Delivaring smarter solutions

August 2, 2004

Απολοπισο

Laura Miller Windermere Commercial 768 Garfield Street Seattle, WA 98109

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Re:

Results of Groundwater Sampling and Analysis 240 NW Weaver Road Property Bainbridge Island, Washington

17083-00

Dear Ms. Miller:

Edmonds

Hart Crowser is pleased to provide the results of our sampling and analysis of three groundwater monitoring wells for the subject property. Our proposal was to follow up on the results of strataprobe data collected by others (Robinson, Noble, and Saltbush, June 2004) in an effort to determine whether the subject property is contaminated with heavy

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Our report consists of the following sections:

- Summary of Findings and Conclusions;
- Scope of Work;
- Monitoring Well Installation and Development;
- Groundwater Sampling and Analysis;
- Analytical Results; and
- Limitations.

Figure 1 is a Vicinity Map showing the location of the subject property. A Site and Exploration Plan showing subject property features and strataprobe locations (B1 through B12) and monitoring well locations (MW-1 through MW-3) is presented on Figure 2. The water samples collected were submitted to and analyzed by Advanced Analytical Laboratory, and the laboratory data are presented in Appendix A.

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## Summary of Findings and Conclusions

The analytical results for the groundwater samples collected and analyzed from the three monitoring wells indicate groundwater at the subject property is not impacted by heavy metals. Lead was detected in only one well (MW-1) and was well below the MTCA Method A groundwater cleanup level. Chromium was not detected in any of the wells. Arsenic was detected in only one well (MW-3) and the concentration was only slightly above the MTCA Method A cleanup level of 0.005 mg/L. Combined with the earlier Phase I and Phase II Environmental Site Assessment conducted for the subject property, the data indicate there has not been a release of heavy metals at the subject property.

Note that the Phase II report indicated the groundwater was impacted with heavy metals, but this conclusion was based on strataprobe data. Groundwater samples collected from strataprobes usually contain fine particles, which can skew the total metal concentration in the sample. Groundwater samples collected from properly installed and developed wells are more representative of actual groundwater conditions.

#### Scope of Work

Our scope of work included:

- Installation of three monitoring wells (MW-1, MW-2, and MW-3);
- Development of three monitoring wells;
- Sampling the three wells for analysis of total and dissolved lead, chromium, and arsenic;
- Submitting samples to Advanced Analytical Laboratories for analyses; and
- Preparing a letter report summarizing our findings and conclusions.

# Monitoring Well Installation and Development

On July 28, 2004, Hart Crowser observed the installation of three monitoring wells on the subject property. The wells were located at the highest metal concentrations based on strataprobe testing results presented in the Phase II ESA performed by Robinson, Noble and Saltbush in June 2004. A licensed driller, Holt Drilling of Puyallup, WA, used a hollow-stem auger to install the wells. During installation of the wells, the soils were observed and were generally consistent with those described by Robinson, Noble and Saltbush. The area is overlain with 5 to 6 feet of fill material closer to the water and 2 to 3 feet of fill toward the



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north. Below the fill material, native material was encountered. The water table was about 3 feet below the surface.

Each of the wells were installed to a depth of about 10 feet and were constructed of 2-inch diameter threaded Schedule 40 PVC with 5 feet of screen (0.010 inch) placed across the water table.

The wells were developed by Hart Crowser on July 28, 2004, using accepted well development practices including purging 10 well volumes and monitoring groundwater parameters (pH, temperature, conductivity, and dissolved oxygen) until they stabilized.

### Groundwater Sampling and Analysis

On July 29, 2004, Hart Crowser sampled the three monitoring wells on the subject property for analysis of total and dissolved lead, chromium, and arsenic. Prior to sampling, three well volumes were purged. The wells were sampled using low-flow sampling techniques and a peristaltic pump. The groundwater samples were returned to Hart Crowser under chain of custody protocols and picked up by a representative from Advanced Analytical Environmental Testing Laboratory in Redmond, WA and delivered to its laboratory for analysis.

#### Analytical Results

Lead was detected in only one well (MW-1) at a concentration well below the MTCA Method A cleanup level. Chromium was not detected in any of the wells. Arsenic was detected in only one well (MW-3) at 0.008 mg/L, which is slightly above the MTCA Method A cleanup level. The low concentration of arsenic in MW-3 is probably equal to background levels of arsenic in groundwater in the area. To provide a frame of reference, the concentration of arsenic allowed in drinking water as established by the USEPA is 0.01 mg/L, which is greater than the concentration in MW-3. A summary of the analytical results for these samples is presented in Table 1. The laboratory Certificates of Analysis are presented in Appendix A.



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Table 1 - Summary of Analytical Data

Constituent		Concentration in mg/L								
	MTCA	MW-1		MW-2		MW-3				
	(Method A) Cleanup Level	Total	Dissolved	Total	Dissolved	Total	Dissolved			
Lead	0.015	0.003	0.002U	0.002U	0.002U	0.00211				
Chromium	0.05	0.01U	0.01U	0.01U		0.002U	0.002U			
Arsenic J = Not dete	0.005	0.005U	0.005U	0.005U	0.01U 0.005U	0.01U 0.008	0.01U 0.007			

U = Not detected at detection limit indicated

#### Limitations

Work for this project was performed, and this letter report prepared, in accordance with generally accepted professional practices for the nature and conditions of the work completed in the same or similar localities, at the time the work was performed. It is intended for the exclusive use of Windermere Commercial Realty, 768 Garfield Street, Seattle, WA, for specific application to the subject property. This report is not meant to represent a legal opinion. No other warranty, express or implied, is made.

If you have any questions, please do not hesitate to call Barry Kellems at (206) 324-9530.

Sincerely,

HART CROWSER, INC.

BARRY KELLEMS, P.E.

Principal Engineer

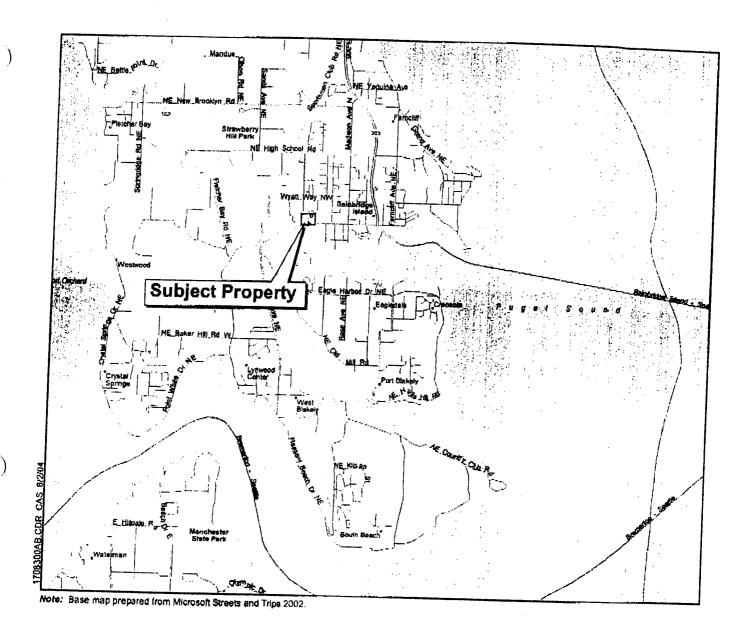
EVAN GRIFFITHS, PH.D., P.E.

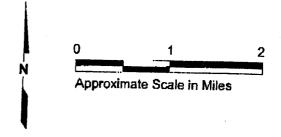
**Environmental Engineer** 

Figure 1 - Vicinity Map

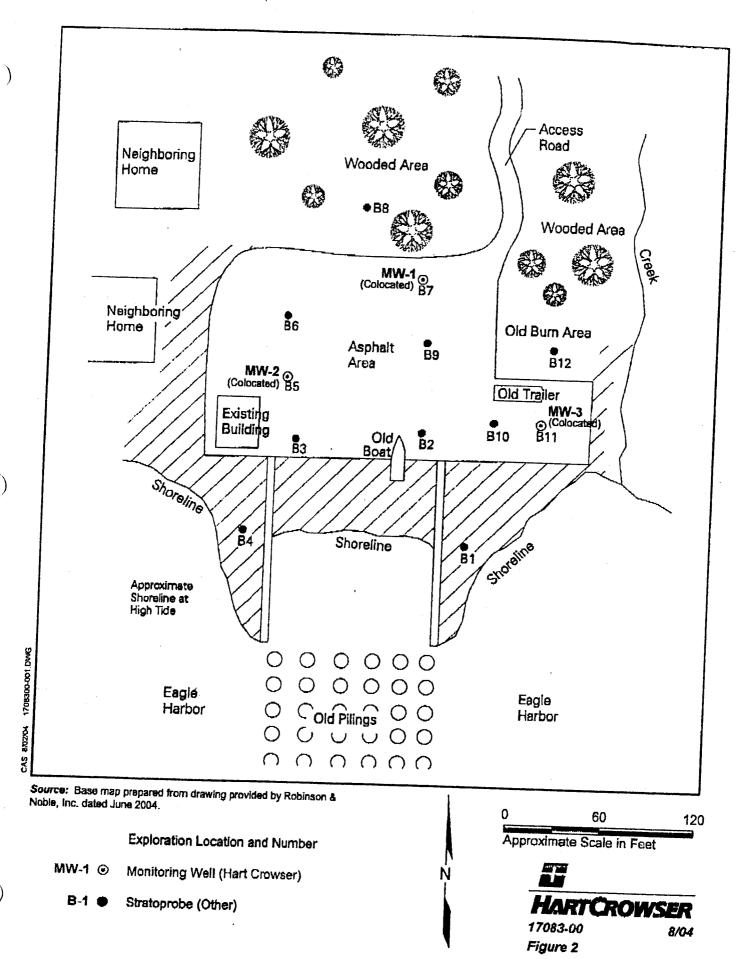
Figure 2 - Site and Exploration Plan

Appendix A - Certificates of Analysis Advanced Analytical Laboratory









APPENDIX A
CERTIFICATES OF ANALYSIS
ADVANCED ANALYTICAL LABORATORY

Advanced Analytical Laboratory (425) 497-0110, fax (425) 497-8089

AAL Job Number:

A40730-1

Client:

Hart Crowser, Inc.

Project Manager:

Evan Griffiths

Client Project Name: Client Project Number: Windermere Commercial

17083-00

Date received:

07/30/04

Analytical Results

Metals Total (7010), mg/l		MTH BLK	LCS	MW 0	MW 1	MW 2	1 1107 0
Matrix	Water	Water	Water	Water	Water	Water	MW 3
Date extracted	Reporting	07/30/04	07/30/04	07/30/04	07/30/04	07/30/04	Water
Date analyzed	Limits	07/30/04	07/30/04	07/30/04	07/30/04	07/30/04	07/30/04
Lead (Pb)	0.002	nd	72%	0.004	0.003	nd	
Chromium (Cr) Arsenic (As)	0.01	nd	107%	nd	nd	nd	nd nd
Ariganic (As)	0.005	nd	90%	0.009	nd	n <b>đ</b>	0.008

#### Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

J - estimated value

Acceptable Recovery limits: 70% TO 130%

Acceptable RPD limit: 30%

Advanced Analytical Laboratory (425) 497-0110, fax (425) 497-8089

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Client:

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Project Manager:

Evan Griffiths

Client Project Name:

Windermere Commercial

Client Project Number:

17083-00

Date received:

07/30/04

Analytical Results			Dupi
Metals Total (7010), mg/l		MTH BLK	MW 3
Matrix	Water	Water	Water
Date extracted	Reporting	07/30/04	07/30/04
Date analyzed	Limits	07/30/04	07/30/04
Lead (Pb)	0.002	· nd	nd
Chromium (Cr)	0.01	nd	nd
Arsenic (As)	0.005	nd	0.010

Data Qualifiers and Analytical Comments

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Date received:

07/30/04

Analytical Results

Metals Dissolved (7010), mg/l		MTH BLK	LCS	MW 0	MW 1	1.014.5	
Matrix	Water	Water	Water	Water	Water	MW 2	MW 3
Date extracted	Reporting	07/30/04	07/30/04	07/30/04	07/30/04	Water 07/30/04	Water
Date analyzed	Limits	07/30/04	07/30/04	07/30/04	07/30/04	07/30/04	07/30/04
Lead (Pb) Chromium (Cr)	0.002	nd	72%	nd	nd	nd	nd
Arsenic (As)	0.01 0.005	nd hd	107% 90%	· nd	<b>nd</b> nd	nd nd	nd 0.007

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Analytical Results			Dubl
Metals Dissolved (7010), mg/l		MTH BLK	E WM
Matrix	Water	Water	Water
Date extracted	Reporting	07/30/04	07/30/04
Date analyzed	Limits	07/30/04	07/30/04
Lead (Pb)	0.002	nd	nd
Chromium (Cr)	0.01	nd	nd
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J - estimated value

Acceptable Recovery limits: 70% TO 130%

Acceptable RPD limit; 30%

1910 Fairview Avenue, Eas: Seattle, Washington 98102-369s Phane: 206-324-9530 FAX: 206-328-558; Hart Crowser, Inc Mec / votice TOTAL NUMBER OF CONTAINERS COMPOSITING INSTRUCTIONS **OBSERVATIONS/COMMENTS/** AN JOVERNIGHT STANDARD SAMPLE RECEIPT INFORMATION I 1 WEEK SHIPMENT METHOD. JHAND OTHER 2 URNAROUND TIME 1/10 GOOD CONDITION INO. HNO3 HNU3 HNO3 CUSTODY SEALS: #1205 TEMPERATURE 24 HOURS - 48 HOURS 72 HOURS COURIER YES NO. OF CONTAINERS **HARTCROWSER** STORAGE LOCATION: REQUESTED ANALYSIS SPECIAL SHIPMENT HANDLING OR for Other Contract Requirements Gold to Sample Custochan STORAGE REQUIREMENTS: See Lab Work Order No. COOLER NO. Lab to Return White Copy to Hart Crowser #40730-1 MATRIX DATE DATE Commetuel GRIFFITIK A00 853 78 TIME F. HEWS FAILTY FLOO 38 857 RECEIVED BY 1361 7/29 RECEIVED BY Sal Jie Custody Record PRINT NAME SIGNATURE COMPANY /7083-00 LAB NUMBER Pink to Project Manager Samples Shipped to: SAMPLE ID : DESCRIPTION HART CROWSER CONTACT MW D W.d DATE DATE TIME たっか 1443 1743 MW 2 スプス なり White and Yellow Copies to Lab 312 PROJECT NAME RELINQUISHED BY RELINQUISHED BY SAMPLED BY: PRINT NAVIE SIGNATURE LAB NO. COMPANY SIGNATUR TOTAL P.01

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