



ASSOCIATED
ENVIRONMENTAL
GROUP, LLC



FINAL REMEDIAL ACTION

Conducted on:

**Orchard Park Independent
Retirement Living
Ecology VCP No. CE0287
620 North 34th Avenue
Yakima, Washington**

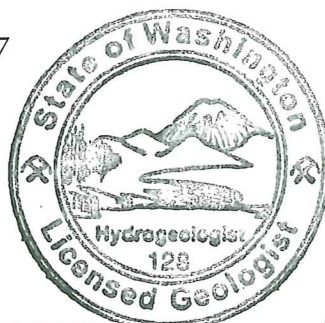
Prepared for:

**Mark Fischer, Senior Consultant
EMG Corporation
222 Schilling Circle, Suite 275
Hunt Valley, Maryland**

Prepared and Reviewed by:

Kyle K. Roslund, R.S.A.
Project Geologist
ICC No. 8032278 – U2/U7

Yen-Vy Van, P.G., P.H.G.
Principal Hydrogeologist
PG, PHG # 128
AHERA No.: 104315



YEN-VY VAN

Michael S. Chun, R.S.A.
Principal, General Manager
AHERA No: 05-2396
ICC No: 1006368-U1/U2/U7

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DEPARTMENT OF ECOLOGY - CENTRAL REGIONAL OFFICE

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1.0 INTRODUCTION

Associated Environmental Group, LLC (AEG) has completed a Final Remedial Action (RA) via excavation of heavy metal (arsenic and lead) contaminated soil at the Orchard Park Independent Retirement Living property, located at 620 North 34th Avenue in Yakima, Yakima County, Washington (the Site). The scope of work for the remedial action was developed in accordance with the Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) cleanup regulations as presented in Chapter 173-340 of the Washington Administrative Code (WAC (Ecology, 2001 and revised 2007); also in response to Ecology *Opinion on Proposed Cleanup of a Property associated with a Site* (the Orchard Park Independent Retirement Living property), dated September 23, 2009; and through several discussions with Ecology Central Regional Office Toxics Cleanup Program Site Manager, Mr. Jeff Newschwander. Written authorization from Mr. Mark Fischer, EMG Corporation Site Representative, to draft the Work Plan for the Final RA was provided to AEG in August 2009; however, metal contaminated soil excavation activities were postponed until March 2010 due to inclement weather and site conditions. Previous investigations at the Site was performed in general accordance with the American Society for Testing and Materials (ASTM) Standard E 1903-97, *Standard Guide Environmental Site Assessments: Phase II Environmental Site Assessment Process* and ASTM Standard EE 1689 – 95 (Reapproved 2008), *Standard Guide for Developing Conceptual Site Models for Contaminated Sites*.

1.1 Subject Site

The Site, the Orchard Park Independent Retirement Living community, is located on the northwest corner of the intersection of North 34th Avenue and Fairbanks Avenue in Yakima, Washington. The Site, approximately 4.19-acres in size, is operated as an independent living complex which was constructed in 1988. Prior to construction of the retirement center, the property was part of a larger fruit orchard. Historically, the Yakima Valley region has been used for agricultural purposes and as a result pesticides including 4,4 dichlorodiphenyltrichloroethane (DDT) and arsenic containing compounds were used beginning in the 1940s. The Site is currently owned by Harvest Orchard Park Retirement Residences and corresponds with Yakima County Assessor parcel number 181315-44419. The layout of the Site is presented in Figure 1, *Site and Vicinity Map*. Photographs of the Site are presented in Appendix A, *Site Photographs*.

1.2 Site History

According to historical references, the Site had been utilized as a fruit orchard since at least the 1920s. A subsurface investigation completed at the Site by PLSA Engineering (PLSA) in 1990 reported the presence of arsenic and lead in the soil, possibly introduced from the previous pesticide applications, at concentrations greater than the Ecology MTCA soil cleanup level for total arsenic and lead; however, these results were not reported to Ecology at that time.

EMG Corporation (EMG) of Maryland performed a *Phase I Environmental Site Assessment* (ESA) on the Site in December 2006. The EMG report references an interview with Mr. Bob Swackhammer of the Ecology Central Regional Office. Mr. Swackhammer acknowledged that the western and central regions of Washington have a history of agricultural use and that area-wide use of arsenic as a component of commonly applied pesticides occurred from approximately 1905 through the 1940s. EMG recommended reporting the arsenic contamination to Ecology.

AEG conducted a *Limited Site Characterization* in April 2007 to determine the presence and concentration of arsenic contamination in the soil, at selected areas at the Site, as a result of historical usage of pesticides at the property. Ten holes (OP-01 through OP-10) were dug at the Site using a hand shovel, to a maximum depth of 13 inches below ground surface (bgs). Eight of the ten samples submitted for laboratory analysis of total arsenic (OP-01 through OP-08) contained elevated concentrations, ranging from 25 milligrams per kilogram (mg/Kg) to 92 mg/Kg (AEG, 2007). These concentrations were above the Ecology MTCA Method A soil cleanup level for arsenic of 20 mg/Kg. Figure 2, *Soil Sample Location Map*, illustrates the locations of these samples.

Due to the elevated arsenic concentrations present in soil samples OP-01 through OP-08, these samples were also submitted for analysis of Toxicity Characteristic Leaching Procedures (TCLP). The results ranged from less than 0.05 milligrams per liter (mg/L) to 0.11 mg/L which are below Ecology Dangerous Waste TCLP level of 5 mg/L (AEG, 2007).

AEG performed a *Supplemental Site Characterization* in November 2008 to further determine the presence and location of arsenic in the soil, building upon the previous 2007 *Limited Site Characterization*. During this event 20 samples were gathered (OP-11 through OP-27) and submitted for laboratory analysis. Four of the 20 soil samples submitted for laboratory analysis (OP-17-6, OP-20, OP-21, and OP-26) contained elevated concentrations above the Ecology MTCA Method A cleanup level of arsenic, ranging from 24.5 mg/Kg to 33.4 mg/Kg. These samples were collected in the landscaped area located generally on the western half of the Site (refer to Figure 2).

AEG conducted a *Soil Sampling – Baseline & Characterization* in January 2010. The objective of the soil sampling was to establish a baseline data on potential constituents of concern and characterize the soil for the upcoming remedial action (soil excavation and removal). During this event soil samples (OP-28 through OP-33) were collected at selected locations at the Site. The collected samples were submitted for laboratory analysis and were specifically analyzed for: MTCA 5 Metals (total lead, arsenic, cadmium and chromium via EPA Method 7000 series), total mercury, TCLP, and organochlorine pesticides.

Analytical results of this sampling indicated elevated concentrations of arsenic, ranging from 20 mg/Kg to 31 mg/Kg, and lead, ranging from 319 mg/Kg to 338 mg/Kg (refer to Table 1, *Summary of Soil Analytical Results – Metals*). These concentrations exceed the Ecology MTCA Method A soil cleanup levels for arsenic and lead, respectively.

With the exception of one soil sample, the TCLP results indicate no detectable concentrations of arsenic or lead which will enable these soils to be disposed of as non-hazardous soil. Select pesticides including 4,4 dichlorodiphenyltrichloroethane (DDT) and 4,4-Dichlorodiphenyldichloroethylene (DDE) were exhibited in all samples analyzed; however, these concentrations are either below Ecology MTCA soil cleanup levels or Ecology has not designated cleanup levels for these constituents (refer to Table 2, *Summary of Soil Analytical Results – Pesticides*).

In February 2010, all involved parties, including AEG, EMG, the Site's former owner, the Site's current owner, and Ecology agreed on a course of independent RA at the Site consisting of excavating the metal contaminated soil (MCS) and replacing it with clean imported topsoil to create a natural barrier to human contact with the contaminants of concern.

AEG was retained to oversee the excavation, characterize the area of MCS, and dispose of the MCS offsite at a regulated landfill. Figure 1, *Site & Vicinity Map*, presents the layout of the Site. Photographs of excavation activities are presented in Appendix A, *Site Photographs*.

1.3 Objectives and Scope of Work

The objective of the Final Remedial Action at the Site is to control and remove the potential for direct contact to humans and the environment from residual arsenic contaminated soil and associated substances via excavation/removal of impacted sod and soil and import of clean fill soil and sod to create a natural cap at the Site.

AEG's scope of work for the remedial action effort included: excavation and removal of MCS to a depth of approximately six inches bgs; collect characterization and documentation soil samples; analytical laboratory testing of soil samples for the constituents of concern, data analysis, data input into Ecology Electronic Information Management system, and preparation of this report. Figure 2, *Soil Sample Location Map*, presents a detailed layout of the property and soil sampling locations.

Tasks performed included the following:

- Prepared a Cleanup Action Plan and submitted to Ecology Toxics Cleanup Program Site Manager, Mr. Jeff Newschwander, for approval of proposed remedial action prior to site work.
- Attended pre-remedial action site meetings with the Site Operation Managers and Ecology Site Manager.
- Prepared a Site specific Health and Safety Plan.
- Coordinated site work and provided daily updates to members of the management team for the Orchard Park Independent Retirement Center including Scott Ward (Area Maintenance Manager), Andrew Bottino (Maintenance Manager – Orchard Park), Randy Groves (Community Management), and the Landscaper Manager.
- Managed daily tailgate meetings to discuss health and safety concern, site work, and provided daily oversight to remedial action at the Site.
- Obtained additional pre-excavation soil characterization samples to further delineate excavation areas (soil samples OP-34 through OP-39).
- Excavated, removed, and disposed of approximately 906 tons of MCS from the Site. The majority of the impacted landscaping areas at the Site was excavated to approximately six inches bgs; however, at selected areas, soil excavation proceeded to approximately four inches or five inches bgs due to presence of underground utilities, natural obstacles such as tree roots, and/or structures.
- Due to the broad layout of the Retirement Center and its landscape area (i.e., potentially impacted area), AEG designated arbitrary zones for the landscaping areas/soil excavation areas to facilitate the sampling and documentation of excavation site work. The designated excavation areas include portions of the north, east, south and west areas of the Site (refer to Figure 2).
- Obtained excavation soil documentation samples for laboratory analysis throughout all excavation activities and zones. Selected soil samples were submitted for analysis prior to completion of excavation backfilling to further assess the lateral and vertical extent of MCS, monitor areas of concern, and delineate excavation areas.
- Collected six characterization soil samples (OP-34 through OP-39) and 67 documentation soil samples from Zones 1 through 5 including of clean imported backfill materials. Submitted selected documentation soil samples to Libby Environmental Chemistry Laboratory (Libby), a Washington state certified analytical laboratory located in Olympia, Washington, for the following analyses:
 - ❖ Total arsenic via EPA Method 7000B.
 - ❖ Total lead via EPA Method 7000B.
- Backfilled and compacted the excavation areas with clean, imported backfill materials.

- Compared soil analytical results to Ecology MTCA Method A soil cleanup levels for the above indicated constituents;
- Conducted a final site walk with Mr. Scott Ward and Mr. Andrew Bottino after the completion of remedial action.
- Performed data entry of all investigative and excavation soil sample data collected for the Site from 2007 through 2010 into Ecology Electronic Information Management database.
- Prepared this report containing a summary of the subsurface conditions encountered, a discussion of site soil conditions, analytical laboratory results, summary of findings, conclusions, and recommendations.
- Formally request Ecology issue a *No Further Action* determination for the Site based on the completed remedial action and site findings/conclusions.

1.4 Site Geology and Hydrogeology

The City of Yakima is situated within the Yakima River Basin along the western margin of the Columbia Plateau region and is adjacent to the eastern foothills of the Cascade Range volcanic terrain. The Yakima River Basin is bounded on the west by the Cascades, the north by the Wenatchee Mountains, east by the Rattlesnake Hills, and south by the Horse Haven Hills. While the headwaters of the Yakima River are based in the Cascade Range, much of the river basin area is semi-arid in climate due to the rain shadow effect created by the mountains to the west creating a large demand on river water and groundwater resources during summer months for agricultural irrigation (US Department of Interior, 2002). Generally there are three aquifer systems comprised within the Yakima River basin including the following: 1) the shallow aquifer composed of alluvium; 2) a deeper, confined gravel aquifer called the Ellensburg aquifer; and 3) a deep basalt bedrock comprised aquifer (USGS, 1987).

According to the *Geologic Map of Washington, Southwest Quadrant*, the subject site and vicinity area is underlain by non-glacial Quaternary age terraced sediments (Qt). The terraced sediments typically consist of “silt, sand, and gravel of diverse compositions and origins, such as proglacial outwash, glacial outburst deposits, older alluvium, lahars, and uplifted coastal marine and estuarine deposits. Includes parts of the Lakedale and Kittitas Drifts.” (Walsh, T.J., Korosec, M.A., et al, 1987).

Subsurface conditions at the Site, at locations of investigation and excavation, consisted of fill deposits. The fill deposits encountered consisted of brown, loose to medium dense, silty sand. Soil samples were collected at a maximum depth of six inches below ground surface during the excavation activities. Groundwater was not encountered during the remedial action.

2.0 FIELD METHODOLOGY

On March 15 through April 9, 2010, AEG provided oversight to Advance Environmental, for site remedial action involving excavation, removal, and disposal of metal contaminated soil, and backfilling the areas excavated. Approximately 906 tons of MCS was excavated and removed from Zone 1 through Zone 5 (refer to Figure 2, *Soil Sample Location Map*). These zones were utilized to facilitate the sampling and documentation of excavation site work, attain Site security, and to minimize human contact of the contaminants of concern to the residents and general public in the vicinity area during excavation activities.

Documentation soil samples were collected from the excavation areas. MCS was removed from the excavation areas by an excavator and stockpiled onsite before loading onto truck and pups for transport and disposal at Wasco County Landfill, an authorized regulated landfill located in The Dalles, Oregon. Clean imported backfill was imported to the Site from Canton Landfill with the general process of excavating a designated zone then bringing in clean imported topsoil to that zone while another new zone was being excavated. Canton Landfill has also been the source Ecology has used for importing clean backfill on other remedial projects in the Yakima Valley.

AEG excavated all zones to a depth of approximately six inches bgs, except when prohibited by underground utilities, tree roots, and/or structures which limited the excavation to four inches or five inches bgs. Documentation soil samples were collected from each of the zones and stored in a chilled cooler. Soil samples were submitted to Libby laboratory at the completion of a zone or structured as necessary throughout the remedial action.

Soil analytical results are summarized and presented in four tables designated as follows: Tables 1, *Summary of Soil Analytical Results – Metals*, Table 2, *Summary of Soil Analytical Results – Pesticides*, Table 3, *Summary of Soil Analytical Results – Characterization Samples*, and Table 4, *Summary of Soil Analytical Results – Documentation Samples*. Photographs documenting the Final RA activities are presented in Appendix A, *Site Photographs*.

2.1 Soil Sampling Procedures

Soil samples were collected and observed to document soil lithology, color, moisture content, and sensory evidence of impairment. AEG collected representative soil samples throughout the excavation, at a depth of approximately six inches bgs, in order to determine the presence of MCS and delineate the lateral and vertical extent of MCS at the Site. Soil sample locations were evenly spread, to the extent possible, in each zone. A total of 73 soil samples were collected during the remedial soil excavation activities including the following:

- Six soil samples (OP-34 through OP-39) were collected prior to excavation to further delineate excavation locations;
- 12 soil samples were collected from Zone 1;

- 21 soil samples were collected from Zone 2;
- 20 soil samples were collected from Zone 3;
- 11 soil samples were collected from Zone 4;
- Two soil samples were collected from Zone 5. Soil samples in Zone 1 through Zone 5 were labeled according to zone, sample number and the depth at which the sample was acquired; and
- Two soil samples (BF-C1 and Backfill 3-29) were composite samples collected from the clean imported backfill material.

All soil samples were analyzed for total arsenic, and from these, some selected soil samples were also analyzed for total lead. Further demarcation of which samples received specific analysis can be found in Table 4, *Summary of Soil Analytical Results – Documentation Samples*, which presents analytical soil results of samples collected during the remedial soil excavation. These results were compared to Ecology MTCA Method A soil cleanup levels. Soil laboratory analytical results are provided in Appendix B, *Supporting Documents*.

To reasonably ensure the purity of AEG's samples, the following actions were taken (1) nitrile gloves were used in handling all sampling jars and sampling devices. All soil samples were immediately transferred to laboratory provided pre-weighed 4 oz. glass jars. The soil samples were placed in a portable chilled ice chest, where they were stored from two to four days, until being delivered to Libby.

2.2 *Quality Controls*

All soil samples were collected in general accordance with industry protocols for the collection, documentation, and handling of samples. Descriptions of soil and sampling depths were carefully logged in the field, and the site assessor confirmed sample depths as soil samples were collected.

Soil samples were tightly packed into jars to eliminate sample headspace. Upon sampling, all samples were placed immediately into chilled ice chests.

All samples were transported and submitted under standard chain-of-custody protocols and remained refrigerated until delivery to Libby's analytical laboratory. The laboratory provided standard quality assurance/quality control (QA/QC) which included the following: surrogate recoveries for each sample, method blank results, duplicate analyses, matrix or blank spiked analyses, and duplicate spiked analyses.

2.3 Investigation Derived Waste

Approximately 906 tons of MCS was excavated and removed during the Final RA activities. The MCS was loaded directly from a stockpile into awaiting trucks for transportation and disposal. Dietrich Trucking, LLC was the trucking company which transported all excavated MCS. AEG provided oversight to the loading of MCS into the trucks and pups and coordinated number of trucks and load estimates. MCS was shipped for disposal to an authorized regulated landfill operated by Wasco County Landfill located in The Dalles, Oregon. Documentation of the Special Waste Permit and MCS disposal (weigh tickets from Wasco County Landfill) are provided in Appendix B, *Supporting Documents*.

3.0 CONCLUSIONS AND RECOMMENDATIONS

The findings and conclusions derived from the Final Remedial Action for the Site, Orchard Park Independent Retirement Living, located in Yakima, Washington, are as follows:

- AEG performed a Final RA at the Site which involved the removal of approximately six inches of heavy metals (arsenic and lead) contaminated soil (MCS) from the Site, and imported clean fill soil and sod to create a natural cap at the Site. The excavation and backfill activities occurred from March 16 through April 9, 2010. AEG provided daily oversight during the excavation, removal, and disposal of a total of 906 tons of MCS, which was disposed offsite at a regulated landfill, Wasco County Landfill in The Dalles, Oregon.
- The areas excavated were designated as Zone 1 through Zone 5 to facilitate the sampling and documentation of excavation site work, attain Site security, and to minimize human contact of the contaminants of concern to the residents and general public in the vicinity area during excavation activities (refer to Figure 2 and site photographs in Appendix A).
- Extensive documentation soil samples were collected throughout the excavation in order to determine the presence of arsenic contaminated soil and delineate its lateral extent. A total of 73 soil samples were collected during the remedial soil excavation activities including the following: 1) six soil samples were collected prior to excavation to further delineate excavation locations; 2) 12 soil samples were collected from Zone 1; 3) 21 soil samples were collected from Zone 2; 4) 20 soil samples were collected from Zone 3; 5) 11 soil samples were collected from Zone 4; 6) two soil samples were collected from Zone 5; and 7) two composite soil samples were collected from the clean imported backfill.
- All soil samples were submitted for laboratory analysis of total arsenic via EPA Method 7000 series. Selected samples were also analyzed for total lead.
- Analytical results of final excavation documentation soil samples, collected from approximately four to six inches bgs, indicate presence of elevated concentrations of arsenic in all zones. These elevated concentrations exceed Ecology MTCA Method A soil cleanup levels for arsenic at 20 mg/Kg. Specifically, arsenic levels ranged from 9.1 mg/Kg to 37 mg/Kg in samples obtained from Zone 1; 13 mg/Kg to 271 mg/Kg in samples obtained from Zone 2; less than 5.0 mg/Kg to 258 mg/Kg in samples obtained

from Zone 3; less than 5.0 mg/Kg to 59 mg/Kg in samples obtained from Zone 4; and 36 mg/Kg to 41 mg/Kg in samples obtained from Zone 5 (refer to Table 4).

- Soil laboratory analytical results for final documentation soil samples did not indicate elevated concentrations of lead (refer to Table 2).
- Laboratory analyses of the backfill material indicate either no detectable concentration or a detection of arsenic at level below Ecology MTCA Method A cleanup level for arsenic (refer to Table 4).
- Subsurface conditions at the Site, at locations of investigation and excavation, consisted of fill deposits. The fill deposits encountered consisted of brown, loose to medium dense, silty sand. Soil samples were collected at a maximum depth of six inches below ground surface during the excavation activities. Groundwater was not encountered during the remedial action.

Discussion:

AEG successfully excavated and removed heavy metal contaminated soil at the Site to a general depth of approximately six inches bgs based on a systematic approach to excavation and removal procedures during the remedial action activities. The removed MCS was replaced by clean imported backfill which acts as barrier/cap between the underlying soil and human contact.

Additionally, soil laboratory analytical results obtained throughout the duration of the remedial action enabled AEG to conduct extensive soil sampling of the excavation area for MCS characterization and to determine the lateral and vertical extent of remaining MCS. Laboratory analytical results of excavation documentation soil samples indicate presence of elevated arsenic, at levels above the Ecology MTCA Method A cleanup levels, at all landscaping areas surrounding the Orchard Park Retirement Center. However, the replaced soil cap will serve as a barrier to direct exposure to humans and the environment from residual arsenic contaminated soil and associated substances.

Recommendation:

In our professional opinion, the remedial action completed is an effective means of controlling and removal of the potential for direct contact to humans and the environment from arsenic contaminated soil and has met the stipulations for site remediation as required by Ecology. Consequently, AEG recommends petitioning Ecology for a *No Further Action with Restrictive Covenant* determination for the Site.

4.0 LIMITATIONS

This report summarizes the findings of the services authorized under our agreement. It has been prepared using generally accepted professional practices, related to the nature of the work accomplished. This report was prepared for the exclusive use of EMG Corporation or their designated representatives for the specific application to the project purpose.

Recommendations, opinions, site history and proposed actions contained in this report apply to conditions and information available at the time this report was completed. Since conditions and regulations beyond our control can change at any time after completion of this report, or our proposed work, we are not responsible for any impacts of any changes in conditions, standards, practices and/or regulations subsequent to our performance of services. We cannot warrant or validate the accuracy of information supplied by others, in whole or part.

5.0 REFERENCES

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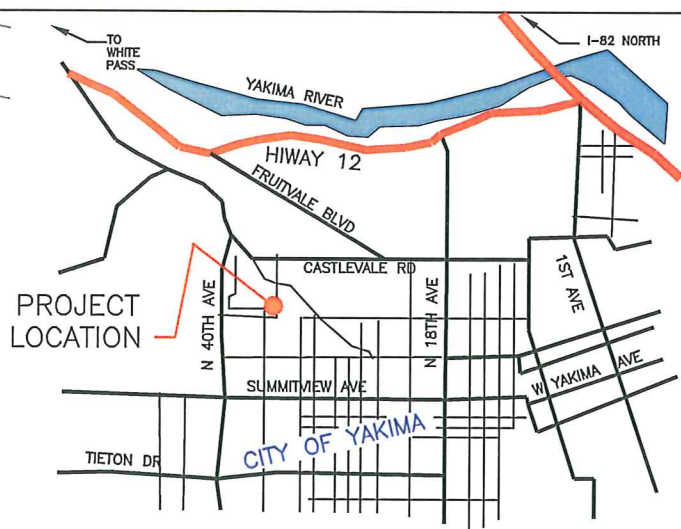
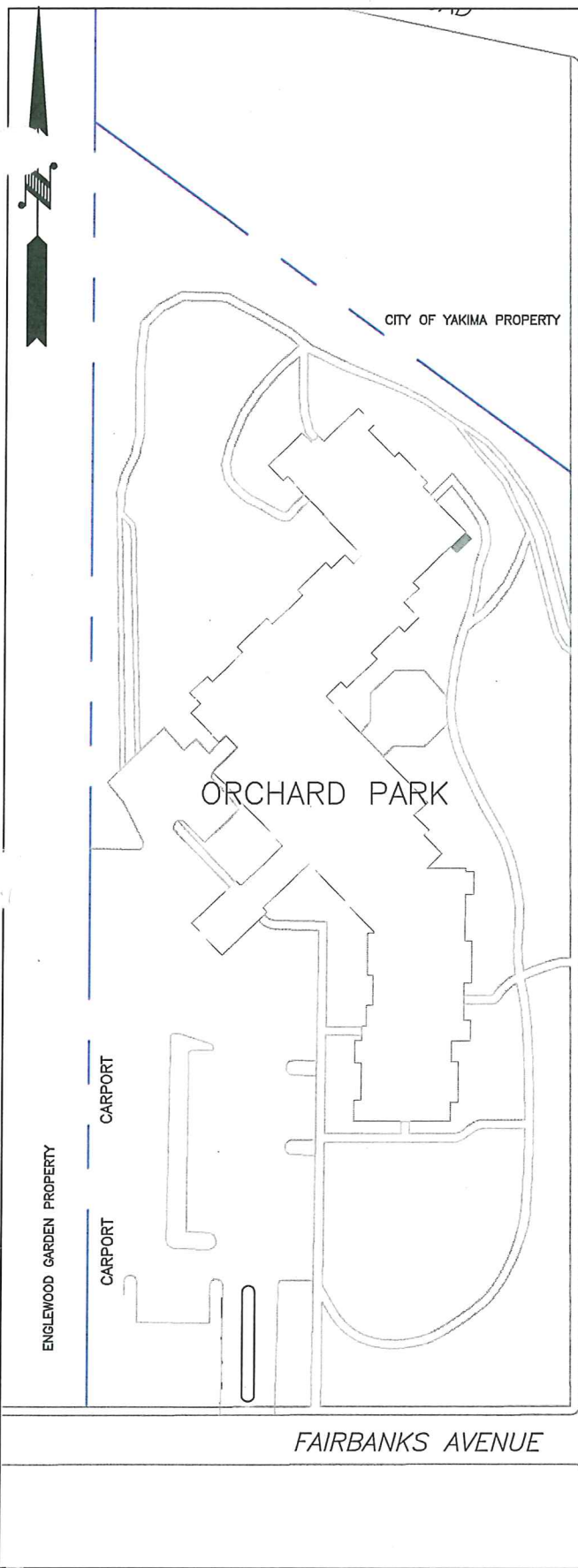
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FIGURES



VICINITY MAP
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STONE CHURCH ASSEMBLY OF GOD PROPERTY

34TH AVE N

FAIRBANKS AVENUE

ORCHARD PARK

SCALE: 1"=100 FEET

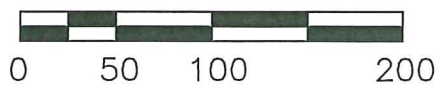


FIGURE 1
SITE AND VICINITY MAP

Orchard Park Independent Retirement Living
620 34th Ave. N., Yakima, WA

Project# 07-139	Date: 05/11/2010
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TABLES

Table 1 Summary of Soil Analytical Results - Metals
Orchard Park Assisted Living - Soil Characterization/Cleanup Action
Yakima, WA

Sample Number ¹	Depth Sampled (inches)	Date Sampled	MTCA 5 Metals ² (mg/Kg)				Arsenic TCLP ⁴ (mg/L)	Lead TCLP ⁴ (mg/L)
			Lead	Cadmium	Chromium VI/III ³	Arsenic		
OP-28	4	10/27/09	--	--	--	--	<0.5	<0.5
OP-29	4	10/27/09	--	--	--	--	<0.5	<0.5
OP-30	4	10/27/09	--	--	--	--	<0.5	<0.5
OP-31	4	10/27/09	--	--	--	--	<0.5	0.69
OP-32-2	2	10/27/09	319	<1.0	<5.0	31	--	--
OP-32-4	4	10/27/09	338	<1.0	5.8	24	--	--
OP-33-2	2	10/27/09	230	<1.0	6.9	23	--	--
OP-33-4	4	10/27/09	210	<1.0	12.8	20	--	--
PQL			5.0	1.0	5.0	5.0	0.5	0.5
Ecology MTCA Method A Cleanup Levels			250	2	19/2,000	20	5	5

Notes:

¹ Approximate sample locations are shown in Figure 2

² Analyzed by EPA Method 7000 Series (Mercury analyzed by EPA Method 7471)

³ Soil cleanup level for Chromium VI is 19 mg/Kg & Chromium III is 2,000 mg/Kg

⁴ Analyzed by EPA Method 1311/6020. The reporting limit for TCLP is in mg/L due to the leachate.

Per EPA, the regulatory limit used in the toxicity characteristic apply to the leachate. Thus, mg/L is comparable to mg/Kg in the TCLP process.

< = not detected above laboratory detection limits.

mg/Kg = milligrams per kilogram

mg/L = milligrams per Liter

PQL=Practical Quantitation Limits

< = not detected above laboratory limits

* Ecology has not designated a cleanup level for this constituent

Bold indicates the detected concentration exceeds Ecology MTCA Method A cleanup level

Table 2 Summary of Soil Analytical Results - Pesticides
Orchard Park Assisted Living - Soil Characterization/Cleanup Action
Yakima, WA

Sample Number ¹	Date Sampled	Depth Sampled (inches)	Date Sampled	Select Organochlorine Pesticides ² (mg/Kg)			
				4,4'-DDT	4,4'-DDE	4,4'-DDD	Aldrin
OP-32-2	10/27/09	2	10/27/09	0.14	0.57	<0.02	<0.01
OP-32-4	10/27/09	4	10/27/09	0.14	0.51	<0.02	<0.01
OP-33-2	10/27/09	2	10/27/09	0.07	0.14	<0.02	<0.01
OP-33-4	10/27/09	4	10/27/09	0.26	0.34	<0.02	<0.01
PQL							
Ecology MTCA Method A Clean Up Levels				0.02	0.01	0.02	0.01
				3	*	*	*

Notes:

¹ Approximate Sample locations are shown in figure 1

² Analyzed by EPA Method 8081

mg/Kg - milligrams per Kilogram

DDT = dichlorodiphenyltrichloroethane

DDE = dichlorodiphenyldichloroethylene

DDD = dichlorodiphenyldichloroethane

PQL=Practical Quantitation Limits

< = not detected above laboratory limits

* Ecology has not designated a cleanup level for this constituent

Bold indicates the detected concentration exceeds Ecology MTCA Method A cleanup level

**Table 3 Summary of Soil Analytical Results - Characterization Samples
Orchard Park - Remedial Action
Yakima, Washington**

Sample Number ¹	Soil Sample Zone	Depth Sampled (inches)	Date Sampled	Total Arsenic ² (mg/Kg)	Total Lead ² (mg/Kg)
OP-34	Zone 5	6.0	3/17/10 to 3/19/10	27	--
OP-35	Zone 2	6.0	3/17/10 to 3/19/10	18.7	--
OP-36		6.0	3/17/10 to 3/19/10	19.5	--
OP-37		6.0	3/17/10 to 3/19/10	19.3	--
OP-38		6.0	3/17/10 to 3/19/10	25	--
OP-39	Northeast Corner of Facility Bldg	6.0	3/17/10 to 3/19/10	<5.0	--
PQL				5	5
Ecology MTCA Method A Cleanup Level				20	250

Notes:

¹ Approximate sample location is shown in Figure 2

² Analyzed by EPA Method 7000 Series

mg/Kg - milligrams per kilogram

PQL=Practical Quantitation Limits

Bold indicates the detected concentration exceeds Ecology MTCA Method A soil cleanup level

-- = not analyzed for constituent

Table 4 Summary of Soil Analytical Results - Documentation Samples
Orchard Park - Remedial Action
Yakima, Washington

Sample Number ¹	Soil Sample Zone	Depth Sampled (inches)	Date Sampled	Total Arsenic ² (mg/Kg)	Total Lead ² (mg/Kg)
BF1-C1	Backfill	3.0	3/19/10	<5.0	--
Backfill-3-29		3.0	3/31/10 to 4/1/10	7.3	<5.0
Z1-EX1-6		6.0	3/18/10 to 3/19/10	52	--
Z1-EX2-6		6.0	3/18/10 to 3/19/10	35	--
Z1-EX3-5		5.0	3/18/10 to 3/19/10	9.1	--
Z1-EX4-5		5.0	3/18/10 to 3/19/10	13	--
Z1-EX5-4		4.0	3/18/10 to 3/19/10	24	--
Z1-EX6-4		4.0	3/18/10 to 3/19/10	36	--
Z1-EX7-4		4.0	3/18/10 to 3/19/10	35	--
Z1-EX8-4		4.0	3/18/10 to 3/19/10	30	--
Z1-EX9-4		4.0	3/18/10 to 3/19/10	30	--
Z1-EX10-6		6.0	3/18/10 to 3/19/10	37	--
Z1-EX11-6		6.0	3/18/10 to 3/19/10	34	--
Z1-EX12-6		6.0	3/18/10 to 3/19/10	25	--
Z2-EX1-6	Zone 1	6.0	3/30/10	33	34
Z2-EX2-6		6.0	3/30/10	130	--
Z2-EX3-6		6.0	3/30/10	74	--
Z2-EX4-6		6.0	3/31/10 to 4/1/10	18	16
Z2-EX5-6		6.0	3/31/10 to 4/1/10	70	--
Z2-EX6-6		6.0	3/31/10 to 4/1/10	13	--
Z2-EX7-6		6.0	3/31/10 to 4/1/10	26	--
Z2-EX8-6		6.0	3/31/10 to 4/1/10	103	--
Z2-EX9-6		6.0	3/31/10 to 4/1/10	129	--
Z2-EX10-6		6.0	3/31/10 to 4/1/10	66	55
Z2-EX11-6		6.0	3/31/10 to 4/1/10	169	--
Z2-EX12-6		6.0	3/31/10 to 4/1/10	271	--
Z2-EX13-6		6.0	3/31/10 to 4/1/10	167	--
Z2-EX14-6		6.0	3/31/10 to 4/1/10	153	--
Z2-EX15-6	6.0	3/31/10 to 4/1/10	109	52	
Z2-EX16-6	6.0	3/31/10 to 4/1/10	120	--	
Z2-EX17-6	6.0	3/31/10 to 4/1/10	97	--	
Z2-EX18-6	6.0	3/31/10 to 4/1/10	80	--	
Z2-EX19-6	6.0	3/31/10 to 4/1/10	51	63	
Z2-EX20-6	6.0	3/31/10 to 4/1/10	43	--	
Z2-EX21-6	Zone 2	6.0	3/31/10 to 4/1/10	39	--
Z3-EX1-6		6.0	3/23/10 to 3/25/10	<5.0	<5.0
Z3-EX2-6		6.0	3/23/10 to 3/25/10	<5.0	--
Z3-EX3-6		6.0	3/23/10 to 3/25/10	<5.0	--
Z3-EX4-6		6.0	3/23/10 to 3/25/10	<5.0	--
Z3-EX5-6		6.0	3/23/10 to 3/25/10	<5.0	<5.0
Z3-EX6-6		6.0	3/31/10 to 4/1/10	93	60
Z3-EX7-6		6.0	3/31/10 to 4/1/10	5.0	--
Z3-EX8-6		6.0	3/31/10 to 4/1/10	6.5	--
Z3-EX9-6		6.0	3/31/10 to 4/1/10	16	--
Z3-EX10-6		6.0	3/31/10 to 4/1/10	66	--
Z3-EX11-6		6.0	3/31/10 to 4/1/10	83	--
Z3-EX12-6		6.0	3/31/10 to 4/1/10	132	--
Z3-EX13-6		6.0	3/31/10 to 4/1/10	195	--
Z3-EX14-6	6.0	3/31/10 to 4/1/10	258	--	
Z3-EX15-6	6.0	3/31/10 to 4/1/10	103	52	
Z3-EX16-6	6.0	3/31/10 to 4/1/10	125	--	
Z3-EX17-6	6.0	3/31/10 to 4/1/10	151	--	
Z3-EX18-6	6.0	3/31/10 to 4/1/10	60	46	
Z3-EX19-6	6.0	3/31/10 to 4/1/10	81	--	
Z3-EX20-6	Zone 3	6.0	3/31/10 to 4/1/10	101	--
Z4-EX1-6		6.0	3/23/10 to 3/25/10	<5.0	<5.0
Z4-EX2-6		6.0	3/23/10 to 3/25/10	<5.0	--
Z4-EX3-6		6.0	3/23/10 to 3/25/10	<5.0	<5.0
Z4-EX4-6		6.0	3/23/10 to 3/25/10	<5.0	--
Z4-EX5-6		6.0	3/23/10 to 3/25/10	<5.0	--
Z4-EX6-6		6.0	3/23/10 to 3/25/10	<5.0	--
Z4-EX7-6		6.0	3/23/10 to 3/25/10	<5.0	--
Z4-EX8-6		6.0	3/23/10 to 3/25/10	<5.0	--
Z4-EX9-4		4.0	3/29/10	12	<5.0
Z4-EX10-4		4.0	3/29/10	59	--
Z4-EX11-4		4.0	3/29/10	46	--
Z5-EX1-6		6.0	4/1/10	41	8.6
Z5-EX2-6		6.0	4/1/10	36	--
PQL					5
Ecology MTCA Method A Cleanup Level					250

Notes:

¹ Approximate sample location is shown in Figure 2. Note: soil sample shown by zone and excavation number only.

For example: Z1-EX1-6 and Z1-EX2-6 are shown on Figure 2 as Z1-1 and Z1-2, respectively.

² Analyzed by EPA Method 7000 Series

mg/Kg - milligrams per kilogram

PQL=Practical Quantitation Limits

Bold indicates the detected concentration exceeds Ecology MTCA Method A soil cleanup level

-- = not analyzed for constituent

APPENDIX A

SITE PHOTOGRAPHS



ASSOCIATED
ENVIRONMENTAL
GROUP, LLC

SITE PHOTOGRAPHIC RECORD

Project No.: 07-139

Project Name: Orchard Park Independent Retirement Living - Final Remedial Action



Photo #1: Parking lot and main entrance to the Site (Orchard Park Independent Retirement Living facility), looking to the north.



Photo #2: Parking lot and main entrance to the Site, looking to the southeast.



Photo #3: View of Zone 1, looking at the northwestern portion of the facility building. Photo displays primary portion of Zone 1, though zone extends south and east of photo.



Photo #4: View of Zone 1, looking at northwestern portion of the facility building, during excavation.



Photo #5: View of Zone 1, looking at the northwestern portion of the facility building, with the clean imported topsoil being raked into place.



Photo #6: View of Zone 2, looking at the eastern side of facility building.



ASSOCIATED
ENVIRONMENTAL
GROUP, LLC

SITE PHOTOGRAPHIC RECORD

Project No.: 07-139

Project Name: Orchard Park Independent Retirement Living - Final Remedial Action



Photo #7: View of Zone 2, looking at the eastern side of the facility building, during the excavation.



Photo #8: View of Zone 3, looking at the southern end of the facility building.



Photo #9: View of Zone 3, looking at the southern end of the facility building, during excavation.



Photo #10: View of Zone 4, looking to the southwest.



Photo #11: View of Zone 4, looking to the southwest, after clean imported soil has been brought in and raked into place.



Photo #12: Entrance point to Zones 2 and 3. Ramp created to allow access of excavation equipment.



ASSOCIATED
ENVIRONMENTAL
GROUP, LLC

SITE PHOTOGRAPHIC RECORD

Project No.: 07-139

Project Name: Orchard Park Independent Retirement Living - Final Remedial Action



Photo #13: Stockpile point of excavated soil. Located in Zone 3. View of stockpile is facing south, from the southern end of the facility building towards 34th Ave N.



Photo #14: Excavated soil being loaded into truck and pup for transportation to waste facility. Truck is parked on Fairbanks Ave. which intersects 34th Ave N.



Photo #15: View of Zone 1 during the Final Walkthrough.



Photo #16: View of Zone 2 during the Final Walkthrough.



Photo #17: View of Zone 3 during the Final Walkthrough.



Photo #18: View of Zone 4 during the Final Walkthrough.

APPENDIX B

SUPPORTING DOCUMENTS



WASTE CONNECTIONS INC.
Connect with the Future®

SPECIAL WASTE PERMIT

- The generator must determine if the waste is hazardous or dangerous before completing a permit application.
- The special waste permit application must be in the name of the generator of the waste and signed by an authorized representative who is responsible for the accuracy of all information submitted.
- Recertification is required for on-going special waste streams prior to the expiration date.
- A copy of the approved special waste permit must be shown to the gatehouse attendant upon delivery at the facility.

DISPOSAL SITE: CRC _____ FINLEY BUTTES _____ WASCO _____ X _____

Generator: Orchard park Gracious Retirement Living Yakima WA

Customer: EMG Corp. Mark W Fischer

Waste: Soils impacted with Arsenic. Basis for non-hazardous determination is sampling: 20 samples for total arsenic, 4 samples for lead, cadmium, chromium, arsenic, mercury and OCP; and 4 samples for TCLP lead.

Instructions: This permit is valid for three months from the date of issuance. Please present this permit to the scale house with each load.

Date: March 8, 2010

Permit No: 2042-10-028

Expiration date: June 8, 2010

New/Recert: New

Previous No: N/A

Landfill report: Yes. Soils are not considered an approved ADC.

Environmental approval:

Pamela S. Pausch

Wasco County Landfill
WASCO COUNTY LANDFILL
The Dalles, OR 97058

** DUPLICATE TICKET **

000626 Site 40
EMG Corp Ticket 049489
MARK W FISHER Date In 03/22/10
222 Schilling Circle Suite 275 Time In 13:09
HUNT VALLEY MD 21031 Date Out 03/22/10
Time Out 13:09

Weighmaster NANCY

Ref. 2042-10-28

DESCRIPTION

Manual Gross Wt. 104300 LB Vehicle TRAIL
Manual Tare Wt. 40040 LB Roll-Off
Net Wt. 64260 LB TON 32.13

OTHER SOILS per TON
TRUCKING - PER TON per TON

PO #
NOTE
DRIVER 8505

BY SIGNING THIS, I CERTIFY THAT THIS DISPOSAL MATERIAL
ORIGINATED IN THE COUNTY/STATE AS STATED ABOVE. I ALSO
CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS LOAD
CONTAINS NO HAZARDOUS WASTE.

Signature _____

**** DUPLICATE TICKET ****

000626	Site	40
EMG Corp	Ticket	049520
MARK W FISHER	Date In	03/23/10
222 Schilling Circle Suite 275	Time In	07:04
HUNT VALLEY MD 21031	Date Out	03/23/10
	Time Out	07:41

Weighmaster Linda

Ref. 2042-10-28

DESCRIPTION

Scale 1 Gross Wt.	105640 LB	Vehicle	TRAIL
Scale 1 Tare Wt.	40500 LB	Roll-Off	
Net Wt.	65140 LB	TON	32.57

OTHER SOILS per TON
TRUCKING - PER TON per TON

PO #
NOTE
DRIVER DIETRICH 8505

BY SIGNING THIS, I CERTIFY THAT THIS DISPOSAL MATERIAL ORIGINATED IN THE COUNTY/STATE AS STATED ABOVE. I ALSO CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS LOAD CONTAINS NO HAZARDOUS WASTE.

Signature _____

Wasco County Landfill
WASCO COUNTY LANDFILL
The Dalles, OR 97058

** DUPLICATE TICKET **

000626 Site 40
EMG Corp Ticket 049608
MARK W FISHER Date In 03/24/10
222 Schilling Circle Suite 275 Time In 07:07
HUNT VALLEY MD 21031 Date Out 03/24/10
Time Out 07:35

Weighmaster Linda

Ref. 8505

DESCRIPTION

Scale 1 Gross Wt. 104860 LB Vehicle TRAIL
Scale 1 Tare Wt. 40580 LB Roll-Off
Net Wt. 64280 LB TON 32.14

OTHER SOILS per TON
TRUCKING - PER TON per TON

PO #
NOTE
DRIVER DIETRICH 8505

BY SIGNING THIS, I CERTIFY THAT THIS DISPOSAL MATERIAL
ORIGINATED IN THE COUNTY/STATE AS STATED ABOVE. I ALSO
CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS LOAD
CONTAINS NO HAZARDOUS WASTE.

Signature _____

Wasco County Landfill
WASCO COUNTY LANDFILL
The Dalles, OR 97058

** DUPLICATE TICKET **

000626 Site 40
EMG Corp Ticket 049667
MARK W FISHER Date In 03/24/10
222 Schilling Circle Suite 275 Time In 13:15
HUNT VALLEY MD 21031 Date Out 03/24/10
Time Out 13:42

Weighmaster Linda

Ref. 8505

DESCRIPTION

Scale 1 Gross Wt. 106960 LB	Vehicle TRAIL
Scale 1 Tare Wt. 40080 LB	Roll-Off
Net Wt. 66880 LB	TON 33.44

OTHER SOILS per TON
TRUCKING - PER TON per TON

PO #
NOTE
DRIVER DIETRICH 8505

BY SIGNING THIS, I CERTIFY THAT THIS DISPOSAL MATERIAL
ORIGINATED IN THE COUNTY/STATE AS STATED ABOVE. I ALSO
CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS LOAD
CONTAINS NO HAZARDOUS WASTE.

Signature _____

** DUPLICATE TICKET **

Ref. 8506

Signature _____

**** DUPLICATE TICKET ****

Ref. 8505

Signature _____

Wasco County Landfill
WASCO COUNTY LANDFILL
The Dalles, OR 97058

** DUPLICATE TICKET **

000626 Site 40
EMG Corp Ticket 049498
MARK W FISHER Date In 03/22/10
222 Schilling Circle Suite 275 Time In 14:01
HUNT VALLEY MD 21031 Date Out 03/22/10
Time Out 14:32

Weighmaster NANCY

Ref. 2042-10-28

DESCRIPTION

Scale 1 Gross Wt. 102900 LB	Vehicle TRAIL
Scale 1 Tare Wt. 39900 LB	Roll-Off
Net Wt. 63000 LB	TON 31.50

OTHER SOILS per TON
TRUCKING - PER TON per TON

PO #
NOTE
DRIVER 8506

BY SIGNING THIS, I CERTIFY THAT THIS DISPOSAL MATERIAL
ORIGINATED IN THE COUNTY/STATE AS STATED ABOVE. I ALSO
CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS LOAD
CONTAINS NO HAZARDOUS WASTE.

Signature _____

Signature _____

**** DUPLICATE TICKET ****

Ref. 8506

DESCRIPTION

Scale 1 Gross Wt.	102640 LB	Vehicle	TRAIL
Scale 1 Tare Wt.	40140 LB	Roll-Off	
Net Wt.	62500 LB	TON	31.25

OTHER SOILS per TON
TRUCKING - PER TON per TON

PO #
NOTE
DRIVER DIETRICH 8506

BY SIGNING THIS, I CERTIFY THAT THIS DISPOSAL MATERIAL ORIGINATED IN THE COUNTY/STATE AS STATED ABOVE. I ALSO CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS LOAD CONTAINS NO HAZARDOUS WASTE.

Signature _____

000626	Site	40
EMG CORP	Ticket	050025
MARK W FISHER	Date In	03/31/10
222 Schilling Circle Suite 275	Time In	12:41
HUNT VALLEY MD 21031	Date Out	03/31/10
	Time Out	13:03

Ref. 8503

Scale 1 Gross Wt.	104680 LB	Vehicle	TRAIL
Scale 1 Tare Wt.	39460 LB	Roll-Off	
Net Wt.	65220 LB	TON	32.61

PO #
NOTE
DRIVER DIETRICH 8503

Signature _____

Wasco County Landfill
WASCO COUNTY LANDFILL
The Dalles, OR 97058

** DUPLICATE TICKET **

000626 Site 40
EMG CORP Ticket 050024
MARK W FISHER Date In 03/31/10
222 Schilling Circle Suite 275 Time In 12:29
HUNT VALLEY MD 21031 Date Out 03/31/10
Time Out 13:06

Weighmaster Linda

Ref. 8505

DESCRIPTION

Scale 1 Gross Wt. 104980 LB Vehicle TRAIL
Scale 1 Tare Wt. 40240 LB Roll-Off
Net Wt. 64740 LB TON 32.37

OTHER SOILS per TON
TRUCKING - PER TON per TON

PO #
NOTE
DRIVER DIETRICH 8505

BY SIGNING THIS, I CERTIFY THAT THIS DISPOSAL MATERIAL
ORIGINATED IN THE COUNTY/STATE AS STATED ABOVE. I ALSO
CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS LOAD
CONTAINS NO HAZARDOUS WASTE.

Signature _____

**** DUPLICATE TICKET ****

Weighmaster NANCY Ref. 8505

DESCRIPTION

Scale 1 Gross Wt.	105240 LB	Vehicle	TRAIL
Scale 1 Tare Wt.	40440 LB	Roll-Off	
Net Wt.	64800 LB	TON	32.40

OTHER SOILS per TON
TRUCKING - PER TON per TON

PO #
NOTE
DRIVER DIETRICH 8505

BY SIGNING THIS, I CERTIFY THAT THIS DISPOSAL MATERIAL ORIGINATED IN THE COUNTY/STATE AS STATED ABOVE. I ALSO CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS LOAD CONTAINS NO HAZARDOUS WASTE.

Signature _____

Wasco County Landfill
WASCO COUNTY LANDFILL
The Dalles, OR 97058

000626	Site	40
EMG CORP	Ticket	050072
MARK W FISHER	Date In	04/01/10
222 Schilling Circle Suite 275	Time In	07:05
HUNT VALLEY MD 21031	Date Out	04/01/10
	Time Out	07:27

Weighmaster NANCY Ref. 8503

DESCRIPTION

Scale 1 Gross Wt.	105360 LB	Vehicle	TRAIL
Scale 1 Tare Wt.	39720 LB	Roll-Off	
Net Wt.	65640 LB	TON	32.82

OTHER SOILS per TON
TRUCKING - PER TON per TON

PO #
NOTE
DRIVER DIETRICH 8503

BY SIGNING THIS, I CERTIFY THAT THIS DISPOSAL MATERIAL ORIGINATED IN THE COUNTY/STATE AS STATED ABOVE. I ALSO CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS LOAD CONTAINS NO HAZARDOUS WASTE.

Signature _____

**** DUPLICATE TICKET ****

Weighmaster NANCY Ref. 8506

DESCRIPTION

Scale 1 Gross Wt.	104840 LB	Vehicle	TRAIL
Scale 1 Tare Wt.	40120 LB	Roll-Off	
Net Wt.	64720 LB	TON	32.36

OTHER SOILS per TON
TRUCKING - PER TON per TON

PO #
NOTE
DRIVER DIETRICH 8506

BY SIGNING THIS, I CERTIFY THAT THIS DISPOSAL MATERIAL ORIGINATED IN THE COUNTY/STATE AS STATED ABOVE. I ALSO CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS LOAD CONTAINS NO HAZARDOUS WASTE.

Signature _____

Wasco County Landfill
WASCO COUNTY LANDFILL
The Dalles, OR 97058

**** DUPLICATE TICKET ****

000626	Site	40
EMG CORP	Ticket	050136
MARK W FISHER	Date In	04/01/10
222 Schilling Circle Suite 275	Time In	13:15
HUNT VALLEY MD 21031	Date Out	04/01/10
	Time Out	13:43

Weighmaster NANCY Ref. 8505

DESCRIPTION

Scale 1 Gross Wt.	104200 LB	Vehicle	TRAIL
Scale 1 Tare Wt.	39940 LB	Roll-Off	
Net Wt.	64260 LB	TON	32.13

OTHER SOILS per TON
TRUCKING - PER TON per TON

PO #
NOTE
DRIVER DIETRICH 8505

BY SIGNING THIS, I CERTIFY THAT THIS DISPOSAL MATERIAL ORIGINATED IN THE COUNTY/STATE AS STATED ABOVE. I ALSO CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS LOAD CONTAINS NO HAZARDOUS WASTE.

Signature _____

Wasco County Landfill
WASCO COUNTY LANDFILL
The Dalles, OR 97058

000626 Site 40
EMG CORP Ticket 050133
MARK W FISHER Date In 04/01/10
222 Schilling Circle Suite 275 Time In 12:48
HUNT VALLEY MD 21031 Date Out 04/01/10
Time Out 13:04

Weighmaster NANCY

Ref. 8502

DESCRIPTION

Scale 1 Gross Wt. 104020 LB	Vehicle TRAIL
Scale 1 Tare Wt. 40720 LB	Roll-Off
Net Wt. 63300 LB	TON 31.65

OTHER SOILS per TON
TRUCKING - PER TON per TON

PO #
NOTE
DRIVER DIETRICH 8502

BY SIGNING THIS, I CERTIFY THAT THIS DISPOSAL MATERIAL
ORIGINATED IN THE COUNTY/STATE AS STATED ABOVE. I ALSO
CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS LOAD
CONTAINS NO HAZARDOUS WASTE.

Signature



Wasco County Landfill
WASCO COUNTY LANDFILL
The Dalles, OR 97058

000626 Site 40
EMG CORP Ticket 050132
MARK W FISHER Date In 04/01/10
222 Schilling Circle Suite 275 Time In 12:44
HUNT VALLEY MD 21031 Date Out 04/01/10
Time Out 13:05

Weighmaster NANCY

Ref. 8503

DESCRIPTION

Scale 1 Gross Wt. 104160 LB Vehicle TRAIL
Scale 1 Tare Wt. 39740 LB Roll-Off
Net Wt. 64420 LB TON 32.21

OTHER SOILS per TON
TRUCKING - PER TON per TON

PO #
NOTE
DRIVER DIETRICH 8503

BY SIGNING THIS, I CERTIFY THAT THIS DISPOSAL MATERIAL
ORIGINATED IN THE COUNTY/STATE AS STATED ABOVE. I ALSO
CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THIS LOAD
CONTAINS NO HAZARDOUS WASTE.

Signature _____

SOIL ANALYTICAL RESULTS

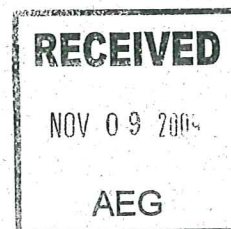


Libby Environmental, Inc.

4139 Libby Road N.E., Olympia, WA 98506-2518

November 3, 2009

Michael Chun
Associated Environmental Group, Inc.
1728 State Avenue NE
Suite 101
Olympia, WA 98506



Dear Mr. Chun:

Please find enclosed the analytical data report for the Orchard Park Project located in Yakima, Washington. Soil samples were analyzed for Metals by EPA Method 7000 Series on October 31, 2009, Mercury by EPA Method 7471 on November 1, 2009, Organochlorine Pesticides by EPA Method 8081 on November 3, 2009 and Metals Lead and Arsenic by EPA Method 6020 with EPA Method 1311 Extraction (TCLP) on October 30, 2009.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also 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 CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

Libby Project No.L091028-5

Analyses of Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Arsenic (mg/kg)
Method Blank	10/31/09	nd	nd	nd	nd
OP-32-2	10/31/09	319	nd	nd	31
OP-32-4	10/31/09	338	nd	5.8	24
OP-33-2	10/31/09	230	nd	6.9	23
OP-33-4	10/31/09	210	nd	12.8	20
Practical Quantitation Limit		5.0	1.0	5.0	5.0

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

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (% Recovery)	Cadmium (% Recovery)	Chromium (% Recovery)	Arsenic (% Recovery)
LCS	10/31/09	102%	103%	99%	82%
L091028-2 MS	10/31/09	117%	124%	int	int
L091028-2 MSD	10/31/09	int	128%	int	int
RPD	10/31/09		3%		
Practical Quantitation Limit		5.0	1.0	5.0	5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

Libby Project No.L091028-5

Analyses of Mercury in Soil by EPA Method 7471

Sample Number	Date Analyzed	Mercury (mg/kg)
Method Blank	11/1/09	nd
OP-32-2	11/1/09	nd
OP-32-4	11/1/09	nd
OP-33-2	11/1/09	nd
OP-33-4	11/1/09	nd
	11/1/09	nd
Practical Quantitation Limit		0.5

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

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

QA/QC for Mercury by EPA Method 7471

Sample Number	Date Analyzed	Mercury (mg/kg)
LCS	11/1/09	94%
L091028-2 MS	11/1/09	109%
L091028-2 MSD	11/1/09	114%
RPD	11/1/09	4%
Practical Quantitation Limit		0.5

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt



Fremont

ANALYTICAL

2930 Westlake Ave N Suite 100
Seattle, WA 98109
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Libby Environmental
Attn: Sherry Chilcutt
4139 Libby Road NE
Olympia, WA 98506

RE: Orchard Park
Fremont Project No: CHM091029-2

November 4th, 2009

Sherry:

Enclosed are the analytical results for the **Orchard Park** soil samples received by Fremont Analytical on October 29th, 2009

Examination of these samples was conducted for the presence of the following:

- **Organochlorine Pesticides in Soil by EPA 8081**
- **Metals in Soil by EPA Method 6020 with EPA Method 1311 Extraction (TCLP)**

These applications were performed under Washington State Department of Ecology accreditation parameters. All appropriate Quality Assurance / Quality Control method parameters have been applied.

Please contact the laboratory if you should have any questions about the report.

Thank you for using Fremont Analytical!

Sincerely,

Michael Dee
Sr. Chemist / Principal
mikedee@fremontanalytical.com

www.fremontanalytical.com



Analysis of Organochlorine Pesticides in Soil by EPA 8081

Project: Orchard Park

Client: Libby Environmental

Client Project #: N/A

Lab Project #: CHM091029-2

Method 8081B (mg/kg)	MRL	Method Blank	LCS	Duplicate		RPD %	OP-32-4	OP-33-2	OP-33-4
				OP-32-2	OP-32-2				
Date Extracted		11/3/09	11/3/09	11/3/09	11/3/09		11/3/09	11/3/09	11/3/09
Date Analyzed		11/3/09	11/3/09	11/3/09	11/3/09		11/3/09	11/3/09	11/3/09
Matrix				Soil	Soil		Soil	Soil	Soil
[alpha] BHC	0.01	nd		nd	nd		nd	nd	nd
[beta] BHC	0.01	nd		nd	nd		nd	nd	nd
[gamma] BHC (Lindane)	0.01	nd	93%	nd	nd		nd	nd	nd
[delta] BHC	0.01	nd		nd	nd		nd	nd	nd
Heptachlor	0.01	nd	99%	nd	nd		nd	nd	nd
Aldrin	0.01	nd	94%	nd	nd		nd	nd	nd
Heptachlor epoxide	0.01	nd		nd	nd		nd	nd	nd
[gamma] Chlordane	0.01	nd		nd	nd		nd	nd	nd
Endosulfan I	0.01	nd		nd	nd		nd	nd	nd
[alpha] Chlordane	0.01	nd		nd	nd		nd	nd	nd
Dieldrin	0.01	nd	114%	nd	nd		nd	nd	nd
4,4'-DDE	0.01	nd		0.45	0.57	23%	0.51	0.14	0.34
Endrin	0.02	nd	124%	nd	nd		nd	nd	0.033
Endosulfan II	0.02	nd		nd	nd		nd	nd	nd
4,4'-DDD	0.02	nd		nd	nd		nd	nd	nd
Endrin Aldehyde	0.02	nd		nd	nd		nd	nd	nd
Endosulfan Sulfate	0.02	nd		nd	nd		nd	nd	nd
4,4'-DDT	0.02	nd	99%	0.12	0.14	14%	0.14	0.07	0.26
Endrin Ketone	0.02	nd		nd	nd		nd	nd	nd
Methoxychlor	0.05	nd		nd	nd		nd	nd	nd
Surrogate Recovery									
Tetrachloro-m-xylene (TCMX)		75%	79%	74%	79%		82%	78%	77%
Decachlorobiphenyl (DCBP)		85%	89%	83%	102%		113%	105%	81%

"nd" Indicates no detection at the listed reporting limits

"int" Indicates that interference prevents determination

"C" Indicates coelution with Sample Peaks

"J" Indicates estimated value

"MRL" Indicates Method Reporting Limit

"LCS" Indicates Laboratory Control Sample

"MS" Indicates Matrix Spike

"MSD" Indicates Matrix Spike Duplicate

"RPD" Indicates Relative Percent Difference

Acceptable RPD is determined to be less than 30%

Acceptable Recovery Limits:

Surrogates = 65% to 135%

LCS, LCSD, MS, MSD = 65% to 135%

Surrogates Concentration = 0.025 mg/kg

Spike Concentration = 0.05 - 0.10 mg/kg



Analysis of Organochlorine Pesticides in Soil by EPA 8081

Project: Orchard Park

Client: Libby Environmental

Client Project #: N/A

Lab Project #: CHM091029-2

		MS	MSD	
Method 8081B	MRL	OP-32-2	OP-32-2	RPD
(mg/kg)				%
Date Extracted		11/3/09	11/3/09	
Date Analyzed		11/3/09	11/3/09	
Matrix		Soil	Soil	

[alpha] BHC	0.01			
[beta] BHC	0.01			
[gamma] BHC (Lindane)	0.01	105%	100%	5%
[delta] BHC	0.01			
Heptachlor	0.01	108%	107%	1%
Aldrin	0.01	102%	99%	3%
Heptachlor epoxide	0.01			
[gamma] Chlordane	0.01			
Endosulfan I	0.01			
[alpha] Chlordane	0.01			
Dieldrin	0.01	130%	125%	4%
4,4'-DDE	0.01			
Endrin	0.02	135%	132%	2%
Endosulfan II	0.02			
4,4'-DDD	0.02			
Endrin Aldehyde	0.02			
Endosulfan Sulfate	0.02			
4,4'-DDT	0.02	120%	126%	5%
Endrin Ketone	0.02			
Methoxychlor	0.05			

Surrogate Recovery

Tetrachloro-m-xylene (TCMX)	82%	79%
Decachlorobiphenyl (DCBP)	93%	92%

"nd" Indicates no detection at the listed reporting limits

"int" Indicates that interference prevents determination

"C" Indicates coelution with Sample Peaks

"J" Indicates estimated value

"MRL" Indicates Method Reporting Limit

"LCS" Indicates Laboratory Control Sample

"MS" Indicates Matrix Spike

"MSD" Indicates Matrix Spike Duplicate

"RPD" Indicates Relative Percent Difference

Acceptable RPD is determined to be less than 30%

Acceptable Recovery Limits:

Surrogates = 65% to 135%

LCS, LCSD, MS, MSD = 65% to 135%

Surrogates Concentration = 0.025 mg/kg

Spike Concentration = 0.05 - 0.10 mg/kg



2930 Westlake Ave . N., Suite 100
Seattle, WA 98109

T: 206.352.3790
F: 206-352-7178
email: info@fremontanalytical.com

Metals in Soil by EPA Method 6020 with EPA Method 1311 Extraction

Project: Orchard Park
Client: Libby Environmental
Client Project #: N/A
Lab Project #: CHM091029-2

EPA 6020 (TCLP) (mg/L)	MRL	Method Blank	LCS	Duplicate				
				OP-28	OP-28	OP-29	OP-30	OP-31
Date Extracted		10/29/09	10/29/09	10/29/09	10/29/09	10/29/09	10/29/09	10/29/09
Date Analyzed		10/30/09	10/30/09	10/30/09	10/30/09	10/30/09	10/30/09	10/30/09
Matrix				Extract	Extract	Extract	Extract	Extract
Arsenic (As)	0.5	nd	115%	nd	nd	nd	nd	nd
Lead (Pb)	0.5	nd	95%	nd	nd	nd	nd	0.69

"nd" Indicates no detection at the listed reporting limits
"int" Indicates that interference prevents determination
"J" Indicates estimated value
"MRL" Indicates Method Reporting Limit
"LCS" Indicates Laboratory Control Sample
"MS" Indicates Matrix Spike
"MSD" Indicates Matrix Spike Duplicate
"RPD" Indicates Relative Percent Difference

Acceptable RPD is determined to be less than 30%

Acceptable Recovery Limits:

LCS, LCSD, MS, MSD: 65% to 135%

Spike Concentrations:

As, Pb = 250 µg/L



2930 Westlake Ave . N., Suite 100
Seattle, WA 98109

T: 206.352.3790

F: 206-352-7178

email: info@fremontanalytical.com

Metals in Soil by EPA Method 6020 with EPA Method 1311 Extraction

Project: Orchard Park

Client: Libby Environmental

Client Project #: N/A

Lab Project #: CHM091029-2

EPA 6020 (TCLP) (mg/L)	MRL	MS	MSD	RPD %
		OP-28	OP-28	
Date Extracted		10/29/09	10/29/09	
Date Analyzed		10/30/09	10/30/09	
Matrix		Extract	Extract	
Arsenic (As)	0.5	74%	70%	6%
Lead (Pb)	0.5	102%	99%	3%

"nd" Indicates no detection at the listed reporting limits

"int" Indicates that interference prevents determination

"J" Indicates estimated value

"MRL" Indicates Method Reporting Limit

"LCS" Indicates Laboratory Control Sample

"MS" Indicates Matrix Spike

"MSD" Indicates Matrix Spike Duplicate

"RPD" Indicates Relative Percent Difference

Acceptable RPD is determined to be less than 30%

Acceptable Recovery Limits:

LCS, LCSD, MS, MSD: 65% to 135%

Spike Concentrations:

As, Pb = 250 µg/L



Libby Environmental, Inc.

4139 Libby Road NE • Olympia, WA 98506-2518

March 29, 2010

Michael Chun
Associated Environmental Group, LLC
1018 Capitol Way South, Suite 201
Olympia, WA 98501



Dear Mr. Chun;

Please find enclosed the analytical data report for the Orchard Park Project located in Yakima, Washington. Soil samples were analyzed for Arsenic by EPA Method 7000 Series on March 28, 2010.

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.

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

Libby Project No.L100326-5

Analyses of Arsenic in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (mg/kg)
Method Blank	3/28/10	nd
OP-34	3/28/10	27.0
OP-35	3/28/10	18.7
OP-36	3/28/10	19.5
OP-37	3/28/10	19.3
OP-38	3/28/10	25.0
OP-39	3/28/10	nd
OP-39 Dup	3/28/10	nd
Practical Quantitation Limit		5.0

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

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (% Recovery)
LCS	3/28/10	111%
OP-39 MS	3/28/10	108%
OP-39 MSD	3/28/10	107%
RPD	3/28/10	1%
Practical Quantitation Limit		5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

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

Client: AEI

Address: 1018 Capitol Way S Olympia, WA

Phone: 360.352.9435 Fax: 360.352.8164

Client Project # 07-139

Chain of Custody Record

Date: 3/26/10 Page: 1 of 1

Project Manager: M. Chun

Project Name: Orchard Park

Location: Yakima, WA

Collector: K. Corcoran Date of Collection: 3/25/10

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B BTEX Only	VOA 8021B	SEMI VOL 8270	NWTPH-HCID	NWTPH-GX	NWTPH-DX	PAH 8270	PCBS 8082	MTCA 5 Metals	Field Note/# Containers
1 OP-34	3"	1200	Soil	JAR										1 JAR
2 OP-35	3"	1205	"	"										"
3 OP-36	"	1210	"	"										"
4 OP-37	"	1215	"	"										"
5 OP-38	"	1220	"	"										"
6 OP-39	"	1225	"	"										"
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														

Relinquished by: [Signature] Date / Time: 3/26/10 1208

Relinquished by: [Signature] Date / Time: 3/26/10 1210

Relinquished by: [Signature] Date / Time: 3/26/10 1210

Received by: [Signature] Date / Time: 3/26/10 1210

Received by: [Signature] Date / Time: 3/26/10 1210

Received by: [Signature] Date / Time: 3/26/10 1210

Remarks: Rust

TAT 24HR 48HR 5-Day

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

Libby Project No.L100320-2

Analyses of Arsenic in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (mg/kg)
Method Blank	3/21/10	nd
Z1-EX1-6"	3/21/10	52
Z1-EX2-6"	3/21/10	35
Z1-EX3-5"	3/21/10	9.1
Z1-EX4-5"	3/21/10	13
Z1-EX5-4"	3/21/10	24
Z1-EX6-4"	3/21/10	36
Z1-EX7-4"	3/21/10	35
Z1-EX8-4"	3/21/10	30
Z1-EX9-4"	3/21/10	30
Z1-EX10-6"	3/21/10	37
Z1-EX11-6"	3/21/10	34
Z1-EX12-6"	3/21/10	25
Practical Quantitation Limit		5.0

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

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (% Recovery)
LCS	3/21/10	93%
MS	3/21/10	int
MSD	3/21/10	int
RPD	3/21/10	
Practical Quantitation Limit		5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby, Environmental, Inc.

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

Chain of Custody Record

Client:

Address:

Phone:

Client Project #

Date:

Project Manager:

Project Name:

Location:

Collector:

Page: 1 of 1

Date of Collection: 3/12-3/14

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B BTEX Only	VOA 8021B	VOA 8260	SEM VOL 8270	NWTPH-HCID	NWTPH-GX	NWTPH-DX	PAH 8270	PCBS 8082	MTCA 5 Metals	Field Note/# Containers
1 21-EX1-6"	6"	1640	Soil	1 JAR											1 JAR
2 21-EX2-6"	6"	1645	"	"											"
3 21-EX3-5"	5"	1630	"	"											"
4 21-EX4-5"	5"	1635	"	"											"
5 21-EX5-4"	4"	1640	"	"											"
6 21-EX6-4"	4"	1645	"	"											"
7 21-EX7-4"	4"	1650	"	"											"
8 21-EX8-4"	4"	1655	"	"											"
9 21-EX9-4"	4"	1650	"	"											"
10 21-EX10-6"	6"	1640	"	"											"
11 21-EX11-6"	6"	1645	"	"											"
12 21-EX12-6"	6"	1650	"	"											"
13															
14															
15															
16															
17															
18															

Remarks:

Sample Receipt:

Date / Time

Received by

Date / Time

Good Condition?

Date / Time

Received by

Date / Time

Cold?

Date / Time

Received by

Date / Time

Seals Intact?

Date / Time

Received by

Date / Time

Total Number of Containers

Date / Time

Received by

Date / Time

TAT 24HR 48HR 5-Day



Libby Environmental, Inc.

4139 Libby Road NE • Olympia, WA 98506-2518

April 5, 2010

Michael Chun
Associated Environmental Group, LLC
1018 Capitol Way South, Suite 201
Olympia, WA 98501

Dear Mr. Chun;

Please find enclosed the analytical data report for the Orchard Park Project located in Yakima, Washington. Soil samples were analyzed for Metals Arsenic and Lead by EPA Method 7000 Series on March 31, 2010.

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.

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

Libby Project No.L100326-6

Analyses of Arsenic and Lead in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (mg/kg)	Lead (mg/kg)
Method Blank	3/31/10	nd	nd
Z4-EX1-6"	3/31/10	11	119
Z4-EX2-6"	3/31/10	5.9	
Z4-EX3-6"	3/31/10	21	350
Z4-EX4-6"	3/31/10	16	
Z4-EX5-6"	3/31/10	20	
Z4-EX6-6"	3/31/10	nd	
Z4-EX7-6"	3/31/10	19.7	
Z4-EX8-6"	3/31/10	6.3	
Z3-EX1-6"	3/31/10	18	137
Z3-EX2-6"	3/31/10	44	
Z3-EX3-6"	3/31/10	23	
Z3-EX4-6"	3/31/10	23	
Z3-EX5-6"	3/31/10	19.7	137
Practical Quantitation Limit		5.0	5.0

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

ANALYSES PERFORMED BY: Dirk Peterson

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (% Recovery)	Lead (% Recovery)
LCS	3/31/10	94%	109%
MS	3/31/10	86%	int
MSD	3/31/10	int	int
RPD	3/31/10		
Practical Quantitation Limit		5.0	5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Dirk Peterson

Libby Environmental, Inc.

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

Client: AEG

Address: 1018 Capitol Way S Olympia, WA

Phone: 360.352.9635 Fax: 360.352.8164

Client Project # 67-139

Chain of Custody Record

Date: 3/26/10

Page: 1 of 1

Project Manager: M. Chen

Project Name: Orchard Park

Location: Yukon, WA

Collector: K. Roscino Date of Collection: 3/23 - 3/25

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B BTEX only	VOA 8021B	VOA 8021B BTEX only	SEMI VOL 8270	NWTPH-HCID	NWTPH-GX	NWTPH-DX	PAH 8270	PCBS 8082	MTCA 5 Metals	Field Note/# Containers
1 24-EX1-6	6"	0900	Soil	JAR											1 JAR
2 24-EX2-6	6"	0905	"	"											"
3 24-EX3-6	"	0910	"	"											"
4 24-EX4-6	"	0915	"	"											"
5 24-EX5-6	"	0920	"	"											"
6 24-EX6-6	"	0925	"	"											"
7 24-EX7-6	"	0800	"	"											"
8 24-EX8-6	"	0805	"	"											"
9 23-EX1-6	"	1300	"	"											"
10 23-EX2-6	"	1305	"	"											"
11 23-EX3-6	"	1310	"	"											"
12 23-EX4-6	"	1315	"	"											"
13 23-EX5-6	"	1320	"	"											"
14															
15															
16															
17															
18															

Relinquished by: [Signature] Date / Time: 3/26/10 1208

Relinquished by: [Signature] Date / Time: 3/26/10 1210

Relinquished by: [Signature] Date / Time: 3/26/10 1210

Received by: [Signature] Date / Time: 3/26/10 1210

Received by: [Signature] Date / Time: 3/26/10 1210

Received by: [Signature] Date / Time: 3/26/10 1210

Remarks: STO

TAT 24HR 48HR 5-Day

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

Libby Project No.L100320-1

Analyses of Arsenic in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (mg/kg)
Method Blank	3/21/10	nd
BF1-C1	3/21/10	nd
BF1-C1 Dup	3/21/10	nd
Practical Quantitation Limit		5.0

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

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (% Recovery)
LCS	3/21/10	93%
BF1-CI MS	3/21/10	int
BF1-CI MSD	3/21/10	int
RPD	3/21/10	
Practical Quantitation Limit		5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libb, Environmental, Inc.

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

Chain of Custody Record

Date: 3/20/10 Page: 1 of 1

Client: HEG
Address: 1018 Capitol Way S Olympia
Phone: 360.352.4435 Fax: 360.352.8164
Client Project #: 67-139

Project Manager: M. Chen
Project Name: Orchard Park
Location: Yakima, WA
Collector: K. Roskurio
Date of Collection: 3/19/10

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B BTEX Only	VOA 8021B	VOA 8260	NWTPH-HCID	NWTPH-GX	NWTPH-DX	PAH 8270	PCBS 8082	MTCA 5 Metals	Field Note/# Containers		
1 BFI-C1	—	1645	Soil	15AR										15AR		
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
Relinquished by:	Date / Time		Received by		Date / Time		Date / Time		Date / Time		Date / Time		Remarks:			
Relinquished by:	3/20/10 1030		Aly 1 UWA		3-20-10								Rush!			
Relinquished by:	Date / Time		Received by		Date / Time		Date / Time		Date / Time		Date / Time		Good Condition?			
Relinquished by:	Date / Time		Received by		Date / Time		Date / Time		Date / Time		Date / Time		Cold?			
Relinquished by:	Date / Time		Received by		Date / Time		Date / Time		Date / Time		Date / Time		Seals Intact?			
Relinquished by:	Date / Time		Received by		Date / Time		Date / Time		Date / Time		Date / Time		Total Number of Containers			
													TAT	24HR	48HR	5-Day



Libby Environmental, Inc.

4139 Libby Road NE • Olympia, WA 98506-2518

April 13, 2010

Michael Chun
Associated Environmental Group, LLC
1018 Capitol Way South, Suite 201
Olympia, WA 98501



Dear Mr. Chun;

Please find enclosed the analytical data report for the Orchard Park Project located in Yakima, Washington. Soil samples were analyzed for Metals Arsenic and Lead by EPA Method 7000 Series on April 4, 2010.

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.

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

Analyses of Arsenic and Lead in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (mg/kg)	Lead (mg/kg)
Method Blank	4/4/10	nd	nd
Z2-EX17-6"	4/4/10	97	
Z2-EX18-6"	4/4/10	80	
Z2-EX19-6"	4/4/10	51	63
Z2-EX20-6"	4/4/10	43	
Z2-EX21-6"	4/4/10	39	
Z3-EX6-6"	4/4/10	93	60
Z3-EX7-6"	4/4/10	5.0	
Z3-EX8-6"	4/4/10	6.5	
Z3-EX9-6"	4/4/10	16	
Z3-EX10-6"	4/4/10	66	
Z3-EX11-6"	4/4/10	83	
Z3-EX12-6"	4/4/10	132	
Z3-EX20-6"	4/4/10	101	
Z3-EX20-6" Dup	4/4/10	134	
Z3-EX13-6"	4/4/10	195	
Z3-EX14-6"	4/4/10	258	
Z3-EX15-6"	4/4/10	103	52
Z3-EX16-6"	4/4/10	125	
Z3-EX17-6"	4/4/10	151	
Z3-EX18-6"	4/4/10	60	46
Z3-EX19-6"	4/4/10	81	
Practical Quantitation Limit		5.0	5.0

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

ANALYSES PERFORMED BY: Dirk Peterson

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (% Recovery)	Lead (% Recovery)
LCS	4/4/10	106%	87%
Z3-EX20-6" MS	4/4/10	int	
Z3-EX20-6" MSD	4/4/10	int	
RPD	4/4/10		
Practical Quantitation Limit		5.0	5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Dirk Peterson

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

Libby Project No.L100402-6

Analyses of Arsenic and Lead in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (mg/kg)	Lead (mg/kg)
Method Blank	4/4/10	nd	nd
Z4-EX9-4"	4/4/10	12	
Z4-EX10-4"	4/4/10	59	
Z4-EX11-4"	4/4/10	46	
Backfill-3-29	4/4/10	7.3	nd
Z2-EX1-6"	4/4/10	33	34
Z2-EX2-6"	4/4/10	130	
Z2-EX3-6"	4/4/10	74	
Z2-EX4-6"	4/4/10	18	16
Z2-EX5-6"	4/4/10	70	
Z2-EX6-6"	4/4/10	13	
Z2-EX7-6"	4/4/10	26	
Z2-EX8-6"	4/4/10	103	
Z2-EX9-6"	4/4/10	129	
Z2-EX10-6"	4/4/10	66	55
Z2-EX11-6"	4/4/10	169	
Z2-EX12-6"	4/4/10	271	
Z2-EX13-6"	4/4/10	167	
Z2-EX14-6"	4/4/10	153	
Z2-EX15-6"	4/4/10	109	52
Z2-EX15-6" Dup	4/4/10	85	55
Z2-EX16-6"	4/4/10	120	
Practical Quantitation Limit		5.0	5.0

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

ANALYSES PERFORMED BY: Dirk Peterson

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (% Recovery)	Lead (% Recovery)
LCS	4/4/10	92%	87%
Z2-EX15-6" MS	4/4/10	int	int
Z2-EX15-6" MSD	4/4/10	int	int
RPD	4/4/10		
Practical Quantitation Limit		5.0	5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Dirk Peterson

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

Analyses of Arsenic and Lead in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (mg/kg)	Lead (mg/kg)
Method Blank	4/4/10	nd	nd
Z5-EX1-6"	4/4/10	41	8.6
Z5-EX2-6"	4/4/10	36	
Z5-EX2-6" Dup	4/4/10	39	
Practical Quantitation Limit		5.0	5.0

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

ANALYSES PERFORMED BY: Dirk Peterson

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

ORCHARD PARK PROJECT

Yakima, Washington

AEG, Inc.

Client Project #07-139

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Arsenic (% Recovery)	Lead (% Recovery)
LCS	4/4/10	106%	87%
MS	4/4/10	77%	
MSD	4/4/10	int	
RPD	4/4/10		
Practical Quantitation Limit		5.0	5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Dirk Peterson

Libby Environmental, Inc.

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

Chain of Custody Record

Date: 4-2-10 Page: 1 of 3

Client: ACG Project Manager: M. Chun

Address: 1018 Capital Way S Olympia Project Name: Groundwater

Phone: 360-352-4835 Fax: 360-352-4161 Location: Valina

Client Project # 07-139 Collector: B. Stone Date of Collection: 3/24-1/1

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B BTEX Only	VOA 8021B	VOA 8260	NWTPH-HClD	NWTPH-GX	NWTPH-DX	PAH 8270	PCBs 8082	MTCA Metals	Field Note/# Containers
1 24-E x 9-4"	4	12:01	Soil											
2 24-E x 10-4"	4	12:10	Soil											
3 24-E x 11-4"	4	12:15	Soil											
4 24-E x 11-4"	4	14:25	Soil											
5 22-E x 1-6"	6	15:15	Soil											
6 22-E x 2-6"	6	15:30	Soil											
7 22-E x 3-6"	6	15:35	Soil											
8 22-E x 4-6"	6	9:00	Soil											
9 22-E x 5-6"	6	9:05	Soil											
10 22-E x 6-6"	6	10:20												
11 22-E x 7-6"	6	10:40												
12 22-E x 8-6"	6	11:00												
13 22-E x 9-6"	6	14:15												
14 22-E x 10-6"	6	14:25												
15 22-E x 11-6"	6	14:35												
16 22-E x 12-6"	6	14:45												
17 22-E x 13-6"	6	16:15												
18 22-E x 14-6"	6	16:25												
Relinquished by: <u>[Signature]</u>	Date / Time: <u>4/2/10 10:41</u>	Received by: <u>[Signature]</u>	Date / Time: <u>4-2-10 11:13</u>	Remarks: <u>570</u>										
Relinquished by: <u>[Signature]</u>	Date / Time: <u>4/2/10 10:41</u>	Received by: <u>[Signature]</u>	Date / Time: <u>4-2-10 11:13</u>	Sample Receipt:										
				Good Condition?										
				Cold?										
				Seals Intact?										
				Total Number of Containers										
				TAT 24HR 48HR 5-Day										

Libby Environmental, Inc.

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

Client: AE6

Address: 1018 Capitol Way S Olympia

Phone: 360-352-5835 Fax: 360-352-8161

Client Project # 07-13a

Chain of Custody Record

Date: 4-2-10 Page: 2 of 3

Project Manager: Michael Chun

Project Name: Ochoco Park

Location: Yakima

Collector: B. Stone Date of Collection: 3/27-1/1

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B BTEX Only	VOA 8021B	VOA 8260	NWTPH-HCID	NWTPH-GX	NWTPH-DX	PAH 8270	PCBS 8082	MTCA 5 Metals	Field Note/# Containers
1 22-E x 15-6"	6	16:35	Soil											
2 22-E x 16-6"	8	16:40												
3 22-E x 17-6"		10:55												
4 22-E x 18-6"		11:10												
5 22-E x 19-6"		11:25												
6 22-E x 20-6"		11:30												
7 22-E x 21-6"		11:40												
8 23-E x 6-6"		8:30												
9 23-E x 7-6"		8:40												
10 23-E x 8-6"		9:00												
11 23-E x 9-6"		12:15												
12 23-E x 10-6"		13:30												
13 23-E x 11-6"		13:45												
14 23-E x 12-6"		13:55												
15 23-E x 20-6"		14:05												
16 23-E x 13-6"		14:15												
17 23-E x 14-6"		14:30												
18 23-E x 15-6"		14:40												
Relinquished by: <u>[Signature]</u>	Date / Time: <u>4/2/10 10:41</u>	Received by: <u>[Signature]</u>	Date / Time: <u>4-2-10 1:10</u>	Sample Receipt:										
Relinquished by: <u>[Signature]</u>	Date / Time: <u>4/2/10 10:41</u>	Received by: <u>[Signature]</u>	Date / Time: <u>4-2-10 1:10</u>	Good Condition?	Remarks: <u>STD</u>									
Relinquished by: <u>[Signature]</u>	Date / Time: <u>4/2/10 10:41</u>	Received by: <u>[Signature]</u>	Date / Time: <u>4-2-10 1:10</u>	Cold?										
Relinquished by: <u>[Signature]</u>	Date / Time: <u>4/2/10 10:41</u>	Received by: <u>[Signature]</u>	Date / Time: <u>4-2-10 1:10</u>	Seals Intact?										
Relinquished by: <u>[Signature]</u>	Date / Time: <u>4/2/10 10:41</u>	Received by: <u>[Signature]</u>	Date / Time: <u>4-2-10 1:10</u>	Total Number of Containers	TAT 24HR 48HR 5-Day									

Libby Environmental, Inc.

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

Chain of Custody Record

Date: 4/2/10 Page: 29 of 2
Project Manager: M. Churn
Project Name: Orchard Park
Location: Yakima
Collector: B. Stone Date of Collection: 3/29-4/1

Client: HCB
Address: 1218 Capital Way S Olympia
Phone: 360.352.5835 Fax: 360.352.8164
Client Project # 07-139

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B BTEX Only	VOA 8021B	VOA 8260	NWTPH-HCID	NWTPH-GX	NWTPH-DX	PAH 8270	PCBS 8082	MTCA 5 Metals	Field Note/# Containers
1 23-Ex16-6	6	14:55	Soil											
2 23-Ex17-6		15:00												
3 23-Ex18-6		15:10												
4 23-Ex19-6		15:15												
5 25-Ex1-6		15:30												
6 25-Ex2-6		15:40												
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
Relinquished by:	Date / Time	Received by	Date / Time	Remarks:										
<u>[Signature]</u>	<u>4/2/10 10:11</u>	<u>[Signature]</u>	<u>4/2/10 11:12</u>	Sample Receipt: Good Condition? <input type="checkbox"/> Cold? <input type="checkbox"/> Seals Intact? <input type="checkbox"/> Total Number of Containers <input type="text"/>										
Relinquished by:	Date / Time	Received by	Date / Time											
Relinquished by:	Date / Time	Received by	Date / Time											

TAT 24HR 48HR 5-Day