VENVIRONMENTAL, LLC vernalee@qwest.net



September 26, 2005

Mr. Daniel Sosnovske Mountain West Senior Housing 3220 State Street, Suite 200 Salem, Oregon 97301

SUBJECT: LIMITED SUBSURFACE SOIL INVESTIGATION REPORT MWI East Wenatchee Near the intersection of Sunset Hwy N & 29th Street NW

Dear Mr. Sosnovske,

V Environmental LLC (VE) completed a Limited Subsurface Soil Investigation at the property located near the intersection of Sunset Hwy N and 29th Street NW in East Wenatchee, Washington. This letter report summarizes the investigative methods and observations and includes a discussion of the findings.

INTRODUCTION

V Environmental LLC (VE) completed a Limited Subsurface Soil Investigation on property located near the intersection of Sunset Hwy N and 29th Street NW in East Wenatchee, Washington on September 5, 2005.

The location of the subject property (herein referred to as "Site") is shown in Figure 1, Site Location Map. The investigation consisted of subsurface exploration using a hand auger. Borehole locations are shown in Figure 2, Borehole Location Map. This work was authorized and conducted on behalf of Mountain West Investment in accordance with VE's proposal, with one exception, dated September 2, 2005. The proposal identified the depth to sample at five feet. Further review with the Washington State Department of Ecology and prior sampling experience suggested that depth to sample should be no more than $3\frac{1}{2}$ feet. Samples were collected at depths from surface to between 3 and $3\frac{1}{2}$ feet below ground surface except for the sample collected from under the diesel above ground storage tank, which was sampled at a depth of approximately 5 feet below ground surface.

BACKGROUND

V Environmental (VE) completed a Phase One ESA of the site on August 24, 2004. The Phase One ESA revealed three recognized environmental concerns (RECs): a diesel aboveground storage tank (AST), the pesticide rinse/mix area, and the orchard soils themselves.

The subject site is in an already-identified Area-Wide Contamination Zone for lead and arsenic as a result of widespread historical commercial orchard land use. On August 18, 2005, VE discussed the site with Mr. Norm Hepner, Washington State Department of Ecology (Ecology). Based on that conversation and with Ecology direction, VE collected soil samples from the surface to 3½ feet below ground surface (bgs) in the least disturbed portion of the orchard and submitted them for laboratory analysis for organochlorides, lead and arsenic. (

Based on information obtained during the Phase One ESA, VE determined that the east half of the orchard along Sunset Hwy N represented the least disturbed portion of the site. According to a conversation with the adjacent property owner, the slope of the western half of the property has been reduced within the past 10 years by pushing soils from the middle of the orchard toward the west. The orchard was then replanted.

Scientific studies of the typical physical and chemical characteristics of orchard pesticides suggest that the chemicals are hydrophobic and have a tendency to adsorb to soil and organic particles. Also, metals such as arsenic and lead typically adsorb to soil particles and tend to remain localized. This suggests that potential concentrations of organochlorides as well as lead and arsenic would most likely be found within the top few feet of the soil columns.

Following discussions with Mountain West Investments and Ecology, VE submitted a proposal to conduct this Limited Subsurface Soil Investigation.

PROJECT OBJECTIVES

The objective of the Limited Subsurface Soil Investigation was to ascertain whether potential contaminants identified in the earlier Phase One ESA are present in site soils in concentrations greater than Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels.

A detailed description of VE field procedures is presented in Appendix A, Standard Project Methods and Practices.

INVESTIGATION METHODS AND OBSERVATIONS

This section provides a summary of project field methods and observations made during the subsurface investigation of the Site. Additional detail on general project methodologies is provided in Appendix A.

SOIL BORING AND SAMPLING

On September 5, 2005, ten boreholes (B-1 through B-10) were advanced using a 6-foot hand auger. Samples were collected from the surface to approximately 3½ feet below ground surface. One borehole was advanced near the pesticide rinse/mix area, one borehole was advanced at the south end of the AST and the remaining boreholes were advanced in the eastern portion of the orchard. A soil sample was collected from approximately five feet below ground surface near the AST.

The locations of the borings were based on the following:

- One downgradient of the rinse/mix area;
- One underneath the diesel dispenser;
- Eight borings spaced somewhat equidistant in the least disturbed portion of the orchard.

Soils were visually classifieds in accordance with the Unified Soil Classification System (USCS) and assessed for chemical odors and staining. Observations, along with other relevant geologic and hydrologic conditions encountered during drilling, were recorded on borehole logs, copies of which are presented in Appendix B.

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Soil samples were placed in sterile glass jars labeled with borehole number, date, VE project number, and required analyses. Filled sample containers were placed immediately in a chilled ice chest and stored there until delivered to the project laboratory.

LABORATORY ANALYSIS

Selected soil samples were submitted under chain-of-custody protocol to Friedman Bruya in Seattle, Washington, for chemical analysis. A copy of the chain-of-custody form and laboratory-prepared analytical reports are provided in Appendix C. Results are discussed in terms of MTCA Method A and Method B in the following section of this letter report.

A total of ten soil samples were selected for analysis for various parameters. One was selected for analysis for petroleum hydrocarbons and nine were selected for analysis for organochlorides, arsenic and lead. The following table shows the laboratory results. Composited samples from Borings 3-6 and from Borings 7-10 were composited at the laboratory. The composite laboratory sample result was multiplied by a dilution factor of four since soils from four borings were composited.

Laboratory analysis for organochlorides indicated the presence of both DDT and DDE in the soils. Using the CLARC (Cleanup and Risk Calculation Database) on Ecology's website, VE calculated the Method B cleanup level for DDT and DDE at 3 mg/kg.

S1 Rinse/mix area	S2 Under dispenser	S3 Composite-B3/4/5/6	S4 Composite-B7/8/9/10	MTCA Cleanup Levels
0.049 mg/kg	NA	0.136 mg/kg	0.140 mg/kg	Method B-3 mg/kg
NA	<50	NÁ	NA	Method A 2,000 mg/kg
5.1	NA	24.4	19.6	Method A 250 mg/kg
<7.0	NA	80	84	Method A 20 mg/kg
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Table 1. Laboratory analysis results for soil samples.

NA=Not Analyzed

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Numbers in bold indicate concentrations greater than MTCA Cleanup Levels.

CONCLUSIONS

Based upon the information developed during this investigation, it appears organochloride pesticide residual is present in concentrations less than MTCA Method B cleanup levels in the shallow soils of the subject site. VE calculated the Method B cleanup level using the CLARC worksheet on Ecology's website. Although less than the Method B calculated cleanup level, the presence of organochlorides in site soils confirms pesticide/herbicide impact to the subject site. Additionally, laboratory analytical results indicate the presence of arsenic in concentrations greater than MTCA Method A Soil Cleanup Levels. Further investigation may be warranted if greater confidence is required regarding the current condition of soil on the subject property. Decision-making authority with regard to further environmental investigations is the sole decision of Mountain West Senior Housing and is dependent upon the Mountain West Senior Housing risk tolerance.

The findings and conclusions documented in this report have been prepared for the specific application to this project and have been developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar Mountain West Senior Housing September 26, 2005 Page 4

conditions in the area. A potential always remains for the presence of unknown, unidentified, or unforeseen subsurface contamination on portions of the property not sampled. Groundwater was not sampled during this investigation.

If new information is developed in future site work (which may include excavations, additional borings, or other studies), VE should be contracted to reevaluate the interpretations in this report, and to provide amendments as required.

No warranty, expressed or implied, is made. This report is for the exclusive use of the Mountain West Senior Housing and its representatives.

Respectfully,

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V Environmental, LLC

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Verna Lee Téller, MSES Principal Project Scientist

Attachments: Site Location Map Borehole Location Map Appendix A: Standard Project Methods and Practices Appendix B: Borehole Logs Appendix C: Laboratory Reports

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APPENDIX A

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Standard Project Methods and Practices

STANDARD PROJECT METHODS AND PRACTICES

A.1 HEALTH AND SAFETY PLAN

As part of the investigation, VE prepared a project-specific Health and Safety Plan (HASP) in accordance with Chapter 296-62 of the Washington Administrative Code (WAC) and 29 CFR 1910.120 (Code of Federal Regulations). The HASP identified potential physical and chemical hazards associated with the investigation, and specified requirements regarding personal protection and safety monitoring protocols.

A.2 UTILITY LOCATES

VE concluded, based on personal interviews with the current owner, that no utilities were located within the orchard.

A.3 SAMPLE COLLECTION AND HANDLING PROCEDURES

A.4.1 Soil Samples

Soil was collected from the endpoint of a 2-inch hand auger and placed into sterile 8-ounce glass sample jars. Each soil sample container was labeled and recorded on the Chain-of-Custody form. All samples were placed immediately into a chilled cooler maintained at 4 degrees Centigrade or lower, where they were stored until delivered to the project laboratory.

All Sampling equipment was decontaminated between boreholes

A.4 EQUIPMENT DECONTAMINATION AND WASTE HANDLING

Field equipment decontamination procedures are intended to prevent cross-contamination from one boring to another and from one sample to another. Non-expendable boring and sampling equipment was thoroughly cleaned between each use.

Before and after each use, all down-hole equipment was washed in an aqueous solution of cleanser, and then rinsed with distilled or de-ionized water.

All potentially dangerous wastes, including gloves wash water were transported offsite for disposal.

A.5 FIELD DOCUMENTATION

Physical parameters were documented throughout the project. Documentation included field notebooks, boring logs, sampling field data sheets, Chain-of-Custody forms, and sample labels. Each of the forms of documentation is described in detail below.

A.6.1 Field Documentation

Field data recorded at the time of sample collection provides an unambiguous record of each sample. Recorded field data included the following, as appropriate:

- Date of entry;
- Purpose of sampling;

Limited Subsurface Soil Investigation Near Intersection of Sunset Hwy N & 29th Street NW East Wenatchee, Washington

- Description of sample(s);
- Number and size of sample(s) taken;
- Description of sampling point(s);
- Date and time of sample collection;
- Sample identification number(s);
- References, such as maps or photographs of the site;
- Written notes of field observations; and
- Any field measurements, such as pH, temperature, or resistance to penetration.

Field notes were as descriptive and as inclusive as possible; allowing independent parties to reconstruct sampling particulars from the recorded information. Language was objective, factual, and free of inappropriate terminology. Field personnel logged and signed data entries. All field documentation was retained and filed by VE.

A.6.2 Boring Logs

A written log was compiled for each boring. Each log includes descriptions of lithologies, textures, grain sizes, colors, hardness, moisture, and other properties noted in the field. Soil types were classified using the Unified Soil Classification System.

A.6.3 Chain-of-Custody Form

The Chain-of-Custody documents created whenever samples are collected, transferred, stored, analyzed, and destroyed are designed to create an accurate record of the possession and disposition of samples. Chain-of-Custody records can be used to trace the possession and handling of a sample from the moment of its collection through analysis and reporting of analytical values. On this project, a VE' project scientist entered standard sample information on the project Chain-of-Custody form at the time each sample was collected.

The project Chain-of-Custody form included information regarding the site name, sample identification numbers (assigned by the sampler in the field), sample date(s), sample location(s), and the type of analysis required. Whenever the sample(s) were transferred from one party to another, both parties signed the Chain-of-Custody form and recorded the date and time of the transfer. The Chain-of-Custody form accompanied the samples through all custodial entities until received by the project laboratory, where the form is filed.

A.6.4 Sample Labels

Sample labels were filled out and affixed to appropriate containers at the time of sample collection. Each label was completed with indelible ink and included information regarding the VE project number and name, sample ID number, sample location, date of collection, analyte preservative(s), if any, and the sampler's initials.

A.6 ANALYTICAL LABORATORY TESTING PROGRAM

Samples intended for chemical analysis were submitted to Friedman Bruya of Seattle, Washington under chain-of-custody protocol. All samples were contained, handled, and analyzed in accordance with accepted U.S. Environmental Protection Agency (EPA) and/or Washington State Department of Ecology protocols.

A.7.1 Laboratory Reporting

Results from laboratory analyses are reported on Laboratory Data Sheets. The summary sheets present information including the sample date, sample identification numbers, and results of analyses. The laboratory manager or supervisor signs the data sheets.

Prior to reporting the analytical data, the data was reviewed and verified by the project chemist. The purpose of this review was to verify the following:

- All blanks, duplicates, and matrix and surrogate spike recoveries were within the quality.
- Acceptance limits and all instrument calibrations were acceptable.
- All computations were performed correctly, and all sample results were correctly identified and reported. The analytical laboratory's project manager performs this review.

A.7.2 Laboratory Quality Assurance and Quality Control

The project laboratory was capable of performing analyses in accordance with the Federal Safe Drinking Water Act and Ecology regulations. In addition, the laboratory is accredited by Ecology for hazardous materials analysis. A copy of the laboratory's QA/QC manual and accreditation certificate are available for review upon request. Laboratory data quality was verified based on independent review by qualified SES personnel.

A.7 PROJECT REPORT QUALITY ASSURANCE

The quality of this report was assured through technical review of the report and other project deliverables by peers and VE principals. Individual sections of the report were reviewed by professionals with relevant technical expertise to ensure that data, technical issues, and regulatory interpretations are accurate and applicable.

APPENDIX B Borehole Logs

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Geologic interpretation:

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APPENDIX C Laboratory Analytical

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Date of Report: 09/16/05 Date Received: 09/06/05 Project: 214-1-1 Date Extracted: 09/07/05 Date Analyzed: 09/08/05

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING METHOD NWTPH-Dx Extended to Include Motor Oil Range Compounds Results Reported on a Dry Weight Basis Results Reported as µg/g (ppm)

Sample ID Laboratory ID S2 509038-02	<u>Diesel Range</u> (C10-C25) <50	<u>TRPH</u> (C10-C36) <250	Surrogate <u>(% Recovery)</u> (Limit 67-131) 112
Method Blank	<50	<250	114

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ORGANICS ANALYSIS DATA SHEET Pasticides/PCB by QU/SCD Method SW6081A Page 1 of 1

Lab Sample ID: IMS1A LIMS ID: 05-15420 Matrix: Soil Data Release Authorized: Reported: 09/16/05

Date Extracted: 09/14/05 Date Analyzed: 09/15/05 21:06 Instrument/Analyst: \$CD3/YZ GPC Cleanup: No Sulfur Cleanup: Yes Florisil Cleanup: No SAMPLE QC Report No: IMB1-Friedman & Bruya Project: G-675 509033 Date Sampled: 09/05/05 Date Received: 09/07/05 Sample Amount: 10.4 g-dry-wt

Sample ID: S1

ANALYTICAL RESOURCES

Final Extract Volume: 4.0 mL Dilution Factor: 1.00 Silica Gel: Yes pH: 7.2 Fercent Moisture: 13.4%

CAS Number	Analyte	RL	Regult
319-84-6	alpha-BHC	1.9	< 1.9 U
	beta-BHC	1.9	< 1,9 U
319-85-7	delta-BEC	1.9	< 1.9 U
319-25-2	gamma-BHC (Lindane)	1.9	< 1.9 U
58-89-9	Heptachlor	1,9	< 1.9 V
76-44-8		5.2	< 1.9 U
309-00-2	Aldrin	1.9	e 1.9 U
1024-57-3	Heptachlor Spoxide	1,9	< 1.9 U
959-98-8	Endogulfan I	3,8	< 3.8 V
60-57-1	Dieldrin		17 8
72-55-9	4,4'-DDZ	3.8	
72-20-8	Endrin	3.8	< 3,8 U
33213-65-9	Endçeulfan II	3.8	< 3.8 U
72-54-8	4,4'-DDD	3.8	< 3.8 U
1031-07-8	Endosulfan Sulfate	3.9	~ 3.8 U
50-29-3	4,4'-DDT	3.8	32
	Methoxychlor	19	< 19 Ŭ
72-43-5	Endrin Ketone	3.8	< 3.5 U
53494-70-5	Endrin Aldehyde	3.8	< 3,8 U
7422-93-4	BINIT IN Admenyat	2.9	< 1.9 U
5103-74-2	gamma Chlordane	1.9	< 1.9 U
5103-71-9	alpha Chlordane	190	< 190 U
8001-35-2	Toxaphene	***	

Reported in ug/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	93.5*
Tetrachlorometaxylene	58.0¥

ANALYTICAL RESOURCES

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ANALYTICAL RESOURCES

ORGANICS ANALYSIS DATA SHEET Pesticides/PCB by GC/SCD Mathod BW\$081A Page 1 of 1

Lab Sample ID: IM81B LINS ID: 05-15421 Matrix: Soil Data Release Authorized: Reported: 09/15/05

Date Extracted: 09/14/05 Date Analyzed: 09/15/05 21:30 Instrument/Analyst: ECD3/YZ OFC Cleanup: No Sulfur Cleanup: Yes Florisil Cleanup: No A Eample ID: \$3/84/65/56 SAMPLE QC Report No: IM31-Friedman & Bruya Project: Q-676 509033 Date Sampled: C9/05/55 Date Received: 09/07/05 Sample Amount: 10.4 g-dry-wt Final Extract Volume: 4.0 mL Dilution Factor: 1.00 Silica Gel: Yes pH: 7.7

Percent Moisture: 13.6%

CAS Number	Anelyte	RL	Result
319-84-6	alpha-BHC	1.9	< 1.9 V
319-85-7	beta-BHC	1.9	- 1,9 V
319-86-8	delta-BHC	1,9	< 1.9 V
58-89-9	gamma BHC (Lindane)	1.9	- 1.9 U
	Heptachlor	1.9	< 1.9 U
75-44-8	Aldrin	1.9	< 1.9 U
309-00-2	Neptachlor Spoxide	1.9	< 1,9 V
1024-57-3	Endosulfan I	1,9	< 1,9 U
959-98-8	RUGOSVIIAN I	3.9	< 3,8 V
60-57-1	Dieldrin	3.9	14
72-55-9	4,4'-DDB	3.9	3 S U
72-20-8	Endrin	3.9	< 3.8 U
33213-65-9	Bndosulfan II	3.9	< 3.8 0
72-54-8	4,4'-DDD	3.9	< 3.8 U
1031-07-8	Endosulfan Sulfate	3.9	20
50-29-3	4,4 * ~ DDT		c 19 U
72-43-5	Methoxychlor	7.9	< 3.8 V
53494-70-5	Endrin Ketone	3.9	
7421-93-4	Endrin Aldehyde	3.9	< 3.8 Ŭ
5103-74-2	gamma Chlordane	1.9	< 1.9 V
5103-71-9	alpha Chlordane	1.9	< 1.9 U
8001-35-2	Toxaphene	190	e 190 U

Reported in µg/kg (ppb)

Pest/PCB Surrogata Racovery

Decachlorobiphenyl	87.28
DECHCHTON Through	86.65
Tetrachlorometaxylene	70.2%

ANALYTICAL RESOURCES

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ORGANICS ANALYSIS DATA SERVIT Penticides/FCB by QC/MCD Method SW8081A Page 1 of 1

Lab Sample ID: IMSIC LIMA ID: 05-15422 Matrix: Soil Data Release Authorized: Ø Reported: 09/16/05

Date Extracted: 09/14/05 Date Analyzed: 09/15/05 22:10 Instrument/Analyst: ECD3/YZ GEG Cleanup: NO Sulfur Cleanup: Yes Florisil Cleanup: No

QC Report No: IM81-Friedman & Bruya Project: G-676 509033 Date Sampled: 09/05/05 Date Received: 09/07/05 Sample Amount: 10.9 g-dry-wt Final Extract Volume: 4.0 mL Dilution Factor: 1.00

Sample ID: 37/\$8/99/510

SAMPLE

Silica Gel: Yes pH: 7.0

Percent Moisture: 9.2%

CAS Number	Analyte	RL	Regult
319-84-6	alpha-BHC	<u>д.8</u>	< 1.8 U
319-85-7	beta-BHC	1.8	< 1.8 U
319-86-8	delta-BHC	1.8	< 1.8 U
58-89-9	gamma-BHC (Lindsne)	1 · B	< 1.8 U
76-44-8	Heptachlor	1.8	< 1.8 U
309-00-2	Aldrin	1,8	< 1.8 U
1024-17-3	Heptachlor Epoxide	1.8	< 1.8 U
969-98-8	Endoeulfan I	1,8	- 1.8 V
	Dieldrin	3.7	< 3,7 U
60-57-1	4,4'+>>>	3.7	1,9
72-55-9	5ndrin	3.7	< 3.7 U
72-20-8	Endoaulfan II	3.7	< 3.7 U
33213-65-9		3,7	< 3.7 U
72-54-8	4,4'-DDD	3.7	< 3.7 U
1031-07-8	Endosulfan Sulfata	3.7	16
50-29-3	4,4t-DDT	18	< 18 U
72-43-5	Methoxychlor	•	< 3,7 Ū
53494-70-5	Endrin Ketone	3.7	< 3,7 U
7421-93-4	Endrin Aldehyde	3.7	< 1.8 U
5103-74-2	gamma Chlordane	1.8	
9103-71-9	alpha Chlordane	1.8	< 1.8 U
8001-35-2	Toxaphene	180	< 180 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Seconary

Decachlorobiphenyl	93.0%
Tetrachlorometaxylene	74.01



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ANALYTICAL RESOURCES

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ORGANICS ANALYSIS DATA SHEET Pesticides/PCB by GC/ECD Method SW8081A Page 1 of 1

Lab Sample ID: MB-091405 LIMS ID: 05-15420 Matrix: Soil Data Release Authorized: Reported: 09/15/05

09/15/2005 14:23

Date Extracted: 09/14/05 Date Analyzed: 09/15/05 20:01 Instrument/Analyst: ECD3/YZ GPC Cleanup: No Sulfur Cleanup: Yes Florisil Cleanup: No



Percent Moiscure: NA

CAS Number	Analyte	RL	Regult
319-84-6	alpha-BHC	1.7	< 1.7 V
319-85-7	bere-BHC	1.7	< 1.7 U
319-86-8	delta-BHC	1.7	< 1.7 U
58-89-9	gamma-BHC (Lindane)	1.7	< 1.7 U
75-44-8	Heptachlor	1.7	< 1.7 U
309-00-2	Aldrin	1.7	< 1.7 U
1024-57-3	Heptachlor Epoxide	1.7	< 1.7 Ų
959-98-8	Endosulfan I	1.7	< 1.7 U
60-57-1	Dieldrin	3.3	< 3.3 U
72-55-9	4.4'-DDE	3.3	< 3.3 U
72-20-8	Endrig	3.3	< 3.3 V
33213-65-9	Endosulfan II	3.3	< 3.3 U
72-54-8	4,4'-DDD	3.3	< 3.3 U
1031-07-8	Endoaulfan Sulfate	3.3	< 3.3 U
50-29-3	4,4'-DDT	3.3	< 3.3 U
72-43-5	Methoxychlor	17	< 17 U
53494-70-5	Endrin Ketone	3.3	< 3.3 U
7421-93-4	Endrin Aldehyde	3.3	< 3.3 U
5103-74-2	gamma Chlordane	1.7	- 1.7 0
5103-71-9	alpha Chlordane	1.7	< 1.7 U
8001-35-2	Toxaphene	170	~ 170 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobipheny1	90.5%
Tetrachlorowetaxylene	76.04



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.

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

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Date of Report: 09/26/05 Date Received: 09/06/05 Project: 214-1-1 Date Extracted: 09/26/05 Date Analyzed: 09/26/05

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS BY EPA METHOD 6010 Results Reported on a Dry Weight Basis Results Reported as µg/g (ppm)

<u>Sample ID</u> Laboratory ID	<u>Arsenic</u>	Lead
S1 509033-01	<7.0	5.1
S3/S4/S5/S6 509088-03/04/05/06	20	6.1
\$7/\$8/\$9/\$10 509023-00/08/09/10	21	4.9
Method Blank	<7.0	<2.0

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

DATE: 9/26/05 TO: Verne Teller COMPANY: V Environnel PROJECT ID: FAX #: (505) 482, 7955
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