1,200	3,410		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-2	10/12/01	99.77	19.41	80.36	995	<250	< 500	195	20	36.8	28.2		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-2	01/29/02	99.77	15.20	84.57	<50.0	<250	< 500	6.1	3.23	3.08	7.9		<1.0				<1.0	1.78	<1.00	<1.00	<5.00
AGW-2	04/23/02	99.77	12.44	87.33	<50.0	<250	< 500	2.3	1.32	0.683	2.84						<1.0	ND	ND	ND	ND
AGW-2	07/11/02	99.77	15.03	84.74	1,000	<250	<750 f	91	20	40	44	<1.0 f	<1.0	<1.0			< 5.0	<1	<1	<1	<5
AGW-2	01/14/03	99.77	18.06	81.71	35,000	330	< 500	1,800	950	940	3,480	<50 f	<50 f	50			<5.0	<50 f	<50 f	<50 f	<250 f
AGW-2	05/09/03	99.77	14.85	84.92	<250	<250	< 500	2.8	2.8	1.2	1.7	<1.0 f	<1.0	<1.0			< 5.0	1	<1	<1	<5
AGW-2	10/14/03	99.77	18.60	81.17	870	<250	< 500	130	27	25	53	<1.0 f	<1.0	<1.0				<1	<1	<1	<5
AGW-2	03/26/04	99.77	14.21	85.56	<250	<250	< 500	90	12	1.5	31	<1.0 f	<1.0	<1.0				<1	<1	<1	<5
AGW-2	09/28/05	99.77	15.47	84.30	980	<250	< 500	110	19	11	40	<1.0 f	<1.0	<1.0				<1	<1	<1	<5
AGW-2	04/19/07	99.77	10.84	88.93	< 50.0	<248	<495	<1.0	<1.0	<1.0	<3.0			<2.0			<1.0	6.26	ND		
AGW-2*	10/10/07	99.77	14.63	85.14	<250	<105	<105	<1.0	<1.0	<1.0	<3.0	<1.0 f	<1.0	<1.0			<2.0	<1.00	<1.00	<1.00	<5.00
AGW-2	04/03/08	99.77	14.61	85.16	<50	390	720	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0			< 5.0	3.9	<1	<1	<1
AGW-2*	10/14/08	99.77	17.91	81.86	<100	<100	<100	1.5	<1.0	<1.0	<2.0	<1.0 f	< 0.50	<1.0	<10	<1.0		<1.0	<1.0	<1.0	<10 f
AGW-2*	04/14/09	99.77	14.61	85.16	<100	<100	<100	< 0.50	< 0.50	< 0.50	< 0.50			<050	<10	<1.0		1.5	< 0.50	< 0.50	<0.50
AGW-2*	12/30/09	286.19	15.41	270.78	<100	<100	360	< 0.50	<1.0	<1.0	<1.0			<1.0	<10						
AGW-2	06/22/10	286.19	12.37	273.82	<100	<100	<100	< 0.50	<1.0	<1.0	<1.0										
AGW-2 *	12/08/10	286.19	14.88	271.31	<100	<100	<100	< 0.50	<1.0	<1.0	<1.0			<1.0	<10						

					HYD	ROCARB	ONS			PRIMAR	RY VOCs			OXYGE	NATES	L	EAD			HVOCs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	Е	T	X	EDB	EDC	MTBE	TBA	Total	Dissolved	PCE	TCE	Chloroform 1	Methylene Chloride
Model Tox	xics Control Act Met	thod A Clea	nup Levels		800/1000	500	500	5	700	1000	1000	0.01	5	20	NE	15	15	5	5	7.2	5
AGW-3	08/25/94	100.00	22.47	77.53	90,000	960	<750 f	5,300	12,000	2,700	15,000						24				
AGW-3	12/08/94	100.00	24.19	77.33 75.81	40,000	1,100	<750 f	2,100	2,900	1,100	7,700		<5.0				12	27	<5.0	<5.0	 <25 f
AGW-3	04/28/95	100.00	22.24	75.81 77.76	84,000	760	<730 f	3,300	8,000	2,600	13,000						2.4	6.9	ND	ND	ND
AGW-3	12/06/95	100.00	23.08	76.92	76,000	1,900	<750 f	3,600	6,300	1,600	10,000						39	13	ND	ND	ND
AGW-3	04/02/96	100.00	19.58	80.42	67,000	1,900 b	<750 f	2,300	7,400	1,300	11,000		<10 f					<10 f	<10 f	<10 f	<50 f
AGW-3	07/31/96	100.00	19.50	80.50	81,600	1,100 b	<750 f	2,120	5,760	1,130	10,800		<5.0				52.7	<10.0 f	<10.0 f	<10.0 f	<50.0 f
AGW-3	10/22/96	99.71	20.60	79.11	106,000	1,520	<750 f	2,890	10,800	2,120	15,300						84.7	ND	ND	ND	ND
AGW-3	02/03/97	99.71	18.47	81.24	51,600	757 b	<750 f	1,570	3,420	1,040	8,090		<10 f				25	11.0	<10.0 f	<10.0 f	<50.0 f
AGW-3	03/31/98	99.71	18.10	81.61	74,000	1,360	<750 f	1,120	4,550	960	11,500						20	<10.0 f	<10.0	<10.0 f	71.9 i
AGW-3	06/15/98	99.71	18.84	80.87	78,600	1,060 b	<750 f	1,870	5,260	1,400	12,100		<40 f				19	<40.0 f	<40.0 f	<40.0 f	<400 f
AGW-3	09/25/98	99.71	21.03	78.68	109,000	6,190 b	<750 f	3,050	8,480	1,830	12,900		<10 f				28.5	<10.0 f	<10.0 f	<10.0 f	<50.0 f
AGW-3	12/07/98	99.71	22.27	77.44	96,000	4,570	<3,750 f	4,100	4,840	2,420	13,600		<20 f				20.9	<20.0 f	<20.0 f	<20.0 f	123 i
AGW-3	07/19/99	99.71	18.45	81.26	59,400	1,320	<750 f	2,270	4,960	1,550	9,940						15.6	ND	ND	ND	ND
AGW-3	11/05/99	99.71	20.85	78.86	53,200	2,880	<500	3,550	5,850	1,840	11,200		<10 f				21.4	<10.0 f	<10.0 f	<10.0 f	<50.0 f
AGW-3	06/16/00	99.71	19.08	80.63	60,200	3,900	<500	1,010	5,280	1,880	11,300						19.6	ND	ND	ND	ND
AGW-3	11/09/00	99.71	21.83	77.88	54,800	1380	<500	3,080	4,760	1,890	10,300						18.4	7.36	ND	ND	ND
AGW-3	02/15/01	99.71	23.22	76.49	47,100	992	<500	2,490	2,270	1,440	10,100		<1.0				17.0	6.51	<1.00	<1.00	<5.00
AGW-3	05/25/01	99.71	23.49	76.22	28,200	1,370	<500	1,150	313	485	5,650		<1.0				10.9	6.91	<1.00	<1.00	<5.00
AGW-3	01/29/02	99.71	22.91	76.80	32,400	13,600	1,350	2,880	2,300	1,660	8,010		<20 f				47.2	<20.0 f	<20.0 f	<20.0 f	<100 f
AGW-3	04/23/02	99.71	20.89	78.82	78,200	1,630	<500	1,990	6,830	2,370	14,300						151	ND	ND	ND	ND
AGW-3	07/11/02	99.71	20.45	79.26	93,000	3,100	<1,500 f	470	2,500	1,300	5,700	<25 f	<25 f	<25 f			59.6	<25	<25	<25	<120 f
AGW-3	01/14/03	99.71	23.29	76.42	91,000	<250	< 500	1,500	1,900	1,100	6,000	<50 f	<50 f	59			18	<50 f	<50 f	<50 f	<250 f
AGW-3	05/09/03	99.71	21.76	77.95	82,000	4,700	<2,500 f	2,700	6,400	2,200	11,500	<100 f	<100 f	<100 f			33.8	<100 f	<100 f	<100 f	<500 f
AGW-3	10/14/03	99.71	23.08	76.63	46,000	7,300	<2,500 f	1,700	2,500	1,400	7,100	<100 f	<100 f	<100 f			25.4	<100 f	<100 f	<100 f	<500 f
AGW-3	03/26/04	99.71	21.29	78.42	87,000	2,400	500	2,500	6,100	2,400	11,700	<250 f	<250 f	<250 f			39.6	<250 f	<250 f	<250 f	1,900
AGW-3	10/28/04	99.71	23.11	76.60	30,000	1,500	<500	1,900	2,500	1,300	7,000	<250 f	<250 f	<250 f			27.4	<250 f	<250 f	<250 f	<1,200 f
AGW-3	03/16/05	99.71	22.17	77.54	37,000	5,000	<2,500 f	1,700	3,200	1,500	8,600	<25 f	<25 f	70			25.3	<25 f	<25 f	<25 f	<120 f
AGW-3	09/28/05	99.71	22.55	77.16	46,000	976	215	1,100	3,400	980	7,200	<250 f	<250 f	<250 f			31.2	<250 f	<250 f	<250 f	<1,200 f
AGW-3	03/29/06	99.71	20.91	78.80	32,100	759	<472	491	2,050	792	6,170	<0.20 f	<0.20 f	<1.0			44.6	1.75	< 0.200	< 0.200	<5.00
AGW-3 *	11/21/06	99.71	22.83	76.88	26,600	2,530 b	<538	735	1,580	755	4,280	<0.20 f	<0.20 f	<500 f	<5,000		13.3	4.37	< 0.200	< 0.200	<5.00
AGW-3	04/19/07	99.71	19.24	80.47	41,600	<248	<495	120	964	344	8,080			<2.0			12.4	2.29	4.30		
AGW-3	10/10/07	99.71	22.94	76.77	<12,500 f	3.980 d,e	379	888	3,940	2,220	12,900	<50.0 f	<50.0 f	<50.0 f			19.8	<50.0 f	<50.0 f	<50.0 f	<250 f
AGW-3	04/03/08	99.71	21.50	78.21	53,000	970	<400	1,300	6,300	2,700	14,800	<50.0 f	<50.0 f	<50 f			21.9	<50 f	<50 f	<50 f	<50 f
AGW-3 *	10/14/08	99.71	23.05	76.66	21,000	10,000	<100	520	1,200	420	4,800	<20 f	<10 f	<20	<200	215		<20 f	<20 f	<20 f	<200 f
AGW-3 *	04/14/09	99.71	22.39	77.32	40,000	73,000	<840 e,f	1,600	3,700	2,400	12,000			25	< 500	82.5		<1.4 h	<1.8 h	<4.3 h	<6.4 f,h
AGW-3 *	12/30/09	286.16	23.03	263.13	24,000	10,000 g	<100	1,500	1,300	1,400	5,400	< 0.010	<100 f	<100 f	<2000			<100 f	<100 f	<100 f	<200 f
AGW-3 *	06/22/10	286.16	20.40	265.76	23,000	11,000 g	190	76	280	510	7,200	< 0.010	<50 f	<50 f	<1000			<50 f	<50 f	<50 f	<100 f
AGW-3 *	12/08/10	286.16	21.85	264.31	50,000	<b>24,000</b> g	<500	1,000	2,300	2,700	14,000	< 0.010	<100 f	<100 f	<2000			<100 f	<100 f	<100 f	<200 f

Page 3 of 12

					HYD	ROCARE	BONS			PRIMAR	Y VOCs			OXYGE	NATES	L	EAD			HVOCs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	Е	T	X	EDB	EDC	MTBE	TBA	Total	Dissolved	PCE	ТСЕ	Chloroform	Methylene Chloride
Model To	oxics Control Act Met	thod A Clea	nup Levels		800/1000	500	500	5	700	1000	1000	0.01	5	20	NE	15	15	5	5	7.2	5
AGW-4	09 / 25 / 04	100.32	10 (2	91 <del>7</del> 0	290	410	<750 f	0.7	2.2	12	0.4						<2.0				
AGW-4 AGW-4	08/25/94 12/07/94	100.32	18.62 19.37	81.70 80.95	1,600	430	590	8.2 37	2.2	13	9.4 75						<2.0 <2.0				
AGW-4	04/28/95	100.32	12.99	87.33	2,700	300	<710 f	80	130	64 240	130						<3.0				
AGW-4	04/28/95	100.32	14.24	86.08		<i></i>	~/101 			<b>24</b> 0											
AGW-4	12/06/95	100.32	13.42	86.90	420	<250	<750 f	6.0	2.0	27	11						<2.0				
AGW-4	04/02/96	100.32	10.86	89.46	1,400	290	<750 f	41	12	170	27										
AGW-4	07/31/96	100.32	11.92	88.40	1,220	359	<750 f	38.1	16.3	133	24.5		< 0.50				<2.0	<1.00	<1.00	<1.00	<5.00
AGW-4	10/22/96	100.00	12.68	87.32	1,580	<250	<750 f	34.7	31.8	170	63.5						<2.0	ND	ND	ND	ND
AGW-4	02/03/97	100.00	8.77	91.23	572	<250	<750 f	24.1	5.81	93.2	8.89		<1.0				<2.0	<1.00	<1.00	<1.00	<5.00
AGW-4	03/31/98	100.00	9.02	90.98																	
AGW-4	06/15/98	100.00	10.38	89.62	150	<250	<750 f	<2.00	<0.500	9.89	<1.0		<1.0				<1.0	<1.00	<1.00	<1.00	<10.0 f
AGW-4	09/25/98	100.00	14.52	85.48																	
AGW-4	12/07/98	100.00	10.57	89.43	<50.0	275	750	0.652	< 0.500	0.93	<1.0		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-4	07/19/99	100.00	9.80	90.20	492	251	<750 f	<2.50	<2.50	111	<5.00						<1.0	ND	ND	ND	ND
AGW-4	11/05/99	100.00	13.69	86.31	120	563	<500	< 0.500	< 0.500	0.99	<1.0		<1.0				<5.59	<1.00	<1.00	<1.00	<5.00
AGW-4	06/16/00	100.00	10.67	89.33	315	<250	<500	0.159	3.33	40.6	<1.25						<1.0	<1.00	<1.00	<1.00	<5.00
AGW-4	11/09/00	100.00	14.40	85.60	85.7	<250	<500	< 0.500	0.831	0.74	<1.0						<1.0	<1.00	<1.00	<1.00	<5.00
AGW-4	02/15/01	100.00	14.44	85.56	<50.0	<250	<500	< 0.500	< 0.500	< 0.500	<1.0		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-4	05/25/01	100.00	13.7	86.30	86.9	<250	<500	< 0.500	< 0.500	12	<1.0		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-4	10/12/01	100.00	16.46	83.54	<50.0	<250	<500	< 0.500	< 0.500	< 0.500	<1.0		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-4	01/29/02	100.00	9.08	90.92	236	<250	<500	0.669	< 0.500	17.1	1.26		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-4	04/23/02	100.00	9.26	90.74	<50.0	<250	<500	< 0.500	< 0.500	0.561	<1.0						<1.0	ND	ND	ND	ND
AGW-4	07/11/02	100.00	10.69	89.31	<250	<250	<750 f	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0			<5.0	<1	<1	<1	<b>&lt;</b> 5
AGW-4	01/14/03	100.00	10.96	89.04	<250	1,200	840	<1.0	<1.0	1.9	<1.0	<1.0 f	<1.0	<1.0			<5.0	<1	<1	<1	<5
AGW-4	05/09/03	100.00	9.75	90.25	<250	<250	<500	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0			<5.0	<1	<1	<1	<b>&lt;</b> 5
AGW-4	10/14/03	100.00	15.13	84.87	<250	<250	<500	<1.0	<1.0	<1.0	<1.0										
AGW-4	03/26/04	100.00	9.24	90.76	<250	<250	<500	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0				<1	<1	<1	<5
AGW-4	09/28/05	100.00	10.49	89.51	<250	<250	<500	<1.0	<1.0	<1.0	<1.0										
	, .,																				
AGW-5	04/28/95	100.11	18.09	82.02	<100	<240	<710 f	< 0.50	0.55	< 0.50	0.86						<3.0				
AGW-5	06/19/95	100.11	19.12	80.99																	
AGW-5	12/06/95	100.11	19.87	80.24	240	<250	<750 f	7.8	3.5	13	22						<2.0				
AGW-5	04/02/96	100.11	16.64	83.47	630	<250	<750 f	8.7	63	15	120										
AGW-5	07/31/96	100.11	17.48	82.63	<50	<250	<750 f	1.39	0.89	0.986	3		< 0.50				<2.0	1.23	<1.00	<1.00	<5.00
AGW-5	10/22/96	99.58	18.41	81.17	1,910	<250	<750 f	19.1	179	33.3	287						<2.0	ND	ND	ND	ND
AGW-5	02/03/97	99.58	14.68	84.90	<50	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0		<1.00				<2.0	<1.00	<1.00	<1.00	<5.00
AGW-5	03/31/98	99.58	14.93	84.65	<50	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0						<1.0	ND	ND	ND	ND
=	// - 0			. <del></del>															. =		•

Page 4 of 12

Page 5 of 12

# SUMMARY OF GROUNDWATER MONITORING DATA SHELL-BRANDED WHOLESALE FACILITY 2805 SOUTHWEST ROXBURY STREET SEATTLE, WASHINGTON

					HYD	ROCARE	BONS			PRIMAR	RY VOCs			OXYGE	NATES	L	EAD			HVOCs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	Ε	T	X	EDB	EDC	MTBE	TBA	Total	Dissolved	PCE	TCE	Chloroform	Methylene Chloride
Model To	oxics Control Act Me	thod A Clea	nup Levels		800/1000	500	500	5	700	1000	1000	0.01	5	20	NE	15	15	5	5	7.2	5
							_														_
AGW-5	06/15/98	99.58	16.85	82.73	<50	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0		<1.0				<1.0	<1.00	<1.00	<1.00	<10.0 f
AGW-5	09/25/98	99.58	19.35	80.23																	
AGW-5	12/07/98	99.58	19.59	79.99																	
AGW-5	07/19/99	99.58	16.85	82.73	<50.0	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0						<1.0	ND	ND	ND	ND
AGW-5	11/05/99	99.58	19.43	80.15	<50.0	<250	<500	< 0.50	< 0.50	< 0.50	<1.0		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-5	06/16/00	99.58	17.07	82.51	<50.0	<250	<500	< 0.50	< 0.50	< 0.50	<1.0						<1.0	<1.00	<1.00	<1.00	<5.00
AGW-5	11/09/00	99.58	20.38	79.20	<50.0	<250	<500	< 0.50	< 0.50	< 0.50	<1.0				<10		<1.0	<1.00	<1.00	<1.00	<5.00
AGW-5	02/15/01	99.58	20.57	79.01	<50.0	<250	<500	< 0.50	< 0.50	< 0.50	1.32		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-5	05/25/01	99.58	19.68	79.90	<50.0	<250	< 500	< 0.50	< 0.50	< 0.50	1.32		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-5	10/12/01	99.58	20.93	78.65	<50.0	<250	< 500	< 0.50	< 0.50	< 0.50	<1.00		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-5	01/29/02	99.58	17.47	82.11	< 50.0	<250	< 500	< 0.50	< 0.50	< 0.50	<1.00		<1.0		<10		<1.0	<1.00	<1.00	<1.00	< 5.00
AGW-5	04/23/02	99.58	13.96	85.62	<50.0	<250	< 500	< 0.50	< 0.50	< 0.50	<1.00						<1.0	ND	ND	ND	ND
AGW-5	07/11/02	99.58	17.86	81.72	<250	<250	<750 f	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0			<5.0	<1	<1	<1	<5
AGW-5	01/14/03	99.58	20.27	79.31	<250	<250	< 500	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0			< 5.0	<1	<1	<1	<5
AGW-5	05/09/03	99.58	17.58	82.00	<250	<250	<500	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0			<5.0	<1	<1	<1	<5
AGW-6	04/28/95	100.32	9.25	91.07	390	<240	<710 f	1.2	2.7	11	17						<3.0				
AGW-6	06/19/95	100.32	11.1	89.22																	
AGW-6	12/06/95	100.32	10.63	89.69	2,100	<250	<750 f	8.0	15.0	36	92						<2.0				
AGW-6	04/02/96	100.32	8.53	91.79	290	<250	<750 f	1.2	3	11	15										
AGW-6	07/31/96	100.32	9.87	90.45	152	<250	<750 f	1.46	2.65	8.32	8.89		< 0.50				<2.0	<1.00	<1.00	<1.00	< 5.00
AGW-6	10/22/96	99.81	10.81	89.00	<50	<250	<750 f	< 0.50	0.515	0.941	<1.00						<2.0	ND	ND	ND	ND
AGW-6	02/03/97	99.81	6.69	93.12	694	<250	<750 f	2.53	6.17	18.4	36.5		<1.0				<2.0	<1.00	<1.00	<1.00	<5.00
AGW-6	03/31/98	99.81	7.85	91.96																	
AGW-6	06/15/98	99.81	9.33	90.48																	
AGW-6	09/25/98	99.81	14.09	85.72																	
AGW-6	12/07/98	99.81	9.83	89.98	146	<250	<750 f	0.69	1.48	1.41	7		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-6	07/19/99	99.81	8.95	90.86																	
AGW-6	11/05/99	99.81	13.63	86.18																	
AGW-6	06/16/00	99.81	15.98	83.83																	
AGW-6	11/09/00	99.81	14.12	85.69																	
AGW-6	02/15/01	99.81	13.33	86.48																	
AGW-6	05/25/01	99.81	12.74	87.07																	
AGW-6	10/12/01	99.81	15.96	83.85																	
AGW-6	01/29/02	99.81	7.67	92.14																	
AGW-6			9.47																		
	07/11/02	99.81		90.34																	
AGW-6	01/14/03	99.81	14.52	85.29																	
AGW-6	05/09/03	99.81	8.58	91.23																	

					HYD	ROCARB	SONS			PRIMAR	RY VOCs			OXYGE	NATES	L	EAD			HVOCs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	Е	T	X	EDB	EDC	MTBE	TBA	Total	Dissolved	PCE	TCE	Chloroform I	Methylene Chloride
Model To	oxics Control Act Me	thod A Clea	nup Levels		800/1000	500	500	5	700	1000	1000	0.01	5	20	NE	15	15	5	5	7.2	5
AGW-6	04/03/08	99.81	9.29	90.52	<50.0	<250	<400	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0			<5.0	<1	<1	<1	<1
AGW-6 *	10/14/08	99.81	14.88	84.93	<100	<100	<100	< 0.50	<1.0	<1.0	<2.0	<1.0 f	< 0.50	<1.0	<10	2.31		<1.0	<1.0	<1.0	<10 f
AGW-6 *	04/14/09	99.81	8.70	91.11	<100	<100	<100	< 0.50	< 0.50	0.10	< 0.50			< 0.50	<10	<1.0		< 0.50	< 0.50	< 0.50	<0.50
AGW-6 *	12/30/09	286.25	9.51	276.74	<100	<100	250	< 0.50	<1.0	<1.0	<1.0			<1.0	<10						
AGW-6	06/22/10	286.25	8.67	277.58	<100	<100	<100	< 0.50	<1.0	<1.0	<1.0										
AGW-6	12/08/10	286.25	10.30	275.95	<100	<100	<100	<0.50	<1.0	<1.0	<1.0			<1.0	<10						
AGW-7	04/28/95	100.79	16.17	84.62	51,000	830	<710 f	200	90	1,600	5,600						6	ND	ND	ND	<31 i
AGW-7	06/19/95	100.79	16.80	83.99																	
AGW-7	12/06/95	100.79	17.81	82.98	7,600	380	<750 f	740.0	65.0	550	290						<2.0	ND	ND	ND	ND
AGW-7	04/02/96	100.79	13.99	86.80	8,700	1,100 b	<750 f	440	60	240	200							ND	ND	ND	ND
AGW-7	07/31/96	100.79	15.11	85.68	8,010	696 b	<750 f	175	105	165	541		< 0.50				4.8	<1.00	<1.00	<1.00	<5.00
AGW-7	10/22/96	100.40	16.54	83.86	16,100	953	<750 f	139	38	445	616		<1.0				5.82	<2.00	<2.00	<2.00	<10.0 f
AGW-7	02/03/97	100.40	12.38	88.02	7,350	255 b	<750 f	181	8.62	179	448		<1.0				2.77	<1.00	<1.00	<1.00	<5.00
AGW-7	03/31/98	100.40	13.72	86.68	10,600	353	<750 f	117	31.6	335	864						3.64	< 5.00	< 5.00	< 5.00	ND
AGW-7	06/15/98	100.40	14.92	85.48	20,800	513 b	<750 f	140	535	655	2,130		<10				4.89	<10.0 f	<10.0 f	<10.0 f	114 i
AGW-7	09/25/98	100.40	18.08	82.32	12,400	568 b	<750 f	218	85.6	514	1,220		<1.0				4.25	<1.00	<1.00	<1.00	<5.00
AGW-7	12/07/98	100.40	18.64	81.76	43,500	5,180	828	136	<50.0	804	2,700		<20				3.47	<20.0 f	<20.0 f	<20.0 f	<100 f
AGW-7	07/19/99	100.40	14.52	85.88	36,600	3,840	<750 f	<80.0 f	<32.0	448	1,980						3.058	ND	ND	ND	ND
AGW-7	11/05/99	100.40	17.64	82.76	15,200	2,120	<500	156	64.8	538	1,180		<10				3.87	<10.0 f	<10.0 f	<10.0 f	<50.0 f
AGW-7	06/16/00	100.40	15.19	85.21	61,200	2,480	795	30.4	14.2	29.4	197						6.35	<1.00	<1.00	<1.00	85.1 i
AGW-7	11/09/00	100.40	18.75	81.65	17,000	1,260	<500	207	120	477	1,000						5.16	<1.00	<1.00	<1.00	<5.00
AGW-7	02/15/01	100.40	19.87	80.53	21,500	6,620	<500	<40.0 f	<15.8	301	1,420		<1.0				3.28	<1.00	<1.00	<1.00	<5.00
AGW-7	05/25/01	100.40	20.03	80.37																	
AGW-7	10/12/01	100.40	21.96	78.44																	
AGW-7	01/29/02	100.40	16.59	83.81	18,000	3,690	953	145	135	253	1,180		<20				4.92	<20.0 f	<20.0 f	<20.0 f	<100 f
AGW-7	04/23/02	100.40	15.26	85.14	30,600	448	< 500	59.3	484	547	4,220						9.17	ND	ND	ND	ND
AGW-7	07/11/02	100.40	15.89	84.51	28,000	960	<750 f	44	430	490	2,210	<5.0 f	<5.0	< 5.0			<5.0	<b>&lt;</b> 5	<5	<b>&lt;</b> 5	<25 f
AGW-7	01/14/03	100.40	18.86	81.54	5,300	<250	<500	12	9.7	35	100	<5.0 f	<5.0	< 5.0			<5.0	<b>&lt;</b> 5	<b>&lt;</b> 5	<b>&lt;</b> 5	<25 f
AGW-7	05/09/03	100.40	15.91	84.49	9,400	880	< 500	<25 f	31	<25	530	<25 f	<25 f	<25			< 5.0	<25 f	<25 f	<25 f	<120 f
AGW-7	10/14/03	100.40	19.24	81.16	12,000	1,400	< 500	150	580	290	790	<5.0 f	<5.0	< 5.0				<b>&lt;</b> 5	<5	<b>&lt;</b> 5	<25 f
AGW-7	03/26/04	100.40	15.14	85.26	1,000	<250	<500	4.8	2.3	5.2	21	<1.0 f	<1.0	<1.0				<1	<1	<1	<5
AGW-7	09/28/05	100.40	16.42	83.98	3,400	2,300	1,800	81	52	260	319	<10 f	<10	<10				<10 f	<10 f	<10 f	<50 f
AGW-7	04/19/07	100.40	13.14	87.26	827	<248	<495	<1.0	<1.0	<1.0	3.12			<2.0			<1.0	ND	ND		
AGW-7 *	10/10/07	100.40	16.86	83.54		1,720 d,e		66.2	62.6	484	895	<5.0 f	<5.0	<5.0			2.59	<5.00	< 5.00	<5.00	<25.0 f
AGW-7	04/03/08	100.40	15.89	84.51	1,300	<250	<400	<1.0	<1.0	11	8.1	<1.0 f	<1.0	<1.0			<5.0	<1	<1	<1	<1
AGW-7 *	10/14/08	100.40	18.92	81.48	13,000	6,900	<100	47	71	640	1,180	<10 f	<5.0	<10	<100	4.69		<10 f	<10 f	<10 f	<100 f
AGW-7 *	04/14/09	100.40	16.02	84.38	1,300	1,300	<120	< 0.50	< 0.50	9.3	7.3			< 0.50	<10	<1.0		<0.50	< 0.50	<0.50	<0.50
	0 -11 07		_0.0_	22.00	-,000	_,000		0.50	0.50		0			0.00		0		0.50	0.50	0.00	0.00

Page 6 of 12

					HYD	ROCARB	ONS			PRIMAR	Y VOCs			OXYGE	NATES	L	EAD			HVOCs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	Е	T	X	EDB	EDC	MTBE	TBA	Total	Dissolved	PCE	TCE	Chloroform	Methylene Chloride
Model To	oxics Control Act Me	thod A Clea	nup Levels		800/1000	500	500	5	700	1000	1000	0.01	5	20	NE	15	15	5	5	7.2	5
A C 1A1 7 *	12/20/00	207.00	17 (1	270.10	2 600	1 500 ~	200 ~	<0.F0	17	<b>~</b> 1.0	12	<b>~</b> 0.010		<b>~</b> 1.0	<b>~</b> 10						
AGW-7 * AGW-7	12/30/09	286.80	16.61	270.19	3,600	1,500 g	290 g	<0.50	17 1.7	<1.0	13	<0.010		<1.0	<10						
	06/22/10	286.80	14.80	272.00	6,600 g	110 g	<100	<0.50	1.7	<1.0	1.6	<0.010		 <0.50	 -10						
AGW-7 *	12/08/10	286.80	16.02	270.78	6,000 g	1,000 g	<100	1.6	19	1.2	13	<0.010		<0.50	<10						
AGW-8	04/28/95	100.74	15.75	84.99	120	<240	<710 f	2	1.2	8.4	3.7						<3.0				
AGW-8	06/19/95	100.74	16.53	84.21																	
AGW-8	12/06/95	100.74	17.33	83.41	190	<250	<750 f	3.5	1.9	7.7	15						<2.0				
AGW-8	04/02/96	100.74	11.86	88.88	250	<250	<750 f	2.8	22	6.9	54										
AGW-8	07/31/96	100.74	14.05	86.69	161	<250	<750 f	1.65	12.7	4.4	27		< 0.50				<2.0	1.95	<1.00	<1.00	<5.00
AGW-8	10/22/96	100.41	15.89	84.52	<50	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0		< 0.50				<2.0	<1.00	<1.00	<1.00	<5.00
AGW-8	02/03/97	100.41	10.13	90.28	<50	<250	<750 f	6.44	1.39	0.5	2.13		<1.0				<2.0	<1.00	<1.00	<1.00	<5.00
AGW-8	03/31/98	100.41	11.04	89.37	< 50	<250	<750 f	3.04	0.516	< 0.50	2.25						<1.0	<1.00	<1.00	<1.00	<5.00
AGW-8	06/15/98	100.41	13.98	86.43	<51	<251	<751 f	< 0.50	< 0.50	< 0.50	<1.0		<1.0				<2.0	<1.00	<1.00	<1.00	16.9 i
AGW-8	09/25/98	100.41	17.55	82.86	<52	<252	<752 f	< 0.50	< 0.50	< 0.50	<1.0		<1.0				<3.0	<1.00	<1.00	<1.00	<5.00
AGW-8	12/07/98	100.41	16.18	84.23	<50.0	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-8	07/19/99	100.41	12.80	87.61	<50.0	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0						<1.0	ND	ND	ND	ND
AGW-8	11/05/99	100.41	17.10	83.31	<50.0	<250	< 500	< 0.50	< 0.50	< 0.50	<1.0		<1.0				<1.52	<1.00	<1.00	<1.00	<5.00
AGW-8	06/16/00	100.41	12.85	87.56	68.2	<250	< 500	10.1	1.43	< 0.50	<1.8		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-8	11/09/00	100.41	18.52	81.89	245	<250	< 500	55.2	8.89	0.716	4.30						<1.0	<1.00	<1.00	<1.00	<5.00
AGW-8	02/15/01	100.41	19.07	81.34	996	<250	< 500	470	<5.00	<5.00	<10.0		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-8	05/25/01	100.41	18.48	81.93	167	<250	< 500	63	<5.00	<5.00	<10.0		<1.0					<1.00	<1.00	<1.00	<5.00
AGW-8	10/12/01	100.41	20.37	80.04	153	<250	< 500	14.5	< 0.50	0.651	3.82		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-8	01/29/02	100.41	15.14	85.27	<50.0	<250	<500	4.30	< 5.0	<5.0	1.05		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-8	04/23/02	100.41	12.80	87.61	<50.0	<250	<500	< 0.50	< 0.50	< 0.50	1.10						<1.0	ND	ND	ND	ND
AGW-8	07/11/02	100.41	15.18	85.23	<250	<250	<750 f	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0			<5.0	<1	<1	<1	<5
AGW-8	01/14/03	100.41	18.00	82.41	<250	<250	<500	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	1.3			<5.0	<1	<1	<1	<5
AGW-8	05/09/03	100.41	15.04	85.37	<250	950	< 500	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0			<5.0	<1	<1	<1	<5
AGW-8	10/14/03	100.41	19.25	81.16	<250	950	< 500	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0				<1	<1	<1	<5
AGW-8	03/26/04	100.41	12.51	87.90	<250	<250	< 500	230	1.2	<1.0	3	<1.0 f	<1.0	41				<1	<1	<1	<5
AGW-8	10/28/04	100.41	18.47	81.94	<250	<250		<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0				<1	<1	<1	<5
AGW-8	03/16/05	100.41	15.67	84.74	<250	<250	< 500	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0				<1	<1	<1	<5
AGW-8	09/28/05	100.41	13.77	86.64	<250	<250	<500	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0				<1	<1	<1	<5
AGW-8	03/29/06	100.41	14.43	85.98	589	<236	<472	8.87	< 0.2	<0.2	< 0.5	<0.20 f	< 0.20	<1.0				< 0.200	< 0.200	< 0.200	<5.00
AGW-8 *	11/21/06	100.41	17.25	83.16	<50.0	<236	<472	< 0.50	< 0.50	< 0.50	<3.0	<0.20 f	< 0.20	< 5.00	89		<1.0	< 0.200	< 0.200	< 0.200	<5.00
AGW-8	04/19/07	100.41	10.60	89.81	221	<248	<495	73.4	<1.0	<1.0	9.86			<2.0			<1.0	ND	ND		
AGW-8 *	10/10/07	100.41	14.42	85.99	<250	<103	<103	4.21	<1.0	<1.0	<3.00	<1.0 f	<1.0	<1.0			<2.0	2.85	<1.00	<1.00	<5.00
AGW-8	04/03/08	100.41	15.70	84.71	<50.0	<250	<400	<1.0	<1.0	<1.0	<1.00	<1.0 f	<1.0	<1.0			<5.0	<1	<1	<1	<1
AGW-8 *	10/14/08	100.41	18.85	81.56	<100	<100	<100	< 0.50	<1.0	<1.0	<2.0	<1.0 f	< 0.50	<1.0	320	<1.00		<1.0	<1.0	<1.0	<10 f
	,, -0			,	_00				0				2.20	0		_,,,			0		

Page 7 of 12

					HYD	ROCARE	BONS			PRIMA	RY VOCs			OXYGE	NATES	L	EAD			HVOCs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	Е	T	X	EDB	EDC	MTBE	TBA	Total	Dissolved	PCE	TCE	Chloroform	Methylene Chloride
Model To	oxics Control Act Me	thod A Clea	nup Levels		800/1000	500	500	5	700	1000	1000	0.01	5	20	NE	15	15	5	5	7.2	5
	0.4.4.4.00	100.11		0.4.00		4.00	400							0 = 0		4.00					
AGW-8 *	04/14/09	100.41	15.42	84.99	<100	<100	<100	<0.50	< 0.50	< 0.50	< 0.50			< 0.50	85	<1.00		<0.50	< 0.50	< 0.50	<0.50
AGW-8 *	12/30/09	286.82	15.75	271.07	<100	<100	180	<0.50	<1.0	<1.0	<1.0			<1.0	<10						
AGW-8	06/22/10	286.82	10.87	275.95	<100	<100	360	< 0.50	<1.0	<1.0	<1.0										
AGW-8 *	12/08/10	286.82	15.00	271.82	<100	<100	<100	<0.50	<1.0	<1.0	<1.0			<1.0	<10						
AGW-9	06/20/95	102.09	23.44	78.65	1,200	390	870	500	8.1	6.3	250						4.3	9.9	3.5	ND	ND
AGW-9	12/06/95	102.09	24.67	Dry																	
AGW-9	04/02/96	102.09	20.73	81.36	5,000	250 b	<750 f	650	230	190	690		< 0.50					34	6.5	<1.0	<5.0
AGW-9	07/31/96	102.09	20.94	81.15	2,840	339 b	<750 f	472	114	114	360		< 0.50					40.2	4.71	<1.00	<5.00
AGW-9	10/22/96	101.26	21.73	79.53	389	289	<750 f	58.9	12.2	7.93	51.6		< 0.50				<2.0	30.3	6.01	<1.00	<5.00
AGW-9	02/03/97	101.26	18.95	82.31	4,090	<250	<750 f	453	146	148	551		<1.0				<2.0	37.7	5.53	<1.00	<5.00
AGW-9	03/31/98	101.26	18.86	82.40	2,120	<250	<750 f	463	73.0	143	247						<1.0	64.9	<10.0 f	<10.0 f	<50.0 f
AGW-9	06/15/98	101.26	19.70	81.56	2,180	<251	<751 f	547	71.2	176	243		<10				<2.0	70.9	<10.0 f	<10.0	166 i
AGW-9	09/25/98	101.26	22.36	78.90	765	<252	<752 f	484	6.46	113	45.4		<1.0				<3	11.8	2.60	<1.00	<5.00
AGW-9	12/07/98	101.26	23.50	77.76	374	401	<750 f	270	<2.50	73.8	12		<1.0				<1.0	7.12	2.50	<1.00	<5.00
AGW-9	07/19/99	101.26	19.40	81.86	507	<250	<750 f	98.0	5.18	33.1	19						<1.0	51.3	5.74	ND	ND
AGW-9	11/05/99	101.26	21.95	79.31	<50.0	<250	< 500	15.4	< 0.50	2.61	<1.0		<1.0				<1.0	10.9	4.97	<1.00	<5.00
AGW-9	06/16/00	101.26	20.08	81.18	548	<250	< 500	154	9.01	43.8	8.38		<10 f				<1.0	64.0	<10.0 f	<10.0 f	113 i
AGW-9	11/09/00	101.26	23.18	78.08	120	<250	< 500	31.8	1.67	1.35	2.54						<1.0	24.0	6.12	ND	ND
AGW-9	02/15/01	101.26	Dry																		
AGW-9	05/25/01	101.26	Dry																		
AGW-9	10/12/01	101.26	Dry																		
AGW-9	01/29/02	101.26	23.64	77.62	1,010	<250	<500	378	5.23	31.8	<10.0		<1.0				<1.0	10.8	7.23	<1.00	<5.00
AGW-9	04/23/02	101.26	21.69	79.57	1,010	<250	<500	152	7.01	11.6	9.04						<1.0	61.6	8.53	ND	ND
AGW-9	07/11/02	101.26	21.52	79.74	<250	<250	<750 f	45	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0			<5.0	70	13	<1	<5
AGW-9	01/14/03	101.26	24.42	76.84																	
AGW-9	05/09/03	101.26	22.66	78.60																	
AGW-9	10/14/03	101.26	24.16	77.10																	
AGW-9	03/26/04	101.26	22.08	79.18	<1,200 f	<250	< 500	300	47	44	45	<1.0 f	<1.0	<1.0				43	3.1	<1	<5
AGW-9	10/28/04	101.26	24.11	77.15	680			180	1	3.4	<1.0										
AGW-9	03/16/05	101.26	22.99	78.27	3,800	<250	<500	1,100	86	190	101										
AGW-9	09/28/05	101.26	23.68	77.58	930	<250	<500	240	<1.0	31	<1.0										
AGW-9	03/29/06	101.26	21.74	79.52	2,590	<236	<472	440	53.2	66.1	36.4			<5.00							
AGW-9	11/21/06	101.26	24.76	76.50	<b></b> -						SAMPLE										
AGW-9	04/19/07	101.26	20.00	81.26	1,060	<248	<495	202	16.5	24.5	18.7			<2.0			<1.0	48.4	3.85		
AGW-9*	10/10/07	101.26	23.66	77.60	<250	<111	<111	2.79	<1.0	<1.0	<3.0	<1.0 f	<1.0	<1.0			<1.0	5.96	3.58	7.95	<5.00
AGW-9	04/03/08	101.26	22.45	78.81	<50	<250	<400	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0			<5.0	18	1.8	<1	<1
AGW-9*	10/14/08	101.26	24.15	77.11	<100			0.74	<1.0	<1.0	<1.0	<1.0 f	<0.50	<1.0	<10			3.1	2.3	<1.0	<10 f
AGW-7	10/ 14/ 00	101.20	4 <del>1</del> .13	//.11	<b>\100</b>			0.74	<b>\1.</b> U	1.0	<b>\1.</b> U	<b>\1.01</b>	<b>~0.50</b>	<b>\1.</b> 0	<b>~10</b>			9.1	2.3	<b>\1.</b> U	<b>\101</b>

Page 8 of 12

					HYD	ROCARE	BONS			PRIMA	RY VOCs			OXYGE	ENATES	L	EAD			HVOCs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	Ε	T	X	EDB	EDC	MTBE	TBA	Total	Dissolved	PCE	TCE	Chloroform	Methylene Chloride
Model To	oxics Control Act Me	thod A Clea	anup Levels		800/1000	500	500	5	700	1000	1000	0.01	5	20	NE	15	15	5	5	7.2	5
A CTAT O #	04/44/00	101.00	22.22	<b>5</b> 0.04	1000	*100	4100	20	2.0	0.45	2.2	10 50 6	-10	40 <b>5</b> 0	-11.0	1.40		0.4	4.5	10.50	10.50
AGW-9 *	04/14/09	101.26		78.04	<220	<100	<100	38	3.8	0.15	2.2	<0.50 f	<1.0	<0.50	<1.0	1.48		9.4	1.7	<0.50	<0.50
AGW-9 *	12/30/09	288.04	23.88	264.16	200	<100	<100	28	0.087 J	0.39 J	0.24 J	<0.010	<0.50	<0.50	<10			10	2.4	0.33 J	<1.0
AGW-9*	06/22/10	288.04	21.21	266.83	790 g	240	<100	180	3.8	4.2	7.6	<0.010	<0.50	<0.50	<10			20	5.6	<0.50	<1.0
AGW-9 *	12/08/10	288.04	22.84	265.20	190 g	<100	<100	23	0.076 J	0.58	0.097 J	<0.010	<0.50	<0.50	<10			5.7	2.0	<0.50	<1.0
AGW-10	06/19/95	99.51	14.05	85.46	<100	<250	<750 f	<0.50	< 0.50	<0.50	<0.50						3.0	ND	ND	ND	ND
AGW-10	12/06/95	99.51	15.09	84.42	<50	<250	<750	< 0.50	< 0.50	< 0.50	<1.0						<2.0				
AGW-10	04/02/96	99.51	10.65	88.86	<50	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0		< 0.50					<1.0	<1.0	<1.0	<5.0
AGW-10	07/31/96	99.51	13.20	86.31	<50	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0		< 0.50				< 0.002	<1.00	<1.00	<1.00	<5.00
AGW-10	10/22/96	99.06	15.13	83.93	<50	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0		< 0.50				<2.0	<1.00	<1.00	<1.00	<5.00
AGW-10	02/03/97	99.06	9.04	90.02	<50	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0		<1.0				<2.0	<1.00	<1.00	<1.00	<5.00
AGW-10	03/31/98	99.06	10.87	88.19																	
AGW-10	06/15/98	99.06	11.27	87.79																	
AGW-10	09/25/98	99.06	16.07	82.99	<50	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0		<1.0				<1.0	<1.00	<1.00	<1.00	< 5.00
AGW-10	12/07/98	99.06	13.89	85.17																	
AGW-10	07/19/99	99.06	11.90	87.16																	
AGW-10	11/05/99	99.06	16.12	82.94																	
AGW-10	06/16/00	99.06	18.20	80.86																	
AGW-10	11/09/00	99.06	17.31	81.75																	
AGW-10	02/15/01	99.06	17.17	81.89																	
AGW-10	05/25/01	99.06	16.50	82.56																	
AGW-10	10/12/01	99.06	18.29	80.77																	
AGW-10	01/29/02	99.06	10.66	88.40																	
AGW-10	04/23/02	99.06	10.63	88.43																	
AGW-10	07/11/02	99.06	13.29	85.77																	
AGW-10	01/14/03	99.06	17.91	81.15																	
AGW-10	05/09/03	99.06	12.21	86.85																	
AGW-10	10/10/07	99.06	14.28	84.78				<1.0	<1.0	<1.0	<3.0	<1.0 f	<1.0	<1.0				<1.00	<1.00	<1.00	<5.00
AGW-10	04/03/08	99.06	12.22	86.84				<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0				<1	<1	<1	<1
AGW-10 *	10/14/08	99.06	16.87	82.19				< 0.50	<1.0	<1.0	<2.0	<1.0 f	< 0.50	<1.0	<10			<1.0	<1.0	<1.0	<10 f
AGW-10*	04/14/09	99.06	12.52	86.54	<100	<100	<100	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	<10	<1.00		< 0.50	< 0.50	< 0.50	<0.50
AGW-10 *	12/30/09	285.96	12.41	273.55	<100	<100	<100	< 0.50	<1.0	<1.0	<1.0			<1.0	<10						
AGW-10	06/22/10	285.96	11.89	274.07	<100	<100	<100	< 0.50	<1.0	<1.0	<1.0										
AGW-10*	12/08/10	285.96	13.57	272.39	<100	<100	<100	<0.50	<1.0	<1.0	<1.0			<1.0	<10						
AGW-11	06/20/95	101.61	22.75	78.86	<100	270	710	<0.50	<0.50	<0.50	<0.50						3.0	ND	ND	0.9	ND
AGW-11	12/06/95	101.61	22.84	78.77	<50	<250	<750 f	<0.50	<0.50	<0.50	<1.0						<2.0	ND	ND	2.2	ND
AGW-11	04/02/96	101.61	19.93	81.68	98	<250	<750 f	10	6.8	5.7	19							1.9	ND	1.3	ND
11011-11	07/04/90	101.01	17.93	01.00	90	~230	~/ JU I	10	0.0	5.7	19						<b>-</b>	1.7	ND	1.0	IND

Page 9 of 12

					HYD	ROCARI	BONS			PRIMAR	RY VOCs			OXYGE	NATES	L	EAD			HVOCs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	Е	T	X	EDB	EDC	MTBE	TBA	Total	Dissolved	PCE	TCE	Chloroform 1	Methylene Chloride
Model To:	xics Control Act Me	thod A Clea	nup Levels		800/1000	500	500	5	700	1000	1000	0.01	5	20	NE	15	15	5	5	7.2	5
AGW-11	07/31/96	101.61	19.97	81.64	<50	<250	<750 f	3.22	1.87	2.02	5.86		<0.50				<0.002	1.06	<1.00	2.75	<5.00
AGW-11	10/22/96	101.36	22.60	78.76	<50	<250	<750 f	< 0.50	<0.50	< 0.50	<1.0		<0.50				<2.0	<1.00	<1.00	2.00	<5.00
AGW-11	02/03/97	101.36	18.13	83.23	<50	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0		<1.0				<2.0	<1.00	<1.00	<1.00	<5.00
AGW-11	03/31/98	101.36	19.27	82.09																	
AGW-11	06/15/98	101.36	21.04	80.32																	
AGW-11	09/25/98	101.36	23.46	77.90	<50	<250	<750 f	< 0.50	< 0.50	< 0.50	<1.0		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-11	12/07/98	101.36	24.16	77.20																	
AGW-11	07/19/99	101.36	24.78	76.58																	
AGW-11	11/05/99	101.36	23.45	77.91																	
AGW-11	06/16/00	101.36	24.01	77.35																	
AGW-11	11/09/00	101.36	24.27	77.09																	
AGW-11	02/15/01	101.36	24.31	77.05																	
AGW-11	05/25/01	101.36	Dry																		
AGW-11	10/12/01	101.36	Dry																		
AGW-11	01/29/02	101.36	22.96	78.40																	
AGW-11	04/23/02	101.36	20.90	80.46																	
AGW-11	07/11/02	101.36	22.08	79.28																	
AGW-11	01/14/03	101.36	24.70	76.66																	
AGW-11	05/09/03	101.36	22.45	78.91																	
AGW-11	04/19/07	101.36	20.38	80.98	< 50.0	<250	< 500	<1.0	<1.0	<1.0	<3.0			<2.0			<1.0	ND	ND		
AGW-11	10/10/07	101.36	24.49	76.87				<1.0	<1.0	<1.0	<3.0	<1.0 f	<1.0	<1.0				<1.00	<1.00	<1.00	<5.00
AGW-11	04/03/08	101.36	23.30	78.06	<50	<250	<400	<1.0	<1.0	<1.0	<1.0	<1.0 f	<1.0	<1.0			< 5.0	<1	<1	<1	<1
AGW-11 *	10/14/08	101.36	24.52	76.84			Insufficen	t water 1	no sample												
AGW-11 *	04/14/09	101.36	23.30	78.06	<100	<100	<100	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	<10	2.06		0.088	< 0.50	0.11	<0.50
AGW-11 *	12/30/09	287.81	24.22	263.59	<100	<100	230	< 0.50	<1.0	<1.0	<1.0			<1.0	<10						
AGW-11	06/22/10	287.81	21.49	266.32	<100	<100	<100	< 0.50	<1.0	<1.0	<1.0										
AGW-11	12/08/10	287.81	23.52	264.29	<100	<100	<100	< 0.50	<1.0	<1.0	<1.0			<1.0	<10						
AGW-12	03/31/98	100.24	12.52	87.72	16,600	<250	<750 f	884	1,300	623	2,060						4.71	<10.0 f	<10.0 f	<10.0 f	55.0 i
AGW-12	06/15/98	100.24	14.30	85.94	16,200	287 b	<751 f	836	1,170	629	2,010		<10 f				6.98	<10.0 f	<10.0 f	<10.0 f	182 i
AGW-12	09/25/98	100.24	17.94	82.30	16,900	261 b	<750 f	1,100	1,670	732	2,360		<10 f				6.40	<10.0 f	<10.0 f	<10.0 f	<50.0 f
AGW-12	12/07/98	100.24	15.14	85.10	15,000	401 b	<750 f	833	1,450	643	2,400		<10 f				8.61	<10.0 f	<10.0 f	<10.0 f	<50.0 f
AGW-12	07/19/99	100.24	12.40	87.84	25,100	490	<750 f	903	1,970	907	3,540						5.84	ND	ND	ND	ND
AGW-12	11/05/99	100.24	16.83	83.41	8,340	606	< 500	679	767	459	1,530		<10				1.52	<10.0 f	<10.0 f	<10.0 f	<50.0 f
AGW-12	06/16/00	100.24	12.30	87.94	20,600	388	<500	811	2,050	1,050	4,050		<1.0				4.16	<1.00	<1.00	<1.00	<5.00
AGW-12	11/09/00	100.24	16.97	83.27	9,040	<250	< 500	508	557	398	1,140						2.98	ND	ND	ND	ND
AGW-12	02/15/01	100.24	16.13	84.11	9,780	<250	<500	459	749	534	1,540		<1.0				2.14	<1.00	<1.00	<1.00	<5.00
AGW-12	05/25/01	100.24	15.95	84.29	11,000	386	< 500	540	1,140	721	2,170		<1.0					<1.00	<1.00	<1.00	<5.00

Page 10 of 12

					HYL	OROCARB	ONS			PRIMAR	RY VOCs			OXYGE	NATES	L	EAD			HVOCs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	Е	T	X	EDB	EDC	MTBE	TBA	Total	Dissolved	PCE	TCE	Chloroform	Methylene Chloride
Model Toxics	Control Act Me	thod A Clea	nup Levels		800/1000	500	500	5	700	1000	1000	0.01	5	20	NE	15	15	5	5	7.2	5
AGW-12	10/12/01	100.24	18.17	82.07	13,200	<250	<500	315	1,050	659	2,190		<1.0				<1.0	<1.00	<1.00	<1.00	<5.00
AGW-12	01/29/02	100.24	11.49	88.75	11,900	281	<500	709	1,320	847	2,780		<1.0				4	<1.00	<1.00	<1.00	<5.00
AGW-12	04/23/02	100.24	11.20	89.04	18,600	267	<500	677	1,760	940	3,730						4.74	ND	ND	ND	ND
AGW-12	07/11/02	100.24	12.21	88.03	21,000	720	<750 f	440	1,000	<10	<10	<10 f	<10 f	<10			< 5.0	<10 f	<10 f	<10 f	<50 f
AGW-12	01/14/03	100.24	13.73	86.51	7,400	<250	< 500	140	400	280	680	<5 f	<5	13			< 5.0	<5	<5	<5	<25
AGW-12	05/09/03	100.24	11.59	88.65	38,000	<250	<500	660	1,700	1,000	3,580	<100 f	<100 f	<100 f			< 5.0	<100 f	<100 f	<100 f	<500 f
AGW-12	10/14/03	100.24	17.36	82.88	31,000	1,700	< 500	510	3,300	1,100	4,280	<100 f	<100 f	<100 f				<100 f	<100 f	<100 f	<500 f
AGW-12	03/26/04	100.24	11.31	88.93	23,000	930	< 500	580	1,600	1,000	2,940	<50 f	<50 f	<50 f				<50 f	<50 f	<50	<250 f
AGW-12	10/28/04	100.24	16.56	83.68																	
AGW-12	03/16/05	100.24	12.68	87.56																	
AGW-12	09/28/05	100.24	16.29	83.95	34,000	630	<100	510	2,000	1,600	4,370	<50 f	<50 f	<50 f				<50 f	<50 f	<50 f	<250 f
AGW-12	03/29/06	100.24	11.41	88.83																	
AGW-12	11/21/06	100.24	13.07	87.17																	
AGW-12	04/19/07	100.24	10.11	90.13	35,800	301 b	<495	428	2,440	1,710	5,870			<2.0			3.32	ND	ND		
AGW-12 *	10/10/07	100.24	14.02	86.22	<12,500 f	1,840 d,e	<103	285	1,510	1,350	3,880	<5.0 f	< 5.0	< 5.0			3.66	< 5.00	< 5.00	< 5.00	<25.0 f
AGW-12	04/03/08	100.24	12.25	87.99	30,000	700	<400	410	2,600	1,600	5,500	<20 f	<20 f	<20			< 5.0	<20 f	<20 f	<20 f	<20 f
AGW-12 *	10/14/08	100.24	17.10	83.14	47,000	17,000	< 500	430	3,000	2,000	6,600	<25 f	<12 f	<25 f	<250	7.76		<25 f	<25 f	<25 f	<250 f
AGW-12 *	04/14/09	100.24	12.06	88.18	37,000	15,000	<100	470	2,800	2,200	6,800			<100 f	<2000	3.46		<5.5 f,h	<7.3 f,h	<17 f,h	<25 f,h
AGW-12 *	12/30/09	286.68	12.92	273.76	15,000	4,200 g	<100	170	950	650	2,000			<10	<100						
AGW-12	06/22/10	286.68	11.43	275.25	10,000	3,000 g	<100	47	260	97	320										
AGW-12	12/08/10	286.68	12.92	273.76	18,000	7,700 g	<100	180	600	760	2,100			<1.0	<10						
AGW-13 *	12/30/09	288.56	26.71	261.85	8,600	2,500 g	<100	36	510	95	740	<0.010	<20 f	<20	2,200			<20 f	<20 f	24	<40 g
AGW-13 *	06/22/10	288.56	24.24	264.32	17,000	4,200 g	<100	33	740	110	1,300	< 0.010	<10 f	<10	1,200			<10 f	<2.6 h	<1.8 h	<3.2 h
AGW-13 *	12/08/10	288.56	25.51	263.05	18,000	5,900 g	<100	21	510	77	820	<0.010	<10 f	<10	1,000			<10 f	<10 f	<10 f	<20 f
AGW-14 *	12/30/09	289.11	28.52	260.59	<100	<100	130	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<10			0.54	< 0.50	0.15	<1.0
AGW-14	06/22/10	289.11	22.71	266.40	<100	<100	490	< 0.50	<1.0	<1.0	<1.0										
AGW-14 *	12/08/10	289.11	27.14	261.97	<100	<100	<100	<0.50	<1.0	<1.0	<1.0			<1.0	<10						
SB-1	04/25/95	GRAB			<100	<240	<710	<0.50	<0.50	<0.50	<0.50										
W-241799-120909-JS-SB2	12/09/09	GRAB			290	<100		69	3.6	18	43										

Notes:

DTW = Depth to Water in feet

GWE = Groundwater Elevation in feet relative to arbitrary benchmarks, until April 14, 2009, then above mean sea level

TOC = Top of Casing in feet relative to arbitrary benchmarks, until April 14, 2009, then above mean sea level

All results in  $\mu g/L$  unless otherwise indicated.

					HYD	ROCARB	BONS			PRIMAR	Y VOCs			OXYGE	ENATES	LE	EAD			HVOCs	
Sample ID	Date	TOC	DTW	GWE	ТРНд	TPHd	ТРНо	В	E	T	X	EDB	EDC	MTBE	TBA	Total	Dissolved	PCE	TCE	Chloroform M	lethylene Chloride
Model Toxics	s Control Act Me	ethod A Cle	anup Levels		800/1000	500	500	5	700	1000	1000	0.01	5	20	NE	15	15	5	5	7.2	5

TPHg = Total petroleum hydrocarbons as gasoline analyzed by NWTPH-Gx unless otherwise noted. The higher value is based on the assumption that

no benzene is present in the groundwater sample. If any detectable amount of benzene is present in the groundwater sample, then the lower TPHg cleanup level is applicable.

TPHd = Total petroleum hydrocarbons as diesel, analyzed by NWTPH-Dx with silica gel cleanup unless otherwise noted

TPHo = Total petroleum hydrocarbons as oil, analyzed by NWTPH-Dx with silica gel cleanup unless otherwise noted

VOCs = Volatile organic compounds

BTEX = Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B unless otherwise noted

Xylenes = o-xylene + m,p-xylene

EDB = 1,2-Dibromoethane analyzed by EPA Method 8011

EDC = 1,2-Dichloroethane analyzed by EPA Method 8260B

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

TBA = Tertiary-butanol analyzed by EPA Method 8260B

Total lead analyzed by EPA Method 6020

ND = Not detected above the laboratory reporting limits

Total Lead analyzed by EPA Method 6020

PCE = tetrachloroethene

TCE = trichloroethene

x = Not detected at laboratory reporting limit x

--- = Not analyzed

Concentrations in bold type indicate the analyte was detected above MTCA Method A cleanup levels

\* = Indicates well was additionally analyzed for Di-isopropyl ether, Ethyl tertiary-butyl ether, Tertiary-amyl methyl ether by EPA Method 8260B,

 $and/or\ carcinogenic\ polycyclic\ aromatic\ hydrocarbons\ (cPAHs)\ by\ EPA\ Method\ 8270C-SIM. See\ corresponding\ laboratory\ report\ for results.$ 

 $a = Light \ nonaqueous - phase \ liquid \ (LNAPL) \ was \ measured \ in \ AGW-1 \ at \ a \ thickness \ of 0.07, 0.12, 0.01, 0.04, 0.05 \ and 0.08 \ feet \ on \ 4/28/95, 6/19/95, and 0.08 \ feet \ on$ 

3/8/96, 4/2/96, 11/05/99 and 10/12/01, respectively. The groundwater elevation is corrected for LNAPL thickness using a specific gravity of 0.85.

b = Results in the diesel organics range are primarily due to overlap from a gasoline range product.

c = Sample filtered in the laboratory.

d = The primary contamination elutes between C8 and C16, which is in the kerosene range.

e = The contamination did not match any standard in the laboratory's library.

f = The laboratory reporting limit (RL) exceeds the MTCA Method A cleanup level.

g = The sample chromatographic pattern for TPH does not match the specified standard. Quantitation of the unknown hydrocarbons was based on the specified standard.

h = Laboratory dection limit was used in the table since reporting limit is above the MTCA Method A cleanup levels.

i = the GeoEngineers report providing this analytical data specifies that methylene chloride is a suspected laboratory contaminant.

J = Results were evaluated to the method detection limit (MDL), concentrations >= MDL but < RL, if found, are qualified with a "J" flag

Page 12 of 12

# APPENDIX A

ENVIRONMENTAL DOCUMENT LIST

Environmental Document Li	st: 2805 Southwest Roxb	ury Street, S	eattle, WA	
Titel .	A d	ъ.	Submitte	ed to Ecology
Title	Author	Date	Y/N	Date
Hydrocarbon Contamination Assessment	Applied Geotechnology, Inc.	7/6/1989	N	N/A
Compliance Sampling Results	EMCON Northwest Inc.	10/5/1993	Y	10/22/1993
Subsurface Site Investigation Report	GeoEngineers, Inc.	11/8/1994	Y	2/8/1995
December 1994 Groundwater Monitoring	GeoEngineers, Inc.	2/3/1995	Y	2/3/1995
Supplemental Environmental Services	GeoEngineers, Inc.	10/19/1995	Y	1/17/1996
Results of Ground Water Sampling December 1995	GeoEngineers, Inc.	2/27/1996	Y	3/12/1996
Results of Ground Water Monitoring and Sampling March, April and May 1996	GeoEngineers, Inc.	6/13/1996	Y	6/21/1996
Results of Ground Water Monitoring and Sampling July 1996	GeoEngineers, Inc.	10/8/1996	N	N/A
Results of Ground Water Monitoring and Sampling October 1996	GeoEngineers, Inc.	12/3/1996	Y	2/21/1997
Results of Ground Water Monitoring and Sampling February 1997	GeoEngineers, Inc.	3/13/1997	Y	4/21/1997
Report of SVE Pilot Test Results	GeoEngineers, Inc.	7/2/1997	N	N/A
Vacuum-Enhanced Recovery System - Pilot Test	GeoEngineers, Inc.	7/2/1997	N	N/A
Supplemental Environmental Drilling, Ground Water Sampling, and High Vacuum Ground Water Extraction Services - March and April 1998	GeoEngineers, Inc.	7/17/1998	Y	8/7/1998
Environmental Ground Water Monitoring and High Vacuum Ground Water Extraction Services - June 1998	GeoEngineers, Inc.	9/25/1998	Y	9/28/1998
Environmental Ground Water Monitoring and High Vacuum Ground Water Extraction Services - September/October 1998	GeoEngineers, Inc.	12/8/1998	Y	12/10/1998
Environmental Ground Water Monitoring and High Vacuum Ground Water Extraction Services - December 1998	GeoEngineers, Inc.	2/8/1999	Y	2/11/1999
Environmental Ground Water Monitoring November 1999	GeoEngineers, Inc.	1/31/2001	N	N/A
Environmental Ground Water Monitoring June and November 2000	GeoEngineers, Inc.	1/31/2001	N	N/A
Environmental Ground Water Monitoring February 2001	GeoEngineers, Inc.	3/8/2001	Y	3/8/2001
Environmental Ground Water Monitoring May 2001	GeoEngineers, Inc.	7/12/2001	Y	7/13/2001
Environmental Ground Water Monitoring Report	GeoEngineers, Inc.	6/12/2001	Y	7/13/2001
Environmental Ground Water Monitoring July and October 2001	GeoEngineers, Inc.	1/28/2002	Y	1/29/2002
Environmental Groundwater Monitoring January 2002	GeoEngineers, Inc.	4/4/2002	Y	4/9/2002
Groundwater Monitoring Report July 2002 Semi-	GeoEngineers, Inc.	11/18/2002	Y	11/20/2002
Groundwater Monitoring Report January 2003 Semi-annual Sampling Event	GeoEngineers, Inc.	3/19/2003	Y	3/20/2003
Groundwater Monitoring Report Second Quarter 2003	GeoEngineers, Inc.	6/6/2003	Y	6/17/2003
Groundwater Monitoring Report Fourth Quarter	GeoEngineers, Inc.	3/30/2004	Y	4/16/2004

Environmental Document List: 2805 Southwest Roxbury Street, Seattle, WA						
Trid.	A .13	Б.	Submitte	ed to Ecology		
Title	Author	Date	Y/N	Date		
Groundwater Monitoring Report First Quarter 2004	GeoEngineers, Inc.	5/12/2004	Y	5/20/2004		
Groundwater Monitoring Report Fourth Quarter 2004	GeoEngineers, Inc.	5/6/2005	Y	6/10/2005		
Groundwater Monitoring Report First Quarter 2005	GeoEngineers, Inc.	6/20/2005	Y	7/5/2005		
Groundwater Monitoring Report Third Quarter 2005	GeoEngineers, Inc.	10/31/2005	Y	11/2/2005		
Groundwater Monitoring Report First Quarter 2006	GeoEngineers, Inc.	5/24/2006	Y	6/8/2006		
Groundwater Monitoring Report - Fourth Quarter 2006	CRA	4/17/2007	Y	4/23/2007		
Groundwater Monitoring Report - Second Quarter 2007	CRA	7/20/2007	Y	7/25/2007		
Groundwater Monitoring Report - Fourth Quarter 2007	CRA	2/22/2008	Y	3/3/2008		
Groundwater Monitoring Report - Second Quarter 2008	CRA	7/10/2008	Y	7/14/2008		

# APPENDIX B

LEGAL DESCRIPTION OF PROPERTY

Known Listing of Owners and Operators					
Owner	Business Operator	Approximate Years of Site Occupation			
Northern Parcel					
Gull Industries, Inc.	Don's Office Machine Repair (in former building south of fuel dispensers)	1980-1985			
Southern Parcel					
Henry W. Inc.	Shell Service Station	2009-Present			
Equilon Enterprises, LLC.	Shell Service Station	1998-2009			
Texaco Refining and Marketing, Inc.	Texaco Service Station	1988-1998			
Gull Industries, Inc.	Gull Service Station	1965-1988			
Washington State	Washington State Patrol	1957-1965			



Taxpayer name

# Assessor information for parcel number 0123039481

HENRY W INC

Mailing address 2805 SW ROXBURY ST SEATTLE WA 98126

 Parcel number
 0123039481

 Tax Account number
 012303948108

 Levy code
 \$850

 Jurisdiction
 KING COUNTY

 Present use
 Conv Store with Gas

 Appraised value
 \$856,000

Address(es) at this parcel 2805 SW ROXBURY ST 98126

# □ Legal description

# S 90 FT OF N 205 FT OF E 170 FT OF E 1/2 OF W 1/2 OF NE 1/4 OF NW 1/4 LESS CO RD

□ Sales/C	uit Claims/Transfers

- Ca.00, G	Calob, Calc Claims, Transitio						
Sale date	Sale price	Buyer	Seller	Excise tax number	Recording number	Instrument type	Sale reason
08-25-2009	\$697,139	HENRY W INC	EQUILON ENTERPRISES LLC	2405529	20090825001435	Bargain and Sales Deed	None
06-26-1998	\$0	EQUILON ENTERPRISES LLC	TEXACO REFINING AND MARKETING INC	1627121	<u>199807231486</u>	Special Warranty Deed	None

# □ Parcel description

Property name	Shell C-Store	Plat name		Water system	WATER DISTRICT
Property type	C - COMMERCIAL	Plat block		Sewer system	PUBLIC
Present use	Conv Store with Gas	Plat lot		Access	PUBLIC
Lot area	12,600 sq. ft. (0.29 acres)	Q-S-T-R	NW-1-23-3	Street surface	PAVED

# □ Commercial building description

Building	1 of 3	<b>Building description</b>	C-Store W/Gas
Year built	1988	Predominant use	CONVENIENCE MARKET (419)
Stories	1	Gross sq. ft.	1,100
Building quality	GOOD	Net sq. ft.	1,100
Construction class	MASONRY	Heating system	WARMED AND COOLED AIR
Building shape	Rect or Slight Irreg	Sprinklers	N
		Elevators	
Building	2 of 3	Building description	CAR WASH
Year built	1988	Predominant use	GARAGE, SERVICE REPAIR (528)
Stories	1	Gross sq. ft.	738
Building quality	GOOD	Net sq. ft.	738
Construction class	MASONRY	Heating system	NO HEAT
Building shape	Rect or Slight Irreg	Sprinklers	N
		Elevators	
Building	3 of 3	Building description	STORAGE
Year built	1988	Predominant use	STORAGE WAREHOUSE (406)
Stories	1	Gross sq. ft.	98
Building quality	GOOD	Net sq. ft.	98
Construction class	MASONRY	Heating system	NO HEAT
Building shape	Rect or Slight Irreg	Sprinklers	N
		Elevators	

# Taxable value history

Tax year	Tax status	Taxable value reason	Appraised value	Taxable value
2010	TAXABLE	NONE OR UNKNOWN	\$277,200 (land)	\$277,200 (land)
			+ \$578,800 (improvements)	+ \$578,800 (improvements)
			\$856,000 (total)	\$856,000 (total)
2009	TAXABLE	NONE OR UNKNOWN	\$277,200 (land)	\$277,200 (land)
			+ \$568,200 (improvements)	+ \$568,200 (improvements)
			\$845,400 (total)	\$845,400 (total)
2008	TAXABLE	NONE OR UNKNOWN	\$277,200 (land)	\$277,200 (land)
			+ \$555,900 (improvements)	+ \$555,900 (improvements)
			\$833,100 (total)	\$833,100 (total)

# □ Related resources

King County Assessor: Submit a request to correct information in this report
King County Assessor: Real Property Report
King County Assessor: Quarter Section Map (PDF format requires Acrobat)
King County GIS: Property information FAC
King County GIS: Districts and Development Conditions Report
King County GIS: Permit Applications Report (for unincorporated areas only)
King County Treasury Operations: Property Tax Information for this property
King County Recorders Office: Excise Tax Affidavits Report
King County Recorders Office: Scanned images of plats.
King County Recorders Office: Scanned images of surveys and other map documents
Deen iMAP to this property (requires a high speed internet connection)
Deen Parcel Viewer to this property (any connection speed, but less features than iMAP)

This report was generated on 2/17/2010 1:52:13 PM
Contact us at assenter@kingcounty.gov.

© 2009 King County



Taxpayer name

### Assessor information for parcel number 0123039482

HENRY W INC

Mailing address 2805 SW ROXBURY ST SEATTLE WA 98126

 Parcel number
 0123039482

 Tax Account number
 012303948207

 Levy code
 3850

 Jurisdiction
 KING COUNTY

 Present use
 Vacant(Commercial)

 Appraised value
 \$261,800

Address(es) at this parcel None

# □ Legal description

#### N 115 FT OF E 170 FT OF E 1/2 OF W 1/2 OF NE 1/4 OF NW 1/4 LESS CO RDS

# ☐ Sales/Quit Claims/Transfers

	Calcol Call Claims Transition						
Sale date	Sale price	Buyer	Seller	Excise tax number	Recording number	Instrument type	Sale reason
08-25-2009	\$697,139	HENRY W INC	EQUILON ENTERPRISES LLC	2405529	20090825001435	Bargain and Sales Deed	None
06-26-1998	\$0	EQUILON ENTERPRISES LLC	TEXACO REFINING AND MARKETING INC	1627121	<u>199807231486</u>	Special Warranty Deed	None

# □ Parcel description

Property name	VAC LAND	Plat name		Water system	WATER DISTRICT
Property type	C - COMMERCIAL	Plat block		Sewer system	PUBLIC
Present use	Vacant(Commercial)	Plat lot		Access	PUBLIC
Lot area	11,900 sq. ft. (0.27 acres)	Q-S-T-R	NW-1-23-3	Street surface	PAVED

# 

Tax year	Tax status	Taxable value reason	Appraised value	Taxable value	
2010	TAXABLE	NONE OR UNKNOWN	\$261,800 (land) + <u>\$0</u> (improvements) <b>\$261,800</b> (total)	\$261,800 (land) + <u>\$0</u> (improvements) <b>\$261,800</b> (total)	
2009	TAXABLE	NONE OR UNKNOWN	\$261,800 (land) + <u>\$0</u> (improvements) <b>\$261,800</b> (total)	\$261,800 (land) + <u>\$0</u> (improvements) <b>\$261,800</b> (total)	
2008	TAXABLE	NONE OR UNKNOWN	\$261,800 (land) + <u>\$0</u> (improvements) <b>\$261,800</b> (total)	\$261,800 (land) + <u>\$0</u> (improvements) <b>\$261.800</b> (total)	

### □ Related resources

King County Assessor: Submit a request to correct information in this report

King County Assessor: eReal Property Report

King County Assessor: Quarter Section Map (PDF format requires Acrobat)

King County GIS: Property information FAQ

King County GIS: Districts and Development Conditions Report (a detailed report about the location of this property)

King County DDES: Permit Applications Report (for unincorporated areas only)

King County Treasury Operations: Property Tax Information for this property

King County Recorders Office: Excise Tax Affidavits Rep King County Recorders Office: Scanned images of plats.

King County Recorders Office: Scanned images of surveys and other map documents

Open iMAP to this property (requires a high speed internet connection)

Open Parcel Viewer to this property (any connection speed, but less features than iMAP)

This report was generated on 2/17/2010 2:27:43 PM
Contact us at assenter@kingcounty.gov.
© 2009 King County

# APPENDIX C

SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIVITIES

### SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIVITIES

<u>1988 Underground Storage Tank Decommissioning:</u> Between March and April 1988, Applied Geotechnology Inc, (AGI) completed underground storage tank (UST) decommissioning activities at the Property for Gull Industries, Inc (Gull) following the sale of the Property to Texaco Refining and Marketing, Inc (TRMI). The service station was remodeled following the UST removal activities and consisted of a service station building, a car wash, four gasoline and diesel USTs (one 12,000-gallon and three 10,000 gallon), and four dispenser islands.

In April 1988, AGI removed four fuel USTs (one 10,000-gallon, one 8,000-gallon, one 6,000-gallon and one 4,000-gallon), one heating oil UST (550-gallon), one previously unknown waste oil UST (200-gallon), and one concrete cistern containing 3 feet of water and 4 to 5 inches of a solvent-like compound. The 200-gallon waste oil UST was uncovered during the gasoline UST excavation, and was inadvertently punctured during removal activities, releasing less than 50 gallons of oil. The leaked oil was captured in absorbent pads. The concrete cistern was also uncovered during the gasoline UST excavation. Samples were collected from the material within the discovered concrete cistern (RX-1 and No. 1) and waste oil UST (RX-2 and No. 2). Analytical results indicated that the solvent-like substance was likely a petroleum-based solvent, possibly used for degreasing. Analytical results from the waste oil UST indicated the presence of polychlorinated biphenyls (PCBs), halogenated hydrocarbons, and high concentrations of lead.

Significant petroleum contamination was observed in soil in the vicinity of the dispenser islands, and in the eastern portion of the UST excavation. AGI collected eight soil samples during the UST removal activities and analyzed them for total petroleum hydrocarbons (TPH), total oil and grease, benzene, toluene, ethylbenzene, and xylenes (BTEX), total lead, chlorides, and PCBs. Soil samples were collected from the excavation extents (SS1, SS2, SS7, and SS8), adjacent to the drain field lines (SS4), the waste oil UST (SS5), and from the cistern (SS6). One sludge sample was collected from inside of one of the drain field pipes (SS3). The soil sample results indicated that xylenes exceeded MTCA Method A cleanup levels in two soil samples (SS-6 and SS-8). Soil sample depths were not provided within this report. TPH and total oil and grease were detected at concentrations ranging from 18.5 milligrams per kilograms (mg/kg) to 17,500 mg/kg; these constituents do not have established cleanup levels.

The final excavation depth reached 17 feet below ground surface (bgs) in the middle of the pump island excavation where strong petroleum hydrocarbons odors was noted, however additional excavation in surrounding soil was not completed. Approximately 2,600 cubic yards of petroleum-impacted soil was excavated. Of the excavated soil, 2,200 cubic yards was assumed contaminated with gasoline and 40 cubic yards were assumed contaminated with waste oil; the remaining 360 cubic yards of soil was determined clean and was placed back in the excavation. Therefore, a total of 2,240 cubic yards was removed from the Site for disposal.

In August 1988, AGI drilled four soil borings (B1 through B4). Field screening of soil borings B1 through B3 did not indicate petroleum impacts. Three soil samples were collected and analyzed for TPH from soil boring B4 at depths of 7.5, 17.5, and 22.5 feet bgs. TPH was detected at 7.2 kg/mg and 8.4 mg/kg at depths of 7.5 and 17.5 feet bgs. The locations of soil borings B1 through B4 were not provided within the report. More information is available in AGI's *Hydrocarbon Contamination Assessment* report, dated July 6, 1989.

<u>Stage II Vapor Recovery Installation</u>: In June 1993, EMCON Northwest, Inc. (EMCON) conducted compliance soil sampling during installation of Stage II Vapor Recovery piping at the site for TRMI. Trenches for the Stage II Vapor Recovery piping were completed to 7.25 feet bgs. Groundwater was encountered in the trench at 7 feet bgs.

EMCON excavated a test pit adjacent to the northwest product dispenser to assess the vertical and lateral extent of petroleum-impacted soil. The test pit could not be expanded to the north, south, and east due to the canopy footing and the concrete drive slab. Field screening indicated that no petroleum-impacted soil was present in the south and west walls of the test pit. A small amount of petroleum-impacted soil remained in place at the test pit floor and north sidewall. The eastern extent of impacted soil was not determined due to structural limitations.

EMCON collected a total of seven soil samples; five beneath the dispenser islands and along the former product lines (NETF, ED, ESET, WSWT, and SWRU) and two within the test pit (NWTPF and NWTPNW) and submitted them for analysis of TPH as gasoline (TPHg), TPH as diesel (TPHd), and BTEX. The soil sample results indicated that TPHg and BTEX concentrations exceeded MTCA Method A cleanup levels in two soil samples (NETF and NWTPF). No

other analytes exceeded the MTCA Method A cleanup level. More information is available in EMCON's *Compliance Sampling Results Report*, dated October 5, 1993.

1994 Monitoring Well Installation: In August 1994, GeoEngineers, Inc. (GeoEngineers) installed four groundwater monitoring wells (AGW-1 through AGW-4) at the site. Soil samples were collected and analyzed for TPHg, TPHd, BTEX, and total lead. TPHg and BTEX exceeded the MTCA Method A cleanup levels in a soil sample collected from monitoring well AGW-3 at 20.5 feet bgs. Groundwater samples were collected from monitoring wells AGW-1 through AGW-4 and analyzed for TPHg, TPHd, TPH as heavy oil (TPHo), BTEX, and dissolved lead. BTEX constituents exceeded the MTCA Method A cleanup levels in groundwater samples collected from monitoring wells AGW-1 through AGW-4. TPHg exceeded the MTCA Method A cleanup levels in groundwater samples collected from monitoring wells AGW-1 through AGW-3. More information is available in GeoEngineers's Subsurface Investigation Report, dated November 8, 1994.

1994 Monitoring Well Installation: In April and June 1995, GeoEngineers completed soil boring SB-1 and installed seven groundwater monitoring wells (AGW-5 through AGW-11) at the site. Soil samples were collected and analyzed for TPHg, TPHd, TPHo, BTEX, and total lead. No analytes exceeded the MTCA Method A cleanup levels for soil. Groundwater samples were collected from soil boring SB-1 and monitoring wells AGW-2 through AGW-11 and analyzed for TPHg, TPHd, TPHo, BTEX, halogenated volatile organic hydrocarbons (HVOCs) and dissolved lead. TPHg and benzene constituents exceeded the MTCA Method A cleanup levels in groundwater samples collected from monitoring wells AGW-2 through AGW-4, AGW-7, and AGW-9. HVOC constituents exceeded the MTCA Method A cleanup levels in groundwater samples collected from monitoring wells AGW-3, AGW-9, and AGW-10. Monitoring well AGW-1 was not sampled due to the presence of separate phase hydrocarbons (SPH) of up to 0.12 feet.

In May 1995, GeoEngineers collected a SPH sample from AGW-1 and analyzed it for TPH and total lead. The sample was characterized as gasoline and lead. Total lead exceeded the MTCA Method A cleanup levels at 310 mg/kg. In July 1995, a passive SPH recovery system was installed. More information is available in GeoEngineers's *Supplemental Environmental Services* Report, dated October 19, 1995.

1996 Soil Vapor Extraction Pilot Test: In July 1996, GeoEngineers completed four soil vapor probes (VP-1 through VP-4) and completed soil vapor extraction (SVE) step tests on groundwater monitoring wells AGW-1, AGW-2, and AGW-3 at the Site to determine the feasibility of using SVE, bioventing, vacuum-enhanced recovery, or other treatment system options. Vapor probes VP-1 through VP-4, and wells AGW-7, AGW-9, and AGW-10 were used as observation points during testing. GeoEngineers measured vapors using a PID, and carbon dioxide and oxygen concentrations prior to the first step test and following the second step test. Three vapor samples were collected at the end of each test in monitoring wells AGW-1 through AGW-3 and analyzed for TPHg and BTEX. GeoEngineers concluded that the subsurface is heterogeneous and widely varying pressures were necessary to induce optimal vacuum conditions associated with a successful SVE and/or air sparging remediation method at the site. The radius of influence was determined to be between 30 and 61 feet. Based on volatile compound readings collected during testing, residual-phase hydrocarbons remained in the vicinity of monitoring wells AGW-1, AGW-3, and AGW-7. Vacuum-enhanced recovery, other groundwater recovery methods, and/or bioventing were determined to be feasible to control off-Site migration of petroleum and solvent related contaminated media. More information is available in GeoEngineers's Report of SVE Pilot Test Results Report, dated July 2, 1997.

1996 Vacuum-Enhanced Recovery System Pilot Test: In December 1996, GeoEngineers completed vapor probes VP-5 and VP-6 to evaluate vapor concentrations, induced vacuum pressures, and water levels during the vacuum enhanced recovery (VER) pilot test. Soil samples were collected and analyzed for TPHg, TPHd, TPHd, and HVOCs. No analytes were detected above the laboratory reporting limits. GeoEngineers completed a 26-hour VER system pilot test on monitoring well AGW-1 to determine site specific characteristics of using VER as an effective remediation method. Vapor probes VP-1 through VP-6 and monitoring wells AGW-2 through AGW-11 were used as observation wells during the pilot test. The average pumping rate during the pilot test was approximately 0.3 gallon per minute in monitoring well AGW-1. The maximum radius of influence of the applied vacuum during the pilot test was approximately 18 feet, however it appears that heterogeneous soil conditions across the site resulted in a vacuum response in monitoring well AGW-9 located approximately 110 feet from AGW-1. Nonlinear groundwater drawdown was observed at maximum radius of approximately 180 feet during groundwater extraction. Maximum drawdown of 10.52 feet was observed in vapor probe VP-6, approximately 45 feet from monitoring well AGW-1. Groundwater levels in observation wells continued to decrease from 40 minutes to 2 hour after the VES test. More information is available in GeoEngineers's *Vacuum-Enhanced Recovery System Pilot Test* report, dated July 2, 1997.

1998 Monitoring Well Installation and High Vacuum Groundwater Extraction: In March 1998, GeoEngineers installed groundwater monitoring well AGW-12. Soil samples were collected and analyzed for TPHg, TPHd, TPHo, BTEX, HVOCs, and total lead. No analytes exceeded the MTCA Method A cleanup levels. In April 1998, GeoEngineers monitored high vacuum groundwater extraction from groundwater monitoring wells AGW-1, AGW-3, AGW-7, and AGW-12. Approximately 750 gallons of groundwater were extracted. Approximately 400 gallons of water was extracted from monitoring well AGW-1 within 15 minutes of the start of extraction. More information is available in GeoEngineers's Supplemental Environmental Drilling and Groundwater Sampling and High Vacuum Groundwater Extraction Services report, dated July 17, 1997.

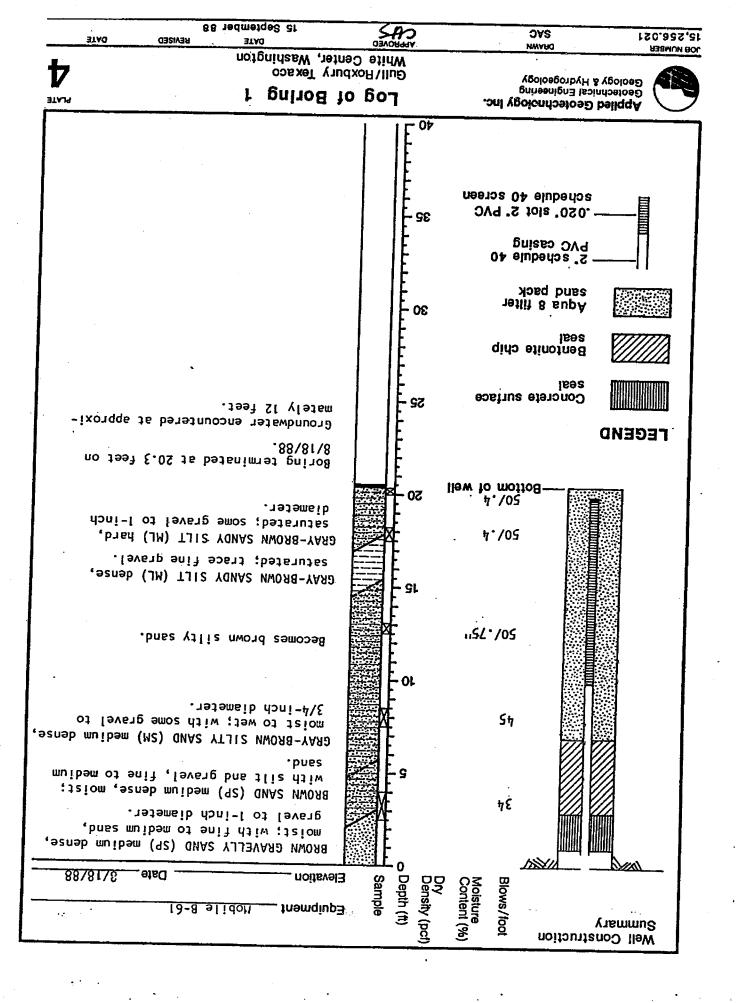
1998 High Vacuum Ground Water Extraction: Between June 1998 and December 1998, GeoEngineers performed high vacuum groundwater extraction and collected groundwater samples from Site monitoring wells. Groundwater was extracted using a vacuum between 15 and 20 inches of mercury. A total of approximately 2,050 allons of groundwater was removed from monitoring wells AGW-1, AGW-3, AGW-7, and AGW-12. Wells AGW-2, AGW-3, AGW-6, AGW-8, AGW-9, AGW-10, VP-4 and VP-6 were used as observation points during extraction; vacuum pressures in these wells were negligible during extraction and groundwater levels fluctuated. More information is available in GeoEngineers's Environmental Groundwater Monitoring and High Vacuum Groundwater Extraction Services dated September 25, 1998, report, December 8, 1998, and February 8, 1999.

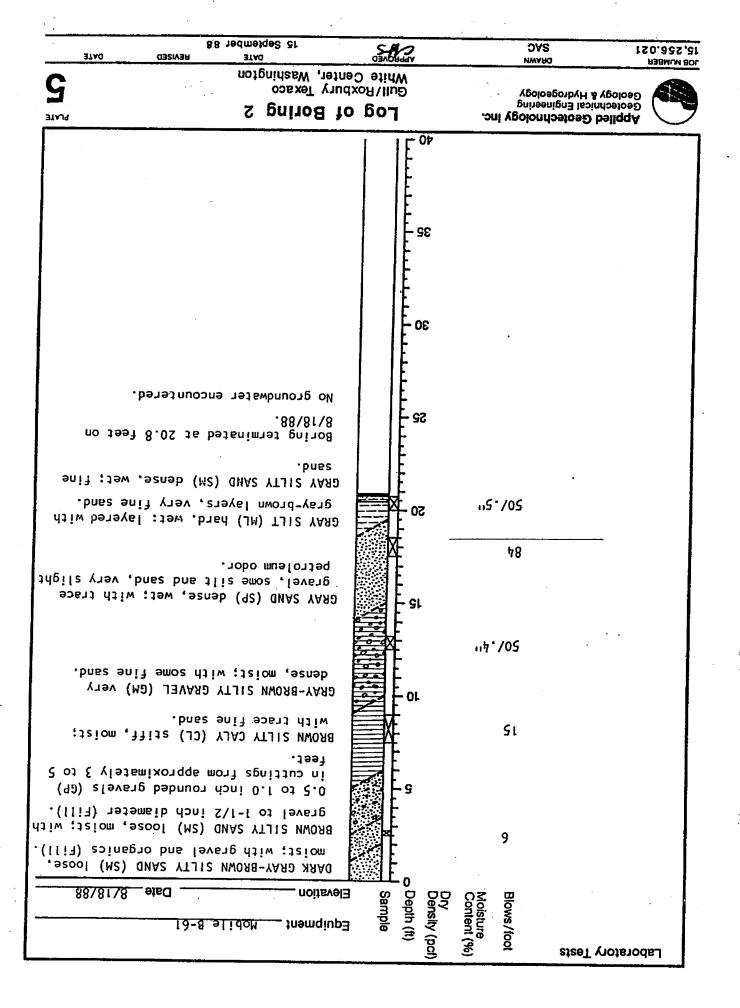
**2009** Subsurface Investigation: In December 2009, CRA completed one soil boring (SB-2) and installed two groundwater monitoring wells (AGW-13 and AGW-14). Monitoring wells AGW-13 and AGW-14 were both installed off-Property towards the southwest. Soil samples were collected from soil boring SB-2 and analyzed for TPHg, TPHd, TPHo, BTEX, and total lead. No analytes exceeded the MTCA Method A cleanup levels. Groundwater samples were collected from soil boring SB-2 and monitoring wells AGW-1 through AGW-3 and AGW-6 through AGW-14 and analyzed for TPHg, TPHd, TPHo, BTEX, MTBE, EDB, EDC, HVOCs, and total lead. Benzene exceeded the MTCA Method A cleanup levels in the groundwater sample collected from soil boring

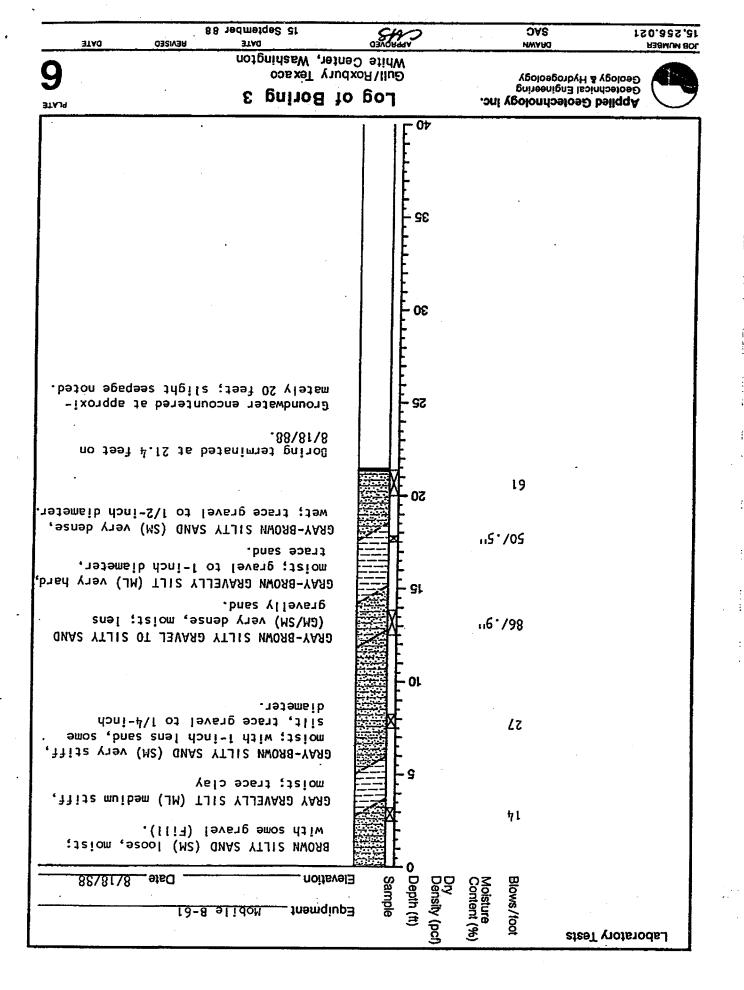
SB-2. TPHg, TPHd, BTEX, and/or HVOCs exceeded the MTCA Method A cleanup levels in groundwater samples collected from monitoring wells AGW-3, AGW-7 through AGW-9, AGW-12, and AGW-14.

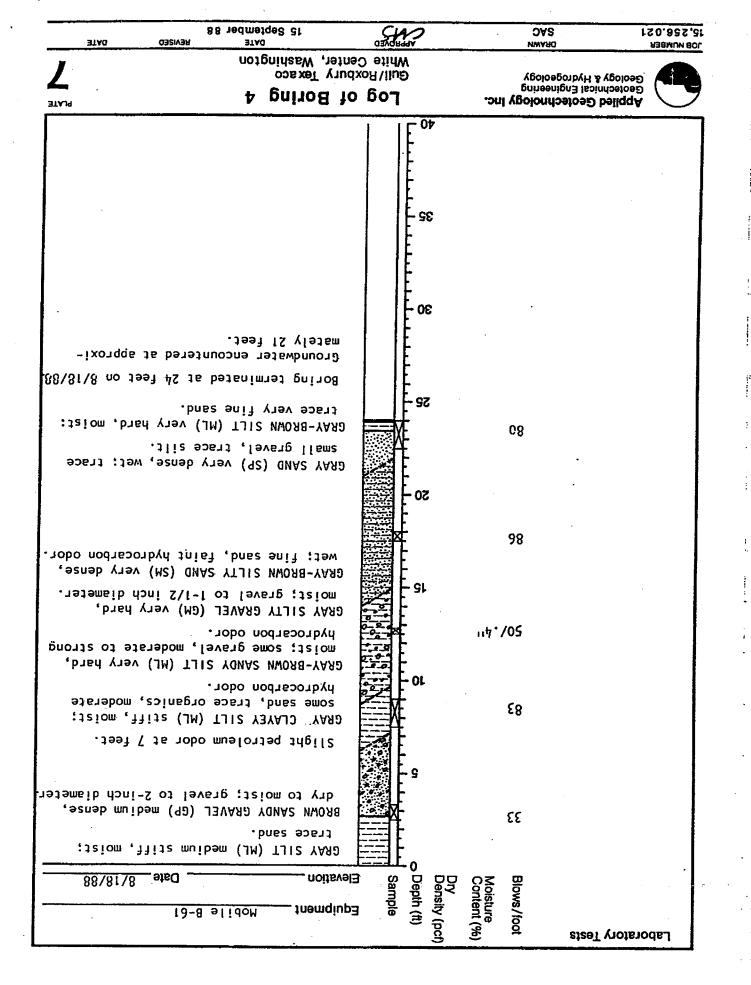
# APPENDIX D

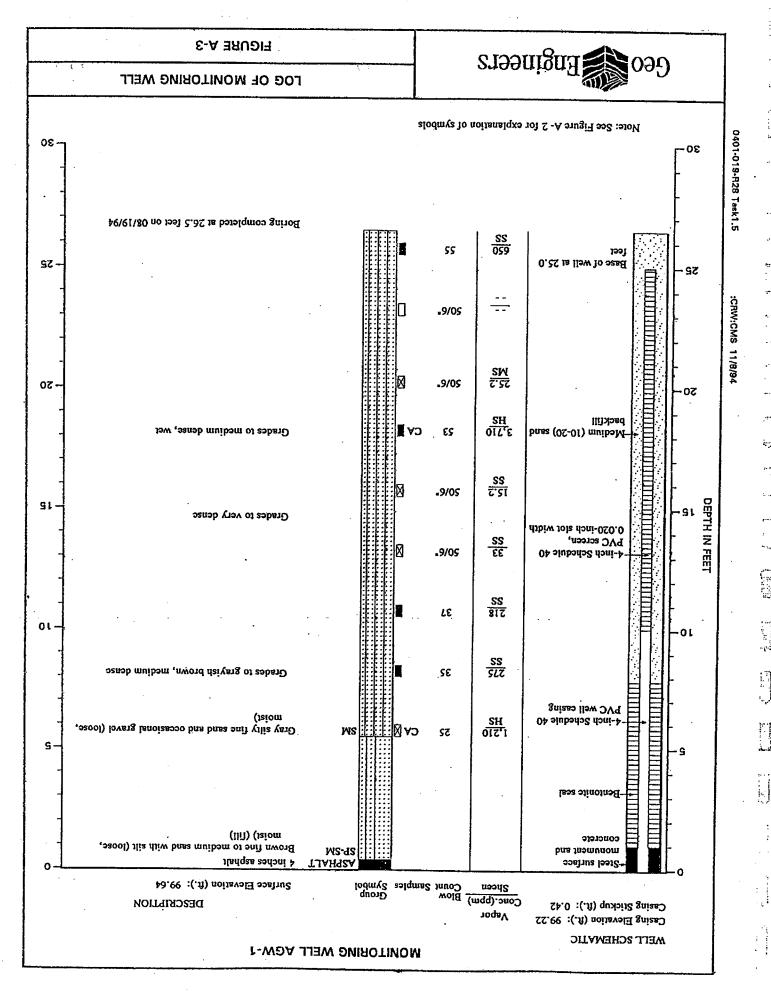
AVAILABLE HISTORICAL SOIL BORING LOGS

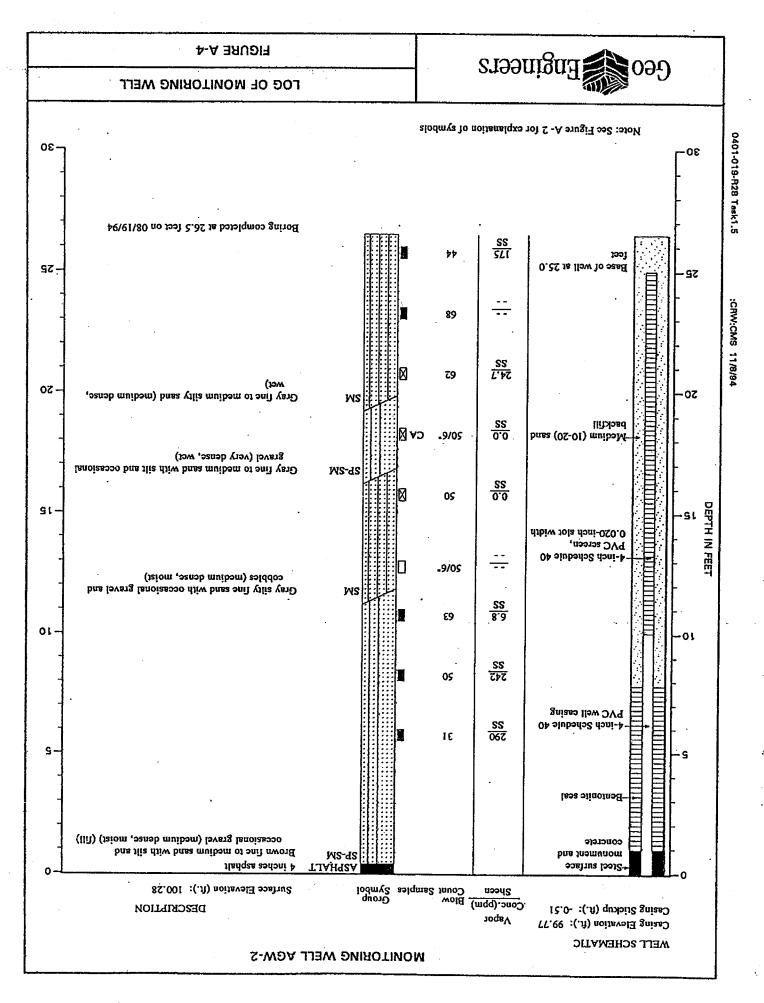


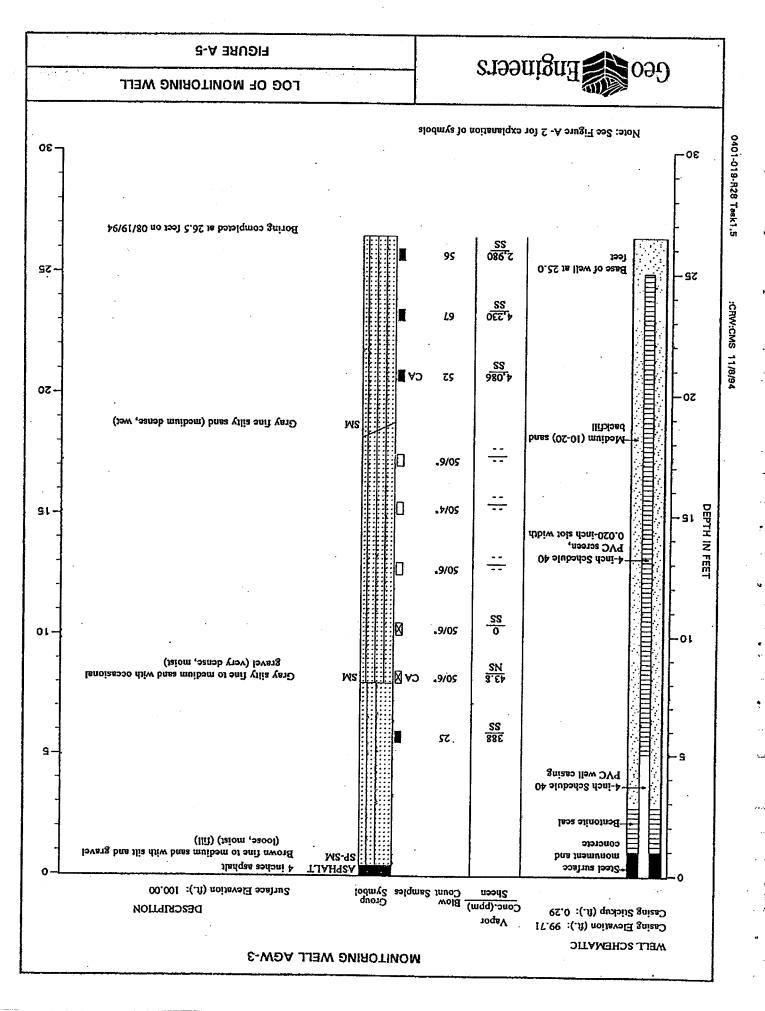


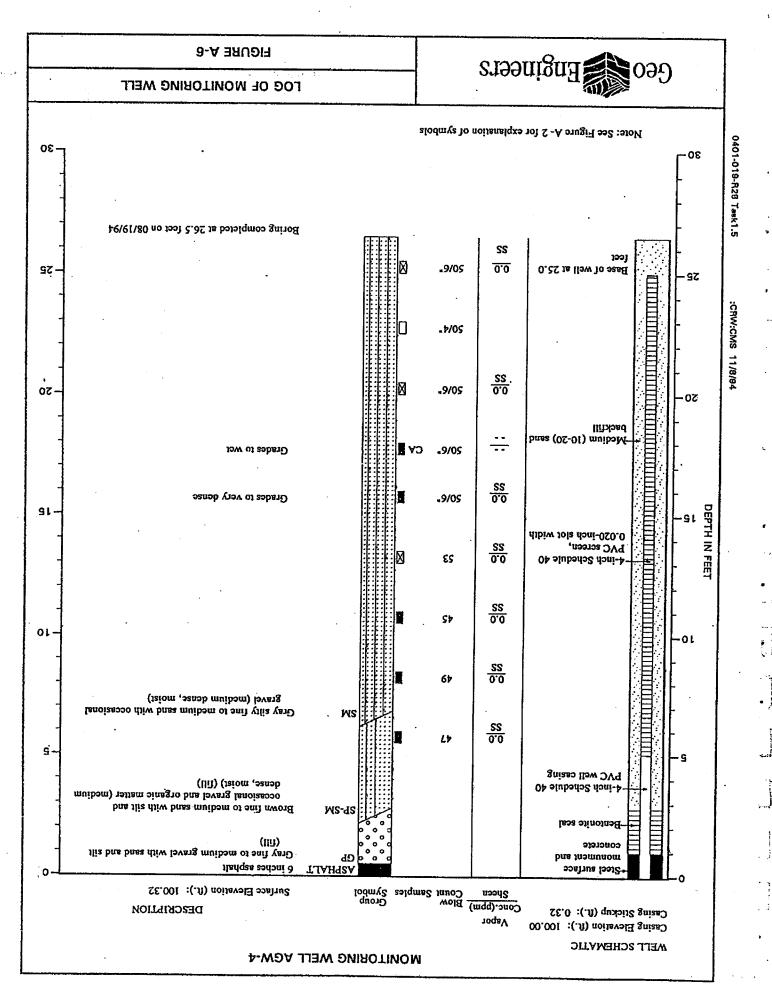




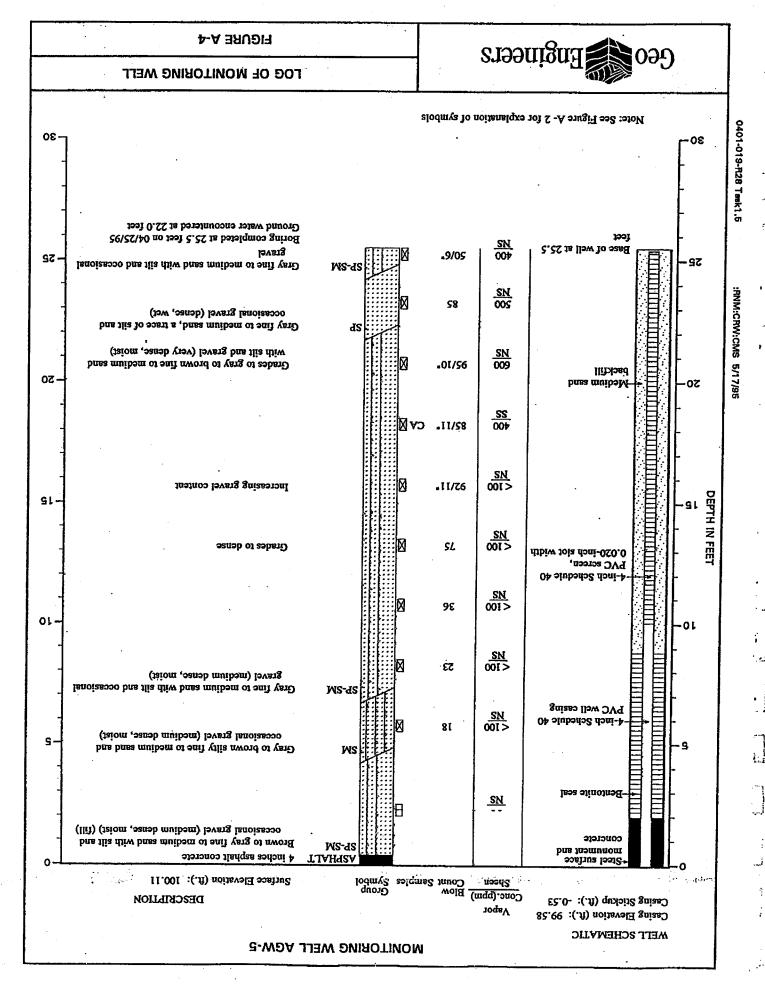


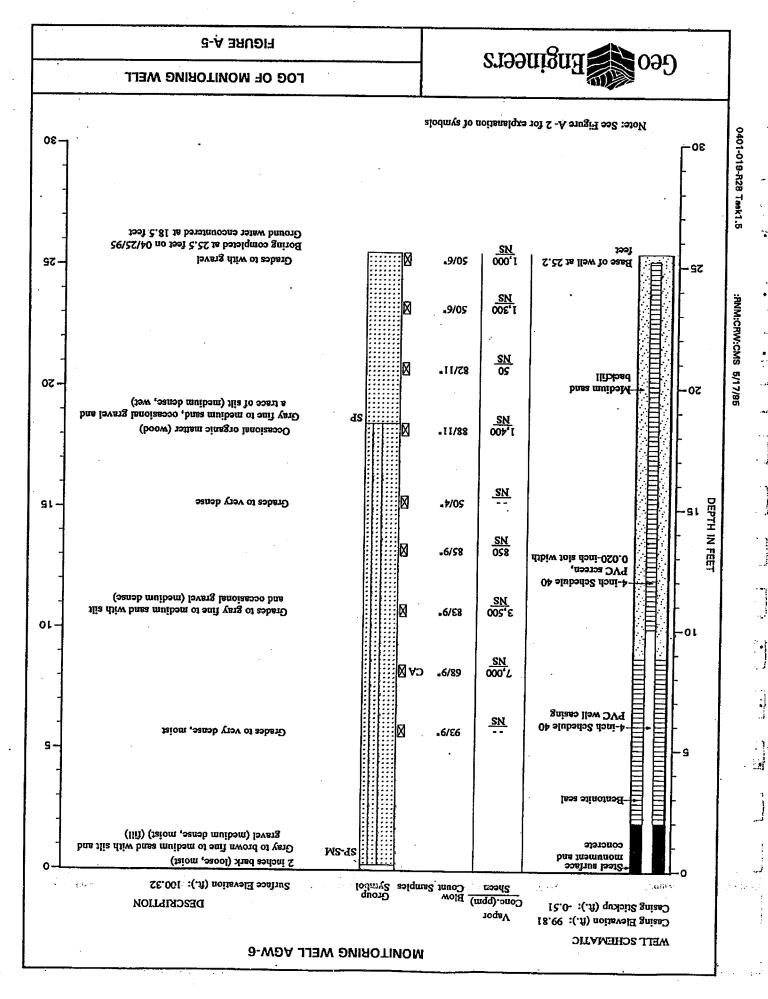


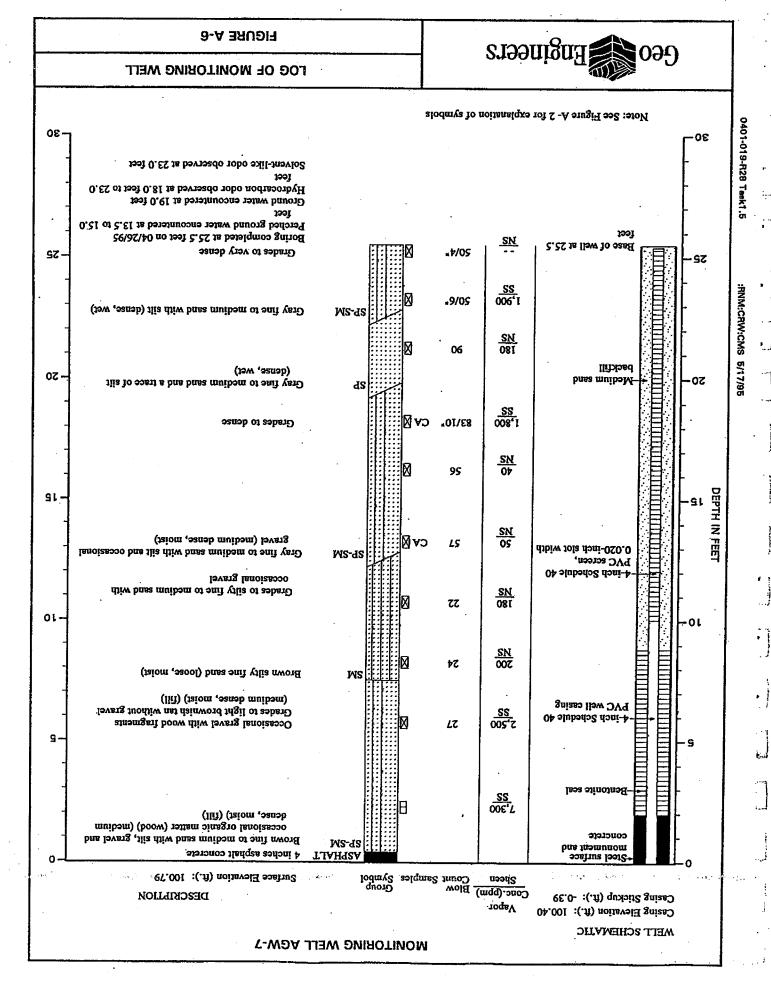


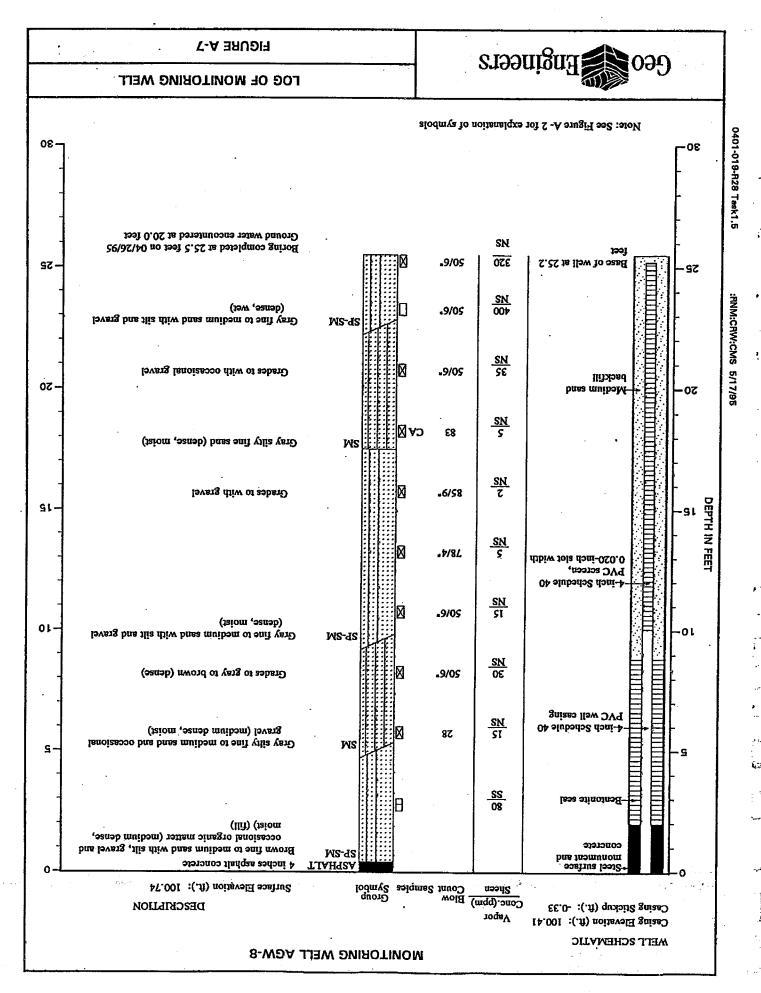


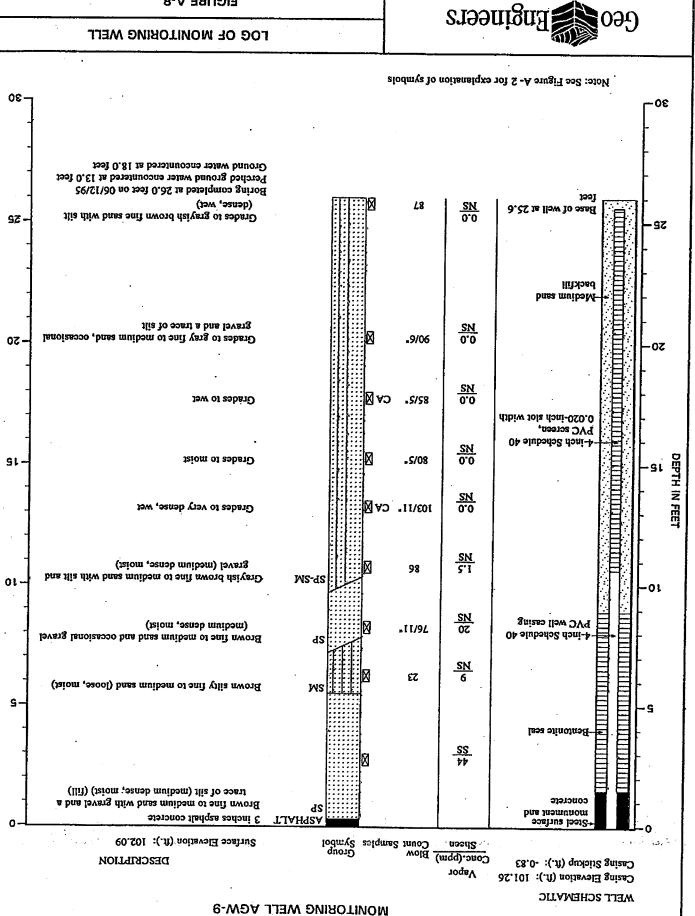
E-A 38UDIT







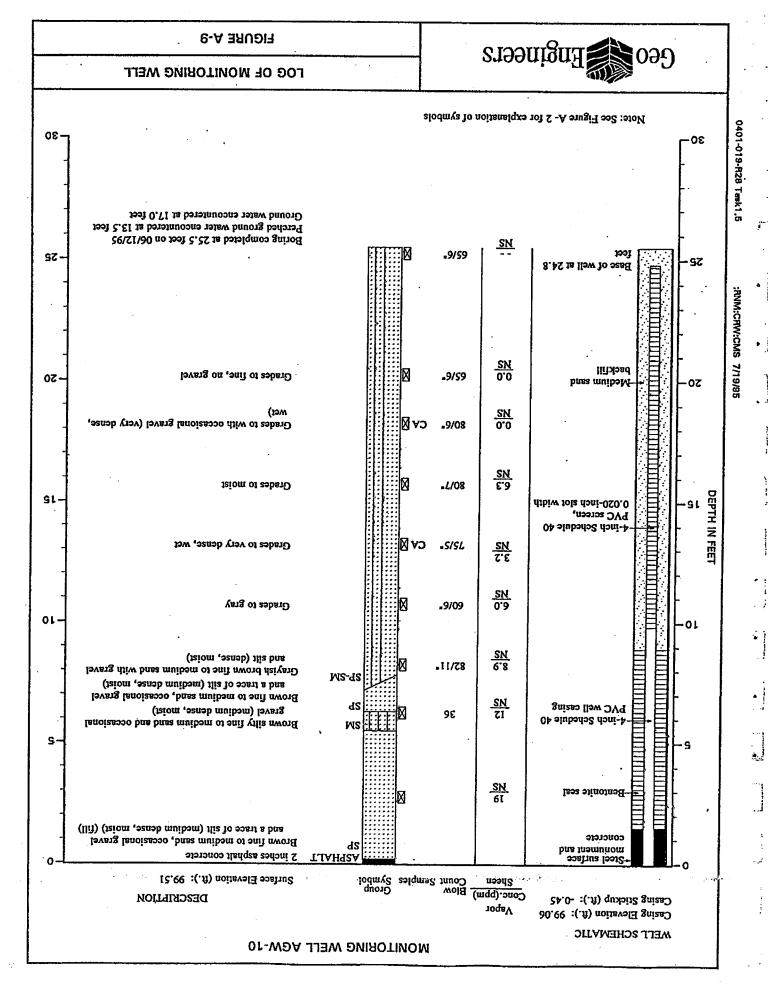


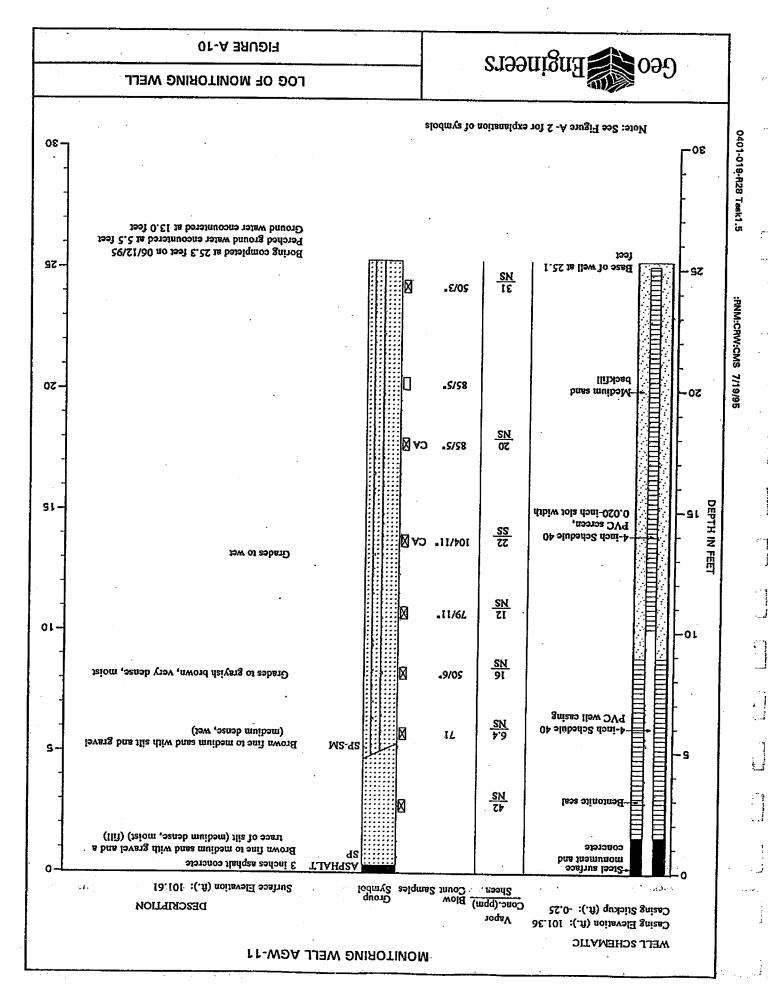


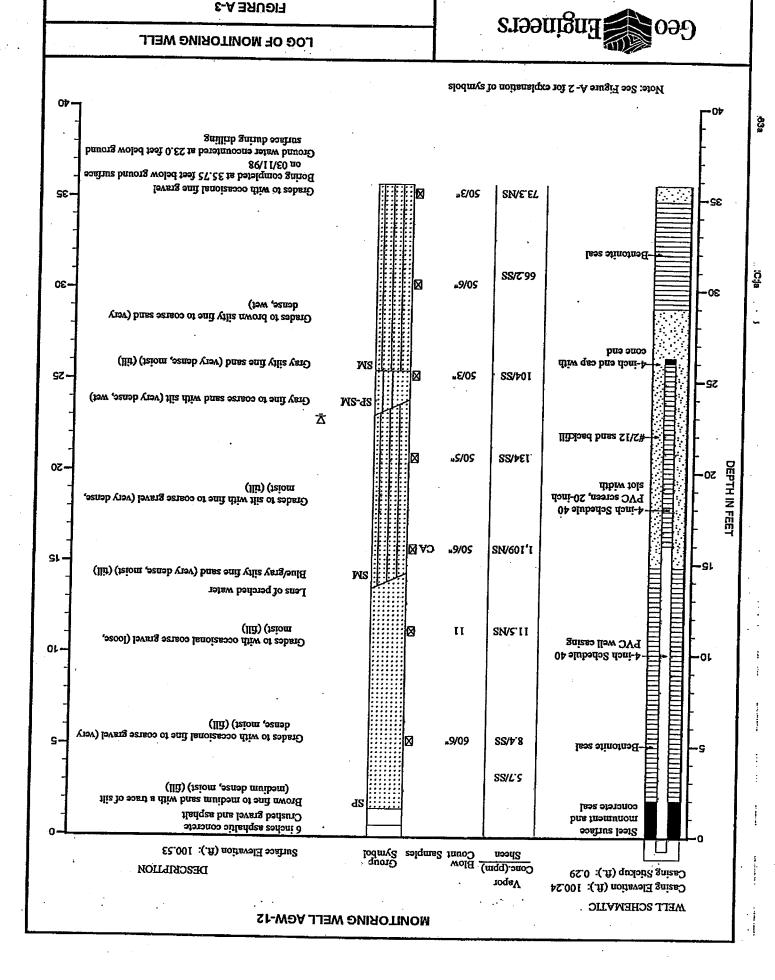
:RNM:CRW:CMS 7/19/95

0401-019-R28 Task1.5

8-A 3RUDI7







#### APPENDIX E

BORING LOGS FOR AGW-13, AGW-14, AND SB-2



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 2

PROJECT NAME: 2805 SEAT PROJECT NUMBER: 241799 CLIENT: Shell Oil Products USA

LOCATION: 2805 SW Roxbury Street

HOLE DESIGNATION: AGW-13
DATE COMPLETED: December 8, 2009

DRILLING METHOD: HSA
FIELD PERSONNEL: J. Song

Seattle, Washington

EPTH BGS	STRATIGRAPHIC DESCRIPTION & REMARKS		DEPTH ft BGS	MONITORING WELL		1	SAMI		
1 803			11 000		NUMBER	INTERVAL	REC (%)	BLOW	PID [ppm]
	ASPHALT	100000	0.50						
2	SP-SAND, with gravel, very dense, fine to medium grained sand, rounded gravel (up to 2" in diameter), well graded, brown (7.5YR 4/3), dry, no odor, no staining			CONCRETE					
3	- Air Knife was used from 0 to 5 ft BGS			2"0 PVC WELL CASING BENTONITE CHIPS	AGW-13-5	X	33	>50	0.
0	- gravel (less than 0.5" in diameter) below 10 ft								
2	BGS				AGW-13-10	X	25	>50	0.
14	record (or to 48 in dispositor) horses (40VD)			WELL SCREEN					
16	- gravel (up to 1" in diameter), brown (10YR 4/3) below 15 ft BGS			SAND PACK	AGW-13-15	X	15	>50	0.
8	- gravel (less than 0.5" in diameter) below 20 ft			8"0 BOREHOLE					
22	BGS				AGW-13-20	X	33	>50	0
24									
26	SM-SILTY SAND, very dense, fine to coarse grained, well graded, olive gray (5YR 4/2), damp, no odor, no staining		25.00		AGW-13-25		20	>50	0.:
28									
30	- wet (not sampled - sample was lost in the ground) @ ~30 ft BGS  END OF BOREHOLE @ 31.0ft BGS		31.00						
32				WELL DETAILS Screened interval: 10.00 to 30.00ft BGS Length: 20ft					
34				Diameter: 2in Slot Size: 10					



#### STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 2 of 2

PROJECT NAME: 2805 SEAT PROJECT NUMBER: 241799 CLIENT: Shell Oil Products USA

LOCATION: 2805 SW Roxbury Street

HOLE DESIGNATION: AGW-13 DATE COMPLETED: December 8, 2009

DRILLING METHOD: HSA FIELD PERSONNEL: J. Song

Seattle, Washington

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL		SAMPLE				
11 000		11 11 11 11 11		NUMBER	INTERVAL	REC (%)	BLOW	PID [ppm]	
-36			Material: PVC Seal: 2.00 to 8.00ft BGS						
-38			Material: BENTONITE Sand Pack: 8.00 to 31.00ft BGS Material: SAND						
-40									
-42									
- 44									
-46									
-48									
-50									
- 52									
- 54									
- 56									
- 58									
-60									
-62									
-64									
-66									
-68									
NO	TES: MEASURING POINT ELEVATIONS MAY CHANGE; WATER FOUND	REFER TO C	URRENT ELEVATION TABLE						



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 2

PROJECT NAME: 2805 SEAT
PROJECT NUMBER: 241799
CLIENT: Shell Oil Products USA

LOCATION: 2805 SW Roxbury Street

HOLE DESIGNATION: AGW-14 DATE COMPLETED: December 8, 2009

DRILLING METHOD: HSA
FIELD PERSONNEL: J. Song

Seattle, Washington

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL			SAM		
II BOO		11 000		NUMBER	INTERVAL	REC (%)	BLOW	PID [nnm]
	ASPHALT	0.50			-			
-2	SP-SAND, with gravel, very dense, fine to medium grained sand, poly-angular gravel (up to 1" in diameter), well graded, brown (7.5YR 4/3), dry, no odor, no staining		CONCRETE					
-6	- Air Knife was used from 0 to 5 ft BGS		2"0 PVC WELL CASING BENTONITE CHIPS	AGW-14-5	X	33	>50	0.
- 8 - 10	- olive brown (2.5YR 4/3) below 10 ft BGS			AGW-14-10		20	>50	0.
-12 -14			WELL SCREEN					
-16 -18	- trace gravel (less than 0.5" in diameter) below 15 ft BGS		SAND PACK	AGW-14-15		20	>50	0.
-20 -22	- damp below 20 ft BGS		8"0 BOREHOLE	AGW-14-20		20	>50	0.
-24	- with silts, with gravel (up to 1" in diameter),							
-26	dark olive brown (2.5YR 3/3) below 25 ft BGS			AGW-14-25	X	20	>50	0.
-28								
-30	- trace gravel (less than 0.5" in diameter), olive brown (2.5YR 4/3), dry below 30 ft BGS	24.50						
-32	END OF BOREHOLE @ 31.5ft BGS	31.50	WELL DETAILS Screened interval: 10.00 to 30.00ft BGS					
-34			Length: 20ft Diameter: 2in					



## STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 2 of 2

PROJECT NAME: 2805 SEAT PROJECT NUMBER: 241799 CLIENT: Shell Oil Products USA

LOCATION: 2805 SW Roxbury Street

HOLE DESIGNATION: AGW-14 DATE COMPLETED: December 8, 2009

DRILLING METHOD: HSA FIELD PERSONNEL: J. Song

Seattle, Washington

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITORING WELL		SAMPLE				
II DOO		II BOO		NUMBER	INTERVAL	REC (%)	BLOW	PID [ppm]	
-36			Slot Size: 10 Material: PVC Seal:						
-38			2.00 to 8.00ft BGS Material: BENTONITE Sand Pack: 8.00 to 31.50ft BGS						
-40			Material: SAND						
-42									
-44									
-46									
-48									
- 50									
- 52									
- 54									
- 56									
- 58									
-60									
-62									
-64									
-66									
-68									
NO <sup>-</sup>	TES: MEASURING POINT ELEVATIONS MAY CHANGE;	DEEED TO C	I IDDENT ELEVATION TARLE						



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: 2805 SEAT

HOLE DESIGNATION: SB-2

PROJECT NUMBER: 241799

DATE COMPLETED: December 9, 2009

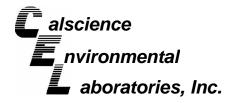
CLIENT: Shell Oil Products USA LOCATION: 2805 SW Roxbury Street DRILLING METHOD: HSA
FIELD PERSONNEL: J. Song

Seattle, Washington

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE			SAM		
11 11 11 11 11 11 11 11 11 11 11 11 11		11 11 11 11 11 11 11 11 11 11 11 11 11		NUMBER	INTERVAL	REC (%)	BLOW	PID [ppm]
	ASPHALT	0.50						
-2	SP-SAND, trace gravel, medium dense, fine to medium grained, well graded, olive brown (2.5YR 4/3), dry, no odor, no staining (FILL)		CONCRETE					
-4	- Air Knife was used from 0 to 5 ft BGS		DENTONITE	SB-2-5		80	6 6 13	0.4
- 8		10.00	BENTONITE CHIPS  8*0					
-12	SP-SAND, with gravel, very dense, fine to medium grained sand, rounded gravel (1" in diameter), well graded, olive brown (2.5YR 4/3), wet, no odor, no staining	10.00	BÖREHOLE	SB-2-10		33	>50	0.3
- 14	- trace gravel (less than 0.5" in diameter), olive brown (5YR 4/3), dry below 15 ft BGS			SB-2-15		33	>50	0.:
- 18	CC CLAVEV CAND year dance fine resided	20.00	Ā					
-22	SC-CLAYEY SAND, very dense, fine grained, poorly graded, dark greenish gray (10YR 4/1), wet, no odor, no staining			SB-2-20	X	33	>50	0.8
-24 -26	- moist below 25 ft BGS	26 50		SB-2-25	X	33	>50	12.
	END OF BOREHOLE @ 26.5ft BGS	26.50	<i>x.///////</i>					
-28								
-30								
-32								
-34								
NC	DTES: MEASURING POINT ELEVATIONS MAY CHANGE; WATER FOUND   CHEMICAL ANALYSIS   CHEMICAL ANALYSIS	REFER TO C	URRENT ELEVATION TABLE					

# APPENDIX F

LABORATORY ANALYTICAL REPORTS





December 23, 2009

Justin Foslien Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248

Subject: Calscience Work Order No.: 09-12-1068

Client Reference: 2805 SW Roxbury Street, Seattle, WA

#### **Dear Client:**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 12/11/2009 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

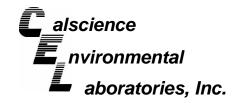
Calscience Environmental Laboratories, Inc.

Philip Samelle for

Xuan H. Dang Project Manager

CA-ELAP ID: 1230 NELAP ID: 03220CA CSDLAC ID: 10109 SCAQMD ID: 93LA0830

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501





Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: 12/11/09 09-12-1068 EPA 3050B EPA 6020

Project: 2805 SW Roxbury Street, Seattle, WA

Page 1 of 1

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SO-241799-120909-JS-SB2-5		09-12-1068-1-C	12/09/09 08:50	Solid	ICP/MS 03	12/16/09	12/17/09 22:26	091216L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Lead	10.4	1.00	1		mg/kg			
SO-241799-120909-JS-SB2-15		09-12-1068-2-C	12/09/09 09:00	Solid	ICP/MS 03	12/16/09	12/17/09 22:32	091216L01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Lead	2.11	1.00	1		mg/kg			
Method Blank		096-10-002-1,644	N/A	Solid	ICP/MS 03	12/16/09	12/16/09 16:10	091216L01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Lead	ND	1.00	1		mg/kg			





Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: Units: 12/11/09 09-12-1068 EPA 3550B NWTPH-Dx mg/kg

Project: 2805 SW Roxbury Street, Seattle, WA

Page 1 of 1

	,	,	-,	· ·						9
Client Sample Number			L	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SO-241799-120909-JS-SB2-5			09-12	-1068-1-A	12/09/09 08:50	Solid	GC 43	12/15/09	12/15/09 22:25	091215B08
Comment(s): -The sample extract w	as subjected	d to Silica	Gel trea	atment prior	to analysis.					
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	RL DF	<u>Qual</u>
TPH as Diesel Range	46	5.0	1		TPH as Motor	r Oil Range		290	5.0 1	
Surrogates:	REC (%)	Control Limits	<u>Q</u> ı	<u>ıal</u>						
Decachlorobiphenyl	108	61-145								
SO-241799-120909-JS-SB2-15			09-12	-1068-2-A	12/09/09 09:00	Solid	GC 43	12/15/09	12/15/09 22:04	091215B08
Comment(s): -The sample extract w	as subjected	d to Silica	Gel trea	atment prior	to analysis.					
Parameter	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	RL DF	Qual
TPH as Diesel Range	ND	5.0	1		TPH as Motor	r Oil Range		ND	5.0 1	
Surrogates:	REC (%)	Control Limits	<u>Qı</u>	<u>ıal</u>						
Decachlorobiphenyl	116	61-145								
Method Blank			099-1	2-838-56	N/A	Solid	GC 43	12/15/09	12/15/09 20:23	091215B08
Parameter	Result	RL	DF	Qual						
TPH as Diesel Range	ND	5.0	1	<u> </u>						
Surrogates:	REC (%)	Control Limits	<u>Q</u> ц	<u>ıal</u>						

MMMM RL-Rep

Decachlorobiphenyl

DF - Dilution Factor

111

61-145

Qual - Qualifiers





Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: Units: 12/11/09 09-12-1068 EPA 3510C NWTPH-Dx ug/L

Project: 2805 SW Roxbury Street, Seattle, WA

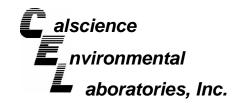
Page 1 of 1

Client Sample Number			L	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW-241799-120909-JS-SB2			09-12	-1068-3-H	12/09/09 11:10	Aqueous	GC 46	12/16/09	12/18/09 23:19	091216B11
Comment(s): -The sample extract v	vas subjected	l to Silica	Gel trea	atment prior	to analysis.					
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	RL DF	<u>Qual</u>
TPH as Diesel Range	ND	100	1		TPH as Moto	r Oil Range		ND	100 1	
Surrogates:	REC (%)	Control Limits	<u>Q</u> ı	<u>ıal</u>						
Decachlorobiphenyl	92	68-140								
Method Blank			099-1	2-840-172	N/A	Aqueous	GC 46	12/16/09	12/17/09 19:57	091216B11
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>						
TPH as Diesel Range	ND	100	1							
Surrogates:	REC (%)	Control Limits	<u>Q</u> ı	<u>ıal</u>						
Decachlorobiphenyl	89	68-140								

MMMM RL-Rep

DF - Dilution Factor ,

Qual - Qualifiers



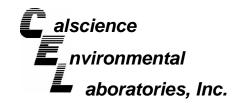


Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: 12/11/09 09-12-1068 EPA 5030B NWTPH-Gx

Project: 2805 SW Roxbury Street, Seattle, WA

Page 1 of 1

Project: 2805 SW Roxbury	/ Street, Seatt	ie, wa					Pa	ige 1 of 1
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW-241799-120909-JS-SB2		09-12-1068-3-D	12/09/09 11:10	Aqueous	GC 29	12/16/09	12/16/09 15:44	091216B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	290	100	1		ug/L			
Surrogates:	REC (%)	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	90	38-134						
Trip Blank		09-12-1068-4-B	12/09/09 00:00	Aqueous	GC 29	12/16/09	12/16/09 16:18	091216B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		Qual				
1,4-Bromofluorobenzene	80	38-134						
Method Blank		099-12-743-407	N/A	Aqueous	GC 29	12/16/09	12/16/09 10:07	091216B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	87	38-134						





Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: 12/11/09 09-12-1068 EPA 5035 NWTPH-Gx

Project: 2805 SW Roxbury Street, Seattle, WA

Page 1 of 1

Trojoot: 2000 OTT Hoxbury	Otroot, Coatt	10, 1171						<u> </u>
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SO-241799-120909-JS-SB2-5		09-12-1068-1-J	12/09/09 08:50	Solid	GC 22	12/09/09	12/17/09 02:13	091216B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	ND	0.26	1.02		mg/kg			
Surrogates:	REC (%)	Control Limits		Qual				
1,4-Bromofluorobenzene	99	60-126						
SO-241799-120909-JS-SB2-15		09-12-1068-2-J	12/09/09 09:00	Solid	GC 22	12/09/09	12/17/09 02:46	091216B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	ND	0.22	0.883		mg/kg			
<u>Surrogates:</u>	<u>REC (%)</u>	Control Limits		Qual				
1,4-Bromofluorobenzene	107	60-126						
Method Blank		099-12-848-74	N/A	Solid	GC 22	12/16/09	12/16/09 10:39	091216B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	ND	0.25	1		mg/kg			
Surrogates:	<u>REC (%)</u>	Control Limits		Qual				
1,4-Bromofluorobenzene	104	60-126						





Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: Units: 12/11/09 09-12-1068 EPA 5035 EPA 8260B mg/kg

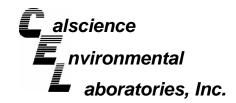
Project: 2805 SW Roxbury Street, Seattle, WA

Page 1 of 1

	,		•							
Client Sample Number				Sample mber	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Ti Analyz	00 D-(-). IF
SO-241799-120909-JS-SB2-5			09-12-10	68-1-G	12/09/09 08:50	Solid	GC/MS XX	12/09/09	12/15/0 14:39	
<u>Parameter</u>	Result	<u>RL</u>	DF (	Qual	<u>Parameter</u>			Result	<u>RL</u>	DF Qual
Benzene	ND	0.0010	1.04		Toluene			ND	0.0010	1.04
Ethylbenzene	ND	0.0010	1.04		Xylenes (total)			ND	0.0021	1.04
Surrogates:	REC (%)	Control Limits	<u>Qual</u>		Surrogates:			REC (%)	Control Limits	<u>Qual</u>
Dibromofluoromethane	113	71-137			1,2-Dichloroeth	ane-d4		126	58-160	
1,4-Bromofluorobenzene	93	66-126			Toluene-d8			101	87-111	
SO-241799-120909-JS-SB2-15			09-12-10	68-2-F	12/09/09 09:00	Solid	GC/MS PP	12/09/09	12/14/0 21:04	
<u>Parameter</u>	Result	<u>RL</u>	DF (	Qual	<u>Parameter</u>			Result	<u>RL</u>	DF Qual
Benzene	ND	0.00082	0.822		Toluene			ND	0.00082	0.822
Ethylbenzene	ND	0.00082	0.822		Xylenes (total)			ND	0.0016	0.822
Surrogates:	REC (%)	Control Limits	<u>Qual</u>		Surrogates:			REC (%)	Control Limits	<u>Qual</u>
Dibromofluoromethane	117	71-137			1,2-Dichloroetha	ane-d4		116	58-160	
1,4-Bromofluorobenzene	94	66-126			Toluene-d8			99	87-111	
Method Blank			095-01-02	25-18,619	9 N/A	Solid	GC/MS PP	12/14/09	12/14/0 16:04	
Parameter	Result	RL	DF (	Qual	Parameter			Result	RL	DF Qual
Benzene	ND	0.0010	1	<u> </u>	Toluene			ND	0.0010	1
Ethylbenzene	ND	0.0010	1		Xylenes (total)			ND	0.0010	1
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:			REC (%)		Qual
Dibromofluoromethane	110	71-137			1,2-Dichloroetha	ane-d4		108	58-160	
1,4-Bromofluorobenzene	95	66-126			Toluene-d8			98	87-111	
Method Blank			095-01-02	25-18,62	2 N/A	Solid	GC/MS XX	12/15/09	12/15/0 12:44	
<u>Parameter</u>	Result	<u>RL</u>	DF (	Qual	<u>Parameter</u>			Result	<u>RL</u>	DF Qual
Benzene	ND	0.0010	1		Toluene			ND	0.0010	1
Ethylbenzene	ND	0.0010	1		Xylenes (total)			ND	0.0020	1
Surrogates:	REC (%)	Control Limits	<u>Qual</u>		Surrogates:			REC (%)	Control Limits	<u>Qual</u>
Dibromofluoromethane	101	71-137			1,2-Dichloroetha	ane-d4		105	58-160	
1,4-Bromofluorobenzene	89	66-126			Toluene-d8			101	87-111	

Muhama

DF - Dilution Factor , Qual - Qualifiers



Units:



Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method:

09-12-1068 EPA 5030B EPA 8260B ug/L

12/11/09

Project: 2805 SW Roxbury Street, Seattle, WA

Page 1 of 1

Client Sample Number				b Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy		QC Batch ID
GW-241799-120909-JS-SB2			09-12-1	1068-3-A	12/09/09 11:10	Aqueous	GC/MS X	12/12/09	12/12/09 20:42		091212L01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	69	0.50	1		Toluene			18	1.0	1	
Ethylbenzene	3.6	1.0	1		Xylenes (tota	I)		43	1.0	1	
Surrogates:	REC (%)	Control Limits	<u>Qua</u>	<u>l</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	106	80-132			1,2-Dichloroe	ethane-d4		104	80-141		
Toluene-d8	100	80-120			1,4-Bromoflu	orobenzene		97	76-120		
Trip Blank			09-12-1	1068-4-A	12/09/09 00:00	Aqueous	GC/MS X	12/12/09	12/12 20:		091212L01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Parameter</u>			Result	RL	DF	<u>Qual</u>
Benzene	ND	0.50	1		Toluene			ND	1.0	1	
Ethylbenzene	ND	1.0	1		Xylenes (tota	I)		ND	1.0	1	
Surrogates:	REC (%)	Control Limits	<u>Qua</u>	<u>ll</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	114	80-132			1,2-Dichloroe	ethane-d4		112	80-141		
Toluene-d8	105	80-120			1,4-Bromoflu	orobenzene		97	76-120		
Method Blank			099-10	-006-31,62	22 N/A	Aqueous	GC/MS X	12/12/09	12/12 11:		091212L01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.50	1		Toluene			ND	1.0	1	
Ethylbenzene	ND	1.0	1		Xylenes (tota	I)		ND	1.0	1	
Surrogates:	REC (%)	Control Limits	Qua	<u>ll</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	104	80-132			1,2-Dichloroe	ethane-d4		106	80-141		
Toluene-d8	101	80-120			1,4-Bromoflu	orobenzene		96	76-120		

Mulha





Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: 12/11/09 09-12-1068 EPA 3050B EPA 6020

#### Project 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		ate I lyzed	MS/MSD Batch Number
09-12-1292-1	Solid	ICP/MS 03	12/16/09	12/1	6/09	091216S01
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Lead	97	96	80-120	1	0-20	

RPD - Relative Percent Difference ,
7440 Lincoln

CL - Control Limit





Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: 12/11/09 09-12-1068 EPA 3550B NWTPH-Dx

#### Project 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
SO-241799-120909-JS-SB2-15	Solid	GC 43	12/15/09		12/15/09	091215S08
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
TPH as Diesel Range	101	114	64-130	12	0-15	

Mulling.





Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: 12/11/09 09-12-1068 EPA 5030B EPA 8015B (M)

#### Project 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
09-12-1358-1	Aqueous	GC 29	12/16/09		12/16/09	091216S01
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	90	91	68-122	1	0-18	

MMM\_

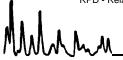




Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: 12/11/09 09-12-1068 EPA 5030B EPA 8260B

Project 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number	
09-12-0781-14	Aqueous	GC/MS X	12/12/09		12/12/09	091212S01	
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers	
Benzene	99	101	72-120	2	0-20		
Toluene	113	117	74-122	4	0-20		
Ethylbenzene	110	111	78-120	1	0-20		
Methyl-t-Butyl Ether (MTBE)	93	102	72-126	8	0-21		
Tert-Butyl Alcohol (TBA)	89	89	72-126	1	0-20		
Diisopropyl Ether (DIPE)	99	107	71-137	9	0-23		
Ethyl-t-Butyl Ether (ETBE)	89	97	74-128	9	0-20		
Tert-Amyl-Methyl Ether (TAME)	88	94	76-124	7	0-20		
Ethanol	111	98	35-167	13	0-48		
1,1-Dichloroethene	114	119	60-132	4	0-24		
1,2-Dibromoethane	100	98	80-120	1	0-20		
1,2-Dichlorobenzene	93	97	80-120	4	0-20		
Carbon Tetrachloride	113	121	63-135	7	0-20		
Chlorobenzene	102	103	80-120	1	0-20		
Trichloroethene	109	108	69-120	1	0-20		
Vinyl Chloride	105	102	58-130	2	0-20		







Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: N/A 09-12-1068 EPA 3050B EPA 6020

Project: 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyze	ed	LCS/LCSD Batch Number	1
096-10-002-1,644	Solid	ICP/MS 03	12/16/09	12/16/09	)	091216L01	
<u>Parameter</u>	LCS %	6REC LCSD	%REC %	REC CL	RPD	RPD CL	Qualifiers
Lead	99	99		80-120	1	0-20	

RPD - Rel





Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: N/A 09-12-1068 EPA 3550B NWTPH-Dx

Project: 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Matrix Instrument P		Dat Analy:		LCS/LCSD Batcl Number	າ
099-12-838-56	Solid	GC 43	12/15/09	12/15/	09	091215B08	
<u>Parameter</u>	LCS %	REC LCSD	<u>%REC</u>	REC CL	<u>RPD</u>	RPD CL	Qualifiers
TPH as Diesel Range	104	103		75-123	1	0-12	

MMM\_





Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: N/A 09-12-1068 EPA 3510C NWTPH-Dx

Project: 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Matrix Instrument F		Date Analyz		LCS/LCSD Batcl Number	n
099-12-840-172	Aqueous	GC 46	12/16/09	12/17/	09	091216B11	
<u>Parameter</u>	LCS %	6REC LCSD	%REC %	REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel Range	81	76		75-117	7	0-13	

RPD - Rel





Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: N/A 09-12-1068 EPA 5030B NWTPH-Gx

Project: 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyze	d	LCS/LCSD Batch Number	1
099-12-743-407	Aqueous	GC 29	12/16/09	12/16/09		091216B01	
<u>Parameter</u>	LCS %	6REC LCSD	<u>%REC</u> <u>%</u>	REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	92	91		78-120	1	0-10	

RPD - Rel

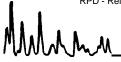




Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: N/A 09-12-1068 EPA 5035 NWTPH-Gx

Project: 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Date Matrix Instrument Prepared		Date d Analyzed		LCS/LCSD Batc Number	n
099-12-848-74	Solid	GC 22	12/16/09	12/16/09	)	091216B01	
<u>Parameter</u>	LCS %	6REC LCSD	<u>%REC</u> <u>%</u>	REC CL	<u>RPD</u>	RPD CL	Qualifiers
TPH as Gasoline	91	94		55-139	4	0-18	







Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: N/A 09-12-1068 EPA 5035 EPA 8260B

Project: 2805 SW Roxbury Street, Seattle, WA

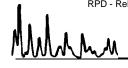
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed		LCS/LCSD Numbe	
095-01-025-18,619	Solid	GC/MS PP	12/14/09	12/14	/09	091214L	01
<u>Parameter</u>	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	87	89	85-115	80-120	3	0-11	
Carbon Tetrachloride	107	114	68-134	57-145	7	0-14	
Chlorobenzene	93	97	83-119	77-125	4	0-9	
1,2-Dibromoethane	100	101	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	89	89	57-135	44-148	0	0-10	
1,1-Dichloroethene	87	94	72-120	64-128	7	0-10	
Ethylbenzene	88	91	80-120	73-127	4	0-20	
Toluene	87	89	67-127	57-137	2	0-10	
Trichloroethene	91	95	88-112	84-116	5	0-9	
Vinyl Chloride	86	89	57-129	45-141	3	0-16	
Methyl-t-Butyl Ether (MTBE)	103	102	76-124	68-132	0	0-12	
Tert-Butyl Alcohol (TBA)	104	101	31-145	12-164	3	0-23	
Diisopropyl Ether (DIPE)	90	93	74-128	65-137	3	0-10	
Ethyl-t-Butyl Ether (ETBE)	95	97	77-125	69-133	2	0-9	
Tert-Amyl-Methyl Ether (TAME)	101	100	81-123	74-130	1	0-10	
Ethanol	84	86	44-152	26-170	3	0-24	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass







Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: N/A 09-12-1068 EPA 5035 EPA 8260B

Project: 2805 SW Roxbury Street, Seattle, WA

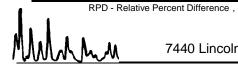
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed		LCS/LCSD   Numbe	
095-01-025-18,622	Solid	GC/MS XX	12/15/09	12/15	/09	091215L	01
<u>Parameter</u>	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	108	109	85-115	80-120	1	0-11	
Carbon Tetrachloride	92	94	68-134	57-145	2	0-14	
Chlorobenzene	106	107	83-119	77-125	1	0-9	
1,2-Dibromoethane	101	102	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	102	104	57-135	44-148	2	0-10	
1,1-Dichloroethene	100	101	72-120	64-128	1	0-10	
Ethylbenzene	110	111	80-120	73-127	2	0-20	
Toluene	108	109	67-127	57-137	1	0-10	
Trichloroethene	107	108	88-112	84-116	1	0-9	
Vinyl Chloride	97	100	57-129	45-141	3	0-16	
Methyl-t-Butyl Ether (MTBE)	97	98	76-124	68-132	1	0-12	
Tert-Butyl Alcohol (TBA)	112	115	31-145	12-164	3	0-23	
Diisopropyl Ether (DIPE)	101	102	74-128	65-137	1	0-10	
Ethyl-t-Butyl Ether (ETBE)	97	99	77-125	69-133	2	0-9	
Tert-Amyl-Methyl Ether (TAME)	100	101	81-123	74-130	1	0-10	
Ethanol	111	110	44-152	26-170	1	0-24	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass







Conestoga-Rovers & Associates 1420 80th St. SW, Suite A Everett, WA 98203-6248 Date Received: Work Order No: Preparation: Method: N/A 09-12-1068 EPA 5030B EPA 8260B

Project: 2805 SW Roxbury Street, Seattle, WA

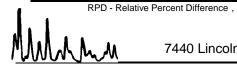
Quality Control Sample ID	Matrix	Instrument			LCS/LCSD Numbe		
099-10-006-31,622	Aqueous	GC/MS X 12/12/09 12/12/09		/09	091212L	01	
<u>Parameter</u>	LCS %REC	LCSD %REC	%REC CL	ME CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Benzene	95	102	80-122	73-129	7	0-20	
Carbon Tetrachloride	122	120	68-140	56-152	2	0-20	
Chlorobenzene	106	104	80-120	73-127	2	0-20	
1,2-Dibromoethane	97	100	80-121	73-128	3	0-20	
1,2-Dichlorobenzene	115	118	80-120	73-127	2	0-20	
1,1-Dichloroethene	123	110	72-132	62-142	11	0-25	
Ethylbenzene	111	114	80-126	72-134	2	0-20	
Toluene	116	116	80-121	73-128	0	0-20	
Trichloroethene	112	114	80-123	73-130	1	0-20	
Vinyl Chloride	110	105	67-133	56-144	5	0-20	
Methyl-t-Butyl Ether (MTBE)	102	101	75-123	67-131	1	0-20	
Tert-Butyl Alcohol (TBA)	89	92	75-123	67-131	4	0-20	
Diisopropyl Ether (DIPE)	107	106	71-131	61-141	0	0-20	
Ethyl-t-Butyl Ether (ETBE)	96	96	76-124	68-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	89	78	80-123	73-130	13	0-20	ME
Ethanol	108	97	61-139	48-152	10	0-27	

Total number of LCS compounds: 16

Total number of ME compounds: 1

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass





## **Glossary of Terms and Qualifiers**



Work Order Number: 09-12-1068

Qualifier	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
Α	Result is the average of all dilutions, as defined by the method.
В	Analyte was present in the associated method blank.
С	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
Н	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
Χ	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.

Page 22 of 24 TEMPERATURE ON RECEIPT C° CHECK IF NO INCIDENT # APPLIES Container PID Readings or Laboratory Notes DATE: 14 3/09 2 1190 cschweigert@CRAworld.com INCIDENT # (ENV SERVICES) 1 REQUESTED ANALYSIS Shell Oil Products Chain Of Custody Record 4 (81709) ensxeH-r 2 ₹3 .3 H43-H4TWN 425-212-5100 HQV-HQTWN (0808) 3se9 VOCs Full list (8260B) EDF DELIVERABLE TO PHEME COMPANY, OBLACE (C) Institut Fallen - Just 9-2019-3 (MIC 0708) SHA9 CBs (8082) Christine Schweigert, CRA, Everett Print Bill To Contact Name: 11510171 Total Lead (6020) EDC (8011) EDC (8500B) 6 Oxygenates, MTBE, TBA, DIPE, TAME, ETBE (8260B) (80858) X3T8 SITE ADDRE WTPH-Dx WSIlica Gel Cleanup XD-H9TWV SHELL RETAIL NO. OF CONT. RESULTS NEEDED
ON WEEKEND forther @ warrand com SHELL CONTRACT RATE APPLIES
STATE REMBURSEMENT RATE APPLIES Please Check Appropriate Box: ✓ RECEIPT VERIFICATION REQUESTED copy to shall lab billing a conworld com HNO3 H2SO4 MOTIVA RETAIL CONSULTANT TEDD NOT NEEDED 렃 24 HOURS MATRIX 7 3 3 S ☐ MOTIVA SD&CM ENV. SERVICES SHELL PIPELINE 2 DAYS TIME 0280 GBK CO10 PMC) UI 10 1011 See Laboratory PM for WA Dept. of Ecology MTCA Method A Cleanup levels for minimum detection limits DATE 425-212-5199 3 DAYS FeAX 8704 7942 5130 UST AGENCY: Field Sample Identification 2 50-24199-10909-13-5B0-15 1420 80th St SW, Suite , Everett, WA 98203 GW-2417/2-130901-15-52-3 1 So 24 Th Frologia -58-0-5 SPECIAL INSTRUCTIONS OR NOTES: TIEVE ☐ 5 DAYS Conestoga-Rovers & Associates MCALSCIENCE (CTATELY) LAB (LOCATION) A - RWQCB REPORT FORMAT VERY IMPORTANTIL Justin Frallen. 425-212-5100 NSTANDARD (14 DAY) TEST AMERICA (\_ Relinquished by: (Signature) SPL Houston ( ☐ XENOO [ DOTHER ( 438

Calscience
Environmental
Laboratories, Inc.

# SAMPLE RECEIPT FORM

Cooler \_\_\_\_ of \_\_\_\_

CLIENT: CRA	DATE: _	12///09
TEMPERATURE: (Criteria: 0.0 °C − 6.0 °C, not frozen)  Temperature	☐ Blank	☐ Sample
☐ Received at ambient temperature, placed on ice for transport by C  Ambient Temperature: ☐ Air ☐ Filter ☐ Metals Only ☐ PCBs	ourier.	Initial: W
	o Offig	initial: <u>007</u>
CUSTODY SEALS INTACT:  ☐ Cooler ☐ ☐ No (Not Intact) ☐ Not Presen ☐ Sample ☐ ☐ No (Not Intact) ☐ Not Presen		Initial: WS
SAMPLE CONDITION:	Yes	No N/A
Chain-Of-Custody (COC) document(s) received with samples	🗹	
COC document(s) received complete	🗗	
$\square$ Collection date/time, matrix, and/or # of containers logged in based on sample label	s.	
$\square$ No analysis requested. $\square$ Not relinquished. $\square$ No date/time relinquished.	,	
Sampler's name indicated on COC	🗹	
Sample container label(s) consistent with COC.  Sample container(s) intact and good condition.	المراه	
Sample container(s) intact and good condition	🗹	
Correct containers and volume for analyses requested	🗹	
Analyses received within holding time	. 🗹	
Proper preservation noted on COC or sample container	🗹	
☐ Unpreserved vials received for Volatiles analysis		
Volatile analysis container(s) free of headspace	🗗	
Tedlar bag(s) free of condensation	🗆	
CONTAINER TYPE:	,	.2
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve □EnCores®	☑TerraCore	s® <u>Z60MPJ</u>
Water: □VOA, ŽVOÁh □VOAna₂ □125AGB □125AGBh □125AGBþ		
□500AGB		
□250PB □250PB <b>n</b> □125PB □125PB <b>znna</b> □100PJ □100PJ <b>na</b> ₂ □		
Air: ☐Tedlar® ☐Summa® Other: ☐ Trip Blank Lot#: Øille A: Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E		
Preservative: h: HCL n: HNO3 na2:Na2S2O3 Na: NaOH p: H3PO4 s: H2SO4 znna: ZnAc2+NaOH	f: Field-filtered	Scanned by: V(



# SAMPLE ANOMALY FORM

SAMPLI	ES - CC	NTAIN	ERS & L	ABELS:			Comm	ents:			
	-			listed on C			(-4) D	OTTLE	FOR	DIESEL NOT	
	='			nple ID(s) ar			<del></del>			EIVED.	
☑Insu	fficient	- quantitie	s for ana	ı <b>lysis –</b> list te	est						<del></del>
☐ lmpr	oper co	ntainer(	s)/preser	vative used	- list tes	t					
□ № р	reserva	tive note	ed on CO	C or label –	list test &	& notify lab	)				
☐ Sam	ple labe	ls illegik	ole – note	test/contain	er type	•					
☐ Sam	ple labe	ls do no	t match (	COC - Note	in comm	ents					
	Sample	e ID									
	Date ar	nd/or Tir	ne Collec	ted							
	Project	Informa	ition								
	# of Co	ntainers	i								
	Analysi	is									
☐ Sam	ple cont	tainers c	omprom	i <b>sed –</b> Note	in comm	ents					
	Leaking	g	•								
	Broken										
	Withou	t Labels									
☐ Air s	sample	containe	ers comp	romised – N	lote in co	mments				<u></u>	
	Flat										
	Very lo	w in vol	ume								
	Leaking	g (Not tr	ansferred	d - duplicate	bag sul	omitted)				<del></del>	
	Leaking	g (transf	erred inte	o Calscienc	e Tedlar	® Bag*)					
	Leaking	g (transf	erred inte	o Client's To	edlar® Ba	ag*)					
☐ Othe	r:									·	
HEADSI	PACE -	· Contai	ners wit	h Bubble >	6mm o	r ¼ inch:					
Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received		Analysis	
									<u> </u>		
											-
	L	I	<u> </u>					L	1		
Comment	ts:										
							<del></del>			,,	
*Transferr	ed at Clie	ent's requ	est.				Ir	nitial / Da	ate:	PS 12/11	<u>/09</u>

 $(a,b,b) = \prod_{i \in \mathcal{I}} (a,b) + (a,b)$ 

SOP T100\_090 (07/16/09)





January 12, 2010

Dan Koskela Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105

Subject: Calscience Work Order No.: 09-12-2400

Client Reference: 2805 SW Roxbury Street, Seattle, WA

#### **Dear Client:**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 12/31/2009 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental

Philip Samelle for

Laboratories, Inc.

Xuan H. Dang Project Manager

CA-ELAP

NELAP ID: 03220CA

CSDLAC ID: 10109

SCAQMD ID: 93LA0830

7440 Lincoln Way, Garden Grove, CA 92841-1427 ·

TEL:(714) 895-5494 ·

FAX: (714) 894-7501





12/31/09 Blaine Tech Services, Inc. Date Received: Work Order No: 09-12-2400 1680 Rogers Avenue San Jose, CA 95112-1105 Preparation: **EPA 3510C** Method: **NWTPH-Dx** Units: ug/L

Client Sample Number				ib Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		/Time lyzed	QC Batch ID
AGW-1			09-12-	2400-1-D	12/30/09 08:30	Aqueous	GC 27	01/04/10		)4/10 :13	100104B03
Comment(s): -The sample extract	was subjected	to Silica	Gel treat	ment prior	to analysis.						
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	<u>RL</u>	DF	<u>Qual</u>
TPH as Diesel Range	ND	100	1		TPH as Moto	r Oil Range		ND	100	1	
Surrogates:	REC (%)	Control Limits	<u>Qua</u>	<u>al</u>							
Decachlorobiphenyl	108	68-140									
AGW-2			09-12-	2400-2-D	12/30/09 09:00	Aqueous	GC 27	01/04/10		)4/10 :31	100104B03
Comment(s): -The sample extract	was subjected	to Silica	Gel treat	ment prior	to analysis.						
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
TPH as Diesel Range	ND	100	1		TPH as Moto	r Oil Range		360	100	1	
Surrogates:	REC (%)	Control Limits	Qua	<u>al</u>							
Decachlorobiphenyl	110	68-140									
AGW-3			09-12-2	2400-3-H	12/30/09 09:30	Aqueous	GC 27	01/04/10		4/10 :49	100104B03

Comment(s): -The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard.

Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

<u>DF</u>

Qual

-The sample extract was subjected to Silica Gel treatment prior to analysis.

<u>RL</u>

<u>Parameter</u> Result RL DF Qual <u>Parameter</u> Result RL DF Qual 10000 TPH as Motor Oil Range ND TPH as Diesel Range 100 100 Surrogates: **REC (%)** Control Qual <u>Limits</u>

110 68-140 Decachlorobiphenyl

AGW-6	09-12-2400-4-D	12/30/09 08:10	Aqueous	GC 27	01/04/10	01/04/10 21:07	100104B03
Comment(s): -The sample extract was subjected to Silica	Gel treatment prior to a	analysis.					

**Parameter** 

TPH as Motor Oil Range

TPH as Diesel Range ND 100 Qual **REC (%)** <u>Control</u> Surrogates:

<u>Limits</u>

Result

Decachlorobiphenyl 103 68-140

<u>Parameter</u>

DF - Dilution Factor Qual - Qualifiers Result

250

<u>RL</u>

100

DF

1

Qual





Blaine Tech Services, Inc. Date Received: 12/31/09 09-12-2400 1680 Rogers Avenue Work Order No: San Jose, CA 95112-1105 Preparation: **EPA 3510C** Method: **NWTPH-Dx** Units: ug/L

Project: 2805 SW Roxbury Street, Seattle, WA Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
AGW-7	09-12-2400-5-H	12/30/09 09:45	Aqueous	GC 27	01/04/10	01/04/10 21:26	100104B03

-The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard.

Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

-The sample extract was subjected to Silica Gel treatment prior to analysis.

RL DF <u>DF</u> <u>Parameter</u> Result Qual Result RL Qual <u>Parameter</u> 1500 TPH as Motor Oil Range 290 100 TPH as Diesel Range 100 1

**REC (%)** Control Qual Surrogates:

**Limits** 111 68-140 Decachlorobiphenyl

AGW-8	09-12-2400-6-D	12/30/09 10:10	Aqueous	GC 27	01/04/10	01/04/10 21:44	100104B03

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

**Parameter** Result RL DF Qual **Parameter** Result RL DF Qual TPH as Diesel Range ND 100 TPH as Motor Oil Range 180 100 1 1 Qual

**REC (%)** Control Surrogates: Limits

107 68-140 Decachlorobiphenyl 01/04/10 AGW-9 09-12-2400-7-D 12/30/09 Aqueous GC 27 01/04/10 100104B03 09:15 22:21

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

<u>Parameter</u> Result RLDF Qual Parameter Result RL DF Qual TPH as Diesel Range ND 100 TPH as Motor Oil Range ND 100 1

Surrogates: **REC (%)** <u>Control</u> Qual

**Limits** 98 68-140

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

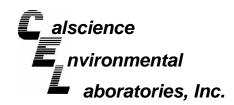
RL <u>RL</u> <u>DF</u> <u>Parameter</u> Result Qual Result Qual TPH as Diesel Range ND 100 TPH as Motor Oil Range ND 100 1 1

Qual **REC (%)** Control Surrogates:

**Limits** 

Decachlorobiphenyl 99 68-140

Decachlorobiphenyl





Blaine Tech Services, Inc. 12/31/09 Date Received: 1680 Rogers Avenue Work Order No: 09-12-2400 San Jose, CA 95112-1105 Preparation: **EPA 3510C** Method: **NWTPH-Dx** Units: ug/L

Client Sample Number			Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch II
AGW-11			09-12-2400-9-D	12/30/09 07:20	Aqueous	GC 27	01/04/10	01/04/10 22:58	100104B03
Comment(s): -The sample extract	vas subjected	I to Silica	Gel treatment prior	to analysis.					
<u>Parameter</u>	Result	<u>RL</u>	DF Qual	<u>Parameter</u>			Result	RL DF	<u>Qual</u>
TPH as Diesel Range	ND	100	1	TPH as Moto	r Oil Range		230	100 1	
Surrogates:	REC (%)	Control Limits	<u>Qual</u>						
Decachlorobiphenyl	90	68-140							
AGW-12			09-12-2400-10-D	12/30/09 10:25	Aqueous	GC 27	01/04/10	01/04/10 23:16	100104B03
				10.23				23.10	
Comment(s): -The sample chroma Quantitation of the ur -The sample extract	known hydro	carbon(s)	in the sample was	the chromatogr			fied standar		
Quantitation of the ur -The sample extract	known hydro	carbon(s)	in the sample was	the chromatogr			fied standar		Qual
Quantitation of the ur -The sample extract	known hydrod vas subjected	carbon(s) I to Silica	in the sample was Gel treatment prior	the chromatogr based upon the to analysis.	specified st			rd.	Qual
Quantitation of the ur	known hydrod vas subjected <u>Result</u>	carbon(s) I to Silica RL	in the sample was Gel treatment prior <u>DF</u> <u>Qual</u>	the chromatogrobased upon the to analysis.  Parameter	specified st		Result	rd. RL DF	Qual
Quantitation of the ur -The sample extract rearrander Parameter TPH as Diesel Range	known hydrod vas subjected <u>Result</u> 4200	carbon(s) I to Silica ( RL 100 Control	in the sample was Gel treatment prior <u>DF</u> <u>Qual</u> 1	the chromatogrobased upon the to analysis.  Parameter	specified st		Result	rd. RL DF	Qual

Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

-The sample extract was subjected to Silica Gel treatment prior to analysis.

<u>Parameter</u> Result RL <u>DF</u> Qual Result RL DF Qual <u>Parameter</u> TPH as Diesel Range 2500 TPH as Motor Oil Range ND 100 100 1 Control Qual Surrogates: REC (%) **Limits** Decachlorobiphenyl 93 68-140

AGW-14 12/30/09 01/04/10 01/04/10 100104B03 09-12-2400-12-D GC 27 Aqueous 07:55 23:54

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

<u>Parameter</u> Result RL DF Qual Result <u>RL</u> DF Qual TPH as Diesel Range ND 100 TPH as Motor Oil Range 130 100 1

**REC (%)** Control Qual Surrogates:

<u>Limits</u> 94 Decachlorobiphenyl 68-140

RL - Reporting Limit

DF - Dilution Factor Qual - Qualifiers





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: Units: 12/31/09 09-12-2400 EPA 3510C NWTPH-Dx

ug/L

Project: 2805 SW Roxbury Street, Seattle, WA

Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-840-178	N/A	Aqueous	GC 27	01/04/10	01/04/10 19:19	100104B03

<u>DF</u> Qual <u>Parameter</u> Result RL TPH as Diesel Range ND 100 Control Qual Surrogates: REC (%) Limits Decachlorobiphenyl 107 68-140

MMMM RL-Rej





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method:

09-12-2400 EPA 5030B NWTPH-Gx

12/31/09

Project: 2805 SW Roxbury Street, Seattle, WA

Page 1 of 4

Project. 2003 SVV ROXDE	iry Sireet, Seatt	ie, WA					Го	age i oi 4
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
AGW-1		09-12-2400-1-C	12/30/09 08:30	Aqueous	GC 25	01/05/10	01/05/10 16:02	100105B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
Surrogates:	REC (%)	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	86	38-134						
AGW-2		09-12-2400-2-C	12/30/09 09:00	Aqueous	GC 25	01/05/10	01/05/10 16:35	100105B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
<u>Surrogates:</u>	<u>REC (%)</u>	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	85	38-134						
AGW-3		09-12-2400-3-C	12/30/09 09:30	Aqueous	GC 25	01/05/10	01/05/10 17:09	100105B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	24000	500	5		ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		Qual				
1,4-Bromofluorobenzene	115	38-134						
AGW-6		09-12-2400-4-C	12/30/09 08:10	Aqueous	GC 25	01/05/10	01/05/10 17:43	100105B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		Qual				
1,4-Bromofluorobenzene	86	38-134						

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers





Blaine Tech Services, Inc.

Date Received:

12/31/09

1680 Rogers Avenue

Work Order No:

99-12-2400

Preparation:

EPA 5030B

Method:

NWTPH-Gx

Project: 2805 SW Roxbury Street, Seattle, WA

Page 2 of 4

Project: 2805 SW Roxbury S	treet, Seatt	le, WA					Pa	ige 2 of 4
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
AGW-7		09-12-2400-5-C	12/30/09 09:45	Aqueous	GC 25	01/05/10	01/05/10 18:16	100105B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	3600	100	1		ug/L			
Surrogates:	REC (%)	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	127	38-134						
AGW-8		09-12-2400-6-C	12/30/09 10:10	Aqueous	GC 25	01/05/10	01/05/10 18:50	100105B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
Surrogates:	REC (%)	Control Limits		Qual				
1,4-Bromofluorobenzene	85	38-134						
AGW-9		09-12-2400-7-C	12/30/09 09:15	Aqueous	GC 25	01/05/10	01/05/10 19:23	100105B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	200	100	1		ug/L			
Surrogates:	REC (%)	Control Limits		<u>Qual</u>				
1,4-Bromofluorobenzene	89	38-134						
AGW-10		09-12-2400-8-C	12/30/09 08:40	Aqueous	GC 25	01/05/10	01/05/10 19:57	100105B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
Surrogates:	REC (%)	Control Limits		Qual				
1,4-Bromofluorobenzene	85	38-134						

RL - Reporting Limit ,

DF - Dilution Factor

Qual - Qualifiers





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method:

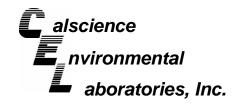
09-12-2400 EPA 5030B **NWTPH-Gx** 

12/31/09

Project: 2805 SW Roxbury	/ Street, Seatt	le, WA					Pa	ge 3 of 4
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
AGW-11		09-12-2400-9-C	12/30/09 07:20	Aqueous	GC 25	01/05/10	01/05/10 20:31	100105B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits		Qual				
1,4-Bromofluorobenzene	87	38-134						
AGW-12		09-12-2400-10-C	12/30/09 10:25	Aqueous	GC 25	01/05/10	01/05/10 21:38	100105B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	15000	500	5		ug/L			
<u>Surrogates:</u>	<u>REC (%)</u>	Control Limits		Qual				
1,4-Bromofluorobenzene	107	38-134						
AGW-13		09-12-2400-11-C	12/30/09 07:45	Aqueous	GC 25	01/06/10	01/06/10 15:00	100106B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	8600	2500	25		ug/L			
Surrogates:	REC (%)	Control Limits		Qual				
1,4-Bromofluorobenzene	91	38-134						
AGW-14		09-12-2400-12-C	12/30/09 07:55	Aqueous	GC 25	01/05/10	01/05/10 22:45	100105B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
<u>Surrogates:</u>	<u>REC (%)</u>	Control Limits		Qual				
1,4-Bromofluorobenzene	86	38-134						

DF - Dilution Factor

Qual - Qualifiers





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method:

ug/L

09-12-2400 EPA 5030B NWTPH-Gx

12/31/09

Project: 2805 SW Roxbury Street, Seattle, WA

Page 4 of 4

Trojoot. 2000 OV Roxbary	Otroot, Coatt	10, 1171						90 101 1
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		099-12-743-423	N/A	Aqueous	GC 25	01/05/10	01/05/10 12:40	100105B01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
TPH as Gasoline	ND	100	1		ug/L			
Surrogates:	REC (%)	Control Limits		Qual				
1,4-Bromofluorobenzene	82	38-134						
Method Blank		099-12-743-425	N/A	Aqueous	GC 25	01/06/10	01/06/10 04:51	100106B01
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			

- Grannoton	. 100a.i.	<u>=</u>	<u></u>	<u> </u>
TPH as Gasoline	ND	100	1	
Surrogates:	REC (%)	Control Limits		Qual
1.4-Bromofluorobenzene	83	38-134		





Units:



Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method:

09-12-2400 EPA 5030B EPA 8260B ug/L

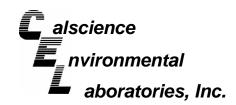
12/31/09

Project: 2805 SW Roxbury Street, Seattle, WA

Page 1 of 4

Client Sample Number			L	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/1 Analy		QC Batch ID
AGW-1			09-12	-2400-1-A	12/30/09 08:30	Aqueous	GC/MS CC	01/02/10	01/03 04:4		100102L02
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.50	1		Tert-Butyl Alc	cohol (TBA)		ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl E	ther (DIPE)		ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl I	Ether (ETBE	)	ND	2.0	1	
Xylenes (total)	1.7	1.0	1		Tert-Amyl-Me	ethyl Ether (T	AME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1								
Surrogates:	REC (%)	Control Limits	Qu	<u>ıal</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	98	80-132			1,2-Dichloroe	thane-d4		94	80-141		
Toluene-d8	102	80-120			1,4-Bromoflu	orobenzene		103	76-120		
AGW-2			09-12	-2400-2-A	12/30/09 09:00	Aqueous	GC/MS CC	01/02/10	01/03 05:1		100102L02
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.50	1		Tert-Butyl Alc	cohol (TBA)		ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl E	ther (DIPE)		ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl I	Ether (ETBE	)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Me	ethyl Ether (T	AME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1								
<u>Surrogates:</u>	<u>REC (%)</u>	Control Limits	<u>Qu</u>	<u>ıal</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	96	80-132			1,2-Dichloroe	thane-d4		94	80-141		
Toluene-d8	102	80-120			1,4-Bromoflu	orobenzene		103	76-120		
AGW-6			09-12	-2400-4-A	12/30/09 08:10	Aqueous	GC/MS CC	01/02/10	01/03 05:4		100102L02
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	Parameter			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.50	1		Tert-Butyl Alc	cohol (TBA)		ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl E	` ,		ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl I	` ,	)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Me	•	,	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1		•	. (	,				
Surrogates:	REC (%)	Control Limits	Qu	<u>ıal</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	97	80-132			1,2-Dichloroe	thane-d4		95	80-141		
Toluene-d8	102	80-120			1,4-Bromoflu	orobenzene		101	76-120		

Muha



Units:



Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method:

09-12-2400 EPA 5030B EPA 8260B ug/L

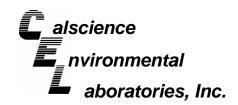
12/31/09

Project: 2805 SW Roxbury Street, Seattle, WA

Page 2 of 4

Client Sample Number			L	ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/1 Analy		QC Batch ID
AGW-7			09-12	-2400-5-A	12/30/09 09:45	Aqueous	GC/MS CC	01/02/10	01/03 06:1		100102L02
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.50	1		Tert-Butyl Alc	ohol (TBA)		ND	10	1	
Ethylbenzene	17	1.0	1		Diisopropyl E	ther (DIPE)		ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl E	Ether (ETBE	)	ND	2.0	1	
Xylenes (total)	13	1.0	1		Tert-Amyl-Me	ethyl Ether (T	AME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1								
Surrogates:	REC (%)	Control Limits	<u>Q</u> ı	<u>ıal</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	97	80-132			1,2-Dichloroe	thane-d4		93	80-141		
Toluene-d8	106	80-120			1,4-Bromofluo	orobenzene		105	76-120		
AGW-8			09-12	-2400-6-A	12/30/09 10:10	Aqueous	GC/MS CC	01/02/10	01/03 06:4		100102L02
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.50	1		Tert-Butyl Alc	ohol (TBA)		ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl E	` ,		ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl E	•		ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Me	ethyl Ether (T	AME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1		_					_	
<u>Surrogates:</u>	<u>REC (%)</u>	Control Limits	<u>Qι</u>	<u>ıal</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	98	80-132			1,2-Dichloroe	thane-d4		95	80-141		
Toluene-d8	103	80-120			1,4-Bromoflu	orobenzene		103	76-120		
AGW-10			09-12	-2400-8-A	12/30/09 08:40	Aqueous	GC/MS CC	01/02/10	01/03 07:1		100102L02
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.50	1		Tert-Butyl Alc	ohol (TBA)		ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl E	, ,		ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl I	` ,	)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Me			ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1		-	. ,	,				
Surrogates:	REC (%)	Control Limits	Qι	<u>ıal</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	96	80-132			1,2-Dichloroe	thane-d4		94	80-141		
Toluene-d8	101	80-120			1,4-Bromoflu	orobenzene		100	76-120		

Mulha





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: 09-12-2400 Preparation: **EPA 5030B** Method: **EPA 8260B** Units:

Project: 2805 SW Roxbury Street, Seattle, WA

Page 3 of 4

12/31/09

ug/L

Client Sample Number				b Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/T Analy		QC Batch ID
AGW-11			09-12-2	2400-9-A	12/30/09 07:20	Aqueous	GC/MS CC	01/02/10	01/03 07:4		100102L02
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.50	1		Tert-Butyl Ald	cohol (TBA)		ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl E	ther (DIPE)		ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl	Ether (ETBE)	)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Me	ethyl Ether (T	AME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1								
Surrogates:	REC (%)	Control Limits	<u>Qua</u>	<u>l</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	96	80-132			1,2-Dichloroe	ethane-d4		95	80-141		
Toluene-d8	103	80-120			1,4-Bromoflu	orobenzene		101	76-120		
AGW-12			09-12-2	2400-10-B	12/30/09 10:25	Aqueous	GC/MS S	01/04/10	01/04 17:2		100104L01
_											
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	170	5.0	10		Tert-Butyl Ald	, ,		ND	100	10	
Ethylbenzene	950	10	10		Diisopropyl E	` ,		ND	20	10	
Toluene	650	10	10		Ethyl-t-Butyl	` '		ND	20	10	
Xylenes (total)	2000	10	10		Tert-Amyl-Me	ethyl Ether (T	AME)	ND	20	10	
Methyl-t-Butyl Ether (MTBE)	ND	10	10		_					_	
<u>Surrogates:</u>	<u>REC (%)</u>	Control Limits	<u>Qua</u>	<u>ll</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	89	80-132			1,2-Dichloroe	ethane-d4		84	80-141		
Toluene-d8	93	80-120			1,4-Bromoflu	orobenzene		92	76-120		
Method Blank			099-10	-006-31,80	5 N/A	Aqueous	GC/MS S	01/04/10	01/04 14:		100104L01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.50	1		Tert-Butyl Ald	cohol (TBA)		ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl E	, ,		ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl	Ether (ETBE)	)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Me	` '		ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1		•	. `	,				
Surrogates:	REC (%)	Control Limits	Qua	<u>l</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	102	80-132			1,2-Dichloroe	ethane-d4		105	80-141		
Toluene-d8	94	80-120			1,4-Bromoflu			83	76-120		





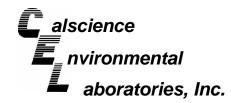
Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: 12/31/09 Work Order No: 09-12-2400 Preparation: **EPA 5030B** Method: **EPA 8260B** Units: ug/L

Project: 2805 SW Roxbury Street, Seattle, WA

Pag	ge 4 of 4	
Date/Time	000.110	

Client Sample Number				ab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/T Analy		QC Batch ID
Method Blank			099-10	)-006-31,814	N/A	Aqueous	GC/MS CC	01/02/10	01/03 01:3		100102L02
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	0.50	1		Tert-Butyl Alc	ohol (TBA)		ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Et	ther (DIPE)		ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl E	Ether (ETBE	)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Me	thyl Ether (T	AME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1								
Surrogates:	REC (%)	Control Limits	<u>Qua</u>	<u>al</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	99	80-132			1,2-Dichloroe	thane-d4		97	80-141		
Toluene-d8	102	80-120			1,4-Bromofluo	orobenzene		100	76-120		

Page 1 of 6



# **Analytical Report**



Blaine Tech Services, Inc.

1680 Rogers Avenue

Work Order No:

99-12-2400

Preparation:

EPA 5030B

Method:

Date Received:

12/31/09

09-12-2400

EPA 5030B

Units: ug/L

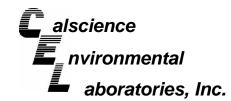
Project: 2805 SW Roxbury Street, Seattle, WA

AGW-3	09-12-2400-3-A	12/30/09 09:30	Aqueous	GC/MS BB	01/04/10	01/04/10 17:01	100104L01
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID

AGW-3			09-12-	-2400-3	-A	12/30/09 Aqueous GC 09:30	C/MS BB 01/04/	10	/04/10 17:01	100104	L01
Comment(s): -Results were ev	aluated to th	ne MDL, c	oncentrat	ions >=	to the N	MDL but < RL, if found, are qu	alified with a "J" fla	g.			
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual	<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual
Benzene	1500	100	40	200		1,2-Dichloropropane	ND	100	62	200	
Bromodichloromethane	ND	100	41	200		c-1,3-Dichloropropene	ND	100	11	200	
Bromoform	ND	100	52	200		t-1,3-Dichloropropene	ND	100	44	200	
Bromomethane	ND	200	86	200		Ethylbenzene	1300	100	8.7	200	
Carbon Tetrachloride	ND	100	25	200		Methylene Chloride	ND	200	32	200	
Chlorobenzene	ND	100	14	200		1,1,2,2-Tetrachloroethane	ND	100	35	200	
Chloroethane	ND	100	41	200		Tetrachloroethene	ND	100	52	200	
2-Chloroethyl Vinyl Ether	ND	1000	380	200		Toluene	1400	100	49	200	
Chloroform	ND	100	18	200		1,1,1-Trichloroethane	ND	100	28	200	
Chloromethane	ND	100	49	200		1,1,2-Trichloroethane	ND	100	37	200	
Dibromochloromethane	ND	100	24	200		Trichloroethene	ND	100	26	200	
1,2-Dichlorobenzene	ND	100	22	200		Trichlorofluoromethane	ND	100	44	200	
1,3-Dichlorobenzene	ND	100	16	200		Vinyl Chloride	ND	100	48	200	
1,4-Dichlorobenzene	ND	100	43	200		Xylenes (total)	5400	100	16	200	
Dichlorodifluoromethane	ND	200	64	200		Methyl-t-Butyl Ether (MTBE)	) ND	100	29	200	
1,1-Dichloroethane	ND	100	28	200		Tert-Butyl Alcohol (TBA)	ND	2000	800	200	
1,2-Dichloroethane	ND	100	15	200		Diisopropyl Ether (DIPE)	ND	100	24	200	
1,1-Dichloroethene	ND	100	52	200		Ethyl-t-Butyl Ether (ETBE)	ND	100	50	200	
c-1,2-Dichloroethene	ND	100	39	200		Tert-Amyl-Methyl Ether (TAI	ME) ND	100	24	200	
t-1,2-Dichloroethene	ND	100	44	200							
Surrogates:	REC (%)	Control Limits	<u>Qu</u>	<u>al</u>		Surrogates:	REC (%)	Control	<u>l</u> Q	ual	
1,2-Dichloroethane-d4	114	80-128				Dibromofluoromethane	107	80-127			
Toluene-d8	102	80-120				1,4-Bromofluorobenzene	100	68-120			



RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received:
Work Order No:
Preparation:
Method:

09-12-2400 EPA 5030B EPA 8260B

12/31/09

Units:

Date/Time

ug/L

Project: 2805 SW Roxbury Street, Seattle, WA

Page 2 of 6

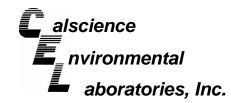
Date/Time
Applying QC Batch ID

Date

Client Sample Number			Lab S Nun			Date/Time Collected	Matrix	Instrument	Date Prepar		e/Time alyzed	QC Bat	ch ID
AGW-9			09-12-	-2400-7	7-A	12/30/09 09:15	Aqueous	GC/MS BE	3 01/04/ <sup>-</sup>		/04/10 7:29	100104	L01
Comment(s): -Results were	evaluated to th	ne MDL, c	oncentrat	ions >=	to the N	MDL but < RL	., if found, are	e qualified wi	th a "J" flag	<b>j</b> .			
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	DF	Qual	<u>Parameter</u>			Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual
Benzene	28	0.50	0.20	1		1,2-Dichlor	opropane		ND	0.50	0.31	1	
Bromodichloromethane	ND	0.50	0.20	1		c-1,3-Dichle	oropropene		ND	0.50	0.055	1	
Bromoform	ND	0.50	0.26	1		t-1,3-Dichlo	ropropene		ND	0.50	0.22	1	
Bromomethane	ND	1.0	0.43	1		Ethylbenze	ne		0.087	0.50	0.043	1	J
Carbon Tetrachloride	ND	0.50	0.13	1		Methylene (	Chloride		ND	1.0	0.16	1	
Chlorobenzene	ND	0.50	0.072	1		1,1,2,2-Tet	rachloroethar	ne	ND	0.50	0.17	1	
Chloroethane	ND	0.50	0.21	1		Tetrachloro	ethene		10	0.50	0.26	1	
2-Chloroethyl Vinyl Ether	ND	5.0	1.9	1		Toluene			0.39	0.50	0.25	1	J
Chloroform	0.33	0.50	0.088	1	J	1,1,1-Trich	loroethane		ND	0.50	0.14	1	
Chloromethane	ND	0.50	0.25	1		1,1,2-Trich	loroethane		ND	0.50	0.19	1	
Dibromochloromethane	ND	0.50	0.12	1		Trichloroeth	nene		2.4	0.50	0.13	1	
1,2-Dichlorobenzene	ND	0.50	0.11	1		Trichloroflu	oromethane		ND	0.50	0.22	1	
1,3-Dichlorobenzene	ND	0.50	0.080	1		Vinyl Chlori	de		ND	0.50	0.24	1	
1,4-Dichlorobenzene	ND	0.50	0.22	1		Xylenes (to	tal)		0.24	0.50	0.081	1	J
Dichlorodifluoromethane	ND	1.0	0.32	1		Methyl-t-Bu	ityl Ether (MT	BE)	ND	0.50	0.14	1	
1,1-Dichloroethane	ND	0.50	0.14	1		Tert-Butyl A	Alcohol (TBA)	)	ND	10	4.0	1	
1,2-Dichloroethane	ND	0.50	0.075	1		Diisopropyl	Ether (DIPE	)	ND	0.50	0.12	1	
1,1-Dichloroethene	ND	0.50	0.26	1		Ethyl-t-Buty	/I Ether (ETB	E)	ND	0.50	0.25	1	
c-1,2-Dichloroethene	3.8	0.50	0.20	1		Tert-Amyl-N	Methyl Ether	(TAME)	ND	0.50	0.12	1	
t-1,2-Dichloroethene	ND	0.50	0.22	1									
Surrogates:	REC (%)	Control Limits	Qu	<u>al</u>		Surrogates:			REC (%)	Control	<u> Q</u>	<u>ual</u>	
1,2-Dichloroethane-d4	109	80-128				Dibromoflu	oromethane		107	80-127			
Toluene-d8	103	80-120				1,4-Bromof	luorobenzene	Э	97	68-120			

RL - Reporting Limit ,

, DF - Dilution Factor , Qual - Qualifiers





Blaine Tech Services, Inc.

1680 Rogers Avenue

San Jose, CA 95112-1105

Date Received:

Work Order No:

Preparation:

Date Received: 12/31/09
Work Order No: 09-12-2400
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: 2805 SW Roxbury Street, Seattle, WA

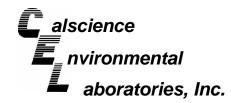
Page 3 of 6

Date/Time

Client Sample Number			Lab S Nun			Date/Time Collected	Matrix	Instrument	Date Prepar		Date/Time Analyzed	QC Bate	ch ID
AGW-13			09-12-	-2400-1	1-A	12/30/09 07:45	Aqueous	GC/MS BB	01/04/	10	01/04/10 17:58	100104	L01
Comment(s): -Results were	e evaluated to th	e MDL, co	oncentrat	ions >=	to the N	MDL but < RL	., if found, are	e qualified wit	h a "J" flag	<b>j</b> .			
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual	<u>Parameter</u>			Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual
Benzene	36	20	8.0	40		1,2-Dichlor	opropane		ND	20	12	40	
Bromodichloromethane	ND	20	8.2	40		c-1,3-Dichl	oropropene		ND	20	2.2	40	
Bromoform	ND	20	10	40		t-1,3-Dichlo	propropene		ND	20	8.9	40	
Bromomethane	ND	40	17	40		Ethylbenze	ne		510	20	1.7	40	
Carbon Tetrachloride	ND	20	5.1	40		Methylene	Chloride		ND	40	6.5	40	
Chlorobenzene	ND	20	2.9	40		1,1,2,2-Tet	rachloroethar	ne	ND	20	6.9	40	
Chloroethane	ND	20	8.2	40		Tetrachloro	ethene		ND	20	10	40	
2-Chloroethyl Vinyl Ether	ND	200	76	40		Toluene			95	20	9.9	40	
Chloroform	24	20	3.5	40		1,1,1-Trich	loroethane		ND	20	5.7	40	
Chloromethane	ND	20	9.8	40		1,1,2-Trich	loroethane		ND	20	7.5	40	
Dibromochloromethane	ND	20	4.8	40		Trichloroetl	nene		ND	20	5.2	40	
1,2-Dichlorobenzene	ND	20	4.3	40		Trichloroflu	oromethane		ND	20	8.7	40	
1,3-Dichlorobenzene	ND	20	3.2	40		Vinyl Chlor	ide		ND	20	9.5	40	
1,4-Dichlorobenzene	ND	20	8.7	40		Xylenes (to			740	20	3.2	40	
Dichlorodifluoromethane	ND	40	13	40		Methyl-t-Bu	ityl Ether (MT	BE)	ND	20	5.7	40	
1,1-Dichloroethane	ND	20	5.6	40		Tert-Butyl A	Alcohol (TBA)	)	2200	400	160	40	
1,2-Dichloroethane	ND	20	3.0	40		Diisopropyl	Ether (DIPE)	)	ND	20	4.8	40	
1,1-Dichloroethene	ND	20	10	40		Ethyl-t-Buty	l Ether (ETB	E)	ND	20	10	40	
c-1,2-Dichloroethene	ND	20	7.9	40		Tert-Amyl-I	Methyl Ether	(TAME)	ND	20	4.7	40	
t-1,2-Dichloroethene	ND	20	8.8	40									
Surrogates:	REC (%)	Control Limits	<u>Qu</u>	<u>al</u>		Surrogates			REC (%)	Cont	trol I Q	<u>ual</u>	
1,2-Dichloroethane-d4	109	80-128				Dibromoflu	oromethane		109	80-1	27		
Toluene-d8	103	80-120				1,4-Bromof	luorobenzene	Э	99	68-1	20		

RL - Re

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Blaine Tech Services, Inc.

1680 Rogers Avenue

Work Order No:

99-12-2400

Preparation:

Method:

Units:

12/31/09

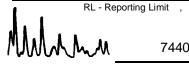
12/31/09

12/31/09

12/31/09

Project: 2805 SW Roxbury Street, Seattle, WA Page 4 of 6

1 Toject. 2005 OVV Ro	n, oca	ttic, vv	`							гаус	4 01 0	0	
Client Sample Number			Lab Sa Num			Date/Time Collected	Matrix	Instrument	Date Prepar		e/Time alyzed	QC Bat	ch ID
AGW-14			09-12-	09-12-2400-12-B			Aqueous	GC/MS BB	01/05/		05/10 4:19	100105	L01
Comment(s): -Results wer	re evaluated to th	ne MDL, c	oncentrati	ons >=	to the N	MDL but < RL	, if found, are	e qualified wi	th a "J" flag	<b>)</b> .			
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	DF	Qual	<u>Parameter</u>			Result	<u>RL</u>	MDL	<u>DF</u>	Qua
Benzene	ND	0.50	0.20	1		1,2-Dichlor	opropane		ND	0.50	0.31	1	
Bromodichloromethane	ND	0.50	0.20	1		c-1,3-Dichle	oropropene		ND	0.50	0.055	1	
Bromoform	ND	0.50	0.26	1		t-1,3-Dichlo	ropropene		ND	0.50	0.22	1	
Bromomethane	ND	1.0	0.43	1		Ethylbenze	ne		ND	0.50	0.043	1	
Carbon Tetrachloride	ND	0.50	0.13	1		Methylene (	Chloride		ND	1.0	0.16	1	
Chlorobenzene	ND	0.50	0.072	1		1,1,2,2-Tet	rachloroethar	ne	ND	0.50	0.17	1	
Chloroethane	ND	0.50	0.21	1		Tetrachloro	ethene		0.54	0.50	0.26	1	
2-Chloroethyl Vinyl Ether	ND	5.0	1.9	1		Toluene			ND	0.50	0.25	1	
Chloroform	0.15	0.50	0.088	1	J	1,1,1-Trich	oroethane		ND	0.50	0.14	1	
Chloromethane	ND	0.50	0.25	1		1,1,2-Trich	oroethane		ND	0.50	0.19	1	
Dibromochloromethane	ND	0.50	0.12	1		Trichloroeth	nene		ND	0.50	0.13	1	
1,2-Dichlorobenzene	ND	0.50	0.11	1		Trichloroflu	oromethane		ND	0.50	0.22	1	
1,3-Dichlorobenzene	ND	0.50	0.080	1		Vinyl Chlori	de		ND	0.50	0.24	1	
1,4-Dichlorobenzene	ND	0.50	0.22	1		Xylenes (to	tal)		ND	0.50	0.081	1	
Dichlorodifluoromethane	ND	1.0	0.32	1		Methyl-t-Bu	tyl Ether (MT	BE)	ND	0.50	0.14	1	
1,1-Dichloroethane	ND	0.50	0.14	1		Tert-Butyl A	Alcohol (TBA	)	ND	10	4.0	1	
1,2-Dichloroethane	ND	0.50	0.075	1		Diisopropyl	Ether (DIPE	)	ND	0.50	0.12	1	
1,1-Dichloroethene	ND	0.50	0.26	1		Ethyl-t-Buty	l Ether (ETB	E)	ND	0.50	0.25	1	
c-1,2-Dichloroethene	ND	0.50	0.20	1		Tert-Amyl-N	Methyl Ether	(TAME)	ND	0.50	0.12	1	
t-1,2-Dichloroethene	ND	0.50	0.22	1		-							
Surrogates:	REC (%)	Control Limits	Qua	<u>al</u>		Surrogates:	•		REC (%)	Control I	<u>Q</u>	<u>ual</u>	
1,2-Dichloroethane-d4	109	80-128				Dibromoflu	oromethane		106	80-127			
Toluene-d8	101	80-120				1,4-Bromof	luorobenzene	Э	96	68-120			

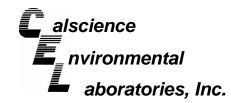


mit , DF - Dilution Factor , Qual - Qualifiers

12/31/09

09-12-2400

**EPA 5030B** 



# **Analytical Report**



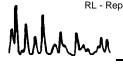
Blaine Tech Services, Inc. Date Received: 1680 Rogers Avenue Work Order No: San Jose, CA 95112-1105 Preparation:

Method: **EPA 8260B** Units: ug/L

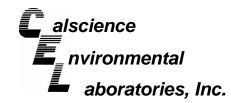
Page 5 of 6

Project: 2805 SW Roxbury Street, Seattle, WA

											- 3		_
Client Sample Number			Lab S Nun			Date/Time Collected	Matrix	Instrument	Date Prepar		e/Time alyzed	QC Bat	ch ID
Method Blank			099-1	0-025-1	,358	N/A	Aqueous	GC/MS BB	01/04/1		04/10 2:18	100104	L01
Comment(s): -Results were	e evaluated to th	e MDL, c	oncentrat	ions >=	to the N	MDL but < RL	_, if found, are	e qualified wi	th a "J" flag	<b>J</b> .			
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual	<u>Parameter</u>			Result	<u>RL</u>	MDL	<u>DF</u>	Qual
Benzene	ND	0.50	0.20	1		1,2-Dichlor	opropane		ND	0.50	0.31	1	
Bromodichloromethane	ND	0.50	0.20	1		c-1,3-Dichl	oropropene		ND	0.50	0.055	1	
Bromoform	ND	0.50	0.26	1		t-1,3-Dichlo	propropene		ND	0.50	0.22	1	
Bromomethane	ND	1.0	0.43	1		Ethylbenze	ne		ND	0.50	0.043	1	
Carbon Tetrachloride	ND	0.50	0.13	1		Methylene	Chloride		ND	1.0	0.16	1	
Chlorobenzene	ND	0.50	0.072	1		1,1,2,2-Tet	rachloroethai	ne	ND	0.50	0.17	1	
Chloroethane	ND	0.50	0.21	1		Tetrachloro	ethene		ND	0.50	0.26	1	
2-Chloroethyl Vinyl Ether	ND	5.0	1.9	1		Toluene			ND	0.50	0.25	1	
Chloroform	ND	0.50	0.088	1		1,1,1-Trich	loroethane		ND	0.50	0.14	1	
Chloromethane	ND	0.50	0.25	1		1,1,2-Trich	loroethane		ND	0.50	0.19	1	
Dibromochloromethane	ND	0.50	0.12	1		Trichloroetl	hene		ND	0.50	0.13	1	
1,2-Dichlorobenzene	ND	0.50	0.11	1		Trichloroflu	oromethane		ND	0.50	0.22	1	
1,3-Dichlorobenzene	ND	0.50	0.080	1		Vinyl Chlor	ide		ND	0.50	0.24	1	
1,4-Dichlorobenzene	ND	0.50	0.22	1		Xylenes (to	tal)		ND	0.50	0.081	1	
Dichlorodifluoromethane	ND	1.0	0.32	1		Methyl-t-Bu	utyl Ether (M7	BE)	ND	0.50	0.14	1	
1,1-Dichloroethane	ND	0.50	0.14	1		Tert-Butyl A	Alcohol (TBA	)	ND	10	4.0	1	
1,2-Dichloroethane	ND	0.50	0.075	1		Diisopropyl	Ether (DIPE	)	ND	0.50	0.12	1	
1,1-Dichloroethene	ND	0.50	0.26	1		Ethyl-t-Buty	yl Ether (ETE	E)	ND	0.50	0.25	1	
c-1,2-Dichloroethene	ND	0.50	0.20	1		Tert-Amyl-I	Methyl Ether	(TAME)	ND	0.50	0.12	1	
t-1,2-Dichloroethene	ND	0.50	0.22	1									
Surrogates:	<u>REC (%)</u>	Control Limits	<u>Qu</u>	<u>al</u>		Surrogates	<u>:</u>		REC (%)	Control	<u>Q</u>	<u>tual</u>	
1,2-Dichloroethane-d4	110	80-128				Dibromoflu	oromethane		100	80-127			
Toluene-d8	103	80-120				1,4-Bromof	fluorobenzen	e	96	68-120			



RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Units:



Blaine Tech Services, Inc.

1680 Rogers Avenue

San Jose, CA 95112-1105

Date Received:

Work Order No:

Preparation:

Method:

er No: 09-12-2400 n: EPA 5030B EPA 8260B ug/L

Project: 2805 SW Roxbury Street, Seattle, WA

Page 6 of 6

12/31/09

Client Sample Number			Lab Sa Num			Date/Time Collected	Matrix	Instrument	Date Prepa		e/Time alyzed	QC Bat	ch ID
Method Blank			099-10	-025-1	,360	N/A	Aqueous	GC/MS BB	01/05/		05/10 3:23	100105	L01
Comment(s): -Results we	re evaluated to th	ne MDL, c	oncentrati	ons >=	to the N	MDL but < RL	., if found, ar	e qualified wi	th a "J" flag	<b>]</b> .			
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	DF	Qual	<u>Parameter</u>			Result	<u>RL</u>	MDL	DF	Qual
Benzene	ND	0.50	0.20	1		1,2-Dichlor	opropane		ND	0.50	0.31	1	
Bromodichloromethane	ND	0.50	0.20	1		c-1,3-Dichl	oropropene		ND	0.50	0.055	1	
Bromoform	ND	0.50	0.26	1		t-1,3-Dichlo	propropene		ND	0.50	0.22	1	
Bromomethane	ND	1.0	0.43	1		Ethylbenze	ne		ND	0.50	0.043	1	
Carbon Tetrachloride	ND	0.50	0.13	1		Methylene	Chloride		ND	1.0	0.16	1	
Chlorobenzene	ND	0.50	0.072	1		1,1,2,2-Tet	rachloroethai	ne	ND	0.50	0.17	1	
Chloroethane	ND	0.50	0.21	1		Tetrachloro	ethene		ND	0.50	0.26	1	
2-Chloroethyl Vinyl Ether	ND	5.0	1.9	1		Toluene			ND	0.50	0.25	1	
Chloroform	ND	0.50	0.088	1		1,1,1-Trich	loroethane		ND	0.50	0.14	1	
Chloromethane	ND	0.50	0.25	1		1,1,2-Trich	loroethane		ND	0.50	0.19	1	
Dibromochloromethane	ND	0.50	0.12	1		Trichloroetl	nene		ND	0.50	0.13	1	
1,2-Dichlorobenzene	ND	0.50	0.11	1		Trichloroflu	oromethane		ND	0.50	0.22	1	
1,3-Dichlorobenzene	ND	0.50	0.080	1		Vinyl Chlor	ide		ND	0.50	0.24	1	
1,4-Dichlorobenzene	ND	0.50	0.22	1		Xylenes (to	tal)		ND	0.50	0.081	1	
Dichlorodifluoromethane	ND	1.0	0.32	1		Methyl-t-Bu	ıtyl Ether (M7	BE)	ND	0.50	0.14	1	
1,1-Dichloroethane	ND	0.50	0.14	1		Tert-Butyl A	Alcohol (TBA	)	ND	10	4.0	1	
1,2-Dichloroethane	ND	0.50	0.075	1		Diisopropyl	Ether (DIPE	)	ND	0.50	0.12	1	
1,1-Dichloroethene	ND	0.50	0.26	1		Ethyl-t-Buty	/I Ether (ETE	E)	ND	0.50	0.25	1	
c-1,2-Dichloroethene	ND	0.50	0.20	1		Tert-Amyl-I	Methyl Ether	(TAME)	ND	0.50	0.12	1	
t-1,2-Dichloroethene	ND	0.50	0.22	1									
Surrogates:	REC (%)	Control Limits	Qua	<u>l</u>		Surrogates	<u> </u>		REC (%)	Control	<u>C</u>	<u>tual</u>	
1,2-Dichloroethane-d4	104	80-128				Dibromoflu	oromethane		98	80-127			
Toluene-d8	101	80-120				1,4-Bromof	luorobenzen	€	97	68-120			



RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: 12/31/09 09-12-2400 EPA 5030B NWTPH-Gx

#### Project 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
AGW-1	Aqueous	GC 25	01/05/10		01/05/10	100105S01
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	98	98	68-122	1	0-18	

MMM\_

RPD - Relative Percent Difference , CL - Control Limit





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: 12/31/09 09-12-2400 EPA 5030B EPA 8015B (M)

#### Project 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-01-0019-1	Aqueous	GC 25	01/06/10		01/06/10	100106S01
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
TPH as Gasoline	91	90	68-122	1	0-18	

Mulling.

RPD - Relative Percent Difference , CL - Control Limit





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: 12/31/09 09-12-2400 EPA 5030B EPA 8260B

#### Project 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
09-12-2471-1	Aqueous	GC/MS CC	01/02/10		01/03/10	100102S02
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Benzene	98	105	72-120	7	0-20	
Carbon Tetrachloride	102	109	63-135	7	0-20	
Chlorobenzene	90	98	80-120	8	0-20	
1,2-Dibromoethane	102	109	80-120	7	0-20	
1,2-Dichlorobenzene	90	96	80-120	7	0-20	
1,1-Dichloroethene	86	94	60-132	9	0-24	
Ethylbenzene	94	102	78-120	7	0-20	
Toluene	95	101	74-122	7	0-20	
Trichloroethene	107	114	69-120	6	0-20	
Vinyl Chloride	80	85	58-130	5	0-20	
Methyl-t-Butyl Ether (MTBE)	98	108	72-126	8	0-21	
Tert-Butyl Alcohol (TBA)	108	118	72-126	8	0-20	
Diisopropyl Ether (DIPE)	105	114	71-137	8	0-23	
Ethyl-t-Butyl Ether (ETBE)	94	102	74-128	8	0-20	
Tert-Amyl-Methyl Ether (TAME)	104	112	76-124	7	0-20	
Ethanol	108	115	35-167	6	0-48	

MMMM\_





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: 12/31/09 09-12-2400 EPA 5030B EPA 8260B

#### Project 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
09-12-2423-1	Aqueous	GC/MS S	01/04/10		01/04/10	100104S01
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	90	88	72-120	2	0-20	
Carbon Tetrachloride	76	78	63-135	2	0-20	
Chlorobenzene	106	106	80-120	0	0-20	
1,2-Dibromoethane	111	111	80-120	0	0-20	
1,2-Dichlorobenzene	113	116	80-120	3	0-20	
1,1-Dichloroethene	77	79	60-132	2	0-24	
Ethylbenzene	114	112	78-120	2	0-20	
Toluene	91	90	74-122	1	0-20	
Trichloroethene	91	90	69-120	1	0-20	
Vinyl Chloride	66	70	58-130	6	0-20	
Methyl-t-Butyl Ether (MTBE)	78	82	72-126	5	0-21	
Tert-Butyl Alcohol (TBA)	96	91	72-126	5	0-20	
Diisopropyl Ether (DIPE)	82	86	71-137	5	0-23	
Ethyl-t-Butyl Ether (ETBE)	79	83	74-128	6	0-20	
Tert-Amyl-Methyl Ether (TAME)	96	96	76-124	0	0-20	
Ethanol	87	86	35-167	2	0-48	

MMMM\_





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: 12/31/09 09-12-2400 EPA 5030B EPA 8260B

#### Project 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
09-12-2415-4	Aqueous	GC/MS BB	01/04/10		01/04/10	100104S01
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	108	107	76-124	1	0-20	
Carbon Tetrachloride	94	94	74-134	0	0-20	
Chlorobenzene	104	103	80-120	1	0-20	
1,2-Dibromoethane	104	104	80-120	1	0-20	
1,2-Dichlorobenzene	103	102	80-120	2	0-20	
1,1-Dichloroethene	111	110	73-127	1	0-20	
Ethylbenzene	103	102	78-126	1	0-20	
Toluene	105	106	80-120	0	0-20	
Trichloroethene	106	105	77-120	1	0-20	
Vinyl Chloride	99	103	72-126	4	0-20	
Methyl-t-Butyl Ether (MTBE)	91	93	67-121	2	0-49	
Tert-Butyl Alcohol (TBA)	102	97	36-162	4	0-30	
Diisopropyl Ether (DIPE)	97	98	60-138	2	0-45	
Ethyl-t-Butyl Ether (ETBE)	91	93	69-123	2	0-30	
Tert-Amyl-Methyl Ether (TAME)	95	98	65-120	3	0-20	
Ethanol	110	111	30-180	0	0-72	

AMAMA\_

RPD - Relative Percent Difference , CL - Control Limit





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: 12/31/09 09-12-2400 EPA 5030B EPA 8260B

#### Project 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-01-0080-4	Aqueous	GC/MS BB	01/05/10		01/05/10	100105S01
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	107	108	76-124	1	0-20	
Carbon Tetrachloride	87	91	74-134	5	0-20	
Chlorobenzene	103	103	80-120	0	0-20	
1,2-Dibromoethane	104	106	80-120	2	0-20	
1,2-Dichlorobenzene	104	104	80-120	0	0-20	
1,1-Dichloroethene	104	105	73-127	1	0-20	
Ethylbenzene	101	102	78-126	1	0-20	
Toluene	107	106	80-120	0	0-20	
Trichloroethene	104	105	77-120	1	0-20	
Vinyl Chloride	100	102	72-126	2	0-20	
Methyl-t-Butyl Ether (MTBE)	90	93	67-121	3	0-49	
Tert-Butyl Alcohol (TBA)	103	111	36-162	7	0-30	
Diisopropyl Ether (DIPE)	90	90	60-138	0	0-45	
Ethyl-t-Butyl Ether (ETBE)	89	89	69-123	0	0-30	
Tert-Amyl-Methyl Ether (TAME)	96	96	65-120	0	0-20	
Ethanol	115	136	30-180	17	0-72	

MMM\_

RPD - Relative Percent Difference , CL - Control Limit





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: N/A 09-12-2400 EPA 3510C NWTPH-Dx

Project: 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyz		LCS/LCSD Batc Number	h
099-12-840-178	Aqueous	GC 27	01/04/10	01/04/	10	100104B03	
<u>Parameter</u>	LCS %	REC LCSD	<u>%REC                                    </u>	REC CL	<u>RPD</u>	RPD CL	Qualifiers
TPH as Diesel Range	107	106		75-117	2	0-13	

RPD - Rel





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: N/A 09-12-2400 EPA 5030B NWTPH-Gx

Project: 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Dat Analy:		LCS/LCSD Batc Number	h
099-12-743-423	Aqueous	GC 25	01/05/10	01/05/	10	100105B01	
							_
<u>Parameter</u>	LCS %	REC LCSD	<u>%REC</u>	REC CL	<u>RPD</u>	RPD CL	Qualifiers
TPH as Gasoline	97	96		78-120	2	0-10	

Mulling.

RPD - Relative Percent Difference , CL - Control Limit





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: N/A 09-12-2400 EPA 5030B NWTPH-Gx

Project: 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Anal		LCS/LCSD Bate Number	h
099-12-743-425	Aqueous	GC 25	01/06/10	01/06	6/10	100106B01	
<u>Parameter</u>	LCS %	REC LCSD	%REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	97	95		78-120	2	0-10	

MM ....

RPD - Relative Percent Difference , CL - Control Limit





Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: N/A 09-12-2400 EPA 5030B EPA 8260B

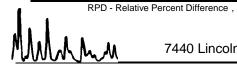
Project: 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Anal	ite yzed	LCS/LCSD Numbe	
099-10-006-31,814	Aqueous	GC/MS CC	01/02/10	01/03	/10	100102L	02
<u>Parameter</u>	LCS %REC	LCSD %REC	%REC CL	ME CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Benzene	101	104	80-122	73-129	3	0-20	
Carbon Tetrachloride	105	107	68-140	56-152	2	0-20	
Chlorobenzene	94	98	80-120	73-127	4	0-20	
1,2-Dibromoethane	104	109	80-121	73-128	5	0-20	
1,2-Dichlorobenzene	92	97	80-120	73-127	5	0-20	
1,1-Dichloroethene	91	90	72-132	62-142	1	0-25	
Ethylbenzene	98	102	80-126	72-134	4	0-20	
Toluene	98	100	80-121	73-128	3	0-20	
Trichloroethene	112	117	80-123	73-130	4	0-20	
Vinyl Chloride	83	84	67-133	56-144	1	0-20	
Methyl-t-Butyl Ether (MTBE)	104	107	75-123	67-131	3	0-20	
Tert-Butyl Alcohol (TBA)	103	115	75-123	67-131	11	0-20	
Diisopropyl Ether (DIPE)	109	112	71-131	61-141	3	0-20	
Ethyl-t-Butyl Ether (ETBE)	99	102	76-124	68-132	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	108	114	80-123	73-130	5	0-20	
Ethanol	102	111	61-139	48-152	8	0-27	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1







Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: N/A 09-12-2400 EPA 5030B EPA 8260B

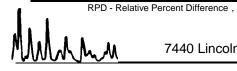
Project: 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed		LCS/LCSD Batch Number	
099-10-006-31,805	Aqueous	GC/MS S	01/04/10	01/04/10		100104L01	
<u>Parameter</u>	LCS %REC	LCSD %REC	%REC CL	ME CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Benzene	108	97	80-122	73-129	10	0-20	
Carbon Tetrachloride	103	86	68-140	56-152	18	0-20	
Chlorobenzene	105	106	80-120	73-127	1	0-20	
1,2-Dibromoethane	110	110	80-121	73-128	0	0-20	
1,2-Dichlorobenzene	103	110	80-120	73-127	7	0-20	
1,1-Dichloroethene	107	89	72-132	62-142	19	0-25	
Ethylbenzene	111	113	80-126	72-134	2	0-20	
Toluene	110	99	80-121	73-128	11	0-20	
Trichloroethene	107	97	80-123	73-130	10	0-20	
Vinyl Chloride	94	77	67-133	56-144	20	0-20	
Methyl-t-Butyl Ether (MTBE)	103	86	75-123	67-131	18	0-20	
Tert-Butyl Alcohol (TBA)	86	91	75-123	67-131	6	0-20	
Diisopropyl Ether (DIPE)	111	93	71-131	61-141	17	0-20	
Ethyl-t-Butyl Ether (ETBE)	108	91	76-124	68-132	17	0-20	
Tert-Amyl-Methyl Ether (TAME)	115	104	80-123	73-130	10	0-20	
Ethanol	79	84	61-139	48-152	6	0-27	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1







Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: N/A 09-12-2400 EPA 5030B EPA 8260B

Project: 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed		LCS/LCSD Batch Number	
099-10-025-1,358	Aqueous	GC/MS BB	01/04/10	01/04/10		100104L	01
<u>Parameter</u>	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	114	106	80-120	73-127	8	0-20	
Carbon Tetrachloride	107	96	74-134	64-144	11	0-20	
Chlorobenzene	110	100	80-120	73-127	9	0-20	
1,2-Dibromoethane	106	105	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	107	101	80-120	73-127	6	0-20	
1,1-Dichloroethene	119	112	78-126	70-134	7	0-28	
Ethylbenzene	109	100	80-120	73-127	9	0-20	
Toluene	112	105	80-120	73-127	7	0-20	
Trichloroethene	112	104	79-127	71-135	7	0-20	
Vinyl Chloride	104	108	72-132	62-142	4	0-20	
Methyl-t-Butyl Ether (MTBE)	96	98	69-123	60-132	3	0-20	
Tert-Butyl Alcohol (TBA)	99	92	63-123	53-133	7	0-20	
Diisopropyl Ether (DIPE)	103	101	59-137	46-150	2	0-37	
Ethyl-t-Butyl Ether (ETBE)	96	97	69-123	60-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	98	99	70-120	62-128	1	0-20	
Ethanol	123	114	28-160	6-182	8	0-57	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1







Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: N/A 09-12-2400 EPA 5030B EPA 8260B

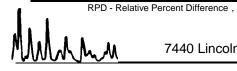
Project: 2805 SW Roxbury Street, Seattle, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed		LCS/LCSD Batch Number	
099-10-025-1,360	Aqueous	GC/MS BB	01/05/10	01/05/10		100105L01	
<u>Parameter</u>	LCS %REC	LCSD %REC	%REC CL	ME CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Benzene	103	106	80-120	73-127	3	0-20	
Carbon Tetrachloride	90	92	74-134	64-144	2	0-20	
Chlorobenzene	100	103	80-120	73-127	3	0-20	
1,2-Dibromoethane	104	109	79-121	72-128	5	0-20	
1,2-Dichlorobenzene	99	104	80-120	73-127	4	0-20	
1,1-Dichloroethene	102	106	78-126	70-134	4	0-28	
Ethylbenzene	98	101	80-120	73-127	3	0-20	
Toluene	104	107	80-120	73-127	3	0-20	
Trichloroethene	102	104	79-127	71-135	2	0-20	
Vinyl Chloride	101	100	72-132	62-142	1	0-20	
Methyl-t-Butyl Ether (MTBE)	87	96	69-123	60-132	10	0-20	
Tert-Butyl Alcohol (TBA)	100	83	63-123	53-133	18	0-20	
Diisopropyl Ether (DIPE)	86	93	59-137	46-150	8	0-37	
Ethyl-t-Butyl Ether (ETBE)	86	94	69-123	60-132	9	0-20	
Tert-Amyl-Methyl Ether (TAME)	89	96	70-120	62-128	7	0-20	
Ethanol	104	95	28-160	6-182	9	0-57	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1





# **Glossary of Terms and Qualifiers**



Work Order Number: 09-12-2400

Qualifier	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
Α	Result is the average of all dilutions, as defined by the method.
В	Analyte was present in the associated method blank.
С	Analyte presence was not confirmed on primary column.
Е	Concentration exceeds the calibration range.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
Χ	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.

Page 35 of 38 TEMPERATURE ON RECEIPT C\* 91220 CL Ŋ Container PID Readings INCIDENT # (ENV SERVICES) | CHECK IF NO INCIPENT # 27 JUES or Laboratory Notes Q : 01 DATE PAGE: n 0 8 7 7 SAP# REQUESTED ANALYSIS Shell Oil Products Chain Of Custody Record ~ **≨**|} (BITOE) anaxaH-n 0 H43-H4TWN 6 НЧУ-НЧТWИ (0808) Jza9 g AOC≥ Full (1st (8560B) 2805 SW Roxbury Street, Seattle (MIZ 0Y08) =HA9 6 Christina Schwolgert, CRA, Everatt 0 1 9 Total Laad (6020) Print Bill To Contact Name: Jeff Cloud - 241799-2009-3 PO # EDB (8011)' EDC (8580B) DIPE, TAME, ETBE (82608) Oxygenates, MTBE, TBA (B0928) XHTB 0 NWTPH-Dx w/Silica Gel Cleanup xa-H9TWN 변. 약 2017. SHELL RETAIL RESULTS NEEDED ON WEEKEND □ WBES STATE REIMBURSEMENT RATE APPLIES S RECEIPT VERIFICATION REQUESTED Please Check Appropriate Box: 野のと SHELL CONTRACT RATE APPLIES dkoskela@blainelech.com **1050** MOTIVA RETAIL E CONSULTANT CL EDO NOT MEEDED \_ потнея\_ lecaived by: (Signatu Dan Koskela - Copy to shell.lab.billing@craworld.com THOURS MATRUX ☐ MOTIVA SD&CM SHELL PIPELINE ☐ EHV. SERVICES 75 STANDING 2 DAYS TIME See Calscienco PM for WA Dept. of Ecology MTCA Method A cleanup levels for <u>minimum</u> detection ilmits special instructions or notes : Please send an additional copy of Lab Results to: DATE ☐ 3 DAYS 916-925-2891 UST AGENOY: Field Sample Identification shell.lab.billing@craworld.com VRNAROUND TIME (CALENDAR DAYS)

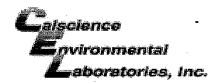
SANDARD (14 DAY) 80 Rogers Avenues, San Jose, Ca LA - RWQCB REPORT FORMAT LAB (LOCATION) DLECT CONTACT (Narbogy or PDF Repo 916-925-2913x101 aine Tech Services (eferquished by: (Signature) 3 SPL Housibility TEST AMEXICA JOTHER ( J XENCO (\_ PLATS COUPEN MLY SE

1.0

 $H H^{-1}$ 

Rev. Date 10/06-Part #158279-@1994-2006 FedEx-PRINTED IN U.S.A.-SRI

1 4 . .



WORK ORDER #: 0 9-12-2900

## SAMPLE RECEIPT FORM

Cooler / of  $\stackrel{\textstyle \mathcal{L}}{}$ 

CLIENT: ATS DATE: /a	+ 13/109
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C − 6.0 °C, not frozen)  Temperature	Sample Initial:
CUSTODY SEALS INTACT:  Cooler	Initial:
SAMPLE CONDITION:  Yes  Chain-Of-Custody (COC) document(s) received with samples	lo N/A
COC document(s) received complete	
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.	
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.	
Sampler's name indicated on COC	
Sample container label(s) consistent with COC	
Sample container(s) intact and good condition	
Correct containers and volume for analyses requested	
Analyses received within holding time	
Analyses received within holding time	
☐ Unpreserved vials received for Volatiles analysis	
Volatile analysis container(s) free of headspace ☑ □	
Tedlar bag(s) free of condensation □ □	
CONTAINER TYPE:	
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve □EnCores® □TerraCores®	
Water: □VOA ØVOAh □VOAna₂ □125AGB □125AGBh □125AGBp □1AGB □1A	GB <b>na₂</b> □1AGBs
□500AGB Ø500AGJ □500AGJs □250AGB □250CGB □250CGBs □1PB □50	0PB □500PB <b>na</b>
□250PB	□
Air: □Tedlar <sup>®</sup> □Summa <sup>®</sup> Other: □ Trip Blank Lot#: Che	cked by:
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Revieure Preservative: h: HCl. p: HNO3 pag:NacSoO3 Nat NaOH p: HaPO4 s: HaPO4 st	ewed by:

the property of the contract of the property o

SOP T100\_090 (07/16/09)



WORK ORDER #: 09-12-2409

## SAMPLE RECEIPT FORM

Cooler 2 of 2

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C - 6.0 °C, not frozen)  Temperature
□ Sample(s) outside temperature criteria (PM/APM contacted by:). □ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling. □ Received at ambient temperature, placed on ice for transport by Courier. Ambient Temperature: □ Air □ Filter □ Metals Only □ PCBs Only  CUSTODY SEALS INTACT: □ Cooler □ □ No (Not Intact) □ Not Present □ N/A Initial: □
□ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling. □ Received at ambient temperature, placed on ice for transport by Courier.  Ambient Temperature: □ Air □ Filter □ Metals Only □ PCBs Only  CUSTODY SEALS INTACT: □ Cooler □ □ □ No (Not Intact) □ Not Present □ N/A  Initial: □
□ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling. □ Received at ambient temperature, placed on ice for transport by Courier.  Ambient Temperature: □ Air □ Filter □ Metals Only □ PCBs Only  CUSTODY SEALS INTACT: □ Cooler □ □ □ No (Not Intact) □ Not Present □ N/A  Initial: □
□ Received at ambient temperature, placed on ice for transport by Courier.  Ambient Temperature: □ Air □ Filter □ Metals Only □ PCBs Only  CUSTODY SEALS INTACT: □ No (Not Intact) □ Not Present □ N/A Initial: □ Initial: □ N/A Initi
CUSTODY SEALS INTACT:  Cooler
CUSTODY SEALS INTACT:  Cooler
☐ Cooler ☐ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: Д
The tree in the same of the sa
□ Sample □ □ No (Not Intact) ✓ Not Present Initial: □ □
SAMPLE CONDITION: Yes No N/A
Chain-Of-Custody (COC) document(s) received with samples
COC document(s) received complete.
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.
□ No analysis requested. □ Not relinquished. □ No date/time relinquished.
Sampler's name indicated on COC.
Sample container label(s) consistent with COC.
Sample container(s) intact and good condition
Correct containers and volume for analyses requested
Analyses received within holding time
Proper preservation noted on COC or sample container
☐ Unpreserved vials received for Volatiles analysis
Volatile analysis container(s) free of headspace
Tedlar bag(s) free of condensation
CONTAINER TYPE:
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve □EnCores® □TerraCores® □
Water: □VOA ØVOAh □VOAna₂ □125AGB □125AGBh □125AGBp □1AGB □1AGBna₂ □1AGBs
□500AGB
□250PB □250PBn □125PB □125PB <b>znna</b> □100PJ □100PJ <b>na<sub>2</sub></b> □ □ □ □ □ □
Air: □Tedlar <sup>®</sup> □Summa <sup>®</sup> Other: □ Trip Blank Lot#: Checked by: <u>□</u>
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by:

SOP T100\_090 (07/16/09)



#### YOUR LAB OF CHOICE

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Mark W. Beasley, ESC Representative

Philip Sanelle CalScience - Garden Grove, CA 7440 Lincoln Way

Garden Grove, CA 92841

## Report Summary

Monday January 11, 2010

Report Number: L439021 Samples Received: 01/05/10 Client Project: 09-12-2400

Description:

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not have to gall.

Entire Report Reviewed By:

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487 GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140 NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233 AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

This report may not be reproduced, except in full, without written approval from Environmental Science Corp.

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



Tax I.D. 62-0814289 YOUR LAB OF CHOICE

Est. 1970

January 11,2010

12065 Lebanon Rd.

Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

REPORT OF ANALYSIS

Philip Sanelle CalScience - Garden Grove, CA 7440 Lincoln Way Garden Grove, CA 92841

ESC Sample # : L439021-01

Date Received : January 05, 2010

Description

Site ID :

AGW-3 Sample ID :

Project #: 09-12-2400

Collected By

Collection Date : 12/30/09 09:30

Result Det. Limit Units Method Dil. Parameter Date ug/l BDL 0.010 8011 01/08/10 Ethylene Dibromide

BDL - Below Detection Limit Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC.



Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

12065 Lebanon Rd.

Tax I.D. 62-0814289

Est. 1970

Site ID :

YOUR LAB OF CHOICE

REPORT OF ANALYSIS

January 11,2010

Philip Sanelle CalScience - Garden Grove, CA 7440 Lincoln Way Garden Grove, CA 92841

ESC Sample # : L439021-02

Date Received : January 05, 2010

Description

AGW-7 Sample ID : Project #: 09-12-2400

Collected By Collection Date : 12/30/09 09:45

Result Det. Limit Units Method Dil. Parameter Date ug/l BDL 0.010 8011 01/06/10 Ethylene Dibromide

BDL - Below Detection Limit Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC.



Tax I.D. 62-0814289 YOUR LAB OF CHOICE

Est. 1970

ESC Sample # : L439021-03

12065 Lebanon Rd.

Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

REPORT OF ANALYSIS

Philip Sanelle CalScience - Garden Grove, CA 7440 Lincoln Way Garden Grove, CA 92841

January 11,2010

Date Received : January 05, 2010

Description

Site ID :

AGW-9 Sample ID :

Project #: 09-12-2400 Collected By

Collection Date : 12/30/09 09:15

Result Det. Limit Units Method Dil. Parameter Date ug/l BDL 0.010 8011 01/06/10 Ethylene Dibromide

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC.



YOUR LAB OF CHOICE

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Philip Sanelle CalScience - Garden Grove, CA 7440 Lincoln Way Garden Grove, CA 92841

January 11,2010

Project #: 09-12-2400

ESC Sample # : L439021-04

Date Received : January 05, 2010 Description

Site ID : Sample ID : AGW-13

Collected By Collection Date : 12/30/09 07:45

Result Det. Limit Units Method Dil. Parameter Date ug/l BDL 0.010 8011 01/06/10 Ethylene Dibromide

BDL - Below Detection Limit Det. Limit - Practical Quantitation Limit(PQL)
Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC.

## Summary of Remarks For Samples Printed 01/11/10 at $10\!:\!24\!:\!36$

TSR Signing Reports: 134 R5 - Desired TAT

Use ESC key CALSCIGCA-SHELLAK for all Shell Alaska work Incidence # = project number SAP # = Site ID Site Address = project name

Sample: L439021-01 Account: CALSCIGCA Received: 01/05/10 12:30 Due Date: 01/12/10 00:00 RPT Date: 01/11/10 10:24
Sample: L439021-02 Account: CALSCIGCA Received: 01/05/10 12:30 Due Date: 01/12/10 00:00 RPT Date: 01/11/10 10:24
Sample: L439021-03 Account: CALSCIGCA Received: 01/05/10 12:30 Due Date: 01/12/10 00:00 RPT Date: 01/11/10 10:24

Sample: L439021-04 Account: CALSCIGCA Received: 01/05/10 12:30 Due Date: 01/12/10 00:00 RPT Date: 01/11/10 10:24



YOUR LAB OF CHOICE

CalScience - Garden Grove, CA Philip Sanelle 7440 Lincoln Way

Garden Grove, CA 92841

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L439021

January 11, 2010

Laboratory Blank									
Analyte	Result	Uı	nits	% Rec		Limit		Batch 1	Date Analyzed
Ethylene Dibromide	< .000	01 mg	g/l					WG458011	01/06/10 14:52
Duplicate									
Analyte	Units	Result	Duplio	cate F	PD	Limit		Ref Samp	<u>Batc</u> h
Ethylene Dibromide	mg/l	0	0	C	)	50		L438820-	12 WG458011
Laboratory Control Sample									
Analyte	Units	Known	Val	Resul	.t	% Rec		Limit	Batch
Ethylene Dibromide	mg/l	.00025	5	0.00024	1	96.3		70-130	WG458011
Laboratory Control Sample Duplicate						T	i. B. L. b		
Analyte	Units	Result	Ref	%Rec		Limit	RPD	Lim	it Batch
Ethylene Dibromide	mg/l	0.000252	0.000242	101.		70-130	4.15	40	WG458011
		ľ	Matrix Spil	ce					
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit		Ref Samp	Batch
Ethylene Dibromide	mg/l	0.000105	0	.0001	105.	60-140		L438820-1	1 WG458011

Batch number /Run number / Sample number cross reference

WG458011: R1066431: L439021-01 02 03 04

<sup>\* \*</sup> Calculations are performed prior to rounding of reported values . \* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



### YOUR LAB OF CHOICE

CalScience - Garden Grove, CA Philip Sanelle 7440 Lincoln Way

Garden Grove, CA 92841

Quality Assurance Report Level II

T.439021

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

January 11, 2010

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate — is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.



**GARDEN GROVE, CA 92841-1427** 7440 LINCOLN WAY TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: ESC

L43902) CHAIN OF CUSTODY RECORD

01/04/10

PAGE: DATE:

B057

	O Y ( d'O	D1 5/10	Da	Received by / Affiliation: (Signature)	/ Affiliation	eived by	Reu		9)	Relinquished by: (Signature)
<u> </u>	Time:	410	Da	Received by / Affiliation: (Signature)	/ Affiliation	zeived by	<del>7  </del>	(ALSOIENCE)		Relinquished by: (Signature)
7 X X	Time:	te	Date	Received by Attiliation: (Signature)	Amiliation	HIJOTA ACTIVED BY A		() A ( )	1)doat	
							?		e)	Relinquished by: (Signature)
<u></u>						+				
<del></del> _						-				
<u>;</u>					×	W 2	7:45	12/30/09	AGW-13	
, co					×	¥ 2	9:15 \	12/30/09	AGW-9	
, 62					×	W 2	9:45	12/30/09	AGW-7	
<u></u>					×		9:30	12/30/09	AGW-3	
						ting.	TIME	DATE		ONLY
								SAMPLING	SAMPLE ID	USE B
					8011					
								PLES UNTIL	DRTING ARCHIVE SAMPLES UNTIL	RWQCB REPORTING SPECIAL INSTRUCTIONS
		SIS	REQUESTED ANALYSIS	ע		7 DAYS	×	HR 5 DAYS	SAME DAY 24 HR 48HR 72 HR	SPECIAL REQUIREMENTS (A
				SAMPLER(S): (PRINT) NIA		com	@calscien	xdang@calscience.com; psanelle@calscience.com	xdang@calscie	(714) 895-5494 TURNAROUND TIME
	QUOTE NO.:CALSCIGCA111908S	QUOTE NOCA	nelle	Philip Sanelle					92841-	Garden Grove, CA 92841-1427
			400	09-12-2400	B					ADDRESS: 7440 Lincoln Way
		P.O. NO.:		CLIENT PROJECT NAME / NUMBER:	CEE			i, Inc.	Calscience Environmental Laboratories, Inc.	Calscience Envi

& Was Rewence

## APPENDIX G

SENSITIVE RECEPTOR SURVEY

## SENSITIVE RECEPTOR SEARCH

for the site

## 121038 2805 SW ROXBURY, SEATTLE WA

performed for

## **DELTA ENVIRONMENTAL**

05-23-2005



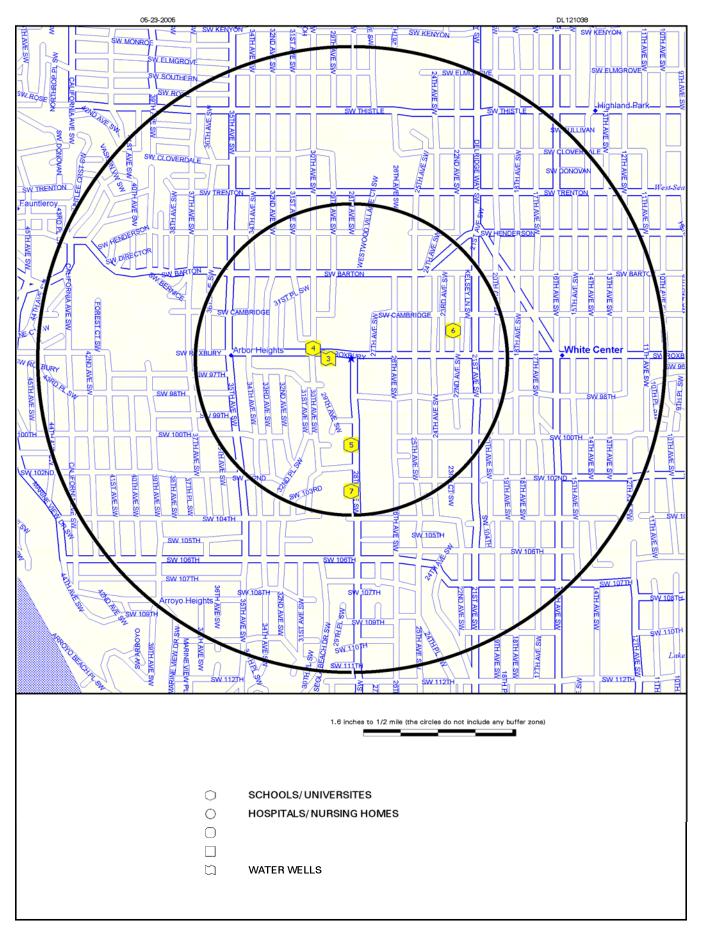
### **INTRODUCTION**

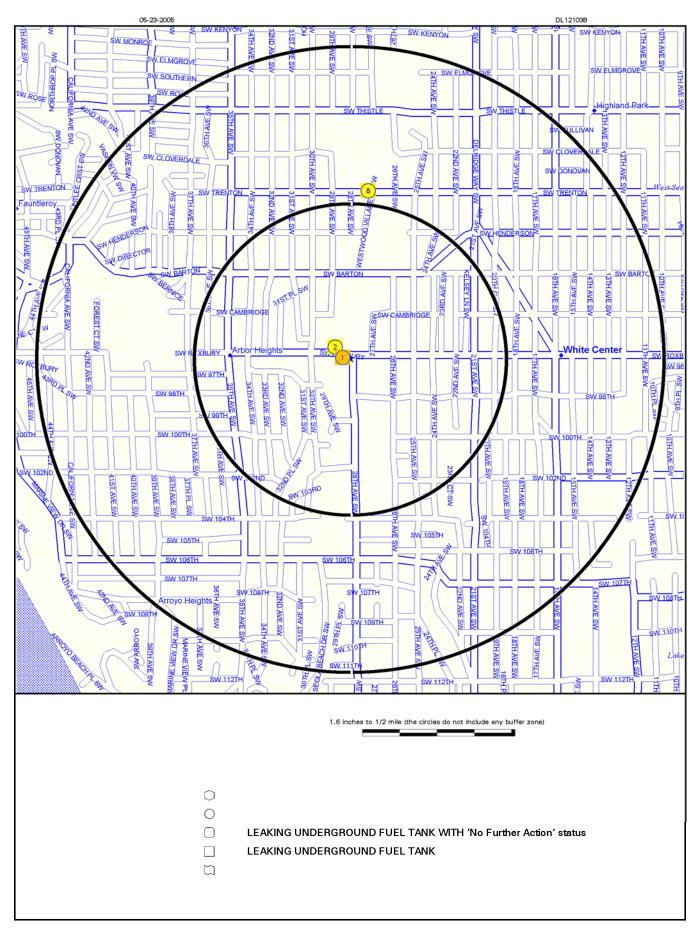
This document, prepared on the request of DELTA ENVIRONMENTAL, reports the findings of BBL's investigation of environmental concerns in the vicinity of 2805 Sw Roxbury, Seattle WA. It is divided in the following segments:

- Map showing the location of the identified sites relative to the subject site.
- Topographic, Contour, Wetland and Aerial Map showing the surrounding area of the subject site.
- Summary listing the identified sites by street names.
- Final Report describing the sources investigated and the resulting findings:

Sensitive Receptors	Pge	Search Dist	Site	< 600'	600- 1640'	1640- 3280'	3280- 5280'	area	un kwn	total
Educational Institutions	1	1/2 mile		1	1	2				4
Hospitals	2	1/2 mile								
Water Wells	2	1 mile		1						1
Leaking Underground Storage Tanks	2	1/2 mile	1	1			1			3
Total References			1	3	1	2	1			8
Total Sites			1	3	1	2	1			8

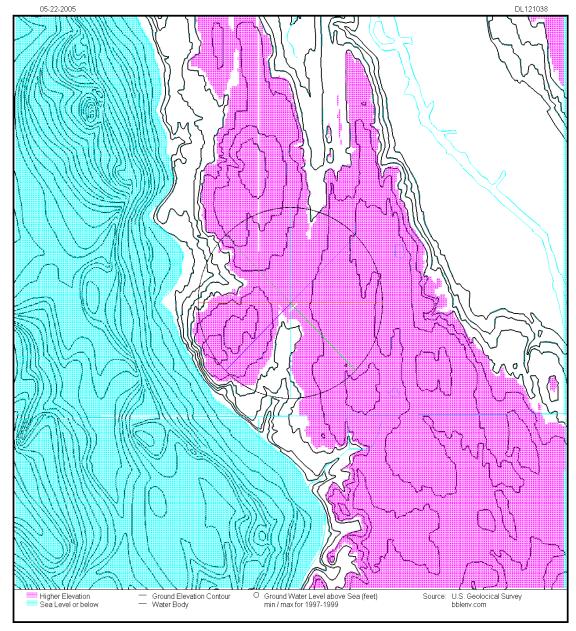
<sup>\*</sup> The classification by distance takes into consideration physical property sizes by assuming a standard size.



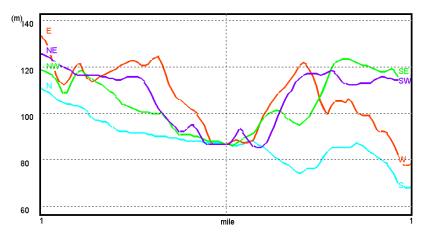


05-23-2005 DL121038 TEXACO 63 232 1432
EXXON STATION # 7-7043
TEXACO
ROXHILL ELEMENTARY SCHOOL
WESTSIDE SCHOOL
COMMUNITY SCHOOL-WEST SEATTLE
SHOREWOOD CHRISTIAN SCHOOL
US POSTAL SERVICE WESTWOOD STA 2805 SW ROXBURY ST
2851 SW ROXBURY ST
2805 SW ROXBURY
9430 30TH AVE SW
10015 28TH AVE SW
2721 SW TRENTON ST 1. 2. 3. 4. 5. 6. 7. 8.

05-23-2005 DL121038 Park Fauntieroy Park Park Scale: 1.6 inches to 1/2 mile Longitude: -122° 22' 2.9" Latitude: 47° 31' 1.7" UTM North is straight up UTM Easting: 547622 meters UTM Northing: 5262611 meters UTM Zone: NAD 10 County: KING AREA RADON ESTIMATES KING County (15 sites tested) <2 pCi/L 97.2% 2-4 pCi/L 0.9 % 4-8 pCi/L 1.9 % 8-20 pCi/L 0.0 % Source: U.S. Dept of Interior, Geological Survey 20 > pCi/L 0.0%

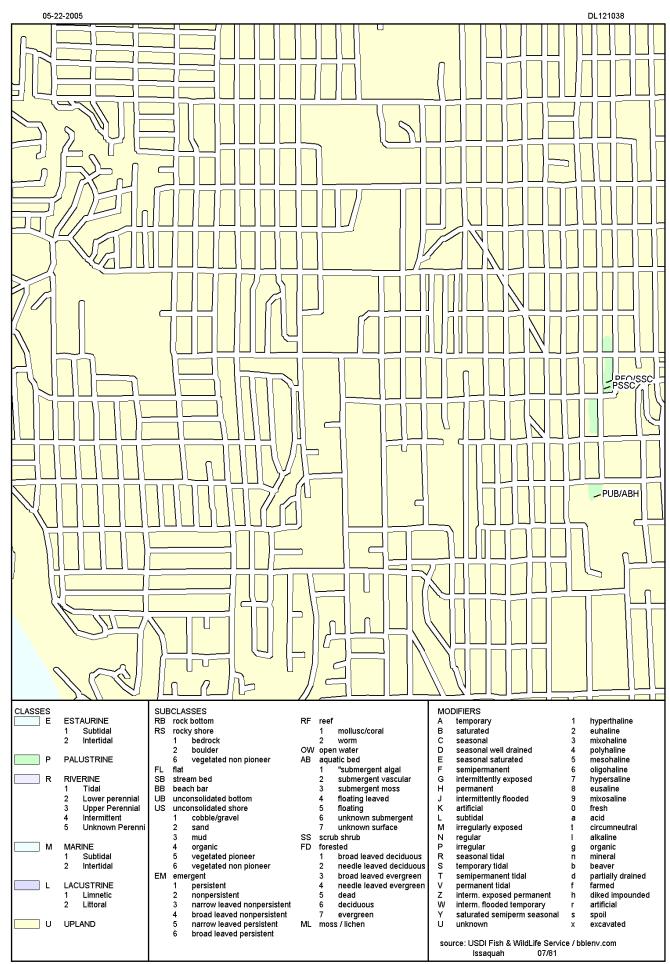


Elevation Contour overview map (6\*6 mile)



Elevation Profiles (±1 mile)

CONTOUR DATA IN THE VICINITY OF THE SUBJECT SITE LOCATED AT 2805 SW ROXBURY, SEATTLE



05-23-2005 DL121038



Longitude: -122° 22' 2.9" Latitude: 47° 31' 1.7"

UTM Easting: 547622 meters UTM Northing: 5262611 meters UTM Zone: NAD 10

County: KING

County. Tenve

Project: Quadrangle:

Date: 6/13/2002 Film Type: Black & White Scale: 1 inch to 528 feet

UTM North is straight up

Source: U.S. Dept of Interior, Geological Survey

## SENSITIVE RECEPTOR SEARCH

SUMMARY

OFF-SITE SENSITIVE RECEPTORS	Page:	1
121038	Date:	05-23-2005

2805 SW ROXBURY, SEATTLE WA Job: DL121038

; ADDRES	S	CITY	LOCATION		STA- TUS		MAP LOC		
OFF-S	SITE SENSITIVE RECEPTORS	, WITHIN 600' O	F THE SUBJECT SITE						
2805 _	SW ROXBURY	23N/03E-01 NE OF	TEXACO	WL		2	3	W	400'
OFF-S	SITE SENSITIVE RECEPTORS	, WITHIN 600' - 1	1640' OF THE SUBJECT SITE						
9430	30TH AVE SW	SEATTLE	ROXHILL ELEMENTARY SCHOOL	SX		1	4	W	700'
10015	28TH AVE SW	SEATTLE	WESTSIDE SCHOOL WESTSIDE SCHOOL EXPLORER WEST MIDDLE SCHOOL	SX SX SX		1 1 1	5	S	1300'
OFF-S	SITE SENSITIVE RECEPTORS	, WITHIN 1640' -	3280' OF THE SUBJECT SITE						
9450	22ND AVE SW	SEATTLE	COMMUNITY SCHOOL-WEST SEATTLE	SX		1	6	Е	2100'
10300	28TH AVE SW	SEATTLE	SHOREWOOD CHRISTIAN SCHOOL	SX		1	7	S	2100'

\_

 LEAKING UNDERGROUND TANKS
 Page: 1

 121038
 Date: 05-23-2005

 2805 SW ROXBURY, SEATTLE WA
 Job: DL121038

; ADDRESS CITY LOCATION SOU- STA- PA MAP DIR RCE TUS GE LOC

; .

LEAKING UNDERGROUND TANKS, WITHIN 600' OF THE SUBJECT SITE

2805 SW ROXBURY ST SEATTLE TEXACO 63 232 1432 LUST 2 **1** 

2851 SW ROXBURY ST SEATTLE EXXON STATION # 7-7043 LUST 3 **2** NW 300'

LEAKING UNDERGROUND TANKS, WITHIN 1640' - 3280' OF THE SUBJECT SITE

2721 SW TRENTON ST SEATTLE US POSTAL SERVICE WESTWOOD STA LUST 3 **8** N 2800'

—

## **REFERENCED SOURCES**

Date: 05-23-2005 Job: DL121038

**EDUCATIONAL INSTITUTIONS** SX

HX HOSPITALS
WL WATER WELLS
LUST LEAKING UNDERGROUND STORAGE TANKS

**121038** Page: 1

Job: DL121038

05-23-2005

Date:

### INTRODUCTION

BBL has used its best effort but makes no claims as to the completeness or accuracy of the referenced government sources or the completeness of the search. Our records are frequently updated but only as current as their publishing date and may not represent the entire field of known or potential hazardous waste or contaminated sites. To ensure complete coverage of the subject property and surrounding area, sites may be included in the list if there is any doubt as to the location because of discrepancies in map location, zip code, address, or other information in our sources. For additional information call 858 793-0641.

### **OFF-SITE SENSITIVE RECEPTORS**

SC Schools

Child Care Center, Preschools, Schools & Colleges

This list has been researched within half of a mile radius of the subject site.

Site: ROXHILL ELEMENTARY SCHOOL

Address: 9430 30TH AVE SW

City: SEATTLE

Map Loc: 4 - about 700 feet W of the subject

Status: 821103

Site: WESTSIDE SCHOOL Address: 10015 28TH AVE SW

City: SEATTLE

Map Loc: 5 - about 1300 feet S of the subject

Status: 821103

Site: WESTSIDE SCHOOL Address: 10015 28TH AVE SW

City: SEATTLE

Map Loc: 5 - about 1300 feet S of the subject

Status: 835102

Site: EXPLORER WEST MIDDLE SCHOOL

Address: 10015 28TH AVE SW

City: SEATTLE

Map Loc: 5 - about 1300 feet S of the subject

Status: 821103

Site: COMMUNITY SCHOOL-WEST SEATTLE

Address: 9450 22ND AVE SW

City: SEATTLE

Map Loc: 6 - about 2100 feet E of the subject

Status: 835102

Site: SHOREWOOD CHRISTIAN SCHOOL

Address: 10300 28TH AVE SW

City: SEATTLE

Map Loc: 7 - about 2100 feet S of the subject

Status: 821103

2805 SW ROXBURY, SEATTLE

Page: 2

> Job: DL121038

05-23-2005

Date:

HOSP Hospitals

Hospitals and Nursing Care facilities

No listings within half of a mile radius of the subject site.

## **WASHINGTON STATE SOURCES**

#### WL Washington Water Wells

The Washington Department of Ecology, Water Division, maintains a database of water wells in the State of Washington.

This list has been researched within 1 mile radius of the subject site.

Site: **TEXACO** Address: 2805

23N/03E-01 NE OF NW City:

Map Loc: 3 - about 400 feet W of the subject

Status:

id: 107744

Depth: (blank)

Completed: 8/21/1994

#### LUST Leaking Underground Storage Tanks (LUST)

Each of the Regional Departments of Ecology maintain a list of Leaking Underground Storage Tanks (LUST)

This list has been researched within half of a mile radius of the subject site.

Site: TEXACO 63 232 1432 2805 SW ROXBURY ST Address:

City: **SEATTLE** 

Map Loc: 1 - the subject site

Status:

id: 7714

Page: 3

Date: 05-23-2005 Job: DL121038

A release (#4796) was reported to have occured on 7/7/93.

Ground water cleanup started on 6/1/95.

Soil cleanup started on 6/1/95.

Site: EXXON STATION # 7-7043 Address: 2851 SW ROXBURY ST

City: SEATTLE

Map Loc: 2 - about 300 feet NW of the subject

Status: --

id: 9516

A release (#2675) was reported to have occured on 10/4/91.

Ground water awaiting cleanup on 6/1/95.

Soil awaiting cleanup on 6/1/95.

Site: US POSTAL SERVICE WESTWOOD STA

Address: 2721 SW TRENTON ST

City: SEATTLE

Map Loc: 8 - about 2800 feet N of the subject

Status: --

id: 4564

A release (#2389) was reported to have occured on 7/24/91 .

Ground water cleanup started on 6/1/95.

Soil cleanup started on 6/1/95.

\_

## APPENDIX H

## TERRESTRIAL ECOLOGICAL EVALUATION



## **Voluntary Cleanup Program**

**Washington State Department of Ecology Toxics Cleanup Program** 

## **ERRESTRIAL ECOLOGICAL EVALUATION EXCLUSION FORM**

Under the Model Toxics Control Act (MTCA), a Terrestrial Ecological Evaluation (TEE) is not required if the Site meets the criteria in WAC 173-340-7491 for an exclusion. If you determine that your Site does not require a TEE, please complete this form and submit it to the Department of Ecology (Ecology) at the appropriate time, either with your VCP Application or with a subsequent request for a written opinion. Please note that exclusion from the TEE does not exclude the Site from an evaluation of aquatic or sediment ecological receptors.

If your Site does not meet the criteria for exclusion under WAC 173-340-7491, then you may have to conduct a simplified TEE in accordance with WAC 173-340-7492 or a site-specific TEE in accordance with WAC 173-340-7493. If you have questions about conducting a simplified or site-specific TEE, please contact the Ecology site manager assigned to your Site or the appropriate Ecology regional office.

Step 1: IDENTIFY HAZARDOUS WASTE	SITE AND EVALUATOR				
Please identify below the hazardous waste conducting a TEE and the name of the person	site for which you are documenting an exclusion from who conducted the evaluation.				
Facility/Site Name: Shell-Branded Wholesale Facility					
Facility/Site Address: 2805 Southwest Roxbur	y Street				
Facility/Site No: 71459562 VCP Project No.: NW2054					
Name of Evaluator: Nick Acklam					

## Step 2: DOCUMENT BASIS FOR EXCLUSION

The bases for excluding a site from a terrestrial ecological evaluation are set forth in WAC 173-340-7491(1). Please identify below the basis for excluding your Site from further evaluation. Please

спеск а	iii th	at apply.
POINT O	F C	OMPLIANCE - WAC 173-340-7491(1)(A)
1-[		No contamination present at site.
2-[		All contamination is 15 feet below ground level prior to remedial activities.
3-[		All contamination is six feet below ground level and an institutional control has been implemented as required by WAC 173-340-440.
4-[		All contamination is below a site-specific point of compliance established in compliance with WAC 173-340-7490(4)(b) with an institutional control implemented as required by WAC 173-340-440. <i>Please provide documentation that describes the rationale for setting a site-specific point of compliance.</i>
BARRIE	RS 1	TO EXPOSURE – WAC 173-340-7491(1)(b)
_		All contaminated soil, is or will be, covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife and an institutional control has been

have a completion date for future development that is acceptable to Ecology.

implemented as required by WAC 173-340-440. An exclusion based on future land use must

## Step 2: DOCUMENT BASIS FOR EXCLUSION continued

### UNDEVELOPED LAND - WAC 173-340-7491(1)(c)

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

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

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

7-\overline{\text{N}} For sites not containing any of the chemicals mentioned above, there is less than one-and-a-half acres of contiguous undeveloped land on or within 500 feet of any area of the Site.

### BACKGROUND CONCENTRATIONS - WAC 173-340-7491(1)(d)

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

## Step 3: PROVIDE EXPLANATION FOR EXCLUSION (IF NECESSARY)

The site is fully paved with asphalt or concrete. None of the chemicals listed in point 6 (above) are	
present at the site and there is less than one-and-one-half acres of contiguous undeveloped land	
on or within 500 feet of the any area of the Site (see attached map).	
Attach additional pages if necessary	_

## Step 4: SUBMITTAL

Please mail your completed form to Ecology at the appropriate time, either with your VCP Application or with a subsequent request for a written opinion. If you complete the form after you enter the VCP, please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.



## Northwest Region: Attn: Sara Maser 3190 160<sup>th</sup> Ave. SE Bellevue, WA 98008-5452

Southwest Region:
Attn: Scott Rose
P.O. Box 47775
Olympia, WA 98504-7775

### Central Region:

Attn: Mark Dunbar 15 W. Yakima Ave., Suite 200 Yakima, WA 98902

# Eastern Region: Patti Carter N. 4601 Monroe Spokane WA 99205-1295

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

SHELL-BRANDED WHOLESALE FACILITY - 2805 SOUTHWEST ROXBURY STREET, SEATTLE, WA SW Cambridge St 2805 SOUTHWEST ROXBURY STREET, SEATTLE, WA SW 97th Ct SW-97th St Eye alt 2002 ft Pointer 47°31'01.89" N 122°22'07.74" Streaming ||||||| 100%