



**Phase I Environmental Site Assessment**  
**For:**  
***Wilson Property***  
***(Okanogan County Parcel Numbers 3627161002,***  
***3627161004, 3627161005, 3627161006, 3627162003 & 3627162004)***  
***Okanogan County, Washington***

**Addendum 1**

December 2011

Prepared for:

Mr. Shawn Kyes  
Chief Appraiser, Real Estate Services  
Washington Department of Fish and Wildlife  
600 Capitol Way N  
Olympia, WA 98501-1091

Prepared by:

Columbia Environmental Sciences, Inc.  
6503 W. Okanogan Ave., Suite C  
Kennewick, WA 99336  
(509) 783-5571 (voice)  
(509) 783-7938 (facsimile)



**Phase I Environmental Site Assessment**  
**For:**  
***Wilson Property***  
***(Okanogan County Parcel Numbers 3627161002,***  
***3627161004, 3627161005, 3627161006, 3627162003 & 3627162004)***  
***Okanogan County, Washington***

**Addendum 1**

December 2011

Prepared for:

Mr. Shawn Kyes  
Chief Appraiser, Real Estate Services  
Washington Department of Fish and Wildlife  
600 Capitol Way N  
Olympia, WA 98501-1091

Prepared by:

Columbia Environmental Sciences, Inc.  
6503 W. Okanogan Ave., Suite C  
Kennewick, WA 99336  
(509) 783-5571 (voice)  
(509) 783-7938 (facsimile)

## Introduction

A Phase I Environmental Site Assessment (ESA) was conducted by Columbia Environmental Sciences, Inc. (CESI) for the property referred to as the Wilson Property (the "Property") for the purposes of this report during November 2011.

The ESA identified recognized environmental conditions, as defined by ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property (Designation E 2247-08), associated with the Property.

The recognized environmental conditions included:

- Several containers were observed on the Property; namely in the vicinity of the pesticide shed (north of the orchard), in the bone yard area, and in the shop area (northeast of the Wilson residence). The containers ranged in size from about a quart to 55-gallon drums. Some of the containers have labels indicating petroleum-based products, insecticides or herbicides. Some of the containers appeared to be empty; several did not. At least two drums were observed that had unknown contents and no label. None of the containers were secondarily contained. Several of the containers were either directly on the ground surface or stored rather haphazardly and some of the drums were partially buried.
- Several above ground storage tanks (AST's) were observed on the Property; namely in the vicinity of the pesticide shed, in the bone yard area, and in the shop area. None of the tanks were labeled or secondarily contained. Most of the tanks observed were in the bone yard area. A few of the tanks appeared to have liquid contents, most likely petroleum products.
- Some soil staining that appeared to be oil-based was observed in the vicinity of the pesticide shed and the small shop building near the bone yard. The staining appeared to be surficial in nature and not extensive.
- There is a bone yard on Parcel No. 3627161004 of the Property. Multiple vehicles, drums, tanks, tires, batteries and other discarded items were observed in this area. Evidence of burning and burying of discarded materials was also observed in this area. Some of the items appear to have been partially buried by gravel from a recent flash flood (2010) while several other areas appear to be sites of intentional burying. Neither the content nor extent of the buried materials could be determined from visual observation.

De minimis conditions observed on the subject property include:

- A strong rodent odor, mouse droppings and nesting materials were observed in the pesticide shed on the Property. There is the potential for exposure to Hantavirus for anyone cleaning up the small, enclosed space. Hantavirus is the cause of Hantavirus Pulmonary Syndrome (HPS), a potentially life-threatening disease in humans.

Recommendations for the Property included:

- Removal and proper disposal of all tanks, containers, tires, batteries, vehicles and other equipment, that are not regularly used on the premises, that could potentially pose an environmental risk to the Property from the bone yard and adjacent shop area.



- Proper labeling and storage of all containers containing petroleum based products or hazardous substances that are regularly used on the premises. All batteries, tanks, drums, buckets and smaller containers that contain petroleum products or hazardous substances should be either secondarily contained or stored in a manner that prevents the likelihood of contact with the ground surface should a spill or leak occur.
- Excavation of all potential burial sites in the bone yard area to assess, remove and properly dispose of the materials contained therein.
- Soil sampling of any and all excavations that present evidence of potential contamination from petroleum products or other hazardous substances to determine the extent of any contamination discovered.
- Use of a properly fitted air-purifying respirator (APR) with N-100 cartridges for anyone undertaking cleanup of the small pesticide shed to prevent inhalation of dust potentially carrying the hantavirus.

### **Cleanup Measures Applied**

CESI was informed by WDFW in December 2011 that the owner of the Property, Mr. Henry Wilson, had taken measures to address the recognized environmental conditions associated with the pesticide shed that were identified in the ESA. Mr. Wilson had reportedly physically removed the pesticide shed from the site, and had removed all associated containers and oil stained soils in or around that area.

### **Evaluation of Cleanup Measures**

Deborah Phipps of CESI inspected the pesticide shed area of the Property on December 13, 2011 to evaluate the effectiveness of the cleanup measures taken by Mr. Wilson. The pesticide shed, all containers (including an AST previously staged along the south side of the shed), the orchard heater, and the concrete pad have all been removed from the area. Current photographs of the area are included as Attachment 1. It appears that the soil staining noted during the ESA was surficial in nature and has been removed from the site as well.

Soil sample WDFW894-01 was collected from the approximate location of the previously noted soil staining. The sample was collected from beneath the loose soil, at a depth of about eight inches. No staining or odor was noted in the area. The soil sample was recorded on a Chain-of-Custody form and placed on ice for transport back to Kennewick, WA. The sample was shipped via FedEx the following day to Friedman & Bruya, Inc. for analysis. The sample was analyzed for diesel and petroleum-based oils using method NWTPH-Dx. The analytical results (Attachment 2) revealed no detectable amounts of diesel or petroleum-based oil in the sample.

### **Conclusion**

Based upon visual observation and the analytical results from the soil sample collected we conclude that there are no longer any recognized environmental conditions present on the Property in association with the area located to the north of the orchard and previously referred to as the pesticide shed area.

**Columbia Environmental Sciences, Inc.**

Deborah Phipps, Environmental Professional

*Deborah Phipps*

*30 Dec 2011*

Signature

Date

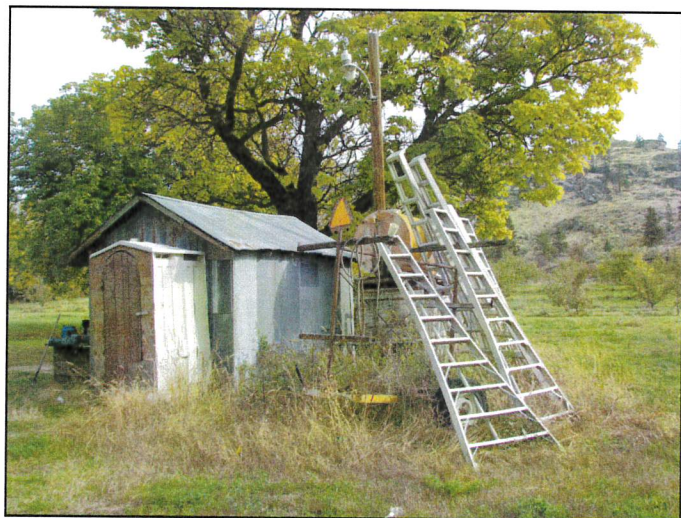




**Photo F-1:** View to the south showing the orchard heater, concrete pad and soil staining that was observed during the ESA site walk in November 2011.



**Photo F-2:** View to the south of a workbench area and containers observed along the north wall of the pesticide shed in November 2011.



**Photo F-3:** View to the northeast of the pesticide shed area taken in November 2011.



**Photo F-4:** View to the south showing the current condition of the area. All associated structures, containers, the AST and even the concrete pad have been removed from the area.



**Photo F-5:** View to the north looking across the area where the pesticide shed was previously located.

## **Attachment 2**



FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
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  
e-mail: fbi@isomedia.com

December 20, 2011

Deborah Phipps, Project Manager  
Columbia Environmental Sciences, Inc.  
6503 W Okanogan Ave., Suite C  
Kennewick, WA 99336

Dear Ms. Phipps:

Included are the results from the testing of material submitted on December 15, 2011 from the Proj. No. 894, F&BI 112212 project. There are 4 pages included in this report. 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
COL1220R.DOC

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on December 15, 2011 by Friedman & Bruya, Inc. from the Columbia Environmental Sciences Proj. No. 894, F&BI 112212 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID  
112212 -01

Columbia Environmental Sciences  
WDFW894-01

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/20/11  
Date Received: 12/15/11  
Project: Proj. No. 894, F&BI 112212  
Date Extracted: 12/16/11  
Date Analyzed: 12/16/11

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis  
Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
WDFW894-01 112212-01	<50	<250	95
Method Blank 01-2229 MB	<50	<250	98



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 - More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

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

pc - The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr - The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

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

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.





