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## Technical Memorandum

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To: Mark Conan  
From: Paul Ecker, LHG and Leonard Farr, LG  
Date: 11/16/2012  
Subject: Site Characterization Status Report (October 2012)  
Former Plaid Pantries Store #23  
5210 East Fourth Plain Boulevard  
Vancouver, Washington  
Ecology Voluntary Cleanup Program File #SW1166  
EES Project #E-839

EES Environmental Consulting, Inc. (EES) is providing this status report regarding additional characterization activities conducted in October 2012 at the former Plaid Pantries, Inc. (Plaid) Store #23 site located at 5210 East Fourth Plain Boulevard (Figure 1). Site activities were conducted in accordance with the Work Plan for Supplemental Site Characterization, dated December 6, 2011, as approved by Plaid and the Washington Department of Ecology (Ecology). The purpose of the characterization is to satisfy Ecology's administrative requirements for site closure.

### BACKGROUND

The subject site is currently occupied by a commercial strip mall and paved parking lot area located along a commercial thoroughfare in Vancouver, Washington (Figure 2). The subject property is owned by M & P Properties. Plaid was a tenant and operated the site as a retail gasoline station and convenience store between 1982 and early 2002. The Underground Storage Tank Site Number Plaid registered with Ecology was 11397. During Plaid's operations, only gasoline is known to have been stored and dispensed at the site. Leaded gasoline may have been dispensed at the site during phase-out of that product in the 1980s. EES understands that Plaid did not store or dispense other hydrocarbons such as diesel fuel, bulk motor oil, or bulk solvents at any time during its site operations.

Prior to Plaid's operations, the site was occupied continuously as a gasoline service station since the early 1960s. The nature and volume of fuel and other products used and stored at the site by others have not been determined by EES, although the facility reportedly was operated as a Chevron service station during much or all of its operations prior to Plaid. The pre-Plaid service station building was located near the southwestern margin of the existing site building and was demolished during site redevelopment in the early 1980s. Current and historical site infrastructure is illustrated on Figure 2.

## ECOLOGY REQUEST FOR FURTHER ACTION

In an Opinion Letter dated October 31, 2011, Ecology indicated that further site characterization and administrative actions were necessary to support Plaid's request for a No Further Action (NFA) determination. The supplemental data gathering and clarification tasks as specified will enable Ecology to determine whether interim remedial actions undertaken by Plaid to date have resulted in adequate cleanup of the site. The interim actions completed to date were intended to result in a permanent solution and to achieve cleanup requirements as defined under the Model Toxics Control Act (MTCA).

## SUPPLEMENTAL SITE CHARACTERIZATION (APRIL THROUGH JULY 2012)

Between April and July 2012, EES conducted the following activities as required by the site work plan. Findings were detailed in a Technical Memorandum dated September 25, 2012, and are summarized below.

### PHYSICAL EXAMINATION OF GEOPHYSICAL ANOMALIES

In accordance with the work plan, four-inch diameter air-knife excavation techniques were used at specific locations (Anomalies A, B, and C) where a prior (2005) geophysical survey had identified subsurface anomalies that Ecology suspected may have represented underground storage tanks from pre-Plaid site operations (Figure 2). Air-knife excavations identified no evidence of fuel contamination or underground storage tank presence at the three anomaly locations. This supplemental site characterization task requested by Ecology has been completed, and no further work to resolve this issue appears warranted.

### CONFIRMATION SOIL SAMPLING

Confirmation soil sampling was conducted using direct-push drilling techniques at three locations where elevated gasoline and/or BTEX compounds historically were detected in soil, as specifically requested by Ecology (Figure 2):

- Boring location B-22 adjacent to Dames & Moore/Pemco soil boring B-7/P2, near the southwest property corner;
- Boring location B-23 adjacent to PNG soil boring B-6, near the southwest corner of the former Plaid UST pit; and
- Boring location B-24 adjacent to PNG soil boring B-13, near the west end of the former southern fuel dispenser island associated with pre-Plaid operations.

Characterization of these three locations identified no evidence of detectable gasoline or related lead or volatile constituent impacts. This supplemental site characterization task requested by Ecology has been completed, and no further work to resolve this issue appears warranted.

### WELLHEAD SURVEYING

In accordance with Ecology's request, Plaid's seven-well network was surveyed by Centerline Concepts Land Surveying, Inc., using a licensed Professional Land Surveyor. The survey verified well locations and top of casing elevations relative to mean sea level as referenced to a local USGS benchmark. Wellhead elevations are incorporated into the groundwater elevation data summary table (Table 1).

During the survey work, it was determined that monitoring well MW-5 is located slightly off-site west of the property line. Plaid is negotiating with the neighboring property owner to obtain access to decommission MW-5, as discussed with Ecology. No access to the well has been allowed by the neighboring property owner to date.

## **APRIL AND JULY CONFIRMATION GROUNDWATER MONITORING**

As stated in the work plan, confirmation groundwater samples are specified for collection from down-gradient monitoring wells MW-6 and MW-7 only if depth to water in these wells exceeds 14 feet during quarterly monitoring over a one-year period. During both the April and July 2012 site activities, depth to groundwater in all site wells was shallower than 14 feet below ground surface, ranging from 10.92 to 13.00 feet below ground surface in MW-6 and MW-7 specifically (Table 1). Therefore, no confirmation groundwater samples were collected during these two quarterly events.

## **RECENT GROUNDWATER MONITORING (OCTOBER 2012)**

On October 9, 2012, static water levels were measured in each well relative to the surveyed top-of-casing elevation. Depth to water in monitoring well MW-6 exceeded 14 feet. Therefore, monitoring wells MW-6 and MW-7 were sampled during this seasonal low-water period.

## **WATER LEVEL AND GROUNDWATER GRADIENT MEASUREMENT**

The depth to groundwater in each monitoring well except MW-5 was measured using an electronic water level probe. The probe was lowered into the well until it contacted the water surface, indicated by an audible tone. Using the water level probe tape, the depth to the water surface was measured to the nearest hundredth of a foot from the north edge of the rim of each well casing. Water levels measured in each well, and the corresponding mean sea level elevation of the water surface, are summarized in Table 1.

Water levels measured at the site ranged in elevation from 165.12 feet above mean sea level (MW-6) to 165.81 feet above mean sea level (MW-2). Water table measurements indicate a potentiometric surface sloping down to the southwest at a gradient of 0.0057 vertical feet per horizontal foot, as measured between monitoring wells MW-3 and MW-6.

## **MONITORING WELL PURGING AND SAMPLING**

Pre-sampling well purging of MW-6 and MW-7 was conducted using a peristaltic pump with new high-density polyethylene tubing. Groundwater was extracted during purging from each well at a rate of approximately 100 milliliters per minute. As purging progressed, field parameters including temperature, conductivity, dissolved oxygen, pH, and oxygen reduction potential were measured at approximately 150 second intervals within a flow-through cell. Final field parameter measurements collected as purging concluded are summarized in Table 2. After field parameters stabilized, the groundwater sample was collected directly from the peristaltic pump tubing and placed into laboratory-supplied containers. Groundwater sample containers were placed in a cooler containing ice, and were transported to Apex Labs, Tigard, Oregon for analysis.

## **GROUNDWATER SAMPLE TESTING RESULTS**

Two groundwater samples (one each from monitoring wells MW-6 and MW-7) and one quality control travel blank were submitted to Apex Labs. The travel blank was held pending analysis of the two groundwater samples. As no quality control issues were identified for the MW-6 and MW-7 groundwater samples, the travel blank was not analyzed. Each groundwater sample was tested for the following analytical parameters:

- Gasoline-range hydrocarbons by method NWTPH-Gx;
- Select volatile organic compounds by US Environmental Protection Agency Method 8260C; and
- Total and dissolved lead by US Environmental Protection Agency Method 6020.

Groundwater analytical testing results are summarized in Table 3, and on Figure 3 for gasoline and benzene. The Apex Labs laboratory report is included in Attachment A.

#### *FUEL HYDROCARBON TESTING RESULTS*

Fuel hydrocarbons were not detected in the groundwater sample collected from monitoring well MW-6. A gasoline-range hydrocarbons concentration of 106 micrograms per liter was detected in monitoring well MW-7. This gasoline-range hydrocarbon concentration is well below the Ecology MTCA Method A groundwater cleanup level of 1,000 micrograms per liter. Use of this cleanup level is considered valid as benzene was not detected, and ethylbenzene, toluene, and xylene concentrations did not exceed 1% of the gasoline mixture for this sample or elsewhere among various samples collected historically at the site.

#### *VOLATILE GASOLINE CONSTITUENT TESTING RESULTS*

Low levels of volatile gasoline constituents were detected in the groundwater samples collected from both monitoring well MW-6 and MW-7. Detected analytes included benzene, ethylbenzene, xylenes, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and naphthalene. Detected concentrations are summarized in Table 3. None of the gasoline constituents detected in groundwater exceeded Ecology MTCA Method A groundwater cleanup levels.

#### *TOTAL AND DISSOLVED LEAD TESTING RESULTS*

Neither total nor dissolved lead was detected in the groundwater samples collected from monitoring wells MW-6 and MW-7.

## **SUMMARY AND CONCLUSIONS**

EES conducted additional characterization activities in October 2012 at the former Plaid Store #23 site located at 5210 East Fourth Plain Boulevard. Activities included groundwater level measurements and sampling of groundwater in monitoring wells MW-6 and MW-7.

- Groundwater level measurements were collected from monitoring wells MW-1 through MW-4, MW-6, and MW-7. Access to off-site monitoring well MW-5 was not obtained. Measurements indicated groundwater elevations ranging from 165.12 feet above mean sea level to 165.81 feet above mean sea level. The measurements also indicated that the upper surface of the water table at the site sloped to the southwest at a gradient of 0.0057 vertical feet per horizontal foot.
- Groundwater level measurements in October 2012 determined that groundwater levels were deeper than 14 feet in monitoring wells MW-6 and MW-7. Therefore, in accordance with the work plan, groundwater samples were collected for analysis from these two wells. Low levels of gasoline-range hydrocarbons and related volatile organic constituents were detected in the groundwater samples collected from monitoring wells MW-6 and MW-7, but at concentrations below Ecology MTCA Method A groundwater cleanup levels.
- A final groundwater monitoring event is scheduled for January 2013 to address Ecology's request for characterization of this issue. Following this final sampling event, EES will prepared and submit a final written report in accordance with the work plan.
- Due to access restrictions, Plaid intends to decommission off site monitoring well MW-5 in the near future after obtaining access rights. This issue was discussed with and approved by Ecology's project manager (Eugene Radcliff) in October 2012.

## ATTACHMENTS

### TABLES

Table 1: Groundwater Elevation Data

Table 2: Field Parameters

Table 3: Groundwater Analytical Results – Gasoline and Related Constituents

### FIGURES

Figure 1: Site Location Map

Figure 2: Water Table Elevations and Flow Direction (10/9/2012)

Figure 3: Gasoline and Benzene in Groundwater

### ATTACHMENTS

Attachment A: Laboratory Analytical Report

# Tables

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**TABLE 1**  
**Groundwater Elevation Data**  
Former Plaid Pantry #23  
Vancouver, Washington

Well Identification	TOC Elevation (feet) <sup>a</sup>	Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation <sup>a</sup> (feet)
MW-1	180.00	01/29/2002	12.70	167.30
		03/10/2005	15.31	164.69
		03/14/2005	15.35	164.65
		10/10/2006	14.71	165.29
		01/30/2007	11.57	168.43
		04/30/2007	12.17	167.83
		07/23/2007	13.76	166.24
		10/29/2007	14.84	165.16
		01/09/2008	12.79	167.21
		04/14/2008	12.54	167.46
		09/05/2008	14.43	165.57
		12/17/2008	15.07	164.93
		03/11/2009	14.31	165.69
		06/09/2009	14.17	165.83
		09/10/2009	15.26	164.74
		12/01/2009	15.11	164.89
		03/01/2010	13.18	166.82
		06/07/2010	12.64	167.36
		09/13/2010	13.99	166.01
		12/01/2010	13.26	166.74
MW-2	180.47	04/19/2012	11.46	168.54
		07/20/2012	12.73	167.27
		10/09/2012	14.38	165.62
		01/29/2002	12.99	167.48
		03/10/2005	15.62	164.85
		03/14/2005	15.66	164.81
		10/10/2006	14.98	165.49
		01/30/2007	11.81	168.66
		04/30/2007	12.41	168.06
		07/23/2007	14.02	166.45
		10/29/2007	15.16	165.31
		01/09/2008	13.12	167.35
		04/14/2008	12.78	167.69
		09/05/2008	14.66	165.81
12/17/2008	15.32	165.15		
03/11/2009	14.62	165.85		
06/09/2009	14.46	166.01		
09/10/2009	15.59	164.88		
12/01/2009	15.44	165.03		
03/01/2010	13.47	167.00		

**TABLE 1**  
**Groundwater Elevation Data**  
Former Plaid Pantry #23  
Vancouver, Washington

Well Identification	TOC Elevation (feet) <sup>a</sup>	Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation <sup>a</sup> (feet)
MW-2 (cont'd)		06/07/2010	12.92	167.55
		09/13/2010	14.26	166.21
		12/01/2010	13.57	166.90
		04/19/2012	11.70	168.77
		07/20/2012	12.99	167.48
		10/09/2012	14.66	165.81
MW-3	179.49	01/29/2002	12.00	167.49
		03/10/2005	14.67	164.82
		03/14/2005	14.73	164.76
		10/10/2006	14.06	165.43
		01/30/2007	10.87	168.62
		04/30/2007	11.49	168.00
		07/23/2007	13.08	166.41
		10/29/2007	14.22	165.27
		01/09/2008	12.09	167.40
		04/14/2008	11.84	167.65
		09/05/2008	13.80	165.69
		12/17/2008	14.45	165.04
		03/11/2009	13.61	165.88
		06/09/2009	13.47	166.02
		09/10/2009	14.64	164.85
		12/01/2009	14.48	165.01
		03/01/2010	12.46	167.03
		06/07/2010	11.95	167.54
		09/13/2010	13.29	166.20
		12/01/2010	12.54	166.95
04/19/2012	10.78	168.71		
07/20/2012	12.05	167.44		
10/09/2012	13.70	165.79		
MW-4	180.57	01/29/2002	13.47	167.10
		03/10/2005	15.95	164.62
		03/14/2005	15.99	164.58
		10/10/2006	15.38	165.19
		01/30/2007	12.22	168.35
		04/30/2007	12.82	167.75
		07/23/2007	14.43	166.14
		10/29/2007	15.55	165.02
		01/09/2008	13.36	167.21
		04/14/2008	13.15	167.42
09/05/2008	15.15	165.42		



**TABLE 1**  
**Groundwater Elevation Data**  
Former Plaid Pantry #23  
Vancouver, Washington

Well Identification	TOC Elevation (feet) <sup>a</sup>	Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation <sup>a</sup> (feet)
MW-4 (cont'd)		12/17/2008	15.75	164.82
		03/11/2009	14.92	165.65
		06/09/2009	14.80	165.77
		09/10/2009	15.91	164.66
		12/01/2009	15.71	164.86
		03/01/2010	13.79	166.78
		06/07/2010	13.22	167.35
		09/13/2010	14.61	165.96
		12/01/2010	13.86	166.71
		04/19/2012	12.12	168.45
		07/20/2012	13.38	167.19
		10/09/2012	15.04	165.53
		MW-5	180.50	01/29/2002
03/10/2005	NA			NA
03/14/2005	16.06			164.44
10/10/2006	NA			NA
01/30/2007	12.42			168.08
04/30/2007	13.00			167.50
07/23/2007	14.54			165.96
10/29/2007	15.58			164.92
01/09/2008	13.58			166.92
04/14/2008	13.36			167.14
09/05/2008	15.23			165.27
12/17/2008	15.82			164.68
03/11/2009	15.09			165.41
06/09/2009	14.95			165.55
09/10/2009	15.98			164.52
12/01/2009	15.79			164.71
03/01/2010	14.00	166.50		
06/07/2010	13.42	167.08		
09/13/2010	14.77	165.73		
12/01/2010	14.01	166.49		
04/19/2012	12.29	168.21		
07/20/2012	13.56	166.94		
10/09/2012		NM	-	
MW-6	179.72	01/29/2002	12.88	166.84
		03/10/2005	15.51	164.21
		03/14/2005	15.54	164.18
		10/10/2006	14.92	164.80
		01/30/2007	11.84	167.88

**TABLE 1**  
**Groundwater Elevation Data**  
Former Plaid Pantry #23  
Vancouver, Washington

Well Identification	TOC Elevation (feet) <sup>a</sup>	Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation <sup>a</sup> (feet)
MW-6 (cont'd)		04/30/2007	12.45	167.27
		07/23/2007	13.99	165.73
		10/29/2007	15.01	164.71
		01/09/2008	12.92	166.80
		04/14/2008	12.81	166.91
		09/05/2008	14.72	165.00
		12/17/2008	15.30	164.42
		03/11/2009	14.51	165.21
		06/09/2009	14.37	165.35
		09/10/2009	15.42	164.30
		12/01/2009	15.21	164.51
		03/01/2010	13.38	166.34
		06/07/2010	12.78	166.94
		09/13/2010	14.20	165.52
		12/01/2010	13.38	166.34
		04/19/2012	11.71	168.01
		07/20/2012	13.00	166.72
		10/09/2012	14.60	165.12
MW-7	179.28	01/29/2002	NA	NA
		03/10/2005	14.77	164.51
		03/14/2005	14.81	164.47
		10/10/2006	NA	NA
		01/30/2007	11.04	168.24
		04/30/2007	11.66	167.62
		07/23/2007	13.23	166.05
		10/29/2007	14.32	164.96
		01/09/2008	12.13	167.15
		04/14/2008	12.00	167.28
		09/05/2008	13.94	165.34
		12/17/2008	14.56	164.72
		03/11/2009	13.73	165.55
		06/09/2009	13.62	165.66
		09/10/2009	14.71	164.57
	12/01/2009	14.51	164.77	
	03/01/2010	12.59	166.69	
	06/07/2010	11.99	167.29	
	09/13/2010	13.42	165.86	
	12/01/2010	12.56	166.72	
	04/19/2012	10.92	168.36	

**TABLE 1**  
**Groundwater Elevation Data**  
Former Plaid Pantry #23  
Vancouver, Washington

Well Identification	TOC Elevation (feet) <sup>a</sup>	Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation <sup>a</sup> (feet)
MW-7 (cont'd)		07/20/2012	12.20	167.08
		10/09/2012	13.83	165.45

**Notes:**

<sup>a</sup>Vertical datum was established relative to Mean Sea Level by a licensed surveyor on 04/23/2012, based on a local benchmark using the NAVD 88 datum.

TOC = Top of casing

NA = Not applicable

NM = Not measured

**TABLE 2**  
**Field Parameters**  
Former Plaid Pantry No. 23  
Vancouver, Washington

Well Name	Date	Dissolved Oxygen (mg/L) DRI <sup>a</sup>	Oxidation Reduction Potential (mV) DRI <sup>a</sup>	Ferrous Iron (Fe 2+), dissolved (mg/L) HACH <sup>b</sup>	pH (unitless) DRI <sup>a</sup>	Specific Conductance (ms/cm) DRI <sup>a</sup>
MW-1	01/30/2007	4.4	122	<0.1	6.7	0.330
	04/30/2007	3.7	56	<0.1	7.6	0.358
	07/23/2007	3.2	100	<0.1	2.7	0.362
	10/29/2007	0.6	72	<0.1	8.0	0.459
	01/09/2008	3.3	82	<0.1	8.3	0.361
	04/14/2008	5.2	91	<0.1	6.4	0.370
	09/05/2008	2.5	2	<0.1	6.4	0.451
	12/17/2008	4.0	144	<0.1	6.9	0.364
	03/11/2009	4.7	140	<0.1	7.0	0.432
	06/09/2009	4.1	102	<0.1	6.5	0.308
	09/10/2009	3.7	100	<0.1	6.9	0.348
	12/01/2009	3.8	23	<0.1	7.3	0.295
	03/01/2010	5.0	19	<0.1	7.0	0.252
	06/07/2010	5.8	234	-	6.7	0.263
	09/13/2010	3.2	84	<0.1	7.3	0.353
12/01/2010	3.4	151	<0.1	6.9	0.326	
MW-2	01/30/2007	2.7	159	<0.1	6.8	0.309
	04/30/2007	5.4	96	<0.1	7.6	0.318
	07/23/2007	3.6	141	<0.1	7.8	0.280
	10/29/2007	2.9	79	<0.1	8.2	0.342
	01/09/2008	2.9	132	<0.1	8.3	0.306
	04/14/2008	3.4	48	<0.1	6.6	0.270
	09/05/2008	3.6	158	<0.1	6.6	0.315
	12/17/2008	1.5	126	<0.2	7.2	0.361
	03/11/2009	1.6	124	<0.1	7.4	0.349
	06/09/2009	2.6	92	<0.1	6.7	0.249
	09/10/2009	1.7	83	<0.1	7.1	0.199
	12/01/2009	2.4	25	0.2	7.3	0.194
	03/01/2010	3.5	42	0.3	7.3	0.236
	06/07/2010	3.4	119	-	6.3	0.225
	09/13/2010	3.6	80	0.2	7.3	0.251
12/01/2010	2.8	157	<0.1	6.9	0.237	
MW-3	01/30/2007	5.1	111	<0.1	6.8	0.262
	04/30/2007	6.3	74	<0.1	7.5	0.285
	07/23/2007	4.7	160	<0.1	7.5	0.341
	10/29/2007	3.9	97	<0.1	8.1	0.290
	01/09/2008	3.3	120	<0.1	8.3	0.093
	04/14/2008	3.7	73	<0.1	6.2	0.279
	09/05/2008	5.1	189	<0.1	6.2	0.302
	12/17/2008	5.9	155	<0.1	6.7	0.277
	03/11/2009	5.5	141	<0.1	6.9	0.311
	06/09/2009	4.9	90	<0.1	6.5	0.220
	09/10/2009	5.1	108	<0.1	6.7	0.215
	12/01/2009	3.7	39	<0.1	7.2	0.173

**TABLE 2**  
**Field Parameters**  
Former Plaid Pantry No. 23  
Vancouver, Washington

Well Name	Date	Dissolved Oxygen (mg/L) DRI <sup>a</sup>	Oxidation Reduction Potential (mV) DRI <sup>a</sup>	Ferrous Iron (Fe 2+), dissolved (mg/L) HACH <sup>b</sup>	pH (unitless) DRI <sup>a</sup>	Specific Conductance (ms/cm) DRI <sup>a</sup>
MW-3 (cont'd)	03/01/2010	2.7	37	<0.1	7.4	0.296
	06/07/2010	2.8	110	-	6.8	0.122
	09/13/2010	3.6	80	<0.1	7.0	0.276
	12/01/2010	4.0	144	<0.1	7.0	0.108
MW-4	01/30/2007	5.9	141	<0.1	6.7	0.678
	04/30/2007	6.6	49	<0.1	7.7	0.409
	07/23/2007	3.2	115	<0.1	7.7	0.413
	10/29/2007	9.8	93	<0.1	8.0	0.071
	01/09/2008	4.0	142	<0.1	8.3	0.338
	04/14/2008	5.6	87	<0.1	6.2	0.499
	09/05/2008	3.8	155	<0.1	6.4	0.417
	12/17/2008	3.5	158	<0.1	6.7	0.302
	03/11/2009	4.2	137	<0.1	7.0	0.333
	06/09/2009	4.3	83	<0.1	6.5	0.216
	09/10/2009	4.6	103	<0.1	6.8	0.227
	12/01/2009	3.8	42	0.4	7.2	0.218
	03/01/2010	3.3	40	0.2	7.4	0.252
	06/07/2010	3.1	95	-	7.0	0.243
	09/13/2010	2.9	59	0.2	7.2	0.304
12/01/2010	2.5	151	0.4	6.8	0.297	
MW-5	01/30/2007	4.5	185	<0.1	6.7	0.359
	04/30/2007	5.2	91	<0.1	7.6	0.327
	07/23/2007	3.8	79	<0.1	7.6	0.344
	10/29/2007	3.7	183	<0.1	7.9	0.341
	01/09/2008	3.0	207	<0.1	8.0	0.391
	04/14/2008	3.3	122	<0.1	6.3	0.314
	09/05/2008	4.0	206	<0.1	6.2	0.359
	12/17/2008	4.8	140	<0.1	6.7	0.368
	03/11/2009	2.6	144	<0.1	6.9	0.334
	06/09/2009	2.5	106	<0.1	6.3	0.284
	09/10/2009	3.9	104	<0.1	6.6	0.281
	12/01/2009	3.0	28	<0.1	7.0	0.280
	03/01/2010	3.4	66	<0.1	6.9	0.269
	06/07/2010	4.4	244	-	6.7	2.890
	09/13/2010	2.7	126	<0.1	7.7	0.364
12/01/2010	2.5	208	<0.1	6.8	0.365	
MW-6	01/30/2007	5.5	-43	0.8	7.1	0.105
	04/30/2007	6.7	-27	2.6	7.7	0.161
	07/23/2007	1.9	-144	4.2	8.1	0.387
	10/29/2007	5.0	-180	3.6	8.5	0.404
	01/09/2008	3.0	-133	2.5	8.6	0.251
	04/14/2008	3.4	-129	3.0	6.3	0.181
	09/05/2008	21.9	8	<0.1	10.3	3.680

**TABLE 2**  
**Field Parameters**  
Former Plaid Pantry No. 23  
Vancouver, Washington

Well Name	Date	Dissolved Oxygen (mg/L) DRI <sup>a</sup>	Oxidation Reduction Potential (mV) DRI <sup>a</sup>	Ferrous Iron (Fe 2+), dissolved (mg/L) HACH <sup>b</sup>	pH (unitless) DRI <sup>a</sup>	Specific Conductance (ms/cm) DRI <sup>a</sup>
MW-6 (cont'd)	12/17/2008	19.4	-29	<0.1	10.3	2.230
	03/11/2009	18.8	8	<0.1	10.7	1.359
	06/09/2009	14.2	-31	<0.1	10.1	0.702
	09/10/2009	12.8	-59	<0.1	10.2	0.621
	12/01/2009	12.6	-89	<0.1	10.4	0.553
	03/01/2010	12.2	-33	NM	11.1	0.453
	06/07/2010	11.3	18	-	9.1	0.432
	09/13/2010	8.0	11	0.4	9.8	0.412
	12/01/2010	7.8	86	0.4	8.5	0.363
	10/09/2012	4.2	106	0.0	7.6	0.427
MW-7	01/30/2007	1.9	93	<0.1	6.9	0.242
	04/30/2007	1.2	59	0.1	7.5	0.235
	07/23/2007	0.8	5	<0.1	7.4	0.201
	10/29/2007	5.5	-82	<0.1	7.9	0.187
	01/09/2008	3.6	150	<0.1	8.4	0.182
	04/14/2008	2.7	36	<0.1	6.1	0.203
	09/05/2008	1.9	-3	<0.1	7.2	0.042
	12/17/2008	0.8	25	<0.1	7.3	0.686
	03/11/2009	1.0	109	<0.1	7.0	0.463
	06/09/2009	0.8	67	<0.1	6.5	0.508
	09/10/2009	0.4	-82	<0.1	7.3	0.538
	12/01/2009	0.1	-68	1.2	7.7	0.380
	03/01/2010	2.0	34	1.0	7.5	0.421
	06/07/2010	2.0	78	-	6.9	0.640
	09/13/2010	1.0	48	0.6	7.4	0.259
	12/01/2010	2.8	118	0.5	6.9	0.299
10/09/2012	1.6	131	0.2	6.7	0.279	

**NOTES:**

<sup>a</sup> DRI = Direct-Read Instrument

<sup>b</sup> HACH = Colorimetric "Hach" Field Kit

mg/L = Milligrams per liter

mV = Millivolts

ms/cm = Millisiemens per centimeter

NM = Not measured

**TABLE 3**  
**Groundwater Analytical Results Summary - Gasoline and Related Constituents (µg/L)**  
Former Plaid Pantry #23  
Vancouver, Washington

Location	Date	Gasoline	Diesel	Heavy/Lube Oil	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	EDB	EDC	MTBE	1,2,4-TMB	1,3,5-TMB	Naphthalene	Hexane	Total Lead	Dissolved Lead
<b>Temporary Borings</b>																		
<b>Dames &amp; Moore Offsite Investigation</b>																		
P-1	04/28/1995	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-
P-2	04/28/1995	ND	ND	ND	290 <sup>j</sup>	41 <sup>j</sup>	390 <sup>j</sup>	1,300 <sup>j</sup>	-	-	-	-	-	-	-	-	-	-
P-3	04/28/1995	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-
P-4	04/28/1995	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-
<b>PNG Site Check (1998)</b>																		
B-1	02/19/1998	250 U	-	-	0.5 U	1.0 U	1.0 U	1.0 U	-	-	-	-	-	-	-	-	317	-
B-3	02/19/1998	420	-	-	0.5 U	1.0 U	1.0	4.0	-	-	-	-	-	-	-	-	167	-
B-5	02/19/1998	26,000	630 U <sup>a</sup>	630 U <sup>a</sup>	240	25,000	10,000	63,000	-	-	-	-	-	-	-	-	269	-
<b>PNG Site Investigation (2002)</b>																		
B-7	01/21/2002	423	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-8	01/21/2002	80 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-9	01/21/2002	112,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-11	01/21/2002	80 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-12	01/22/2002	107,000	25,100 <sup>e</sup>	1,220 <sup>e</sup>	50 U	6,240	2,740	20,190	50 U	50 U	50 U	50 U	6,900	2,160	722	-	-	-
<b>PNG Site Investigation (2005)</b>																		
B-13	03/09/2005	510	-	-	2.0	74	12	53	1.0 U	1.0 U	1.0 U	1.0 U	4.0	1.0	3.0 <sup>c</sup>	-	-	-
B-14	03/09/2005	36,000	4,300 <sup>e</sup>	250 U	1.0	1,400	1,500	5,400	1.0 U	1.0 U	1.0 U	1.0 U	590	400	150	-	-	-
B-15	03/09/2005	19,000	170 <sup>e</sup>	250 U	120	1.0 U	130	62	1.0 U	1.0 U	1.0 U	1.0 U	110	64	20 <sup>c</sup>	-	-	-
B-16	03/09/2005	540	170 <sup>e</sup>	250 U	5.0	2.0	67	61	1.0 U	1.0 U	1.0 U	1.0 U	32	6.0	5.0	-	-	-
B-17	03/09/2005	50 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
B-18	03/09/2005	50 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
B-19	03/09/2005	50 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
B-20	03/09/2005	50 U	54 U	216 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 <sup>c</sup>	-	-
B-21	03/09/2005	50 U	54 U	216 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
<b>Monitoring Wells</b>																		
MW-1	01/29/2002	121	630 U <sup>a</sup>	630 U <sup>a</sup>	0.5 U <sup>d</sup>	0.63	0.5 U <sup>d</sup>	1.0 U <sup>d</sup>	1.8	0.01 U <sup>b</sup>	1.0 U	1.0 U	2.2	1.0 U	0.02 U <sup>c</sup>	-	1.0 U	1.0 U
	03/14/2005	50 U	50 U	200 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U <sup>c</sup>	-	-	-
	01/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	04/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	07/23/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	10/29/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	01/09/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	04/14/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	09/05/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	12/17/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	03/11/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	06/09/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	09/10/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	12/01/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	03/01/2010	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	1.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
	06/07/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-
	09/13/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-
	12/01/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
MW-2	01/29/2002	80 U	-	-	0.5 U <sup>d</sup>	0.5 U <sup>d</sup>	0.5 U <sup>d</sup>	1.0 U <sup>d</sup>	-	-	-	-	-	-	-	-	-	-
	03/14/2005	50 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	2.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	01/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	04/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	07/23/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	10/29/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	01/09/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-

**TABLE 3**  
**Groundwater Analytical Results Summary - Gasoline and Related Constituents (µg/L)**  
Former Plaid Pantry #23  
Vancouver, Washington

Location	Date	Gasoline	Diesel	Heavy/Lube Oil	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	EDB	EDC	MTBE	1,2,4-TMB	1,3,5-TMB	Naphthalene	Hexane	Total Lead	Dissolved Lead
MW-2 (con't)	04/14/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	09/05/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	12/17/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	03/11/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	06/09/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	09/10/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	12/01/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	03/01/2010	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
	06/07/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
	09/13/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
12/01/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	
MW-3	01/29/2002	80 U	-	-	0.5 U <sup>d</sup>	0.5 U <sup>d</sup>	0.5 U <sup>d</sup>	1.0 U <sup>d</sup>	-	-	-	-	-	-	-	-	-	-
	03/14/2005	50 U	50 U	200 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	01/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	04/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	07/23/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	10/29/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	01/09/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	04/14/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	09/05/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	12/17/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	03/11/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	06/09/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	09/10/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	12/01/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
03/01/2010	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	
06/07/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	
09/13/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	
12/01/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	
MW-4	01/29/2002	80 U	-	-	0.5 U <sup>d</sup>	0.60 <sup>d</sup>	0.5 U <sup>d</sup>	1.0 U <sup>d</sup>	-	-	-	-	-	-	-	-	-	-
	03/14/2005	50 U	50 U	200 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	01/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	04/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	07/23/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	10/29/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	01/09/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	04/14/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	09/05/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	12/17/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	03/11/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	06/09/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	09/10/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	12/01/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
03/01/2010	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	
06/07/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	
09/13/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	
12/01/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	
MW-5	01/29/2002	80 U	-	-	0.5 U <sup>d</sup>	0.5 U <sup>d</sup>	0.5 U <sup>d</sup>	1.0 U <sup>d</sup>	-	-	-	-	-	-	-	-	-	-
	03/14/2005	50 U	50 U	200 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	01/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	04/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	07/23/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	10/29/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	01/09/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-



**TABLE 3**  
**Groundwater Analytical Results Summary - Gasoline and Related Constituents (µg/L)**  
Former Plaid Pantry #23  
Vancouver, Washington

Location	Date	Gasoline	Diesel	Heavy/Lube Oil	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	EDB	EDC	MTBE	1,2,4-TMB	1,3,5-TMB	Naphthalene	Hexane	Total Lead	Dissolved Lead
MW-5 (con't)	04/14/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	09/05/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	12/17/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	03/11/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	06/09/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	09/10/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	12/01/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	03/01/2010	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
	06/07/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
	09/13/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
	12/01/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
MW-6	01/29/2002	5,530	630 U <sup>a</sup>	630 U <sup>a</sup>	523	4.6	558	536	5.0 U	0.01 U <sup>b</sup>	5.0 U	5.0 U	376	114	43.4 <sup>c</sup>	-	1.6	1.0 U
	03/14/2005	13,000	4,700 <sup>e</sup>	100 <sup>e</sup>	420	880	1,300	2,370	1.0 U	1.0 U	1.0 U	1.0 U	1,200	440	180 <sup>c</sup>	-	-	-
MW-50 (dup)	03/14/2005	22,000	4,800	-	610	1,200	1,900	3,330	1.0 U	1.0 U	1.0 U	1.0 U	1,500	560	440	35 L	-	-
	01/30/2007	100 U	-	-	1.5	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
MW-50 (dup)	01/30/2007	100 U	-	-	1.5	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	04/30/2007	100 U	-	-	4.4	1.0 U	3.2	3.1	-	1.0 U	1.0 U	1.0 U	3.7	1.0 U	1.0 U	-	-	-
MW-50 (dup)	04/30/2007	100 U	-	-	4.3	1.0 U	3.1	2.9	-	1.0 U	1.0 U	1.0 U	3.4	1.0 U	1.0 U	-	-	-
	07/23/2007	1,800	-	-	63	1.0 U	17	64	-	1.0 U	1.0 U	1.0 U	45	45	33	-	-	-
MW-50 (dup)	07/23/2007	1,900	-	-	68	1.0 U	19	75	-	1.0 U	1.0 U	1.0 U	52	51	36	-	-	-
	10/29/2007	810	-	-	40	17	11	43	-	1.0 U	1.0 U	1.0 U	6.8	1.6	2.3	-	-	-
MW-50 (dup)	10/29/2007	580	-	-	32	24	12	59	-	1.0 U	1.0 U	1.0 U	8.3	2.1	2.8	-	-	-
	01/09/2008	940	-	-	58	1.0 U	72	155	-	1.0 U	1.0 U	1.0 U	68	16	11	-	-	-
MW-50 (dup)	01/09/2008	2,700	-	-	100	10 U	220	457	-	10 U	10 U	10 U	180	34	22	-	-	-
	04/14/2008	700	-	-	17	150	50	240	-	1.0 U	1.0 U	1.0 U	33	8.0	5.4	-	-	-
MW-50 (dup)	04/14/2008	1,600	-	-	24	270	72	330	-	1.0 U	1.0 U	1.0 U	46	11	7.5	-	-	-
	09/05/2008	120	-	-	3.5	3.8	11	15	-	1.0 U	1.0 U	1.0 U	2.5	1.4	2.0	-	-	-
MW-50 (dup)	09/05/2008	120	-	-	3.2	3.2	10	13	-	1.0 U	1.0 U	1.0 U	1.8	1.0 U	3.5	-	-	-
	12/17/2008	100 U	-	-	1.0 U	1.0	1.2	7.0	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
MW-50 (dup)	12/17/2008	100 U	-	-	1.0 U	1.0	1.2	7.1	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	03/11/2009	720	-	-	18	20	73	110	-	1.0 U	1.0 U	1.0 U	6.9	1.0 U	1.0 U	-	-	-
MW-50 (dup)	03/11/2009	450	-	-	19	22	80	119	-	1.0 U	1.0 U	1.0 U	7.9	1.0 U	1.1	-	-	-
	06/09/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
MW-50 (dup)	06/09/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	2.6	1.0 U	1.0 U	-	-	-
	09/10/2009	100 U	-	-	1.0 U	1.0 U	1.7	8.4	-	1.0 U	1.0 U	1.0 U	2.8	1.0 U	1.0 U	-	-	-
MW-50 (dup)	09/10/2009	100 U	-	-	1.0 U	1.1	1.9	10	-	1.0 U	1.0 U	1.0 U	2.6	1.0 U	1.0 U	-	-	-
	12/01/2009	160	-	-	3.2	1.0 U	19	26	-	1.0 U	1.0 U	1.0 U	6.0	1.0 U	1.0 U	-	-	-
MW-50 (dup)	12/01/2009	140	-	-	4.0	1.0 U	24	34	-	1.0 U	1.0 U	1.0 U	8.0	1.0 U	1.0 U	-	-	-
	03/01/2010	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
MW-50 (dup)	03/01/2010	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
	06/07/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
MW-50 (dup)	06/07/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
	09/13/2010	100 U	-	-	0.45	1.0 U	2.5	1.6 <sup>h</sup>	1.0 U	1.0 U	1.0 U	1.0 U	7.4	1.5	1.2	1.0 U	-	-
MW-50 (dup)	09/13/2010	110	-	-	0.60	1.0 U	3.3	1.8 <sup>h</sup>	1.0 U	1.0 U	1.0 U	1.0 U	5.4	1.1	1.1	1.0 U	-	-
	12/01/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
MW-50 (dup)	12/01/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	10/09/2012	100 U	-	-	1.0	1.0 U	1.0	1.5 U	-	0.01 U	0.50 U	1.0 U	0.57 <sup>j</sup>	1.0 U	2.0 U	-	1.0 U	1.0 U
MW-7	01/29/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	03/14/2005	63,000	5,500 <sup>e</sup>	250 U	16 E	5,800	3,100	16,100	1.0 U	1.0 U	1.0 U	1.0 U	2,400	600	270 <sup>c</sup>	-	-	-
	01/30/2007	100 U	-	-	1.0 U	3.4	1.5	13	-	1.0 U	1.0 U	1.0 U	1.9	1.0 U	1.0 U	-	-	-
	04/30/2007	100 U	-	-	1.0 U	1.3	1.5	6.6	-	1.0 U	1.0 U	1.0 U	2.8	1.0 U	1.0 U	-	-	-
	07/23/2007	610	-	-	1.0 U	44	36	170	-	1.0 U	1.0 U	1.0 U	32	8.3	2.2	-	-	-
	10/29/2007	20,000	-	-	4.3	1,600	680	2,860	-	1.0 U	1.0 U	1.0 U	1,000	720	120	-	-	-
	01/09/2008	100 U	-	-	1.0 U	3.4	1.7	13	-	1.0 U	1.0 U	1.0 U	3.4	1.0 U	1.0 U	-	-	-

**TABLE 3**  
**Groundwater Analytical Results Summary - Gasoline and Related Constituents (µg/L)**  
Former Plaid Pantry #23  
Vancouver, Washington

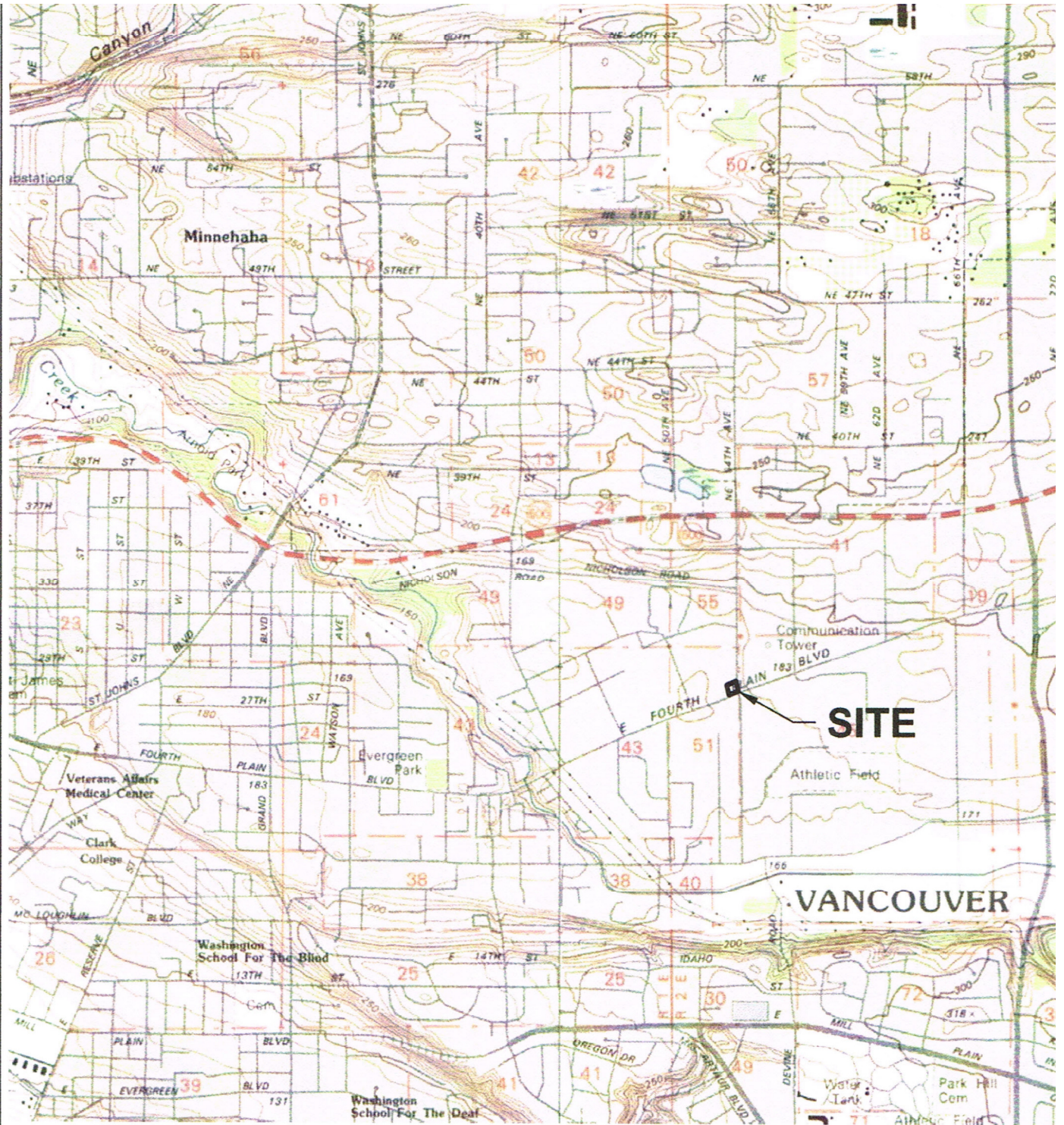
Location	Date	Gasoline	Diesel	Heavy/Lube Oil	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	EDB	EDC	MTBE	1,2,4-TMB	1,3,5-TMB	Naphthalene	Hexane	Total Lead	Dissolved Lead
MW-7 (con't)	04/14/2008	100 U	-	-	1.0 U	2.3	1.9	11	-	1.0 U	1.0 U	1.0 U	1.9	1.0 U	1.0 U	-	-	-
	09/05/2008	<b>16,000</b>	-	-	3.4	<b>1,700</b>	<b>750</b>	<b>3,300</b>	-	1.0 U	1.0 U	1.0 U	590	210	<b>160</b>	-	-	-
	12/17/2008	<b>3,900</b>	-	-	1.0 U*	240	180	<b>1,150</b>	-	1.0 U <sup>i</sup>	1.0 U <sup>i</sup>	1.0 U <sup>i</sup>	170	69	25	-	-	-
	03/11/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	1.4 c	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	06/09/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-
	09/10/2009	<b>9,400</b>	-	-	1.1	320	360	<b>1,660</b>	-	1.0 U	1.0 U	1.0 U	270	61	53	-	-	-
	12/01/2009	<b>8,300</b>	-	-	1.0 U	860	560	<b>2,900</b>	-	1.0 U	1.0 U	1.0 U	440	120	46	-	-	-
	03/01/2010	100 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
	06/07/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
	09/13/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
	12/01/2010	100 U	-	-	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-
	10/09/2012	106	-	-	0.25 U	1.0 U	6.6	17	-	0.01 U	0.5 U	1.0 U	9.3	1.3	1.8 J	-	1.0 U	1.0 U
	MTCA Method A <sup>f</sup>		800/1,000 <sup>g</sup>	500	500	5.0	1,000	700	1,000	5.0	0.01	5.0	20	NA	NA	160	NA	15

**Notes:**

- <sup>a</sup> TPH by Method NWTPH-HCID
  - <sup>b</sup> EDB by EPA Method 8011
  - <sup>c</sup> Naphthalene by EPA Method 8270C SIM
  - <sup>d</sup> BTEX by EPA Method 8021B
  - <sup>e</sup> Weathered or degraded fuel detected, not indicative of diesel or heavy oil
  - <sup>f</sup> Model Toxics Control Act Cleanup (MTCA) Amendments (WDOE, October 12, 2007)
  - <sup>g</sup> Per MTCA, values for gasoline are for benzene present (Gx < 800 ug/L) versus no benzene present (Gx < 1,000 ug/L)
  - <sup>h</sup> Results for o-Xylene only, Result for m,p-Xylene was below the reporting limit.
  - <sup>i</sup> Results obtained from non-diluted sample; all other data from this sample obtained from a dilution.
  - <sup>j</sup> BTEX by EPA Method 8020
- Volatile Compounds by EPA Method 8260B unless otherwise noted  
TPH by Method NWTPH-Gx (gasoline) and NWTPH-Dx (non-gasoline) unless otherwise noted  
PCE = Tetrachloroethene  
MTBE = Methyl tert-butyl ether  
EDB = 1,2-Dibromoethane  
EDC = 1,2-Dichloroethane  
1,2,4-TMB = 1,2,4-Trimethylbenzene  
1,3,5-TMB = 1,3,5-Trimethylbenzene  
ug/L = Micrograms per liter  
c = Lab qualifier - o-Xylene concentration (1.4 ug/L may be due to carryover from the previously analyzed sample. Result for m,p-Xylene was below the reporting limit.)  
U = Undetected at method reporting limit shown  
J = Estimated Result . Result detected below the lowest point of the calibration curve, but above the specified MDL.  
E = Some laboratory carryover possible; see laboratory analytical report  
L = The reported concentration was generated from a library search  
- = Not tested  
NA = Not applicable  
ND = Not detected  
**Values in bold** indicate compound was detected at a concentration exceeding the most stringent MTCA Method A standard

# Figures

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USGS, VANCOUVER WASHINGTON / OREGON  
 7.5 MINUTE QUADRANGLE, 1990  
 BASE MAP PROVIDED BY MAPTECH.

APPROXIMATE SCALE IN FEET



**EES**

ENVIRONMENTAL CONSULTING, INC.

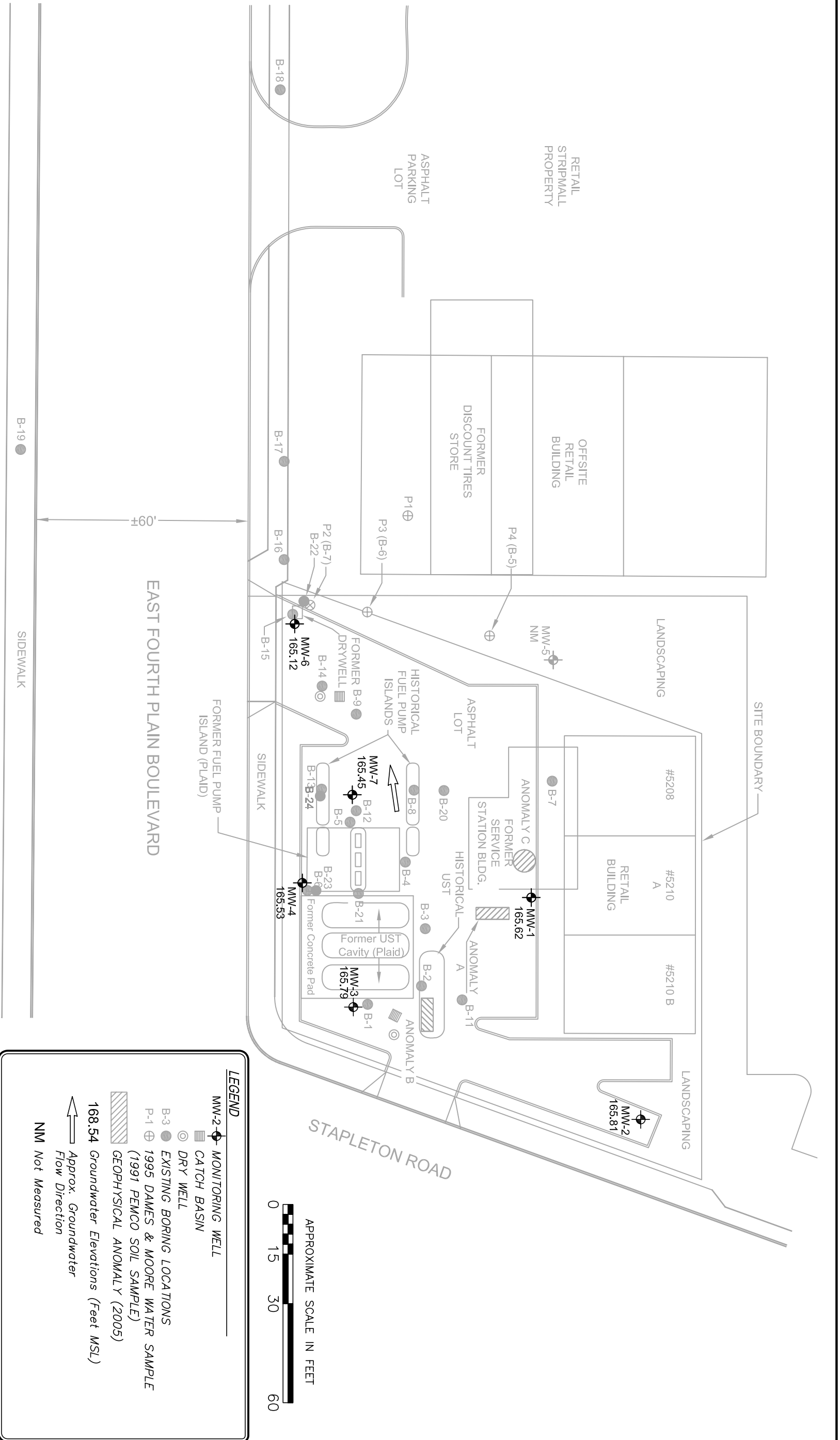
240 N Broadway #115, Portland, OR 97227  
 (503) 847-2740  
[www.ees-environmental.com](http://www.ees-environmental.com)



FORMER PLAID PANTRY #23  
 5210 E FOURTH PLAIN BLVD.  
 VANCOUVER, WASHINGTON

SITE VICINITY MAP

DATE:	9-6-2012	PROJECT NO.
FILE:	839-04	839-04
DRAWN:	SRN	FIGURE NO.
APPROVED:	PDE	1



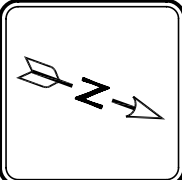
**LEGEND**

- MW-2 MONITORING WELL
- CATCH BASIN
- DRY WELL
- B-3 EXISTING BORING LOCATIONS
- P-1 1995 DAMES & MOORE WATER SAMPLE (1991 PEMCO SOIL SAMPLE)
- GEOPHYSICAL ANOMALY (2005)
- 168.54 Groundwater Elevations (Feet MSL)
- Approx. Groundwater Flow Direction
- NM Not Measured

**NOTES:**

1. SITE FEATURES ARE APPROXIMATE.
2. GROUNDWATER ELEVATIONS SURVEYED RELATIVE TO MEAN SEA LEVEL USING NAVD-88 DATUM, APRIL 2012.

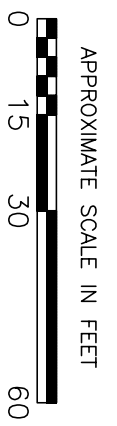
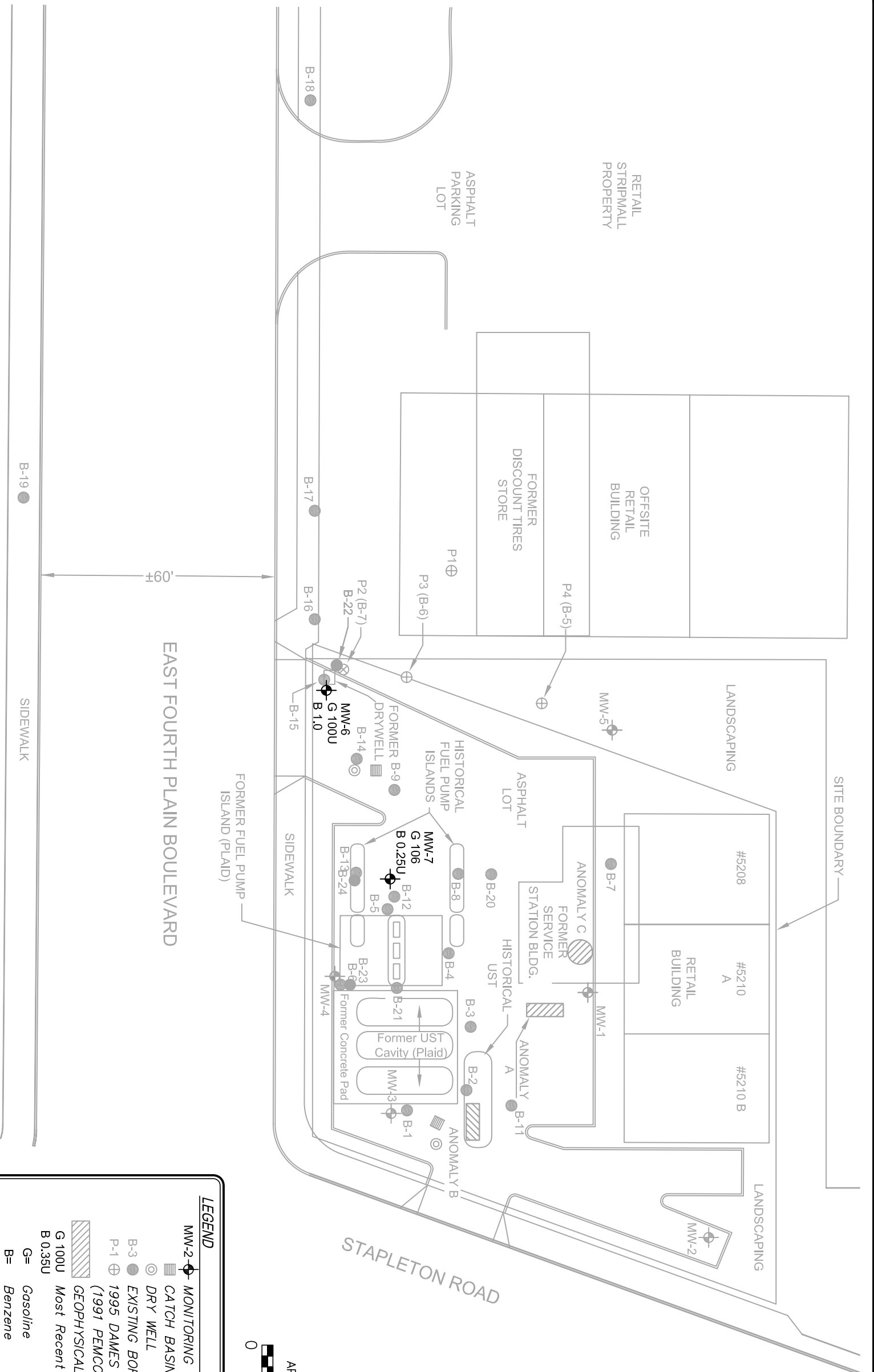
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 ENVIRONMENTAL CONSULTING, INC.  
 240 N Broadway #115, Portland, OR 97227  
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 www.ees-environmental.com



FORMER PLAID PANTRY #23  
 5210 E FOURTH PLAIN BLVD.  
 VANCOUVER, WASHINGTON

**WATER TABLE  
 ELEVATIONS AND FLOW  
 DIRECTION  
 (10/9/2012)**

DATE:	11-13-2012	PROJECT NO.	839-04
FILE:	839-04	FIGURE NO.	2
DRAWN:	CJB		
APPROVED:	PDE		



**MONITORING WELL DATA SUMMARY (MICROGRAMS PER LITER)**

MW-1			MW-2			MW-3			MW-4			MW-5			MW-6			MW-7		
DATE	G	B	DATE	G	B	DATE	G	B	DATE	G	B	DATE	G	B	DATE	G	B	DATE	G	B
3/1/10	100U	1U	3/1/10	100U	1U	3/1/10	100U	1U	3/1/10	100U	1U	3/1/10	100U	1U	3/1/10	100U	1U	3/1/10	100U	1U
6/7/10	100U	0.35U	6/7/10	100U	0.35U	6/7/10	100U	0.35U	6/7/10	100U	0.35U	6/7/10	100U	0.35U	6/7/10	100U	0.35U	6/7/10	100U	0.35U
9/13/10	100U	0.35U	9/13/10	100U	0.35U	9/13/10	100U	0.35U	9/13/10	100U	0.35U	9/13/10	100U	0.45	9/13/10	100U	0.35U	9/13/10	100U	0.35U
12/1/10	100U	0.35U	12/1/10	100U	0.35U	12/1/10	100U	0.35U	12/1/10	100U	0.35U	12/1/10	100U	0.35U	12/1/10	100U	0.35U	12/1/10	100U	0.35U

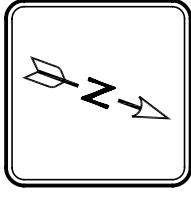
**LEGEND**

- MW-2-⊕ MONITORING WELL
- ▣ CATCH BASIN
- ⊙ DRY WELL
- EXISTING BORING LOCATIONS
- ⊕ 1995 DAMES & MOORE WATER SAMPLE (1991 PEMCO SOIL SAMPLE)
- ▨ GEOPHYSICAL ANOMALY (2005)
- ▨ Most Recent Concentrations (in ug/L)
- G= Gasoline
- B= Benzene
- U= Concentration Not Detected at Laboratory Reporting Limit Shown
- \* Gasoline and Benzene Concentrations Shown in Micrograms per Liter (ug/L)

**NOTES:**

1. SITE FEATURES ARE APPROXIMATE.

**EES**  
 ENVIRONMENTAL CONSULTING, INC.  
 240 N Broadway #115, Portland, OR 97227  
 (503) 847-2740  
 www.ees-environmental.com



FORMER PLAID PANTRY #23  
 5210 E FOURTH PLAIN BLVD.  
 VANCOUVER, WASHINGTON

**GASOLINE AND BENZENE  
 IN GROUNDWATER**

DATE:	11-13-2012	PROJECT NO.	839-04
FILE:	839-04	FIGURE NO.	3
DRAWN:	CJB		
APPROVED:	PDE		

# Attachment A

## Laboratory Analytical Report

---

# Apex Labs

12232 S.W. Garden Place  
Tigard, OR 97223  
503-718-2323 Phone  
503-718-0333 Fax

Wednesday, October 31, 2012

Paul Ecker  
EES Environmental Inc  
240 N Broadway Ste 115  
Portland, OR 97227

RE: Plaid Pantry #23 / 839-04

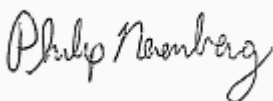
Enclosed are the results of analyses for work order A12J274, which was received by the laboratory on 10/10/2012 at 12:40:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: [pnerenberg@apex-labs.com](mailto:pnerenberg@apex-labs.com), or by phone at 503-718-2323.

---

Apex Laboratories



Philip Nerenberg, Lab Director

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EES Environmental Inc  
240 N Broadway Ste 115  
Portland, OR 97227

Project: **Plaid Pantry #23**  
Project Number: 839-04  
Project Manager: Paul Ecker

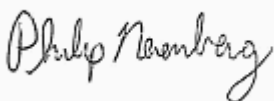
Reported:  
10/31/12 17:38

## ANALYTICAL REPORT FOR SAMPLES

### SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-7	A12J274-02	Water	10/09/12 10:05	10/10/12 12:40
MW-6	A12J274-03	Water	10/09/12 10:41	10/10/12 12:40

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EES Environmental Inc  
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Project: **Plaid Pantry #23**  
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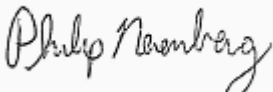
Reported:  
 10/31/12 17:38

## ANALYTICAL SAMPLE RESULTS

### Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
<b>MW-7 (A12J274-02)</b>			<b>Matrix: Water</b>		<b>Batch: 1210336</b>			
<b>Gasoline Range Organics</b>	<b>0.106</b>	---	0.100	mg/L	1	10/11/12 16:29	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 94 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
<i>1,4-Difluorobenzene (Sur)</i>			<i>89 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
<b>MW-6 (A12J274-03)</b>			<b>Matrix: Water</b>		<b>Batch: 1210336</b>			
<b>Gasoline Range Organics</b>	<b>ND</b>	---	0.100	mg/L	1	10/11/12 16:57	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 95 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
<i>1,4-Difluorobenzene (Sur)</i>			<i>90 %</i>	<i>Limits: 50-150 %</i>	"	"	"	

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Philip Nerenberg, Lab Director

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 Portland, OR 97227

Project: **Plaid Pantry #23**  
 Project Number: 839-04  
 Project Manager: Paul Ecker

Reported:  
 10/31/12 17:38

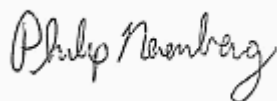
## ANALYTICAL SAMPLE RESULTS

### RBCA Compounds (BTEX+) by EPA 8260B

Analyte	Result	MDL	Reporting		Units	Dilution	Date Analyzed	Method	Notes
			Limit						
<b>MW-7 (A12J274-02)</b>			<b>Matrix: Water</b>		<b>Batch: 1210336</b>				
Benzene	ND	0.125	0.250		ug/L	1	10/11/12 16:29	EPA 8260B	
Toluene	ND	0.500	1.00		"	"	"	"	
<b>Ethylbenzene</b>	<b>6.62</b>	0.250	0.500		"	"	"	"	
<b>Xylenes, total</b>	<b>16.6</b>	0.750	1.50		"	"	"	"	
<b>Naphthalene</b>	<b>1.78</b>	1.00	2.00		"	"	"	"	J
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00		"	"	"	"	
Isopropylbenzene	ND	0.500	1.00		"	"	"	"	
<b>n-Propylbenzene</b>	<b>1.05</b>	0.250	0.500		"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>9.34</b>	0.500	1.00		"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>1.31</b>	0.500	1.00		"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.250	0.500		"	"	"	"	
<i>Surrogate: Dibromofluoromethane (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		"	"	"	
<i>1,4-Difluorobenzene (Surr)</i>		<i>104 %</i>		<i>Limits: 80-120 %</i>		"	"	"	
<i>Toluene-d8 (Surr)</i>		<i>107 %</i>		<i>Limits: 80-120 %</i>		"	"	"	
<i>4-Bromofluorobenzene (Surr)</i>		<i>103 %</i>		<i>Limits: 80-120 %</i>		"	"	"	
<b>MW-6 (A12J274-03)</b>			<b>Matrix: Water</b>		<b>Batch: 1210336</b>				
<b>Benzene</b>	<b>1.03</b>	0.125	0.250		ug/L	1	10/11/12 16:57	EPA 8260B	
Toluene	ND	0.500	1.00		"	"	"	"	
<b>Ethylbenzene</b>	<b>1.03</b>	0.250	0.500		"	"	"	"	
Xylenes, total	ND	0.750	1.50		"	"	"	"	
Naphthalene	ND	1.00	2.00		"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00		"	"	"	"	
<b>Isopropylbenzene</b>	<b>1.68</b>	0.500	1.00		"	"	"	"	
<b>n-Propylbenzene</b>	<b>6.76</b>	0.250	0.500		"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>0.570</b>	0.500	1.00		"	"	"	"	J
1,3,5-Trimethylbenzene	ND	0.500	1.00		"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.250	0.500		"	"	"	"	
<i>Surrogate: Dibromofluoromethane (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		"	"	"	
<i>1,4-Difluorobenzene (Surr)</i>		<i>105 %</i>		<i>Limits: 80-120 %</i>		"	"	"	
<i>Toluene-d8 (Surr)</i>		<i>106 %</i>		<i>Limits: 80-120 %</i>		"	"	"	
<i>4-Bromofluorobenzene (Surr)</i>		<i>102 %</i>		<i>Limits: 80-120 %</i>		"	"	"	

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Philip Nerenberg, Lab Director

EES Environmental Inc  
 240 N Broadway Ste 115  
 Portland, OR 97227

Project: **Plaid Pantry #23**  
 Project Number: 839-04  
 Project Manager: Paul Ecker

Reported:  
 10/31/12 17:38

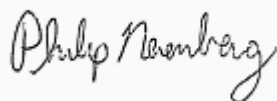
## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260B SIM

Analyte	Result	MDL	Reporting		Dilution	Date Analyzed	Method	Notes
			Limit	Units				
<b>MW-7 (A12J274-02)</b>			<b>Matrix: Water</b>		<b>Batch: 1210488</b>			
1,2-Dibromoethane (EDB)	ND	---	0.0100	ug/L	1	10/16/12 18:47	EPA 8260B SIM	
<i>Surrogate: Dibromofluoromethane (Surr)</i>			<i>Recovery: 107 %</i>	<i>Limits: 80-120 %</i>	"	"	"	
<i>1,4-Difluorobenzene (Surr)</i>			<i>104 %</i>	<i>Limits: 80-120 %</i>	"	"	"	
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>	<i>Limits: 80-120 %</i>	"	"	"	
<i>4-Bromofluorobenzene (Surr)</i>			<i>98 %</i>	<i>Limits: 80-120 %</i>	"	"	"	
<b>MW-6 (A12J274-03)</b>			<b>Matrix: Water</b>		<b>Batch: 1210488</b>			
1,2-Dibromoethane (EDB)	ND	---	0.0100	ug/L	1	10/16/12 19:39	EPA 8260B SIM	
<i>Surrogate: Dibromofluoromethane (Surr)</i>			<i>Recovery: 108 %</i>	<i>Limits: 80-120 %</i>	"	"	"	
<i>1,4-Difluorobenzene (Surr)</i>			<i>104 %</i>	<i>Limits: 80-120 %</i>	"	"	"	
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>	<i>Limits: 80-120 %</i>	"	"	"	
<i>4-Bromofluorobenzene (Surr)</i>			<i>100 %</i>	<i>Limits: 80-120 %</i>	"	"	"	

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 10/31/12 17:38

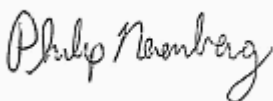
## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
<b>MW-7 (A12J274-02)</b>			<b>Matrix: Water</b>					
Batch: 1210698								
Lead	ND	---	1.00	ug/L	1	10/24/12 15:36	EPA 6020	
<b>MW-6 (A12J274-03)</b>			<b>Matrix: Water</b>					
Batch: 1210698								
Lead	ND	---	1.00	ug/L	1	10/24/12 15:40	EPA 6020	

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Project: **Plaid Pantry #23**  
 Project Number: 839-04  
 Project Manager: Paul Ecker

**Reported:**  
 10/31/12 17:38

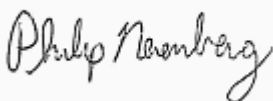
## ANALYTICAL SAMPLE RESULTS

### Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
<b>MW-7 (A12J274-02)</b>			<b>Matrix: Water</b>					
Batch: 1210670								
Lead	ND	---	1.00	ug/L	1	10/26/12 11:30	EPA 6020 (Diss)	
<b>MW-6 (A12J274-03)</b>			<b>Matrix: Water</b>					
Batch: 1210670								
Lead	ND	---	1.00	ug/L	1	10/26/12 11:33	EPA 6020 (Diss)	

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Reported:  
 10/31/12 17:38

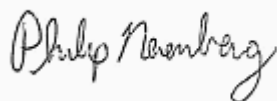
## QUALITY CONTROL (QC) SAMPLE RESULTS

### Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1210336 - EPA 5030B</b>						<b>Water</b>						
<b>Blank (1210336-BLK1)</b>						Prepared: 10/11/12 12:57 Analyzed: 10/11/12 16:00						
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	---	---	---	---	---	---
Surr: 4-Bromofluorobenzene (Sur) Recovery: 94 % Limits: 50-150 % Dilution: 1x												
1,4-Difluorobenzene (Sur) 90 % 50-150 % "												
<b>LCS (1210336-BS2)</b>						Prepared: 10/11/12 12:57 Analyzed: 10/11/12 15:32						
NWTPH-Gx (MS)												
Gasoline Range Organics	0.463	---	0.100	mg/L	1	0.500	---	93	70-130%	---	---	---
Surr: 4-Bromofluorobenzene (Sur) Recovery: 96 % Limits: 50-150 % Dilution: 1x												
1,4-Difluorobenzene (Sur) 88 % 50-150 % "												
<b>Duplicate (1210336-DUP1)</b>						Prepared: 10/11/12 14:57 Analyzed: 10/11/12 18:52						
QC Source Sample: Other (A12J280-02)												
NWTPH-Gx (MS)												
Gasoline Range Organics	38.9	---	5.00	mg/L	50	---	35.5	---	---	9	30%	---
Surr: 4-Bromofluorobenzene (Sur) Recovery: 94 % Limits: 50-150 % Dilution: 1x												
1,4-Difluorobenzene (Sur) 90 % 50-150 % "												
<b>Duplicate (1210336-DUP2)</b>						Prepared: 10/11/12 14:57 Analyzed: 10/12/12 00:04						
QC Source Sample: Other (A12J280-08)												
NWTPH-Gx (MS)												
Gasoline Range Organics	72.4	---	10.0	mg/L	100	---	76.1	---	---	5	30%	---
Surr: 4-Bromofluorobenzene (Sur) Recovery: 95 % Limits: 50-150 % Dilution: 1x												
1,4-Difluorobenzene (Sur) 90 % 50-150 % "												

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Project: **Plaid Pantry #23**  
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Reported:  
 10/31/12 17:38

## QUALITY CONTROL (QC) SAMPLE RESULTS

### RBCA Compounds (BTEX+) by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1210336 - EPA 5030B</b>												
<b>Water</b>												
<b>Blank (1210336-BLK1)</b>												
						Prepared: 10/11/12 12:57 Analyzed: 10/11/12 16:00						
<b>EPA 8260B</b>												
Benzene	ND	0.125	0.250	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Xylenes, total	ND	0.750	1.50	"	"	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.250	0.500	"	"	---	---	---	---	---	---	

<i>Surr: Dibromofluoromethane (Surr)</i>	<i>Recovery: 100 %</i>	<i>Limits: 80-120 %</i>	<i>Dilution: 1x</i>
<i>1,4-Difluorobenzene (Surr)</i>	<i>104 %</i>	<i>80-120 %</i>	<i>"</i>
<i>Toluene-d8 (Surr)</i>	<i>106 %</i>	<i>80-120 %</i>	<i>"</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>101 %</i>	<i>80-120 %</i>	<i>"</i>

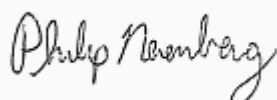
### LCS (1210336-BS1)

Prepared: 10/11/12 12:57 Analyzed: 10/11/12 15:03

<b>EPA 8260B</b>												
Benzene	20.6	0.125	0.250	ug/L	1	20.0	---	103	70-130%	---	---	
Toluene	19.9	0.500	1.00	"	"	"	---	99	"	---	---	
Ethylbenzene	19.8	0.250	0.500	"	"	"	---	99	"	---	---	
m,p-Xylene	40.9	0.500	1.00	"	"	40.0	---	102	"	---	---	
o-Xylene	20.4	0.250	0.500	"	"	20.0	---	102	"	---	---	
Xylenes, total	61.3	0.750	1.50	"	"	60.0	---	102	"	---	---	
Naphthalene	17.8	1.00	2.00	"	"	20.0	---	89	"	---	---	
Methyl tert-butyl ether (MTBE)	20.4	0.500	1.00	"	"	"	---	102	"	---	---	
Isopropylbenzene	19.7	0.500	1.00	"	"	"	---	98	"	---	---	
n-Propylbenzene	20.1	0.250	0.500	"	"	"	---	100	"	---	---	
1,2,4-Trimethylbenzene	20.7	0.500	1.00	"	"	"	---	104	"	---	---	
1,3,5-Trimethylbenzene	20.0	0.500	1.00	"	"	"	---	100	"	---	---	
1,2-Dibromoethane (EDB)	20.1	0.250	0.500	"	"	"	---	101	"	---	---	
1,2-Dichloroethane (EDC)	17.4	0.250	0.500	"	"	"	---	87	"	---	---	

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Project: **Plaid Pantry #23**  
Project Number: 839-04  
Project Manager: Paul Ecker

Reported:  
10/31/12 17:38

## QUALITY CONTROL (QC) SAMPLE RESULTS

### RBCA Compounds (BTEX+) by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----	-----------------	-------	------	--------------	---------------	------	-------------	-----	-----------	-------

#### Batch 1210336 - EPA 5030B

#### Water

##### LCS (1210336-BS1)

Prepared: 10/11/12 12:57 Analyzed: 10/11/12 15:03

Surr:	Recovery:	Limits:	Dilution:
Dibromofluoromethane (Surr)	100 %	80-120 %	1x
1,4-Difluorobenzene (Surr)	103 %	80-120 %	"
Toluene-d8 (Surr)	105 %	80-120 %	"
4-Bromofluorobenzene (Surr)	100 %	80-120 %	"

##### Duplicate (1210336-DUP1)

Prepared: 10/11/12 14:57 Analyzed: 10/11/12 18:52

##### QC Source Sample: Other (A12J280-02)

##### EPA 8260B

Benzene	2910	6.25	12.5	ug/L	50	---	2860	---	---	2	30%
Toluene	1430	25.0	50.0	"	"	---	1430	---	---	0.1	30%
Ethylbenzene	1320	12.5	25.0	"	"	---	1310	---	---	1	30%
m,p-Xylene	3660	25.0	50.0	"	"	---	3640	---	---	0.7	30%
o-Xylene	1010	12.5	25.0	"	"	---	1000	---	---	0.3	30%
Xylenes, total	4670	37.5	75.0	"	"	---	4640	---	---	0.6	30%
Naphthalene	516	50.0	100	"	"	---	489	---	---	5	30%
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	"	"	---	ND	---	---	---	30%
Isopropylbenzene	53.0	25.0	50.0	"	"	---	53.5	---	---	0.9	30%
n-Propylbenzene	222	12.5	25.0	"	"	---	218	---	---	2	30%
1,2,4-Trimethylbenzene	1780	25.0	50.0	"	"	---	1730	---	---	3	30%
1,3,5-Trimethylbenzene	519	25.0	50.0	"	"	---	497	---	---	4	30%
1,2-Dibromoethane (EDB)	ND	12.5	25.0	"	"	---	ND	---	---	---	30%
1,2-Dichloroethane (EDC)	ND	12.5	25.0	"	"	---	ND	---	---	---	30%

Surr:	Recovery:	Limits:	Dilution:
Dibromofluoromethane (Surr)	100 %	80-120 %	1x
1,4-Difluorobenzene (Surr)	104 %	80-120 %	"
Toluene-d8 (Surr)	106 %	80-120 %	"
4-Bromofluorobenzene (Surr)	103 %	80-120 %	"

##### Duplicate (1210336-DUP2)

Prepared: 10/11/12 14:57 Analyzed: 10/12/12 00:04

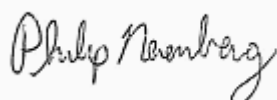
##### QC Source Sample: Other (A12J280-08)

##### EPA 8260B

Benzene	5960	12.5	25.0	ug/L	100	---	6320	---	---	6	30%
Toluene	6800	50.0	100	"	"	---	7160	---	---	5	30%
Ethylbenzene	1810	25.0	50.0	"	"	---	1900	---	---	5	30%
m,p-Xylene	7870	50.0	100	"	"	---	8200	---	---	4	30%
o-Xylene	3570	25.0	50.0	"	"	---	3720	---	---	4	30%
Xylenes, total	11400	75.0	150	"	"	---	11900	---	---	4	30%

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Philip Nerenberg, Lab Director

EES Environmental Inc  
 240 N Broadway Ste 115  
 Portland, OR 97227

Project: **Plaid Pantry #23**  
 Project Number: 839-04  
 Project Manager: Paul Ecker

Reported:  
 10/31/12 17:38

## QUALITY CONTROL (QC) SAMPLE RESULTS

### RBCA Compounds (BTEX+) by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1210336 - EPA 5030B</b>												
<b>Water</b>												
<b>Duplicate (1210336-DUP2)</b>						Prepared: 10/11/12 14:57 Analyzed: 10/12/12 00:04						
<b>QC Source Sample: Other (A12J280-08)</b>												
Naphthalene	783	100	200	ug/L	"	---	819	---	---	4	30%	
Methyl tert-butyl ether (MTBE)	ND	60.0	100	"	"	---	ND	---	---	---	30%	
Isopropylbenzene	ND	50.0	100	"	"	---	51.0	---	---	***	30%	
n-Propylbenzene	180	25.0	50.0	"	"	---	194	---	---	7	30%	
1,2,4-Trimethylbenzene	2010	50.0	100	"	"	---	2080	---	---	3	30%	
1,3,5-Trimethylbenzene	534	50.0	100	"	"	---	547	---	---	2	30%	
1,2-Dibromoethane (EDB)	ND	25.0	50.0	"	"	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	25.0	50.0	"	"	---	ND	---	---	---	30%	

Surr: Dibromofluoromethane (Surr)	Recovery: 100 %	Limits: 80-120 %	Dilution: 1x
1,4-Difluorobenzene (Surr)	104 %	80-120 %	"
Toluene-d8 (Surr)	107 %	80-120 %	"
4-Bromofluorobenzene (Surr)	103 %	80-120 %	"

### Matrix Spike (1210336-MS1)

Prepared: 10/11/12 14:57 Analyzed: 10/12/12 01:01

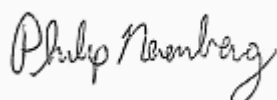
#### QC Source Sample: Other (A12J280-01)

<b>EPA 8260B</b>												
Benzene	1870	2.50	5.00	ug/L	20	400	1400	118	70-130%	---	---	
Toluene	542	10.0	20.0	"	"	"	145	99	"	---	---	
Ethylbenzene	2020	5.00	10.0	"	"	"	1550	117	"	---	---	
m,p-Xylene	4930	10.0	20.0	"	"	800	4170	95	"	---	---	
o-Xylene	1590	5.00	10.0	"	"	400	1150	110	"	---	---	
Xylenes, total	6520	15.0	30.0	"	"	1200	5320	100	"	---	---	
Naphthalene	857	20.0	40.0	"	"	400	532	81	"	---	---	
Methyl tert-butyl ether (MTBE)	380	10.0	20.0	"	"	"	ND	95	"	---	---	
Isopropylbenzene	474	10.0	20.0	"	"	"	72.2	100	"	---	---	
n-Propylbenzene	689	5.00	10.0	"	"	"	291	99	"	---	---	
1,2,4-Trimethylbenzene	2870	10.0	20.0	"	"	"	2390	122	"	---	---	
1,3,5-Trimethylbenzene	1090	10.0	20.0	"	"	"	668	106	"	---	---	
1,2-Dibromoethane (EDB)	364	5.00	10.0	"	"	"	ND	91	"	---	---	
1,2-Dichloroethane (EDC)	337	5.00	10.0	"	"	"	ND	84	"	---	---	

Surr: Dibromofluoromethane (Surr)	Recovery: 101 %	Limits: 80-120 %	Dilution: 1x
1,4-Difluorobenzene (Surr)	103 %	80-120 %	"
Toluene-d8 (Surr)	105 %	80-120 %	"
4-Bromofluorobenzene (Surr)	100 %	80-120 %	"

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Philip Nerenberg, Lab Director

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Portland, OR 97227

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Project Number: 839-04  
Project Manager: Paul Ecker

Reported:  
10/31/12 17:38

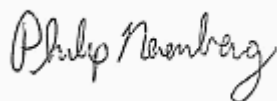
## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260B SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1210488 - EPA 5030B</b>						<b>Water</b>						
<b>Blank (1210488-BLK1)</b>						Prepared: 10/16/12 16:00 Analyzed: 10/16/12 18:22						
<b>EPA 8260B SIM</b>												
1,2-Dibromoethane (EDB)	ND	---	0.0100	ug/L	1	---	---	---	---	---	---	
<i>Surr: Dibromofluoromethane (Surr)</i>			<i>Recovery: 108 %</i>					<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>		
<i>1,4-Difluorobenzene (Surr)</i>			<i>105 %</i>					<i>80-120 %</i>		<i>"</i>		
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>					<i>80-120 %</i>		<i>"</i>		
<i>4-Bromofluorobenzene (Surr)</i>			<i>100 %</i>					<i>80-120 %</i>		<i>"</i>		
<b>LCS (1210488-BS1)</b>						Prepared: 10/16/12 16:00 Analyzed: 10/16/12 17:30						
<b>EPA 8260B SIM</b>												
1,2-Dibromoethane (EDB)	0.526	---	0.0100	ug/L	1	0.500	---	105	70-130%	---	---	
<i>Surr: Dibromofluoromethane (Surr)</i>			<i>Recovery: 104 %</i>					<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>		
<i>1,4-Difluorobenzene (Surr)</i>			<i>103 %</i>					<i>80-120 %</i>		<i>"</i>		
<i>Toluene-d8 (Surr)</i>			<i>100 %</i>					<i>80-120 %</i>		<i>"</i>		
<i>4-Bromofluorobenzene (Surr)</i>			<i>99 %</i>					<i>80-120 %</i>		<i>"</i>		
<b>Duplicate (1210488-DUP1)</b>						Prepared: 10/16/12 16:00 Analyzed: 10/16/12 19:13						
<b>QC Source Sample: MW-7 (A12J274-02)</b>												
<b>EPA 8260B SIM</b>												
1,2-Dibromoethane (EDB)	ND	---	0.0100	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: Dibromofluoromethane (Surr)</i>			<i>Recovery: 107 %</i>					<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>		
<i>1,4-Difluorobenzene (Surr)</i>			<i>104 %</i>					<i>80-120 %</i>		<i>"</i>		
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>					<i>80-120 %</i>		<i>"</i>		
<i>4-Bromofluorobenzene (Surr)</i>			<i>99 %</i>					<i>80-120 %</i>		<i>"</i>		
<b>Matrix Spike (1210488-MS1)</b>						Prepared: 10/16/12 16:00 Analyzed: 10/16/12 20:05						
<b>QC Source Sample: MW-6 (A12J274-03)</b>												
<b>EPA 8260B SIM</b>												
1,2-Dibromoethane (EDB)	0.519	---	0.0100	ug/L	1	0.500	ND	104	70-130%	---	---	
<i>Surr: Dibromofluoromethane (Surr)</i>			<i>Recovery: 107 %</i>					<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>		
<i>1,4-Difluorobenzene (Surr)</i>			<i>103 %</i>					<i>80-120 %</i>		<i>"</i>		
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>					<i>80-120 %</i>		<i>"</i>		
<i>4-Bromofluorobenzene (Surr)</i>			<i>99 %</i>					<i>80-120 %</i>		<i>"</i>		

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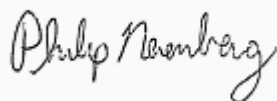
## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1210698 - EPA 3015A</b>						<b>Water</b>						
<b>Blank (1210698-BLK1)</b>						Prepared: 10/23/12 13:21 Analyzed: 10/24/12 14:19						
EPA 6020												
Lead	ND	---	1.00	ug/L	1	---	---	---	---	---	---	---
<b>LCS (1210698-BS1)</b>						Prepared: 10/23/12 13:21 Analyzed: 10/24/12 14:22						
EPA 6020												
Lead	55.2	---	1.00	ug/L	1	55.6	---	99	80-120%	---	---	---
<b>Duplicate (1210698-DUP1)</b>						Prepared: 10/23/12 13:21 Analyzed: 10/24/12 14:52						
QC Source Sample: Other (A12J247-06)												
EPA 6020												
Lead	1.39	---	1.00	ug/L	1	---	1.38	---	---	0.8	20%	---
<b>Matrix Spike (1210698-MS1)</b>						Prepared: 10/23/12 13:21 Analyzed: 10/24/12 14:55						
QC Source Sample: Other (A12J247-06)												
EPA 6020												
Lead	54.9	---	1.00	ug/L	1	55.6	1.38	96	75-125%	---	---	---
<b>Matrix Spike (1210698-MS2)</b>						Prepared: 10/23/12 13:21 Analyzed: 10/24/12 15:05						
QC Source Sample: Other (A12J247-08)												
EPA 6020												
Lead	52.7	---	1.00	ug/L	1	55.6	ND	95	75-125%	---	---	---

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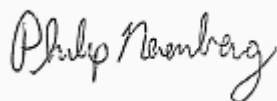
## QUALITY CONTROL (QC) SAMPLE RESULTS

### Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1210670 - Matrix Matched Direct Inject</b>						<b>Water</b>						
<b>Blank (1210670-BLK1)</b>						Prepared: 10/22/12 17:23 Analyzed: 10/25/12 18:09						
EPA 6020 (Diss)												
Lead	ND	---	1.00	ug/L	1	---	---	---	---	---	---	---
<b>LCS (1210670-BS1)</b>						Prepared: 10/22/12 17:23 Analyzed: 10/25/12 18:12						
EPA 6020 (Diss)												
Lead	53.9	---	1.00	ug/L	1	55.6	---	97	80-120%	---	---	---
<b>Duplicate (1210670-DUP1)</b>						Prepared: 10/22/12 17:23 Analyzed: 10/25/12 18:44						
QC Source Sample: Other (A12J273-02)												
EPA 6020 (Diss)												
Lead	ND	---	5.00	ug/L	5	---	ND	---	---	---	20%	---
<b>Matrix Spike (1210670-MS1)</b>						Prepared: 10/22/12 17:23 Analyzed: 10/25/12 19:12						
QC Source Sample: Other (A12J318-01)												
EPA 6020 (Diss)												
Lead	59.2	---	5.00	ug/L	5	55.6	ND	106	75-125%	---	---	---
<b>Matrix Spike (1210670-MS2)</b>						Prepared: 10/22/12 17:23 Analyzed: 10/25/12 19:48						
QC Source Sample: Other (A12J319-05)												
EPA 6020 (Diss)												
Lead	56.0	---	5.00	ug/L	5	55.6	ND	101	75-125%	---	---	---

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Project: **Plaid Pantry #23**  
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Reported:  
 10/31/12 17:38

## SAMPLE PREPARATION INFORMATION

### Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

**Prep: EPA 5030B**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1210336							
A12J274-02	Water	NWTPH-Gx (MS)	10/09/12 10:05	10/11/12 14:57	5mL/5mL	5mL/5mL	1.00
A12J274-03	Water	NWTPH-Gx (MS)	10/09/12 10:41	10/11/12 14:57	5mL/5mL	5mL/5mL	1.00

### RBCA Compounds (BTEX+) by EPA 8260B

**Prep: EPA 5030B**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1210336							
A12J274-02	Water	EPA 8260B	10/09/12 10:05	10/11/12 14:57	5mL/5mL	5mL/5mL	1.00
A12J274-03	Water	EPA 8260B	10/09/12 10:41	10/11/12 14:57	5mL/5mL	5mL/5mL	1.00

### Volatile Organic Compounds by EPA 8260B SIM

**Prep: EPA 5030B**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1210488							
A12J274-02	Water	EPA 8260B SIM	10/09/12 10:05	10/16/12 16:00	5mL/5mL	5mL/5mL	1.00
A12J274-03	Water	EPA 8260B SIM	10/09/12 10:41	10/16/12 16:00	5mL/5mL	5mL/5mL	1.00

### Total Metals by EPA 6020 (ICPMS)

**Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1210698							
A12J274-02	Water	EPA 6020	10/09/12 10:05	10/23/12 13:21	45mL/50mL	45mL/50mL	1.00
A12J274-03	Water	EPA 6020	10/09/12 10:41	10/23/12 13:21	45mL/50mL	45mL/50mL	1.00


### Dissolved Metals by EPA 6020 (ICPMS)

**Prep: Matrix Matched Direct Inject**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1210670							
A12J274-02	Water	EPA 6020 (Diss)	10/09/12 10:05	10/22/12 17:23	45mL/50mL	45mL/50mL	1.00
A12J274-03	Water	EPA 6020 (Diss)	10/09/12 10:41	10/22/12 17:23	45mL/50mL	45mL/50mL	1.00

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Reported:  
10/31/12 17:38

## Notes and Definitions

### Qualifiers:

J Estimated Result . Result detected below the lowest point of the calibration curve, but above the specified MDL.

### Notes and Conventions:

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry' designation are not dry weight corrected.  
RPD Relative Percent Difference  
MDL If MDL is not listed, data has been evaluated to the Method Reporting Limit only.  
WMSC Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.  
Batch QC In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.

Blank Policy Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses.

For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor.

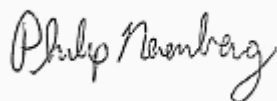
Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

--- QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

\*\*\* Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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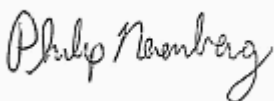
**EES Environmental Inc**  
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