SUBSURFACE SOIL INVESTIGATION REPORT
FOLLOW-UP TO SITE SUMMARY REPORT
DATED FEBRUARY 15, 2007

Investco/Looney Site
1147 Dock Street
Tacoma, Washington

September 14, 2007

Prepared for:

Federal Asset Recovery, Inc.
PO Box 1435
Tacoma, Washington 98401

Prepared by:

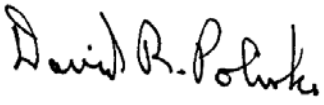
V Environmental LLC
PO Box 13513
Des Moines, Washington 98198

Prepared by:



Verna Lee Curry, MSES
Principal Project Scientist

Reviewed by:



David R. Polivka P.G./P.H.G.
Environmental Services Manager

V Environmental

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EXECUTIVE SUMMARY

V Environmental LLC (V Environmental) conducted this second Phase II Environmental Site Assessment (ESA) of the soils and groundwater at the Property located at 1147 Dock Street as a follow-up to the Site Summary Report that was completed in April 2007.

The Property is situated east of the downtown area of the City of Tacoma on the Thea Foss Waterway. A review of historical records including historical aerial photographs, historical city directories, and information contained in previous reports, indicated that the Property was occupied by the Consumer Central Heating Plant from 1920 to 1980. The Property building was vacant by 1980 and demolished in 1985. The Property has remained unused except for parking since 1985. The south half of the Property is vacant, unpaved land and the northern half of the Property currently contains several old foundation walls and slabs. The Property is adjacent to the Thea Foss Waterway, which is part of the Federal Commencement Bay Nearshore/Tideflats Superfund site.

Several environmental investigations have been conducted at the Property including UST decommissioning activities and groundwater investigation (1992), Area-Wide Investigation (Washington Department of Ecology (WDOE), limited subsurface soil and sediment investigation (1996), Preliminary Sediment Investigation and Interim Action (1997), and Phase II Environmental Site Assessment and Site Investigation (2005).

In February 2007, V Environmental published a Site Summary Report that summarized the previous investigations and remediations. The Site Summary Report identified the presence of lead in groundwater at Boring 2 in a concentration of 24 milligram per kilogram (mg/kg), which is greater than the Model Toxics Cleanup Act (MTCA) Method A Cleanup Level of 15 mg/kg. Lead was detected in the groundwater samples from all borings, but the concentration of lead did not exceed MTCA Method A Cleanup Levels except in Boring 2. Mercury was identified as present in one bank soil sample (SSIDEWALL) at a concentration of 4.2 mg/kg, which is above the MTCA Method A Cleanup Level of 2.0 mg/kg. Mercury was identified in other samples along the bank but at concentrations less than the MTCA Method A Cleanup level.

This investigation was conducted in accordance to the WDOE response letter to the Site Summary Report and the Work Plan for this investigation. The contaminants of concern for this investigation included total and dissolved lead in groundwater, mercury in soils, and heavy oil and c-polycyclic aromatic hydrocarbons (cPAH) in the vicinity of former USTs at the site. The boring locations and laboratory analyses for this investigation were selected based on conversations with the Washington State Department of Ecology (WDOE).

On July 10, 2007, V Environmental advanced six borings at the Property to assess subsurface soil and groundwater conditions in the southern half of the Property. Three borings were spaced across the southern Property boundary, one boring was advanced downgradient of the former USTs, one boring upland of the SSIDEWALL sample collected by WDOE (March 1997), and one boring was placed in the south central area of the Property. Laboratory analyses included mercury in all soil samples, diesel-range hydrocarbons and polycyclic aromatic hydrocarbons (PAHs) in the borings downgradient to the former USTs, and lead in soil and total and dissolved lead in groundwater in three borings, Laboratory analyses did not detect the presence of mercury, lead or PAHs in soil or dissolved lead in groundwater. Total lead was detected in groundwater in Boring 13 and Boring 14 at concentrations of 2.5 and 9.8 mg/kg respectively, which is less than the MTCA Method A Cleanup level of 15 mg/kg. Diesel-range hydrocarbons were detected at a concentration

of 151 mg/kg at 14 feet below ground surface in Boring 11. The MTCA Method A Cleanup level for diesel-range hydrocarbons in soil is 2,000 mg/kg.

This Executive Summary is presented solely for introductory purposes and the information contained in this section should be used only in conjunction with the full text of this report. A complete description of the project, Site conditions, scope of work, investigative methods, and findings are contained in the following sections of this report.

1.0 INTRODUCTION

V Environmental LLC has completed a follow-up subsurface soil investigation of the parcel located at 1147 Dock Street in Tacoma, Tax Parcel Number 8950001971, County of Pierce, Washington, the Property. Figure 1 shows the location of the Property. This subsurface soil and groundwater investigation was conducted as a follow-up to WDOE comments to the Site Summary Report that was completed in general accordance with Section VII (A) of Agreed Order DE3373 between Federal Asset Recovery, Inc. and WDOE, signed November 17, 2006.

The Round 2 Data Evaluation Report for the Thea Foss Waterway (HartCrowser, January 17, 1997) indicated the presence of mercury in concentrations greater than Sediment Quality Objectives (SQO) in intertidal and subsurface sediments in the waterway offshore of the Property. During an area-wide investigation conducted by the Washington State Department of Ecology (WDOE), laboratory analytical results of soil samples indicated that fill material present on the embankment of the Property contained mercury in concentrations greater than Model Toxic Cleanup Act (MTCA) Method A Soil Cleanup levels. Based on chemical analyses of soil samples collected during subsurface soil and sediment investigations between the years 1992 and 1997, WDOE determined that the Property represented a source of mercury to the Thea Foss Waterway.

Three site investigations and three remediation by excavation activities were conducted at the Property between the years 1992 and 2005 and include the following:

- HartCrowser, September 1992, Bunker C Oil Underground Storage Tank Removal and Closure Assessment and subsequent groundwater monitoring. Hart Crower decommissioned two 35,000 underground storage tanks (UST) by excavation and overexcavated petroleum-containing soils. Subsequent to and as part of the recommendations of the UST activity, Hart Crowser advanced one soil boring and installed four groundwater monitoring wells in the upland area of the Property;

- Washington State Department of Ecology, 1993, Area-Wide Investigation. The Washington Department of Ecology (WDOE) conducted an Area-Wide Investigation of the properties along the Thea Foss that included observations and soil and sediment samples;

- JS Jones, 1996, Limited Subsurface Investigation. JS Jones conducted a limited subsurface soil and sediment investigation for Federal Asset Recovery as a response to WDOE's Area-Wide Investigation;

- The Washington Department of Ecology (WDOE), 1997, Preliminary Sediment Investigation. WDOE conducted a preliminary sediment investigation based on findings from Area-Wide Investigation;

- Washington State Department of Ecology, 1998, Interim Action Cleanup Report The WDOE Interim Action (1997). WDOE excavated sediments from the bank and below the waterline and installed a geotextile membrane that would act as a barrier to control the source of mercury to the Thea Foss Waterway;

- V Environmental, October 2005, Phase II Environmental Site Assessment (ESA). V Environmental LLC (V Environmental) conducted a Phase II Environmental Site

Assessment and Site Investigation (2005) of the subsurface soils and groundwater in the upland area of the Property; and

- V Environmental, December 2005, Site Investigation. V Environmental investigated two borings that showed concentrations of mercury above MTCA Method A cleanup levels for soil.

1.1 PROJECT OBJECTIVES

In V Environmental's previous investigation, laboratory analytical results identified lead in groundwater at a concentration of 24 µg/L (microgram per liter), which is greater than the MTCA Method A cleanup level of 15 µg/L, and mercury in the soils along the south end of the bank in a concentration of 4.5 mg/kg (milligram per kilogram), which is greater than the MTCA Method A Cleanup levels of 2.0 mg/kg. The scope of this second Phase II ESA was to further understand the subsurface conditions at the Property to determine if lead and mercury were present in soils and groundwater. The boring placements were based on the locations of previous borings and investigations, conversations with WDOE, and to provide a more thorough coverage of the entire Property.

1.2 SCOPE OF WORK

The scope of work for this investigation was developed through discussions with Ms. Joyce Mercuri (WDOE) and a review of previous investigations and background information.

Work on the project included the following general tasks:

- Advance six (6) boreholes using a Geoprobe direct-push drilling method;
- Collect and submit selected soil and groundwater samples for laboratory analysis;
- Document observations in field notes and borehole logs; and
- Prepare a report that incorporates corrections to the *Site Summary Report* (April 2007).

A detailed description of VE field procedures is presented In Appendix C.

2.0 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 B.

2.1 SOIL BORING AND SAMPLING

On July 10, 2007, six boreholes (B-9 through B-14) were advanced by a Washington State licensed driller, ESN, using a direct push drilling unit. The boreholes were drilled at the following locations: in the southeast corner of the Property, near the southwest corner of the existing concrete slab, at the southeast corner (downgradient) of the former UST excavation, one location near the west edge of the existing driveway and one location near the west/southwest corner of the Property (Figure 1). Borehole locations were selected based on the locations of previous investigations to provide a more thorough coverage of the Property and determine if lead and mercury were a source of contamination to the Thea Foss Waterway. Boreholes 11, 12 and 13 locations were selected based on their proximity

and topographic position relative to the former UST location. The location for Boring 13 was selected based on its proximity to the SSIDEWALL sample collected by WDOE in 1997.

A Washington State Licensed Hydrogeologist was present on the Site to direct drilling and sampling, and to visually classify soils in accordance with the Unified Soil Classification System (USCS). All boreholes were logged and soil cores 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.

Soil samples collected from sampling sleeves at four foot intervals were placed in laboratory-prepared glass jars labeled with borehole number, sample interval, time, 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.

2.2 GROUNDWATER SAMPLING

Groundwater samples were collected from three of the direct-push borings by advancing the sampling probe to the desired depth and installing a temporary well. The wells were constructed with a 5 foot long section of PVC screen placed at the bottom or the boring. The screen had a slot size of 0.010 inches. The wells were allowed to settle for approximately 1½ hours before they were purged and sampled. A peristaltic pump was then used to purge and sample the well using low flow sampling techniques. The well was purged at flow of less than 1 liter per minute until field parameters of temperature, conductivity, pH, dissolved oxygen and turbidity stabilized over three consecutive readings. The sample was collected using a peristaltic pump. The sample containers were then filled from the discharge of the peristaltic pump. Samples for dissolved metals were not filtered in the field but were filtered in the laboratory within 24 hours of collection. Each sample was labeled with a unique alphanumeric sample number.

2.3 LABORATORY ANALYSIS

Selected soil samples were submitted under chain-of-custody protocol to Libby Environmental in Olympia, Washington, for chemical analysis. A total of 16 soil and 3 groundwater samples were selected for analysis for diesel-range petroleum hydrocarbons, PAHs, lead and mercury. Not all samples were analyzed for all constituents. Soils from Borings 11, 12 and 13 were analyzed for diesel (TPH-Dx) and CPAHs because of their proximity to the former UST location. Groundwater from Borings 10, 13 and 14 was analyzed for total and dissolved lead to determine if lead in groundwater was an issue at the Property. All soil samples were analyzed for mercury. The analyses on each sample were determined based on a discussion with WDOE. A copy of the chain-of-custody form and laboratory-prepared analytical reports are provided in Appendix A.

3.0 INVESTIGATION OBSERVATIONS AND RESULTS

3.1 FIELD OBSERVATIONS

Subsurface soils did not appear to be native. The soils were similar to the soils identified during the initial Phase II (September 2005) and were dark brown, fine to medium sand with shell fragments infrequently intermixed with embedded lenses of silt. The ground

surface at each boring consisted primarily of sandy gravel. Borehole logs are presented in Appendix B.

3.2 ANALYTICAL RESULTS

Analytical results are summarized in Table 1, 2 and 3. A copy of the laboratory report is presented in Appendix A.

Boring locations and laboratory analytes were selected based on discussions with WDOE and on previous environmental investigations. To conform to Ecology regulations for properties located on the Thea Foss, laboratory analyses for soil and groundwater were based on Table 830-1 in the Model Toxics Control Act Cleanup Regulation Chapter 173-340 WAC amended February 12, 2001 and included selected metals.

Table 1. Upland Soil Samples from Borings – Metals and TPH

Sample ID	Date Collected	Lead	Mercury	Diesel
B9-8	7/10/07	<5.0	<0,5	
B9-12	7/10/07	<5.0	<0,5	
B9-14	7/10/07	<5.0	<0,5	
B10-8	7/10/07	<5.0	<0,5	
B10-12	7/10/07	<5.0	<0,5	
B10-14	7/10/07	<5.0	<0,5	
B11-8	7/10/07	na	<0,5	<25
B11-10	7/10/07	na	<0,5	<25
B11-14	7/10/07	na	<0,5	151
B12-5	7/10/07	na	<0,5	<25
B12-8	7/10/07	na	<0,5	<25
B12-13	7/10/07	na	<0,5	<25
B13-8	7/10/07	<5.0	<0,5	na
B13-12	7/10/07	na	<0,5	<25
B13-12 dup	7/10/07	na	<0,5	<25
B14-7	7/10/07	<5.0	<0,5	
B14-10	7/10/07	na	<0,5	
MTCA A (mg/kg)		250	2.0	2,000

na: not analyzed; * MTCA Method A standards not available and MTCA Method B standards used.

Table 2. Upland Groundwater Samples – Total and Dissolved Lead

		MTCA A µg/L	Date	B-10	B-13	B-14
Metals	Total Lead	15	7/10/07	<2.5	2.5	9.8
TPH	Dissolved Lead	15	7/10/07	<2.5	<2.5	<2.5

Table 3. Upland Soil Samples - cPAHs (Method 8270C)

Sample Name	Date	Acenapthene	Acenaphthylene	Anthracene	Fluorene	Naphthalene	Phenanthrene
B9-8	7/10/07	na	na	na	na	na	na
B9-12	7/10/07	na	na	na	na	na	na
B9-14	7/10/07	na	na	na	na	na	na
B10-8	7/10/07	na	na	na	na	na	na
B10-12	7/10/07	na	na	na	na	na	na
B10-14	7/10/07	na	na	na	na	na	na
B11-8	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B11-10	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B11-14	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B12-5	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B12-8	7/10/07	na	na	na	na	na	na
B12-13	7/10/07	na	na	na	na	na	na
B13-8	7/10/07	na	na	na	na	na	na
B13-12	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B5-7.5	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B14-7	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B14-10	7/10/07	na	na	na	na	na	na
MTCA B (µg/kg)		4,800	None listed	24,000	3,200	1,600	None listed

Sample Name	Date	Benzo(a) Anthracene	Benzo-Fluoranthene	Benzo(a) Pyrene	Chrysene	Dibenzo(ah) Anthracene	Indeno(123cd) Pyrene
B9-8	7/10/07	na	na	na	na	na	na
B9-12	7/10/07	na	na	na	na	na	na
B9-14	7/10/07	na	na	na	na	na	na
B10-8	7/10/07	na	na	na	na	na	na
B10-12	7/10/07	na	na	na	na	na	na
B10-14	7/10/07	na	na	na	na	na	na
B11-8	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B11-10	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B11-14	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B12-5	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B12-8	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B12-8	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B12-13	7/10/07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
B13-8	7/10/07	na	na	na	na	na	na
B13-12	7/10/07	na	na	na	na	na	na
B5-7.5	7/10/07	na	na	na	na	na	na
B14-7	7/10/07	na	na	na	na	na	na
B14-10	7/10/07	na	na	na	na	na	na
MTCA A (µg/kg)		0.137	0.137	0.137	0.137	0.137	None listed

na: not analyzed; * MTCA Method A standards not available and MTCA Method B standards used.

3.3 FINDINGS

Soils at approximately 14 feet below ground surface (bgs) in Borehole 11 contained diesel in a concentration of 151 milligrams per kilogram (mg/kg), which is below the current MTCA Method A Soil Cleanup level of 2,000 mg/kg (Table 1). This boring was placed downgradient of the former USTs. Soils in this boring were also sampled for cPAH. Laboratory analyses did not detect the presence of cPAHs in site soils. Lead was not detected in the soils from Borings 9, 10, 13 or 14. Groundwater from Borings 10, 13, and 14 were submitted for laboratory analysis for total and dissolved lead. Laboratory analyses did not detect the presence of dissolved lead in the groundwater from these borings. Total lead was indicated in Borings 13 and 14 at concentrations of 9.8 and 2.5 µg/L respectively, which is below the current MTCA Method A cleanup level for lead (15 µg/L).

No other analytes were identified as present in the soil or groundwater samples from the Site during this investigation.

4.0 CONCLUSIONS

Laboratory analyses of soil and groundwater samples collected during this investigation did not detect the presence of mercury, petroleum hydrocarbons, lead or cPAHs at concentrations greater than MTCA Method A cleanup levels for unrestricted use.

Based on the results of this investigation and on the results of previous investigations and activities at the Property, it is the opinion of V Environmental that the Property represents a low threat to the Thea Foss Waterway and no further action is recommended at this time. However should additional information become available to indicate that there is additional soil or groundwater contamination at the site, additional work may be warranted.

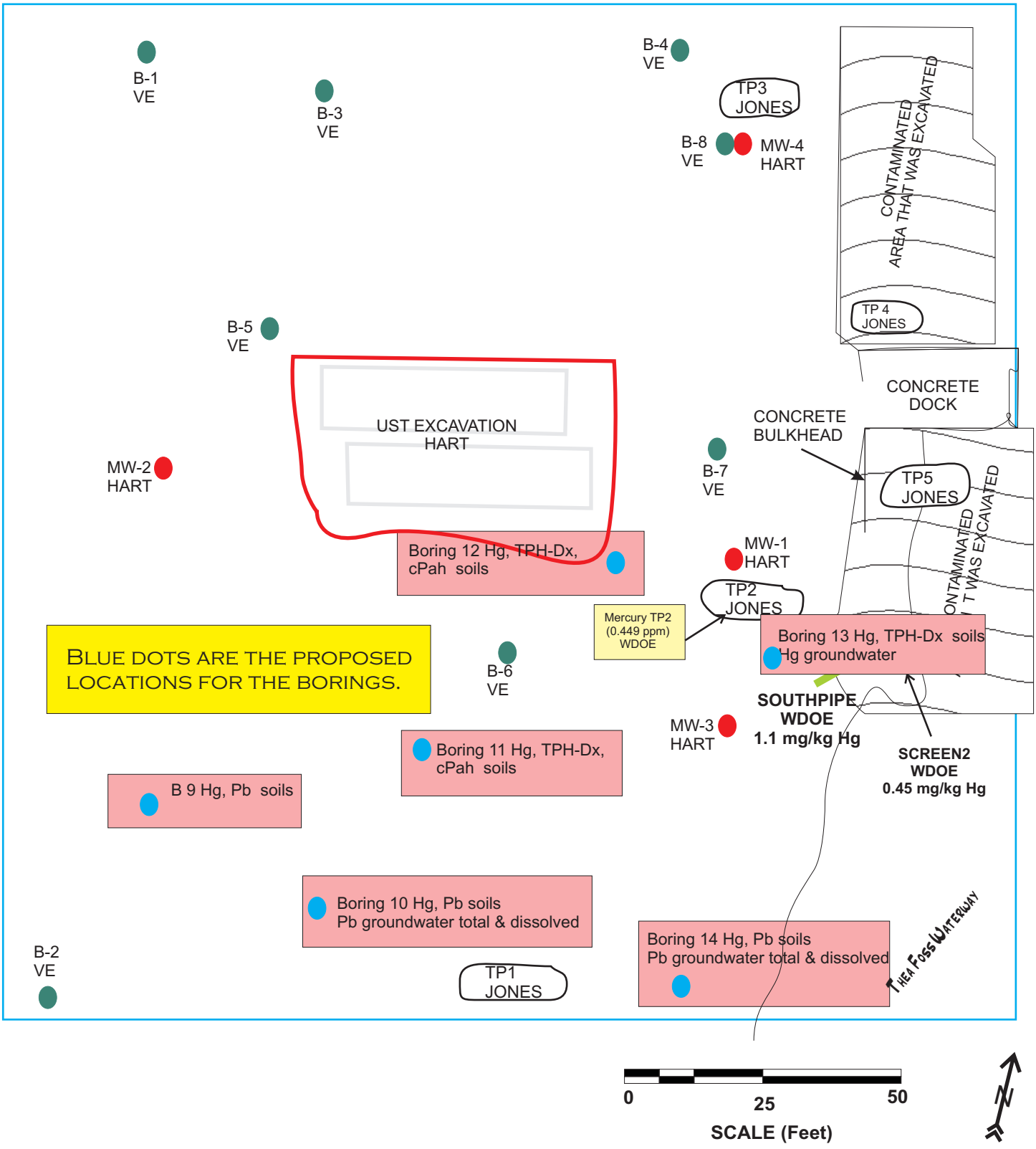
Because there are contaminants remaining at the site under a geotextile membrane, the site should have institutional controls put into place. The institutional controls should include provisions for maintaining and not disturbing the geotextile membrane and underlying sediments.

Further investigation may be warranted if greater confidence is required regarding the current condition of soil or groundwater on the subject property. Decision-making authority with regard to further environmental investigations is the sole decision of Federal Asset Recovery and is dependent on the risk tolerance of Federal Asset Recovery.

5.0 STANDARD LIMITATIONS

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 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, such as under the building. No warranty, expressed or implied, is made. This report is for the exclusive use of Federal Asset Recovery and their representatives.

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.



Environmental

Subsurface Soil/Groundwater Conditions
SE Quadrant and SE Corner of Former UST
May 21, 2007

VE Project Number: 213-4
Drawn by: Verna Lee Curry

FIGURE 1
Proposed Borehole Locations

1147 Dock Street
Tacoma, Washington

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

1147 DOCK STREET PROJECT
Tacoma, Washington
V Environmental, Inc.
Client Project #213-4
Libby Project No.L070710-2

Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Mineral Oil (mg/kg)	Oil (mg/kg)
Method Blank	7/12/2007	89	nd	nd	nd
B11-10	7/12/2007	101	nd	nd	nd
B11-8	7/12/2007	120	nd	nd	nd
B11-14	7/12/2007	int	151	nd	nd
B12-13	7/12/2007	98	nd	nd	nd
B12-8	7/12/2007	122	nd	nd	nd
B12-5	7/12/2007	95	nd	nd	nd
B13-12	7/12/2007	105	nd	nd	nd
B13-12 Dup	7/12/2007	100	nd	nd	nd
Practical Quantitation Limit			25	40	40

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

1147 DOCK STREET PROJECT
Tacoma, Washington
V Environmental, Inc.
Client Project #213-4
Libby Project No.L070710-2

Analyses of Polyaromatic Hydrocarbons in Soil (EPA Method 8270C)

Sample Description		Method Blank	B11-10	D11-8	B11-14	B12-13	B12-8
Date Sampled		n/a	7/10/07	7/10/07	7/10/07	7/10/07	7/10/07
Date Analyzed		7/11/07	7/12/07	7/12/07	7/12/07	7/12/07	7/12/07
	PQL (mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Benzo(a)anthracene	0.01	nd	nd	nd	nd	nd	nd
Chrysene	0.01	nd	nd	nd	nd	nd	nd
Benzo(b)fluoranthene	0.01	nd	nd	nd	nd	nd	nd
Benzo(k)fluoranthene	0.01	nd	nd	nd	nd	nd	nd
Benzo(a)pyrene	0.01	nd	nd	nd	nd	nd	nd
Indeno(1,2,3-cd)pyrene	0.01	nd	nd	nd	nd	nd	nd
Dibenzo(a,h)anthracene	0.01	nd	nd	nd	nd	nd	nd
Total Carcinogens	0.01	nd	nd	nd	nd	nd	nd
Surrogate Recovery (%)							
2-Fluorophenol		76.6	80	77.8	75.7	80.5	77.2
Phenol-d6		88.4	90.8	88.2	85.2	92.4	88.5
Nitrobenzene-d5		127	127	125	125	127	127
2-Fluorobiphenyl		70	69.9	69.8	69.9	69.6	70.2
p-Terphenyl		133	131	129	131	132	133

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 2-Fluorobiphenyl: 65% - 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

1147 DOCK STREET PROJECT
Tacoma, Washington
V Environmental, Inc.
Client Project #213-4
Libby Project No.L070710-2

Analyses of Polyaromatic Hydrocarbons in Soil (EPA Method 8270C)

Sample Description		B12 5	B12-5 Dup
Date Sampled		7/10/07	7/10/07
Date Analyzed		7/12/07	7/12/07
	PQL (mg/kg)	(mg/kg)	(mg/kg)
Benzo(a)anthracene	0.01	nd	nd
Chrysene	0.01	nd	nd
Benzo(b)fluoranthene	0.01	nd	nd
Benzo(k)fluoranthene	0.01	nd	nd
Benzo(a)pyrene	0.01	nd	nd
Indeno(1,2,3-cd)pyrene	0.01	nd	nd
Dibenzo(a,h)anthracene	0.01	nd	nd
Total Carcinogens	0.01	nd	nd
Surrogate Recovery (%)			
2-Fluorophenol		80.6	80.2
Phenol-d6		92.0	92.5
Nitrobenzene-d5		126	126
2-Fluorobiphenyl		70.0	70.3
p-Terphenyl		131	132

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 2-Fluorobiphenyl: 65% - 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

1147 DOCK STREET PROJECT
Tacoma, Washington
V Environmental, Inc.
Client Project #213-4
Libby Project No.L070710-2

QA/QC Data - PAH Analyses - Soils

Sample Description: L070711

	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Acenaphthene	4.00	3.72	93.0	4.00	3.56	89.0	4.4
Pyrene	4.00	3.42	85.5	4.00	3.32	83.0	3.0
Surrogate Recovery (%)							
2-Fluorophenol			78.2			80.0	
Phenol-d6			88.1			92.2	
Nitrobenzene-d5			127			127	
2-Fluorobiphenyl			70.8			70.3	
p-Terphenyl			128			130	

Laboratory Control Sample

	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Acenaphthene	4.00	3.94	98.5
Pyrene	4.00	3.70	92.5
Surrogate Recovery (%)			
2-Fluorophenol			83.5
Phenol-d6			95.2
Nitrobenzene-d5			129
2-Fluorobiphenyl			70.0
p-Terphenyl			132

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 80%-120%
ACCEPTABLE RPD IS 20%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

1147 DOCK STREET PROJECT
Tacoma, Washington
V Environmental, Inc.
Client Project #213-4
Libby Project No.L070710-2

Analyses of Lead in Soil by EPA Method 7421

Sample Number	Date Analyzed	Lead (mg/kg)
B9-12	7/12/07	nd
B9-14	7/12/07	nd
B9-8	7/12/07	nd
B10-12	7/12/07	nd
B14-7	7/12/07	nd
B10-14	7/12/07	nd
B10-8	7/12/07	nd
B14-10	7/12/07	nd
B13-8	7/12/07	nd
Practical Quantitation Limit		5.0

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

1147 DOCK STREET PROJECT
Tacoma, Washington
V Environmental, Inc.
Client Project #213-4
Libby Project No.L070710-2

QA/QC for Lead in Soil by EPA Method 7421

Sample Number	Date Analyzed	Lead (mg/kg)
LCS	7/12/07	98
B13-8 MS	7/12/07	101%
B13-8 MSD	7/12/07	110%
RPD	7/12/07	8.5
Practical Quantitation Limit		5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

1147 DOCK STREET PROJECT
Tacoma, Washington
V Environmental, Inc.
Client Project #213-4
Libby Project No.L070710-2

Analyses of Total Lead in Water by EPA Method 7421

Sample Number	Date Analyzed	Lead (ug/l)
Method Blank	7/12/07	nd
B14	7/12/07	9.8
B13	7/12/07	2.5
B10	7/12/07	nd
Practical Quantitation Limit		2.5

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

1147 DOCK STREET PROJECT
Tacoma, Washington
V Environmental, Inc.
Client Project #213-4
Libby Project No.L070710-2

QA/QC for Lead in Water by EPA Method 7421

Sample Number	Date Analyzed	Lead (%)
LCS	7/12/07	98%
B10 MS	7/12/07	94%
B10 MSD	7/12/07	105%
RPD	7/12/07	11.1
Practical Quantitation Limit		2.5

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

1147 DOCK STREET PROJECT
Tacoma, Washington
V Environmental, Inc.
Client Project #213-4
Libby Project No.L070710-2

Analyses of Dissolved Lead in Water by EPA Method 7421

Sample Number	Date Analyzed	Lead (ug/l)
Method Blank	7/12/07	nd
B14	7/12/07	nd
B13	7/12/07	nd
B10	7/12/07	nd
Practical Quantitation Limit		2.5

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

1147 DOCK STREET PROJECT
Tacoma, Washington
V Environmental, Inc.
Client Project #213-4
Libby Project No.L070710-2

QA/QC for Lead in Water by EPA Method 7421

Sample Number	Date Analyzed	Lead (ug/l)
LCS	7/12/07	98%
B10 MS	7/12/07	94%
B10 MSD	7/12/07	105%
RPD	7/12/07	11.1
Practical Quantitation Limit		2.5

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

1147 DOCK STREET PROJECT
Tacoma, Washington
V Environmental, Inc.
Client Project #213-4
Libby Project No.L070710-2

Analyses of Mercury in Soil by EPA Method 7471

Sample Number	Date Analyzed	Mercury (mg/kg)
Method Blank	7/18/07	nd
B9-12	7/18/07	nd
B11-10	7/18/07	nd
B11-8	7/18/07	nd
B11-14	7/18/07	nd
B12-13	7/18/07	nd
B9-14	7/18/07	nd
B9-8	7/18/07	nd
B12-8	7/18/07	nd
B12-5	7/18/07	nd
B10-12	7/18/07	nd
B14-7	7/18/07	nd
B10-14	7/18/07	nd
B10-8	7/18/07	nd
B13-12	7/18/07	nd
B14-10	7/18/07	nd
B13-8	7/18/07	nd
Practical Quantitation Limit		0.5

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

1147 DOCK STREET PROJECT
Tacoma, Washington
V Environmental, Inc.
Client Project #213-4
Libby Project No.L070710-2

QA/QC for Mercury by EPA Method 7471

Sample Number	Date Analyzed	Mercury (mg/kg)
LCS	7/18/07	100%
MS	7/18/07	100%
MSD	7/18/07	90%
RPD	7/18/07	11%
Practical Quantitation Limit		0.5

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

White Shield, Inc.

Sample Collection Information

Project/Location: V Environmental	Project No: 205-025	Sampling Date: 7/10/07
Depth to Water: ~13'	Time: 1243	Water Volume In Casing:
Total Depth: 16'	Purged Time:	Volume Purged: 2gal
Purging Method: Peristaltic Pump	Purge Volume Measurement Method: Bucket	
Location (Well No): B-13	**Parameter Monitoring**	Sampled By:

Time	Cumulative Volume	pH	COND	TEMP	DO	TURB	ORP	SAL	TDS	Appearance	Odor
		SU	mS/cm	Degree C	mg/L	NTU	mV	%	g/L		
1243	0	4.84	37.9	17.6	6.08	883		2.42		Very Silty Brown	
1248	½	5.76	38.5	16.1	4.34	~10		2.46		clear	No odor
1253	1	6.09	38.5	16.1	3.74	~10		2.45			
1257	1½	6.29	38.3	16.0	3.87	~10		2.44			
1300	2	6.46	38.2	16.2	3.83	~10		2.42			

Sampling Methods:

Sample Data

Waste Container:

Field Sample No.	Sample Container	Time	Sample Depth	Matrix Type	Sample Type	Preserved By
B-13	1 ~~500~~ 250 ml	1300	16'	GW	ES	HNO_3
	1 1l	1302				

Chain of Custody (yes/no): YES

Duplicate Sample Numbers:

Analytical Lab	Lab Name:	Date Sent to Lab:
	Lab Address:	Shipment Method:
Analytical Lab/QC	Lab Name:	Date Sent to Lab:
	Lab Address:	Shipment Method:
Split	Name(s):	
	Organization(s):	

Matrix Types

AA ambient air	GW groundwater	SD sediment	SW surface water	CS composite sample	FB field blank
BM building material	NS near-surface soil	SL soil	TI tissue	ER equipment rinsate	FD field duplicate
DR debris/rubble	SB subsurface soil	SU sludge	WR water	ES environmental sample	TB trip blank

Sample Types

Additional Comments:

Recorder: Date:

Checker: Date:

White Shield, Inc.

Sample Collection Information

Project/Location: V Environmental Dock St	Project No: 205-025-01	Sampling Date: 7/10/07
Depth to Water: ~13'	Time:	Water Volume In Casing:
Total Depth: 16'	Purged Time:	Volume Purged: 1½
Purging Method: Peristaltic Pump	Purge Volume Measurement Method: Bucket	
Location (Well No): B-14	**Parameter Monitoring**	Sampled By: D Polivka

Time	Cumulative Volume	pH	COND	TEMP	DO	TURB	ORP	SAL	TDS	Appearance	Odor
		SU	mS/cm	Degree C	mg/L	NTU	mV	%	g/L		
1320	0	6.92	34.3	16.7	~~6.12~~ 5.95	291		2.17			
1326	½	7.02	34.5	~~15.89~~ 15.9	5.93	193		2.17			
1331	1	7.04	34.8	15.5	~~5.78~~ 5.8	-10		2.18			

Sampling Methods:	**Sample Data**	Waste Container:

Field Sample No.	Sample Container	Time	Sample Depth	Matrix Type	Sample Type	Preserved By
B-14	1 ~~250~~ 500 ml	1330	16	GW	ES	—
	1 500 ml	1330	16			HNO3

Chain of Custody (yes/no): YES	Duplicate Sample Numbers:

Analytical Lab	Lab Name:	Date Sent to Lab:
	Lab Address:	Shipment Method:
Analytical Lab/QC	Lab Name:	Date Sent to Lab:
	Lab Address:	Shipment Method:
Split	Name(s):	
	Organization(s):	

Matrix Types				Sample Types	
AA ambient air	GW groundwater	SD sediment	SW surface water	CS composite sample	FB field blank
BM building material	NS near-surface soil	SL soil	Ti tissue	ER equipment rinsate	FD field duplicate
DR debris/rubble	SB subsurface soil	SU sludge	WR water	ES environmental sample	TB trip blank

Additional Comments:

Recorder:	Date:
Checker:	Date:

White Shield, Inc.

Sample Collection Information

Project/Location:	Project No:	Sampling Date:
V Environmental Dock St	205-024-01	7/10/07

Depth to Water:	Time:	Water Volume In Casing:
Total Depth:	Purged Time:	Volume Purged:
Purging Method: Peristaltic Pump	Purge Volume Measurement Method: Bucket	
Location (Well No): B-10	**Parameter Monitoring**	Sampled By:

Time	Cumulative Volume	pH	COND	TEMP	DO	TURB	ORP	SAL	TDS	Appearance	Odor
		SU	mS/cm	Degree C	mg/L	NTU	mV	%	g/L		
1403	½	7.11	34.3	18.3	1.55	-10		2.17		clear	
1407	1	7.13	35.1	16.8	1.54	-10		2.22			
1412	1½	7.11	3.52	16.4	1.56	-10		2.22			

Sampling Methods:	**Sample Data**	Waste Container:

Field Sample No.	Sample Container	Time	Sample Depth	Matrix Type	Sample Type	Preserved By
B-10	1 250 ml	1415	16'	GW	ES	HNO_3
	1 250 ml		16'	GW	ES	—

Chain of Custody (yes/no): YES	Duplicate Sample Numbers:

Analytical Lab	Lab Name:	Date Sent to Lab:
	Lab Address:	Shipment Method:
Analytical Lab/QC	Lab Name:	Date Sent to Lab:
	Lab Address:	Shipment Method:
Split	Name(s):	
	Organization(s):	

Matrix Types				Sample Types	
AA ambient air	GW groundwater	SD sediment	SW surface water	CS composite sample	FB field blank
BM building material	NS near-surface soil	SL soil	TI tissue	ER equipment rinsate	FD field duplicate
DR debris/rubble	SB subsurface soil	SU sludge	WR water	ES environmental sample	TB trip blank

Additional Comments:

Recorder:	Date:
Checker:	Date:

LOG OF BOREHOLE

Project No.: 205-025-01 — Borehole No.: B-14
Project: Investco/Looney — Client: V Environmental — Date: 7/10/07
Location: Tacoma — Logged By: DRP
Drilling Method: Geoprobe — Driller: ESN — Reference Elevation: Ground Surface
Sampling Method: probe — Groundwater Level:

DEPTH (ft)	TIME	SAMPLE	SAMPLE No.	Blow Count (blows per foot)	Graphic Log/	GEOLOGICAL DESCRIPTION AND CLASSIFICATION	ODOR	OVA (ppm)
					GM	Surface Backberries with Light Gray Fine Sandy Gravel (Gravel to 1/2" Dia.)	none	
					SP	Light Brown Fine Silty Sand (some Gravel) (dry)		
5					SP	Dark Gray Fine to Medium Sand with Shell Fragments (moist)		
					SP	Light Brown Silty Sand (no Shells) (moist)		
10					SP	Dark Gray Fine to Medium Sand (No Shell Fragments) (moist)		
				▼		Water at 13'		
15					ML	Gray Clayey Silt (Some Fine Sand) (Wet)		
						Boring Terminated at 16' and 3/4" Diameter, 5' long Temporary Screen Installed Screen Removed after Sampling & Boring Backfilled with 3/8" Holeplug Bentonite Chips		
20								
25								