



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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July 5, 2013

Mr. Yon Kim
Blaine Mini Mart
2530 Peace Portal Drive
Blaine, Washington 98230-9782

Re: Determination of Cleanup:

- **Name:** Blaine Mini Mart
- **Address:** 2530 Peace Portal Drive, Blaine, WA 98230
- **Facility No.:** 42128291
- **Agreed Order DE.:** 7008

Dear Mr. Yon Kim:

The Washington State Department of Ecology (Ecology or we) has received the first quarter 2013 Groundwater Monitoring Report for the Blaine Mini-Mart facility (Site). This letter provides Ecology's opinion regarding the remedial actions completed at the Site. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D Revised Code of Washington (RCW).

Issues Presented and Opinion

Ecology has determined that no further remedial action is necessary at the property to clean up contamination associated with the historical release of hazardous substances at the Site from the former underground storage tanks (USTs) and associated piping and dispensing systems at this time. **Enclosure A** includes a detailed description and diagram of the Site as currently known to Ecology.

- The majority of petroleum-contaminated soil (approximately 5,057 tons) was excavated and removed from the Site.
- Contaminated soil remains primarily along the western property boundary along Peace Portal Drive and could not be removed due to access restrictions and active underground utilities.
- Contaminated soil remains south of the station building and was not removed due to concerns regarding potential undermining of the current station building.
- Contaminated soil remains north and west of the current USTs. Contaminated soil located west of the USTs was located with five feet of cathodic protection line for the UST system and was not removed. Soil sample locations are depicted on **Enclosure B** and soil sample analytical results are included in **Enclosure C**.



- Approximately 8,000 pounds of oxygen-releasing redox compound was applied to the sidewalls and base of the excavation to promote attenuation of the residual petroleum-contaminated soil.
- During the initial bi-annual groundwater sampling events following the remedial activities no analytes were detected at concentrations greater than the MTCA Method A cleanup levels.
- Due to petroleum-contaminated soils remaining in place above the MTCA Method A cleanup levels, an institutional control will be required to assure both the continued protection of human health and the environment and the integrity of an interim action per WAC 173-340-440(4)(a).
- Ecology will require periodic review of post-cleanup conditions per WAC 173-340-420. Ecology will require potentially liable persons (PLPs) to submit Site specific information required to conduct the periodic review.

This no further remedial action determination does not apply to any other release or potential release, of any contaminant that may impact this property, or any other portion of any property impacted by this Site, or any other property owned or operated by Blaine Mini Mart.

This opinion is dependent on the continued performance and effectiveness of the post-cleanup controls and monitoring specified below.

- Institutional controls such as pavement and buildings are to remain undisturbed to limit or prohibit activities that may interfere with the integrity of the cleanup action at the Site. If institutional controls are disturbed or removed, additional cleanup action will likely be required.
- Sampling of groundwater monitoring wells MW-6, MW-7, and MW-8 must be completed annually to ensure that the remedial actions completed at the Site continue to protect human health and the environment.
- The owner/operator must comply with all UST Statutes and Requirements per WAC 173-360 and Chapter 90-76 RCW.
- The release of hazardous substances that occurred on February 27, 2013, is a new and separate release from the release that was addressed under the Ecology directed cleanup. Therefore, this opinion letter does not apply to the February 27, 2013, release.
- Ecology will issue an opinion under separate cover regarding the progress of the February 27, 2013, release cleanup.

Mr. Yon Kim
July 5, 2013
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Contact Information

If you have any questions about this opinion, please contact me by phone at (360)407-6913 or by e-mail at nack461@ecy.wa.gov.

Sincerely,



Nicholas M. Acklam
HQ - Toxics Cleanup Program

NMA:bjp

Enclosures (2): A – Description and Diagram of the Site
 B – Remedial Excavation Confirmation Soil Sample Locations
 C – Remedial Excavation Analytical Results

cc: Barry Rogowski, Ecology
 Douglass Pearman, SAIC
 Ralph Wieland, W.L Repair
 Bill Bullock, City of Blaine
 Alex Wenger, City of Blaine

Site Description

Site Name: Blaine Mini Mart

Property Address: 2530 Peace Portal Drive, Blaine, WA

Facility No.: 42128291

Agreed Order DE.: 7008

Site and Property Definition

The property is located at 2530 Peace Portal Drive, Blaine, WA (formerly 1828 Peace Portal Drive). The Site is defined by total petroleum hydrocarbons (TPH) as gasoline (TPHg), TPH as diesel (TPHd), and TPH as oil (TPHo), benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary-butyl ether, MTBE, and naphthalenes released to soil and/or groundwater. The Site extends beyond the property boundary of 2530 Peace Portal Drive to the west under Peace Portal Drive.

Area Description

The property is located in an area zoned as highway commercial and residential low density by the city of Blaine. The property is located on the northeast corner of Peace Portal Drive and Bell Road. To the north of the Site is vacant property, and the former Rocky Mountain Trading Post building is located on the southeast side of the Site (SAIC, 2013).

Property History and Current Use

The property is currently an active Shell-branded retail service station. The property was originally developed for residential purposes, which included one house and two additional unknown buildings. In 1955, these structures were removed and the current convenience store and dual bay storage space were constructed. In 1980, four Underground Storage Tanks (USTs) located in front of the Mini Mart where the current fuel dispenser canopy is located were removed. No documentation of soil conditions was reported.

Contaminate Sources and History of Releases

A historic release or releases have not been identified or reported at the Site pertaining to the former USTs and associated piping and dispensers; however, based on contaminate concentration and distribution, the original source was likely from overfills, spills, and leaks from the former USTs and associated piping and dispensing systems.

On February 27, 2013, a release of hazardous substances occurred at the property. Hazardous substances were released to soil and groundwater after a seal blew on the turbine for UST 2 containing premium grade gasoline. An attempt was made to recover the released gasoline via vacuum extraction truck. The amount of gasoline released to the environment was not reported. The amount of gasoline recovered was not reported.

Physiographic Setting

The property is entirely covered with asphalt, concrete, or structures, and the surface slopes gently to the southwest toward Peace Portal Drive. Dakota Creek is located approximately 1,000 feet south of the property and discharges to Drayton Harbor approximately 1,500 feet southwest of the site.

Surface/Storm Water System

The majority of the property is covered by asphalt and concrete pavement. The surface and storm water outfall locations are currently unknown.

Ecological Setting

The area surrounding the property is primarily developed commercial properties. Dakota Creek is located approximately 1,000 feet south of the property and discharges to Drayton Harbor approximately 1,500 feet southwest of the Site.

Geology

Regional geologic units consist primarily of Quaternary age deposits. Geologic units identified near the Site include the Everson glaciomarine drift. Lithology ranges from well-sorted gravel, sand, silt, and clay to marine sediments (Natural Resources 2000). Based on boring logs, site specific geology appears consistent with the regional geology with additional fill material.

Groundwater

Groundwater has been encountered at the Site between 1.33 and 4.06 feet below ground surface. The direction of groundwater flow varies from southeast to southwest towards Peace Portal Drive. No drinking water wells were identified in the immediate vicinity of the Site.

Surface Water

Dakota Creek is the most proximal surface water feature to the Site. Dakota Creek is located approximately 1,000 feet south of the property and discharges to Drayton Harbor.

Water Use

The city of Blaine sources its water from a system of deep wells tapping into aquifers underlying the city's forested reserve at the east end of Pipeline Road.

Release and Extent of Contamination – Soil

Soil contamination includes TPHg, BTEX, and naphthalenes. Contaminated soil remains primarily along the western property boundary along Peace Portal Drive with small areas of additional contamination located south of the station building, west of the current USTs, and south of the former service garage.

Release and Extent of Contamination – Groundwater

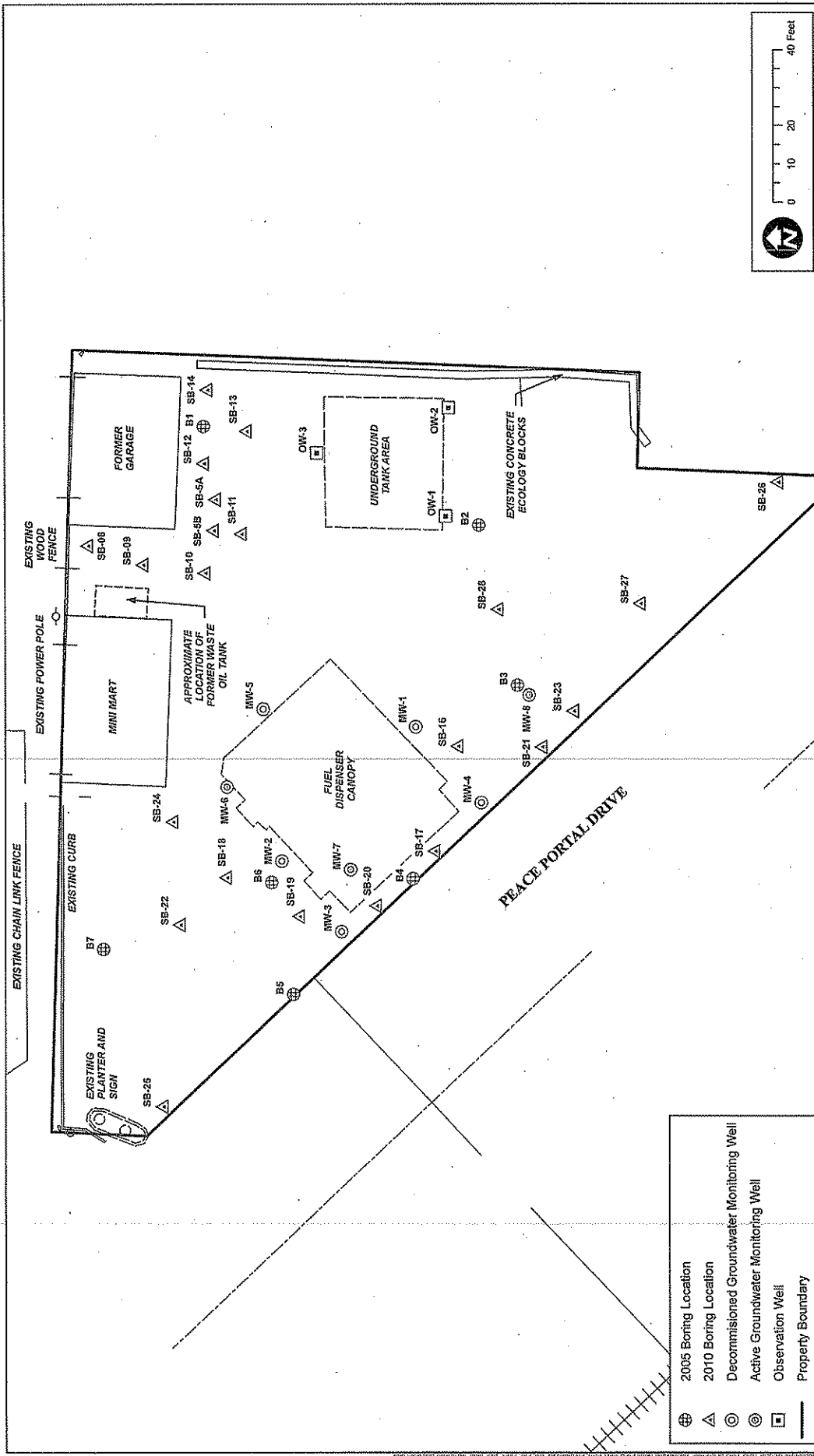
Groundwater contamination included TPHg, TPHd, TPHo, BTEX, MTBE, and naphthalene. Following cleanup actions at the Site no groundwater analyses were detected above the MTCA Method A cleanup levels in any on-Site monitoring wells.

Interim Actions

Remedial actions at the Site removed approximately 5,057 tons of petroleum contaminated soil from two excavation areas. The excavations were successful in removing a significant portion of the petroleum source material in each of the excavation areas; however, localized contaminated soil remains. As a result, approximately 8,000 pounds of a controlled oxygen-releasing redox compound were applied to the sidewalls and base of the excavation.

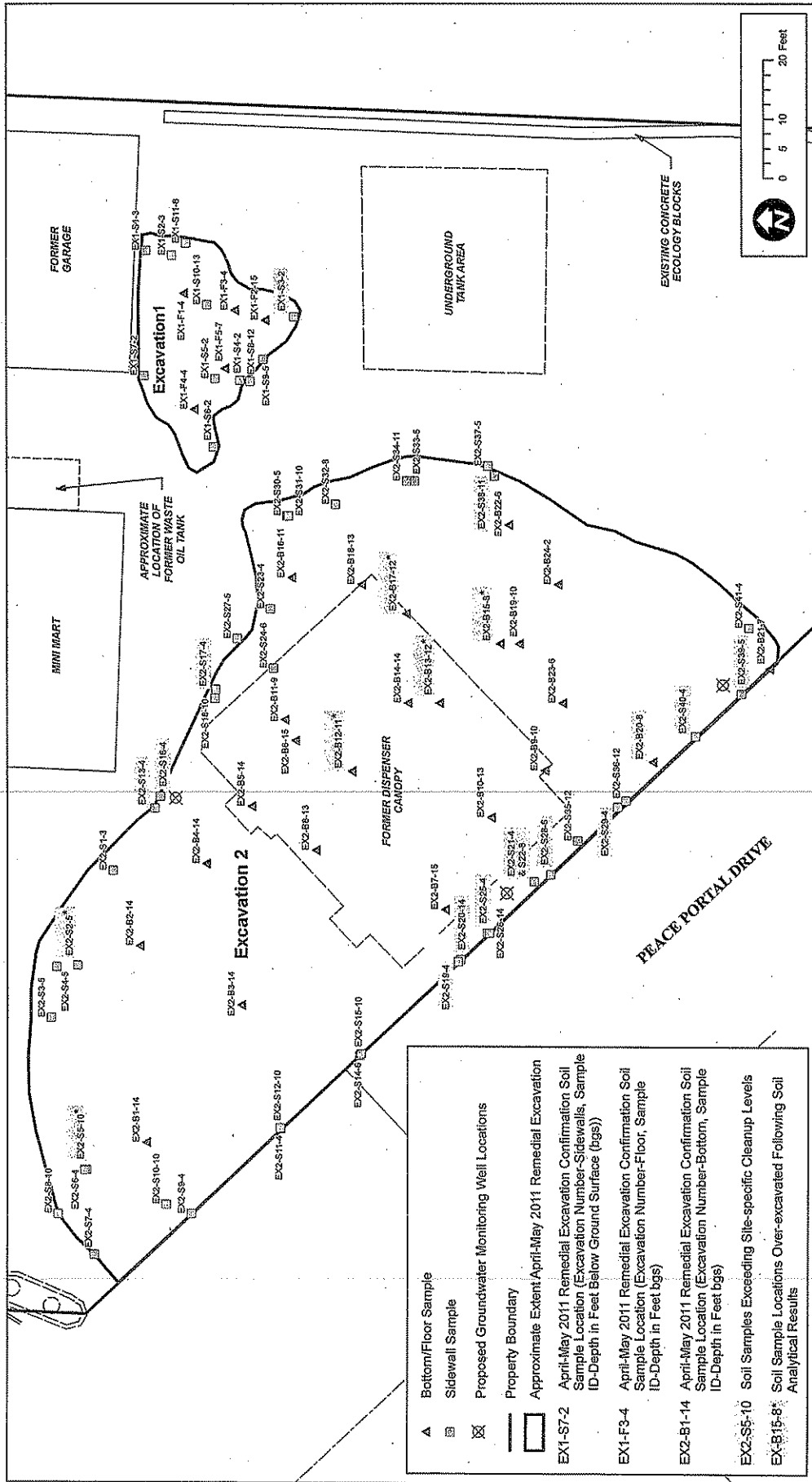
Enclosure A

Description and Diagram of the Site



Enclosure B

Remedial Excavation Confirmation Soil Sample Locations



ENCLOSURE B
 2011 Remedial Excavation Confirmation Soil Sample Locations

Enclosure C

Remedial Excavation Analytical Results

ENCLOSURE C

Table 1. Excavation Confirmation Soil Sample Analytical Results (mg/kg DW)

Sample ID	Sample Depth (feet bgs)	Date	Benzene ^a	Toluene ^a	Ethylbenzene ^a	Total Xylenes ^a	Methyl t-butyl ether ^a	Naphthalene ^b	1-Methyl Naphthalene ^b	2-Methyl Naphthalene ^b	TPH-Gasoline Range ^c	TPH-Diesel Range ^d	TPH-Heavy Oil Range ^d
EX1-F1-4	4	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-F1-4-2 *	4	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-F2-15	15	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-F3-4	4	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-F4-4	4	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-F5-7	7	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-S1-3	3	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-S2-3	3	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-S3-2	2	4/27/2011	0.02	0.05	0.05	0.15	0.05	2	5.2	7.9	10	160	100
EX1-S4-2	2	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-S5-2	2	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-S6-2	2	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-S7-2	2	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-S8-12	12	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-S9-5	5	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-S10-13	13	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX1-S11-8	8	4/27/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX2-B1-14	14	5/3/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B2-14	14	5/3/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B3-14	14	5/4/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B3-14-2 *	14	5/4/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B4-14	14	5/4/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B5-14	14	5/5/2011	0.05	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B6-15	15	5/5/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B7-15	15	5/6/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B8-13	13	5/6/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B9-10	10	5/6/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B10-13	13	5/6/2011	0.05	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B11-9	9	5/11/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B12-11	11	5/11/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B13-12	12	5/11/2011	0.07	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B14-14	14	5/11/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B15-8	8	5/12/2011	0.07	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B16-11	11	5/12/2011	0.04	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B17-12-2 *	12	5/16/2011	0.04	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B18-13	13	5/17/2011	0.05	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-B19-10	10	5/18/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX2-B20-8	8	5/18/2011	0.07	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX2-B21-7	7	5/18/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX2-B22-6	6	5/18/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX2-B23-6	6	5/18/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX2-B24-2	2	5/18/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX2-S1-3	3	5/3/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S2-5	5	5/3/2011	0.21	0.78	0.34	3.4	0.05	1	1	1	62	160	100
EX2-S3-5	5	5/3/2011	0.02	0.05	0.05	0.15	0.05	1	2	1	10	110	100
EX2-S4-5	5	5/3/2011	0.05	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S5-10	10	5/3/2011	0.55	0.05	0.31	1.6	0.05	1	1	1	22	100	100
EX2-S6-4	4	5/3/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S7-4	4	5/4/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	110	100

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EX2-S8-10	10	5/4/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	110	100
EX2-S9-4	4	5/4/2011	0.02	0.05	0.12	0.15	0.05	1	1	1	85	100	100
EX2-S10-10	10	5/4/2011	0.05	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S11-4	4	5/4/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S12-10	10	5/4/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S13-4	4	5/5/2011	0.05	0.05	0.44	0.37	0.05	1	1	1	16	100	100
EX2-S14-6	6	5/5/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S15-10	10	5/5/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S16-4	4	5/5/2011	0.27	2	0.41	3.5	0.05	1	1.1	1	430	100	100
EX2-S17-4	4	5/5/2011	0.08	0.47	0.25	2.3	0.05	1	1	1	47	100	100
EX2-S18-10	10	5/5/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S19-4	4	5/6/2011	0.9	0.09	0.99	2.6	0.05	1	1	1	41	100	100
EX2-S20-14	14	5/6/2011	1.4	0.05	0.14	0.15	0.05	1	1	1	16	100	100
EX2-S21-4	4	5/6/2011	0.41	1.1	1.3	9.3	0.05	1	1	1	720	100	100
EX2-S22-8	8	5/6/2011	0.61	4.5	3.7	5.5	0.05	1.7	1	1	390	100	100
EX2-S23-4	4	5/11/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S24-6	6	5/11/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S25-4	4	5/11/2011	0.23	0.05	0.17	0.92	0.05	1	1	1	40	100	100
EX2-S26-14	14	5/11/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S27-5	5	5/12/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S28-6	6	5/12/2011	0.13	0.05	0.05	0.15	0.05	1	1	1	16	100	100
EX2-S29-4	4	5/16/2011	2.6	15	5.8	48	0.05	1.7	2.3	1	550	100	100
EX2-S30-5	5	5/16/2011	0.05	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S31-10	10	5/16/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S33-5	5	5/17/2011	0.05	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S32-8	8	5/17/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S34-11	11	5/17/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S35-12	12	5/17/2011	0.05	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S36-12	12	5/17/2011	0.02	0.05	0.05	0.15	0.05	1	1	1	10	100	100
EX2-S37-5	5	5/18/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX2-S38-11	11	5/18/2011	0.08	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
EX2-S39-5	5	5/18/2011	4.4	0.2	8.5	8.7	0.05	0.21	0.02	0.02	3100	50	100
EX2-S40-4	4	5/18/2011	0.74	0.05	1.7	2.1	0.05	0.02	0.02	0.02	280	50	100
EX2-S41-4	4	5/18/2011	0.02	0.05	0.05	0.15	0.05	0.02	0.02	0.02	10	50	100
Site-Specific Cleanup Levels													
			0.03	7	6	9	0.1	5			30	460	460

Bold and gray shaded results indicate detected values that exceed site-specific cleanup levels.

^a = Field Duplicate Sample

Ecology = Washington State Department of Ecology

EPA = United States Environmental Protection Agency

J = estimated concentration

mg/kg DW = milligrams per kilogram dry weight

TPH = Total petroleum hydrocarbon

U = Indicates that the target analyte was not detected at the reported concentration

UI = Indicates that the target analyte was not detected at the reported estimated concentration

^e = Analyzed by EPA Method 8260C

^b = Analyzed by Ecology Method EPA 8260C or 8270

^c = Analyzed by Ecology Method NWTPL-G

^d = Analyzed by Ecology Method NWTPL-Dx with silica-gel cleanup