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March 27, 2012

ECI Project No. 0422-02

Linn Larson
C/o Ron Eaton
Eaton Family LLC
1201 Pacific Avenue, Suite 1400
Tacoma, WA 98402

Re: **Focused Subsurface Investigation**
2119 Mildred Street
Fircrest, Washington

Mr. Eaton:

EconCon, Inc., (ECI), per your request, completed a Focused Subsurface Investigation project at 2119 Mildred Street, Fircrest, Washington (Subject Site) in September and October of 2011, Attachment A: Figures 1-4. This work was completed to supplement previous subsurface investigation completed by others. Specifically, sampling events completed by Kleinfelder Inc. (Phase I ESA – 2005, Limited II Environmental Site Assessment ESA-2005 and Supplemental Phase II Environmental Site Assessment-2005).

Introduction

The purpose of this investigation was to substantiate previous subsurface investigation findings, further characterize subsurface soil and groundwater conditions previously identified as impacted by Kleinfelder, Inc. in 2005.

As part of a due diligence investigation, Kleinfelder, Inc. (Kleinfelder) completed a Limited Phase II Environmental Site Assessment (ESA) and a Supplemental Phase II ESA during May, June, and September of 2005. Kleinfelder's Limited Phase II ESA was based on the findings reported in their Mary 2005 Phase I ESA that identified potential areas of impact on the Subject Site. Kleinfelder completed twenty borings and collected twenty-nine soil samples. Five of the twenty borings were completed inside the building. Laboratory analysis reported five soil samples exceeding the Washington State Department of Ecology's (Ecology) Model Toxic Control Act (MTCA) Method A (MTCA-A) Unrestricted Land Uses Cleanup Levels (CULs). Three soil samples with heavy oil range organics (ORO) concentrations (random spot locations in undeveloped areas) and two soil samples with perchloroethylene (PCE) within a property owner (Freeman Family) reported drain field area., Metals, specifically lead, chromium and arsenic, at concentrations below MTCA A cleanup levels, were also identified in numerous soil samples.

Following soil sampling activities, Kleinfelder installed five temporary groundwater monitoring wells along the central east portion of the Property (Figure 1). Sample results indicated arsenic concentrations exceeding MTCA A cleanup levels of 5 micro grams per liter (µg/L). The perched groundwater was reported by Kleinfelder encountered at 16.6 to 19.6 feet below ground surface (bgs). Kleinfelder recommended additional subsurface investigation that was subsequently authorized and conducted in September 2005. Fourteen additional soil samples were collected from seven borings locations in the central portion of the Subject Site. Laboratory analysis reported elevated tetrachloroethylene / perchloroethylene (PCE) and ORO concentrations exceeding the MTCA-A CUL. Kleinfelder estimated the quantity of PCE impacted soil as approximately 2,000 to 3,000 cubic yards in the drainfield area. The ORO impacted soils were identified intermittently at random areas ranging from 5 to 15 feet bgs in approximately 6-inch thicknesses and could not be completely quantified. One groundwater sample identified arsenic concentrations exceeded MTCA-A cleanup levels.

Focused Subsurface Investigation

ECI mobilized to the Subject Site on September 27, 2011. Drilling services were provided by Pacific Northwest Probe and Drilling. ECI retained Mt. View Utility Locating Inc. to provide underground utility locating services prior to subsurface sampling activities.

The project scope included the following:

- Underground utility location;
- Preparation of site specific health and safety plan;
- Installation of borings to the groundwater interface;
- Collection and analysis of soil and groundwater samples;
- Preparation of Letter Report documenting site activities, observations, analytical results, and their comparison to applicable Washington State regulatory guidelines.

Site Lithology

General site geology consists of glacial till (hard pan), which includes medium dense to very dense silty sand with some fine to coarse gravel. The glacial till extends to at least 40 feet below ground surface (bgs). Fill material overlies the glacial till on most of the property east of the buildings. The depth of fill reportedly ranges from the surface to an estimated 20 feet bgs. The fill material consists of loose to medium dense medium to fine sand, silt and vegetation debris overlying the native glacial till.

Perched water[1] at the site is reportedly intermittent at elevations between 15 and 25 feet bgs and varying in thickness.

[1] A perched water table (or perched aquifer) is an aquifer that occurs above the regional water table, in the vadose or zone. This occurs when there is an impermeable layer of rock or sediment or relatively impermeable layer (glacial till) above the main water table/aquifer but below the surface of the land.

Soil Sampling Activities

ECI completed two sampling events, September 27, 2011 and October 3, 2011. Soil sample locations were selected using Kleinfelder previous investigation derived data. Boring locations were placed at areas adjacent to Kleinfelder's 2005 boring locations and other areas considered suspect following review of previous environmental reports (Figure 1).

During the ECI September 27, 2011 sampling event, ECI completed twelve borings ranging in depth from 5 to 25 feet below ground surface (bgs). Thirty-six soil samples were collected and analyzed. Sample analysis included twenty samples for diesel range organics (DRO) and ORO, two samples for gasoline range organics (GRO), two samples for polycyclic aromatic hydrocarbons (PAHs), four samples for volatile organic compounds (VOCs) and twenty samples for total metals arsenic (As), chromium (Cr) and hexavalent chromium (Cr VI).

During the ECI October 3, 2011 sampling event ECI completed eight borings ranging in depth from 5 to 25 feet bgs, collecting and analyzing fifteen soil samples. Sample analysis included two samples for DRO/ORO, five samples for GRO, five samples for VOCs and eight samples for As.

Soil samples were collected continuously by a properly trained environmental professional using industry standard sampling techniques. Using direct push drilling techniques, soil cores were extracted from each soil boring using a properly decontaminated two inch diameter by four-foot long stainless steel Macro sampler lined with a disposable acetate liner. Prior to sample collection, each core was examined for field evidence of contaminants (e.g. odor, staining, production of sheen when placed in tap water, etc.).

Soil lithology consisted of two separate materials. Brown medium to fine sand and small gravels with vegetative organics was observed extending from the surface to approximately 20 feet bgs. This materials is consistent with property infilling, observed at shallower elevations on the west (surface to 5 feet bgs) sloping eastward to approximately 20 feet bgs. Glacial till was observed underlying the fill material.

Soil was extracted from each disposable sample core by the sampling technician donning appropriate person protective equipment including disposable nitrile gloves using EPA sampling Method 5035 when applicable. Each sample was placed into laboratory provided Teflon lined 4-ounce and 40 milliliter sample containers and assigned a unique sample identifying number and placed in a climate controlled container maintained at 4° Celsius. Samples were collected at the discretion of the environmental professional at intervals consistent with soil lithology change and previous (Kleinfelder 2005) sample locations. Refer to Table 1: Soil Sample Identification & Depth below:

Table 1: Soil Sample Identification & Depth

Sample Identification	Sample Date	Sample Depth (feet bgs)
B-1:5	9/27/2011	5
B-1:10	9/27/2011	10
B-2:5	9/27/2011	5
B-2:7.5	9/27/2011	7.5
B-3:5	9/27/2011	5
B-3:10	9/27/2011	10
B-3:12	9/27/2011	12
B-3:15	9/27/2011	15
B-4:5	9/27/2011	5
B-4:10	9/27/2011	10
B-4:15	9/27/2011	15
B-17:20 (B-4)	10/3/2011	20
B-17:23 (B-4)	10/3/2011	23
B-5:5	9/27/2011	5
B-5:10	9/27/2011	10
B-5:15	9/27/2011	15
B-16:20 (B-5)	10/3/2011	20
B-16:23 (B-5)	10/3/2011	23
B-6:5	9/27/2011	5
B-6:10	9/27/2011	10
B-6:15	9/27/2011	15
B-7:5	9/27/2011	5
B-7:10	9/27/2011	10
B-7:15	9/27/2011	15
B-8:5	9/27/2011	5
B-8:10	9/27/2011	10
B-8:15	9/27/2011	15
B-9:4	9/27/2011	4
B-9:8	9/27/2011	8
B-9:12	9/27/2011	12
B-10:5	9/27/2011	5
B-10:10	9/27/2011	10
B-10:15	9/27/2011	15
B-20:20 (B-10)	10/3/2011	20
B-11:4	9/27/2011	4
B-11:8	9/27/2011	8
B-11:12	9/27/2011	12
B-12:5	9/27/2011	5
B-12:10	9/27/2011	10
B-12:15	9/27/2011	15
B-12:20	9/27/2011	20
B-13:5	10/3/2011	5
B-13:7	10/3/2011	7
B-14:5	10/3/2011	5
B-14:9	10/3/2011	9
B-15:5	10/3/2011	5
B-15:11	10/3/2011	11
B-18:15	10/3/2011	15
B-18:20	10/3/2011	20
B-19:15	10/3/2011	15
B-19:20	10/3/2011	20

Contaminates of Concern

Previous investigation, competed by Kleinfelder, have identified three main contaminates of concern (COC). Volatile organic compounds (VOCs), diesel-, oil- and gasoline-range organics (DRO, ORO & GRO) and total metals arsenic and chromium. Additional secondary contaminates of concern which may be found in conjunction with main COCs are polycyclic aromatic hydrocarbons (PAHs), and hexavalent chromium. Chemical analysis methodology for this project was completed in compliance with Washington Administrative Code (WAC) 173-340 – The Model Toxic Control Act (MTCA).

- Gasoline Range Organics (GRO) – Method NWTPH-Gx (EPA Method 8015C Modified)
- Diesel & Oil Range Organics – Method NWTPH-Dx Extended (EPA Method 8015C Modified)
- Volatile Organic Compounds (VOCs) – EPA Method 8260C
- Total Arsenic (As) & Chromium (Cr) - EPA Method 7010 Series
- Hexavalent Chromium (CrVI) – EPA Method 7196A
- Polycyclic Aromatic Hydrocarbons (PAHs) – EPA Method 8270D

Sample Analysis

Ten soil samples were analyzed for VOCs by EPA method 8260C[2]. Four soil samples (B1:5', B13:7', B14:5' and B14:9') were reported with VOC concentrations, specifically PCS, exceeding the MTCA-A CUL. Sample B1:10' was reported containing benzene, exceeding the MTCA-A CUL and toluene, ethylbenzene xylene and naphthalene exceeding the laboratory MRL. The remaining five (5) soil samples were reported below the laboratory method reporting limit (MRL) or non-detect.

Twenty-two soil samples were analyzed for DRO/ORO by method NWTPH-Dx Extended (EPA Method 8015). Ten soil samples (B4:10', B4:15', B5:10', B5:15', B6:15', B7:15', B9:12', B10:15', B11:4' and B12:10' were reported with ORO concentrations exceeding below the laboratory MRL but below the MTCA-A CUL. The remaining twelve soil samples were reported below the laboratory MRL or non-detect.

Seven soil samples were analyzed for GRO by method NWTPH-Gx (EPA Method 8015). Each sample was reported below the laboratory MRL or non-detect.

Twenty-eight soil samples were analyzed for total arsenic and twenty soil samples were analyzed for total chromium. Six soil samples (B4:15', B16:20', B7:10', B10:15', B18:15' and B19:15') were reported with arsenic concentrations exceeding the MTCA-A CUL. Fourteen samples were reported with arsenic concentration exceeding the laboratory MRL, but below the MTCA-A CUL. The remaining samples were reported below the laboratory MRL. Thirteen soil samples were reported containing chromium exceeding the laboratory MRL but below the MTCA-A CUL. The remaining samples were reported below

[2] Method 8260C is a GC/MS method that is used to determine volatile organic compounds in a variety of solid waste matrices. This method is applicable to nearly all types of samples, regardless of water content, including but not limited to various air sampling trapping media, ground and surface water, soils, and sediments.

the laboratory MRL or non-detect for total chromium. ECI also analyzed each of the twenty chromium samples for hexavalent chromium (CrVI). Once sample was reported exceeding the laboratory MRL. The remaining samples were reported below the laboratory MRL or non-detect for CrVI.

Cleanup Levels

The Washington State Administrative Code (WAC) 173-340 – Model Toxic Control Act (MTCA) establishes administrative processes and standards to identify, investigate, and clean up facilities where hazardous substances have been identified. Specific CULs have been established to provide guidance during evaluation of potential hazardous materials impact to soil and groundwater. The most restrictive and common CULs are published in WAC 173-360-900 – Tables 740-1 - Method A Soil Cleanup Levels for Unrestricted and Uses (Attached).

Discussion & Conclusions

This investigation has identified PCE exceeding the CUL of 0.05 mg/kg in borings B1:5', B13:7', B14:5' and B14:9' at concentrations ranging from 0.087 mg/kg to 0.23 mg/kg. The sample locations were in the same vicinity as the 2005 Kleinfelder sample locations, near the reported "drainage area" at the southeast corner of the building, extending to the southeast (Figure 3). The extent of PCE impacted soil has been delineated to the south and east using Kleinfelder's 2005 data obtained from borings B79, B81, B82, B83 and B85, samples from which were reported below the laboratory MRL. The extent of PCS impacted soil to the north has yet to be defined. Using the data collected by ECI and reported by Kleinfelder, the impacted area appears to be approximately 50 to 75 feet east west by 100 t o150 feet north south ranging from 4 to 10 feet bgs. Further investigation to delineate the northern extent of PCE impacted soil and more clearly define the total extent of PCE impacted soil will allow for more refined soil quantity estimates.

Seventy-one soil samples were analyzed for arsenic, twenty-eight samples by ECI and forty-three by Kleinfelder. Six samples (ECI samples B4:15', B7:10', B10:15', B16:20', B18:15' and B19:15') were reported exceeding the MTCA-A CUL of 20 mg/kg, ranging from 29 mg/kg to 47 mg/kg. The sample locations were placed east of the buildings east interior fence line (Figure 2).

The nature and extent of arsenic impacted soil is not known. According to the Washington Department of Ecology (Ecology), the Site is located within the Tacoma Asarco Smelter Plume (Smelter Plume)[3]. It is speculated that the arsenic identified may be related, in-part, to area wide arsenic contaminated soil resulting from the Asarco Smelter and was deposited during infilling and grading of the property. Further investigation to delineate the extent of arsenic impacted soil is warranted.
Soil samples collected by ECI and analyzed for GRO, DRO and ORO were reported below the MTCA-A CUL. Although ten samples were reported exceeding the laboratory MRL oil range organics, further investigation is not warranted at this time.

[3] http://www.ecy.wa.gov/programs/tcp/sites/dirt_alert/studies_and_maps/sources.html

Recommendation

Due to the intermittent PCE concentrations identified by both ECI and Kleinfelder (Figure 3), calculating total quantities is an estimate only. Remediation options are limited to 1.) Natural Attenuation: Leaving the impacted soil in place and monitoring through intermittent sampling of natural degradation. This process will take an indefinite period of time and may not adequately reduce the concentration of contaminates to acceptable levels to meet Ecology cleanup requirements. 2.) In-situ[4] Remediation: This is the process of "treating" the soil in place. As with Natural Attenuation, the in-situ process will take an undetermined amount of time and may not meet the Ecology cleanup requirements. 3.) Ex-situ[5] Remediation / Off Site Disposal: This is the process of excavating the impacted soil and testing the soil following excavation activities for contaminate concentrations exceeding applicable cleanup levels (CULs). Also involved is confirming the excavation limits (confirmation sampling) are below applicable CULs. If post excavation sampling of excavated soil is reported below CULs the material may be used as backfill on the property. If the soil is reported exceeding applicable CULs, off-site disposal at a licensed disposal facility will be required.

Arsenic contaminated soil identified during the 2011 ECI investigation is assumed to be related to the Asarco Area Wide Contamination Plume and was most likely imported onto the site during historic infilling. ECI recommends completing additional sampling activities to delineate the extent of arsenic contaminated soil. Once delineated, remediation options are limited to excavation of the impacted soil and 1.) On site treatment using experimental treatment technologies or 2.) Off-site disposal of the contaminated media at a licensed disposal facility. 3.) To leave the impacted soil in place and manage the site using instructional controls. Typically, the institutional controls would include the capping of the site (asphalt, concrete, buildings, etc.). The capping alternative, should regulatory closure be the ultimate goal, will require Ecology authorization and a study of groundwater conditions underlying the site to confirm that arsenic has not or will not impact groundwater. To receive a No Further Action (NFA) determination, Ecology will require a restrictive covenant on the property.

Limitations

This report is the property of Ron Eaton, Eaton Family, LLC and his authorized representatives or affiliates and was prepared in a manner consistent with the level of skill and care ordinarily exercised by members of the profession currently practicing in the same locality and under similar conditions. This report is intended for specific application to the property located at 2119 Mildred Street, Fircrest, Washington. No other warranty, expressed or implied, is made. The analyses and recommendations presented in this report are based upon data obtained from our review of available information at the time of preparing this report, our test borings drilled on the Site, or other noted data sources. Conditional changes may occur through time by natural or man-made process on this or adjacent properties.

[4] In-situ ("in place") remediation refers to the cleanup of contaminated soils and groundwater without removing contaminated media from the subsurface, typically through the use of physical and/or chemical processes.

[5] Ex-situ remediation involves the removal of contaminated media, for on-site treatment and subsequent return to the subsurface.

We appreciate the opportunity to provide environmental consulting services to you on this project. If you have any questions or comments regarding this submittal please do not hesitate to contact us at (253) 238-9270.

Respectively Submitted,

Stephen Spencer
Principal

Enclosures

Appendix A – Project Figures

- Figure 1: Site Location Map
- Figure 2: Site Topographic Map
- Figure 3: PCE Sample Location Map
- Figure 4: Arsenic Sample Location Map

Appendix B – Project Tables

- Table 1: Soil Sample Analytical Results
- MTCA Method A Cleanup Levels

Appendix C – Labroatory Analytical Results

- Laboratory Analytical Results
- Sample Chain Of Custody

Appendix D – Sample Collection Logs

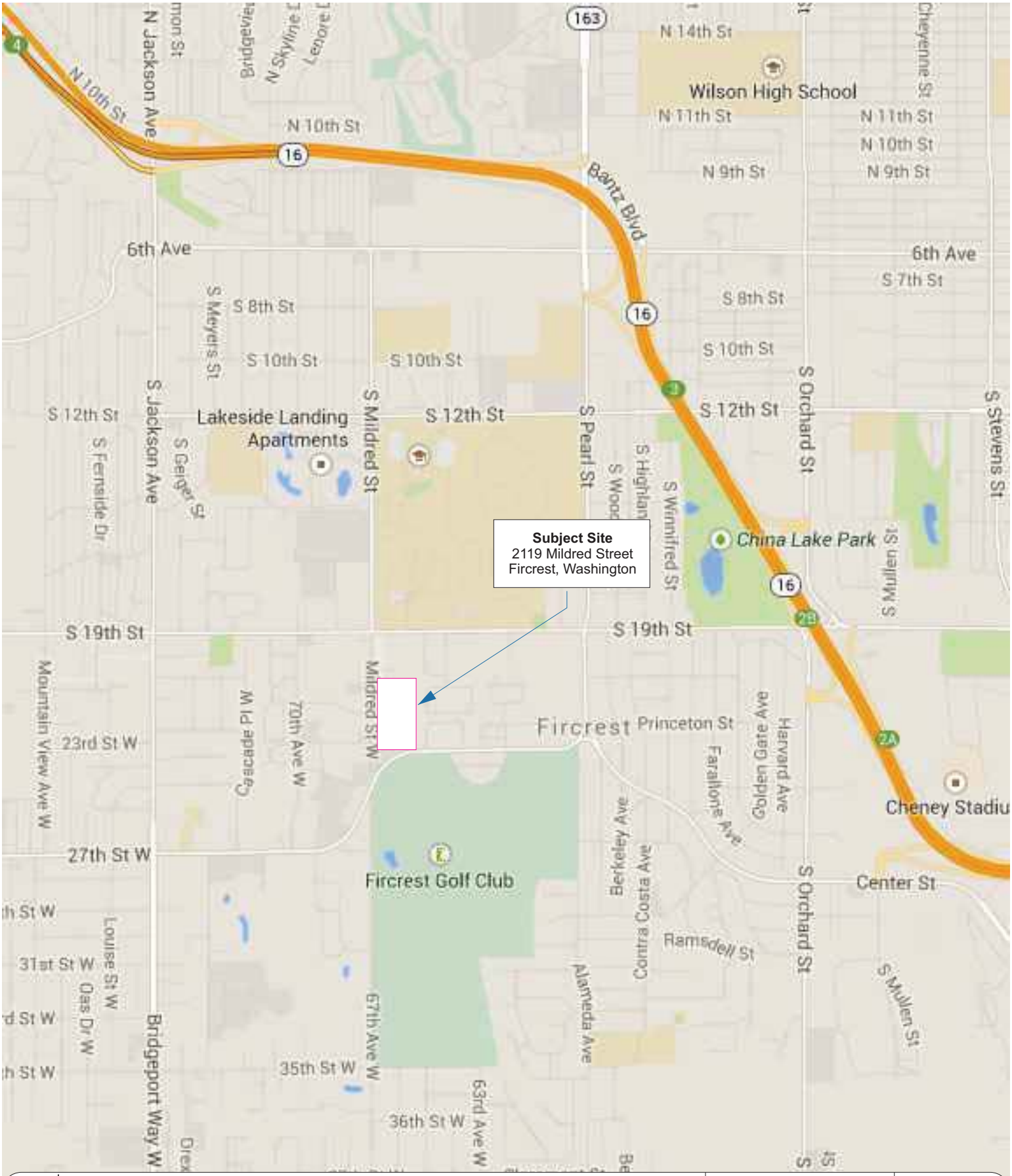
- Sample Collection Logs

Attachment A – Kleinfelder Reports

- Phase I Environmental Site Assessment – Kleinfelder 2005
- Limited Phase II Environmental Site Assessment – Kleinfelder 2005
- Supplemental Phase II Environmental Site Assessment – Kleinfelder 2005

Attachment A

Project Figures



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Site Location Map
Focused Subsurface Investgation
2119 Mildred Street
Fircrest, Washington

Date:	April 2 , 2012
Completed By:	S.Spencer
Reviewed By.:	S.Spencer
Version:	ECI-001
Project No.:	0377-04

Figure No.: 01
Sheet 01 of 04

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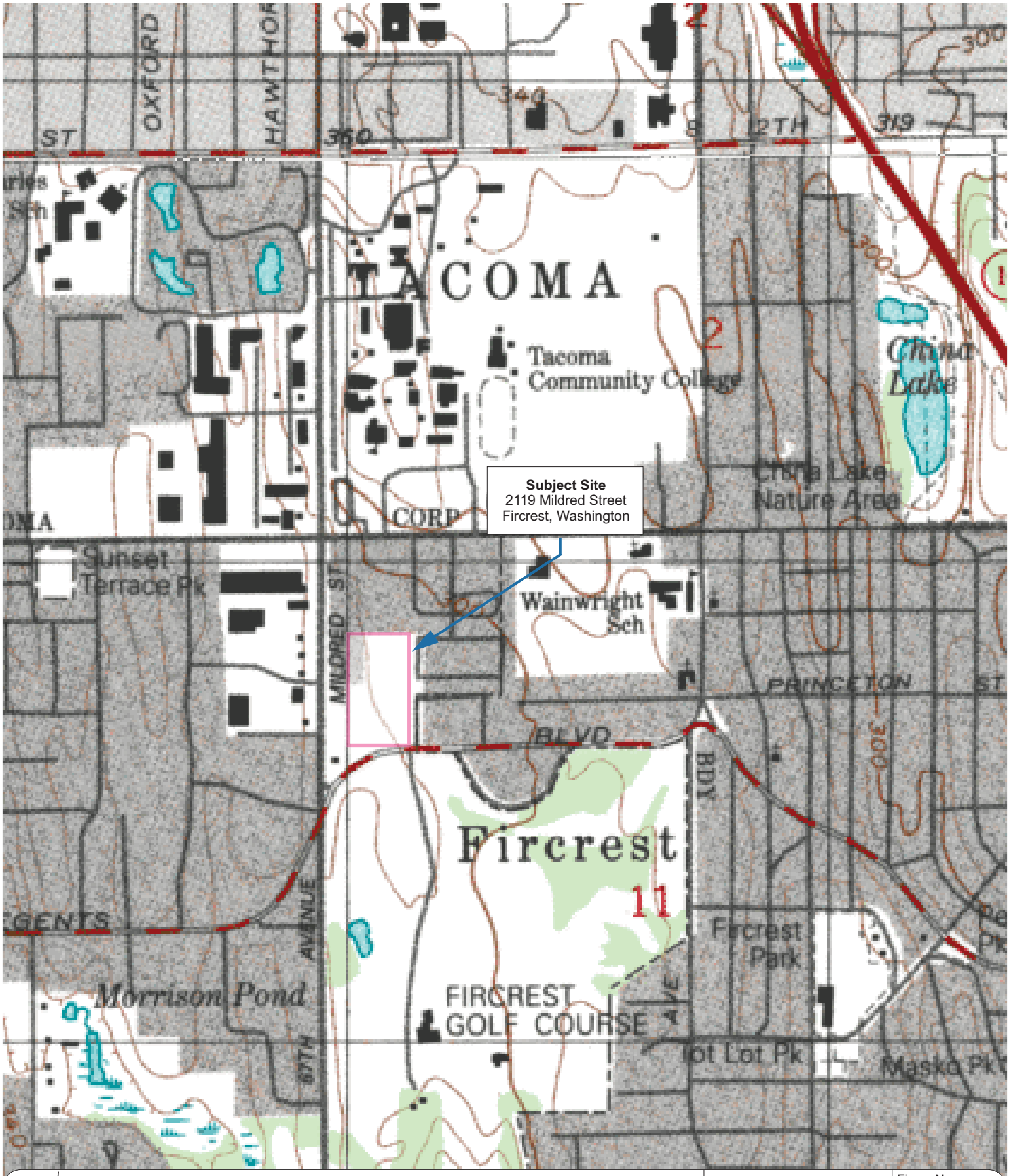

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Site Topographic Map
Focused Subsurface Investgation
2119 Mildred Street
Fircrest, Washington

Date:	April 2 , 2012
Completed By:	S.Spencer
Reviewed By.:	S.Spencer
Version:	ECI-001
Project No.:	0377-04

Figure No.:
01
Sheet 02 of 04

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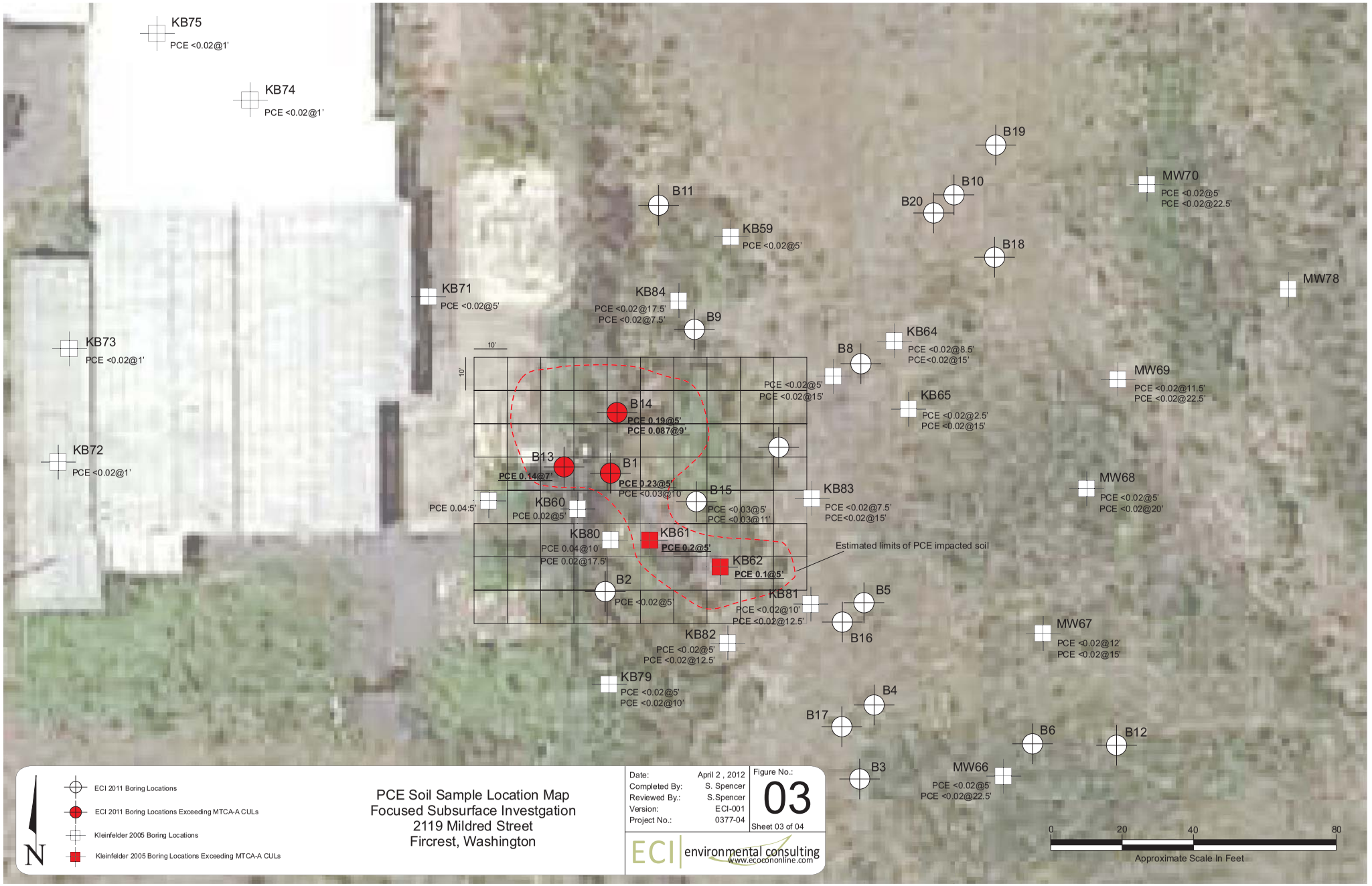
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B11
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10'
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PCE <0.03@11'
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PCE<0.02@15'
MW68
PCE <0.02@5'
PCE <0.02@20'
KB80
PCE 0.04@10'
PCE 0.02@17.5'
KB61
PCE 0.2@5'
KB62
PCE 0.1@5'
Estimated limits of PCE impacted soil
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B17
B6
B12
B3
MW66
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N
ECI 2011 Boring Locations
ECI 2011 Boring Locations Exceeding MTCA-A CULs
Kleinfelder 2005 Boring Locations
Kleinfelder 2005 Boring Locations Exceeding MTCA-A CULs
PCE Soil Sample Location Map
Focused Subsurface Investgation
2119 Mildred Street
Fircrest, Washington
Date: April 2 , 2012
Completed By: S. Spencer
Reviewed By.: S.Spencer
Version: ECI-001
Project No.: 0377-04
Figure No.: 03
Sheet 03 of 04
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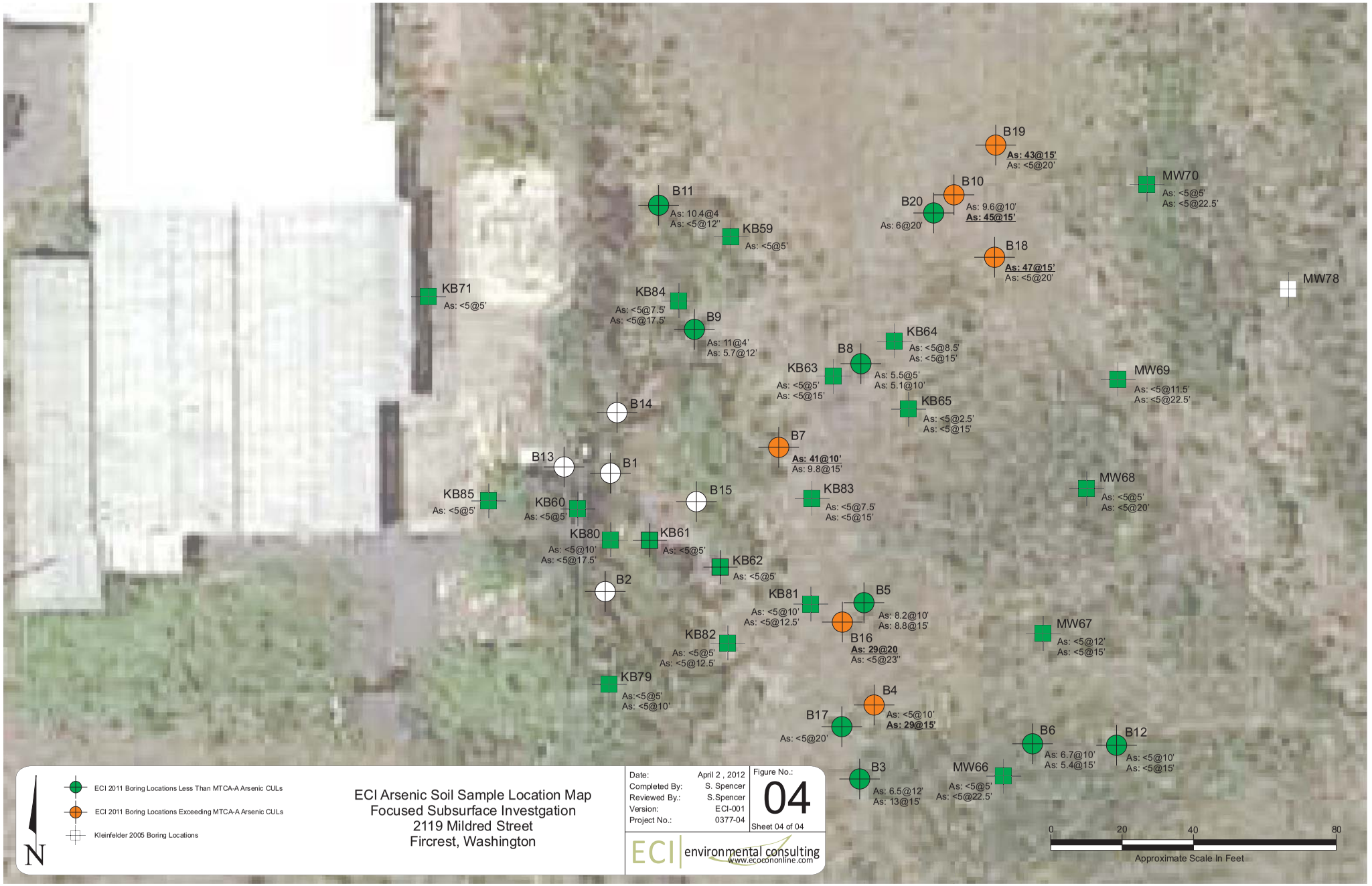
Approximate Scale In Feet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ECI 2011 Boring Locations Less Than MTCA-A Arsenic CULs
ECI 2011 Boring Locations Exceeding MTCA-A Arsenic CULs
Kleinfelder 2005 Boring Locations
ECI Arsenic Soil Sample Location Map
Focused Subsurface Investgation
2119 Mildred Street
Fircrest, Washington
Date: April 2 , 2012
Completed By: S. Spencer
Reviewed By.: S.Spencer
Version: ECI-001
Project No.: 0377-04
Figure No.: 04
Sheet 04 of 04
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0 20 40 80
Approximate Scale In Feet

Attachment B

Project Tables

Table 1: Soil Sample Analytical Results
MTCA Method A Cleanup Levels

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Table 2
Summary of Detected Target Analytes in Soil
2119 Mildred Street
Fircrest Washington
October 6, 2011

Sample ID	Date Collected	Sample depth (bgs)	Benzene[a]	Tetrachloroethylene(PCE)[a]	Arsenic[b]	Total Chromium[b]	Chromium VI[c]	Gasoline Range Organics[d]	Diesel Range Organics[e]	Oil Range Organics[e]	Toluene[a]	Ethylbenzene[a]	Total Xylenes[a]	1,3,5-Trimethylbenzene[a]	1,2,4-Trimethylbenzene[a]	Naphthalene[a]	Acenaphthene[f]	Pyrene[f]
B-1:5	9/27/2011	5	<0.02	**0.23**	-	-	-	<10	-	-	<0.02	<0.03	<0.03	<0.02	<0.02	<0.03	-	-
B-1:10	9/27/2011	10	**0.032**	<0.03	-	-	-	-	-	-	**0.17**	**0.058**	**0.34**	**0.034**	**0.13**	**0.45**	-	-
B-2:5	9/27/2011	5	<0.02	<0.03	-	-	-	-	-	-	<0.02	<0.03	<0.03	<0.02	<0.02	<0.03	-	-
B-2:7.5	9/27/2011	7.5	<0.02	<0.03	-	-	-	<10	-	-	<0.02	<0.03	<0.03	<0.02	<0.02	<0.03	-	-
B-3:12	9/27/2011	12	-	-	**6.5**	<5	<0.1	-	<25	<40	-	-	-	-	-	-	-	-
B-3:15	9/27/2011	15	-	-	**13**	**5.4**	<1	-	<25	<40	-	-	-	-	-	-	-	-
B-4:10	9/27/2011	10	-	-	<5	**5.8**	<0.1	-	<25	**162**	-	-	-	-	-	-	-	-
B-4:15	9/27/2011	15	-	-	**29**	**7.2**	<1	-	<25	**592**	-	-	-	-	-	-	**0.08**	**0.1**
B-17:20 (B-4)	10/3/2011	20	-	-	<5	-	-	-	<25	<40	-	-	-	-	-	-	-	-
B-5:5	9/27/2011	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-5:10	9/27/2011	10	-	-	**8.2**	**9.9**	<0.5	-	<25	**62**	-	-	-	-	-	-	-	-
B-5:15	9/27/2011	15	-	-	**8.8**	**1.1**	<0.5	-	<25	**373**	-	-	-	-	-	-	<0.05	<0.05
B-6:10	9/27/2011	10	-	-	**6.7**	**5.5**	<0.1	-	<25	<40	-	-	-	-	-	-	-	-
B-6:15	9/27/2011	15	-	-	**5.4**	**10**	<0.1	-	<25	**87**	-	-	-	-	-	-	-	-
B-7:10	9/27/2011	10	-	-	**41**	**5.3**	**1.9**	-	<25	<40	-	-	-	-	-	-	-	-
B-7:15	9/27/2011	15	-	-	**9.8**	**9.3**	<0.1	-	<25	**50**	-	-	-	-	-	-	-	-
B-8:5	9/27/2011	5	-	-	**5.5**	**5.6**	<0.1	-	<25	<40	-	-	-	-	-	-	-	-
B-8:10	9/27/2011	10	-	-	**5.1**	**<5**	<0.5	-	<25	<40	-	-	-	-	-	-	-	-
B-8:15	9/27/2011	15	-	-	**47**	-	-	-	<25	<40	-	-	-	-	-	-	-	-

ECI environmental services
www.ecocononline.com

Table 2
Summary of Detected Target Analytes in Soil
2119 Mildred Street
Fircrest Washington

October 6, 2011

Sample ID	Date Collected	Sample depth (bgs)	Benzene[a]	Tetrachloroethylene(PCE)[a]	Arsenic[b]	Total Chromium[b]	Chromium VI[c]	Gasoline Range Organics[d]	Diesel Range Organics[e]	Oil Range Organics[e]	Toluene[a]	Ethylbenzene[a]	Total Xylenes[a]	1,3,5-Trimethylbenzene[a]	1,2,4-Trimethylbenzene[a]	Naphthalene[a]	Acenaphthene[f]	Pyrene[f]
B-9:4	9/27/2011	4	-	-	**11**	**6.2**	<0.5	-	<25	<40	-	-	-	-	-	-	-	-
B-9:12	9/27/2011	12	-	-	**5.7**	<5	<0.1	-	<25	**89**	-	-	-	-	-	-	-	-
B-10:10	9/27/2011	10	-	-	**9.6**	**6.1**	<1	-	<25	<40	-	-	-	-	-	-	-	-
B-10:15	9/27/2011	15	-	-	**45**	<5	<1	-	<25	**82**	-	-	-	-	-	-	-	-
B-11:4	9/27/2011	4	-	-	**10.4**	**8.2**	<0.5	-	<25	**109**	-	-	-	-	-	-	-	-
B-11:12	9/27/2011	12	-	-	<5	<5	<0.1	-	<25	<40	-	-	-	-	-	-	-	-
B-12:5	9/27/2011	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-12:10	9/27/2011	10	-	-	<5	<5	<0.1	-	<25	**240**	-	-	-	-	-	-	-	-
B-12:15	9/27/2011	15	-	-	<5	**9.1**	<0.1	-	<25	<40	-	-	-	-	-	-	-	-
B-13:7	10/3/2011	7	<0.02	**0.14**	-	-	-	<10	-	-	<0.02	<0.03	<0.03	<0.02	<0.02	<0.03	-	-
B-14:5	10/3/2011	5	<0.02	**0.19**	-	-	-	<10	-	-	<0.02	<0.03	<0.03	<0.02	<0.02	<0.03	-	-
B-14:9	10/3/2011	9	<0.02	**0.087**	-	-	-	<10	-	-	<0.02	<0.03	<0.03	<0.02	<0.02	<0.03	-	-
B-15:5	10/3/2011	5	<0.02	<0.03	-	-	-	<10	-	-	<0.02	<0.03	<0.03	<0.02	<0.02	<0.03	-	-
B-15:11	10/3/2011	11	<0.02	<0.03	-	-	-	<10	-	-	<0.02	<0.03	<0.03	<0.02	<0.02	<0.03	-	-
B-16:20 (B-5)	10/3/2011	20	-	-	**29**	-	-	-	<25	<40	-	-	-	-	-	-	-	-
B-16:23 (B-5)	10/3/2011	23	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-
B-18:15	10/3/2011	15	-	-	**47**	-	-	-	-	-	-	-	-	-	-	-	-	-
B-18:20	10/3/2011	20	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-
B-19:15	10/3/2011	15	-	-	**43**	-	-	-	-	-	-	-	-	-	-	-	-	-

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Table 2
Summary of Detected Target Analytes in Soil
2119 Mildred Street
Fircrest Washington
October 6, 2011

Sample ID	Date Collected	Sample depth (bgs)	Benzene[a]	Tetrachloroethylene(PCE)[a]	Arsenic[b]	Total Chromium[b]	Chromium VI[c]	Gasoline Range Organics[d]	Diesel Range Organics[e]	Oil Range Organics[e]	Toluene[a]	Ethylbenzene[a]	Total Xylenes[a]	1,3,5-Trimethylbenzene[a]	1,2,4-Trimethylbenzene[a]	Naphthalene[a]	Acenaphthene[f]	Pyrene[f]
B-19:20	10/3/2011	20	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-
B-20:20 (B-10)	10/3/2011	20	-	-	**6**	-	-	-	-	-	-	-	-	-	-	-	-	-
Laboratory Method Reporting Level			**0.02**	**0.03**	**5**	**5**	**0.1**	**10**	**25**	**40**	**0.02**	**0.03**	**0.03**	**0.02**	**0.02**	**0.03**	**0.05**	**0.05**
MTCA-A Soil Cleanup Level For Unrestricted Land Uses			**0.03**	**0.05**	**20**	**2,000**	**19**	**30/100[g]**	**2,000**	**2,000**	**7**	**6**	**9**	**NVE**	**NVE**	**5**	**NVE**	**NVE**

Borings	Sample Depth	Rationale for Proposed Boring Location
As-1 through As-7	10,15,20	Determine vertical and lateral extent of As Impacts in the area B-10/B-20, B-18 & B-19
As-8 through As-13	5	Determine vertical and lateral extent of As Impacts in the area of B-5/B-16 and B-4/B-17. As-9 data would also be used to assess B-7 are of impacts

Bolded and shaded concentration - indicates that the concentration exceeded the MTCA Method A Soil Cleanup Level

Bolded- indicates that the concentration was above the laboratory detection limit

(a) Volatile organic compounds analyzed using EPA Method 8260

(b) Analyzed using EPA Method 6010 or 7010

(c) Analyzed using EPA Method 7196

(d) Analyzed using Ecology Method NWTPH-Gx

(e) Analyzed using Ecology Method NWTPH-Dx

(f) Polycyclic aromatic hydrocarbons analyzed using EPA Method 8270

(g) The MTCA Method A Soil Cleanup Level for gasoline range organics is 30 mg/kg when benzene is present and 100 mg/kg when no benzene is present

"-" Indicates that the sample was not analyzed for the indicated analysis

Gray shade indicates sample was not analyzed and is being held had the laboratory for potential future analysis

NVE - No value established. No MTCA Method A Cleanup Level has been established for the indicated analyte

Attachment C

Project Analytical Restyles

Laboratory Analytical Results
Sample Chain Of Custody

Libby Environmental, Inc.
4139 Libby Road NE • Olympia, WA 98506-2518

October 10, 2011

Steve Spencer
ECI
P.O. Box 153
Fox Island, WA 98333

Dear Mr. Spencer:

Please find enclosed the analytical data report for the Alpha Freeman Project located in Tacoma, Washington. Soil samples were analyzed for Gasoline by NWTPH-Gx, Diesel & Oil by NWTPH-Dx/Dx Extended, PAH (Polyaromatic Hydrocarbons) by EPA Method 8270, Volatile Organic Compounds by EPA Method 8260C, Metals Arsenic and Chromium by EPA Method 7010 Series and Hexavalent Chromium by EPA Method 7196A on September 27, 28, 29 & 30, 2011.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. All soil samples are reported on a dry weight basis. An invoice for this analytical work is enclosed.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
President
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@aol.com

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 9/27/11 Page: 1 of 2

Client: ECI

Project Manager: Steve Spencer

Address: 1912 64th Ave W Tacoma, WA

Project Name: Freeman Property

Phone: 866 730 9369 Fax: 253-369-6228

Location: Mildred City: Tacoma

Client Project #

Collector: Jerry Sawetz Date of Collection: 9/27/11

	Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	8260 HVOCs	As Cr Pb Total	Cr VI	Field Notes
1	B-1:5	5	930	Soil	2x4, 1402					X						X				Gx, VOC added 9-29
2	B-1:10	10	940													X				per Jerry via phone
3	B-2:5	5	1000													X				
4	B-2:7.5	7.5	1005							X						X				
5	B-4:5	5	1010		1-4oz						D									
6	B-4:10	10	1012								X	X					X	X		
7	B-4:15	15	1015									X	X				X	X		PAH added 9-29
8	B-5:5	5	1100																	per Steve via phone
9	B-5:10	10	1105									X					X	X		24 hr TAT
10	B-5:15	15	1110									X	X				X	X		
11	B-8:5	5	1115									X					X	X		
12	B-8:10	10	1117									X					X	X		
13	B-8:15	15	1120																	
14	B-6:5	5	1130																	
15	B-6:10	10	1133									X					X	X		
16	B-6:15	15	1135									X					X	X		
17	B-7:5	5	1145																	
18	B-7:10	10	1146									X					X	X		

Relinquished by:	Date / Time	Received by:	Date / Time
Jerry Sawetz	9/27/11		9/27 16:03
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt:

Good Condition?	
Cold?	
Seals Intact?	
Total Number of Containers	

Remarks: Hold samples not checked for analysis. RUSH analysis ASAP

Distribution: White - Lab, Yellow - File, Pink - Originator

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 9/27/11 Page: 2 of 2

Client: ECI

Project Manager:

Address: 1912 64th Ave W Tacoma, WA

Project Name: SAME AS PAGE 1

Phone: Fax:

Location: City:

Client Project #

Collector: Date of Collection:

	Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	As	Cr total / Cr VI	Field Notes
1	B-7:15	15	1147	Soil	1-4oz							X					X	X	
2	B-3:5	5	1150																
3	B-3:10	10	1155																
4	B-3:12	12	1157									X					X	X	
5	B-3:15	15	1200									X					X	X	
6	B-10:5	5	1220																
7	B-10:10	10	1223									X					X	X	
8	B-10:15	15	1225									X					X	X	
9	B-9:4	4	1235									X					X	X	
10	B-9:8	8	1238																
11	B-9:12	12	1240									X					X	X	
12	B-11:4	4	1240									X					X	X	
13	B-11:8	8	1245																
14	B-11:12	12	1250									X					X	X	
15	B-12:5	5	1300																
16	B-12:10	10	1305									X					X	X	
17	B-13:15	15	1310									X					X	X	
18	B-12:20	20	1315																

Relinquished by:	Date / Time	Received by:	Date / Time
Jennifer Hunt	9/27/11	[signature]	9/27/11 16:03
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt:

Good Condition?	
Cold?	
Seals Intact?	
Total Number of Containers	

Remarks:
Hold Samples not Checked for analysis, RUSH analysis ASAP

Distribution: White - Lab, Yellow - File, Pink - Originator

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROPERTY PROJECT
Tacoma, Washington
ECI
Libby Project No. L110927-13

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	9/27/11	96	nd	nd	nd
Method Blank	9/28/11	69	nd	nd	nd
B-4:10	9/27/11	90	nd	nd	162
B-4:15	9/27/11	114	nd	nd	592
B-5:10	9/27/11	82	nd	nd	62
B-5:15	9/27/11	100	nd	nd	373
B-8:5	9/28/11	69	nd	nd	nd
B-8:10	9/28/11	119	nd	nd	nd
B-6:10	9/28/11	66	nd	nd	nd
B-6:15	9/28/11	119	nd	nd	87
B-7:10	9/28/11	115	nd	nd	nd
B-7:15	9/28/11	71	nd	nd	50
B-3:12	9/28/11	72	nd	nd	nd
B-3:15	9/28/11	71	nd	nd	nd
B-10:10	9/28/11	74	nd	nd	nd
B-10:15	9/28/11	88	nd	nd	82
B-9:4	9/28/11	99	nd	nd	nd
B-9:12	9/28/11	81	nd	nd	89
B-11:4	9/27/11	90	nd	nd	109
B-11:12	9/28/11	92	nd	nd	nd
B-12:10	9/28/11	122	nd	nd	240
B-12:15	9/28/11	67	nd	nd	nd
B-12:15 Dup	9/28/11	128	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: Jamie Hart & Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROPERTY PROJECT
Tacoma, Washington
ECI
Libby Project No. L110927-13

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Mineral Oil (mg/kg)	Oil (mg/kg)
Method Blank	9/28/11	69	nd	nd	nd
B-4:15	9/27/11	115	nd	nd	497
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

FREEMAN PROPERTY PROJECT
Tacoma, Washington
ECI
Libby Project No. L110927-13

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260C IN SOIL

Sample Description		Method Blank	B-1:10	B-2:5	B-2:5 Dup
Date Sampled	Reporting	N/A	9/27/11	9/27/11	9/27/11
Date Analyzed	Limits (mg/kg)	9/27/11 (mg/kg)	9/27/11 (mg/kg)	9/27/11 (mg/kg)	9/27/11 (mg/kg)
Dichlorodifluoromethane	0.06	nd	nd	nd	nd
Chloromethane	0.06	nd	nd	nd	nd
Vinyl chloride	0.02	nd	nd	nd	nd
Bromomethane	0.09	nd	nd	nd	nd
Chloroethane	0.06	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd
Methylene chloride	0.02	nd	nd	nd	nd
Methyl *tert*-Butyl Ether (MTB	0.02	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd
1,1-Dichloroethane	0.02	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.02	nd	nd	nd	nd
Chloroform	0.02	nd	nd	nd	nd
1,1,1-Trichloroethane (TCA)	0.02	nd	nd	nd	nd
Carbon tetrachloride	0.02	nd	nd	nd	nd
1,1-Dichloropropene	0.02	nd	nd	nd	nd
Benzene	0.02	nd	0.032	nd	nd
1,2-Dichloroethane (EDC)	0.03	nd	nd	nd	nd
Trichloroethene (TCE)	0.03	nd	nd	nd	nd
1,2-Dichloropropane	0.02	nd	nd	nd	nd
Dibromomethane	0.04	nd	nd	nd	nd
Bromodichloromethane	0.02	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.02	nd	nd	nd	nd
Toluene	0.02	nd	0.17	nd	nd
Trans-1,3-Dichloropropene	0.03	nd	nd	nd	nd
1,1,2-Trichloroethane	0.03	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd	nd
Dibromochloromethane	0.03	nd	nd	nd	nd
1,2-Dibromoethane (EDB) *	0.005	nd	nd	nd	nd
Chlorobenzene	0.02	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.03	nd	nd	nd	nd
Ethylbenzene	0.03	nd	0.058	nd	nd
Total Xylenes	0.03	nd	0.34	nd	nd
Styrenes	0.02	nd	nd	nd	nd

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROPERTY PROJECT
Tacoma, Washington
ECI
Libby Project No. L110927-13

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260C IN SOIL

Sample Description		Method Blank	B-1:10	B-2:5	B-2:5 Dup
Date Sampled	Reporting	N/A	9/27/11	9/27/11	9/27/11
Date Analyzed	Limits (mg/kg)	9/27/11 (mg/kg)	9/27/11 (mg/kg)	9/27/11 (mg/kg)	9/27/11 (mg/kg)
Bromoform	0.02	nd	nd	nd	nd
Isopropylbenzene	0.08	nd	nd	nd	nd
1,2,3-Trichloropropane	0.02	nd	nd	nd	nd
Bromobenzene	0.03	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.02	nd	nd	nd	nd
n-Propylbenzene	0.02	nd	nd	nd	nd
2-Chlorotoluene	0.02	nd	nd	nd	nd
4-Chlorotoluene	0.02	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.02	nd	0.034	nd	nd
tert-Butylbenzene	0.02	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.02	nd	0.13	nd	nd
sec-Butylbenzene	0.02	nd	nd	nd	nd
1,3-Dichlorobenzene	0.02	nd	nd	nd	nd
Isopropyltoluene	0.02	nd	nd	nd	nd
1,4-Dichlorobenzene	0.02	nd	nd	nd	nd
1,2-Dichlorobenzene	0.02	nd	nd	nd	nd
n-Butylbenzene	0.02	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.03	nd	nd	nd	nd
1,2,4-Trichlorolbenzene	0.05	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.10	nd	nd	nd	nd
Naphthalene	0.03	nd	0.45	nd	nd
1,2,3-Trichlorobenzene	1.0	nd	nd	nd	nd
Surrogate Recovery					
Dibromofluoromethane		76	77	68	77
1,2-Dichloroethane-d4		135	125	114	133
Toluene-d8		123	124	122	123
4-Bromofluorobenzene		78	78	79	76

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

* INSTRUMENT DETECTION LIMIT
ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROPERTY PROJECT
Tacoma, Washington
ECI
Libby Project No. L110927-13

QA/QC Data - EPA 8260C Analyses

	Sample Identification: L110927-10						
	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 (%)	
1,1-Dichloroethene	0.5	int	int	0.5	9.00	1800	n/a
Benzene	0.5	0.41	82	0.5	0.41	82	0.0
Toluene	0.5	int	int	0.5	int	int	n/a
Chlorobenzene	0.5	0.55	110	0.5	0.57	114	3.6
Trichloroethene (TCE)	0.5	0.37	74	0.5	0.42	84	12.7
Surrogate Recovery							
Dibromofluoromethane			72			72	
1,2-Dichloroethane-d4			124			134	
Toluene-d8			119			124	
4-Bromofluorobenzene			80			76	

	Laboratory Control Sample		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
1,1-Dichloroethene	0.5	0.62	124
Benzene	0.5	0.37	74
Toluene	0.5	0.36	72
Chlorobenzene	0.5	0.49	98
Trichloroethene (TCE)	0.5	0.38	76
Surrogate Recovery			
Dibromofluoromethane			78
1,2-Dichloroethane-d4			111
Toluene-d8			129
4-Bromofluorobenzene			72

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

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROPERTY PROJECT
Tacoma, Washington
ECI
Libby Project No. L110927-13

Analyses of Metals in Soil by EPA Method 7010 Series

Sample Number	Date Analyzed	Chromium (mg/kg)	Arsenic (mg/kg)
Method Blank	9/28/11	nd	nd
B-4:10	9/28/11	5.8	nd
B-4:15	9/28/11	7.2	29
B-5:10	9/28/11	9.9	8.2
B-5:15	9/28/11	11	8.8
B-8:5	9/28/11	5.6	5.5
B-8:10	9/28/11	nd	5.1
B-6:10	9/28/11	5.5	6.7
B-6:15	9/28/11	10	5.4
B-7:10	9/28/11	5.3	41
B-7:15	9/28/11	9.3	9.8
B-3:12	9/28/11	nd	6.5
B-3:15	9/28/11	5.4	13
B-10:10	9/28/11	6.1	9.6
B-10:15	9/28/11	nd	45
B-9:4	9/28/11	6.2	11
B-9:12	9/28/11	nd	5.7
B-11:4	9/28/11	8.2	10.4
B-11:12	9/28/11	nd	nd
B-12:10	9/28/11	nd	nd
B-12:15	9/28/11	9.1	nd
B-12:15 Dup	9/28/11	8.1	5.6
Practical Quantitation Limi		5.0	5.0

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

ANALYSES PERFORMED BY: Sherry Chilcut

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROPERTY PROJECT
Tacoma, Washington
ECI
Libby Project No. L110927-13

QA/QC for Metals in Soil by EPA Method 7010 Series

Sample Number	Date Analyzed	Chromium (% Recovery)	Arsenic (% Recovery)
LCS	9/28/11	116%	108%
B-12:15 MS	9/28/11	int	97%
B-12:15 MSD	9/28/11	int	79%
RPD	9/28/11		20%
Practical Quantitation Limi		5.0	5.0

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

ANALYSES PERFORMED BY: Sherry Chilcut

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROPERTY PROJECT
Tacoma, Washington
ECI
Libby Project No. L110927-13

Analyses of Gasoline (NWTPH-Gx) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Gasoline (mg/l)
Method Blank	9/29/11	121	nd
B-1:5	9/29/11	131	nd
B-2:7.5	9/29/11	127	nd
Practical Quantitation Limi			1.0

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Toluene-d8): 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROPERTY PROJECT
Tacoma, Washington
ECI
Libby Project No. L110927-13

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260C IN SOIL

Sample Description		Method Blank	B-1:5	B-2:7.5
Date Sampled	Reporting	N/A	9/27/11	9/27/11
Date Analyzed	Limits (mg/l)	9/29/11 (mg/l)	9/29/11 (mg/l)	9/29/11 (mg/l)
Dichlorodifluoromethane	0.4	nd	nd	nd
Chloromethane	0.4	nd	nd	nd
Vinyl chloride	0.2	nd	nd	nd
Bromomethane	0.4	nd	nd	nd
Chloroethane	0.4	nd	nd	nd
Trichlorofluoromethane	0.4	nd	nd	nd
1,1-Dichloroethene	0.4	nd	nd	nd
Methylene chloride	0.2	nd	nd	nd
Methyl *tert*- Butyl Ether (MTBE)	1.0	nd	nd	nd
trans -1,2-Dichloroethene	0.2	nd	nd	nd
1,1-Dichloroethane	0.2	nd	nd	nd
2,2-Dichloropropane	0.4	nd	nd	nd
cis -1,2-Dichloroethene	0.2	nd	nd	nd
Chloroform	0.2	nd	nd	nd
1,1,1-Trichloroethane (TCA)	0.2	nd	nd	nd
Carbon tetrachloride	0.2	nd	nd	nd
1,1-Dichloropropene	0.2	nd	nd	nd
Benzene	0.2	nd	nd	nd
1,2-Dichloroethane (EDC)	0.2	nd	nd	nd
Trichloroethene (TCE)	0.2	nd	nd	nd
1,2-Dichloropropane	0.2	nd	nd	nd
Dibromomethane	0.2	nd	nd	nd
Bromodichloromethane	0.2	nd	nd	nd
cis-1,3-Dichloropropene	0.2	nd	nd	nd
Toluene	0.2	nd	nd	nd
Trans-1,3-Dichloropropene	0.2	nd	nd	nd
1,1,2-Trichloroethane	0.2	nd	nd	nd
Tetrachloroethene (PCE)	0.2	nd	0.23	nd
1,3-Dichloropropane	0.2	nd	nd	nd
Dibromochloromethane	0.2	nd	nd	nd
1,2-Dibromoethane (EDB) *	0.01	nd	nd	nd
Chlorobenzene	0.2	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.2	nd	nd	nd
Ethylbenzene	0.2	nd	nd	nd
Total Xylenes	0.4	nd	nd	nd
Styrenes	0.2	nd	nd	nd

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROPERTY PROJECT
Tacoma, Washington
ECI
Libby Project No. L110927-13

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260C IN SOIL

Sample Description		Method Blank	B-1:5	B-2:7.5
Date Sampled	Reporting	N/A	9/27/11	9/27/11
Date Analyzed	Limits	9/29/11	9/29/11	9/29/11
	(ug/l)	(mg/l)	(mg/l)	(mg/l)
Bromoform	0.2	nd	nd	nd
Isopropylbenzene	0.8	nd	nd	nd
1,2,3-Trichloropropane	0.2	nd	nd	nd
Bromobenzene	0.2	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.2	nd	nd	nd
n-Propylbenzene	0.2	nd	nd	nd
2-Chlorotoluene	0.2	nd	nd	nd
4-Chlorotoluene	0.2	nd	nd	nd
1,3,5-Trimethylbenzene	0.2	nd	nd	nd
tert-Butylbenzene	0.2	nd	nd	nd
1,2,4-Trimethylbenzene	0.2	nd	nd	nd
sec-Butylbenzene	0.2	nd	nd	nd
1,3-Dichlorobenzene	0.2	nd	nd	nd
Isopropyltoluene	0.2	nd	nd	nd
1,4-Dichlorobenzene	0.2	nd	nd	nd
1,2-Dichlorobenzene	0.2	nd	nd	nd
n-Butylbenzene	0.2	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.2	nd	nd	nd
1,2,4-Trichlorolbenzene	0.4	nd	nd	nd
Hexachloro-1,3-butadiene	1.0	nd	nd	nd
Naphthalene	1.0	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd	nd	nd
Surrogate Recovery				
Dibromofluoromethane		83%	74%	71%
1,2-Dichloroethane-d4		124%	130%	121%
Toluene-d8		121%	131%	127%
4-Bromofluorobenzene		77%	77%	80%

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

* INSTRUMENT DETECTION LIMIT
ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROPERTY PROJECT
Tacoma, Washington
ECI
Libby Project No. L110927-13

QA/QC Data - EPA 8260C Analyses

	Laboratory Control Sample		
	Spiked Conc. (ug/l)	Measured Conc. (ug/l)	Spike Recovery (%)
1,1-Dichloroethene	10	12.0	120
Benzene	10	8.9	89
Toluene	10	7.8	78
Chlorobenzene	10	10.6	106
Trichloroethene (TCE)	10	7.9	79
Surrogate Recovery			
Dibromofluoromethane			95
1,2-Dichloroethane-d4			123
Toluene-d8			134
4-Bromofluorobenzene			75

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

ANALYSES PERFORMED BY: Paul Burke

SPECTRA Laboratories

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09/30/2011

Libby Environmental, Inc.
4139 Libby Rd NE
Olympia, WA 98506
Attn: Sherry Chilcutt

Project: Freeman Property
Client ID: B-4:15
Sample Matrix: Soil
Date Sampled: 09/27/2011
Date Received: 09/28/2011
Spectra Project: 2011090609
Spectra Number: 2
Rush

Analyte	Result	Units	Method
Hexavalent Chromium	<1.0	mg/Kg	SW846 7196A
2-Methylnaphthalene	<0.05	mg/Kg	SW846 8270D
Acenaphthene	0.080	mg/Kg	SW846 8270D
Acenaphthylene	<0.05	mg/Kg	SW846 8270D
Anthracene	<0.05	mg/Kg	SW846 8270D
Benzo(a)Anthracene	<0.05	mg/Kg	SW846 8270D
Benzo(a)Pyrene	<0.05	mg/Kg	SW846 8270D
Benzo(b)Fluoranthene	<0.05	mg/Kg	SW846 8270D
Benzo(ghi)Perylene	<0.05	mg/Kg	SW846 8270D
Benzo(k)Fluoranthene	<0.05	mg/Kg	SW846 8270D
Chrysene	<0.05	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	<0.05	mg/Kg	SW846 8270D
Fluoranthene	<0.05	mg/Kg	SW846 8270D
Fluorene	<0.05	mg/Kg	SW846 8270D
Indeno(1,2,3-cd)Pyrene	<0.05	mg/Kg	SW846 8270D
Naphthalene	<0.05	mg/Kg	SW846 8270D
Phenanthrene	<0.05	mg/Kg	SW846 8270D
Pyrene	0.101	mg/Kg	SW846 8270D

Surrogate	% Recovery	Method
2-Fluorobiphenyl	65	SW846 8270D
Nitrobenzene-d5	63	SW846 8270D
p-Terphenyl-d14	77	SW846 8270D

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a5/sgh

SPECTRA Laboratories

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09/30/2011

Libby Environmental, Inc.
4139 Libby Rd NE
Olympia, WA 98506
Attn: Sherry Chilcutt

Project: Freeman Property
Client ID: B-5:15
Sample Matrix: Soil
Date Sampled: 09/27/2011
Date Received: 09/28/2011
Spectra Project: 2011090609
Spectra Number: 4
Rush

Analyte	Result	Units	Method
Hexavalent Chromium	<0.5	mg/Kg	SW846 7196A
2-Methylnaphthalene	<0.05	mg/Kg	SW846 8270D
Acenaphthene	<0.05	mg/Kg	SW846 8270D
Acenaphthylene	<0.05	mg/Kg	SW846 8270D
Anthracene	<0.05	mg/Kg	SW846 8270D
Benzo(a)Anthracene	<0.05	mg/Kg	SW846 8270D
Benzo(a)Pyrene	<0.05	mg/Kg	SW846 8270D
Benzo(b)Fluoranthene	<0.05	mg/Kg	SW846 8270D
Benzo(ghi)Perylene	<0.05	mg/Kg	SW846 8270D
Benzo(k)Fluoranthene	<0.05	mg/Kg	SW846 8270D
Chrysene	<0.05	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	<0.05	mg/Kg	SW846 8270D
Fluoranthene	<0.05	mg/Kg	SW846 8270D
Fluorene	<0.05	mg/Kg	SW846 8270D
Indeno(1,2,3-cd)Pyrene	<0.05	mg/Kg	SW846 8270D
Naphthalene	<0.05	mg/Kg	SW846 8270D
Phenanthrene	<0.05	mg/Kg	SW846 8270D
Pyrene	<0.05	mg/Kg	SW846 8270D

Surrogate	% Recovery	Method
2-Fluorobiphenyl	69	SW846 8270D
Nitrobenzene-d5	64	SW846 8270D
p-Terphenyl-d14	76	SW846 8270D

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a5/sgh

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September 30, 2011

Libby Environmental, Inc.
4139 Libby Rd. N.E.
Olympia, WA 98506

Spectra Project #	2011090609
Sample Spiked:	Method Blank
Date Extracted:	9/29/2011
Date Analyzed:	9/29/2011
Units:	mg/kg wet wt.
Applies to Spectra #'s:	#2,4

GCMS Semi-Volatile Organic Analysis, Method 8270D (Scan Mode)
Blank Spike (LCS) Results in Soil/ Solids

Compound	Blank Conc.	Spike Added	LCS Conc.	LCS %Rec
Phenol	<0.08	2.50	1.99	79
2-Chlorophenol	<0.08	2.50	1.75	70
1,4-Dichlorobenzene	<0.08	1.67	1.03	62
N-Nitroso-Di-N-Propylamine	<0.08	1.67	1.48	89
1,2,4-Trichlorobenzene	<0.08	1.67	1.06	63
4-Chloro-3-Methylphenol	<0.08	2.50	2.14	86
Acenaphthene	<0.03	1.67	1.16	70
2,4-Dinitrotoluene	<0.08	1.67	1.14	68
4-Nitrophenol	<0.08	2.50	2.36	94
Pentachlorophenol	<0.08	2.50	0.73	29
Pyrene	<0.03	1.67	1.10	66

Steven G. Hibbs
Laboratory Manager

SPECTRA Laboratories

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September 30, 2011

Libby Environmental, Inc.
4139 Libby Rd. N.E.
Olympia, WA 98506

METHOD BLANK RESULTS
Sample matrix: Solids
Spectra Project: 2011090609
Applies to: #2-4

Date Extracted: 9/29/2011
Date Analyzed: 9/29/2011
Dilution: **1**
< = less than

POLYNUCLEAR AROMATIC HYDROCARBON ANALYSIS **METHOD 8270**

Compound	mg/Kg	Compound	mg/Kg
Naphthalene	< 0.033	Benzo(a)Anthracene	< 0.033
2-Methylnaphthalene	< 0.033	Chrysene	< 0.033
Acenaphthylene	< 0.033	Benzo(b)Fluoranthene	< 0.033
Acenaphthene	< 0.033	Benzo(k)Fluoranthene	< 0.033
Fluorene	< 0.033	Benzo(a)Pyrene	< 0.033
Phenanthrene	< 0.033	Indeno(1,2,3-cd)Pyrene	< 0.033
Anthracene	< 0.033	Dibenzo(a,h)Anthracene	< 0.033
Fluoranthene	< 0.033	Benzo(g,h,i)Perylene	< 0.033
Pyrene	< 0.033	1-Methylnaphthalene	< 0.033

SURROGATE RECOVERIES

Nitrobenzene-d5	65	%
2-Fluorobiphenyl	67	%
p-Terphenyl-d14	74	%

Steven G. Hibbs
Laboratory Manager

2011090009

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 9-27-11 Page: 1 of 2

Client: Libby Env

Address: (See attached)

Project Manager: Jamie Hart

Project Name: Freeman Property

Phone: Fax:

Location: City: Tacoma, WA

Client Project #

Collector: Date of Collection: 9-27

	Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	Hex Chrom		Field Notes
1	B-12:10		1305	Soil	Jar											X			
2	B-12:15		1310	↓	↓											X			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	9/27/11 5:30pm	[signature]	9/28/11 0710
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt:

Good Condition?	Y
Cold?	Y
Seals Intact?	N/A
Total Number of Containers	20

Remarks: Results due Thurs AM 9-29-11

Distribution: White - Lab, Yellow - File, Pink - Originator

20110901009

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 9-27-11 Page: 1 of 2

Client: Libby Env (See above)

Project Manager: Jamie Hart

Address:

Project Name: Freeman Property

Phone: Fax:

Location: City: Tacoma, WA

Client Project #

Collector: Date of Collection: 9-27-11

	Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	Hex Chrome		Field Notes
1	B-4:10		1012	Soil	Jar											X			
2	B-4:15		1015													X			
3	B-5:10		1105													X			
4	B-5:15		1110													X			
5	B-8:5		11:15													X			
6	B-8:10		1117													X			
7	B-6:10		1133													X			
8	B-6:15		1135													X			
9	B-7:10		1146													X			
10	B-7:15		1147													X			
11	B-3:12		1157													X			
12	B-3:15		1200													X			
13	B-10:10		12:23													X			
14	B-10:15		1225													X			
15	B-9:4		1235													X			
16	B9:12		1240													X			
17	B-11:4		12:40													X			
18	B-11:12		1250													X			

Relinquished by:	Date / Time	Received by:	Date / Time
	9/27/11 5:30pm		9/28/11 0710
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt:

Good Condition?	Y
Cold?	Y
Seals Intact?	N/A
Total Number of Containers	20

Remarks: Results due Thursday AM 9-29-11

Distribution: White - Lab, Yellow - File, Pink - Originator

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09/29/2011

Libby Environmental, Inc.
4139 Libby Rd NE
Olympia, WA 98506
Attn: Sherry Chilcutt

Project: Freeman Property
Sample Matrix: Soil
Date Sampled: 09/27/2011
Date Received: 09/28/2011
Spectra Project: 2011090609
Rush

Client ID	Spectra #	Analyte	Result	Units	Method
B-4:10	1	Hexavalent Chromium	<0.1	mg/Kg	SW846 7196A
B-4:15	2	Hexavalent Chromium	<1.0	mg/Kg	SW846 7196A
B-5:10	3	Hexavalent Chromium	<0.5	mg/Kg	SW846 7196A
B-5:15	4	Hexavalent Chromium	<0.5	mg/Kg	SW846 7196A
B-8:5	5	Hexavalent Chromium	<0.1	mg/Kg	SW846 7196A
B-8:10	6	Hexavalent Chromium	<0.5	mg/Kg	SW846 7196A
B-6:10	7	Hexavalent Chromium	<0.1	mg/Kg	SW846 7196A
B-6:15	8	Hexavalent Chromium	<0.1	mg/Kg	SW846 7196A
B-7:10	9	Hexavalent Chromium	1.9	mg/Kg	SW846 7196A
B-7:15	10	Hexavalent Chromium	<0.1	mg/Kg	SW846 7196A
B-3:12	11	Hexavalent Chromium	<0.1	mg/Kg	SW846 7196A
B-3:15	12	Hexavalent Chromium	<1.0	mg/Kg	SW846 7196A
B-10:10	13	Hexavalent Chromium	<1.0	mg/Kg	SW846 7196A
B-10:15	14	Hexavalent Chromium	<1.0	mg/Kg	SW846 7196A
B-9:4	15	Hexavalent Chromium	<0.5	mg/Kg	SW846 7196A
B-9:12	16	Hexavalent Chromium	<0.1	mg/Kg	SW846 7196A
B-11:4	17	Hexavalent Chromium	<0.5	mg/Kg	SW846 7196A
B-11:12	18	Hexavalent Chromium	<0.1	mg/Kg	SW846 7196A
B-12:10	19	Hexavalent Chromium	<0.1	mg/Kg	SW846 7196A
B-12:15	20	Hexavalent Chromium	<0.1	mg/Kg	SW846 7196A

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a7/bjn

SPECTRA Laboratories

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September 29, 2011

Libby Environmental
4139 Libby Rd NE
Olympia, WA 98506

Units: mg/kg
Spectra Project: 2011090609
Applies to Spectra #'s 20-Jan

QUALITY CONTROL RESULTS

Hexavalent Chromium in Soil/Solid - Method SM 3500 Cr-D/ SW846 7196A

Method Blank

Date Digested: 9/28/2011 Date Analyzed: 9/28/2011

	Method Blank
Hexavalent Chromium	< 0.1

Blank Spike (LCS)

Date Digested: 9/28/2011 Date Analyzed: 9/28/2011

	Spike Added	LCS Conc.	LCS %Rec
Hexavalent Chromium	0.1	0.086	86.0

LCS Recovery limits 75-120%

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Date Digested: 9/28/2011 Date Analyzed: 9/28/2011
Sample Spiked: 2011090609-7

	Sample Conc.	Spike Conc.	MS Conc.	MS %Rec	MSD Conc	MSD %Rec	RPD
Hexavalent Chromium	0.000	0.1	0.088	88.0	0.086	86.0	2.3

Recovery Limits 75-125%
RPD Limit 20

SPECTRA LABORATORIES

Steven G. Hibbs
Laboratory Manager

2011090609

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 9-27-11 Page: 1 of 2

Client: Libby Env
Address: (See above)
Phone: Fax:
Client Project #

Project Manager: Jamie Hart
Project Name: Freeman Property
Location: City: Tacoma, WA
Collector: Date of Collection: 9-27-11

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	Hex Chrome		Field Notes
1 B-4:10		1012	Soil	Jar											X			
2 B-4:15		1015													X			
3 B-5:10		1105													X			
4 B-5:15		1110													X			
5 B-8:5		11:15													X			
6 B-8:10		1117													X			
7 B-6:10		1133													X			
8 B-6:15		1135													X			
9 B-7:10		1146													X			
10 B-7:15		1147													X			
11 B-3:12		1157													X			
12 B-3:15		1200													X			
13 B-10:10		1223													X			
14 B-10:15		1225													X			
15 B-9:4		1235													X			
16 B9:12		1240													X			
17 B-11:4		1240													X			
18 B-11:12		1250	↓	↓											X			

Relinquished by:	Date / Time	Received by:	Date / Time
	9/27/11 5:30pm		9/28/11 0710
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt:

Good Condition?	Y
Cold?	Y
Seals Intact?	N/A
Total Number of Containers	20

Remarks:
Results due
Thursday AM
9-29-11

Distribution: White - Lab, Yellow - File, Pink - Originator

20110906009

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506

Ph: 360-352-2110
Fax: 360-352-4154

Client: Libby Env
Address: (See above)
Phone: Fax:
Client Project #

Date: 9-27-11 Page: 1 of 2
Project Manager: Jamie Hart
Project Name: Freeman Property
Location: City: Tacoma, WA
Collector: Date of Collection: 9-27

	Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	Het Chrom			Field Notes
1	B-12:10		1305	Soil	Jar											X				
2	B-12-15		1310	↓	↓											X				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
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11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				

Relinquished by:	Date / Time	Received by:	Date / Time
Joe	9/27/11 5:30pm		9/28/11 0710
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt:

Good Condition?	Y
Cold?	Y
Seals Intact?	Y/A
Total Number of Containers	20

Remarks:
Results due
Thurs Am
9-29-11

Distribution: White - Lab, Yellow - File, Pink - Originator

Libby Environmental, Inc.

4139 Libby Road NE • Olympia, WA 98506-2518

October 5, 2011

Steve Spencer
ECI
P.O. Box 153
Fox Island, WA 98333

Dear Mr. Spencer:

Please find enclosed the analytical data report for the Alpha Freeman Project located in Tacoma, Washington. Soil samples were analyzed for Diesel & Oil by NWTPH-Dx/Dx Extended on September 29, 2011.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. All soil samples are reported on a dry weight basis. An invoice for this analytical work is enclosed.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
President
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@aol.com

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Client: ECI
Address: PO Box 153 Fox Island
Phone: Fax:
Client Project #

Date: 9/30/11 Page: 1 of 1
Project Manager: Steve Spencer
Project Name: Freeman
Location: 2119 Mildred City: Tacoma
Collector: Spence Date of Collection: 9/29/11

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals			Field Notes
1 TP-1-2'	2'		S	G							X							Rush
2 TP-1-4'	4'		"	"							X							"
3 TP-2-2'	2'		"	"							X							"
4 TP-2-4'	4'		"	"							X							"
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	9/30/11 11:20	[signature]	9/30/11 11:15
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt:

Good Condition?	
Cold?	
Seals Intact?	
Total Number of Containers	

Remarks: Rush

Distribution: White - Lab, Yellow - File, Pink - Originator

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROPERTY PROJECT
Tacoma, Washington
ECI
Libby Project No. L110930-3

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	9/29/11	112	nd	nd	nd
TP-1-2'	9/29/11	103	nd	nd	nd
TP-1-4'	9/29/11	85	nd	nd	542
TP-2-2'	9/29/11	89	nd	nd	nd
TP-2-4'	9/29/11	89	nd	nd	66
Practical Quantitation Limi			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: Jamie Hart

Libby Environmental, Inc.
4139 Libby Road NE • Olympia, WA 98506-2518

October 17, 2011

Steve Spencer
ECI
P.O. Box 153
Fox Island, WA 98333

Dear Mr. Spencer:

Please find enclosed the analytical data report for the Alpha Freeman Project located in Tacoma, Washington. Soil samples were analyzed for Gasoline by NWTPH-Gx, Diesel & Oil by NWTPH-Dx/Dx Extended, Volatile Organic Compounds by EPA Method 8260C, Arsenic by EPA Method 6010B on October 3 & 4, 2011.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. All soil samples are reported on a dry weight basis. An invoice for this analytical work is enclosed.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
President
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@aol.com

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 10/3/11 Page: 1 of 1

Client: ECI
Project Manager: Steve Spencer
Address: 1912 64th Ave W Tacoma, WA
Project Name: Freeman Project
Phone: 253-238-9270 Fax: 253-369-6228
Location: 2119 Mildred St City: Tacoma
Client Project # Freeman
Collector: Jerry Sawetz Date of Collection: 10/3/11

	Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	PAS		Field Notes
1	B-17:20	20	850	Soil	4oz							X				X			
2	B-17:23	23	855																
3	B-16:20	20	920									X				X			
4	B-16:23	23	925													X			added 10-5-11 RUSH
5	B-20:20	20	945									X	NO JS			X			
6	B-18:15	~~15~~ JS	955													X			
7	B-18:20	~~20~~ JS	1000													X			added 10-5-11 RUSH
8	B-19:15	15	1010													X			
9	B-19:20	20	1015		↓											X			added 10-5-11 RUSH
10	B-13:5	5	1040		2voa 1402														
11	B-13:7	7	1045				X			X									
12	B-14:5	5	1100				X			X									
13	B-14:9	9	1105				X			X									
14	B-15:5	5	1120				X			X									
15	B-15:11	11	1125	↓	↓		X			X									
16																			
17																			
18																			

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	10/3/11	[signature]	10/3/11 1:25pm
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt:

Good Condition?	
Cold?	
Seals Intact?	
Total Number of Containers	

Remarks:

hold samples not checked for analysis
RUSH all samples checked ASAP

Distribution: White - Lab, Yellow - File, Pink - Originator

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROJECT
Tacoma, Washington
ECI
Libby Project No. L111003-4

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260C IN SOIL

Sample Description		Method Blank	B-13:7	B-14:5	B-14:9	B-15:5
Date Sampled	Reporting	N/A	10/3/11	10/3/11	10/3/11	10/3/11
Date Analyzed	Limits	10/3/11	10/3/11	10/3/11	10/3/11	10/3/11
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Dichlorodifluoromethane	0.06	nd	nd	nd	nd	nd
Chloromethane	0.06	nd	nd	nd	nd	nd
Vinyl chloride	0.02	nd	nd	nd	nd	nd
Bromomethane	0.09	nd	nd	nd	nd	nd
Chloroethane	0.06	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd
Methylene chloride	0.02	nd	nd	nd	nd	nd
Methyl *tert*- Butyl Ether (MTBE)	0.02	nd	nd	nd	nd	nd
trans -1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.02	nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd
Chloroform	0.02	nd	nd	nd	nd	nd
1,1,1-Trichloroethane (TCA)	0.02	nd	nd	nd	nd	nd
Carbon tetrachloride	0.02	nd	nd	nd	nd	nd
1,1-Dichloropropene	0.02	nd	nd	nd	nd	nd
Benzene	0.02	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.03	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.03	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.02	nd	nd	nd	nd	nd
Dibromomethane	0.04	nd	nd	nd	nd	nd
Bromodichloromethane	0.02	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.02	nd	nd	nd	nd	nd
Toluene	0.02	nd	nd	nd	nd	nd
Trans-1,3-Dichloropropene	0.03	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.03	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	0.14	0.19	0.087	nd
1,3-Dichloropropane	0.05	nd	nd	nd	nd	nd
Dibromochloromethane	0.03	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB) *	0.005	nd	nd	nd	nd	nd
Chlorobenzene	0.02	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.03	nd	nd	nd	nd	nd
Ethylbenzene	0.03	nd	nd	nd	nd	nd
Total Xylenes	0.03	nd	nd	nd	nd	nd
Styrenes	0.02	nd	nd	nd	nd	nd

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROJECT
Tacoma, Washington
ECI
Libby Project No. L111003-4

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260C IN SOIL

Sample Description		Method Blank	B-13:7	B-14:5	B-14:9	B-15:5
Date Sampled	Reporting	N/A	10/3/11	10/3/11	10/3/11	10/3/11
Date Analyzed	Limits	10/3/11	10/3/11	10/3/11	10/3/11	10/3/11
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Bromoform	0.02	nd	nd	nd	nd	nd
Isopropylbenzene	0.08	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.02	nd	nd	nd	nd	nd
Bromobenzene	0.03	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.02	nd	nd	nd	nd	nd
n-Propylbenzene	0.02	nd	nd	nd	nd	nd
2-Chlorotoluene	0.02	nd	nd	nd	nd	nd
4-Chlorotoluene	0.02	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.02	nd	nd	nd	nd	nd
tert-Butylbenzene	0.02	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.02	nd	nd	nd	nd	nd
sec-Butylbenzene	0.02	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.02	nd	nd	nd	nd	nd
Isopropyltoluene	0.02	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.02	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.02	nd	nd	nd	nd	nd
n-Butylbenzene	0.02	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.03	nd	nd	nd	nd	nd
1,2,4-Trichlorolbenzene	0.05	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.10	nd	nd	nd	nd	nd
Naphthalene	0.03	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd	nd	nd	nd	nd
Surrogate Recovery						
Dibromofluoromethane		89	75	86	83	81
1,2-Dichloroethane-d4		116	95	125	130	130
Toluene-d8		113	127.0	127	125	128
4-Bromofluorobenzene		78	74	79	79	80

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

* INSTRUMENT DETECTION LIMIT
ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROJECT
Tacoma, Washington
ECI
Libby Project No. L111003-4

QA/QC Data - EPA 8260C Analyses

Sample Identification: B-13:7

Matrix Spike

	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
1,1-Dichloroethene	0.5	0.38	76
Benzene	0.5	0.36	72
Toluene	0.5	0.39	78
Chlorobenzene	0.5	0.33	66
Trichloroethene (TCE)	0.5	0.37	74

Surrogate Recovery	
Dibromofluoromethane	117
1,2-Dichloroethane-d4	119
Toluene-d8	124
4-Bromofluorobenzene	80

Laboratory Control Sample

	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
1,1-Dichloroethene	0.5	0.46	92
Benzene	0.5	0.36	72
Toluene	0.5	0.40	80
Chlorobenzene	0.5	0.34	68
Trichloroethene (TCE)	0.5	0.39	78

Surrogate Recovery	
Dibromofluoromethane	116
1,2-Dichloroethane-d4	111
Toluene-d8	122
4-Bromofluorobenzene	72

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

ANALYSES PERFORMED BY: Paul Burke

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROJECT
Tacoma, Washington
ECI
Libby Project No. L111003-4

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260C IN SOIL

Sample Description		B-15:5 Dup	B-15:11
Date Sampled	Reporting	10/3/11	10/3/11
Date Analyzed	Limits	10/3/11	10/3/11
	(mg/kg)	(mg/kg)	(mg/kg)
Dichlorodifluoromethane	0.06	nd	nd
Chloromethane	0.06	nd	nd
Vinyl chloride	0.02	nd	nd
Bromomethane	0.09	nd	nd
Chloroethane	0.06	nd	nd
Trichlorofluoromethane	0.05	nd	nd
1,1-Dichloroethene	0.05	nd	nd
Methylene chloride	0.02	nd	nd
Methyl *tert*- Butyl Ether (MTBE)	0.02	nd	nd
trans -1,2-Dichloroethene	0.02	nd	nd
1,1-Dichloroethane	0.02	nd	nd
2,2-Dichloropropane	0.05	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd
Chloroform	0.02	nd	nd
1,1,1-Trichloroethane (TCA)	0.02	nd	nd
Carbon tetrachloride	0.02	nd	nd
1,1-Dichloropropene	0.02	nd	nd
Benzene	0.02	nd	nd
1,2-Dichloroethane (EDC)	0.03	nd	nd
Trichloroethene (TCE)	0.03	nd	nd
1,2-Dichloropropane	0.02	nd	nd
Dibromomethane	0.04	nd	nd
Bromodichloromethane	0.02	nd	nd
cis-1,3-Dichloropropene	0.02	nd	nd
Toluene	0.02	nd	nd
Trans-1,3-Dichloropropene	0.03	nd	nd
1,1,2-Trichloroethane	0.03	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd
1,3-Dichloropropane	0.05	nd	nd
Dibromochloromethane	0.03	nd	nd
1,2-Dibromoethane (EDB) *	0.005	nd	nd
Chlorobenzene	0.02	nd	nd
1,1,1,2-Tetrachloroethane	0.03	nd	nd
Ethylbenzene	0.03	nd	nd
Total Xylenes	0.03	nd	nd
Styrenes	0.02	nd	nd

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROJECT
Tacoma, Washington
ECI
Libby Project No. L111003-4

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260C IN SOIL

Sample Description		B-15:5 Dup	B-15:11
Date Sampled	Reporting	N/A	10/3/11
Date Analyzed	Limits	10/3/11	10/3/11
	(mg/kg)	(mg/kg)	(mg/kg)
Bromoform	0.02	nd	nd
Isopropylbenzene	0.08	nd	nd
1,2,3-Trichloropropane	0.02	nd	nd
Bromobenzene	0.03	nd	nd
1,1,2,2-Tetrachloroethane	0.02	nd	nd
n-Propylbenzene	0.02	nd	nd
2-Chlorotoluene	0.02	nd	nd
4-Chlorotoluene	0.02	nd	nd
1,3,5-Trimethylbenzene	0.02	nd	nd
tert-Butylbenzene	0.02	nd	nd
1,2,4-Trimethylbenzene	0.02	nd	nd
sec-Butylbenzene	0.02	nd	nd
1,3-Dichlorobenzene	0.02	nd	nd
Isopropyltoluene	0.02	nd	nd
1,4-Dichlorobenzene	0.02	nd	nd
1,2-Dichlorobenzene	0.02	nd	nd
n-Butylbenzene	0.02	nd	nd
1,2-Dibromo-3-Chloropropane	0.03	nd	nd
1,2,4-Trichlorolbenzene	0.05	nd	nd
Hexachloro-1,3-butadiene	0.10	nd	nd
Naphthalene	0.03	nd	nd
1,2,3-Trichlorobenzene	1.0	nd	nd
Surrogate Recovery			
Dibromofluoromethane		89	82
1,2-Dichloroethane-d4		116	125
Toluene-d8		113	121
4-Bromofluorobenzene		78	77

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

* INSTRUMENT DETECTION LIMIT
ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROJECT
Tacoma, Washington
ECI
Libby Project No. L111003-4

Analyses of Gasoline (NWTPH-Gx) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Gasoline (mg/kg)
Method Blank	10/3/11	113	nd
B-13:7	10/3/11	127	nd
B-14:5	10/3/11	127	nd
B-14:9	10/3/11	125	nd
B-15:5	10/3/11	128	nd
B-15:11	10/3/11	121	nd
Practical Quantitation Limi			10

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Toluene-d8): 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

FREEMAN PROJECT
Tacoma, Washington
ECI
Libby Project No. L111003-4

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	10/3/11	105	nd	nd	nd
B-17:20	10/3/11	116	nd	nd	nd
B-16:20	10/3/11	113	nd	nd	nd
Practical Quantitation Limi			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: Paul Burke

SPECTRA Laboratories

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

10/04/2011

Libby Environmental, Inc.
4139 Libby Rd NE
Olympia, WA 98506
Attn: Sherry Chilcutt

Sample Matrix: Soil
Date Sampled:
Date Received: 10/03/2011
Spectra Project: 2011100047
Rush

Client ID	Spectra #	Analyte	Result	Units	Method
B-17-20	1	Total Arsenic	< 5	mg/Kg	SW846 6010B
B-16:20	2	Total Arsenic	29	mg/Kg	SW846 6010B
B-20:20	3	Total Arsenic	6	mg/Kg	SW846 6010B
B-18:15	4	Total Arsenic	47	mg/Kg	SW846 6010B
B-19:15	5	Total Arsenic	43	mg/Kg	SW846 6010B

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a7/scj

SPECTRA Laboratories

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

10/4/2011

Libby Environmental
4139 Libby Rd. NE
Olympia, WA 98506

Units: mg/L
Spectra Project: 2011100047
Applies to Spectra #'s 1 thru 5

QUALITY CONTROL RESULTS
ICP Metals SW846 6010B - Soil/Solid

Method Blank

Date Digested: 10/4/2011 Date Analyzed: 10/4/2011

Element	Blank Result
Arsenic	< 0.05
Lead	< 0.04

Blank Spike (LCS)

Date Digested: 10/4/2011 Date Analyzed: 10/4/2011

Element	Spike Added	LCS Conc.	LCS %Rec
Arsenic	2.0	2.288	114.4
Lead	2.0	1.775	88.8

LCS Recovery limits 80-120%

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Date Digested: 10/4/2011 Date Analyzed: 10/4/2011
Sample Spiked: 2011100047-1

Element	Sample Conc.	Spike Conc.	MS Conc.	MS %Rec	MSD Conc	MSD %Rec	RPD
Arsenic	0.000	2.0	2.144	107.2	2.078	103.9	3.1
Lead	0.000	2.0	2.013	100.7	2.048	102.4	1.7

Recovery Limits 75-125%
RPD Limit 20

SPECTRA LABORATORIES

Steven G. Hibbs
Laboratory Manager

SPECTRA Laboratories

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

10/06/2011

Libby Environmental, Inc.
4139 Libby Rd NE
Olympia, WA 98506
Attn: Sherry Chilcutt

Project: Freeman Project
Sample Matrix: Soil
Date Sampled: 10/03/2011
Date Received: 10/05/2011
Spectra Project: 2011100136
Rush

Client ID	Spectra #	Analyte	Result	Units	Method
B-16:23	1	Total Arsenic	< 5	mg/Kg	SW846 6010B
B-18:20	2	Total Arsenic	< 5	mg/Kg	SW846 6010B
B-19:20	3	Total Arsenic	< 5	mg/Kg	SW846 6010B

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a7/scj

SPECTRA Laboratories

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10/6/2011

Libby Environmental
4139 Libby Rd. NE
Olympia, WA 98506

Units: mg/L
Spectra Project: 2011100136
Applies to Spectra #'s 1 thru 3

QUALITY CONTROL RESULTS
ICP Metals SW846 6010B - Soil/Solid

Method Blank

Date Digested: 10/6/2011 Date Analyzed: 10/6/2011

Element	Blank Result
Arsenic	< 0.05

Blank Spike (LCS)

Date Digested: 10/6/2011 Date Analyzed: 10/6/2011

Element	Spike Added	LCS Conc.	LCS %Rec
Arsenic	2.0	2.028	101.4

LCS Recovery limits 80-120%

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Date Digested: 10/4/2011 Date Analyzed: 10/4/2011
Sample Spiked: 2011100047-1

Element	Sample Conc.	Spike Conc.	MS Conc.	MS %Rec	MSD Conc	MSD %Rec	RPD
Arsenic	0.000	2.0	2.144	107.2	2.078	103.9	3.1

Recovery Limits 75-125%
RPD Limit 20

SPECTRA LABORATORIES

Steven G. Hibbs
Laboratory Manager

SPECTRA Laboratories
2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

10/04/2011

Libby Environmental, Inc.
4139 Libby Rd NE
Olympia, WA 98506
Attn: Sherry Chilcutt

Sample Matrix: Soil
Date Sampled:
Date Received: 10/03/2011
Spectra Project: 2011100047
Rush

Client ID	Spectra #	Analyte	Result	Units	Method
B-17-20	1	Total Arsenic	< 5	mg/Kg	SW846 6010B
B-16:20	2	Total Arsenic	29	mg/Kg	SW846 6010B
B-20:20	3	Total Arsenic	6	mg/Kg	SW846 6010B
B-18:15	4	Total Arsenic	47	mg/Kg	SW846 6010B
B-19:15	5	Total Arsenic	43	mg/Kg	SW846 6010B

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a7/scj

SPECTRA Laboratories

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

10/4/2011

Libby Environmental
4139 Libby Rd. NE
Olympia, WA 98506

Units: mg/L
Spectra Project: 2011100047
Applies to Spectra #'s 1 thru 5

QUALITY CONTROL RESULTS
ICP Metals SW846 6010B - Soil/Solid

Method Blank

Date Digested: 10/4/2011 Date Analyzed: 10/4/2011

Element	Blank Result
Arsenic	< 0.05
Lead	< 0.04

Blank Spike (LCS)

Date Digested: 10/4/2011 Date Analyzed: 10/4/2011

Element	Spike Added	LCS Conc.	LCS %Rec
Arsenic	2.0	2.288	114.4
Lead	2.0	1.775	88.8

LCS Recovery limits 80-120%

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Date Digested: 10/4/2011 Date Analyzed: 10/4/2011
Sample Spiked: 2011100047-1

Element	Sample Conc.	Spike Conc.	MS Conc.	MS %Rec	MSD Conc	MSD %Rec	RPD
Arsenic	0.000	2.0	2.144	107.2	2.078	103.9	3.1
Lead	0.000	2.0	2.013	100.7	2.048	102.4	1.7

Recovery Limits 75-125%
RPD Limit 20

SPECTRA LABORATORIES

Steven G. Hibbs
Laboratory Manager

201110047

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Client: Libby Environmental
Address: SEE ABOVE
Phone: Fax:
Client Project #

Date: 10/3/11 Page: 1 of 1
Project Manager: Jaime Hart
Project Name:
Location: City:
Collector: Date of Collection:

	Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	AS		Field Notes
1	B-17-20															X			
2	B-16:20															X			
3	B-20:20															X			
4	B-18:15															X			
5	B-19:15															X			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			

Relinquished by:	Date / Time	Received by:	Date / Time
Jaye	10/3/11 2:10pm	Marie Holt	10-3-11 2:06
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt:

Good Condition?	
Cold?	
Seals Intact?	
Total Number of Containers	

Remarks:

RUSH

Distribution: White - Lab, Yellow - File, Pink - Originator

201100136

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 10-5-11 Page: 1 of 1

Client: Libby Environmental, Inc.
Address: (See above)
Phone: Fax:
Client Project #

Project Manager: Jamie Hart
Project Name: Freeman Project
Location: City: Tacoma
Collector: Date of Collection: 10-3-11

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	AS			Field Notes
1 B-16:23	23	9:25	Soil	Jar											X				
2 B-18:20	20	10:00	Soil	Jar											X				
3 B-19:20	20	10:15	Soil	Jar											X				
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	10/5/11 1:20pm	[signature]	10/5/11 @ 1321
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt:

Good Condition?	
Cold?	
Seals Intact?	
Total Number of Containers	

Remarks:

RUSH

Distribution: White - Lab, Yellow - File, Pink - Originator

Attachment D

Sample Collection Logs

Attachment D