

MEMORANDUM

Project No.: 060103-002-02

March 23, 2007

To: Porterfield Investment, LLC c/o Bill Joyce, Salter Joyce Ziker
Ramey Investments, LLC c/o Howard Jensen, Hillis Clark Martin & Peterson

From: **John J. Strunk, LHG**
Associate Geologist
Doug L. Hillman, LHG
Principal Hydrogeologist

Re: **Groundwater Sampling and Product Monitoring**
Penny Saver Market Property
Port Townsend, Washington

This technical memorandum presents a summary of fluid level measurements, well development and product/groundwater sampling activities performed at the Penny Saver Market property between October and December 2006. These activities were conducted as part of an environmental assessment of the property located at 2140 East Sims Way in Port Townsend, Washington (Figure 1). The property currently houses a convenience store market, but was formerly used as a gasoline service station dating back to at least 1929. A previous environmental investigation (AGI Technologies, 1995) documented the location of four former underground storage tanks (USTs) along the western portion of the site, an area that now consists of an asphalt paved parking area. **Samples collected in 1995 and 2006 indicate that concentrations of gasoline- and oil-range petroleum hydrocarbons exceed cleanup levels established under the Model Toxics Control Act (MTCA) and that further activity is warranted. We recommend an off-property evaluation of groundwater quality, replacement of select wells, and registering with Ecology's Voluntary Cleanup Program. A proposal outlining these recommendations will be sent under separate cover.**

Fluid Level Measurements

Fluid level measurements indicate the presence of free-phase petroleum hydrocarbons in five of the six on-site monitoring wells that were installed during August 1995 (AGI Technologies, 1995). On October 10, 2006, fluid levels were measured in the six wells (MW-1 through MW-6) using an oil/water interface probe. An additional round of fluid level measurements was made on October 27, 2006 to verify product thickness and evaluate the presence of tidal influences in the vicinity of the monitoring wells. A summary of the fluid level measurements is provided in Table 1. Figure 2 provides a site location map depicting the location of the monitoring wells and the approximate location of the former USTs.

The 2006 monitoring indicates that two types of free product are present. In four of the wells (MW-1, MW-2, MW-3 and MW-4), we noted a brown/dark brown free product with low to

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medium viscosity and a moderate gasoline-like odor. Product thickness ranged from 0.13 feet (MW-4) to 1.91 feet (MW-2) in these wells. MW-6 contained 1.54 feet of a black, oil-like, viscous product with a slight odor. No product was noted in well MW-5.

It is important to note that static water levels were above the screen intervals for several of the monitoring wells (MW-1, MW-3, MW-4 and MW-6) at various times during the monitoring period. This situation may periodically prevent free product, which floats on top of the water table, from draining into the wells prior to fluid level measurement rounds. Therefore, variability in product thickness between monitoring rounds should be expected as a result of well configuration.

Based on the local hydrogeologic setting, we anticipate a southwestern groundwater flow direction towards Port Townsend Bay. On-site groundwater flow direction is difficult to measure due to the presence of free product and tidal influence. We compensated for the apparent product thickness and list the adjusted groundwater elevations in Table 1. Groundwater elevations are reported relative to a temporary benchmark with a reference elevation of 100 feet (AGI Technologies, 1995). Groundwater elevations calculated from the August 30, 1995 fluid level measurements (AGI Technologies, 1995) are also summarized in Table 1.

Well Development

MW-5 (the only monitoring well without free product) was developed prior to groundwater sampling on October 10, 2006. MW-5 was developed with surging and overpumping techniques using a 12-volt groundwater sampling pump. All water produced from development of MW-5 was stored in labeled, 55-gallon drums located on site. Field parameters, including temperature, specific conductance, pH and turbidity were monitored during the development of the well. A summary of the results from the development of MW-5 is provided below:

Well	Temperature (° C)	Specific Conductance (uS/cm)	pH	Turbidity (NTU)	Starting Total Depth (ft bTOC)	Final Total Depth (ft bTOC)	Total Volume Removed (gal)
MW-5	16.99	1001	6.3	1.91	14.68	14.74	80

Groundwater/Product Sampling

Laboratory test results confirm the presence of multiple petroleum product types. A mix of gasoline- and oil-range total petroleum hydrocarbons (TPH) were detected in the free product samples from MW-1, MW-2, MW-3 and MW-4. Product from MW-6 contained detections of diesel- and oil-range total petroleum hydrocarbons. This difference in petroleum hydrocarbon is consistent with the field observations of viscosity, color, and odor noted above. The laboratory testing data are compiled in Table 2.

Product samples were collected using a peristaltic pump from the five monitoring wells containing free product. These product samples were analyzed for petroleum composition by

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Freidman & Bruya, an accredited laboratory located in Seattle, Washington that specializes in petroleum hydrocarbon analysis.

Laboratory results for the groundwater sample collected from MW-5 indicates concentrations of gasoline-, diesel- and oil-range TPH and benzene are above the MTCA Method A groundwater cleanup levels (Table 2). The groundwater sample was collected from MW-5 using low flow purging and sampling techniques (flow rates of less than 500 ml/min). The well was purged using a peristaltic pump and field parameters were monitored until they stabilized. The stabilized field parameters from the sampling of MW-5 are provided below:

Well	Temperature (° C)	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	pH	Eh (ORP)	Turbidity (NTU)	Total Volume Removed (gal)
MW-5	16.76	1068	0.39	6.88	-25.7	3.22	2

The groundwater sample was collected directly from the pump discharge line after the field parameters had stabilized. The sample was stored on ice and kept under chain of custody procedures before being delivered to Freidman & Bruya for analysis. The sample was analyzed for total petroleum hydrocarbons (gasoline, diesel and oil range), BTEX (benzene, toluene, ethylbenzene and xylenes) and total and dissolved lead. In addition, the sample was also analyzed for geochemical parameters as indicators of natural attenuation potential (nitrate, sulfate, alkalinity and ferrous iron). The analysis of nitrate, sulfate, alkalinity and ferrous iron was performed by Analytical Resources, Inc. Table 2 provides a summary of the laboratory results for MW-5. The MTCA Method A groundwater cleanup levels for TPH, BTEX and lead are also provided in Table 2 for comparison.

Bail-Down Product Skimming

We completed a bail-down product skimming test in each well containing free product (MW-1, MW-2, MW-3, MW-4 and MW-6) in order to evaluate current conditions. Product skimming was performed on December 7, 2006. Free product was removed from MW-1, MW-2, MW-3 and MW-4 using a peristaltic pump and disposable tubing. Between 0.01 feet (MW-1, MW-3 and MW-4) and 0.04 feet (MW-2) of product thickness remained in the monitoring wells after initial product skimming. Free product was removed from MW-6 using a disposable bailer. Approximately 0.51 feet of free product remained in MW-6 after initial product skimming. All free product removed from the respective monitoring wells was stored in a single, partially-filled, 55-gallon drum located on site.

After initial removal of free product from the monitoring wells, both the depth to water and depth to product was monitored for the remainder of the day using an oil/water interface probe. Additional fluid level measurements were also collected on December 19, 2006 in order to determine if free product re-accumulated within the monitoring wells. A summary of the fluid levels measurements is provided in Table 1 and a summary of the bail-down testing product thickness is provided in Table 3. The data compiled in Table 3 indicate that MW-2 was the only monitoring well in which the free product thickness recovered to pre-bail-down

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product skimming levels. This can likely be attributed to both seasonal and tidal fluctuations of groundwater levels and the correlation between the depth of the free product/water interface and the depth of the screen interval. At the time of the initial bail-down product skimming fluid level measurements, only MW-2 and MW-6 had a product/water interface level below the top of the well screen (Table 3). The other monitoring wells are completed at depths too low to enable product monitoring during high water level periods (e.g., wet season and high tide). Our recommendations going forward include the replacement of select wells in addition to an off-property groundwater quality evaluation.

References

AGI Technologies, 1995, Hydrocarbon Contamination Assessment Results, Penny Saver Grocery and Deli. Letter report to Jim Ramey dated October 6, 1995.

Aspect Consulting, 2006, Environmental Assessment Proposal, Letter to Ramey Investments, LLC and Potterfield Investment, LLC dated May 30, 2006.

Attachments

Table 1 - Fluid Level Measurements

Table 2 - Laboratory Results

Table 3 - Summary of Bail-down Product Skimming: Product Thickness

Figure 1 - Site Location Map

Figure 2 - Site Map

Appendix A - Laboratory Reports

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Table 1 - Fluid Level Measurements

Penny Saver Market, Port Townsend, Washington

Well Information					Fluid Level Measurements					Comments
Monitoring Well	Fluid Level Measurement Date	Ground Surface Elevation (feet)	Top of PVC Casing Elevation (feet)	PVC Casing Stickup (feet)	Depth to Product (feet toc)	Depth to Water (feet toc)	Apparent Product Thickness (feet)	Corrected Depth to Water (feet toc)	Groundwater Elevation (feet)	
MW-1	10/3/1995	100.15	99.98	-0.17	-	-	-	-	95.78	
MW-1	10/10/2006	-	-	-	4.06	5.85	1.79	2.72	97.26	* Dark brown product, medium viscosity, sheen and moderate odor. * Flush monument is not bolted and no gasket. 4-inch PVC thermos cap has a bad gasket.
MW-1	10/27/2006	-	-	-	4.02	5.37	1.35	3.01	96.97	* Dark brown product, medium viscosity, sheen and moderate odor.
MW-1	12/7/2006 12:59	-	-	-	3.38	4.46	1.08	2.57	97.41	
MW-1	12/7/2006 13:23	-	-	-	3.51	3.52	0.01	3.50	96.48	
MW-1	12/7/2006 13:25	-	-	-	3.51	3.52	0.01	3.50	96.48	
MW-1	12/7/2006 15:49	-	-	-	3.5	3.51	0.01	3.49	96.49	
MW-1	12/19/2006 15:48	-	-	-	3.37	3.38	0.01	3.36	96.62	
MW-2	10/3/1995	101.45	101.19	-0.26	-	-	-	-	95.86	* 1.21 ft of free product measured by AGI Technologies during October 1995.
MW-2	10/10/2006	-	-	-	5.04	6.95	1.91	3.61	97.58	* Brown product with low to medium viscosity, distinct sheen and moderate odor. * Flush monument has only 2 bolts and no gasket. Water observed inside monument. 4-inch thermos cap.
MW-2	10/27/2006	-	-	-	5.08	6.58	1.5	3.96	97.24	* Brown product with low to medium viscosity, distinct sheen and moderate odor.
MW-2	12/7/06 11:49	-	-	-	4.63	4.86	0.23	4.46	96.73	
MW-2	12/7/06 12:02	-	-	-	4.74	4.78	0.04	4.71	96.48	
MW-2	12/7/06 12:05	-	-	-	4.69	4.76	0.07	4.64	96.55	
MW-2	12/7/06 12:06	-	-	-	4.67	4.75	0.08	4.61	96.58	
MW-2	12/7/06 12:08	-	-	-	4.66	4.74	0.08	4.60	96.59	
MW-2	12/7/06 12:40	-	-	-	4.61	4.68	0.07	4.56	96.63	
MW-2	12/7/06 13:33	-	-	-	4.61	4.68	0.07	4.56	96.63	
MW-2	12/7/06 15:40	-	-	-	4.61	4.69	0.08	4.55	96.64	
MW-2	12/19/06 15:30	-	-	-	4.46	4.72	0.26	4.27	96.93	
MW-3	10/3/1995	100.33	99.89	-0.44	-	-	-	-	95.68	
MW-3	10/10/2006	-	-	-	4.22	4.5	0.28	4.01	95.88	* Brown product with low to medium viscosity, distinct sheen and moderate odor. * Flush monument is not bolted and has bad gasket. 4-inch PVC slip cap.
MW-3	10/27/2006	-	-	-	4.11	4.39	0.28	3.90	95.99	* Brown product with low to medium viscosity, distinct sheen and moderate odor.
MW-3	12/7/06 12:23	-	-	-	3.46	3.68	0.22	3.30	96.60	
MW-3	12/7/06 12:30	-	-	-	3.51	3.52	0.01	3.50	96.39	
MW-3	12/7/06 12:31	-	-	-	3.5	3.51	0.01	3.49	96.40	
MW-3	12/7/06 12:35	-	-	-	3.49	3.51	0.02	3.48	96.42	
MW-3	12/7/06 13:37	-	-	-	3.49	3.51	0.02	3.48	96.42	
MW-3	12/7/06 15:58	-	-	-	3.49	3.5	0.01	3.48	96.41	
MW-3	12/19/06 15:40	-	-	-	3.35	3.36	0.01	3.34	96.55	
MW-4	10/3/1995	100.62	100.28	-0.34	-	-	-	-	95.67	
MW-4	10/10/2006	-	-	-	4.6	4.73	0.13	4.50	95.78	* Brown product with low to medium viscosity, slight sheen and slight odor. * Flush monument in good condition with bolts and gasket. 4-inch PVC slip cap.
MW-4	10/27/2006	-	-	-	4.55	4.63	0.08	4.49	95.79	* Brown product with low to medium viscosity, slight sheen and slight odor.
MW-4	12/7/06 15:24	-	-	-	3.87	3.92	0.05	3.83	96.45	
MW-4	12/7/06 15:32	-	-	-	3.89	3.9	0.01	3.88	96.40	
MW-4	12/7/06 16:01	-	-	-	3.85	3.86	0.01	3.84	96.44	
MW-4	12/19/06 16:18	-	-	-	3.74	3.75	0.01	3.73	96.55	

Aspect Consulting

03/23/2007

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Table 1

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Table 1 - Fluid Level Measurements

Penny Saver Market, Port Townsend, Washington

Well Information					Fluid Level Measurements					Comments
Monitoring Well	Fluid Level Measurement Date	Ground Surface Elevation (feet)	Top of PVC Casing Elevation (feet)	PVC Casing Stickup (feet)	Depth to Product (feet toc)	Depth to Water (feet toc)	Apparent Product Thickness (feet)	Corrected Depth to Water (feet toc)	Groundwater Elevation (feet)	
MW-5	10/3/1995	101.24	101.00	-0.24	-	-	-	-	95.75	
MW-5	10/10/2006	-	-	-	-	5.28	-	-	95.72	* No product present. * Flush monument in good condition with bolts and gasket. 4-inch PVC slip cap.
MW-5	10/27/2006	-	-	-	-	5.25	-	-	95.75	* No product present.
MW-5	12/7/06 11:40	-	-	-	-	4.59	-	-	96.41	* No product present.
MW-5	12/19/06 15:25	-	-	-	-	4.45	-	-	96.55	* No product present.
MW-6	10/3/1995	100.25	99.81	-0.44	-	-	-	-	95.80	
MW-6	10/10/2006	-	-	-	2.05	5.55	-	-	-	* Non-representative depth to product based on subsequent measurements. * Black oil-like product with no apparent sheen and slight odor. * Flush monument in good condition with bolts and gasket. 4-inch PVC slip cap.
MW-6	10/27/2006	-	-	-	3.84	5.38	1.54	2.50	97.31	* Black oil-like product with no apparent sheen and slight odor.
MW-6	12/7/06 13:50	-	-	-	3.08	4.75	1.67	1.63	98.18	
MW-6	12/7/06 15:10	-	-	-	3.35	3.85	0.5	2.92	96.90	
MW-6	12/7/06 16:15	-	-	-	3.26	3.77	0.51	2.82	96.99	
MW-6	12/19/06 16:05	-	-	-	3.16	3.67	0.51	2.72	97.09	

Notes & Definitions:

- 1) Fluid Level measurements collected using a Testwell Instruments INT Series Oil/Water Interface Meter.
- 2) Top of casing elevations were obtained from AGI Technologies, October 6, 1995 letter report and are reported in feet relative to a temporary benchmark with an assigned elevation of 100.00 feet. Benchmark was located on the top of the southeast holddown nut for the lamp post located near the southwest corner of the site.
- 3) Groundwater level in wells containing product were corrected using the following equation:
 Corrected depth to water = Depth to Product - (Product Thickness x Specific Gravity)
 Assume Specific Gravity for product observed in MW-1 through MW-4 = 0.75 (gasoline)
 Assume Specific Gravity for product observed in MW-6 = 0.87 (No. 2 fuel oil)
- 4) October 3, 1995 groundwater elevations were obtained from AGI Technologies, October 6, 1995 letter report.

Table 2 - Laboratory Results

Penny Saver Market, Port Townsend, Washington

Monitoring Well	Sample Date	TPH - HCID Gasoline	TPH - HCID Diesel	TPH - HCID Oil	TPH - Gx ^a (ug/l)	TPH - Dx (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	Total Lead (ug/l)	Dissolved Lead (ug/l)	N - Nitrate ^b (mg/l)	N - Nitrite ^b (mg/l)	Nitrate + Nitrite ^b (mg/l)	Sulfate (mg/l)	Alkalinity (mg/l as CaCO ₃)	Ferrous Iron ^c (mg/l)
MW-1	10/11/06	D	ND	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	10/11/06	D	ND	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	10/11/06	D	ND	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	10/11/06	D	ND	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	10/11/06	-	-	-	1500	2300	330	3	9	12	< 1	< 1	< 0.01	< 0.01	< 0.01	11.6	618	1.65
MW-6	10/11/06	ND	D	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MTCA Method A	-	-	-	-	1000* 800*	500	5	1000	700	1000	15	-	-	-	-	-	-	-

Notes:

D - Detected

ND - Not Detected

^a MTCA Method A groundwater cleanup level for gasoline is 800 ug/l when benzene is present and 1000 ug/l when benzene is not present.

^b Sample received outside of 48 hour hold time.

^c Sample received outside of 24 hour hold time. Sample collected in unpreserved bottle.

Laboratory analysis for TPH, BTEX & Lead performed by Friedman & Bruya, Inc.

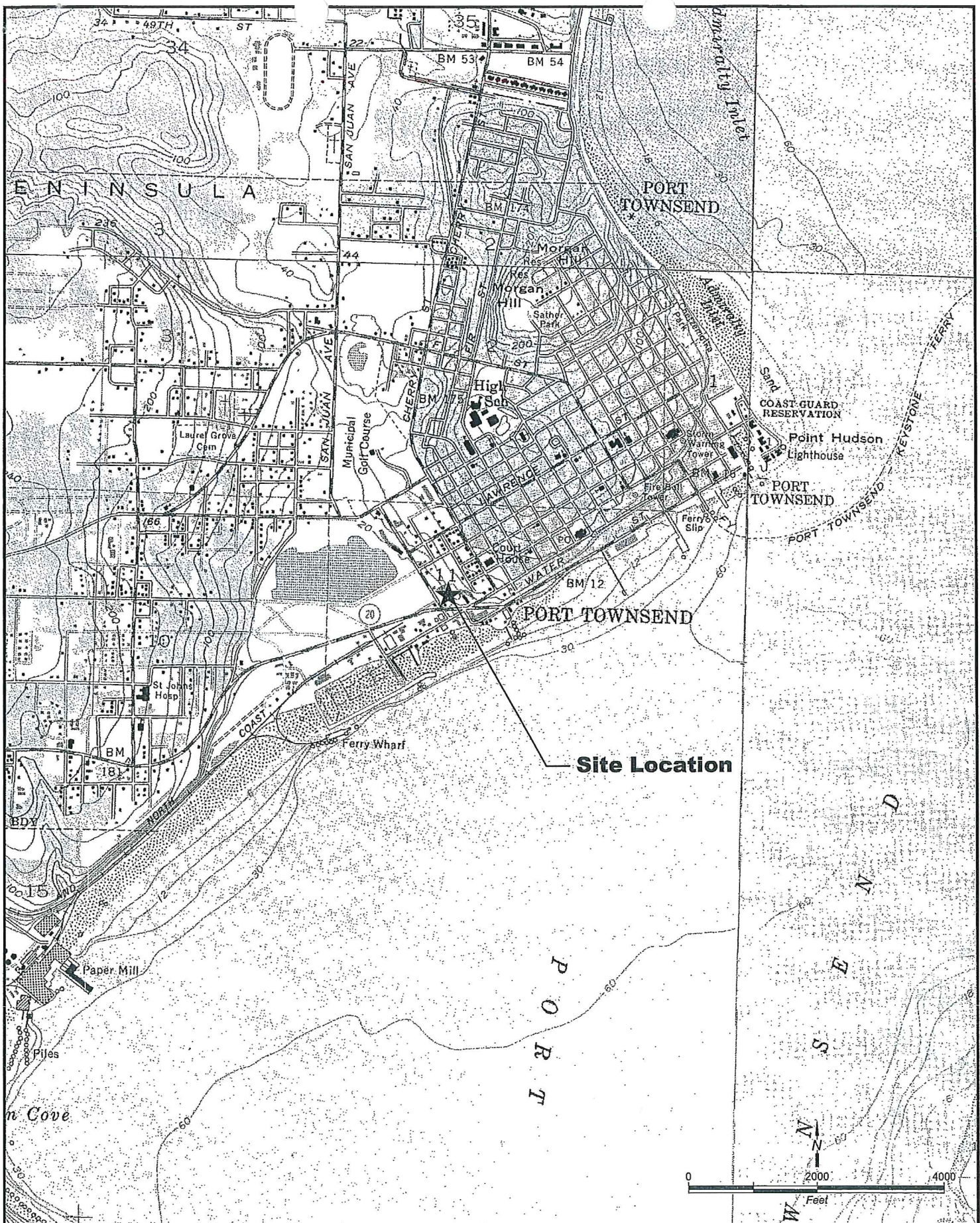
Laboratory Analysis for nitrate, nitrite, sulfate, alkalinity and ferrous iron performed by Analytical Resources, Inc.

Bold values indicate TPH range compound detected or levels above MTCA Method A Groundwater Cleanup Level

Table 3 - Summary of Bail-down Product Skimming: Product Thickness

Penny Saver Market, Port Townsend, Washington

Well	Volume of Product Removed (Liters) (Gallons)		Date/Time of Fluid Level Measurement	Apparent Product Thickness (Feet)	Product/Water Interface Above or Below Top of Screen	Reaccumulated Product Thickness (Feet)	Notes
MW-1	3.25	0.86	12/7/06 12:59	1.08	0.37 feet above screen		Product removed with pump
MW-1			12/19/06 15:48	0.01	1.45 feet above screen	0	
MW-2	0.6	0.16	12/7/06 11:49	0.23	0.12 feet below screen		Product removed with pump
MW-2			12/19/06 15:30	0.26	0.02 feet above screen	0.26	
MW-3	0.5	0.13	12/7/06 12:23	0.22	0.88 feet above screen		Product removed with pump
MW-3			12/19/06 15:40	0.01	1.2 feet above screen	0	
MW-4	<0.2	<0.05	12/7/06 15:24	0.05	0.74 feet above screen		Product removed with pump
MW-4			12/19/06 16:18	0.01	0.91 feet above screen	0	
MW-5	—	—	12/7/06 11:40	—	—		No measurable product
MW-5	—	—	12/19/06 15:25	—	—	—	No measurable product
MW-6	3.5	0.93	12/7/06 13:50	1.67	0.19 feet below screen		Product removed with bailer, could not fully remove all product from well, product thickness ~0.5 feet at end of bailing
MW-6			12/19/06 16:05	0.51	0.89 feet above screen	0	



Site Location



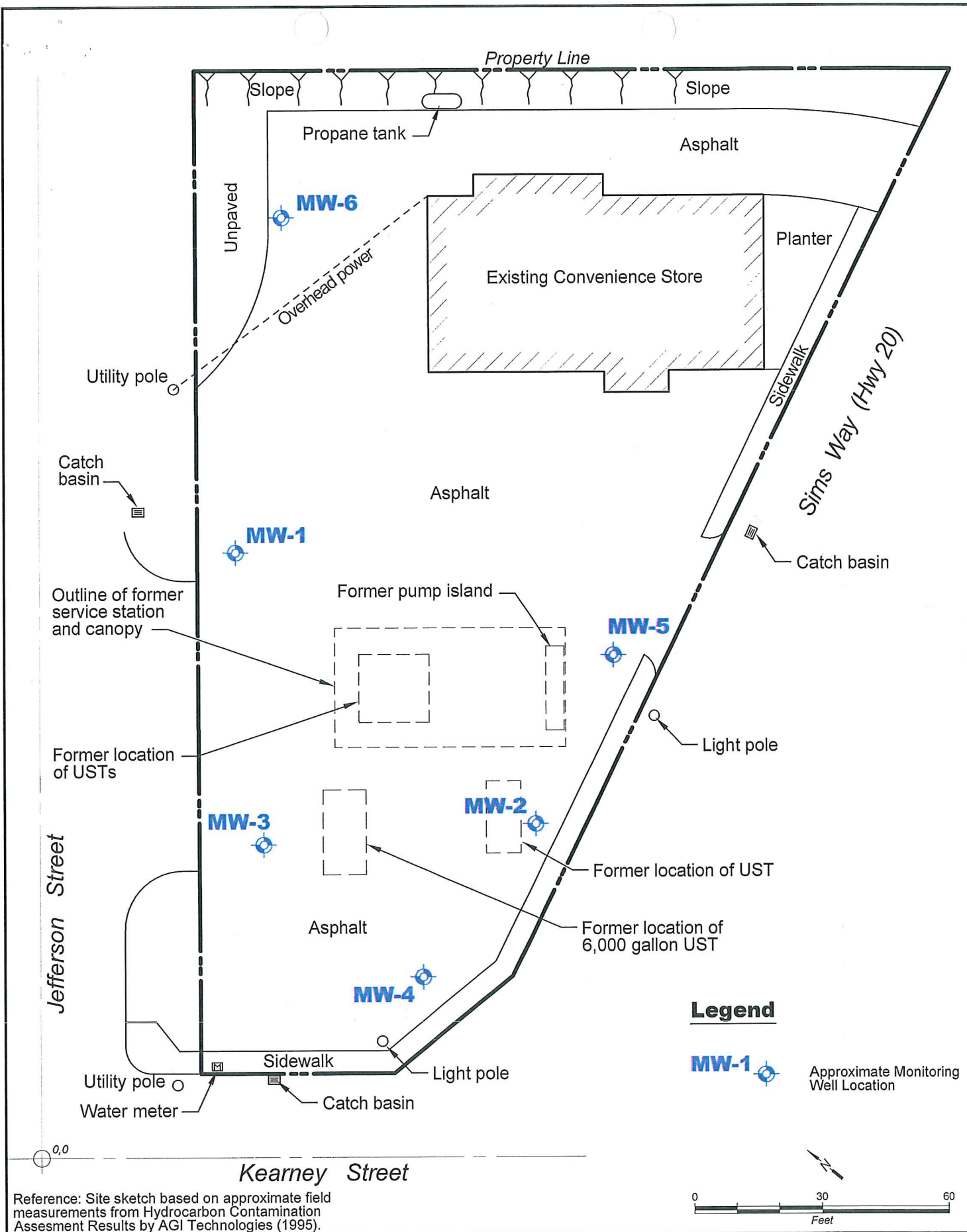
179 Madrona Lane North
Bainbridge Island, WA 98110
(206) 780-9370

811 First Avenue #480
Seattle, WA 98104
(206) 328-7443

Site Location Map

Penny Saver Market
Port Townsend, Washington

DATE:	Oct 2006	PROJECT NO.	060103
DESIGNED BY:	JJS	FIGURE NO.	1
DRAWN BY:	PMB		
REVIEWED BY:			



Site Map

Penny Saver Market
Port Townsend, Washington

DATE: Oct 2006
DESIGNED BY: JJS
DRAWN BY: PMB
REVISED BY:

PROJECT NO.
060103
FIGURE NO.
2

APPENDIX A

Laboratory Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

October 26, 2006

John Strunk, Project Manager
Aspect Consulting
179 Madrone Lane North
Bainbridge Island, WA 98110

Dear Mr. Strunk:

Included are the results from the testing of material submitted on October 13, 2006 from the Penny Saver Market, 060103-001-01, F&BI 610209 project. There are 11 pages included in this report. Sample MW-5-101106 was sent to Analytical Resources, Inc. for nitrate, sulfate, alkalinity, and ferrous iron analyses. Review of the enclosed report indicates that all quality assurance was acceptable.

Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
ASP1026R

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/26/06

Date Received: 10/13/06

Project: Penny Saver Market, 060103-001-01, F&BI 610209

Date Extracted: 10/18/06

Date Analyzed: 10/19/06

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLES
FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID
Results Reported as Not Detected (ND) or Detected (D)**

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE
WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE
INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL
PRESENT

<u>Sample ID</u> Laboratory ID	<u>Gasoline</u>	<u>Diesel</u>	<u>Heavy Oil</u>	Surrogate (% Recovery) (Limit 50-150)
MW-2-101106 610209-02	D	ND	D	91
MW-4-101106 610209-03	D	ND	D	88
MW-3-101106 610209-04	D	ND	D	89
MW-1-101106 610209-05	D	ND	D	86
MW-6-101106 610209-06	ND	D	D	87
Method Blank	ND	ND	ND	86

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/26/06

Date Received: 10/13/06

Project: Penny Saver Market, 060103-001-01, F&BI 610209

Date Extracted: 10/23/06

Date Analyzed: 10/24/06 and 10/25/06

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE
XYLENES AND TPH AS GASOLINE
USING EPA METHOD 8021B AND NWTPH-Gx**

Results Reported as µg/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 52-124)
MW-5-101106 d 610209-01	330	3	9	12	1,500	110
Method Blank	<1	<1	<1	<3	<100	137 vo

d - The sample was diluted for benzene.

vo - The value reported fell outside the control limits established for this analyte.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/26/06

Date Received: 10/13/06

Project: Penny Saver Market, 060103-001-01, F&BI 610209

Date Extracted: 10/18/06

Date Analyzed: 10/20/06

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL
USING METHOD NWTPH-D_x
Extended to Include Motor Oil Range Compounds
Results Reported as µg/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Diesel Extended</u> (C ₁₀ -C ₃₆)	Surrogate <u>(% Recovery)</u> (Limit 68-143)
MW-5-101106 610209-01	2,300	96
Method Blank	<250	83

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-5-101106	Client:	Aspect Consulting
Date Received:	10/13/06	Project:	060103-001-01, F&BI 610209
Date Extracted:	10/16/06	Lab ID:	610209-01
Date Analyzed:	10/16/06	Data File:	610209-01.060
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower	Upper
Holmium	111	Limit:	Limit:
		60	125

Analyte:	Concentration
	ug/L (ppb)

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	NA	Project:	060103-001-01, F&BI 610209
Date Extracted:	10/16/06	Lab ID:	I6-406 mb
Date Analyzed:	10/16/06	Data File:	I6-406 mb.058
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower	Upper
Holmium	99	Limit:	Limit:
		60	125

Analyte:	Concentration
	ug/L (ppb)
Lead	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-5-101106	Client:	Aspect Consulting
Date Received:	10/13/06	Project:	060103-001-01, F&BI 610209
Date Extracted:	10/16/06	Lab ID:	610209-01
Date Analyzed:	10/16/06	Data File:	610209-01.054
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower	Upper
Holmium	107	Limit:	Limit:
		60	125

Analyte:	Concentration
	ug/L (ppb)

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	NA	Project:	060103-001-01, F&BI 610209
Date Extracted:	10/16/06	Lab ID:	I6-405 mb
Date Analyzed:	10/16/06	Data File:	I6-405 mb.032
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower	Upper
Holmium	99	Limit:	Limit:
		60	125

Analyte:	Concentration
	ug/L (ppb)

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.**ENVIRONMENTAL CHEMISTS**

Date of Report: 10/26/06

Date Received: 10/13/06

Project: Penny Saver Market, 060103-001-01, F&BI 610209

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER
SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 610202-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	µg/L (ppb)	<1	2	nm
Toluene	µg/L (ppb)	<1	<1	nm
Ethylbenzene	µg/L (ppb)	<1	<1	nm
Xylenes	µg/L (ppb)	<3	<3	nm
Gasoline	µg/L (ppb)	<100	110	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	µg/L (ppb)	50	94	69-119
Toluene	µg/L (ppb)	50	98	70-123
Ethylbenzene	µg/L (ppb)	50	102	78-112
Xylenes	µg/L (ppb)	150	100	74-112
Gasoline	µg/L (ppb)	1,000	120	63-129

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/26/06

Date Received: 10/13/06

Project: Penny Saver Market, 060103-001-01, F&BI 610209

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS
AS DIESEL EXTENDED
USING METHOD NWTPH-Dx**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	µg/L (ppb)	2,500	94	95	74-139	1

FRIEDMAN & BRUYA, INC.**ENVIRONMENTAL CHEMISTS**

Date of Report: 10/26/06

Date Received: 10/13/06

Project: Penny Saver Market, 060103-001-01, F&BI 610209

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF WATER SAMPLES
FOR DISSOLVED METALS BY EPA METHOD 200.8**

Laboratory Code: 610209-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	ug/L (ppb)	<1	<1	nm	0-20

Laboratory Code: 610209-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	ug/L (ppb)	10	<1	92	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	99	70-130

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.**ENVIRONMENTAL CHEMISTS**

Date of Report: 10/26/06

Date Received: 10/13/06

Project: Penny Saver Market, 060103-001-01, F&BI 610209

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS BY EPA METHOD 200.8**

Laboratory Code: 610234-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	ug/L (ppb)	<1	<1	nm	0-20

Laboratory Code: 610234-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	ug/L (ppb)	10	<1	106	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	104	70-130

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

610209

SAMPLE CHAIN OF CUSTODY

ME 10/13/06

V1/CO2/ATG

Send Report To John StrunkCompany Aspect ConsultingAddress 179 Madrone Lane NorthCity, State, ZIP Bainbridge Island, WA 98110Phone # (206) 780-9370 Fax # _____

SAMPLERS (signature) <u>Jenny M. Strunk</u>	
PROJECT NAME/NO. <u>Penny Saver Market</u> <u>060103-001-01</u>	PO #
REMARKS *TPH-HCIO samples do not have HCL * All dissolved metals must be lab filtered * TPH-HCIO Samples should be analyzed and archived	

Page # 1 of 1

TURNAROUND TIME

☒ Standard (2 Weeks)☐ RUSH

Rush charges authorized by: _____

SAMPLE DISPOSAL

☐ Dispose after 30 days☐ Return samples☒ Will call with instructions (Archive)

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED											Notes
						TPH-Diesel+Oil	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	Total + dissolved Lead	Nitrate, Sulfate, Alkalinity	Total + dissolved	Performs Iron	TPH-HCIO	
NW-5-101106	01A-F	10/11/06	9:30	GW	6	X	X	X				X	X	X			Natural Attenuation Lab Filter Metals
NW-2-101106	02A-B	10/11/06	10:25	GW	2											X	Analyze and Archive
NW-4-101106	03A-B	10/11/06	10:45	GW	2											X	"
NW-3-101106	04A-B	10/11/06	11:02	GW	2											X	"
NW-1-101106	05A-B	10/11/06	11:15	GW	2											X	"
NW-6-101106	06A-B	10/11/06	11:37	GW	2											X	"

Friedman & Bruya, Inc.
3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>Jenny M. Strunk</u>	<u>Serena M. Strunk</u>	<u>Aspect Consulting</u>	<u>10/11/06</u>	<u>13:10</u>
Received by: <u>M. Taylor</u>	<u>Nhan Phan</u>	<u>FeBI</u>	<u>10/13/06</u>	<u>10:45</u>
Relinquished by:				
Received by:				

Samples received at 7 °C



Analytical Resources, Incorporated
Analytical Chemists and Consultants

October 18, 2006

RECEIVED
OCT 20 2006

Mike Erdahl
Friedman & Bruya
3012 - 16th Avenue West
Seattle, WA 9819-2029

RE: Project: 610209 PO#H-555
ARI Job: KA92

Dear Mike,

Please find enclosed the original chain of custody records and analytical results for the samples from the project referenced above. Analytical Resources, Inc. accepted one water samples in good condition on October 13, 2006.

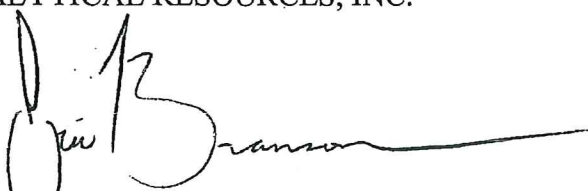
The samples were analyzed for Alkalinity, Nitrate, Sulfate, and Ferrous Iron, as requested.

All sample volume arrived unpreserved. ARI recommends collecting Ferrous Iron sample volume with HCl preservative. A portion was split off and preserved in-house. The portions for both the Ferrous Iron (24 hour) and Nitrate (48 hour) analyses were received out of holding. Though both Total and Dissolved Ferrous Iron were requested; ARI performs only a Total Dissolved Ferrous Iron test, since it detects soluble (in solution) Ferrous Iron.

There were no other analytical anomalies associated with these samples.

Quality control analysis results are included for your review. Copies of the reports and all associated raw data will be kept on file electronically at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,
ANALYTICAL RESOURCES, INC.


Eric Branson
Project Services
(206) 695-6213
www.arilabs.com

Enclosures

SAMPLE RESULTS-CONVENTIONALS
KA92-Friedman & Bruya



Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 10/18/06

Project: H-555
Event: 610209
Date Sampled: 10/11/06
Date Received: 10/13/06

Client ID: MW-5-101106
ARI ID: 06-19325 KA92A

Analyte	Date Batch	Method	Units	RL	Sample
Alkalinity	10/17/06 101706#2	SM 2320	mg/L CaCO3	1.0	618
Ferrous Iron	10/13/06 101306#2	SM3500 FeD	mg/L	0.040	1.65
N-Nitrate	10/13/06	Calculated	mg-N/L	0.010	< 0.010 U
N-Nitrite	10/13/06 101306#1	EPA 353.2	mg-N/L	0.010	< 0.010 U
Nitrate + Nitrite	10/13/06 101306#1	EPA 353.2	mg-N/L	0.010	< 0.010 U
Sulfate	10/18/06 101806#1	EPA 375.2	mg/L	2.0	11.6

RL Analytical reporting limit
U Undetected at reported detection limit

METHOD BLANK RESULTS-CONVENTIONALS
KA92-Friedman & Bruya

ANALYTICAL
RESOURCES
INCORPORATED 

Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 10/18/06

Project: H-555
Event: 610209
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	Blank
Ferrous Iron	SM3500 FeD	10/13/06	mg/L	< 0.040 U
N-Nitrite	EPA 353.2	10/13/06	mg-N/L	< 0.010 U
Nitrate + Nitrite	EPA 353.2	10/13/06	mg-N/L	< 0.010 U
Sulfate	EPA 375.2	10/18/06	mg/L	< 2.0 U

MS/MSD RESULTS-CONVENTIONALS
KA92-Friedman & Bruya



Matrix: Water
Data Release Authorized: 
Reported: 10/18/06

Project: H-555
Event: 610209
Date Sampled: 10/11/06
Date Received: 10/13/06

Analyte	Method	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: KA92A Client ID: MW-5-101106							
Ferrous Iron	SM3500 FeD	10/13/06	mg/L	1.65	2.05	0.400	100.0%
N-Nitrite	EPA 353.2	10/13/06	mg-N/L	< 0.010	0.500	0.500	100.0%
Nitrate + Nitrite	EPA 353.2	10/13/06	mg-N/L	< 0.010	0.505	0.500	101.0%
Sulfate	EPA 375.2	10/18/06	mg/L	11.6	26.7	20.0	75.5%

REPLICATE RESULTS-CONVENTIONALS
KA92-Friedman & Bruya

ANALYTICAL
RESOURCES
INCORPORATED

Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 10/18/06

Project: H-555
Event: 610209
Date Sampled: 10/11/06
Date Received: 10/13/06

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: KA92A Client ID: MW-5-101106						
Alkalinity	SM 2320	10/17/06	mg/L CaCO3	618	616	0.3%
Ferrous Iron	SM3500 FeD	10/13/06	mg/L	1.65	1.68	1.8%
N-Nitrite	EPA 353.2	10/13/06	mg-N/L	< 0.010	< 0.010	NA
Nitrate + Nitrite	EPA 353.2	10/13/06	mg-N/L	< 0.010	< 0.010	NA
Sulfate	EPA 375.2	10/18/06	mg/L	11.6	11.6	0.0%

LAB CONTROL RESULTS-CONVENTIONALS
KA92-Friedman & Bruya



Matrix: Water
Data Release Authorized: 
Reported: 10/18/06

Project: H-555
Event: 610209
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	LCS	Spike Added	Recovery
Ferrous Iron	SM3500 FeD	10/13/06	mg/L	0.742	0.800	92.8%

STANDARD REFERENCE RESULTS-CONVENTIONALS
KA92-Friedman & Bruya



Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 10/18/06

Project: H-555
Event: 610209
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Method	Date	Units	SRM	True Value	Recovery
N-Nitrite ERA #23034	EPA 353.2	10/13/06	mg-N/L	0.523	0.500	104.6%
Nitrate + Nitrite ERA #20034	EPA 353.2	10/13/06	mg-N/L	0.516	0.500	103.2%
Sulfate ERA #37065	EPA 375.2	10/18/06	mg/L	25.8	25.0	103.2%

LA92

SAMPLE CHAIN OF CUSTODY 13.6° 1a-yes

Send Report To Michael ErdahlCompany F&B

Address _____

City, State, ZIP _____

Phone # _____ Fax # _____

SAMPLERS (signature)

PROJECT NAME/NO.

PO #

REMARKS

* Please analyze ASAP 10/13/04

Page # _____ of _____

TURNAROUND TIME

☐ Standard (2 Weeks)☒ RUSH

Rush charges authorized by:

10/13/04

SAMPLE DISPOSAL

☐ Dispose after 30 days☐ Return samples☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED										Notes		
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	nitrate, sulfate, alkalinity	Total & Preserved Parameters Index					
MW-5-101106		10/11	9:30	W	2								X	X				* please lab filter samples for dissolved from

Friedman & Bruya, Inc.
3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE

Relinquished by:

Received by:

Relinquished by:

Received by:

PRINT NAME

COMPANY

DATE

TIME

Eric Young

BRIAN KENEL

FBI

ARL

10/13

10/13/04

1245

1450

Samples received at _____°C