INTERIM ACTION REPORT
FORMER WOOD MILL AND
FUEL OIL TANK #1 AREAS
PORT ANGELES FORMER MILL SITE
700 NORTH ENNIS STREET
PORT ANGELES, WASHINGTON

NOVEMBER 2, 2006

FOR
RAYONIER PROPERTIES, L.L.C.

GeoEngineers

File No. 0137-015-02

Interim Action Report
Former Wood Mill and Fuel Oil Tank #1 Areas
Port Angeles Former Mill Site
700 North Ennis Street
Port Angeles, Washington
File No. 0137-015-02

November 2, 2006

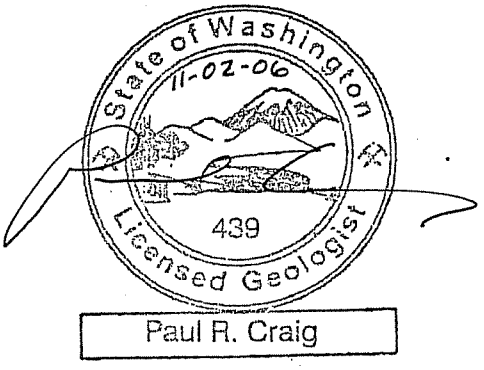
Prepared for:

Rayonier Properties, L.L.C.
4470 Savannah Highway
Jesup, Georgia 31545

Attention: Mr. Jack Anderson

Prepared by:

GeoEngineers, Inc.
8410 154th Avenue NE
Redmond, Washington 98052
(425) 861-6000



Paul R. Craig, LG
Project Geologist

Kurt S. Anderson, LG, LHG
Senior Principal

PRC:KSA:ja
Redm:\02\Finals\0137-015-02, R.doc

TABLE OF CONTENTS

List of Tables Within Text

TABLE OF CONTENTS (CONTINUED)

EXECUTIVE SUMMARY

This interim action report summarizes the remedial activities associated with the excavation and removal of contaminants of concern (COCs) in soil in the former wood mill and fuel oil tank #1 areas at Rayonier's Port Angeles Former Mill site located at 700 North Ennis Street in Port Angeles, Washington (site).

The primary objective of this interim action was to remove and dispose of soil containing diesel- and/or lube oil-range petroleum hydrocarbons (TPH) at concentrations greater than interim action cleanup levels at the former wood mill and fuel oil tank #1 areas of the site. TPH is considered to be potentially mobile in subsurface soils with the capacity to migrate outside of current TPH-impacted areas of the site. The purpose of this interim action was to prevent the potential migration of TPH to other subsurface soils and/or to the former log pond at the site.

The secondary objective of this interim action was to remove compounds potentially associated with TPH where they existed at concentrations greater than their corresponding interim action cleanup levels. Washington State Department of Ecology (Ecology) identifies polychlorinated biphenyls (PCBs), carcinogenic polycyclic aromatic hydrocarbons (cPAHs) and naphthalene as compounds potentially associated with TPH. These TPH-associated compounds were considered COCs for this interim action.

An archeologist from Cascadia Archaeology (Cascadia) of Seattle, Washington was on site during excavation activities in the two interim action excavation areas to monitor for the presence of cultural artifacts. No cultural artifacts were observed during this interim action.

Two distinctly different types of petroleum were observed during excavation activities in the former wood mill area. In the main portion of the excavation area and to the west, petroleum was observed to be pervasive throughout soil between approximately 6 feet bgs and 17 feet bgs. Petroleum in the southeastern portion of the excavation was much more viscous and consisted of lenses between approximately 7 feet bgs and 17 feet bgs.

Different types of petroleum were also observed during excavation activities in the former fuel oil tank #1 area. Petroleum in the eastern portion of the excavation area was observed as a viscous material and was present in soil between approximately 4 feet bgs and 8 feet bgs. The source of the viscous petroleum appeared to be product piping related to fuel oil tank #1. The viscous petroleum extended approximately 75 feet in a westward direction from the location of the pipes. A less viscous petroleum was observed surrounding a catch basin and oil-water separator system in the western portion of the excavation. It appeared that petroleum released from the catch basin system migrated laterally either through lenses of course grained sand and gravel and/or flowed through a former ditch and migrated up to 120 feet to the east. This less viscous petroleum was observed in soil between approximately 2 feet and 15 feet bgs in the western portion of the excavation and between approximately 6 feet and 11 feet bgs in the eastern portion.

The primary objectives of this interim action have successfully been completed. The primary objective was to remove potentially mobile TPH in soil at concentrations greater than interim action cleanup levels from the former wood mill and fuel oil tank #1 areas of the site to prevent the potential migration of TPH to other soils and/or to the former log pond at the site.

- A total of 7,979.3 tons of petroleum-impacted soil were removed from the former wood mill and fuel oil tank #1 areas of the site and transferred to the City Landfill for permitted disposal.
- Hydraulic oil contamination in soil that exceeded interim action cleanup levels in the former wood mill area has been removed from the site as a result of this interim action.

- Petroleum contamination in soil that exceeded interim action cleanup levels in the fuel oil tank #1 area associated with product piping in the eastern portion of the excavation and a catch basin and oil-water separator system in the western portion of the excavation has been removed from the site as a result of this interim action, with one exception: approximately ½ of a cubic yard of soil remains in place adjacent to a utility pole.
- The approximately ½ of a cubic yard of residual petroleum contamination in soil adjacent to the utility pole could not be removed without impacting the structural integrity of the utility pole and potentially exposing the excavation contractor to an electrical safety hazard.
- The concentration of cPAHs in a sample adjacent to the in-place petroleum-impacted soil (mentioned above) also exceeded interim action cleanup levels and may be associated with the residual petroleum.

The secondary objective of this interim action was to remove PCBs, cPAHs and naphthalene that could be potentially associated with TPH where they existed at concentrations greater than their corresponding interim action cleanup levels.

- PCBs and naphthalene in confirmation samples obtained from the final limits of the two excavations either were not detected or were detected at concentrations that were less than the corresponding interim action cleanup levels.
- The calculated concentrations of cPAHs in confirmation samples obtained from the former fuel oil tank #1 area were less than the interim action cleanup level, with one exception. The cPAHs detected in the sample are likely associated with residual petroleum in soil adjacent to a utility pole at the final limits of the excavation.
- The calculated concentrations of cPAHs in confirmation samples obtained from the former wood mill area were less than the interim action cleanup level, with four exceptions: residual cPAHs detected in the four soil samples in the former wood mill area may not entirely be associated with petroleum in soil in the former wood mill area, for the following reasons:
  - TPH, the carrier of TPH-associated cPAHs, was not detected in two of the four samples in which cPAHs were detected at concentrations that exceeded interim action cleanup levels.
  - The highly variable concentrations of cPAHs in sample WM-EX-10-[080806]-16.0 of 0.066 milligrams per kilogram (mg/kg), 0.488 mg/kg and 8.51 mg/kg demonstrates that cPAHs are not homogeneous in the sample.
  - The close proximity of treated wood piles and burnt and un-burnt hog fuel present in the former wood mill area excavation area are potential sources of non-TPH related cPAHs that may have influenced concentrations of cPAHs detected in the samples.

Viscous petroleum remains in place in the southeastern portion of the former wood mill excavation area and appears to be unrelated to activities associated with the former wood mill operations. Although approximately 1,000 tons of soil containing the viscous petroleum was removed in a southeasterly direction in an attempt to find the lateral extent, residual viscous petroleum remains in place to the east of a metal sheet pile wall, which is shown in Figure 4. The removal of this viscous petroleum was not an objective of this interim action and the effort to remove soil containing viscous petroleum was beyond the requirements of the interim action objectives.

INTERIM ACTION REPORT
FORMER WOOD MILL AND FUEL OIL TANK #1 AREAS
PORT ANGELES FORMER MILL SITE
700 NORTH ENNIS STREET
PORT ANGELES, WASHINGTON
FOR
RAYONIER PROPERTIES, L.L.C.

1.0 INTRODUCTION

This interim action report was prepared on behalf of Rayonier Properties, L.L.C. (Rayonier) by GeoEngineers, Inc., in general accordance with Washington Administrative Code (WAC) 173-340-430 and the *Interim Action Work Plan (IAWP),* dated April 27, 2006. This report summarizes the interim remedial action conducted at Rayonier's Port Angeles Former Mill site located at 700 North Ennis Street in Port Angeles, Washington (site). The site occupies approximately 80 acres of land on the Strait of Juan de Fuca. The approximate location of the site relative to surrounding physical features is shown in the attached vicinity map in Figure 1.

This interim action report summarizes the remedial activities associated with the excavation and removal of COCs in soil in the former wood mill and fuel oil tank #1 areas at the former mill site. The locations of these two areas at the site relative to other facilities at the former mill site are shown in Figure 2.

2.0 SITE DESCRIPTION AND BACKGROUND

The Port Angeles former mill facility operated as a pulp and paper mill from 1930 until it was closed in 1997. The former mill site fronts the beach and shoreline on the Strait of Juan de Fuca in Port Angeles, Washington. Ennis Creek bisects the site. Following the mill closure, the Environmental Protection Agency (EPA) conducted an Expanded Site Investigation (ESI) that identified COCs in areas of marine sediment, soil and groundwater that exceeded applicable state criteria for the protection of human health and/or the environment.

Rayonier has completed several studies/interim cleanup actions at the site since the completion of the ESI to address identified COCs. A summary of the site studies and interim cleanup actions completed by Rayonier in the Uplands area of the site is presented in the draft report entitled, *Remedial Investigation for the Uplands Environment of the Former Rayonier Mill Site*, dated January 2006 (Integral Consulting, Inc.).

2.1 SITE HISTORY

2.1.1 Former Wood Mill

The former wood mill is located in the northwestern portion of the site (see Figure 2 and Figure 3) and was used to process raw logs into wood chips for later use in the pulping process. Logs were delivered to the site by rafting, train and/or truck and stored in the adjacent log pond or log yard prior to being processed in the wood mill. The logs were debarked and chipped within the wood mill. The chips were then transferred to another area of the site where they were combined with a fortified ammonium bisulfite cooking liquor and treated at high pressure and temperature in "digesters" to reduce the chips to a cellulose fiber (pulp). Waste materials from the wood mill operations, in the form of bark and wood chips not suitable for pulping, were sent to the hog fuel pile where they were later burned in hog fuel boilers. The hog fuel boilers and recovery boiler generated process steam, which supplied power for the site's energy needs (Integral, 2006).

2.1.2 Former Fuel Oil Tank #1

The former fuel oil tank #1 is located in the southwestern portion of the site (see Figure 2 and Figure 4). Fuel oil tank # 1 contained bunker C oil for use as emergency fuel and startup fuel for boilers at the site.

2.2 Interim Action Work Plan

The draft IAWP was prepared and submitted for public review in March 2006. The IAWP presented the methods and procedures to conduct interim remedial actions in the former wood mill and fuel oil tank #1 areas of the Port Angeles former mill site. The IAWP was finalized in April 2006 after addressing comments made by regulatory agency and tribal representatives. A copy of the IAWP is included in Appendix A of this report for reference.

3.0 CLEANUP OBJECTIVES

The primary objective of this interim action was to remove and dispose of soil containing TPH at concentrations greater than interim action cleanup levels at the former wood mill and fuel oil tank #1 areas of the site. TPH is considered to be potentially mobile in subsurface soils with the capacity to migrate outside of current TPH-impacted areas of the site. The purpose of this interim action was to prevent the potential migration of TPH to other subsurface soils and/or to the former log pond.

The secondary objective of this interim action was to remove compounds potentially associated with TPH where they existed at concentrations greater than their corresponding interim action cleanup levels. Ecology's Model Toxics Control Act (MTCA) identifies PCBs, cPAHs and naphthalene as compounds potentially associated with TPH (WAC 173-340-900, Table 830-1). These TPH-associated compounds were considered COCs for this interim action. Interim action cleanup levels for COCs are presented below in Table 3.0.

Table 3.0

Interim Action Cleanup Levels		
Contaminant of Concern	**Soil Cleanup Level (mg/kg)**	**Reference**
The sum of diesel-, bunker C and lube oil-range hydrocarbons (TPH)	2,000	MTCA Method A for unrestricted land use
PCBs	0.5	MTCA Method B for unrestricted land use
cPAHs	0.14	MTCA Method B for unrestricted land use
Naphthalene	1,600	MTCA Method B for unrestricted land use

Note:
mg/kg = milligrams per kilogram

3.1 Regulatory Framework

Both the EPA and Ecology have conducted routine regulatory compliance inspections at the former Rayonier pulp mill site. In 1997, the EPA initiated a site assessment and hazard ranking scoring process for the former Rayonier pulp mill site to determine if the site should be recommended for the National Priorities List (NPL) under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). An ESI was conducted in support of this effort (E&E 1998). Although the former Rayonier pulp mill site scored high enough to qualify for consideration to be listed on the NPL, the EPA opted to defer the listing and allow a CERCLA-like protective cleanup to proceed under the direction of Ecology. The EPA, Ecology and the Lower Elwha Klallam Tribe ("the Tribe") formally agreed to the deferral in a Deferral Agreement signed in 2000.

As a result of the Deferral Agreement, site evaluation and remediation at the former Rayonier pulp mill site is being conducted under MTCA and implementing regulations (WAC 173-340). MTCA requires that all cleanup activities, including interim actions, comply with applicable state and federal laws and regulations, including requirements that Ecology determines to be applicable or relevant and appropriate requirements (ARARs). Potential ARARs for this interim action are summarized below:

- MTCA (Chapter 70.105D, Revised Code of Washington [RCW]; Chapter 173-340 WAC). This chapter is promulgated under the MTCA. It establishes administrative processes and standards to identify, investigate, and clean up facilities where hazardous substances have come to be located.
- RCW 27.44.040, Protection of Indian graves. This statute makes it a class C felony for any person to knowingly remove, mutilate, deface, injure or destroy any cairn or grave of any native Indian, or any glyptic or painted record of any tribe.
- Federal Endangered Species Act (ESA) (16 USC 1531 et seq.; 50 CFR Parts 17 and 402). The regulations identify those species of wildlife and plants determined to be endangered or threatened with extinction.
- Washington State Solid Waste Management Act (Chapter 70.95 RCW; Chapter 173-351 WAC). This regulation establishes minimum statewide standards for all municipal solid waste landfills in order that jurisdictional health departments can enact ordinances equally as or more stringent than this regulation and have jurisdictional health departments implement such ordinances through a permit system. These minimum statewide criteria ensure the protection of human health and the environment.

Copies of the permits issued for this interim remedial action are presented in Appendix B.

3.2 Affected Media and Contaminants of Concern

3.2.1 Former Wood Mill Area

Soil – COCs were identified in soil samples (station WM20) at concentrations greater than interim action cleanup levels in the former wood mill area during the Remedial Investigation (RI) completed in the upland area of the site. Two samples were obtained from station WM20 that exceeded applicable interim action cleanup levels: 1) a discrete sample obtained from approximately 3 inches bgs; and 2) a composite sample consisting of a direct-push core sample obtained from approximately 3 inches bgs and extending to groundwater (Figure 3).

Groundwater – Groundwater from a monitoring well in a downgradient location (MW-54) was sampled and analyzed for COCs during the RI; COCs either were not detected or were detected at concentrations less than applicable cleanup levels for the site. However, groundwater has been observed to be in contact with soil that has been impacted by concentrations of COCs that are greater than the corresponding interim action cleanup levels.

Three COCs were identified in the former wood mill area during the RI that exceeded their corresponding interim action cleanup levels: 1) TPH; 2) PCBs; and 3) cPAHs. Naphthalene was analyzed in the samples obtained from the area during the RI, but concentrations of the analyte did not exceed the interim action cleanup level. The concentrations for each COC detected in soil samples obtained from the former wood mill area are provided below in Table 3.2.1:

Table 3.2.1

Contaminants of Concern (COCs)					
Station Name	Depth Below Ground Surface	TPH (mg/kg)	PCBs (mg/kg)	cPAHs (mg/kg)	Naphthalene (mg/kg)
WM20	3 inches	3,380	2.78	10	4.2
WM20	3 inches to groundwater*	3,310	0.554	2.3	1.4

Note:
*The actual depth of the sample is unknown

Other contaminants in the former wood mill interim action area include dioxins. Dioxins in soil were analyzed for the 17 toxic dioxin congeners during the RI and a toxicity equivalency factor (TEF) applied to the data to compare them to the tetrachloro dibenzo-p-dioxin toxicity equivalent quotient (TCDD TEQ). The TCDD TEQ concentration of the discrete soil sample obtained from station WM20 in the former wood mill area at a depth of approximately 3 inches bgs was 2.0×10^{-4} milligrams per kilogram (mg/kg) (200 parts per trillion [ppt]) and of the composite soil sample obtained between approximately 3 inches bgs and groundwater was 1.3×10^{-4} mg/kg (130 ppt). Dioxins are significantly less mobile than TPH and it was not the objective of this interim action to cleanup and remove soil affected by these compounds. Dioxins, therefore, are not considered COCs for this interim action.

3.2.2 Fuel Oil Tank No. 1 Area

Soil – Two COCs were identified in soil samples (station LY21) at concentrations greater than interim action cleanup levels in the former fuel oil tank #1 area during the RI completed in the upland area of the site (Figure 4). Two samples were obtained from station LY21 that exceeded applicable interim action cleanup levels: 1) a discrete sample obtained from soil starting at approximately 3 inches bgs; and 2) a composite sample consisting of a direct-push core sample obtained from approximately 3 inches bgs and extending to groundwater. Additionally, physical evidence (soil staining) of petroleum contamination was observed at ground surface in the general area of the former tank.

Groundwater – Groundwater in the general vicinity of this area has not been sampled.

Sampling of soil in the former fuel oil tank #1 area during the RI identified two COCs that exceeded the corresponding interim action cleanup levels: TPH and cPAHs. Naphthalene was analyzed in the samples obtained from the area during the study, but concentrations of the analyte did not exceed interim action cleanup levels. PCBs were not analyzed in samples obtained from station LY21. The range of concentrations for the COCs detected in soil samples obtained from the area is provided below in Table 3.2.2.

Table 3.2.2

Contaminants of Concern (COCs)					
Station Name	Depth Below Ground Surface	TPH (mg/kg)	PCBs (mg/kg)	cPAHs (mg/kg)	Naphthalene (mg/kg)
LY21	3 inches	36,200	--	20.2	2.3
LY21	3 inches to groundwater*	20,400	--	18.4	4.7

Note:
*The actual depth of the sample is unknown:
"--" = not tested

As in the former wood mill area of the site, other contaminants in soil were identified in the former fuel oil tank #1 area. TCDD TEQ concentrations were documented in soil samples at 1.8×10^{-3} mg/kg (1,800 ppt) at 3 inches bgs and 9.0×10^{-5} mg/kg (90 ppt) between 3 inches bgs and groundwater; and the concentration of lead was documented in soil at 429 mg/kg at 3 inches bgs. Dioxins and lead are significantly less mobile than TPH and it was not the objective of this interim action to cleanup and remove soil affected by these constituents. Dioxins and lead, therefore, were not considered COCs for this interim action.

4.0 REMEDIAL ACTIONS

4.1 GENERAL

4.1.1 Location of Underground Utilities

The excavation contractor (Bruch & Bruch Construction, Inc.) contacted the Underground Utilities Location Center ("one call") to locate and mark underground utilities in public right-of-ways in the area. After reviewing available site drawings to identify known underground utilities at the site, arrangements were made with the City of Port Angeles to locate and mark their pressurized sewer line that crosses the former mill site.

The location of the sewer line in the fuel oil tank #1 area at approximately 9 feet bgs was confirmed by test pit exploration at the approximate location marked by the City (see Figure 4). The upper approximately 6 inches of the 24-inch diameter sewer line were exposed during exploration activities. Soil on the sides of the pipeline was left in place to preserve the integrity of the pipeline. City representatives surveyed the location of the sewer line for their own records.

Approximately 50 cubic yards of soil removed during the sewer line exploration activities were stockpiled at the site and later transferred to the City Landfill for disposal. The sewer line exploration area was then backfilled using clean imported soil.

4.1.2 Mobilization and Setup

Mobilization and setup for this interim action was provided by Bruch & Bruch Construction, Inc. and included supplies, personnel and equipment necessary to excavate, dewater, stockpile, load and haul COC-affected soil from the site. A designated truck loading area was setup in the former log yard for the controlled loading of soil for transport to the City Landfill. The former log yard has an asphalt surface on which soil removed from the two excavation areas at the site was stockpiled. Following the loading of trucks that transferred soil from the site to the City Landfill, loose soil on the exterior of the trucks was removed prior to leaving the truck loading area to reduce the likelihood of cross-contamination of non COC-affected areas of the site.

Four-inch diameter PVC piping was connected to storage tanks located immediately south of the former pulp storage warehouse and was used to transfer water from the excavations during dewatering activities. Portable pumps were used to remove the water from the excavations.

An existing permanent chain-link fence erected between Rayonier's property and publicly accessible areas outside the property boundaries of the site served as a barrier to prevent casual access to excavation areas during this interim action. Additionally, approximately 4-foot tall orange cones and orange flagging were placed around the limits of each excavation area at the conclusion of each work day to act as visual barriers for the prevention of inadvertent entry into the excavation areas.

4.1.3 Archaeological Oversight

An archeologist from Cascadia Archaeology (Cascadia) of Seattle, Washington was on site to monitor for the presence of cultural artifacts during excavation in the two interim action areas. A report summarizing Cascadia's findings is presented in Appendix C of this report.

4.2 Former Wood Mill Area

4.2.1 Excavation of Contaminated Soil

Two tracked excavators and a concrete breaker were used to remove soil and concrete in the former wood mill area. Concrete foundations up to 4 feet in thickness were encountered during the excavation activities. Concrete was broken into smaller sizes and removed from the excavation for stockpiling. Soil removed from the excavation area was loaded into an off-road dump truck and transferred to the former log yard area where it was stockpiled on a large, continuous asphalt surface.

Field screening (water sheen testing) was used as an initial indicator to establish the vertical and lateral limits of excavation in the former wood mill area. Field screening methods are described in Appendix D. Soil samples were obtained from the limits of the excavation to confirm field screening observations and were tested for TPH by Ecology Northwest Method NWTPH-Dx using an on-site mobile laboratory owned and operated by Libby Environmental, LLC (Libby) of Olympia, Washington. Soil found to have concentrations of TPH that exceeded the interim action cleanup level of 2,000 mg/kg was overexcavated and removed from the excavation area. Additional soil samples were then obtained from the margin of the overexcavated areas and submitted to the mobile lab for chemical analysis of TPH to document soil conditions at the final limits of excavation.

In general, soil in the western portion of the former wood mill area consisted of brown fine to medium sand between ground surface and approximately 6 feet bgs; gray medium to course sand with course gravel and cobbles between approximately 6 feet bgs and 17 feet bgs; and rip rap ranging in size between 6 inches and 20 inches across below 17 feet bgs. Soil conditions in the eastern portion of the area were similar to those in the western portion, but hog fuel and other wood materials were observed between approximately 8 feet bgs and 14 feet bgs. Large rip rap was observed between approximately 6 feet bgs and 17 feet bgs in the triangular area in the southeastern portion of the former wood mill area. Wooden piles that were used for foundation support in the former wood mill were present in large numbers in the southern portion of the excavation area. Piles that were encountered in the excavation area during remedial activities were removed, when possible.

Two distinctly different types of petroleum were observed during excavation activities in the former wood mill area. In the main portion of the excavation area and to the west, petroleum was observed to be pervasive throughout soil between approximately 6 feet bgs and 17 feet bgs. This petroleum was less viscous than petroleum observed farther to the southeast. Petroleum in the southeastern portion was observed as lenses of viscous petroleum between approximately 7 feet bgs and 17 feet bgs.

Although the removal of the viscous petroleum was not an objective of this interim action, the petroleum appeared to be decreasing both horizontally and vertically as the excavation proceeded in a southeasterly direction. Excavation activities were discontinued when a sheet pile wall was encountered approximately 50 feet east of the main body of the wood mill excavation area. The viscous petroleum in the excavated soil on the western side of the sheet pile wall had been present between approximately 7 feet bgs and 17 feet bgs.

4.2.2 Excavation Dewatering

Dewatering of the former wood mill excavation area was required during removal of contaminated soil located beneath the water table. Groundwater was present in the excavation starting at a depth of approximately 12 feet bgs. A 4-inch pump was installed in a temporary sump at 18 feet bgs to remove an estimated 150,000 gallons of water from the excavation. Removed groundwater was pumped to two on-site tanks (east storage tank and west storage tank) for storage prior to disposal at the City of Port Angeles publicly-owned treatment works (POTW). The east and west storage tanks are located immediately south of the former pulp storage warehouse and are shown in Figure 2.

4.2.3 Confirmation Sampling

Confirmation soil sampling was completed in the former wood mill area to characterize soil conditions for COCs at the final limits of excavation. Nine soil samples were obtained from the base of the excavation for chemical analysis at an approximately 40-foot staggered spacing interval. Ten soil samples were obtained from the sidewalls of the excavation at a spacing interval of approximately 40 feet. Approximate soil sample locations in the former wood mill excavation area are shown in Figure 3.

4.2.4 Waste Handling

A permit for soil disposal was issued by the City of Port Angeles that authorized the transfer of excavated soil from the two interim actions areas at the Port Angeles former mill site to the Port Angeles City Landfill. The application for the permit was prepared by Rayonier and also provided for the disposal of concrete and wood piles removed from the site during excavation activities. A copy of the permit is presented in Appendix E of this report.

Soil removed from the former wood mill excavation area was temporarily stockpiled at the site on a continuous asphalt surface in the former log yard. Stockpiled soil was later loaded onto trucks for transport to the City Landfill for permitted disposal. Wet soil removed from the excavation below the water table also was stockpiled in the former log yard area. The wet soil was mixed with drier soil in the stockpile to stabilize the soil before transport to the City Landfill.

Wooden piles removed from the former wood mill excavation area were stockpiled separately and later transferred to the City Landfill for permitted disposal. Concrete foundations removed from the excavation either were transferred to the City Landfill for disposal or were used as backfill at the base of the former wood mill excavation. Concrete placed back in the excavation was not observed to be impacted by petroleum. The recorded tonnage of soil and debris transferred to the City Landfill for this interim action is 7,979.3 tons (see Appendix E).

4.2.5 Backfilling

Backfilling in the former wood mill excavation area occurred after chemical analysis of soil samples obtained from the final limits of the excavation confirmed that the concentration of petroleum hydrocarbons was less than interim action cleanup levels. Backfill material consisted of clean imported fill that was pushed into the excavation using a bulldozer. The soil was compressed by driving the dozer over the top of the soil after it was placed in the excavation.

4.3 Former Fuel Oil Tank No. 1 Area

4.3.1 Excavation of Contaminated Soil

Two tracked excavators and a concrete breaker were used to remove soil and concrete in the former fuel oil tank #1 area. A concrete pipe tunnel measuring about 4 feet wide by 4 feet thick and 60 feet long was located between ground surface and approximately 4 feet bgs and was used to convey piping beneath a road when the mill was in operation. The location of the tunnel relative to the former fuel oil tank #1 is shown in Figure 4. The pipe tunnel was broken up with a track-mounted concrete breaker and loaded onto trucks for transfer to the City Landfill for disposal. Soil removed from the excavation area was loaded into an off-road dump truck and transferred to the former log yard area of the site where it was stockpiled on a large, continuous asphalt surface.

Water sheen testing was used as an initial indicator to establish the vertical and lateral limits of excavation in the former fuel oil tank #1 area. Soil samples were obtained from the limits of the excavation to confirm field screening observations and were submitted for chemical analysis of TPH by Ecology Northwest Method NWTPH-Dx using Libby's on-site mobile laboratory. Soil found to have concentrations of TPH that exceeded the interim action cleanup level of 2,000 mg/kg was overexcavated and removed from the excavation area. Additional soil samples were then obtained from the margin of the overexcavated areas and submitted to the mobile lab for chemical analysis of TPH to document soil conditions at the final limits of excavation.

In general, soil in the former fuel oil tank #1 area consisted of brown to gray fine sand with varying amounts of silt between ground surface and approximately 4 feet bgs; and gray sand and gravel between approximately 4 feet bgs and 15 feet bgs.

Two distinctly different types of petroleum were observed during excavation activities in the former fuel oil tank #1 area. Petroleum in the eastern portion of the excavation area was observed as a viscous material and was present in soil between approximately 4 feet bgs and 8 feet bgs. The source of the viscous petroleum appeared to be product piping related to fuel oil tank #1. The viscous petroleum extended approximately 75 feet in a westward direction from the location of the pipes. The approximate location of the piping is shown in Figure 4.

A second, less viscous petroleum was observed surrounding a catch basin and oil-water separator system in the western portion of the excavation. It appeared that petroleum released from the catch basin system migrated laterally through lenses of course grained sand and gravel and migrated up to 120 feet to the east. This less viscous petroleum was observed in soil between approximately 2 feet and 15 feet bgs in the western portion of the excavation and between approximately 6 feet and 11 feet bgs in the eastern portion.

Residual petroleum contamination in soil remains in place adjacent to a utility pole in the eastern portion of the excavation. The approximately 8 feet long by 1 foot thick by 1 foot deep lens of contamination was observed in soil at approximately 6 feet bgs and could not be removed without destabilizing the utility pole. The location of the residual contamination is shown in Figure 4.

4.3.2 Excavation Dewatering

Similar to the former wood mill excavation area, dewatering of the former fuel oil tank #1 excavation area was required to remove contaminated soil located beneath the water table. Temporary sumps were constructed in the excavation area to depths ranging between approximately 12 feet and 17 feet bgs to remove an estimated 70,000 gallons of water from the excavation. A portable 3-inch pump was used to transfer groundwater to the tanks for storage prior to at the City's POTW.

4.3.3 Confirmation Sampling

Confirmation soil sampling was completed to characterize soil conditions for COCs at the final limits of excavation in the former fuel oil tank #1 area. Eleven soil samples were obtained for chemical analysis from the base of the excavation at a staggered spacing interval that did not exceed 40 feet. Seventeen soil samples were also obtained from the sidewalls of the excavation at a spacing interval that did not exceed 40 feet. Approximate soil sample locations in the former fuel oil tank #1 area are shown in Figure 4.

4.3.4 Waste Handling

Similar to soil removed from the former wood mill excavation area of the site, soil, concrete and other removed from the former fuel oil tank #1 excavation area was temporarily stockpiled on a continuous asphalt surface in the former log yard. Stockpiled soil was transferred by truck to the City Landfill for permitted disposal.

4.3.5 Backfill

Backfilling in the former fuel oil tank #1 excavation area occurred on a daily basis following the commencement of soil removal activities below the water table. Moderate to heavy petroleum sheens were observed on the surface of groundwater that infiltrated into the excavation through petroleum-impacted portions of the excavation that had not yet been removed. To prevent the petroleum from impacting areas of the excavation that had been confirmed to be "clean" based on the results of chemical analysis of TPH by the on-site mobile lab, the "clean" areas in the fuel oil tank #1 excavation were backfilled at the end of each work day. Dewatering activities resumed at the beginning of each work day to remove oily water from the excavation area for storage in the on-site storage tanks.

Backfill material consisted of clean imported fill that was pushed into the excavation using a bulldozer. The soil was compressed by driving the dozer over the top of the soil after it was placed in the excavation.

5.0 SAMPLING AND ANALYSIS

5.1 Former Wood Mill Area

5.1.1 Confirmation Sampling

Confirmation soil sampling was completed to characterize soil conditions for COCs at the final limits of excavation in the former wood mill area. A total of 19 soil samples were obtained from the base and sidewalls of the excavation for chemical analysis of one or more of the following analytes: TPH by NWTPH-Dx; PCBs by EPA 8082; cPAHs by EPA 8270C SIM; and naphthalene by EPA 8270C SIM. Approximate soil sample locations in the former wood mill area are shown in Figure 3. Total cPAH concentrations (calculated as the benzo(a)pyrene toxicity equivalency concentration [TEC]) are shown in Table 2. Individual cPAH concentrations and the TEC calculations are shown in Table 3. Figures 3 and 4 show the approximate locations of the soil samples. Field sampling procedures are described in Appendix D. Appendix F presents the chemical analytical data sheets and our review of the laboratory QA/QC data quality exceptions.

Soil sample WM-EX-14-[080806]-14.0 was also submitted for chemical analysis of dioxins/furans by EPA Method 1613B. The purpose of the additional testing was to characterize soil conditions in the area of soil sample WM20 (located within approximately 10 feet of WM-EX-14-[080806]-14.0) in which dioxins/furans were detected in a previous study. Dioxins/furans in WM-EX-14-[080806]-14.0 were analyzed for the 17 toxic dioxin congeners and a toxicity equivalency factor (TEF) applied to the data to compare them to the tetrachloro dibenzo-p-dioxin toxicity equivalent quotient (TCDD TEQ). The TCDD TEQ concentration of WM-EX-14-[080806]-14.0 is 6.3 picograms per gram (pg/g) (6.3 parts per trillion [ppt]). Individual dioxin congener concentrations and the TEQ calculations are shown in Table 4. TCDD TEQ is not a COC, so an interim action cleanup level is not available for comparison.

TPH either were not detected or were detected at concentrations less than the interim action cleanup level of 2,000 mg/kg in the nineteen soil samples submitted for chemical analysis from the former wood mill excavation area, with one exception: Bunker C-range hydrocarbons were detected at a concentration of 20,100 mg/kg in sample WM-EX-11-[080806]-12.0, located in the southeastern portion of the excavation. Soil represented by WM-EX-11-[080806]-12.0 was subsequently overexcavated and removed from the site for permitted disposal. A second soil sample (WM-EX-11-[080806]-17.0) was then obtained from the base of the overexcavation at the approximate location of WM-EX-11-[080806]-12.0, but 5 feet deeper, to characterize soil conditions at the final limits of excavation. Bunker C-range hydrocarbons were not detected (less than 80 mg/kg) in WM-EX-11-[080806]-17.0.

PCBs, cPAHs and naphthalene either were not detected or were detected at concentrations less than the corresponding interim action cleanup levels for the soil samples submitted for chemical analysis from the former wood mill excavation area, with four exceptions: cPAHs were detected at concentrations ranging between 0.186 mg/kg and 0.515 mg/kg in three of the four samples (WM-EX-15-[080806]-14.0, WM-EX-16-[080806]-14.0 and WM-EX-18-[080806]-9.0), which exceeded the interim action cleanup level of 0.14 mg/kg. TPH were detected in only one of the three soil samples (WM-EX-18-[080806]-9.0) and its concentration (1,780 mg/kg) was less than the interim action cleanup level of 2,000 mg/kg.

Three tests were completed for chemical analysis of cPAHs for WM-EX-10-[080806]-16.0, the fourth of four samples that exceeded the interim action cleanup level for cPAHs. One of these samples is a duplicate that is designated WM-DUP-1. The sample results indicated that cPAHs were detected at a concentration of 0.066 mg/kg for WM-DUP-1, and 0.488 mg/kg and 8.51 mg/kg for two separate analyses of WM-EX-10-[080806]-16.0. TPH were detected in the sample at a concentration of 709 mg/kg.

Based on the highly variable results for cPAHs in WM-EX-10-[080806]-16.0, and the detection of cPAHs in WM-EX-15-[080806]-14.0 and WM-EX-16-[080806]-14.0 where TPH were not detected, the cPAHs detected in the four samples that exceeded the interim action cleanup level may not be associated with petroleum. Other potential sources of cPAHs that were observed during excavation activities in the former wood mill area include treated wood piles used for the support of concrete foundations for the former wood mill that were present in the excavation, burnt hog fuel that was used as backfill beneath the former mill, or unburnt hog fuel that was generated as a direct result of chipping and debarking activities associated with the former wood mill. Removal of these other potential sources of cPAHs was not an objective of this interim action.

5.2 Former Fuel Oil Tank No. 1 Area

5.2.1 Confirmation Sampling

Confirmation soil sampling was completed to characterize soil conditions for COCs at the final limits of excavation in the former fuel oil tank #1 area. A total of 29 soil samples were obtained from the base and sidewalls of the excavation for chemical analysis of one or more of the following analytes: TPH by NWTPH-Dx; PCBs by EPA 8082; cPAHs by EPA 8270C SIM; and naphthalene by EPA 8270C SIM. Approximate soil sample locations in the former fuel oil tank #1 area are shown in Figure 4.

Soil sample FOT-EX-10-[080706]-11.5 also was submitted for chemical analysis of dioxins/furans by EPA Method 1613B and lead by EPA Method 6020. The purpose of the additional testing was to characterize soil conditions in the area of soil sample LY21 in which dioxins/furans and lead were detected in a previous study at the site. Soil samples representing LY21 and FOT-EX-10-[080706]-11.5 were obtained from approximately the same location, but at differing depths. Dioxins/furans in FOT-EX-10-[080706]-11.5 were analyzed for the 17 toxic dioxin congeners and a TEF applied to the data to compare them to the TCDD TEQ. The TCDD TEQ concentration of FOT-EX-10-[080706]-11.5 is 6.4 pg/g (6.4 ppt). Individual dioxin

congener concentrations and the TEQ calculations are shown in Table 4. Lead was detected at a concentration of 1.3 mg/kg. TCDD TEQ and lead are not COCs, so an interim action cleanup level is not available for comparison.

TPH either were not detected or were detected at concentrations less than the interim cleanup level of 2,000 mg/kg in the soil samples submitted for chemical analysis from the former fuel oil tank #1 excavation area, with three exceptions: Bunker C-range hydrocarbons were detected at a concentration of 41,100 mg/kg in sample FOT-EX-PCS-[080206]-11; 4,900 mg/kg in FOT-EX-10-[080306]-10.5; and 67,000 mg/kg in FOT-EX-11-[080306]-8.0.

FOT-EX-PCS-[080206]-11 was located in the western portion of the excavation and was obtained to characterize contamination in soil surrounding a catch basin. Soil represented by FOT-EX-PCS-[080206]-11 was subsequently overexcavated and transferred off site for permitted disposal. Soil sample FOT-EX-5-[080206]-15.0 was obtained from approximately 4 feet beneath FOT-EX-PCS-[080206]-11 to characterize soil conditions after overexcavation activities in which approximately 4 feet of soil were removed from the base of the excavation. Bunker C-range hydrocarbons were not detected in FOT-EX-5-[080206]-15.0.

Soil represented by samples FOT-EX-10-[080306]-10.5 and FOT-EX-11-[080306]-8.0 was subsequently overexcavated and transferred off site for permitted disposal. Bunker C-range hydrocarbons were not detected in soil samples FOT-EX-10-[080306]-11.5 and FOT-EX-11-[080306]-9.0, which were located approximately 1 foot beneath samples FOT-EX-10-[080306]-10.5 and FOT-EX-11-[080306]-8.0, respectively, and represent soil conditions at the base of the overexcavation following the removal of approximately 1 foot of soil.

PCBs, cPAHs and naphthalene either were not detected or were detected at concentrations less than the corresponding interim action cleanup levels for the soil samples submitted for chemical analysis from the former fuel oil tank #1 excavation area, with one exception: cPAHs were detected at a concentration of 0.163 mg/kg in sample FOT-EX-17-[080806]-3.0, which slightly exceeded the interim action cleanup level of 0.14 mg/kg. Soil represented by FOT-EX-17-[080806]-3.0 remains in place adjacent to residual petroleum contamination that remains in soil adjacent to a utility pole in the eastern portion of the fuel oil tank #1 excavation area and mentioned in Section 4.2.1 above.

5.3 Characterization of Recovered Groundwater

5.3.1 Disposal Characterization Sampling

Water sampling was completed to characterize groundwater removed from the two excavation areas during this interim action prior to transfer to the City of Port Angeles POTW. Approximately 220,000 gallons of water were transferred from the excavations to two tanks located immediately south of the former pulp storage warehouse at the site. The locations of the former pulp storage warehouse and the tanks are shown in Figure 2.

Water samples ("East Tank – [080906]" and "West Tank – [080906]") were obtained from the east tank and west tank, respectively, and composited at the testing laboratory. The composite sample was designated "Storage Tank – [080906]" and submitted for the following chemical analyses: gasoline-range hydrocarbons, benzene, toluene, ethylbenzene and xylenes by Ecology Northwest Method NWTPH-Gx/BTEX; petroleum-range hydrocarbons by Ecology Northwest Method NWTPH-Dx; total lead by EPA Method 200.8; PCBs by EPA Method 8082; TCDD by EPA Method 1613B; total suspended solids by EPA Method 160.2; and pH by EPA Method 150.1. The concentrations of individual analytes detected in Storage Tank – [080906] were less than discharge quality maximum concentration levels for independent leaking underground storage tank cleanup sites. The maximum concentration levels were provided by Ecology for this interim action for

discharge to the POTW. A copy of the laboratory report is presented in Appendix F and summarized in Table 1. The groundwater recovered during this interim action remained in the east and west storage tanks at the site at the time this report was published. We understand that the fluids will be transferred by Rayonier to the City of Port Angeles POTW by the end of 2006.

5.3.2 QA/QC Sampling

5.3.2.1 Equipment Rinsates

Two equipment rinsate samples (FOT-RINSATE-[080406] and WM-RINSATE-[080806]) were obtained to demonstrate the adequacy of equipment decontamination procedures performed between soil sampling locations. One equipment rinsate sample was collected from a sampling trowel used to obtain soil samples during this interim action for each of the two interim action excavation areas at the site. The rinsate was collected after cleaning and decontamination of the trowel under normal operating conditions. Collection of each of the discrete rinsate samples was conducted by pouring purified water over the trowel and collecting the rinsate in laboratory-provided sample containers. Each of the samples was then submitted for chemical analysis of TPH by Ecology Northwest Method NWTPH-Dx. TPH were not detected (less than 500 micrograms per liter [µg/L]) in the two rinsate samples. A copy of the laboratory report is presented in Appendix F of this report.

5.3.2.2 Field Duplicates

Three field duplicate samples (FOT-DUP-1, FOT-DUP-2 and WM-DUP-1) were collected during this interim action to replicate analyses performed in the laboratory. FOT-DUP-1 (duplicate of sample FOT-EX-10-[080306]-10.5) was submitted for chemical analysis of TPH by Ecology Northwest Method NWTPH-Dx. A second duplicate sample from the fuel oil tank #1 area, FOT-DUP-2 (duplicate of FOT-EX-22-[080806]-5.0), was obtained and submitted for chemical analysis of PCBs by EPA Method 8082, and cPAHs and naphthalenes by EPA Method 8270C SIM.

Sample WM-DUP-1 (duplicate of WM-EX-10-[080806]-16.0) was submitted for chemical analysis of TPH by Ecology Northwest Method NWTPH-Dx; PCBs by EPA Method 8082; and cPAHs and naphthalenes by EPA Method 8270C SIM. See Table 5.3.2.2 below for a comparison of the sample results.

Table 5.3.2.2

Sample Name	Diesel-Range Hydrocarbons (mg/kg)	Bunker C-Range Hydrocarbons (mg/kg)	Oil-Range Hydrocarbons (mg/kg)	PCBs (mg/kg)	PAHs (mg/kg)	Naphthalene (mg/kg)
FOT-DUP-1	<25	4,000	<40	--	--	--
FOT-EX-10-[080306]-10.5	<25	4,900	<40	--	--	--
FOT-DUP-2	--	--	--	<0.11	0.007	<0.0072
(FOT-EX-22-[080806]-5.0)	--	--	--	<0.054	0.023	<0.0072
WM-DUP-1	<25	730	<40	<0.057	0.066	0.019
WM-EX-10-[080806]-16.0	<25	709	<40	<0.061	0.488	0.21
WM-EX-10-[080806]-16.0	--	--	--	--	8.51	--

Notes:
"--" = not tested

The variability of the cPAH sample results for WM-DUP-1 and WM-EX-10-[080806]-16.0 appear to be related to a non-TPH source. See section 5.1.1 for further discussion of the results.

6.0 LIMITATIONS

Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Please refer to Appendix G titled *Report Limitations and Guidelines for Use* for additional information pertaining to use of this report.

7.0 REFERENCES

Cascadia Archaeology, October 4, 2006, Cultural Resource Monitoring at Two Remediation Sites at the Former Rayonier Port Angeles Mill, Clallam County, Washington.

GeoEngineers, Inc., April 27, 2006, Interim Action Work Plan, Port Angeles Former Mill Site, Port Angeles, Washingington.

Integral Consulting, Inc., January 2006, Remedial Investigation for the Uplands Environment of the Former Rayonier Mill Site.

Foster Wheeler, June 2002, Volume IV: Interim Action Work Plan – Final, Former Rayonier Pulp Mill Site, Port Angeles, Washington.

Washington State Department of Ecology, February 2001, Model toxics control act — cleanup Chapter 173-340 WAC.

United States Environmental Protection Agency, October 1997, Protection of Archaeological Resources, 43 CFR 7

United States Environmental Protection Agency, February 1977, Endangered and Threatened Wildlife And Plants, 50 CFR 17

EPA, 1999. USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review. EPA 540/R-99/008. October 1999.

EPA, 2002. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. EPA 540-R-01-008. July 2002.

TABLE 1
SUMMARY OF STORAGE TANK WATER CHEMICAL ANALYTICAL DATA[1]
RAYONIER PROPERTIES, LLC
PORT ANGELES FORMER MILL SITE
PORT ANGELES, WASHINGTON

Sample Identification[2]	Date Sampled	NWTPH-Gx/BTEX (µg/L)					NWTPH-Dx (mg/L)		EPA 200.8 (µg/L)	EPA 8082 (µg/L)	EPA 1316B (µg/L)	EPA 160.2 (mg/L)	EPA 150.1
		Benzene	Ethylbenzene	Toluenes	Xylenes	Gasoline-Range Hydrocarbons	Diesel-Range Hydrocarbons	Lube Oil-Range Hydrocarbons	Total Lead	Polychlorinated Biphenyls	Dioxins/ Furans	Total Suspended Solids	pH
On-Site Storage Tanks (West Tank and East Tank)													
STORAGE TANK-[080906][3]	08/09/06	<1.0	<1.0	<1.0	<1.0	110	0.26	<0.40	5.1	<0.050	<10.0	60	7.0
Discharge Quality Maximum Concentration Levels[4]		5.0	100	100	100	1,000	10	10	15	0.1	--	--	6.0 - 9.0

Notes:

[1] Chemical analyses for 2005/2006 samples by North Creek Analytical in Bothell, Washington

[2] Approximate tank locations are shown in Figure 2.

[3] Composite sample of East Tank-[080906] and West Tank-[080906]

[4] Discharge concentration levels are for discharges to Publicly Owned Treatment Works under the Independent Leaking Underground Storage Tank Cleanup Sites. This guidance was provided by Ecology.

"--" = no discharge quality maximum concentration level is available.

Shading indicates that the chemical analytical result exceeds the Discharge Quality Maximum Concentration Levels

Redm:\02\Finals\0137-015-02, Tables\Table 1.xls

TABLE 2
SUMMARY OF FIELD SCREENING AND SOIL CHEMICAL ANALYTICAL DATA[1]
RAYONIER PROPERTIES, LLC
PORT ANGELES FORMER MILL SITE
PORT ANGELES, WASHINGTON

Sample Identification[2]	Date Sampled	Sample Depth (feet bgs)[3]	Field Screening: Water Sheen	Diesel-Range Hydrocarbons[4] (mg/kg)	Bunker C-Range Hydrocarbons[4] (mg/kg)	Oil-Range Hydrocarbons[4] (mg/kg)	PCBs[5] (mg/kg)	PAHs[6] (mg/kg)	Naphthalene[7] (mg/kg)
Former Fuel Oil Tank #1 Excavation Area Confirmation Samples									
FOT-EX-1-[080106]-9.5	08/01/06	9.5	NS	<25	<80	<40	<0.062	0.007	<0.0082
FOT-EX-2-[080206]-9.0	08/02/06	9.0	NS	<25	<80	<40	<0.054	0.007	<0.0072
FOT-EX-3-[080206]-11.0	08/02/06	11.0	NS	<25	<80	<40	<0.063	0.136	<0.0083
FOT-EX-4-[080206]-8.0	08/02/06	8.0	NS	<25	<80	<40	<0.059	0.007	<0.0078
FOT-EX-5-[080206]-15.0	08/02/06	15.0	NS	<25	<80	<40	<0.015	0.008	<0.0083
FOT-EX-6-[080206]-3.0	08/02/06	3.0	MS	<25	<80	<40	<0.060	0.007	<0.0080
FOT-EX-7-[080206]-3.0	08/02/06	3.0	SS	<25	<80	<40	<0.054	0.007	<0.0072
FOT-EX-8-[080206]-8.0	08/02/06	8.0	NS	<25	<80	<40	<0.058	0.007	<0.0078
FOT-EX-9-[080206]-6.0	08/02/06	6.0	NS	<25	<80	<40	<0.056	0.007	<0.0075
FOT-EX-10-[080706]-11.5	08/07/06	11.5	--	<25	<80	<40	<0.057	0.007	<0.0076
FOT-EX-11-[080806]-9.0	08/08/06	4.0	--	<25	320	<40	<0.055	0.007	<0.0073
FOT-EX-12-[080306]-6.0	08/03/06	6.0	--	<25	<80	<40	<0.054	0.007	<0.0072
FOT-EX-13-[080306]-13.0	08/03/06	13.0	--	<25	<80	<40	<0.064	0.008	<0.0085
FOT-EX-14-[080306]-9.0	08/03/06	9.0	--	<25	<80	<40	<0.055	0.007	<0.0073
FOT-EX-15-[080706]-11.0	08/07/06	11.0	--	<25	<80	<40	<0.056	0.007	<0.0075
FOT-EX-16-[080706]-8.0	08/07/06	8.0	MS	<25	<80	<40	<0.058	0.008	<0.0078
FOT-EX-17-[080806]-3.0	08/08/06	3.0	NS	<25	<80	<40	0.33	**0.163**	<0.0094
FOT-EX-18-[080806]-7.0	08/08/06	7.0	--	<25	918	<40	<0.052	0.006	<0.0069
FOT-EX-19-[080806]-9.0	08/08/06	9.0	NS	<25	<80	<40	<0.060	0.007	<0.0080
FOT-EX-20-[080806]-7.0	08/08/06	7.0	NS	<25	<80	<40	<0.056	0.014	<0.0075
FOT-EX-21-[080806]-7.0	08/08/06	7.0	NS	<25	516	<40	<0.053	0.006	<0.0071

Sample Identification[2]	Date Sampled	Sample Depth (feet bgs)[3]	Field Screening: Water Sheen	Diesel-Range Hydrocarbons[4] (mg/kg)	Bunker C-Range Hydrocarbons[4] (mg/kg)	Oil-Range Hydrocarbons[4] (mg/kg)	PCBs[5] (mg/kg)	PAHs[6] (mg/kg)	Naphthalene[7] (mg/kg)
FOT-EX-22-[080806]-5.0	08/08/06	5.0	SS	<25	760	<40	<0.054	0.023	<0.0072
FOT-DUP-2-[080806][10]	08/03/06	5.0	--	--	--	--	<0.11	0.007	<0.0072
FOT-EX-23-[080806]-5.0	08/08/06	5.0	NS	<25	<80	<40	<0.053	0.006	<0.0071
FOT-EX-24-[080806]-5.0	08/08/06	5.0	--	<25	<80	<40	<0.052	0.025	<0.0069
FOT-EX-25-[080906]-5.0	08/09/06	5.0	NS	<25	<80	<40	<0.056	0.007	<0.0074
FOT-EX-26-[080906]-5.0	08/09/06	5.0	NS	<25	204	<40	<0.053	0.037	0.0088
FOT-EX-27-[080906]-8.0	08/09/06	8.0	NS	<25	<80	<40	<0.058	0.007	<0.0078
FOT-EX-28-[080906]-8.0	08/09/06	8.0	NS	<25	<80	<40	<0.058	0.007	<0.0078
Former Wood Mill Area Confirmation Samples									
WM-EX-1-[080306]-8.0	08/03/06	8.0	NS	<25	<80	<40	<0.055	0.007	<0.0073
WM-EX-2-[080306]-11.0	08/03/06	11.0	NS	<25	<80	<40	<0.056	0.039	0.010
WM-EX-3-[080306]-10.0	08/03/06	10.0	MS	<25	<80	<40	<0.056	0.014	<0.0075
WM-EX-4-[080406]-13.0	08/04/06	13.0	NS	<25	<80	<40	<0.057	0.007	<0.0077
WM-EX-5-[080406]-16.0	08/04/06	16.0	NS	<25	1,440	<40	<0.057	0.008	0.019
WM-EX-6-[080706]-9.0	08/07/06	9.0	NS	<25	<80	<40	<0.055	0.008	0.014
WM-EX-7-[080706]-8.5	08/07/06	8.5	SS	<25	<80	<40	<0.055	0.049	0.0084
WM-EX-8-[080706]-15.0	08/07/06	15.0	--	<25	<80	<40	<0.055	0.007	<0.0073
WM-EX-9-[080706]-10.0	08/07/06	10.0	--	<25	<80	<40	<0.058	0.007	<0.0078
WM-EX-10-[080806]-16.0	08/08/06	16.0	MS	<25	709	<40	<0.061	**0.488**	0.21
WM-EX-10-[080806]-16.0[11]	08/08/06	16.0	MS	--	--	--	--	**8.51**	--
WM-Dup-1-[080806][12]	08/08/06	16.0	NS	<25	730	<40	<0.057	0.066	0.019
WM-EX-11-[080806]-17.0	08/08/06	17.0	MS	<25	<80	<40	<0.067	0.008	0.023
WM-EX-12-[080806]-8.0	08/08/06	8.0	--	<25	<80	<40	<0.055	0.037	0.017
WM-EX-13-[080806]-9.0	08/08/06	9.0	NS	<25	300	<40	<0.060	0.096	<0.0079
WM-EX-14-[080806]-14.0	08/08/06	14.0	NS	<25	184	<40	<0.056	0.007	<0.0075
WM-EX-15-[080806]-14.0	08/08/06	14.0	SS	<25	<80	<40	<0.057	**0.186**	0.010
WM-EX-16-[080806]-14.0	08/08/06	14.0	NS	<25	<80	<40	<0.055	**0.515**	0.17
WM-EX-17-[080806]-14.0	08/08/06	14.0	NS	<25	<80	<40	<0.056	0.007	0.0096
WM-EX-18-[080906]-9.0	08/09/06	9.0	NS	<25	1,780	<40	<0.055	**0.180**	0.033

Sample Identification[2]	Date Sampled	Sample Depth (feet bgs)[3]	Field Screening: Water Sheen	Diesel-Range Hydrocarbons[4] (mg/kg)	Bunker C-Range Hydrocarbons[4] (mg/kg)	Oil-Range Hydrocarbons[4] (mg/kg)	PCBs[5] (mg/kg)	PAHs[6] (mg/kg)	Naphthalene[7] (mg/kg)
Overexcavated Sample Locations									
FOT-PCS-1-[080206]-11 [8]	08/02/06	11.0	HS	<1,300	**41,000**	<2,000	--	--	--
FOT-EX-10-[080306]-10.5 [8]	08/03/06	10.5	MS	<25	**4,900**	<40	--	--	--
FOT-DUP-1-[080306] [8, 9]	08/03/06	10.5	--	<25	**4,000**	<40	--	--	--
FOT-EX-11-[080306]-8.0 [8]	08/03/06	8.0	HS	<25	**67,000**	<40	--	--	--
WM-EX-11-[080806]-12.0 [8]	08/08/06	12.0	MS	<25	**20,100**	<40	--	--	--
Interim Action Cleanup Levels				2,000	2,000	2,000	0.5	0.14	1,600

Notes:

[1] Chemical analyses by North Creek Analytical in Bothell, Washington, unless otherwise noted.

[2] Approximate sample locations are shown in Figures 3 and 4.

[3] Sample depths are approximate and were recorded as depth beneath local ground surface.

[4] Petroleum hydrocarbons analyzed by Ecology Northwest Method NWTPH-Dx with sulfuric acid/silica gel cleanup. These analyses were completed using a mobile laboratory owned and operated by Libby Environmental, LLC of Lacey, Washington.

[5] Polychlorinated biphenyls analyzed by EPA Method 8082.

[6] Carcinogenic polyaromatic hydrocarbons analyzed by EPA Method 8270C SIM. Refer to Table 3 for individual analyte detections and benzo(a)pyrene TEQ calculations.

[7] Naphthalene analyzed by EPA Method 8270C SIM.

[8] Soil represented by this sample was subsequently overexcavated and removed from the site.

[9] This soil sample is a duplicate of soil sample FOT-EX-10-[080306]-10.5.

[10] This soil sample is a duplicate of soil sample FOT-EX-22-[080806]-5.0.

[11] The results for this sample represent the chemical analysis of cPAHs from a second aliquot obtained from the same set of containers for this sample.

[12] This soil sample is a duplicate of soil sample WM-EX-10-[080806]-16.0.

mg/kg = milligrams per kilogram

NWTPH-Dx = Northwest Total Petroleum Hydrocarbons - Diesel Extended.

NS = no sheen, SS = slight sheen, MS = moderate sheen, HS = heavy sheen

PCBs = polychlorinated biphenyls

cPAHs = carcinogenic polyaromatic hydrocarbons

"--" = not tested

bgs = below ground surface

Shading indicates that the chemical analytical result exceeds the interim action cleanup level

TABLE 3
SUMMARY OF SOIL CHEMICAL ANALYTICAL DATA
cPAH DETECTIONS AND TOXICITY EQUIVALENCY CALCULATIONS[1]
RAYONIER PROPERTIES, LLC
PORT ANGELES FORMER MILL SITE
PORT ANGELES, WASHINGTON

FOT-EX-1-[080106]-9.5	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0041	0.1	0.000
Benzo(b)fluoranthene	0.0041	0.1	0.000
Benzo(k)fluoranthene	0.0041	0.1	0.000
Benzo(a)pyrene	0.0041	1.0	0.004
Chrysene	0.0041	0.01	0.000
Dibenzo(a,h)anthracene	0.0041	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0041	0.1	0.000
Total cPAHs			0.007

FOT-EX-2-[080206]-9.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0036	0.1	0.000
Benzo(b)fluoranthene	0.0036	0.1	0.000
Benzo(k)fluoranthene	0.0036	0.1	0.000
Benzo(a)pyrene	0.0036	1.0	0.004
Chrysene	0.0036	0.01	0.000
Dibenzo(a,h)anthracene	0.0036	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0036	0.1	0.000
Total cPAHs			0.007

FOT-EX-3-[080206]-11.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.16	0.1	0.016
Benzo(b)fluoranthene	0.068	0.1	0.007
Benzo(k)fluoranthene	0.011	0.1	0.001
Benzo(a)pyrene	0.10	1.0	0.100
Chrysene	0.31	0.01	0.003
Dibenzo(a,h)anthracene	0.018	0.4	0.007
Indeno(1,2,3-cd)pyrene	0.019	0.1	0.002
Total cPAHs			0.136

FOT-EX-4-[080206]-8.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0039	0.1	0.000
Benzo(b)fluoranthene	0.0039	0.1	0.000
Benzo(k)fluoranthene	0.0039	0.1	0.000
Benzo(a)pyrene	0.0039	1.0	0.004
Chrysene	0.0039	0.01	0.000
Dibenzo(a,h)anthracene	0.0039	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0039	0.1	0.000
Total cPAHs			0.007

FOT-EX-5-[080206]-15.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0043	0.1	0.000
Benzo(b)fluoranthene	0.0043	0.1	0.000
Benzo(k)fluoranthene	0.0043	0.1	0.000
Benzo(a)pyrene	0.0043	1.0	0.004
Chrysene	0.0043	0.01	0.000
Dibenzo(a,h)anthracene	0.0043	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0043	0.1	0.000
Total cPAHs			0.008

FOT-EX-6-[080206]-3.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0040	0.1	0.000
Benzo(b)fluoranthene	0.0040	0.1	0.000
Benzo(k)fluoranthene	0.0040	0.1	0.000
Benzo(a)pyrene	0.0040	1.0	0.004
Chrysene	0.0040	0.01	0.000
Dibenzo(a,h)anthracene	0.0040	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0040	0.1	0.000
Total cPAHs			0.007

FOT-EX-7-[080206]-3.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0036	0.1	0.000
Benzo(b)fluoranthene	0.0036	0.1	0.000
Benzo(k)fluoranthene	0.0036	0.1	0.000
Benzo(a)pyrene	0.0036	1.0	0.004
Chrysene	0.0036	0.01	0.000
Dibenzo(a,h)anthracene	0.0036	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0036	0.1	0.000
Total cPAHs			0.007

FOT-EX-8-[080206]-8.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0039	0.1	0.000
Benzo(b)fluoranthene	0.0039	0.1	0.000
Benzo(k)fluoranthene	0.0039	0.1	0.000
Benzo(a)pyrene	0.0039	1.0	0.004
Chrysene	0.010	0.01	0.000
Dibenzo(a,h)anthracene	0.0039	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0039	0.1	0.000
Total cPAHs			0.007

FOT-EX-9-[080206]-6.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0038	0.1	0.000
Benzo(b)fluoranthene	0.0038	0.1	0.000
Benzo(k)fluoranthene	0.0038	0.1	0.000
Benzo(a)pyrene	0.0038	1.0	0.004
Chrysene	0.0038	0.01	0.000
Dibenzo(a,h)anthracene	0.0038	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0038	0.1	0.000
Total cPAHs			0.007

FOT-EX-10-[080706]-11.5	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0038	0.1	0.000
Benzo(b)fluoranthene	0.0038	0.1	0.000
Benzo(k)fluoranthene	0.0038	0.1	0.000
Benzo(a)pyrene	0.0038	1.0	0.004
Chrysene	0.0038	0.01	0.000
Dibenzo(a,h)anthracene	0.0038	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0038	0.1	0.000
Total cPAHs			0.007

FOT-EX-11-[080806]-9.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0037	0.1	0.000
Benzo(b)fluoranthene	0.0037	0.1	0.000
Benzo(k)fluoranthene	0.0037	0.1	0.000
Benzo(a)pyrene	0.0037	1.0	0.004
Chrysene	0.0037	0.01	0.000
Dibenzo(a,h)anthracene	0.0037	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0037	0.1	0.000
Total cPAHs			0.007

FOT-EX-12-[080306]-6.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0036	0.1	0.000
Benzo(b)fluoranthene	0.0036	0.1	0.000
Benzo(k)fluoranthene	0.0036	0.1	0.000
Benzo(a)pyrene	0.0036	1.0	0.004
Chrysene	0.0036	0.01	0.000
Dibenzo(a,h)anthracene	0.0036	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0036	0.1	0.000
Total cPAHs			0.007

FOT-EX-13-[080306]-13.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0043	0.1	0.000
Benzo(b)fluoranthene	0.0043	0.1	0.000
Benzo(k)fluoranthene	0.0043	0.1	0.000
Benzo(a)pyrene	0.0043	1.0	0.004
Chrysene	0.0094	0.01	0.000
Dibenzo(a,h)anthracene	0.0043	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0043	0.1	0.000
Total cPAHs			0.008

FOT-EX-14-[080306]-9.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0037	0.1	0.000
Benzo(b)fluoranthene	0.0037	0.1	0.000
Benzo(k)fluoranthene	0.0037	0.1	0.000
Benzo(a)pyrene	0.0037	1.0	0.004
Chrysene	0.0037	0.01	0.000
Dibenzo(a,h)anthracene	0.0037	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0037	0.1	0.000
Total cPAHs			0.007

FOT-EX-15-[080706]-11.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0038	0.1	0.000
Benzo(b)fluoranthene	0.0038	0.1	0.000
Benzo(k)fluoranthene	0.0038	0.1	0.000
Benzo(a)pyrene	0.0038	1.0	0.004
Chrysene	0.0038	0.01	0.000
Dibenzo(a,h)anthracene	0.0038	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0038	0.1	0.000
Total cPAHs			0.007

FOT-EX-16-[080706]-8.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0039	0.1	0.000
Benzo(b)fluoranthene	0.0039	0.1	0.000
Benzo(k)fluoranthene	0.0039	0.1	0.000
Benzo(a)pyrene	0.0039	1.0	0.004
Chrysene	0.091	0.01	0.001
Dibenzo(a,h)anthracene	0.0039	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0039	0.1	0.000
Total cPAHs			0.008

FOT-EX-17-[080806]-3.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.11	0.1	0.011
Benzo(b)fluoranthene	0.18	0.1	0.018
Benzo(k)fluoranthene	0.058	0.1	0.006
Benzo(a)pyrene	0.110	1.0	0.110
Chrysene	0.15	0.01	0.002
Dibenzo(a,h)anthracene	0.022	0.4	0.009
Indeno(1,2,3-cd)pyrene	0.083	0.1	0.008
Total cPAHs			0.163

FOT-EX-18-[080806]-7.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0035	0.1	0.000
Benzo(b)fluoranthene	0.0035	0.1	0.000
Benzo(k)fluoranthene	0.0035	0.1	0.000
Benzo(a)pyrene	0.0035	1.0	0.003
Chrysene	0.0035	0.01	0.000
Dibenzo(a,h)anthracene	0.0035	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0035	0.1	0.000
Total cPAHs			0.006

FOT-EX-19-[080806]-9.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0040	0.1	0.000
Benzo(b)fluoranthene	0.0040	0.1	0.000
Benzo(k)fluoranthene	0.0040	0.1	0.000
Benzo(a)pyrene	0.0040	1.0	0.004
Chrysene	0.0040	0.01	0.000
Dibenzo(a,h)anthracene	0.0040	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0040	0.1	0.000
Total cPAHs			0.007

FOT-EX-20-[080806]-7.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0075	0.1	0.001
Benzo(b)fluoranthene	0.0075	0.1	0.001
Benzo(k)fluoranthene	0.0075	0.1	0.001
Benzo(a)pyrene	0.0075	1.0	0.008
Chrysene	0.0075	0.01	0.000
Dibenzo(a,h)anthracene	0.0075	0.4	0.003
Indeno(1,2,3-cd)pyrene	0.0075	0.1	0.001
Total cPAHs			0.014

FOT-EX-21-[080806]-7.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0036	0.1	0.000
Benzo(b)fluoranthene	0.0036	0.1	0.000
Benzo(k)fluoranthene	0.0036	0.1	0.000
Benzo(a)pyrene	0.0036	1.0	0.004
Chrysene	0.0036	0.01	0.000
Dibenzo(a,h)anthracene	0.0036	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0036	0.1	0.000
Total cPAHs			0.006

FOT-EX-22-[080806]-5.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0079	0.1	0.001
Benzo(b)fluoranthene	0.015	0.1	0.002
Benzo(k)fluoranthene	0.0036	0.1	0.000
Benzo(a)pyrene	0.017	1.0	0.017
Chrysene	0.014	0.01	0.000
Dibenzo(a,h)anthracene	0.0036	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.013	0.1	0.001
Total cPAHs			0.023

FOT-DUP-2	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0036	0.1	0.000
Benzo(b)fluoranthene	0.0036	0.1	0.000
Benzo(k)fluoranthene	0.0036	0.1	0.000
Benzo(a)pyrene	0.0036	1.0	0.004
Chrysene	0.0036	0.01	0.000
Dibenzo(a,h)anthracene	0.0036	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0036	0.1	0.000
Total cPAHs			0.007

FOT-EX-23-[080806]-5.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0036	0.1	0.000
Benzo(b)fluoranthene	0.0036	0.1	0.000
Benzo(k)fluoranthene	0.0036	0.1	0.000
Benzo(a)pyrene	0.0036	1.0	0.004
Chrysene	0.0036	0.01	0.000
Dibenzo(a,h)anthracene	0.0036	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0036	0.1	0.000
Total cPAHs			0.006

FOT-EX-24-[080806]-5.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.013	0.1	0.001
Benzo(b)fluoranthene	0.030	0.1	0.003
Benzo(k)fluoranthene	0.0078	0.1	0.001
Benzo(a)pyrene	0.017	1.0	0.017
Chrysene	0.040	0.01	0.000
Dibenzo(a,h)anthracene	0.0035	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.010	0.1	0.001
Total cPAHs			0.025

FOT-EX-25-[080906]-5.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0037	0.1	0.000
Benzo(b)fluoranthene	0.0037	0.1	0.000
Benzo(k)fluoranthene	0.0037	0.1	0.000
Benzo(a)pyrene	0.0037	1.0	0.004
Chrysene	0.0037	0.01	0.000
Dibenzo(a,h)anthracene	0.0037	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0037	0.1	0.000
Total cPAHs			0.007

FOT-EX-26-[080906]-5.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0140	0.1	0.001
Benzo(b)fluoranthene	0.021	0.1	0.002
Benzo(k)fluoranthene	0.0036	0.1	0.000
Benzo(a)pyrene	0.027	1.0	0.027
Chrysene	0.035	0.01	0.000
Dibenzo(a,h)anthracene	0.0089	0.4	0.004
Indeno(1,2,3-cd)pyrene	0.022	0.1	0.002
Total cPAHs			0.037

FOT-EX-27-[080906]-8.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0039	0.1	0.000
Benzo(b)fluoranthene	0.0039	0.1	0.000
Benzo(k)fluoranthene	0.0039	0.1	0.000
Benzo(a)pyrene	0.0039	1.0	0.004
Chrysene	0.0096	0.01	0.000
Dibenzo(a,h)anthracene	0.0039	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0039	0.1	0.000
Total cPAHs			0.007

FOT-EX-28-[080906]-8.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0039	0.1	0.000
Benzo(b)fluoranthene	0.0039	0.1	0.000
Benzo(k)fluoranthene	0.0039	0.1	0.000
Benzo(a)pyrene	0.0039	1.0	0.004
Chrysene	0.0039	0.01	0.000
Dibenzo(a,h)anthracene	0.0039	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0039	0.1	0.000
Total cPAHs			0.007

WM-EX-1-[080306]-8.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0037	0.1	0.000
Benzo(b)fluoranthene	0.0037	0.1	0.000
Benzo(k)fluoranthene	0.0037	0.1	0.000
Benzo(a)pyrene	0.0037	1.0	0.004
Chrysene	0.0037	0.01	0.000
Dibenzo(a,h)anthracene	0.0037	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0037	0.1	0.000
Total cPAHs			0.007

WM-EX-2-[080306]-11.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.031	0.1	0.003
Benzo(b)fluoranthene	0.039	0.1	0.004
Benzo(k)fluoranthene	0.0092	0.1	0.001
Benzo(a)pyrene	0.027	1.0	0.027
Chrysene	0.036	0.01	0.000
Dibenzo(a,h)anthracene	0.0038	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.019	0.1	0.002
Total cPAHs			0.039

WM-EX-3-[080306]-10.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0092	0.1	0.001
Benzo(b)fluoranthene	0.017	0.1	0.002
Benzo(k)fluoranthene	0.0038	0.1	0.000
Benzo(a)pyrene	0.0090	1.0	0.009
Chrysene	0.0038	0.01	0.000
Dibenzo(a,h)anthracene	0.0038	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0038	0.1	0.000
Total cPAHs			0.014

WM-EX-4-[080306]-13.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0039	0.1	0.000
Benzo(b)fluoranthene	0.0039	0.1	0.000
Benzo(k)fluoranthene	0.0039	0.1	0.000
Benzo(a)pyrene	0.0039	1.0	0.004
Chrysene	0.0039	0.01	0.000
Dibenzo(a,h)anthracene	0.0039	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0039	0.1	0.000
Total cPAHs			0.007

WM-EX-5-[080306]-16.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.013	0.1	0.001
Benzo(b)fluoranthene	0.0083	0.1	0.001
Benzo(k)fluoranthene	0.0039	0.1	0.000
Benzo(a)pyrene	0.0039	1.0	0.004
Chrysene	0.0039	0.01	0.000
Dibenzo(a,h)anthracene	0.0039	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0039	0.1	0.000
Total cPAHs			0.008

WM-EX-6-[080706]-9.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.013	0.1	0.001
Benzo(b)fluoranthene	0.0037	0.1	0.000
Benzo(k)fluoranthene	0.0037	0.1	0.000
Benzo(a)pyrene	0.0037	1.0	0.004
Chrysene	0.0100	0.01	0.000
Dibenzo(a,h)anthracene	0.0037	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0037	0.1	0.000
Total cPAHs			0.008

WM-EX-7-[080706]-8.5	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0640	0.1	0.006
Benzo(b)fluoranthene	0.0550	0.1	0.006
Benzo(k)fluoranthene	0.0180	0.1	0.002
Benzo(a)pyrene	0.0310	1.0	0.031
Chrysene	0.0800	0.01	0.001
Dibenzo(a,h)anthracene	0.0037	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0170	0.1	0.002
Total cPAHs			0.049

WM-EX-8-[080706]-15.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0037	0.1	0.000
Benzo(b)fluoranthene	0.0037	0.1	0.000
Benzo(k)fluoranthene	0.0037	0.1	0.000
Benzo(a)pyrene	0.0037	1.0	0.004
Chrysene	0.0037	0.01	0.000
Dibenzo(a,h)anthracene	0.0037	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0037	0.1	0.000
Total cPAHs			0.007

WM-EX-9-[080706]-10.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0039	0.1	0.000
Benzo(b)fluoranthene	0.0039	0.1	0.000
Benzo(k)fluoranthene	0.0039	0.1	0.000
Benzo(a)pyrene	0.0039	1.0	0.004
Chrysene	0.0039	0.01	0.000
Dibenzo(a,h)anthracene	0.0039	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0039	0.1	0.000
Total cPAHs			0.007

WM-EX-10-[080806]-16.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.48	0.1	0.048
Benzo(b)fluoranthene	0.50	0.1	0.050
Benzo(k)fluoranthene	0.18	0.1	0.018
Benzo(a)pyrene	0.33	1.0	0.330
Chrysene	0.39	0.01	0.004
Dibenzo(a,h)anthracene	0.054	0.4	0.022
Indeno(1,2,3-cd)pyrene	0.16	0.1	0.016
Total cPAHs			**0.488**

WM-EX-10-[080806]-16.0 (RERUN)	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	7.40	0.1	0.740
Benzo(b)fluoranthene	9.10	0.1	0.910
Benzo(k)fluoranthene	3.30	0.1	0.330
Benzo(a)pyrene	5.90	1.0	5.900
Chrysene	5.40	0.01	0.054
Dibenzo(a,h)anthracene	0.830	0.4	0.332
Indeno(1,2,3-cd)pyrene	2.40	0.1	0.240
Total cPAHs			**8.506**

WM-DUP-1 (Duplicate of WM-EX-10-[080806]-16.0)	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.05	0.1	0.005
Benzo(b)fluoranthene	0.07	0.1	0.007
Benzo(k)fluoranthene	0.02	0.1	0.002
Benzo(a)pyrene	0.05	1.0	0.047
Chrysene	0.05	0.01	0.000
Dibenzo(a,h)anthracene	0.004	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.03	0.1	0.003
Total cPAHs			0.066

WM-EX-11-[080806]-17.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0045	0.1	0.000
Benzo(b)fluoranthene	0.0045	0.1	0.000
Benzo(k)fluoranthene	0.0045	0.1	0.000
Benzo(a)pyrene	0.0045	1.0	0.004
Chrysene	0.0045	0.01	0.000
Dibenzo(a,h)anthracene	0.0045	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0045	0.1	0.000
Total cPAHs			0.008

WM-EX-12-[080806]-8.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.039	0.1	0.004
Benzo(b)fluoranthene	0.034	0.1	0.003
Benzo(k)fluoranthene	0.0087	0.1	0.001
Benzo(a)pyrene	0.026	1.0	0.026
Chrysene	0.045	0.01	0.000
Dibenzo(a,h)anthracene	0.0037	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.012	0.1	0.001
Total cPAHs			0.037

WM-EX-13-[080806]-9.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.087	0.1	0.009
Benzo(b)fluoranthene	0.082	0.1	0.008
Benzo(k)fluoranthene	0.024	0.1	0.002
Benzo(a)pyrene	0.069	1.0	0.069
Chrysene	0.098	0.01	0.001
Dibenzo(a,h)anthracene	0.010	0.4	0.004
Indeno(1,2,3-cd)pyrene	0.029	0.1	0.003
Total cPAHs			0.096

WM-EX-14-[080806]-14.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0038	0.1	0.000
Benzo(b)fluoranthene	0.0038	0.1	0.000
Benzo(k)fluoranthene	0.0038	0.1	0.000
Benzo(a)pyrene	0.0038	1.0	0.004
Chrysene	0.0038	0.01	0.000
Dibenzo(a,h)anthracene	0.0038	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0038	0.1	0.000
Total cPAHs			0.007

WM-EX-15-[080806]-14.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.17	0.1	0.017
Benzo(b)fluoranthene	0.080	0.1	0.008
Benzo(k)fluoranthene	0.015	0.1	0.002
Benzo(a)pyrene	0.14	1.0	0.140
Chrysene	0.26	0.01	0.003
Dibenzo(a,h)anthracene	0.034	0.4	0.014
Indeno(1,2,3-cd)pyrene	0.034	0.1	0.003
Total cPAHs			**0.186**

WM-EX-16-[080806]-14.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.50	0.1	0.050
Benzo(b)fluoranthene	0.22	0.1	0.022
Benzo(k)fluoranthene	0.034	0.1	0.003
Benzo(a)pyrene	0.39	1.0	0.390
Chrysene	0.84	0.01	0.008
Dibenzo(a,h)anthracene	0.084	0.4	0.034
Indeno(1,2,3-cd)pyrene	0.080	0.1	0.008
Total cPAHs			**0.515**

WM-EX-17-[080806]-14.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0037	0.1	0.000
Benzo(b)fluoranthene	0.0037	0.1	0.000
Benzo(k)fluoranthene	0.0037	0.1	0.000
Benzo(a)pyrene	0.0037	1.0	0.004
Chrysene	0.0037	0.01	0.000
Dibenzo(a,h)anthracene	0.0037	0.4	0.001
Indeno(1,2,3-cd)pyrene	0.0037	0.1	0.000
Total cPAHs			0.007

WM-EX-18-[080906]-9.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.18	0.1	0.018
Benzo(b)fluoranthene	0.12	0.1	0.012
Benzo(k)fluoranthene	0.025	0.1	0.003
Benzo(a)pyrene	0.13	1.0	0.130
Chrysene	0.23	0.01	0.002
Dibenzo(a,h)anthracene	0.026	0.4	0.010
Indeno(1,2,3-cd)pyrene	0.049	0.1	0.005
Total cPAHs			**0.180**

WM-EX-27-[080806]-17.0	Result[2] (mg/kg)	TEF[3]	TEC[4] (mg/kg)
Benzo(a)anthracene	0.0045	0.1	0.000
Benzo(b)fluoranthene	0.0045	0.1	0.000
Benzo(k)fluoranthene	0.0045	0.1	0.000
Benzo(a)pyrene	0.0045	1.0	0.004
Chrysene	0.0045	0.01	0.000
Dibenzo(a,h)anthracene	0.0045	0.4	0.002
Indeno(1,2,3-cd)pyrene	0.0045	0.1	0.000
Total cPAHs			0.008

Notes:

[1] Chemical analyses by Onsite Environmental in Redmond, Washington.

[2]Analytes that are not detected are shown as a value equal to half the detection limit, per MTCA.

[3]TEF = toxicity equivalency factor per WAC 173-340-708(8) based on TEFs presented in California Air Resources Board "Benzo(a)pyrene as a Toxic Air Contaminant," July 1994.

[4]TEC = toxicity equivalent concentration.

Shading indicates total cPAH concentration greater than MTCA Method A cleanup level.

mg/kg = milligrams per kilogram.

Redm:\02\Finals\0137-015-02, Tables\Table 3.xls

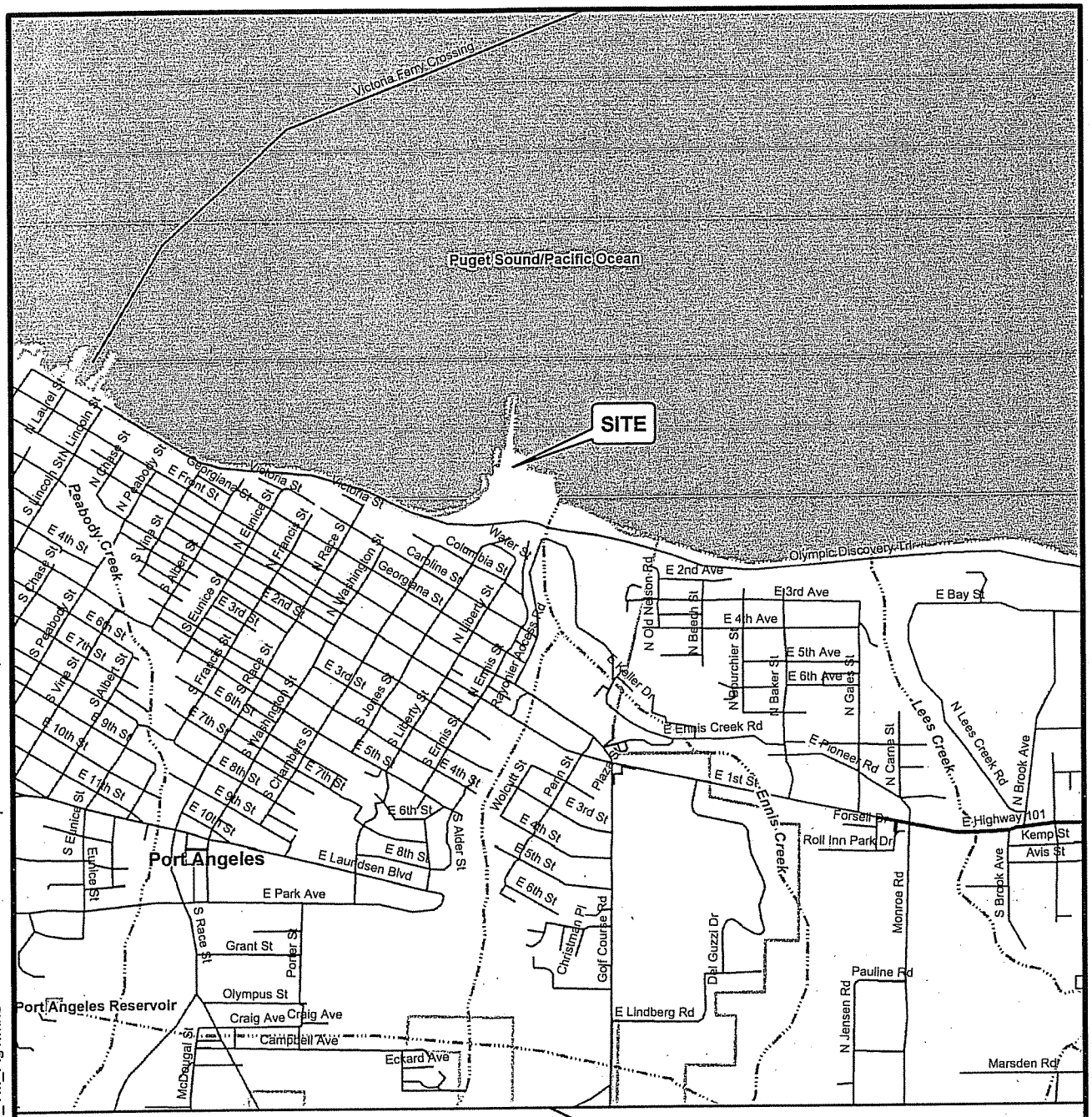
TABLE 4
SUMMARY OF SOIL CHEMICAL ANALYTICAL DATA
DIOXIN DETECTIONS AND TOXICITY EQUIVALENCY CALCULATIONS[1]
RAYONIER PROPERTIES, LLC
PORT ANGELES FORMER MILL SITE
PORT ANGELES, WASHINGTON

FOT-EX-10-[080706]-11.5						
Analyte	Laboratory Result (pg/g)	Revised Result[1] (pg/g)	ITEQ		WHO-TEQ	
			TEF	TEQ	TEF	TEQ
2378-TCDD	<1.00	0.5	1	0.5	1	0.5
12378-PeCDD	<5.00	2.5	0.5	1.25	1	2.5
123678-HxCDD	<5.00	2.5	0.1	0.25	0.1	0.25
123478-HxCDD	<5.00	2.5	0.1	0.25	0.1	0.25
123789-HxCDD	<5.00	2.5	0.1	0.25	0.1	0.25
1234678-HpCDD	13.6	13.6	0.01	0.136	0.01	0.136
OCDD	69.2	69.2	0.001	0.0692	0.0001	0.00692
2378-TCDF	<1.00	0.5	0.1	0.05	0.1	0.05
12378-PeCDF	<5.00	2.5	0.05	0.125	0.05	0.125
23478-PeCDF	<5.00	2.5	0.5	1.25	0.5	1.25
123478-HxCDF	<5.00	2.5	0.1	0.25	0.1	0.25
123678-HxCDF	<5.00	2.5	0.1	0.25	0.1	0.25
234678-HxCDF	<5.00	2.5	0.1	0.25	0.1	0.25
123789-HxCDF	<5.00	2.5	0.1	0.25	0.1	0.25
1234678-HpCDF	<5.00	2.5	0.01	0.025	0.01	0.025
1234789-HpCDF	<5.00	2.5	0.01	0.025	0.01	0.025
OCDF	<10.0	5	0.001	0.005	0.0001	0.0005
2,3,7,8-TCDD TEQ (pg/g)				**5.2**		**6.4**

WM-EX-14-[080806]-14.0						
Analyte	Laboratory Result (pg/g)	Revised Result[1] (pg/g)	ITEQ		WHO-TEQ	
			TEF	TEQ	TEF	TEQ
2378-TCDD	<1.00	0.5	1	0.5	1	0.5
12378-PeCDD	<5.00	2.5	0.5	1.25	1	2.5
123678-HxCDD	<5.00	2.5	0.1	0.25	0.1	0.25
123478-HxCDD	<5.00	2.5	0.1	0.25	0.1	0.25
123789-HxCDD	<5.00	2.5	0.1	0.25	0.1	0.25
1234678-HpCDD	<5.00	2.5	0.01	0.025	0.01	0.025
OCDD	40.2	40.2	0.001	0.0402	0.0001	0.00402
2378-TCDF	<1.00	0.5	0.1	0.05	0.1	0.05
12378-PeCDF	<5.00	2.5	0.05	0.125	0.05	0.125
23478-PeCDF	<5.00	2.5	0.5	1.25	0.5	1.25
123478-HxCDF	<5.00	2.5	0.1	0.25	0.1	0.25
123678-HxCDF	<5.00	2.5	0.1	0.25	0.1	0.25
234678-HxCDF	<5.00	2.5	0.1	0.25	0.1	0.25
123789-HxCDF	<5.00	2.5	0.1	0.25	0.1	0.25
1234678-HpCDF	<5.00	2.5	0.01	0.025	0.01	0.025
1234789-HpCDF	<5.00	2.5	0.01	0.025	0.01	0.025
OCDF	<10.0	5	0.001	0.005	0.0001	0.0005
2,3,7,8-TCDD TEQ (pg/g)				**5.0**		**6.3**

Notes:

[1]The revised result reflects the detected laboratory result or one-half of the non-detected laboratory result value.
ITEQ = International Toxic Equivalency Calculation
WHO-TEQ = World Health Organization - Toxic Equivalency Calculation
TEF = Toxicity Equivalency Factor
pg/g = picograms per gram = 10^{-12} grams per gram = parts per trillion



RAYONIER'S FORMER MILL SITE
PORT ANGELES, WASHINGTON

All locations are approximate.

0 1,000 2,000 Feet

Lambert Conformal Conic
Washington State Plane North
North American Datum 1983

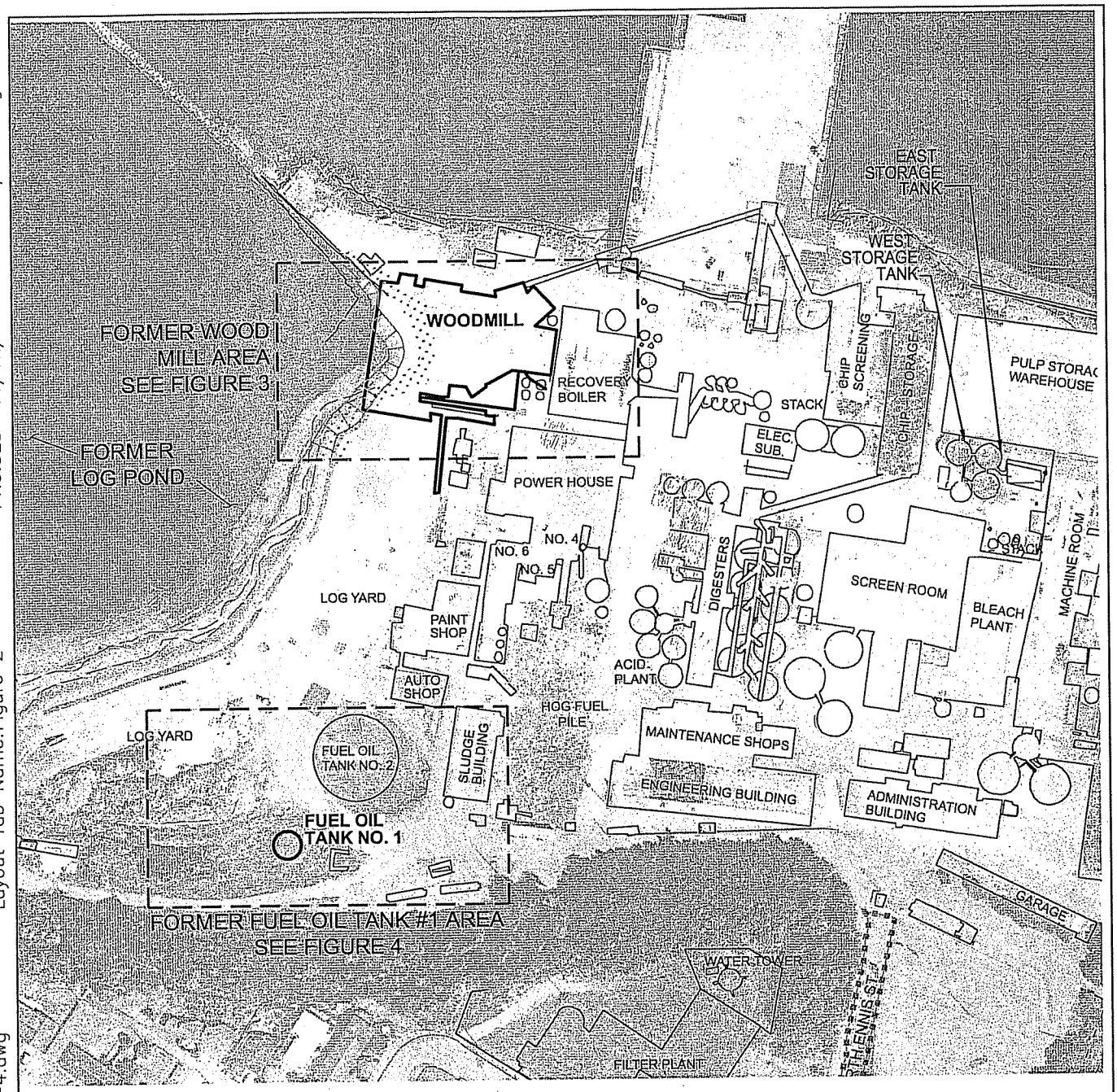
Data Sources: Interstates, state routes, and roads from TIGER 2000.
County boundaries, cities, and waterbodies from Department of Ecology.

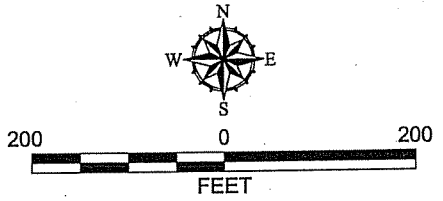
GeoEngineers

VICINITY MAP

FIGURE 1

Office: REDM Path: P:\0137\015\01\CAD\0137-015-01_VM_Fig1.mxd Map Revised: March 23, 2006 PRC:maa





Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Figure 2-3, Primary Site facilities During Active Operation, by Integral Consulting Inc., dated January 2006. Aerial Photo from TerraserverUSA.com, Port Angeles, WA by USGS, dated September 1994.

General Site Plan

Rayonier/Port Angeles Mill
Port Angeles, Washington

GeoEngineers

Figure 2

REDM\P:\ 0137015\02\CAD\0137015021T3F2-4.dwg Layout Tab Name:Figure 2 PRC:SES 11/02/06 Xref:N/A Image:YES

WM21

WM-EX-12-[080806]-8.0

WM-EX-1-[080306]-8.0

WM-EX-7-[080706]-8.5

WM-EX-2-[080306]-11.0

WM-EX-18-[080906]-9.0

WM-EX-13-[080806]-9.0

WM-EX-3-[080306]-10.0

WM-EX-14-[080806]-14.0

WM-EX-15-[080806]-14.0

WM-EX-16-[080806]-14.0

WM20

WM-EX-11-[080806]-12.0 AND
WM-EX-11-[080806]-17.0

RIP RAP

WM-EX-10-[080806]-16.0

WM-EX-5-[080406]-16.0

WM-EX-17-[080806]-14.0

WM-EX-8-[080706]-15.0

WM-EX-4-[080406]-13.0

WM-EX-9-[080706]-10.0

WM-EX-6-[080706]-9.0

FORMER WOOD MILL BUILDING FOOT PRINT

SHEET PILE WALL

FORMER WOOD MILL BUILDING FOOT PRINT

PETROLEUM SUBSTANCE OBSERVED BETWEEN ~8' TO 15' BELOW GROUND SURFACE

TOP OF SHEET PILE WALL OBSERVED AT GROUND SURFACE

FORMER WOOD MILL BUILDING FOOT PRINT

Legend:

- LIMITS OF EXCAVATION
- WM-EX-6-[080706]-9.0 — SOIL SAMPLE LOCATION
- *FOT-EX-11-[080306]-8.0* — OVER EXCAVATION SOIL SAMPLE LOCATION
- *WM21* — REMEDIAL INVESTIGATION SAMPLE LOCATION

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Figure 2-3, Primary Site facilities During Active Operation, by Integral Consulting Inc., dated January 2006.

N W E S

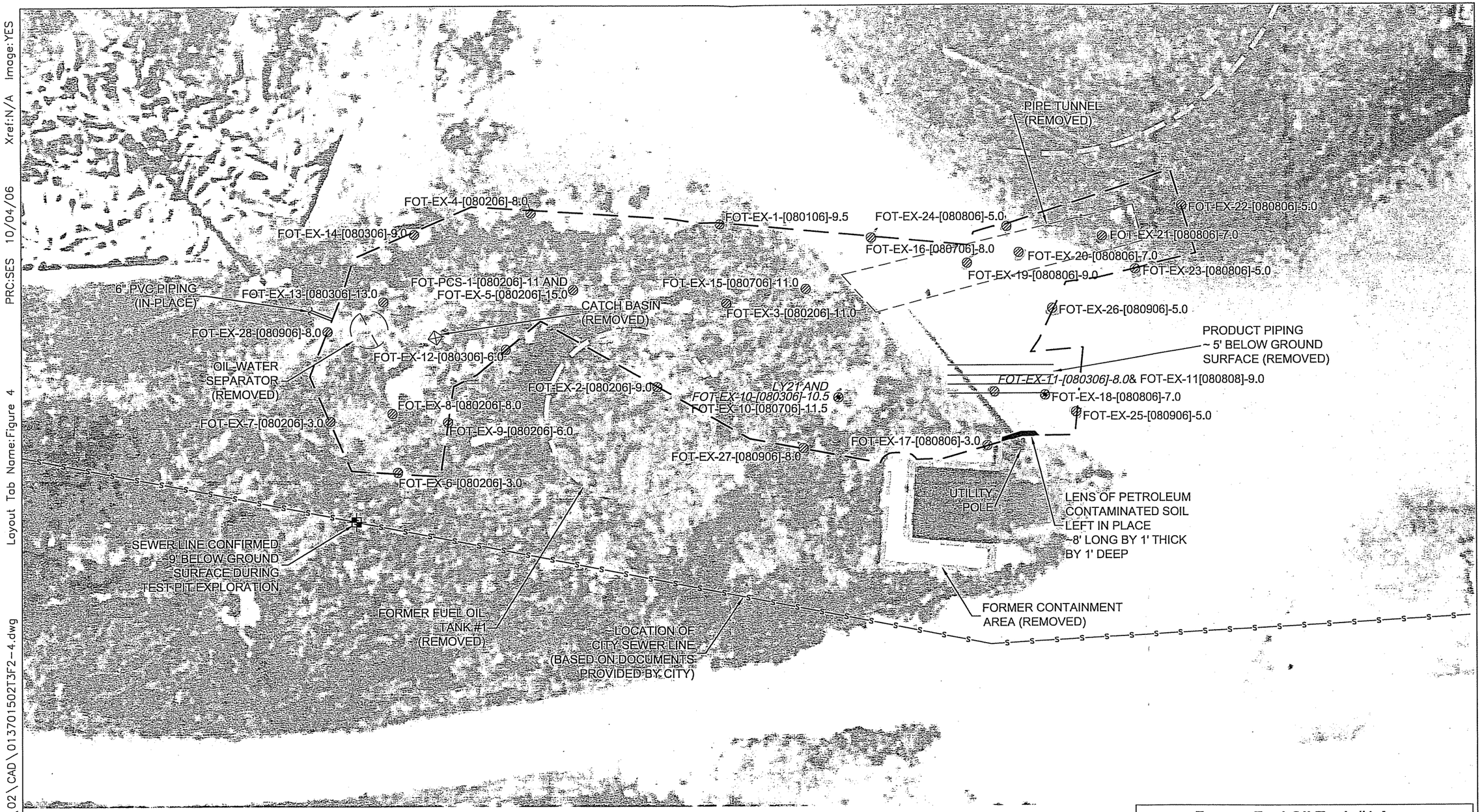
20 0 20
FEET

Former Wood Mill Area

Rayonier/Port Angeles Mill
Port Angeles, Washington

GeoEngineers

Figure 3



Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Figure 2-3, Primary Site facilities During Active Operation, by Integral Consulting Inc., dated January 2006.

Legend:

- LIMITS OF EXCAVATION
- FOT-EX-6-[080206]-3.0 — SOIL SAMPLE LOCATION
- *FOT-EX-11-[080306]-8.0* — OVER EXCAVATION SOIL SAMPLE LOCATION
- TEST PIT

N W E S

20 0 20
FEET

Former Fuel Oil Tank #1 Area

Rayonier/Port Angeles Mill
Port Angeles, Washington

GeoEngineers

Figure 4

2/12/2009

Department of Ecology

Annual and Cumulative Salary Rate Increase Comparisons - FY 2000 - 2008

	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	Total
Represented Employees						**Represented Employees**				
Average rate for all represented employees	5.8%	4.3%	5.3%	1.3%	1.2%	1.1%	6.1%	3.0%	8.7%	36.7%
WMS Growth & Development, GWI & Salary Alignment										
Average rate for all WMS employees	5.2%	4.9%	6.4%	1.1%	0.0%	1.6%	5.0%	4.6%	6.0%	34.9%

GWI = general wage increase

Non-management employees: Includes GWI; periodic step increases; new Step L; salary survey, 6767, class consolidation & Shroll adjustments.

WMS employees: Includes GWI; growth and development adjustments; salary alignments.

Calculations are straight valuation of percentage increase. Does not include possible effects of compounding.

Does not include adjustments for variations in individual effective dates of step increases and other salary rate adjustments.

Does not include one-time payments, such as lump sum performance--based payments and the $756 health care rebate to represented employees in 2007.

GeoEngineers

APPENDIX A
INTERIM ACTION WORK PLAN

INTERIM ACTION WORK PLAN
PORT ANGELES MILL SITE
PORT ANGELES, WASHINGTON

APRIL 27, 2006

FOR
RAYONIER PROPERTIES, LLC.

GEOENGINEERS

Interim Action Work Plan
Port Angeles Mill Site
Port Angeles, Washington
File No. 0137-015-01

April 27, 2006

Prepared for:

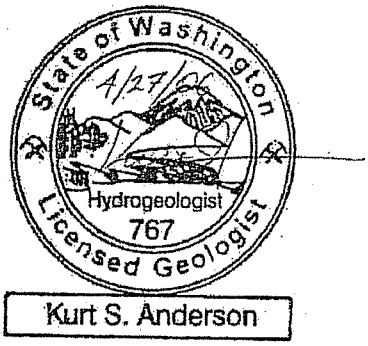
Rayonier Properties, LLC

Prepared by:

GeoEngineers, Inc.
8410 154th Avenue NE
Redmond, Washington 98052

Paul R. Craig, LG
Project Geologist

Kurt S. Anderson, LG, LHG
Senior Principal



PRC:KSA:ja
Redm:\00\Finals\0137-015-01, WP.doc

TABLE OF CONTENTS

List of Tables

List of Figures

APPENDICES

INTERIM ACTION WORK PLAN
FORMER WOOD MILL AND FUEL OIL TANK #1 AREAS
PORT ANGELES FORMER MILL SITE
PORT ANGELES, WASHINGTON
FOR
RAYONIER PROPERTIES, LLC

1.0 INTRODUCTION

This work plan was prepared on behalf of Rayonier Properties, LLC (Rayonier) by GeoEngineers, Inc., in accordance with Washington Administrative Code (WAC) 173-340-430 and describes the interim action to be conducted at Rayonier's Port Angeles Former Mill site located at 700 North Ennis Street in Port Angeles, Washington (site). The site occupies approximately 80 acres of land on the Strait of Juan de Fuca.

This work plan summarizes the methods and procedures selected for interim remedial actions to address contaminants of concern (COCs) in soil in the former Wood Mill and Fuel Oil Tank #1 areas at the former mill site.

1.1 OBJECTIVES

The primary objective for this interim action is to remove and dispose of soil containing diesel- and lube oil-range petroleum hydrocarbons (TPH) at concentrations greater than cleanup levels at the former Wood Mill and Fuel Oil Tank #1 areas of the site. TPH is considered to be potentially mobile in subsurface soils with the capacity to migrate outside of current TPH-impacted areas of the site. The purpose of this interim action is to prevent the potential contamination of additional subsurface soil and/or the former log pond at the site due to the migration of TPH.

The secondary objective of this interim action is to remove compounds potentially associated with TPH where they exist at concentrations greater than their corresponding interim action cleanup levels. Washington State Department of Ecology's (Ecology's) Model Toxics Control Act (MTCA) identifies polychlorinated biphenyls (PCBs), carcinogenic polycyclic aromatic hydrocarbons (cPAHs) and naphthalene as compounds potentially associated with TPH (WAC 173-340-900, Table 830-1). These TPH-associated compounds will be considered COCs for this interim action. Interim action cleanup levels for COCs are presented in Table 3.1 of this work plan.

While other contaminants may be present in soil at concentrations of regulatory significance within the proposed areas of excavation, they are significantly less mobile than TPH and do not coincide with the objectives outlined above. Contaminants other than TPH and the associated compounds of PCBs, cPAHs and naphthalene will not be considered COCs for this interim action. COCs listed in Tables 2.1 and 2.2 will dictate the limits of remedial excavation during this interim action. The locations of the former Wood Mill and former Fuel Oil Tank #1 are presented in Figure 2.

1.2 SCOPE

An estimated 7,700 cubic yards (in-place volume) of soil with COCs exceeding applicable Ecology cleanup levels (Tables 2.1 and 2.2) remain beneath the former Wood Mill and Fuel Oil Tank #1 areas. The COCs in soil in the former Wood Mill area are mostly present in a 3-foot thick subsurface lens located at depths between 8- and 15-feet beneath the ground surface (bgs) in an area measuring approximately 100-feet long by 80-feet wide. The COCs in soil in the former Fuel Oil Tank #1 area are present at depths between ground surface and approximately 12-feet bgs in an area estimated to be approximately 100 feet in diameter beneath the former tank. The area of soil to be excavated may vary from the estimates shown and the actual limits of the excavation will be guided by chemical analysis of soil samples processed in an on-site mobile laboratory.

1.3 Site Description And Background

The Port Angeles former mill facility operated as a pulp and paper mill from 1930 until it was closed in 1997. The former mill site fronts the beach and shoreline on the Strait of Juan de Fuca in Port Angeles. Ennis Creek runs approximately one-half mile through the site. Following the closure, the EPA conducted an Expanded Site Investigation (ESI) that identified COCs in areas of marine sediment, soil and groundwater that exceeded applicable state criteria for the protection of human health and/or the environment.

Rayonier has completed several studies/interim cleanups at the site since the completion of the ESI to address identified COCs. A summary of the site studies and interim cleanup actions completed by Rayonier in the Uplands area of the site are presented in the draft report entitled, *Remedial Investigation for the Uplands Environment of the Former Rayonier Mill Site*, dated January 2006 (Integral Consulting, Inc.).

1.4 Work Plan Organization

This interim action work plan was prepared in general accordance with Ecology Guidance for Interim Actions (WAC 173-340-430). The organization of the work plan is as follows:

- Section 1: Introduction – Provides objectives, scope, site description and background, work plan organization and regulatory framework.
- Section 2: Summary of previous investigations – Presents affected media and contaminants of concern in the former Wood Mill and Fuel Oil Tank #1 areas.
- Section 3: Cleanup Levels – Provides cleanup levels for each contaminant of concern.
- Section 4: Interim Actions – Discusses interim action alternatives and selected methods and procedures for conducting on-site remedial actions.
- Section 5: Sampling and Analysis – Discusses sampling locations and laboratory analyses, field sampling methods and procedures and QA/QC requirements.
- Section 6: Documentation – Outlines documentation procedures concerning daily on-site activities and collection, handling, storage, shipping and tracking of soil samples.
- Section 7: Reporting
- Section 8: Schedule
- Section 9: References

1.5 Regulatory Framework

Both the EPA and Ecology have conducted routine regulatory compliance inspections at the former Rayonier pulp mill site. In 1997, the EPA initiated a site assessment and hazard ranking scoring process for the former Rayonier pulp mill site to determine if the site should be recommended for the National Priorities List (NPL) under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). An ESI was conducted in support of this effort (E&E 1998). Although the former Rayonier pulp mill site scored high enough to qualify for consideration to be listed on the NPL, the EPA opted to defer the listing and allow a CERCLA protective cleanup to proceed under the direction of Ecology. The EPA, Ecology and the Lower Elwha Klallam Tribe ("the Tribe") formally agreed to the deferral in a Deferral Agreement signed in 2000.

As a result of the Deferral Agreement, site evaluation and remediation at the former Rayonier pulp mill site is being conducted under MTCA and implementing regulations (WAC 173-340). MTCA requires that all cleanup activities, including interim actions, comply with applicable state and federal laws and regulations, including requirements that Ecology determines to be applicable or relevant and appropriate requirements (ARARs). Potential ARARs for this interim action are summarized below:

- MTCA (Chapter 70.105D, Revised Code of Washington [RCW]; Chapter 173-340 WAC). This chapter is promulgated under the MTCA. It establishes administrative processes and standards to identify, investigate, and clean up facilities where hazardous substances have come to be located.
- RCW 27.44.040, Protection of Indian graves; This statute makes it a class C felony for any person to knowingly remove, mutilate, deface, injure or destroy any cairn or grave of any native Indian, or any glyptic or painted record of any tribe.
- Federal Endangered Species Act (ESA) (16 USC 1531 et seq.; 50 CFR Parts 17 and 402). The regulations identify those species of wildlife and plants determined to be endangered or threatened with extinction. The bald eagle has been identified as a threatened species that may occur in the project area (Integral, 2006). Participants in this interim action shall abide by the prohibitions of Section 9 of the Endangered Species and regulations adopted thereunder, which prohibit take of a threatened species.
- Washington State Solid Waste Management Act (Chapter 70.95 RCW; Chapter 173-351 WAC). The purpose of this regulation is to establish minimum statewide standards for all municipal solid waste landfills in order that jurisdictional health departments can enact ordinances equally as or more stringent than this regulation and to have jurisdictional health departments implement such ordinances through a permit system. These minimum statewide criteria ensure the protection of human health and the environment.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS

Several site investigations and interim cleanup and removal actions have been completed at the site since 1991. A comprehensive summary of the previous site studies and remedial actions can be referenced in the draft report entitled, *Remedial Investigation for the Uplands Environment of the Former Rayonier Mill Site,* dated January 2006 (Integral Consulting, Inc.).

2.1 FORMER WOOD MILL

The former wood mill is located in the northwestern portion of the site (Figure 2 and Figure 3) and was used to process raw logs into wood chips for later use in the pulping process. Logs were delivered to the site by rafting, train and/or truck and stored in the adjacent log pond or log yard prior to being processed in the wood mill. The logs were debarked and chipped within the wood mill. The chips were then transferred to another area of the site where they were combined with a fortified ammonium bisulfite cooking liquor and treated at high pressure and temperature in "digesters" to reduce the chips to a cellulose fiber (pulp). Waste materials from the wood mill operations, in the form of bark and wood chips not suitable for pulping, were sent to the hog fuel pile where they were later burned in hog fuel boilers. The hog fuel boilers and recovery boiler generated process steam, which supplied power for the site's energy needs (Integral, 2006).

2.1.1 Affected Media

Soil – COCs were identified in soil samples (station WM20) at concentrations greater than cleanup levels in the former Wood Mill area during the 2003 Remedial Investigation (RI) completed in the upland area of the site. Two samples were obtained from station WM20 that exceeded applicable interim action cleanup levels: 1) a discrete sample obtained from approximately 3 inches bgs; and 2) a composite sample consisting of a direct-push core sample obtained from approximately 3 inches bgs to groundwater.

Groundwater – Groundwater from a monitoring well in a downgradient location (MW-54) was sampled and analyzed for COCs during the RI; COCs either were not detected or were detected at concentrations less than

applicable cleanup levels for the site. However, groundwater has been observed to be in contact with soil that has been impacted by concentrations of COCs that are greater than the corresponding interim action cleanup levels.

2.1.2 Contaminants of Concern

Three COCs were identified in the former Wood Mill area during the RI that exceeded their corresponding interim action cleanup levels: 1) the sum of diesel- and lube oil-range hydrocarbons (TPH); 2) PCBs; and 3) cPAHs. Naphthalene was analyzed in the samples obtained from the area during the study, but concentrations of the analyte did not exceed the interim action cleanup level. The concentrations for each COC detected in soil samples obtained from the former Wood Mill area are provided in Table 2.1:

Table 2.1

Contaminants of Concern (COCs)					
Station Name	Depth Below Ground Surface	TPH (mg/kg)	PCBs (mg/kg)	cPAHs (mg/kg)	Naphthalene (mg/kg)
WM20	3 inches	3,380	2.78	10	4.2
WM20	3 inches to groundwater*	3,310	0.554	2.3	1.4

Note:
*The actual depth of the sample is unknown

Other contaminants in the interim action area include dioxins. Dioxins in soil were analyzed for the 17 toxic dioxin congeners during the 2003 RI and a toxicity equivalency factor (TEF) applied to the data to compare them to the tetrachloro dibenzo-p-dioxin toxicity equivalent quotient (TCDD TEQ). The TCDD TEQ concentration of the discrete soil sample obtained from station WM20 in the former Wood Mill area at a depth of approximately 3 inches bgs (2.0×10^{-4} milligrams per kilogram [mg/kg]) and of the composite soil sample obtained between approximately 3 inches bgs and groundwater (1.3×10^{-4} mg/kg) exceeded cleanup levels for the site. Dioxins are significantly less mobile than TPH and it is not the objective of this interim action to cleanup and remove soil affected by these constituents. Dioxins, therefore, are not considered COCs for this interim action.

2.2 Former Fuel Oil Tank #1

Former Fuel Oil Tank #1 is located in the southwestern portion of the site (Figure 2 and Figure 4). Fuel Tank # 1 contained bunker C oil for use as emergency fuel and startup fuel for the boilers.

2.2.1 Affected Media

Soil – Two COCs were identified in soil samples (station LY21) at concentrations greater than interim action cleanup levels in the former Fuel Oil Tank #1 area during the RI completed in the upland area of the site. Two samples were obtained from station LY21 that exceeded applicable interim action cleanup levels: 1) a discrete sample obtained from approximately 3 inches bgs; and 2) a composite sample consisting of a direct-push core sample obtained from approximately 3 inches bgs to groundwater. Additionally, physical evidence (soil staining) of petroleum contamination was observed at ground surface in the general area of the former tank.

Groundwater – Groundwater in the general vicinity of this area has not been sampled.

2.2.2 Contaminants of Concern

Sampling of soil in the former Fuel Oil Tank #1 area during the 2003 RI identified two COCs that exceeded the corresponding interim action cleanup levels: TPH and cPAHs. Naphthalene was analyzed in the samples obtained from the area during the study, but concentrations of the analyte did not exceed interim action cleanup levels. PCBs were not analyzed in samples obtained from station LY21. The range of concentrations for the COCs detected in soil samples obtained from the area are provided in Table 2.2.

Table 2.2

Contaminants of Concern (COCs)					
Station Name	Depth Below Ground Surface	TPH (mg/kg)	PCBs (mg/kg)	cPAHs (mg/kg)	Naphthalene (mg/kg)
LY21	3 inches	36,200	–	20.2	2.3
LY21	3 inches to groundwater*	20,400	–	18.4	4.7

Note:
*The actual depth of the sample is unknown:
"–" = not tested

As in the former Wood Mill area of the site, other contaminants in soil were identified in the former Fuel Oil Tank #1 area at concentrations that were greater than the corresponding interim action cleanup levels. TCDD TEQ concentrations were documented in soil samples at 1.8×10^{-3} mg/kg (3 inches bgs) and 9.0×10^{-5} mg/kg (between 3 inches bgs and groundwater); and, the concentration of lead was documented in soil at 429 mg/kg (3 inches bgs). Dioxins and lead are significantly less mobile than TPH and it is not the objective of this interim action to cleanup and remove soil affected by these constituents. Dioxins and lead, therefore, are not considered COCs for this interim action.

3.0 CLEANUP LEVELS

Chemical concentrations detected in soil samples obtained from the site in previous studies were compared to their corresponding interim action cleanup levels to establish an estimated areal extent of COCs in soil in the former Wood Mill and Fuel Oil Tank #1 areas. The cleanup levels selected for this interim action were developed and published by Ecology (WAC 173-340). The cleanup levels represent the concentration of COCs that are protective of human health and the environment for identified potential exposure pathways, based on the highest beneficial use and the reasonable maximum exposure for each affected media. Potential exposure pathways and exposure scenarios are described in the draft report entitled, *Remedial Investigation for the Uplands Environment of the Former Rayonier Mill Site*, dated January 2006 (Integral Consulting, Inc.).

Soil cleanup levels selected for this interim action are as follows:

Table 3.1

Interim Action Cleanup Levels		
Contaminant of Concern	Soil Cleanup Level (mg/kg)	Reference
The sum of diesel- and lube oil-range hydrocarbons (TPH)	2,000	MTCA Method A for unrestricted land use
PCBs	0.5	MTCA Method B for unrestricted land use
cPAHs	0.14	MTCA Method B for unrestricted land use
Naphthalene	1,600	MTCA Method B for unrestricted land use

4.0 INTERIM ACTIONS

4.1 INTERIM ACTION OBJECTIVE

The objective of this interim action is to remove soils containing concentrations of TPH and associated compounds (PCBs, cPAHs and naphthalene) that are greater than the corresponding interim action cleanup levels from the former Wood Mill and Fuel Oil Tank #1 areas of the site. Although other contaminants have been documented in these areas at concentrations of regulatory significance, the objective of this interim action is the removal of soil with characteristically mobile contaminants, specifically TPH and those compounds associated with TPH. The extent of soil removal in the former Wood Mill and Fuel Oil Tank #1 areas will be based upon COCs and their corresponding interim action cleanup levels.

4.2 INTERIM ACTION APPROACH

This approach addresses the remediation of COCs through the excavation of soil and debris in the former Wood Mill and Fuel Oil Tank #1 areas of the site. Soil and debris removed from these areas would be transferred to the City of Port Angeles Sanitary Landfill (City Landfill) where debris removed from the site would be placed in a subsurface disposal cell, compacted to reduce its volume, and covered with soil. Soil removed from the site would be placed in the lower portion of the upper soil cap at the landfill and under the soil and membrane layers when the landfill is closed in the latter portion of 2006. Contaminant concentrations in soil that have been found within the two areas are acceptable to representatives of the City for disposal at the municipal landfill.

4.2.1 Notify Utilities Underground Location Center

Coordinate with the excavation contractor to contact the Underground Utilities Location Center ("one call") to locate and mark underground utilities in public right-of-ways in the area. Review available site drawings with the Owner's representative to identify underground utilities at the site. Arrange for a private locating service to locate and mark any underground utilities not marked by the one call service and for the City of Port Angeles to locate their pressurized sewer line that crosses the former mill site.

4.2.2 Mobilization and Setup

Mobilization and setup for this interim action will include supplies, personnel and equipment necessary to excavate, dewater, stockpile, load and haul COC-affected soil from the site. Designated areas will be setup for an exclusion zone, decontamination zone and a clean zone in accordance with the attached Health and Safety Plan (see Appendix A). Additionally, a designated truck loading area will be setup for the controlled loading of soil for transport to the City Landfill. Loose soil on the exterior of the trucks will be removed prior to leaving the truck loading area to reduce the likelihood of cross-contamination of non COC-affected areas of the site. Excavated soil and/or debris not directly loaded into trucks will be stockpiled at the site in bermed and visqueen-lined stockpile areas for storage. Pumps and hoses will be available at the site in the event that water removal from the base of the excavation is necessary. Oil-spill cleanup materials will be on site for unanticipated oil releases from vehicles and/or equipment at the site. The site currently has permanent chain-link fencing erected between Rayonier's property and publicly accessible areas outside the property boundaries of the site. This fencing will serve as barrier to prevent casual access to excavation areas at the site during this interim action.

4.2.3 Excavation of Contaminated Soil

A tracked excavator will be used to remove soil in the two excavation areas at the site. Based on chemical analysis of soil samples obtained from station WM20 during the 2003 RI completed by Integral Consulting, Inc. (Integral) of Mercer Island, Washington, COC-affected soil will be removed to the depth of groundwater. Groundwater has been observed between approximately 5- and 12-feet bgs at the site.

The vertical and lateral limits of excavation will be based upon visual and sheen screening (water sheen testing) results. Soil samples will be obtained for chemical analysis in an on-site mobile lab to confirm the field screening observations.

4.2.4 Excavation Dewatering

If dewatering is required, a temporary sump will be constructed in the excavation for the removal of groundwater. The groundwater will be pumped to an on-site tank(s) for possible treatment prior to transport to the City of Port Angeles' publicly-owned treatment works (POTW).

4.2.5 Backfilling

After the excavation has been completed and adequately documented with results of performance monitoring samples, the excavation will be backfilled. Quarry rock, or equivalent, will be placed at the base of the excavation below groundwater. Compactable backfill material will then be added in approximately 1-foot thick lifts and compacted with a vibratory roller until the excavation has been backfilled to match the surrounding grade. Compaction testing will *not* be performed during the placement and compaction of backfill materials within the excavation. Once completed, the area should *not* be considered to have been backfilled and compacted to the meet the requirements of an engineered structural fill.

4.2.6 Waste Handling

Soil removed from the excavation above the water table either will be loaded directly into trucks for transport to the City Landfill or temporarily stockpiled on site in a bermed area until loaded onto trucks for transport to the City Landfill. If rain is anticipated, the soil stockpile will be covered with plastic sheeting.

Soil removed from the excavation below the water table either will be placed upon previously excavated drier soil or will be transferred via truck to a sealed blacktop storage area on the site that will control any free water present in the soil. The soil will be loaded onto trucks for transfer to the City Landfill after it has been sufficiently dewatered and/or mixed with drier soils.

Water removed from the excavation during dewatering will be conveyed for storage to one or more of Rayonier's on-site 144,000-gallon capacity storage tank(s). Upon conclusion of excavation and dewatering activities at the site, the water will be transferred to the City of Port Angeles' POTW for treatment. The water will be sampled and analyzed as per the City's requirements prior to transfer to the POTW.

Concrete, metal and wood debris removed during excavation activities for this interim action will be transferred to the City Landfill where it will be buried in a subsurface cell, compacted to reduce its volume, and covered with soil. Plastic sheeting, ordinary trash and personal protection equipment (PPE) used at the site also will be sent to the City Landfill for disposal.

5.0 SAMPLING AND ANALYSIS

The objective of the sampling and analysis is to confirm that concentrations of COCs at the final limits of the two excavations are less than site cleanup levels. Chemical analytical data will be compared to interim action cleanup levels that are presented in Table 3.1 in Section 3.0 of this work plan.

Other contaminants in soil (dioxins and lead) that have been previously documented in soils within the footprint of the proposed excavation areas will be further characterized to evaluate soil conditions following soil excavation and removal. These soil samples will be collected for characterization purposes only and will not be used to dictate the extent of soil excavation.

5.1 SAMPLING LOCATIONS AND LABORATORY ANALYSES

Sampling locations (frequency) and laboratory analyses for the COCs in this interim action are summarized in Table 5.1.1 below. Table 5.1.2 summarizes the sampling locations and laboratory analyses for other contaminants at the site.

Table 5.1.1

Sampling Locations And Laboratory Analyses (COCs) In Former Wood Mill and Fuel Oil Tank #1 Areas		
Description	**Chemical Analyses**	**Sample Frequency**
Excavation Base and Sidewalls	TPH by NWTPH-Dx PCBs by EPA 8082 cPAHs by EPA 8270C SIM Naphthalene by EPA 8270C SIM	One discrete sample spaced approximately 40-foot on center (staggered). Soil samples will be obtained from locations representative of unexcavated soil.

Table 5.1.2

Sampling Locations And Laboratory Analyses (other contaminants)			
	Chemical Analyses		
Description	**Former Wood Mill Area**	**Former Fuel Oil Tank #1 Area**	**Sample Frequency**
Excavation Base	Dioxins by EPA 1613B	Dioxins by EPA 1613B Lead by EPA 6020	Minimum of one base sample from each of the two excavation areas.

5.1.1 Former Wood Mill Confirmation Sampling

Confirmation soil sampling will be completed to characterize soil conditions for COCs at the final limits of excavation in the former Wood Mill area. Soil samples will be obtained from the base of the excavation at an approximately 40-foot staggered spacing interval. Approximately 11 soil samples will be collected from the base for chemical analysis from an estimated excavation area of approximately 110 feet long by 75 feet wide. Approximately 12 soil samples will be obtained from the sidewalls of the excavation at a spacing interval of approximately 40 feet in the estimated 15-foot deep excavation. Each of the samples from the former Wood Mill area will be submitted for chemical analysis as shown in Table 5.1.1 above.

Additional chemical analytical testing for other (low-mobility) potential contaminants in soil will be completed in the former Wood Mill area as shown in Table 5.1.2 above. A minimum of one sample will be obtained at the base of the excavation directly beneath the former soil sample location WM20.

5.1.2 Former Fuel Oil Tank #1 Confirmation Sampling

Confirmation soil sampling will be completed to characterize soil conditions for COCs at the final limits of excavation in the former Fuel Oil Tank #1 area in a similar manner, location and frequency as summarized in Section 5.1.1 above. Approximately 5 soil samples will be collected from the base of the excavation area of approximately 100 feet in diameter beneath the former Fuel Oil Tank #1. Approximately 8 soil samples will be obtained from the sidewalls of the estimated 12-foot deep excavation. Each of the samples from the former Fuel Oil Tank #1 area will be submitted for chemical analysis of COCs as shown in Table 5.1.1 above.

Additional chemical analytical testing for other (low-mobility) potential contaminants in soil will be completed in the former Fuel Oil Tank #1 area as shown in Table 5.1.2 above. A minimum of one sample will be obtained at the base of the excavation directly beneath the former soil sample location LY21.

5.1. WASTEWATER SAMPLING

Wastewater generated as a result of excavation dewatering or equipment decontamination will be sampled and analyzed to meet City disposal characterization requirements. Water will be transferred to the City's POTW upon receiving authorization from City representatives.

5.2 FIELD SAMPLING METHODS AND PROCEDURES

5.2.1 Decontamination Procedures

Reusable sampling/monitoring equipment (trowels, shovels, etc.) that comes in contact with soil and/or groundwater will be decontaminated before each use. Decontamination procedures for this equipment will consist of the following: 1) wash with non-phosphate detergent solution (Liquinox and distilled water); 2) rinse with distilled water; and 3) place the decontaminated equipment on clean plastic sheeting or in a plastic bag. Field personnel will limit cross-contamination by changing gloves between samples. Wash water used to decontaminate the sampling equipment will be stored on-site in labeled 55-gallon drums for subsequent transfer into on-site tanks where groundwater removed during excavation activities is stored.

5.2.2 Soil Sampling

Soil samples will be collected using a backhoe, a track-mounted excavator bucket or by hand directly from the excavation limits. Discrete soil samples will be obtained by hand using a decontaminated stainless steel sampling spoon. In general, the samples will be obtained from undisturbed soil located approximately 3 inches to 6 inches into undisturbed soil in the sidewalls or base of the excavation. Each sample location will be mapped.

A portion of each sample will be retained for logging and field screening and selected samples will be submitted for chemical analysis. EPA- and Ecology-recommended sample handling procedures will be followed including, but not limited to: immediately placing soil samples in 4- or 8-ounce laboratory-prepared glass sample containers; filling each 4- or 8-ounce container completely to minimize headspace; placing soil in a 40-mL vial containing a laboratory pre-weighed volume of methanol; and/or placing the sample containers in labeled and iced coolers during transport to the laboratory. Chain of custody procedures will be followed during sample storage and in transport to the testing laboratory. Field records indicating the sample identification and the origin of the sample will be maintained.

5.2.3 Sample Designation

Soil samples obtained from the excavation will be given unique names and those names recorded in the soil sample log. The following example demonstrates the sample designation strategy: for soil sample WM-EX-1-[04-21-06]-8, **"WM"** refers to a sample obtained in the former *Wood Mill* area; **"EX"** designates it as an *excavation* sample; **"1"** denotes it as the *first* sample in the excavation area; **"[04-27-06]"** indicates the sample was obtained on *April 27, 2006*; and **"8"** refers to the *depth (in feet) below ground surface* that the sample was obtained.

5.2.4 Sample Containers and Preservation

Table 5.2.4 below summarizes the sample containers, preservation method and holding time associated with each analysis anticipated during this interim action.

Table 5.2.4

Sample Containers And Preservation

Analysis Type	Method	Matrix	Sample Container	Preservative	Holding Time
TPH	NWTPH-Dx	Water	4 oz. Soil Jar	Cool 4° C	28 Days to Extract
TPH	NWTPH-Dx	Soil	4 oz. Soil Jar	Cool 4° C	28 Days to Extract
Metals	SW-846 6020	Water	500 ml HDPE	HNO_3 - pH<2	6 Months
Metals	SW-846 6020	Soil	4 oz. Soil Jar	Cool 4° C	6 Months
PCBs	SW-846 8082	Water	125 ml Amber B.R.	Cool 4° C	7 Days to Extract
PCBs	SW-846 8082	Soil	4 oz. Soil Jar	Cool 4° C	14 Days to Extract
SVOCs	SW-846 8270C SIM	Water	1 Liter Amber B.R.	Cool 4° C	7 Days to Extract
SVOCs	SW-846 8270C SIM	Soil	4 oz. Soil Jar	Cool 4° C	14 Days to Extract
Dioxins/Furans	EPA Method 1613B	Water	1 Liter Amber, Teflon®-lined cap	Cool 4° C 0.008% $Na_2S_2O_3$	30 Days to Extract 45 Days After Extraction
Dioxins/Furans	EPA Method 1613B	Soil	4 oz. Soil Jar, Teflon®-lined cap	Cool 4° C 0.008% $Na_2S_2O_3$	30 Days to Extract 45 Days After Extraction

5.2.5 Sample Packaging and Shipping

For samples that are analyzed at a non-local analytical laboratory, the samples will be transported and delivered in coolers. Field personnel will transport and deliver samples that are being submitted to a local laboratory for analysis. Samples that are being submitted to an out-of-town laboratory for analysis will be placed in a cooler with protective material (bubble wrap, matting or similar material) to prevent breakage. Reusable cold packs will be placed over the top of the samples to keep the samples cool. An original chain of custody, placed in a plastic zip-loc type bag, will accompany each cooler with an inventory of each sample within the cooler. The cooler will be transported by a commercial express mailing service on an overnight basis. The field coordinator will monitor that the cooler has been properly secured using clear plastic tape and custody seals.

The sample shipment will be sent via overnight express service that can guarantee overnight delivery.

5.3 QA/QC REQUIREMENTS

Throughout the project, environmental measurements will be conducted to produce data that are scientifically valid, of known and acceptable quality, and meet established objectives. Quality assurance/quality control (QA/QC) procedures will be implemented so that precision, accuracy, representativeness, completeness, and comparability (PARCC) of all data generated meet the specified data quality objectives.

5.3.1 Data Quality Objectives

The QA goal for this project is to collect environmental monitoring data of known, acceptable, and documentable quality. The QA objectives established for the project to meet this goal are to:

- Implement the procedures outlined herein for field sampling, sample custody, equipment operation and calibration, laboratory analysis, and data reporting that will facilitate consistency and thoroughness of data generated.
- Achieve the acceptable level of confidence and quality required so that all data generated are scientifically valid and of known and documented quality. This will be accomplished by establishing criteria for PARCC and by evaluating data against these criteria.

Specific data quality objectives (DQOs) to evaluate data quality and usability are provided in the sections below. These QA objectives will be used during the following two stages of this interim action:

- Project Implementation - to act as a guide for quality assurance reviews and as the specifications for assessing the quality of data generated.
- Project Completion - to serve as a basis for determining whether the project has attained established goals.

Soil and water quality QA/QC control limits were obtained from the proposed Ecology certified analytical laboratories. The proposed laboratories are Libby Environmental, LLC of Olympia, Washington and Columbia Analytical Services, Inc. of Houston, Texas.

5.3.1.1 Analytes and Matrices of Concern

Soil samples will be obtained for chemical analysis during this interim action. Tables 5.1.1 and 5.1.2 summarize the sample analytes to be tested for at each study area at the site. The COCs will be analyzed using the analytical methods presented in Table 5.3.1.2.

5.3.1.2 Detection Limits

All analytical methods have quantitative limitations at a given statistical level of confidence that is often expressed as the method detection limit (MDL). Individual instruments often can detect but not accurately quantify compounds at lower concentrations than the MDL, referred to as the instrument detection limit (IDL). Although results reported near the MDL or IDL provide insight to site conditions, quality assurance dictates that analytical methods achieve a consistently reliable level of detection known as the practical quantitation limit (PQL).

The soil and water PQLs presented in Table 5.3.1.2 for each analyte were provided by the proposed laboratories and are at or below their respective MTCA cleanup levels.

Table 5.3.1.2

TARGET DETECTION LIMITS						
			Soil		Water	
Analysis Type	Analyte	Method	PQL	Units	PQL	Units
TPH	Diesel-Range	NWTPH-Dx	20	mg/kg	0.200	mg/l
TPH	Lube Oil-Range	NWTPH-Dx	40	mg/kg	0.400	mg/l
Metals	Lead	SW-846 6020	1.0	mg/kg	0.001	mg/l
PCBs	Arochlor-1016	SW-846 8082	100	µg/kg	0.1	µg/l
PCBs	Arochlor-1221	SW-846 8082	100	µg/kg	0.1	µg/l
PCBs	Arochlor-1232	SW-846 8082	100	µg/kg	0.1	µg/l
PCBs	Arochlor-1242	SW-846 8082	100	µg/kg	0.1	µg/l
PCBs	Arochlor-1248	SW-846 8082	100	µg/kg	0.1	µg/l
PCBs	Arochlor-1254	SW-846 8082	100	µg/kg	0.1	µg/l
PCBs	Arochlor-1260	SW-846 8082	100	µg/kg	0.1	µg/l
SVOCs	Benzo(a)anthracene	SW-846 8270C SIM	5.0	µg/kg	0.1	µg/l
SVOCs	Benzo(a)pyrene	SW-846 8270C SIM	5.0	µg/kg	0.1	µg/l
SVOCs	Benzo(b)fluoranthene	SW-846 8270C SIM	5.0	µg/kg	0.1	µg/l
SVOCs	Benzo(k)fluoranthene	SW-846 8270C SIM	5.0	µg/kg	0.1	µg/l
SVOCs	Chrysene	SW-846 8270C SIM	5.0	µg/kg	0.1	µg/l
SVOCs	Dibenz(a,h)anthracene	SW-846 8270C SIM	5.0	µg/kg	0.1	µg/l
SVOCs	Indeno(1,2,3-cd)pyrene	SW-846 8270C SIM	5.0	µg/kg	0.1	µg/l
SVOCs	Naphthalene	SW-846 8270C SIM	5.0	µg/kg	0.1	µg/l
Dioxins/Furans	2378-TCDD	EPA Method 1613B	2.5	ng/kg	25	pg/l
Dioxins/Furans	12378-PeCDD	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	123478-HxCDD	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	123478-HxCDD	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	123789-HxCDD	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	1234678-HpCDD	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	OCDD	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	2378-TCDF	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	12378-PeCDF	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	23478-PeCDF	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	123678-HxCDF	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	123789-HxCDF	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	123478-HxCDF	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	234678-HxCDF	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	1234678-HpCDF	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	1234789-HpCDF	EPA Method 1613B	5.0	ng/kg	50	pg/l
Dioxins/Furans	OCDF	EPA Method 1613B	10.0	ng/kg	100	pg/l

Notes:

mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
ng/kg = nanograms per kilogram
mg/l = milligrams per liter
µg/l = micrograms per liter
pg/l = picograms per liter

5.3.1.3 Precision

Precision measures the reproducibility of measurements under a given set of conditions and applies to field duplicate or split samples, replicate analyses, and duplicate spiked environmental samples (matrix spike duplicates). The closer the measured values are to each other, the more precise the measurement process. In general, exceedence of precision goals indicates poor consistency between results. Precision error may also affect data usefulness. Good precision gives relative consistency and comparability between different samples. Precision will be expressed as the relative percent difference (RPD) between analyte concentrations in the two samples being evaluated. RPD is calculated by:

$$RPD\,(\%) = \frac{|D_1 - D_2|}{(D_1 + D_2)/2} X\ 100,$$

Where

D1 = Concentration of analyte in sample.

D2 = Concentration of analyte in duplicate sample.

The RPD will be compared to the criteria presented in Table 5.3.1.3. Persons performing the evaluation must review one or more pertinent documents (EPA, 1999 or EPA, 2002) that address criteria exceedances and courses of action.

Table 5.3.1.3

RELATIVE PERCENT DIFFERENCE (RPD) CRITERIA[1]				
			RPD Limits	
Analysis Type	Analyte	Method	Water	Soil
TPH	Diesel-Range	NWTPH-Dx	<35	<35
TPH	Lube Oil-Range	NWTPH-Dx	<35	<35
Metals	Lead	SW-846 6020	<20	<20
PCBs	Arochlor-1016	SW-846 8082	<20	<20
PCBs	Arochlor-1221	SW-846 8082	<20	<20
PCBs	Arochlor-1232	SW-846 8082	<20	<20
PCBs	Arochlor-1242	SW-846 8082	<20	<20
PCBs	Arochlor-1248	SW-846 8082	<20	<20
PCBs	Arochlor-1254	SW-846 8082	<20	<20
PCBs	Arochlor-1260	SW-846 8082	<20	<20
SVOCs	Benzo(a)anthracene	SW-846 8270C SIM	<20	<20
SVOCs	Benzo(a)pyrene	SW-846 8270C SIM	<20	<20
SVOCs	Benzo(b)fluoranthene	SW-846 8270C SIM	<20	<20
SVOCs	Benzo(k)fluoranthene	SW-846 8270C SIM	<20	<20
SVOCs	Chrysene	SW-846 8270C SIM	<20	<20
SVOCs	Dibenz(a,h)anthracene	SW-846 8270C SIM	<20	<20
SVOCs	Indeno (1,2,3-cd)pyrene	SW-846 8270C SIM	<20	<20
SVOCs	Naphthalene	SW-846 8270C SIM	<20	<20
Dioxins/Furans	2378-TCDD	EPA Method 1613B	≤50	≤50
Dioxins/Furans	12378-PeCDD	EPA Method 1613B	≤50	≤50
Dioxins/Furans	123678-HxCDD	EPA Method 1613B	≤50	≤50
Dioxins/Furans	123478-HxCDD	EPA Method 1613B	≤50	≤50
Dioxins/Furans	123789-HxCDD	EPA Method 1613B	≤50	≤50
Dioxins/Furans	1234678-HpCDD	EPA Method 1613B	≤50	≤50
Dioxins/Furans	OCDD	EPA Method 1613B	≤50	≤50
Dioxins/Furans	2378-TCDF	EPA Method 1613B	≤50	≤50
Dioxins/Furans	12378-PeCDF	EPA Method 1613B	≤50	≤50
Dioxins/Furans	23478-PeCDF	EPA Method 1613B	≤50	≤50
Dioxins/Furans	123678-HxCDF	EPA Method 1613B	≤50	≤50
Dioxins/Furans	123789-HxCDF	EPA Method 1613B	≤50	≤50
Dioxins/Furans	123478-HxCDF	EPA Method 1613B	≤50	≤50
Dioxins/Furans	234678-HxCDF	EPA Method 1613B	≤50	≤50
Dioxins/Furans	1234678-HpCDF	EPA Method 1613B	≤50	≤50
Dioxins/Furans	1234789-HpCDF	EPA Method 1613B	≤50	≤50
Dioxins/Furans	OCDF	EPA Method 1613B	≤50	≤50

Notes:
[1] Applies to replicates, matrix spike duplicates, and laboratory control spike (blank spike) duplicates

5.3.1.4 Accuracy

Accuracy measures the closeness of the measured value to the true value and is a measure of bias in the analytic process. The closer the measurement value is to the true value, the greater the accuracy. Accuracy is often measured with the addition of a known compound to a sample. The amount of known compound reported in the sample and the percent recovery assist in determining the performance of the analytical system in correctly quantifying the compounds of interest. Since most environmental data collected represent one point spatially and temporally rather than an average of values, accuracy plays a greater role than precision in assessing the results. In general, if the percent recovery is low, non-detect results may indicate that compounds of interest are not present when in fact these compounds are present. Detected compounds may be biased low or reported at a value less than actual environmental conditions. The reverse is true when percent recoveries are high. Non-detect values are considered accurate while detected results may be higher than the true value.

Accuracy will be expressed as the percent recovery of a surrogate compound (also know as "system monitoring compound"), a matrix spike result, or from a standard reference material where:

$$Recovery = \frac{Sample\ Result}{Spike\ Amount} X\ 100$$

5.3.1.5 Representativeness, Completeness and Comparability

Representativeness expresses the degree to which data accurately and precisely represent the actual site conditions. The determination of the representativeness of the data will be performed by completing the following:

- Comparing actual sampling procedures to those delineated within this interim work plan.
- Comparing analytical results of field duplicates to determine the variations in the analytical results.
- Invalidating non-representative data or identifying data to be classified as questionable or qualitative. Only representative data will be used in subsequent data reduction, validation, and reporting activities.

Completeness establishes if a sufficient amount of valid measurements were obtained to meet project objectives. The number of samples and results expected establishes the comparative basis for completeness. Completeness goals are 90% useable data for all samples/analyses planned. If the completeness goal is not achieved an evaluation will be made to determine if the data is adequate to meet study objectives. The anticipated frequency of samples and analytes are presented in Table 5.1.

Comparability expresses the confidence with which one set of data can be compared to another. The use of standard techniques for both sample collection and laboratory analysis should allow the data to be compared to other data sets. Although numeric goals do not exist for comparability, a statement on comparability will be prepared to determine overall usefulness of data sets, following the determination of both precision and accuracy.

5.3.2 Field Quality Control

Field QC samples serve as a control and check mechanism to monitor the consistency of sampling methods and the influence of off-site factors on environmental samples. Field quality control will be checked through the use of equipment rinsates samples and field duplicate samples.

5.3.2.1 Equipment Rinsates

Equipment rinsates indicate if sampling equipment decontamination procedures are performed adequately between adjacent sampling locations. If equipment is not thoroughly cleaned between samples, then cross contamination may occur. One equipment rinsate of a commonly used sampling apparatus, such as a

sampling spoon, will be collected during this interim action in each of the two interim action areas at the site. The rinsate will be collected after cleaning and decontamination of the sampling apparatus under normal operating conditions. Collection of a rinsate sample will be conducted by pouring purified water over the apparatus and into the sample containers.

5.3.2.2 Field Duplicates

In addition to replicate analyses performed in the laboratory, field duplicates also serve as measures for precision. Under ideal field conditions, field duplicates (referred to as splits), are created when a volume of the sample matrix is thoroughly mixed, placed in separate containers, and identified as different samples. This tests both the precision and consistency of laboratory analytical procedures and methods, and the consistency of the sampling techniques used by field personnel.

One field duplicate (approximately 5% of total number of samples) will be collected during this interim action in each of the two interim action areas at the site.

6.0 DOCUMENTATION

Field documentation provides important information surrounding project activities. The following methods will be used to record project-related events during this interim action: site logbooks; photographs; sample logs; sample labels; custody seals; and chain-of-custody forms.

6.1 Site Logbooks

All field personnel will maintain daily field logs while on-site. The field logs will be prepared in a bound logbook. All entries in the field logs will be made in waterproof ink and corrections will consist of line-out deletions that are initialed and dated. Individual logbooks will become part of the project files at the conclusion of this interim action.

Entries into the logbook will consist of, but be not limited to: dates, times and locations of specific activities occurring at the site; weather; team members and their responsibilities; levels of safety protection; visitors to the site; summary of pertinent meetings or discussions with regulatory agency and/or contractor personnel; deviations from sampling plans, site safety plans, and/or QA/QC procedures; changes in personnel and responsibilities with reasons for the changes; and calibration readings for any equipment used and equipment model and serial number.

6.2 Photographs

Digital photographs will be taken to record progress throughout the interim action. These photos will be stored in the project file and available for future reference.

Select photographs will be taken to record significant events or specific areas of interest during the interim action. These photos will be logged into a photographic log in which the date, time, location, description of photograph and name of the photographer will be recorded.

6.3 Sample Summary Logs

A sample summary log will be maintained by the field representative to record pertinent to the collection of each sample. The sample summary logs will become part of the project files at the conclusion of this interim action.

At a minimum, the following information will be recorded during the collection of each sample:

- Sample location and description
- Site or sampling area sketch showing sample location and measured distances

- Sampler's name(s)
- Date and time of sample collection
- Designation of sample as composite or discrete
- Type of sample (soil, sediment or water)
- Type of sampling equipment used
- Field instrument readings
- Field observations and details that are pertinent to the integrity/condition of the samples (e.g., weather conditions, performance of the sampling equipment, sample depth control, sample disturbance, etc.)
- Preliminary sample descriptions (e.g., lithologies, noticeable odors, colors, field screening results)
- Sample preservation

6.4 SAMPLE LABELS

All sample containers will be labeled with the following information at the time of collection: 1) project name and number; 2) sample name, which will include a reference to depth, if appropriate; and 3) date and time of collection.

6.5 CUSTODY SEALS

Chain of custody seals are used to detect tampering with sample shipping containers. The custody seals will be used when a sample cooler is sent by courier or shipping service to the testing laboratory. Two custody seals will be signed, dated and placed on the cooler in a manner that opening the cooler will destroy the seals. Transparent tape will be placed over the top of the seal such that the tape encircles the cooler at the hinges.

6.6 CHAIN-OF-CUSTODY FORMS

Field personnel are responsible for the security of samples from the time the samples are taken until the samples have been received by the shipper or laboratory. A chain of custody form will be completed at the end of each field day for all samples being shipped to the laboratory. Information to be recorded on the chain of custody form includes:

- Project name and number.
- Sample identification number.
- Date and time of sampling.
- Type of sample (soil, water, etc.) and number of containers from each sampling point, including preservatives used.
- Depth of subsurface soil sample.
- Analyses to be performed.
- Names of sampling personnel and transfer of custody acknowledgment spaces.
- Shipping information including shipping container number.

The original chain of custody record will be signed by a member of the field team and assigned a unique tracking number. This number shall consist of the date and numbered sequentially for each chain of custody completed during the field investigation. Field personnel shall retain carbon copies and place the original and remaining copies in a plastic bag, which will be placed inside the cooler prior to sealing the container for shipment. This record will accompany the samples during transit by carrier to the laboratory.

6.7 SITE-SPECIFIC DOCUMENTATION

Site-specific documentation will be maintained during this interim action and will include the following:

- Daily field reports
- Soil volumes removed from each area of the site
- Tipping receipts from each disposal facility
- Chemical analytical results to document soil conditions at the site
- Site plan detailing limits of excavation and soil sample locations
- Dewatering activities
- Volume of imported materials (backfill) to the site
- Backfill placement and compaction data
- Daily drawings showing areal extent of excavation progress including soil sample locations

7.0 REPORTING

An Interim Action Report will be prepared to summarize the field activities, final limits of excavation, soil disposal documentation, soil sample locations, chemical analytical results and conclusions/recommendations regarding the interim action.

8.0 SCHEDULE

Soil excavation is anticipated during the summer of 2006. On-site remedial actions are expected to take approximately three weeks to complete.

9.0 REFERENCES

Integral Consulting, Inc., January 2006, Remedial Investigation for the Uplands Environment of the Former Rayonier Mill Site.

Foster Wheeler, June 2002, Volume IV: Interim Action Work Plan – Final, Former Rayonier Pulp Mill Site, Port Angeles, Washington.

Washington State Department of Ecology, February 2001, Model toxics control act — cleanup

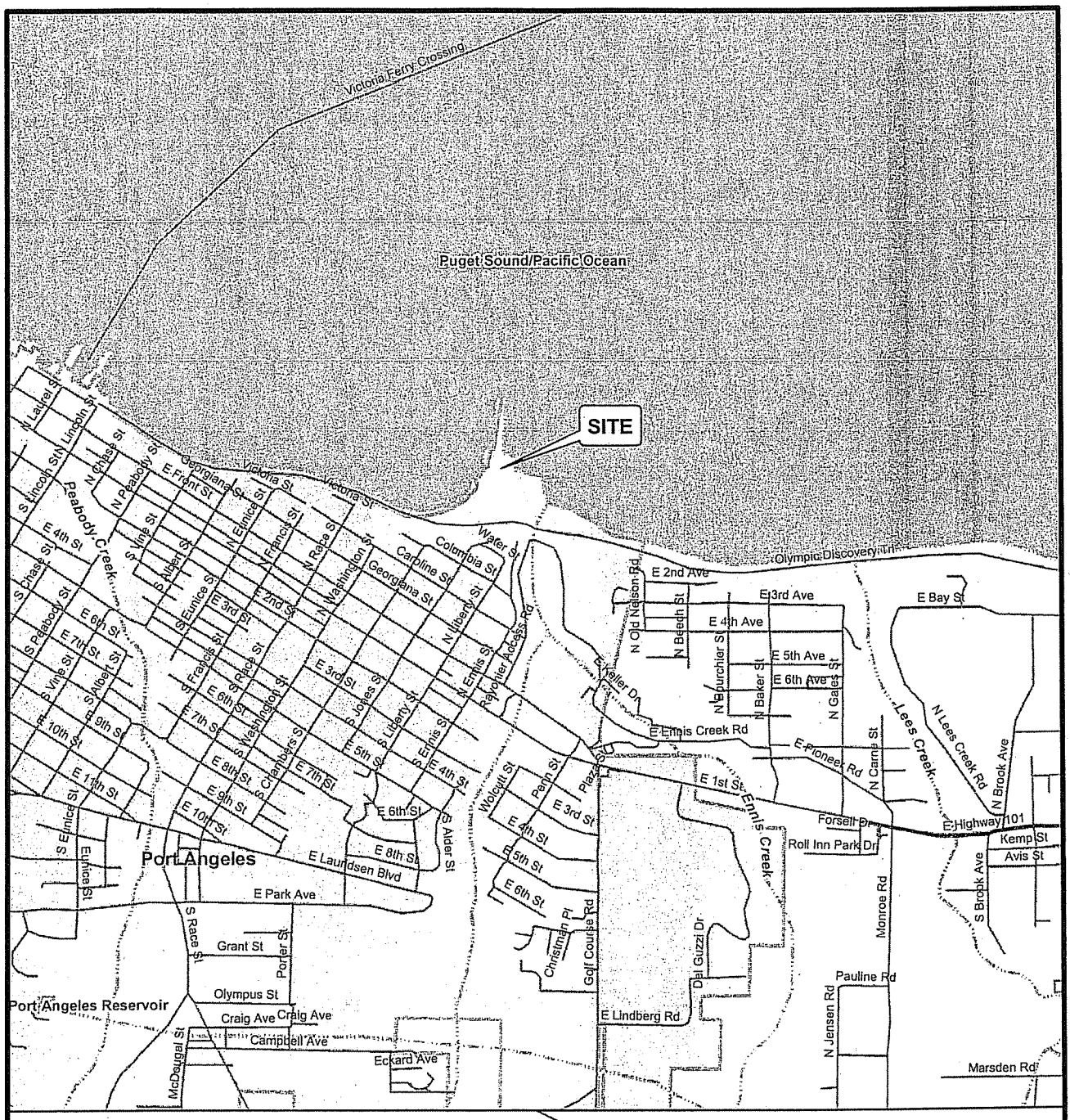
Chapter 173-340 WAC.

United States Environmental Protection Agency, October 1997, Protection of Archaeological Resources, 43 CFR 7

United States Environmental Protection Agency, February 1977, Endangered and Threatened Wildlife And Plants, 50 CFR 17

EPA, 1999. USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review. EPA 540/R-99/008. October 1999.

EPA, 2002. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. EPA 540-R-01-008. July 2002.



RAYONIER'S FORMER MILL SITE
PORT ANGELES, WASHINGTON

All locations are approximate.

0 1,000 2,000 Feet

Lambert Conformal Conic
Washington State Plane North
North American Datum 1983

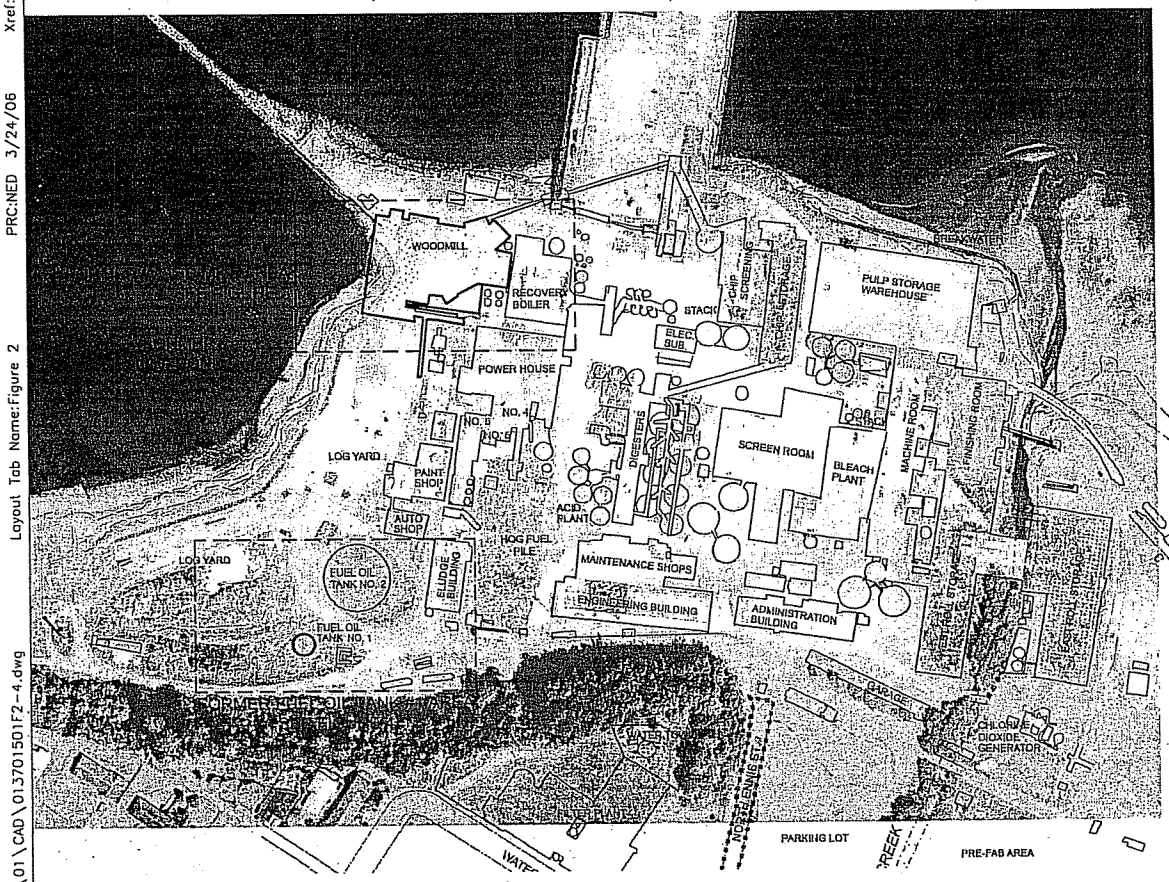
Data Sources: Interstates, state routes, and roads from TIGER 2000.
County boundaries, cities, and waterbodies from Department of Ecology.

GeoEngineers

VICINITY MAP

FIGURE 1

Office: REDM Path: P:\0137\015\01\CAD\0137-015-01_VM_Fig1.mxd Map Revised: March 23, 2006 PRC:maa



Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

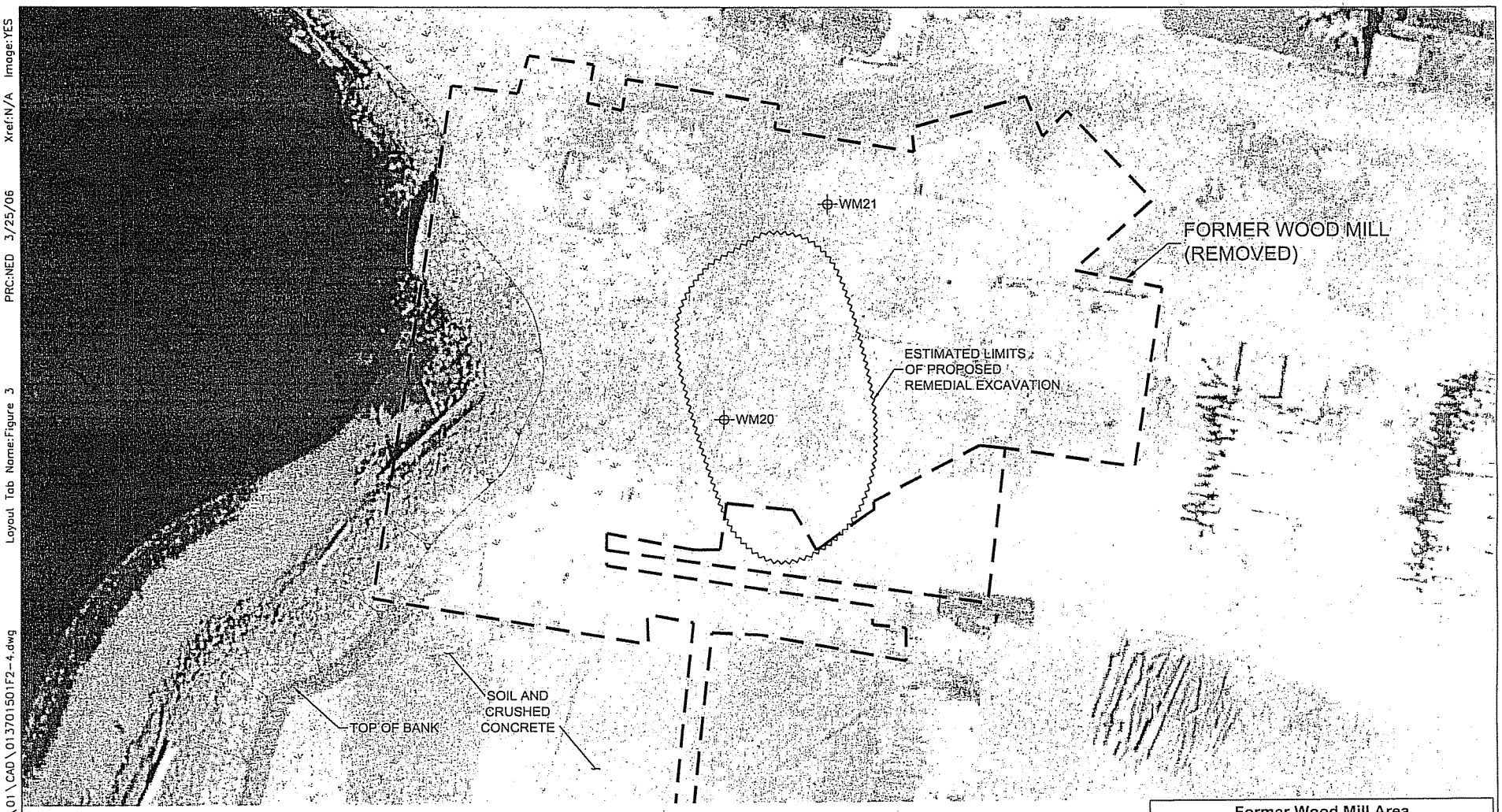
Reference: Figure 2-3, Primary Site facilities During Active Operation, by Integral Consulting Inc., dated January 2006.
Aerial Photo from TerraserverUSA.com, Port Angeles, WA by USGS, dated September 1994.

General Site Plan

Rayonier/Port Angeles Mill
Port Angeles, Washington

GeoEngineers

Figure 2



Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Figure 2-3, Primary Site facilities During Active Operation, by Integral Consulting Inc., dated January 2006.

Legend:

WM20 REMEDIAL INVESTIGATION SAMPLE LOCATION

N W E S

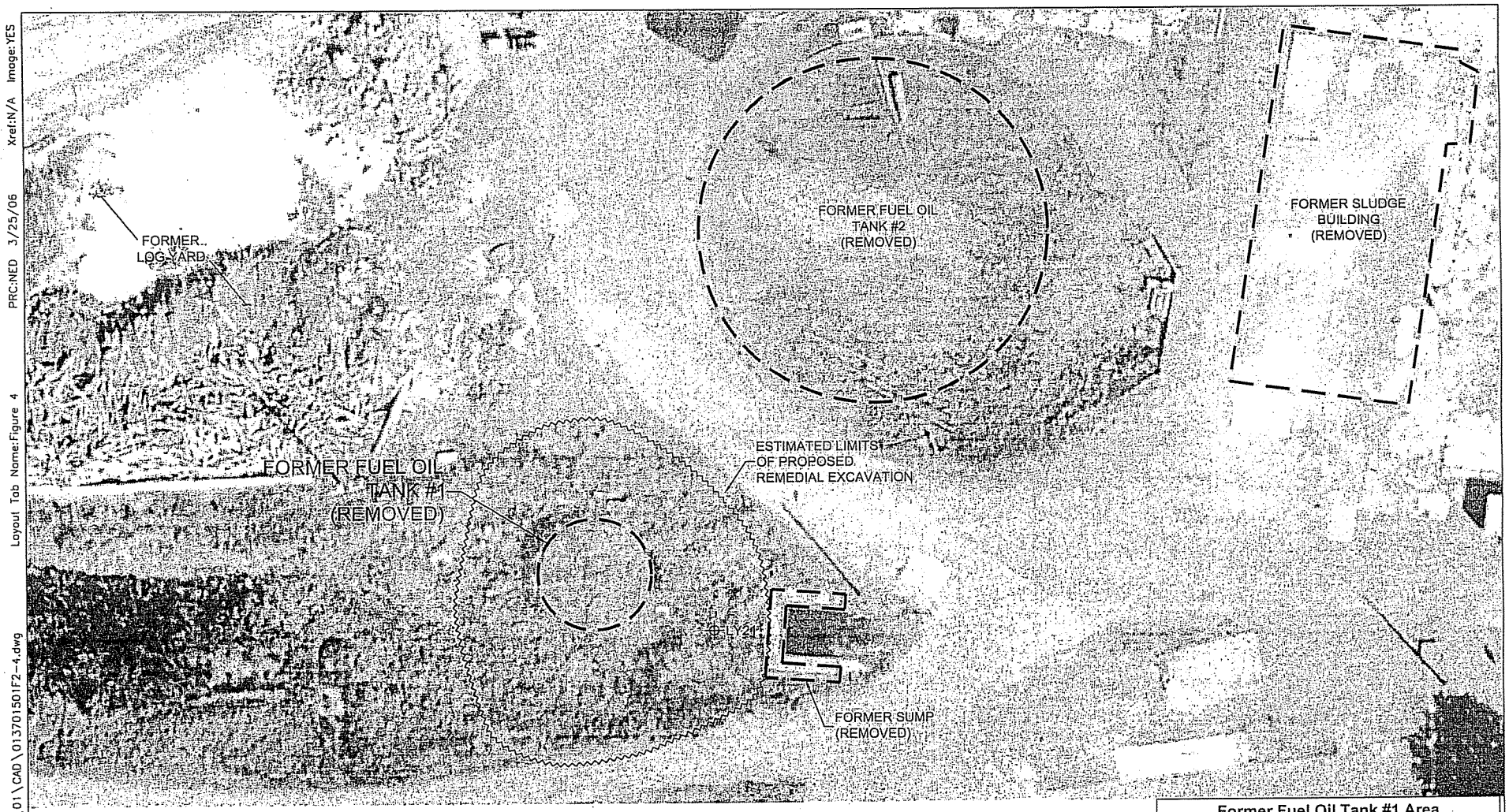
30 0 30
FEET

Former Wood Mill Area

Rayonier/Port Angeles Mill
Port Angeles, Washington

GeoEngineers

Figure 3



REDM\P:\ 0137015\01\CAD\01370150IF2-4.dwg Layout Tab Name:Figure 4 PRC:NED 3/25/06 Xref:N/A Image:YES

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Figure 2-3, Primary Site facilities During Active Operation, by Integral Consulting Inc., dated January 2006.

Legend:

LY21 REMEDIAL INVESTIGATION SAMPLE LOCATION

N W E S

30 0 30
FEET

Former Fuel Oil Tank #1 Area

Rayonier/Port Angeles Mill
Port Angeles, Washington

GeoEngineers

Figure 4

GeoEngineers

APPENDIX A
HEALTH AND SAFETY PLAN

GEOENGINEERS, INC.
SITE HEALTH AND SAFETY PLAN CHECKLIST
REMEDIAL EXCAVATION AT RAYONIER PROPERTIES

This checklist is to be used in conjunction with the GeoEngineers' Safety program manual. Together, the program and this checklist comprise the site safety plan for this site. This plan is to be used by GeoEngineers personnel on this site. If the work entails potential exposures to other substances or unusual situations, additional safety and health information will be included and the plan will be approved by the GeoEngineers Health and Safety Manager. All plans are to be used in conjunction with current standards and policies outlined in the GeoEngineers Health and Safety Program Manual.

1. General Project Information

Project Name:	Remedial excavation at Rayonier Properties
Project Number:	0137-015-01
Type of Project:	Environmental Remedial Excavation
Start/Completion:	July- August, 2006
Subcontractors:	To be determined

Liability Clause - This Site Safety Plan is intended for use by GeoEngineers Employees only. It does not extend to the other contractors or subcontractors working on this site. If requested by subcontractors, this site safety plan may be used as a minimum guideline for those entities to develop safety plans or procedures for their own staff to work under. In this case, Form C-3 shall be signed by the subcontractor.

2. Scope Of Work

The general scope of work is as follows: on site will be to excavate soil identified as contaminated during the previous studies completed at the site. The remedial excavation will occur in the former Wood Mill and Fuel Oil Tank #1 areas at the site.

3. Personnel/Contact Information Phone Numbers

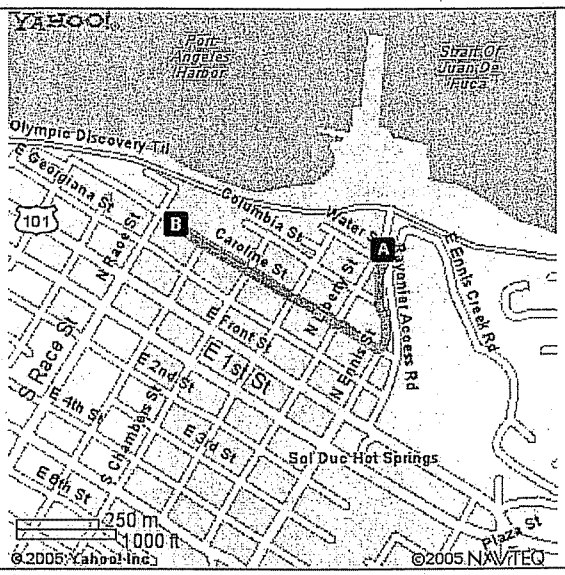
TITLE	NAME	TELEPHONE NUMBERS
Site Safety and Health Supervisor	Paul Craig	(206) 793-4589, cell
Project Manager	Paul Craig	(206) 793-4589, cell
Health and Safety Program Manager	Leah Alcyon, CIH	(425) 861-6098, office
Field Engineer/Geologist	Paul Craig	(206) 793-4589, cell
Client	Mr. Jack Anderson	(360) 808-1805, cell

Site safety and health supervisor -- The individual present at a hazardous waste site responsible to the employer and has the authority and knowledge necessary to establish the site-specific health and safety plan and verify compliance with applicable safety and health requirements.

4. EMERGENCY INFORMATION

Hospital Name and Addre

Olympic Medical Center
(360) 417-7000
939 Caroline Street
Port Angeles, WA 98362

Phone Numbers (Hospital Emergency Room):	**(360) 417-7000**
Distance: less than 1 mile.	
Route to Hospital Map: 1. Start at **700 N ENNIS ST, PORT ANGELES** going toward **COLUMBIA ST** - go **0.2** mi 2. Turn Right on **CAROLINE ST** - go **0.5** mi 3. Arrive at **939 CAROLINE ST, PORT ANGELES,** on the Right	
Ambulance:	9-1-1
Poison Control:	Seattle (206) 253-2121; Other (800) 732-6985
Police:	9-1-1
Fire:	9-1-1
Location of Nearest Telephone:	Cell phones are carried by field personnel.
Nearest Fire Extinguisher:	Located in the GEI vehicle on site.
Nearest First-Aid Kit:	Located in the GEI vehicle on site.

4.1 Standard Emergency Procedures

1. Get help -
   - send another worker to phone 911 (if necessary)
   - as soon as feasible, notify GeoEngineers' project manager
2. Reduce risk to injured person -
   - turn off equipment
3. Get help -
   - send another worker to phone 911 (if necessary)
   - as soon as feasible, notify GeoEngineers' project manager
4. Reduce risk to injured person -
   - turn off equipment
   - move from injury location (if possible)
   - keep warm
   - perform CPR (if necessary)
5. Transport injured person to medical treatment facility (if necessary) -
   - by ambulance (if necessary) or GeoEngineers vehicle
   - stay with person at medical facility
   - keep GeoEngineers manager appraised of situation and notify human resources manager of situation

5. PERSONNEL TRAINING RECORDS

Name of Employees	Level of Training (24/ 40 hr)	Date of Last Training	Hazwoper Supervisor Training	First Aid/ CPR	Respirator Fit Test
Paul Craig	40 hr	15 Sept 05	Dec 2002	April 28, 04	Sept 15, 05

6. KNOWN (OR ANTICIPATED) HAZARDS

Note: A hazard assessment will be completed at every site prior to beginning field activities. Updates will be included in the daily log. This list is a summary of hazards listed on the form.

6.1 Physical Hazards

_____	Drill rigs and Concrete Coring, including working inside a warehouse
x	Backhoe
x	Track hoe
_____	Crane
x	Front End Loader
x	Excavations/trenching (1:1 slopes for Type B soil)
_____	Shored/braced excavation if greater than 4 feet of depth
_____	Overhead hazards/power lines
x	Tripping/puncture hazards (debris on-site, steep slopes or pits)
_____	Unusual traffic hazard – Street traffic

6.2 Physical Hazard Mitigation Measures or Procedures

- Work areas will be marked with reflective cones, barricades and/or caution tape. Personnel will wear blaze orange vests for increased visibility by vehicle and equipment operators.
- Field personnel will be aware constantly of the location and motion of heavy equipment. A safe distance will be maintained between personnel and the equipment. Personnel will be visible to the operator at all times and will remain out of the swing and/or direction of the equipment apparatus. Personnel will approach operating heavy equipment only when they are certain the operator has indicated it is safe to do so.
- Heavy equipment and/or vehicles used on this site will not work within 20 feet of overhead utility lines without first ensuring that the lines are not energized. This distance may be reduced to 10 feet depending on the client and the use of a safety watch.
- Personnel entry into unshored or unsloped excavations deeper than four feet is not allowed. Any trenching and shoring requirements will follow guidelines established in WAC 296-155, the Washington State Construction standards or OSHA 1926.651 Excavation Requirements. In the event that a worker is required to enter an excavation deeper than four feet, a trench box or other acceptable shoring will be employed or the side walls of the excavation will be sloped according to the soil type and guidelines as outlined in OSHA/WISHA regulations. If the shoring/sloping deviates from that outlined in the WAC, it will be designed and stamped by a PE. Prior to entry

personnel will conduct air monitoring as described later in this plan. All hazardous encumbrances and excavated material will be stockpiled at least two feet from the edge of a trench or open pit. If concentrations of volatile gases accumulate within an open trench or excavation, the means of entering shall adhere to confined space entry and air monitoring procedures outlined under the air monitoring recommendations in this plan and the GeoEngineers Safety Program Manual.

- Personnel will avoid tripping hazards, steep slopes, pit and other hazardous encumbrances. If it becomes necessary to work within 6 feet of the edge of a pit, slope, pier or other potentially hazardous area, appropriate fall protection measures will be implemented by the SSO in accordance with OSHA/WISHA regulations and the GEI Safety Program manual.

Engineering controls:

No entry	Trench shoring (1:1 slope for Type B Soils)
X	Locate work spaces upwind
	Other soil covers (as needed)
	Other (specify)_____

6.3 Chemical Hazards (potentially present at site)

Petroleum Hydrocarbons:

	Naphthalenes or paraffins
	Aromatic hydrocarbons (benzene, ethylbenzene, toluene, xylenes)
X	Lube oil-range hydrocarbons
X	Diesel-range hydrocarbons
	Waste oil
	Other petroleum fuels (list) _____

6.4 Hazards from Other Organic Compounds (present or potentially present at site)

X	Chlorinated hydrocarbons (Polychlorinated biphenyls [PCBs]).
X	PAHs (polycyclic aromatic hydrocarbons)
X	Dioxins
	Other

6.5 Metals (Potentially present at site)

X	Lead
	Copper
	Chromium
	Zinc
	Other metals (See known chemical characteristics in Site History

Known chemical characteristics (maximum/average concentrations for routine monitoring):	Soil Chemistry (mg/kg)	Water Chemistry (µg/l)
Dioxins	1.8x10-3 mg/Kg (ppm) max reading or 1.8 ppb	
Lead	429 mg/kg maximum concentration detected	
TPH	36,000 mg/kg maximum concentration detected	
PCBs	2.78 mg/kg maximum concentration detected	
TCDD TEQ (dioxins)	1.8 x 10^{-3} mg/kg maximum concentration detected	

Summary of Petroleum Hazards

Compound/ Description	Exposure Limits/IDLH[b]	Exposure Routes	Toxic Characteristics[d]
Diesel Fuel—liquid with a characteristic odor	None established by OSHA, but ACGIH has adopted 100 mg/m3 for a TWA (as total hydrocarbons)	Ingestion, inhalation, skin absorption, and skin and eye contact	Irritated eyes, skin, and mucus membrane; fatigue; blurred vision; dizziness; slurred speech; confusion; convulsions; and headache, and dermatitis
PCBs (as Aroclor 1254)—colorless to pale-yellow viscous liquid with a mild, hydrocarbon odor	PEL 0.5 mg/m3 TLV 0.5 mg/m3 REL 0.001 mg/m3 IDLH 5.0 mg/m3	Inhalation (dusts or mists), skin absorption, ingestion, skin and/or eye contact	Irritated eyes, chloracne, liver damage, reproductive effects, potential carcinogen

Health Hazards of Dioxins

Generally, dioxin exposures to humans are associated with increased risk of severe skin lesions such as chloracne and hyperpigmentation, altered liver function and lipid metabolism, general weakness associated with drastic weight loss, changes in activities of various liver enzymes, depression of the immune system, and endocrine- and nervous-system abnormalities. It is a potent teratogenic and fetotoxic chemical in animals. A very potent promoter in rat liver cancers, TCDD also causes cancers of the liver and other organs in animals. Populations occupationally or accidentally exposed to chemicals contaminated with dioxin have increased incidences of soft-tissue sarcoma and non-Hodgkin's lymphoma.

Dioxin-contaminated soil may result in dioxins occurring in a food chain. This is especially important for the general population. It has been estimated that about 98% of exposure to dioxins is through the oral route. Exposure as a vapor is normally negligible because of the low vapor pressure typical of these compounds. In the 1980s, a concentration level of 1 ppb 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in soil was specified as "a level of concern," based on cancer effects. However, recent studies indicate that end points other than cancer (such as those listed above) are also of concern based on a projected intake from 1 ppb TCDD in soil.

6.6 Chemical Hazard Mitigation Measures or Procedures

- Half face combination organic vapor/HEPA or P100 cartridge respirators will be available on site to be used as necessary. P100 cartridges are only to be used if PID measurements are below the site action limit. P100 cartridges are used for protection against dust, metals, asbestos, while the combination organic vapor/HEPA cartridges are protective against both dust and vapor. Ensure that the PID or TLV will detect the chemicals of concern on site.
- Level D PPE will be worn at all times on site. Potentially exposed personnel will wash gloves, hands, face, and other pertinent items to prevent hand-to-mouth contact. This will be done prior to hand-to- mouth activities including eating, smoking, etc.

- Adequate personnel and equipment decontamination will be used to decrease potential ingestion and inhalation.
- Individual PELs or action limits are not expected to be exceeded given the planned activities.
- If there are waste oil contaminants in the soil and conditions are damp, airborne dust is not likely to be an issue. If conditions are dry and dust is visible during site activities, personnel will use P100 cartridges on their respirator.

6.7 Biologic Hazards

_____	Poison Ivy or other vegetation	_____
_____	Insects or snakes	_____
_____	Used hypodermic needs or other infectious hazards	**Do not pick up or contact**
_____	Others	_____

6.8 Biologic Hazard Mitigation Measures or Procedures

Site personnel shall avoid contact with or exposures to potential biological hazards encountered.

6.9 Additional Hazards (Update in Daily Log)

Include evaluation of:

- *Physical Hazards* (excavations and shoring, equipment, traffic, tripping, heat stress, cold stress and others)
- *Chemical Hazards* (odors, spills, free product, airborne particulates and others present)
- *Biologic Hazards* (snakes, spiders, other animals, discarded needles, poison ivy and others present)

7. List Of Field Activities

Check the activities to be completed during the project

X	Site reconnaissance
_____	Exploratory borings
_____	Construction monitoring
_____	Surveying
_____	Test pit exploration
_____	Monitor well installation
_____	Monitor well development
X	Soil sample collection
X	Field screening of soil samples
X	Vapor measurements
_____	Ground water sampling
_____	Ground water depth and free product measurement
_____	Product sample collection
X	Soil stockpile testing
X	Remedial excavation
_____	Underground storage tank removal monitoring
_____	Remediation system monitoring
_____	Recovery of free product

8. SITE DESCRIPTION (ATTACH ANY ADDITIONAL SITE PLAN DETAILS AND CHEMICAL ANALYSES)

8.1 Site History: Fill in written description here

Address/Location:	700 North Ennis Street in Port Angeles, WA
Site topography:	Site bordered by residential and commercial areas on a high bluff on the south, harbor to the north and pedestrian path on the old RR
Predominant wind direction:	Northerly
Site drainage:	Creek flows through site
Utility check complete:	To be completed prior to on-site remedial activities – see documentation Utility Checklist
Traffic or vehicle access control plans:	NA
Site access control (exclusion zone) defined by:	Fencing

Hot zone/exclusion zone (Define): ***Within 10 feet of excavation***

Area near the excavation will be considered the exclusion zone

Contamination reduction zone (Define): ***Decontamination will be set up and area will be delineated***

Water will be brought to site to be used for decontamination.

8.2 Personnel Protective Equipment

Personnel Protective Equipment. Minimum level of protective equipment for these sites is Level D. After the initial and/or daily hazard assessment has been completed, select the appropriate protective gear (PPE) to preserve worker safety. Task-specific levels of PPE shall be reviewed with field personnel during the pre-work briefing conducted prior to the start of site operations.

Check applicable personal protection gear to be used:

X Hardhat (if overhead hazards, or client requests)

X Steel-toed boots (if crushing hazards are a potential or if client requests)

X Safety glasses (if dust, particles, or other hazards are present or client requests)

X Hearing protection (if it is difficult to carry on a conversation 3 feet away)

X Rubber boots (if wet conditions)

Gloves (specify):

X Nitrile
____ Latex
____ Liners
____ Leather
____ Other (specify) _____

Protective clothing:

X **Tyvek (if dry conditions are encountered, Tyvek is sufficient)**
____ Saranex (personnel shall use Saranex if liquids are handled or splash may be an issue)
X Cotton
X Rain gear (as needed)
X Layered warm clothing (as needed)

Inhalation hazard protection:

X Level D
____ Level C (respirators with organic vapor filters/ P100 filters)

Limitations of Protective Clothing

PPE clothing ensembles designated for use during site activities shall be selected to provide protection against known or anticipated hazards. However, no protective garment, glove, or boot is entirely chemical-resistant, nor does any PPE provide protection against all types of hazards. To obtain optimum performance from PPE, site personnel shall be trained in the proper use and inspection of PPE. This training shall include the following:

- Inspect PPE before and during use for imperfect seams, non-uniform coatings, tears, poorly functioning closures, or other defects. If the integrity of the PPE is compromised in any manner, proceed to the contamination reduction zone and replace the PPE.
- Inspect PPE during use for visible signs of chemical permeation such as swelling, discoloration, stiffness, brittleness, cracks, tears, or other signs of punctures. If the integrity of the PPE is comprised in any manner, proceed to the contamination reduction zone and replace the PPE.
- Disposable PPE should not be reused after breaks unless it has been properly decontaminated.

Respirator Selection, Use, and Maintenance

GeoEngineers has developed a written respiratory protection program in compliance with OSHA requirements contained in 29 CFR 1910.134. Site personnel shall be trained on the proper use, maintenance, and limitations of respirators. Site personnel that are required to wear respiratory protection shall be medically qualified to wear respiratory protection in accordance with 29 CFR 1910.134. Site personnel that will use a tight-fitting respirator must have passed a qualitative or quantitative fit test conducted in accordance with an OSHA-accepted fit test protocol. Fit testing must be repeated annually or whenever a new type of respirator is used.

Respirator Cartridges

If site personnel are required to wear air-purifying respirators, the appropriate cartridges shall be selected to protect personnel from known or anticipated site contaminants. The respirator/cartridge combination shall be certified and approved by NIOSH. A cartridge change out schedule shall be developed based on known site contaminants, anticipated contaminant concentrations, and data supplied by the cartridge manufacturer related to the absorption capacity of the cartridge for specific contaminants. Site personnel shall be made aware of the cartridge change out schedule prior to the initiation of site activities. Site personnel shall also be instructed to change respirator cartridges if they detect increased resistance during inhalation or detect vapor breakthrough by smell, taste, or feel although breakthrough is not an acceptable method of determining the change out schedule. At a minimum, cartridges should be changed a minimum of once daily.

Respirator Inspection and Cleaning

The Site Safety Officer shall periodically (i.e., weekly) inspect respirators at the project site. Site personnel shall inspect respirators prior to each use in accordance with the manufacturer's instructions. In addition, site personnel wearing a tight-fitting respirator shall perform a positive and negative pressure user seal check each time the respirator is donned to ensure proper fit and function. User seal checks shall be performed in accordance with the GeoEngineers respiratory protection program or the respirator manufacturer's instructions.

Respirators shall be hygienically cleaned as often as necessary to maintain the equipment in a sanitary condition. At a minimum, respirators shall be cleaned at the end of each work shift. Respirator cleaning procedures shall include an initial soap/water cleaning, a water rinse, a sanitizing soaking, and a final water rinse. One capful of bleach per one gallon of water can be used to create the sanitizing soak solution. When not in use, respirators shall be stored to protect against damage, hazardous chemicals, sunlight, dust, excessive temperatures, and excessive moisture. In addition, respirators shall be stored to prevent deformation of the face piece and exhalation valve.

Facial Hair and Corrective Lenses

Site personnel with facial hair that interferes with the sealing surface of a respirator shall not be permitted to wear respiratory protection or work in areas where respiratory protection is required. Normal eyeglasses can not be worn under full-face respirators because the temple bars interfere with the sealing surface of the respirator. Site personnel requiring corrective lenses will be provided with spectacle inserts designed for use with full-face respirators. Contact lenses should not be worn with respiratory protection.

9. Air Monitoring Plan

Work upwind if at all possible.

Check instrumentation to be used:

_____ TLV Monitor (flammability only, for methane and petroleum vapors)
_____ PID (Photoionization Detector)
_____ Other (i.e., detector tubes): _____

Check monitoring frequency/locations: and type (specify: work space, borehole, breathing zone):

_____ **15 minutes - Continuous during soil disturbance activities or handling samples**
_____ 15 minutes
_____ 30 minutes
_____ Hourly (in breathing zone during excavations, drilling, sampling)

Additional personal air monitoring for specific chemical exposure:

Action levels:

- The workspace will be monitored using a PID (photoionization detector). These instruments must be properly maintained, calibrated and charged (refer to the instrument manuals for details). Zero this meter in the same relative humidity as the area it will be used in and allow at least a ten minute warm-up prior to zeroing. Do not zero in a contaminated area. The PID can be tuned to read chemicals specifically if there are not multiple contaminants on site. Can tune to detect one chemical with response factor entered into equipment but PID picks up all Volatile Organic Compounds present. Ionization potential (IP) of chemical has to be less than lamp (11.7/ 10.6eV) and PID does not detect methane. The ppm readout on the instrument is relative to the IP of isobutylene (calibration gas) so conversion must be made in order to estimate ppm of chemical on site.
- An initial vapor measurement survey of the site should be conducted to detect "hot spots" if contaminated soil is exposed at the surface. Vapor measurement surveys of the workspace should be conducted at least hourly or more often if persistent petroleum-related odors are detected. Additionally, if vapor concentrations exceed 5 ppm above background continuously for a five minute period as measured in the breathing zone, upgrade to Level C PPE or move to a non-contaminated area.

Air Monitoring Action Levels

Contaminant	Activity	Monitoring Device	Frequency of Monitoring Breathing Zone	Action Level	Action
Organic Vapors	Environmental Remedial Actions	PID	Start of shift; prior to excavation entry; every 30 to 60 minutes and in event of odors	Background to 5 parts per million (ppm) in breathing zone	Use Level D or Modified Level D PPE
Organic Vapors	Environmental Remedial Actions	PID	Start of shift; prior to excavation entry; every 30 to 60 minutes and in event of odors	5 to 25 ppm in breathing zone	Upgrade to Level C PPE
Organic Vapors	Environmental Remedial Actions	PID	Start of shift; prior to excavation entry; every 30 to 60 minutes	> 25 ppm in breathing zone	Stop work and evacuate the area. Contact CIH for guidance.
Combustible Atmosphere	Environmental Remedial Actions	PID	Start of shift; prior to excavation entry; every 30 to 60 minutes	<10% LEL or <1000 ppm	Depends on contaminant. The PEL is usually exceeded before the LEL.
Combustible Atmosphere	Environmental Remedial Actions	PID Or 4 gas meter	Start of shift; prior to excavation entry; every 30 to 60 minutes	>10% LEL or >1000 ppm	Stop work and evacuate the site. Contact CIH for guidance.
Oxygen Deficient/Enriched Atmosphere	Environmental Remedial Actions Confined Spaces	Oxygen meter Or 4 gas meter	Start of shift; prior to excavation entry; every 30 to 60 minutes	>19.5<23.5%	Continue work if inside range. If outside range, exit area and contact CIH.

10. Decontamination Procedures

Decontamination consists of removing outer protective tyvek clothing and washing soiled boots and gloves using bucket and brush provided on site in the contamination reduction zone. Inner gloves will then be removed and respirator, hands and face will be washed in either a portable wash station or a bathroom facility in the support zone. Employees will perform decontamination procedures and wash prior to eating, drinking or leaving the site. ***Used PPE to be placed in on-site drum.***

Specify other site specific decontamination procedures:

Water will be available on site for washing. Restroom facilities will be in city area.

11. Waste Disposal Or Storage

PPE disposal (specify): To drums to be stored on-site pending characterization and disposal.

Drill cutting/excavated sediment disposal or storage:

_____ On-site, pending analysis and further action
__x__ Secured in drums
_____ Other (describe destination, responsible parties): _____

12. Documentation Expected To Be Completed

NOTE: The Field Log is to contain the following information:

Updates on hazard assessments, field decisions, conversations with subs, client or other parties.
Action level for upgrading PPE and rationale
Meteorological conditions (temperature, wind direction, speed, etc.).

Required forms:

Field Log
Health and Safety Plan acknowledgment by GEI employees (Form C-2)
Contractors Health and Safety Plan Disclaimer (Form C-3)
Conditional forms available at GeoEngineers office: Accident Report (Form C-4)

13. APPROVALS

1. Plan Prepared	_____	_____	
	Signature	Date	
2. Plan Approval	_____	_____	
	PM Signature	Date	
3. Health & Safety Officer	Leah Alcyon, CIH	_____	
	Health & Safety Program Manager	Date	

FORM C-1
HEALTH AND SAFETY MEETING

REMEDIAL EXCAVATION AT RAYONIER PROPERTIES

All personnel participating in this project must receive initial health and safety orientation. Thereafter, brief tailgate safety meetings as deemed necessary by the site Safety Officer.

The orientation and the tailgate safety meetings shall include a discussion of emergency response, site communications and site hazards.

Company	Employee	Date	Topics	Attendee	Name	Initials

FORM C-2
SITE SAFETY PLAN – GEOENGINEERS' EMPLOYEE ACKNOWLEDGMENT

REMEDIAL EXCAVATION AT RAYONIER PROPERTIES

(All GeoEngineers' site workers complete this form, which should remain attached to the safety plan checklist and filed with other project documentation).

I, _____, do hereby verify that a copy of the current Safety Plan has been provided by GeoEngineers, Inc., for my review and personal use. I have read the document completely and acknowledge a full understanding of the safety procedures and protocol for my responsibilities on site. I agree to comply with all required, specified safety regulations and procedures. I understand that I will be informed immediately of any changes that would affect site personnel safety.

Signed _____ Date _____

Range of Dates From: _____
To: _____

Signed _____ Date _____

Range of Dates From: _____
To: _____

Signed _____ Date _____

Range of Dates From: _____
To: _____

Signed _____ Date _____

FORM C-3
SUBCONTRACTOR AND SITE VISITOR SITE SAFETY FORM

REMEDIAL EXCAVATION AT RAYONIER PROPERTIES

I, _____, verify that a copy of the current site Safety Plan has been provided by GeoEngineers, Inc. to inform me of the hazardous substances on site and to provide safety procedures and protocols that will be used by GeoEngineers' staff at the site. By signing below, I agree that the safety of my employees is the responsibility of the undersigned company.

Signed _____ Date _____

Firm: _____

Signed _____ Date _____

Firm: _____

Signed _____ Date _____

Firm: _____

Signed _____ Date _____

Firm: _____

Signed _____ Date _____

Firm: _____

Signed _____ Date _____

Firm: _____

GeoEngineers

APPENDIX B
PERMITS

CITY OF PORT ANGELES
WASHINGTON, U. S. A.

Community & Economic Development Department

June 20, 2006

Rayonier, LLC
Mr. Jack Anderson
4470 Savannah Highway
Jessup, GA 31545

RE: Shoreline Substantial Development - SMA 06-03
RAYONIER - 700 North Ennis Street

Dear Jack:

Enclosed you will find Shoreline Substantial Development Permit SMA 06-03 per your application to this office. Also enclosed are copies transmitting the necessary information to appropriate State agencies. A 21 day appeal period is required before any work may begin and then only if the decision is not appealed. Please note the specific conditions attached to the permit approval.

If you have any questions, or if we can be of assistance, please do not hesitate to contact this Department at 417-4750.

Sincerely,

Sue Roberds
Planning Manager

Attachments
cc: Attorney General's Office
Washington State Fish and Wildlife
DOE
Applicant

Phone: 360-417-4750 / Fax: 360-417-4711
Website: www.cityofpa.us / Email: smartgrowth@cityofpa.us
321 East Fifth Street - P.O. Box 1150 / Port Angeles, WA 98362-0217

CITY OF PORT ANGELES

WASHINGTON, U. S. A.

SHORELINE SUBSTANTIAL DEVELOPMENT PERMIT

PERMIT NO. **SMA 06-03**

ADMINISTERING AGENCY: City of Port Angeles Department of Community & Economic Development

DATE REQUEST RECEIVED: April 25, 2006

APPROVED XXX DATE June 14, 2006

TYPE OF ACTION:

XX Substantial Development Permit
___ Conditional Use
___ Variance

Pursuant to Chapter 90.58 RCW, Shoreline Substantial Development Permit SMA 06-03 is hereby **approved** for:

Rayonier, LLC
271 North Ennis Street
Port Angeles, WA 98362

to undertake the following: Excavate soils for disposal for transport and placement to the Port Angeles landfill site. The following conditions are imposed:

Conditions:

1. If the subject site has not been previously inventoried, evaluated, and reviewed to the satisfaction of the Lower Elwha Klallam Tribe, the subject site shall be evaluated by a cultural review team which shall include a professional archaeologist, a representative of the Lower Elwha Klallam Tribe, the site owner, and the Port Angeles Department of Community Development. This team shall determine the extent of excavation monitoring for the project during the permit review process. As an alternative, the applicant may volunteer to have an approved archaeologist on site during any excavation in lieu of a review by the aforementioned cultural team. If during an excavation that by decision of the cultural review team occurs without an approved archaeologist on-site, any phenomena of possible archaeological interest are uncovered, the developer shall stop such work and provide for a site inspection and evaluation by a professional archaeologist to ensure that all possible valuable archaeological data is properly salvaged.

2. All work shall be carried out as outlined in the April 27, 2006, document titled "*Interim Action Work Plan Port Angeles Mill Site*", authored by GeoEngineers, Inc of Redmond Washington, and located in the file on record at the City of Port Angeles.

3. The applicant shall be responsible for obtaining a Port Angeles Landfill Waste Disposal Application.

4. The applicant is responsible for obtaining all required permits from county, state, and federal agencies prior to commencing work.

5. The applicant shall post the Waterfront trail warning trail users of truck crossing activities during the hours of work in the case the trail is to remain open during the the project.

6. If Rayonier intends to close the Waterfront Trail during daylight hours, they shall notify the Peninsula Daily News in a timely fashion such that notice of the closure may be published a minimum of 48 hours prior to the actual closure of the trail.

Mark E. Madsen
Mark E. Madsen, City Manager
City of Port Angeles

6/20/06
Date

NOTE: CONSTRUCTION PURSUANT TO THIS PERMIT *SHALL NOT* BEGIN AND *IS NOT AUTHORIZED* UNTIL THE SHORELINE SUBSTANTIAL CONDITIONAL USE DEVELOPMENT PERMIT HAS BEEN ACTED UPON BY THE STATE DEPARTMENT OF ECOLOGY OR UNTIL ALL REVIEW PROCEEDINGS INITIATED DURING THE REVIEW PERIOD HAVE BEEN TERMINATED: EXCEPT AS PROVIDED IN RCW 90.58.140(5)(a)(b)(c).

CITY OF PORT ANGELES
WASHINGTON, U. S. A.
Community & Economic Development Department

June 19, 2006

Department of Ecology
Shoreline Permits
P.O. Box 47775
Olympia, WA 98504-7775

RE: Shoreline Substantial Development Permit - SMA 06-03
RAYONIER - 700 North Ennis Street

DEAR REVIEWER:

Please find enclosed a copy of Shoreline Substantial Development Permit No. SMA 06-03 for Rayonier, the application, site map, affidavits of publication and posting, Department staff report, and a copy of the letter of transmittal to the applicant.

If you require further information, or have questions, please do not hesitate to contact this Department.

Sincerely,

Sue Roberds
Planning Manager

Enclosures

cc: Attorney General's Office
Washington State Fish and Wildlife
Applicant

Phone: 360-417-4750 / **Fax:** 360-417-4711
Website: www.cityofpa.us / **Email:** smartgrowth@cityofpa.us
321 East Fifth Street - P.O. Box 1150 / Port Angeles, WA 98362-0217

CITY OF PORT ANGELES
WASHINGTON, U. S. A.

Community & Economic Development Department

June 19, 2006

Attorney General's Office
Ecology Division
P.O. Box 40117
Olympia, WA 98504-0117

RE: Shoreline Substantial Development Permit - SMA 06-03
RAYONIER, LLC - 700 North Ennis Street

Dear Reviewer:

Please find enclosed a copy of Shoreline Substantial Development Permit No. SMA 06-03 for Rayonier, LLC, the application, site map, affidavits of publication and posting, Department staff report, and a copy of the letter of transmittal to the applicant.

If you require further information, or have questions, please don't hesitate to contact this Department.

Sincerely,

Sue Roberds
Planning Manager

Enclosures

cc: Department of Ecology
Washington State Fish and Wildlife
Applicant

Phone: 360-417-4750 / **Fax:** 360-417-4711
Website: www.cityofpa.us / **Email:** smartgrowth@cityofpa.us
321 East Fifth Street - P.O. Box 1150 / Port Angeles, WA 98362-0217

CITY OF PORT ANGELES
WASHINGTON, U. S. A.

Public Works & Utilities Department

GeoEngineers

OCT 17 2006

Routing PRA

File

July 14, 2006

Rayonier Properties, LLC
Attn: Jack Anderson
4470 Savannah Highway
Jessup. Georgia 31545

RE: Port Angeles Landfill Waste Disposal Application, WDA 03-20; petroleum contaminated soil at Rayonier former pulp mill site.

We have received your application for disposal of the petroleum contaminated soil from the referenced site. Based on the testing results of the soil and Clallam County Environmental Health Services approval, the soil appears to be acceptable for use in the landfill. A copy of your approved application is attached. This approved application must be shown to the landfill scale attendant at the time of disposal.

Please be advised that this disposal application is only for the materials and quantities listed in the application. Materials not listed or in excess of the quantities noted may require separate applications and approval.

Please call if you have questions.

Very truly yours,

Gary W. Kenworthy, P.E.
City Engineer
Deputy Director of Engineering Services

GWK:tf

Encl.: WDA 06-20
Copy: Ken Loghry

N:\PWKS\ENGINEER\WDAPPLIC\06-20WPD
FILE: Landfill Solid Waste Disposal Applications

Phone: 360-417-4805 / **Fax:** 360-417-4542
Website: www.cityofpa.us / **Email:** publicworks@cityofpa.us
321 East Fifth Street - P.O. Box 1150 / Port Angeles, WA 98362-0217

Clallam County Department of Health and Human Services

Environmental Health Services ♦ 223 East 4th Street, Suite #14 ♦ Port Angeles, WA 98362-3015
Telephone: 360-417-2258 ♦ FAX: 360-417-2313

July 12, 2006

Trenia Funston
City of Port Angeles
321 E. 5th St
PO Box 1150
Port Angeles, WA 98362

RE: PALF Waste Disposal Application 06-20

Dear Ms. Funston:

Based on the chemical test results submitted by Rayonier Properties LLC, Clallam County Environmental Health Services (CCEHS) concurs with the disposal of 7,700 yd^3/ 11,500 tons of petroleum contaminated soil to the Port Angeles Landfill. The material is composed of approximately 90% soil, 8% preserved wood, and 2% concrete/asphalt. The soil is from the Rayonier Mill Site; the soil is from the area beneath a former Bunker C oil tank and from beneath the debarker equipment which leaked hydraulic fluid.

The removal of the soil is part of the mill site 2006 Interim Action which is overseen by Washington State Department of Ecology.

If I can be of further assistance, please contact me at 360-417-2347.

Sincerely,

Jennifer Garcelon, RS
Environmental Health Specialist II

C: Andy Brastad, Director of Environmental Health
Bill Harris, Ecology, SWRO SWFAP
PALF File
Correspondence File

PORT ANGELES LANDFILL
WASTE DISPOSAL APPLICATION

WDA 06-20

To: City of Port Angeles, City Engineer
321 E Fifth Street
P.O. Box 1150
Port Angeles, Washington 98362

Phone: (360) 417-4803
FAX: (360) 417-4709

NOTE: All questions must be answered for waste to be approved.

1. **Generator Information:**

Company Name: Rayonier Properties, LLC
Mailing Address: 4470 Savannah Highway
Jesup, Georgia 31545
Contact: Jack Anderson
Phone: 912-427-5354
Project Name: 2006 Interim Action
Project Location: Rayonier Former Pulp Mill Site, 700 North Ennis St

2. **Other Contacts (if applicable):**

Consulting Firm: GeoEngineers Inc
Contact: Paul Craig
Phone: 425-861-6000
Contractor Name: Bruch and Bruch Construction
Contact: Sean Coleman
Phone: 360-452-5388
Laboratory: OnSite Environmental
Contact:
Phone:

3. **Source of Waste:**

Check the appropriate box below and briefly describe the project, process, and/or cleanup that will or has produced the waste requiring disposal. Include the gasoline service station number (if applicable).

XX	CERCLA/MTCA Remediation	Agency Contact: Bill Harris	
	Independent Remedial Action		UST Removal
	Unused Chemical Product Spill		Other Source:

Petroleum contaminated soil is the result of spillage that occurred in two areas of the former pulp mill. One area is the location of a former Bunker C oil tank and the other is the location of the debarker where hydraulic oil leaked from the equipment. Both spillages occurred over a period of 30 to 60 years.

4. **Waste Material Composition:** (check all that apply and include percent of total)

XX	Soil	90 %		Foundry Slag	%
XX	Concrete/Asphalt	2 %		Dredge Sediments	%
XX	Preserved Wood	8 %		Debris	%
	Coal Ash	%		Other (list)	
	Wood Ash	%			%
					%

Note: The majority of the wood and concrete will be separated from the soil and delivered on separate trucks.

NOTE: Total must equal 100%.

5. **Waste Material Contaminants:** (check all that apply)

	Gasoline	XX	Metals		Diesel
	Solvents		Heating Oil	XX	PCBs
	Unused Motor Oil		Used Motor Oil/Waste Oil		
	Other	XX	Other Petroleum Product Bunker C Oil, hydraulic oil		
	Unknown				

NOTE: Supply any MSDS information with application, if available.

6. **Estimated Quantity of Waste for Disposal:**

7,700 Cubic yards / 11,500 Tons (estimate both)

_____ Drums / _____ Tons (estimate both)

Other 7,700 cy (maximum) to 4,500 cy (minimum)

NOTE: Estimated quantity for disposal must be within 20% of the quantity actually disposed. (10% for projects over 7,500 tons or 5,000 cubic yards.)

7. **Frequency of Disposal:**

XX One time _____ Monthly _____ Annual _____ Other _____

8. **Waste Sampling:**

Proper characterization of the waste for disposal requires the collection of representative samples. The methods and equipment necessary for obtaining representative samples of a waste, and the frequency of sampling, will vary with the type and form of the waste. Check the appropriate box and briefly describe how and where the waste was sampled. Include site maps with sampling locations if possible.

Number of COMPOSITE samples _____ & number of discrete samples per composite

Number of DISCRETE samples _____

NOTE 1: Unless prior approval has been granted by Port Angeles, the following sampling frequency will be used:

0 - 25	cubic yards	=	1 composite sample
25 - 100	cubic yards	=	3 composite samples
101 - 500	cubic yards	=	5 composite samples
501 - 1000	cubic yards	=	7 composite samples
1001 - 2000	cubic yards	=	10 composite samples
>2000	cubic yards	=	10 plus one sample for each additional 500 cubic yards

NOTE 2: One composite sample shall contain a minimum of three/maximum of five discrete samples.

9. **Waste Analysis:**

The "Dangerous Waste Regulations" (WAC 173-303) shall be utilized to determine the appropriate analytical requirements for waste characterization. Ecology Publication #91-30 (Revised April 1994) "Guidance for Remediation of Petroleum Contaminated Soils" shall also be used to characterize petroleum contaminated soils from UST releases. Submit all laboratory analytical results, QA/QC data, and Chain of Custody sheets along with this application.

(NOTE: The laboratory must be accredited by the Washington State Department of Ecology.)

a) List all analytical test methods used:

Petroleum by Ecology NWTPH-Dx with silica gel cleanup.	Lead EPA 6020	PCBs EPA 8082	Dioxins EPA 1613B

b) Provide a narrative as to why the above analytical methods were selected:

Procedures agreed to by Ecology in previous projects at site.

NOTE: Additional sheets attached: XX YES _____ NO

10. **Soil Classification: (**FOR PETROLEUM CONTAMINATED SOILS ONLY**)**

Based on the analytical data and Ecology Publication #91-30, the soil classification is: (check one)

_____ Class 1 _____ Class 2 _____ Class 3 XX Class 4

_____ Calculated Hazard Index

11. **Dangerous Waste Affidavit:**

Based on a review of the analytical test results, site history, and the applicable regulations, this waste is classified as: (check one)

XX Neither Dangerous Waste (DW) nor Extremely Hazardous Waste (EHW)

_____ Dangerous Waste (DW) and Waste Code: _____

_____ Extremely Hazardous Waste (EHW) and Waste Code: _____

12. **Certification:**

We, THE UNDERSIGNED, certify that this application is true to the best of our knowledge. All information provided is correct and the enclosed analytical results represent the proposed waste material to the best of our abilities.

Waste Generator Signature

Jack A. Anderson

Printed Name

Raymier Properties, LLC

Company

June 21, 2006

Date

City of Port Angeles Approval:

City Engineer

2/13/06

Date

10/1/06

Approval Expiration Date

C:\DATA\WP\FORMS\WDAapp.wpd

www.ncalabs.com

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

13 March 2006

Paul Craig
Geo Engineers - Redmond
8410 154th Ave NE
Redmond, WA/USA 98052

RE: Rayonier-PA Mill

Enclosed are the results of analyses for samples received by the laboratory on 03/02/06 17:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kate Haney For Jeff Gerdes
Project Manager

www.ncalabs.com

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane 11922 E. 1st Avenue, Spokane Valley, WA 99206-5302
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

Geo Engineers - Redmond	Project: Rayonier-PA Mill	
8410 154th Ave NE	Project Number: 0137-015-00	**Reported:**
Redmond, WA/USA 98052	Project Manager: Paul Craig	03/13/06 13:24

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TP-1-7.0	B6C0072-01	Soil	03/02/06 08:35	03/02/06 17:45
TP-1-9.0	B6C0072-02	Soil	03/02/06 08:25	03/02/06 17:45
TP-1-10.0	B6C0072-03	Soil	03/02/06 08:30	03/02/06 17:45
TP-2-8.0	B6C0072-04	Soil	03/02/06 09:15	03/02/06 17:45
TP-2-9.0	B6C0072-05	Soil	03/02/06 09:20	03/02/06 17:45
TP-4-11.0	B6C0072-08	Soil	03/02/06 10:00	03/02/06 17:45
TP-6-10.0	B6C0072-11	Soil	03/02/06 11:10	03/02/06 17:45
TP-7-14.0	B6C0072-12	Soil	03/02/06 11:50	03/02/06 17:45
TP-8-11.5	B6C0072-13	Soil	03/02/06 12:20	03/02/06 17:45
TP-13-11.0	B6C0072-17	Soil	03/02/06 13:55	03/02/06 17:45
WM-20-[03-02-06]-0.25	B6C0072-18	Soil	03/02/06 14:15	03/02/06 17:45

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kate Haney For Jeff Gerdes, Project Manager

www.ncalabs.com

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane 11922 E. 1st Avenue, Spokane Valley, WA 99206-5302
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

Geo Engineers - Redmond	Project: Rayonier-PA Mill	
8410 154th Ave NE	Project Number: 0137-015-00	**Reported:**
Redmond, WA/USA 98052	Project Manager: Paul Craig	03/13/06 13:24

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up

North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TP-1-7.0 (B6C0072-01) Soil Sampled: 03/02/06 08:35 Received: 03/02/06 17:45									
Diesel Range Hydrocarbons	**106**	35.1	mg/kg dry	1	6C03055	03/03/06	03/06/06	NWTPH-Dx	D-09
Lube Oil Range Hydrocarbons	**235**	87.8	"	"	"	"	"	"	D-15
Surrogate: 2-FBP	*73.4 %*	*50-150*			"	"	"	"	
Surrogate: Octacosane	*98.0 %*	*50-150*			"	"	"	"	
TP-1-9.0 (B6C0072-02) Soil Sampled: 03/02/06 08:25 Received: 03/02/06 17:45									
Diesel Range Hydrocarbons	**1570**	59.3	mg/kg dry	2	6C03055	03/03/06	03/06/06	NWTPH-Dx	
Lube Oil Range Hydrocarbons	**951**	148	"	"	"	"	"	"	
Surrogate: 2-FBP	*70.9 %*	*50-150*			"	"	"	"	
Surrogate: Octacosane	*93.9 %*	*50-150*			"	"	"	"	
TP-1-10.0 (B6C0072-03) Soil Sampled: 03/02/06 08:30 Received: 03/02/06 17:45									
Diesel Range Hydrocarbons	**208**	21.2	mg/kg dry	1	6C03055	03/03/06	03/06/06	NWTPH-Dx	D-09
Lube Oil Range Hydrocarbons	**372**	53.1	"	"	"	"	"	"	D-15
Surrogate: 2-FBP	*73.4 %*	*50-150*			"	"	"	"	
Surrogate: Octacosane	*104 %*	*50-150*			"	"	"	"	
TP-2-9.0 (B6C0072-05) Soil Sampled: 03/02/06 09:20 Received: 03/02/06 17:45									
Diesel Range Hydrocarbons	**58.9**	11.8	mg/kg dry	1	6C03055	03/03/06	03/06/06	NWTPH-Dx	D-06
Lube Oil Range Hydrocarbons	**35.4**	29.4	"	"	"	"	"	"	D-06
Surrogate: 2-FBP	*82.1 %*	*50-150*			"	"	"	"	
Surrogate: Octacosane	*99.2 %*	*50-150*			"	"	"	"	
TP-4-11.0 (B6C0072-08) Soil Sampled: 03/02/06 10:00 Received: 03/02/06 17:45									
Diesel Range Hydrocarbons	**111**	11.9	mg/kg dry	1	6C03055	03/03/06	03/06/06	NWTPH-Dx	D-09
Lube Oil Range Hydrocarbons	**298**	29.7	"	"	"	"	"	"	D-15
Surrogate: 2-FBP	*72.1 %*	*50-150*			"	"	"	"	
Surrogate: Octacosane	*93.1 %*	*50-150*			"	"	"	"	

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kate Haney For Jeff Gerdes, Project Manager

www.ncalabs.com

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane 11922 E. 1st Avenue, Spokane Valley, WA 99206-5302
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

Geo Engineers - Redmond	Project: Rayonier-PA Mill	
8410 154th Ave NE	Project Number: 0137-015-00	**Reported:**
Redmond, WA/USA 98052	Project Manager: Paul Craig	03/13/06 13:24

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up

North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TP-6-10.0 (B6C0072-11) Soil Sampled: 03/02/06 11:10 Received: 03/02/06 17:45									
Diesel Range Hydrocarbons	**10600**	1140	mg/kg dry	100	6C03055	03/03/06	03/06/06	NWTPH-Dx	D-09
Lube Oil Range Hydrocarbons	**20400**	2850	"	"	"	"	"	"	
Surrogate: 2-FBP	*ND*	*50-150*			"	"	"	"	*S-01*
Surrogate: Octacosane	*ND*	*50-150*			"	"	"	"	*S-01*
TP-7-14.0 (B6C0072-12) Soil Sampled: 03/02/06 11:50 Received: 03/02/06 17:45									
Diesel Range Hydrocarbons	**4110**	386	mg/kg dry	20	6C03055	03/03/06	03/06/06	NWTPH-Dx	D-09
Lube Oil Range Hydrocarbons	**8850**	965	"	"	"	"	"	"	
Surrogate: 2-FBP	*ND*	*50-150*			"	"	"	"	*S-01*
Surrogate: Octacosane	*ND*	*50-150*			"	"	"	"	*S-01*
TP-8-11.5 (B6C0072-13) Soil Sampled: 03/02/06 12:20 Received: 03/02/06 17:45									
Diesel Range Hydrocarbons	ND	11.5	mg/kg dry	1	6C03055	03/03/06	03/06/06	NWTPH-Dx	
Lube Oil Range Hydrocarbons	ND	28.8	"	"	"	"	"	"	
Surrogate: 2-FBP	*77.6 %*	*50-150*			"	"	"	"	
Surrogate: Octacosane	*98.5 %*	*50-150*			"	"	"	"	
TP-13-11.0 (B6C0072-17) Soil Sampled: 03/02/06 13:55 Received: 03/02/06 17:45									
Diesel Range Hydrocarbons	**134**	12.2	mg/kg dry	1	6C03055	03/03/06	03/06/06	NWTPH-Dx	D-09
Lube Oil Range Hydrocarbons	**285**	30.6	"	"	"	"	"	"	
Surrogate: 2-FBP	*76.4 %*	*50-150*			"	"	"	"	
Surrogate: Octacosane	*98.0 %*	*50-150*			"	"	"	"	
WM-20-[03-02-06]-0.25 (B6C0072-18) Soil Sampled: 03/02/06 14:15 Received: 03/02/06 17:45									
Diesel Range Hydrocarbons	**180**	23.0	mg/kg dry	2	6C03055	03/03/06	03/06/06	NWTPH-Dx	D-09
Lube Oil Range Hydrocarbons	**580**	57.5	"	"	"	"	"	"	
Surrogate: 2-FBP	*62.0 %*	*50-150*			"	"	"	"	
Surrogate: Octacosane	*87.5 %*	*50-150*			"	"	"	"	

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kate Haney For Jeff Gerdes, Project Manager

www.ncalabs.com

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane 11922 E. 1st Avenue, Spokane Valley, WA 99206-5302
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

Geo Engineers - Redmond	Project: Rayonier-PA Mill	
8410 154th Ave NE	Project Number: 0137-015-00	**Reported:**
Redmond, WA/USA 98052	Project Manager: Paul Craig	03/13/06 13:24

Total Metals by EPA 6000/7000 Series Methods

North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TP-1-7.0 (B6C0072-01) Soil Sampled: 03/02/06 08:35 Received: 03/02/06 17:45									
Lead	**107**	2.14	mg/kg dry	1	6C08007	03/08/06	03/08/06	EPA 6020	
TP-1-9.0 (B6C0072-02) Soil Sampled: 03/02/06 08:25 Received: 03/02/06 17:45									
Lead	**138**	1.50	mg/kg dry	1	6C08007	03/08/06	03/08/06	EPA 6020	
TP-2-8.0 (B6C0072-04) Soil Sampled: 03/02/06 09:15 Received: 03/02/06 17:45									
Lead	**6.81**	0.619	mg/kg dry	1	6C08007	03/08/06	03/08/06	EPA 6020	
TP-7-14.0 (B6C0072-12) Soil Sampled: 03/02/06 11:50 Received: 03/02/06 17:45									
Lead	**16.1**	1.02	mg/kg dry	1	6C10028	03/10/06	03/10/06	EPA 6020	
WM-20-[03-02-06]-0.25 (B6C0072-18) Soil Sampled: 03/02/06 14:15 Received: 03/02/06 17:45									
Lead	**158**	0.579	mg/kg dry	1	6C10028	03/10/06	03/10/06	EPA 6020	

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kate Haney For Jeff Gerdes, Project Manager

www.ncalabs.com

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane 11922 E. 1st Avenue, Spokane Valley, WA 99206-5302
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

Geo Engineers - Redmond	Project: Rayonier-PA Mill	
8410 154th Ave NE	Project Number: 0137-015-00	**Reported:**
Redmond, WA/USA 98052	Project Manager: Paul Craig	03/13/06 13:24

Polychlorinated Biphenyls by EPA Method 8082

North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TP-1-9.0 (B6C0072-02) Soil Sampled: 03/02/06 08:25 Received: 03/02/06 17:45									**C-03, C-02**
Aroclor 1016	ND	74.8	ug/kg dry	1	6C06053	03/06/06	03/07/06	EPA 8082	
Aroclor 1221	ND	150	"	"	"	"	"	"	
Aroclor 1232	ND	74.8	"	"	"	"	"	"	
Aroclor 1242	ND	74.8	"	"	"	"	"	"	
Aroclor 1248	ND	74.8	"	"	"	"	"	"	
Aroclor 1254	ND	74.8	"	"	"	"	"	"	
Aroclor 1260	**643**	74.8	"	"	"	"	"	"	
Aroclor 1262	ND	74.8	"	"	"	"	"	"	
Aroclor 1268	ND	74.8	"	"	"	"	"	"	
Surrogate: TCX	*64.5 %*	*39-139*			"	"	"	"	
Surrogate: Decachlorobiphenyl	*73.0 %*	*33-163*			"	"	"	"	
TP-2-9.0 (B6C0072-05) Soil Sampled: 03/02/06 09:20 Received: 03/02/06 17:45									**C-03, C-02**
Aroclor 1016	ND	29.4	ug/kg dry	1	6C06053	03/06/06	03/07/06	EPA 8082	
Aroclor 1221	ND	58.8	"	"	"	"	"	"	
Aroclor 1232	ND	29.4	"	"	"	"	"	"	
Aroclor 1242	ND	29.4	"	"	"	"	"	"	
Aroclor 1248	ND	29.4	"	"	"	"	"	"	
Aroclor 1254	ND	29.4	"	"	"	"	"	"	
Aroclor 1260	ND	29.4	"	"	"	"	"	"	
Aroclor 1262	ND	29.4	"	"	"	"	"	"	
Aroclor 1268	ND	29.4	"	"	"	"	"	"	
Surrogate: TCX	*86.6 %*	*39-139*			"	"	"	"	
Surrogate: Decachlorobiphenyl	*90.2 %*	*33-163*			"	"	"	"	

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kate Haney For Jeff Gerdes, Project Manager

www.ncalabs.com

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane 11922 E. 1st Avenue, Spokane Valley, WA 99206-5302
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

Geo Engineers - Redmond	Project: Rayonier-PA Mill	
8410 154th Ave NE	Project Number: 0137-015-00	**Reported:**
Redmond, WA/USA 98052	Project Manager: Paul Craig	03/13/06 13:24

Polychlorinated Biphenyls by EPA Method 8082

North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TP-6-10.0 (B6C0072-11) Soil Sampled: 03/02/06 11:10 Received: 03/02/06 17:45									C-03, C-02
Aroclor 1016	ND	28.7	ug/kg dry	1	6C06053	03/06/06	03/07/06	EPA 8082	
Aroclor 1221	ND	57.4	"	"	"	"	"	"	
Aroclor 1232	ND	28.7	"	"	"	"	"	"	
Aroclor 1242	ND	28.7	"	"	"	"	"	"	
Aroclor 1248	ND	28.7	"	"	"	"	"	"	
Aroclor 1254	ND	28.7	"	"	"	"	"	"	
Aroclor 1260	ND	28.7	"	"	"	"	"	"	
Aroclor 1262	ND	28.7	"	"	"	"	"	"	
Aroclor 1268	ND	28.7	"	"	"	"	"	"	
Surrogate: TCX	*70.5 %*	*39-139*			"	"	"	"	
Surrogate: Decachlorobiphenyl	*70.5 %*	*33-163*			"	"	"	"	
TP-7-14.0 (B6C0072-12) Soil Sampled: 03/02/06 11:50 Received: 03/02/06 17:45									C-03, C-02
Aroclor 1016	ND	47.6	ug/kg dry	1	6C06053	03/06/06	03/07/06	EPA 8082	
Aroclor 1221	ND	95.2	"	"	"	"	"	"	
Aroclor 1232	ND	47.6	"	"	"	"	"	"	
Aroclor 1242	ND	47.6	"	"	"	"	"	"	
Aroclor 1248	ND	47.6	"	"	"	"	"	"	
Aroclor 1254	ND	47.6	"	"	"	"	"	"	
Aroclor 1260	**953**	47.6	"	"	"	"	"	"	E
Aroclor 1262	ND	47.6	"	"	"	"	"	"	
Aroclor 1268	ND	47.6	"	"	"	"	"	"	
Surrogate: TCX	*59.4 %*	*39-139*			"	"	"	"	
Surrogate: Decachlorobiphenyl	*67.9 %*	*33-163*			"	"	"	"	

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kate Haney For Jeff Gerdes, Project Manager

www.ncalabs.com

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane 11922 E. 1st Avenue, Spokane Valley, WA 99206-5302
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

Geo Engineers - Redmond	Project: Rayonier-PA Mill	
8410 154th Ave NE	Project Number: 0137-015-00	**Reported:**
Redmond, WA/USA 98052	Project Manager: Paul Craig	03/13/06 13:24

Polychlorinated Biphenyls by EPA Method 8082 - Quality Control

North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6C06053: Prepared 03/06/06 Using EPA 3550B										
Blank (6C06053-BLK1)										**C-03, C-02**
Aroclor 1016	ND	25.0	ug/kg wet							
Aroclor 1221	ND	50.0	"							
Aroclor 1232	ND	25.0	"							
Aroclor 1242	ND	25.0	"							
Aroclor 1248	ND	25.0	"							
Aroclor 1254	ND	25.0	"							
Aroclor 1260	ND	25.0	"							
Aroclor 1262	ND	25.0	"							
Aroclor 1268	ND	25.0	"							
Surrogate: TCX	*5.98*		"	*6.67*		*89.7*	*39-139*			
Surrogate: Decachlorobiphenyl	*6.36*		"	*6.67*		*95.4*	*33-163*			
LCS (6C06053-BS1)										**C-03, C-02**
Aroclor 1016	76.3	25.0	ug/kg wet	83.3		91.6	54-125			
Aroclor 1260	75.0	25.0	"	83.3		90.0	58-128			
Surrogate: TCX	*6.00*		"	*6.67*		*90.0*	*39-139*			
Surrogate: Decachlorobiphenyl	*6.43*		"	*6.67*		*96.4*	*33-163*			
Matrix Spike (6C06053-MS1)					**Source: B6C0072-05**					**C-03, C-02**
Aroclor 1016	74.4	29.4	ug/kg dry	97.9	ND	76.0	47-134			
Aroclor 1260	82.8	29.4	"	97.9	ND	84.6	22-171			
Surrogate: TCX	*6.84*		"	*7.84*		*87.2*	*39-139*			
Surrogate: Decachlorobiphenyl	*7.29*		"	*7.84*		*93.0*	*33-163*			
Matrix Spike Dup (6C06053-MSD1)					**Source: B6C0072-05**					**C-03, C-02**
Aroclor 1016	74.5	29.3	ug/kg dry	97.6	ND	76.3	47-134	0.134	35	
Aroclor 1260	80.5	29.3	"	97.6	ND	82.5	22-171	2.82	35	
Surrogate: TCX	*6.86*		"	*7.81*		*87.8*	*39-139*			
Surrogate: Decachlorobiphenyl	*7.14*		"	*7.81*		*91.4*	*33-163*			

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kate Haney For Jeff Gerdes, Project Manager

www.ncalabs.com

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane 11922 E. 1st Avenue, Spokane Valley, WA 99206-5302
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

Geo Engineers - Redmond	Project: Rayonier-PA Mill	
8410 154th Ave NE	Project Number: 0137-015-00	**Reported:**
Redmond, WA/USA 98052	Project Manager: Paul Craig	03/13/06 13:24

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6C03058: Prepared 03/03/06 Using Dry Weight										
Blank (6C03058-BLK1)										
Dry Weight	100	1.00	%							
Batch 6C03059: Prepared 03/03/06 Using Dry Weight										
Blank (6C03059-BLK1)										
Dry Weight	99.8	1.00	%							
Batch 6C07057: Prepared 03/07/06 Using Dry Weight										
Blank (6C07057-BLK1)										
Dry Weight	100	1.00	%							

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kate Haney For Jeff Gerdes, Project Manager

www.ncalabs.com

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane 11922 E. 1st Avenue, Spokane Valley, WA 99206-5302
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

Geo Engineers - Redmond	Project: Rayonier-PA Mill	
8410 154th Ave NE	Project Number: 0137-015-00	**Reported:**
Redmond, WA/USA 98052	Project Manager: Paul Craig	03/13/06 13:24

Notes and Definitions

C-02	To reduce matrix interference, the sample extract has undergone copper clean-up, method 3660, which is specific to sulfur contamination.
C-03	To reduce matrix interference, the sample extract has undergone silica-gel clean-up, method 3630, which is specific to polar compound contamination.
D-06	The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
D-09	Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
D-15	Hydrocarbon pattern most closely resembles a heavy fuel oil product.
E	Estimated value. The reported value exceeds the calibration range of the analysis.
MS-4	Due to high levels of analyte in the sample, the Matrix Spike/Matrix Spike Duplicate calculation does not provide useful spike recovery information. See Laboratory Control Sample.
Q-02	The spike recovery for this QC sample is outside of NCA established control limits due to sample matrix interference.
S-01	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kate Haney For Jeff Gerdes, Project Manager

CITY OF PORT ANGELES
PUBLIC WORKS - UTILITIES DIVISION
321 EAST 5TH STREET, PORT ANGELES, WA 98362

Application Number . . . . . 06-00000767 Date 7/31/06
Application pin number . . . 377042
Property Address . . . . . 700 N ENNIS ST
ASSESSOR PARCEL NUMBER: 06-30-00-5-0-1000-0000-
Application type description CLEARING & GRADING
Subdivision Name . . . . . .
Property Use . . . . . .
Property Zoning . . . . . UNKNOWN
Application valuation 0

Owner	Contractor
ITT RAYONIER INC-PAD	OWNER
700 N ENNIS ST	
PORT ANGELES WA 983624504	

--- Structure Information 000 000 #06-13 ---

Permit . . . . . CLEAR & GRADE
Additional desc . . #06-13
Permit pin number . 82636
Permit Fee . . . . 75.00 Plan Check Fee . . .00
Issue Date . . . . 7/31/06 Valuation 0
Expiration Date . . 1/27/07

Qty	Unit Charge	Per		Extension
			BASE FEE	75.00

Fee summary	Charged	Paid	Credited	Due
Permit Fee Total	75.00	75.00	.00	.00
Plan Check Total	.00	.00	.00	.00
Grand Total	75.00	75.00	.00	.00

Separate Permits are required for electrical work, SEPA, Shoreline, ESA, utilities, private and public improvements. **This permit becomes null and void** if work or construction authorized is not commenced within **180 days**, if construction or **work is suspended or abandoned** for a period of **180 days** after the work as commenced, or if **required inspections** have not been requested within **180 days** from the **last inspection.** I hereby certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not. The granting of a permit does not presume to give authority to violate or cancel the provisions of any state or local law regulating construction or the performance of construction.

7/31/06

Signature of Contractor or Authorized Agent Date

Signature of Owner (if owner is builder) Date

T:\Policies\1102.15R [1/05]

GeoEngineers

APPENDIX C
ARCHAEOLOGICAL REPORT

CULTURAL RESOURCE MONITORING AT TWO REMEDIATION SITES AT THE FORMER RAYONIER PORT ANGELES MILL,

CLALLAM COUNTY, WASHINGTON

by

Margaret A. Nelson

Report Prepared for

Rayonier Properties, LLC
Jacksonville, FL

October 2, 2006

Cascadia Archaeology
P.O. Box 51058
Seattle, WA 98115-1058

ABSTRACT

Rayonier Properties, LLC is completing toxic remediation at its former Port Angeles Mill site and retained Cascadia Archaeology to monitor excavations at two locations there, an underground fuel tank site and the former log debarking facility. The former mill site is in the vicinity of a nineteenth century Klallam village, I'e'nis; the Puget Sound Cooperative Colony (PSCC), dating to the late 1880s; and a mill built by the U.S. Army Spruce Division during World War I. Monitoring of the excavations took place between July 31 and August 9, 2006. Logs that appeared to have been used for cribbing were encountered at the south remediation site below several feet of fill and just above beach sediments. The logs could be related to milling activities by the PSCC, perhaps part of a log yard, but they did not appear to be part of a permanent structure.

TABLE OF CONTENTS

LIST OF FIGURES

INTRODUCTION

Rayonier Properties, LLC (Rayonier) is in the process of decontaminating its former Port Angeles Mill site prior to selling the property. After the pulp mill was closed in 1997, the buildings and other structures were dismantled to ground level. A remediation plan for investigation of the site was then developed by Rayonier and the Washington State Department of Ecology (DOE) pursuant to the Model Toxic Control Act (Washington State Department of Ecology 1997; Rayonier, Inc. 1997, cited in Robbins et al. 1997:1). Because a known historic period Klallam village and prehistoric archaeological resources are located on and in the vicinity of the Rayonier property, the Lower Elwha Klallam Tribe and Rayonier have an agreement specifying that an archaeological monitor will be present during ground-disturbing activities that could encounter intact sediments. In July 2006, Rayonier retained Cascadia Archaeology to monitor excavations to clean up two locations at the mill property.

The following sections provide a description of the project and background information relevant to the current project. This information was obtained from cultural resource reports, site inventory forms, local histories, and other sources at the Washington State Department of Archaeology and Historic Preservation (DAHP), Clallam County Historical Society, and North Olympic Library System. Larry Dunn of the Lower Elwha Klallam Tribe also provided information on the Klallam village and early history of the site. The background presented in this report focuses on information of specific relevance to the current project. A more comprehensive overview of the natural and cultural settings can be found in a cultural resource assessment prepared for Rayonier by Larson Anthropological/ Archaeological Services in 1997 (Robbins et al. 1997).

Project Location and Description

The Rayonier mill parcel is comprised of 80 acres on the beach and bluff top on the east side of Port Angeles, in Township 30 North, Range 6 West, Willamette Meridian, Sections 2, 11, and 12 (Figure 1). The site faces Port Angeles Harbor on the southern shore of the Strait of Juan de Fuca. The mill was built on the Ennis Creek delta, which extended out from the bluff as much as 500 ft. before it was altered by development (Robbins et al. 1997). The two monitored locations are in the western portion of the former mill, 1,000 to 1,100 ft. (ca. 300-330 m) west of the current channel of Ennis Creek. This area is approximately 11 ft. above sea level (asl), built partially on fill.

The two remediation locations are at a former above-ground oil tank site (Figure 2, Fuel Oil Tank No. 1) near the base of the bluff and at the former log debarking building in the northwest part of the former mill complex. Testing at the wood mill site had indicated that the soils in this area retained contaminants associated with the debarking and log handling operations. Testing had also detected the presence of petroleum contaminated soils in the vicinity of the fuel oil tank, although the horizontal extent of the contamination was not well known. Remediation at the two locations consisted of removing the contaminated soils and any buried sources of contamination such as treated pilings, pipes, etc. with mechanical excavators until laboratory tests indicated contaminant levels were below the limits required by the DOE.

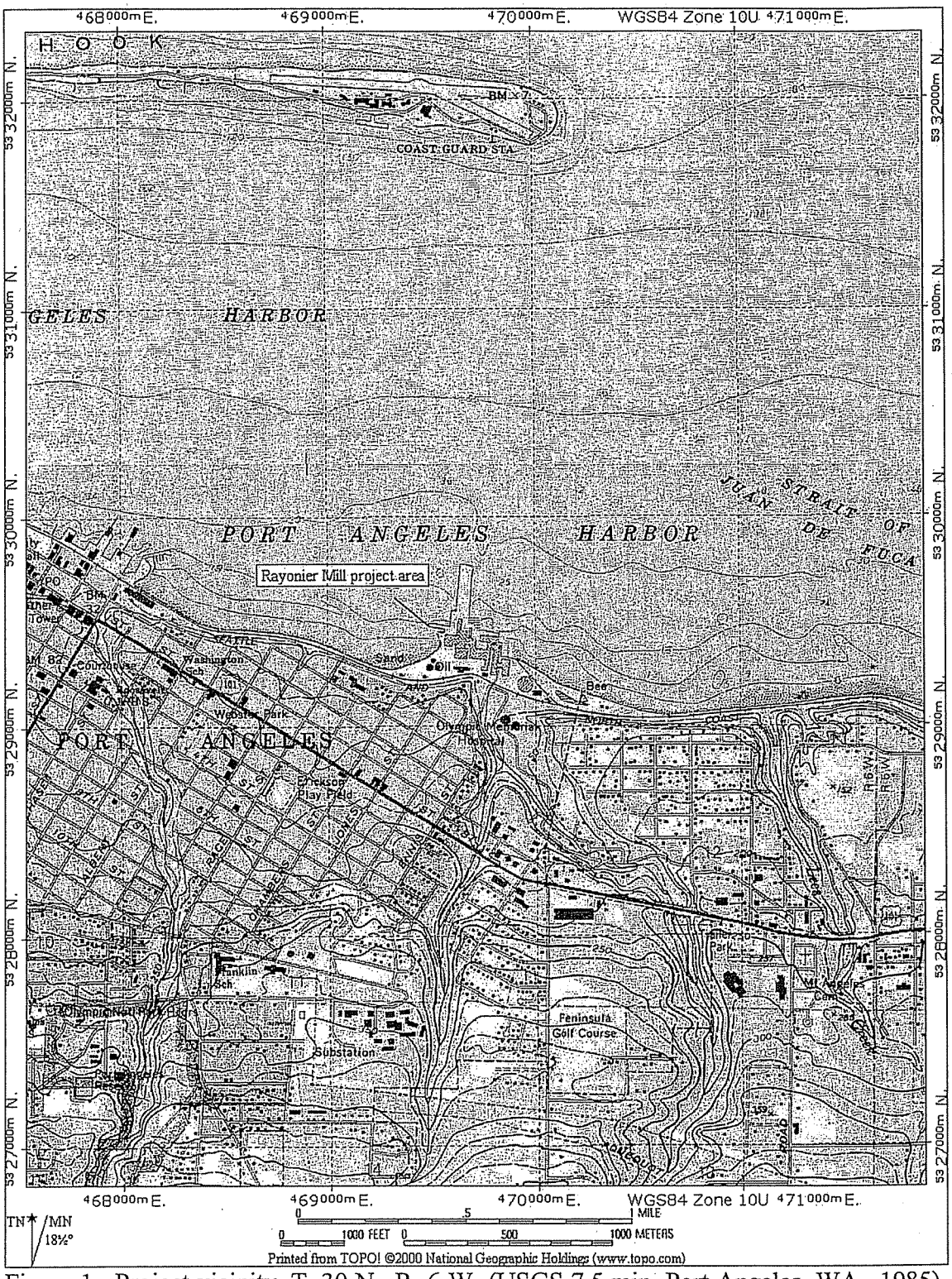


Figure 1. Project vicinity, T. 30 N., R. 6 W. (USGS 7.5 min. Port Angeles, WA., 1985).

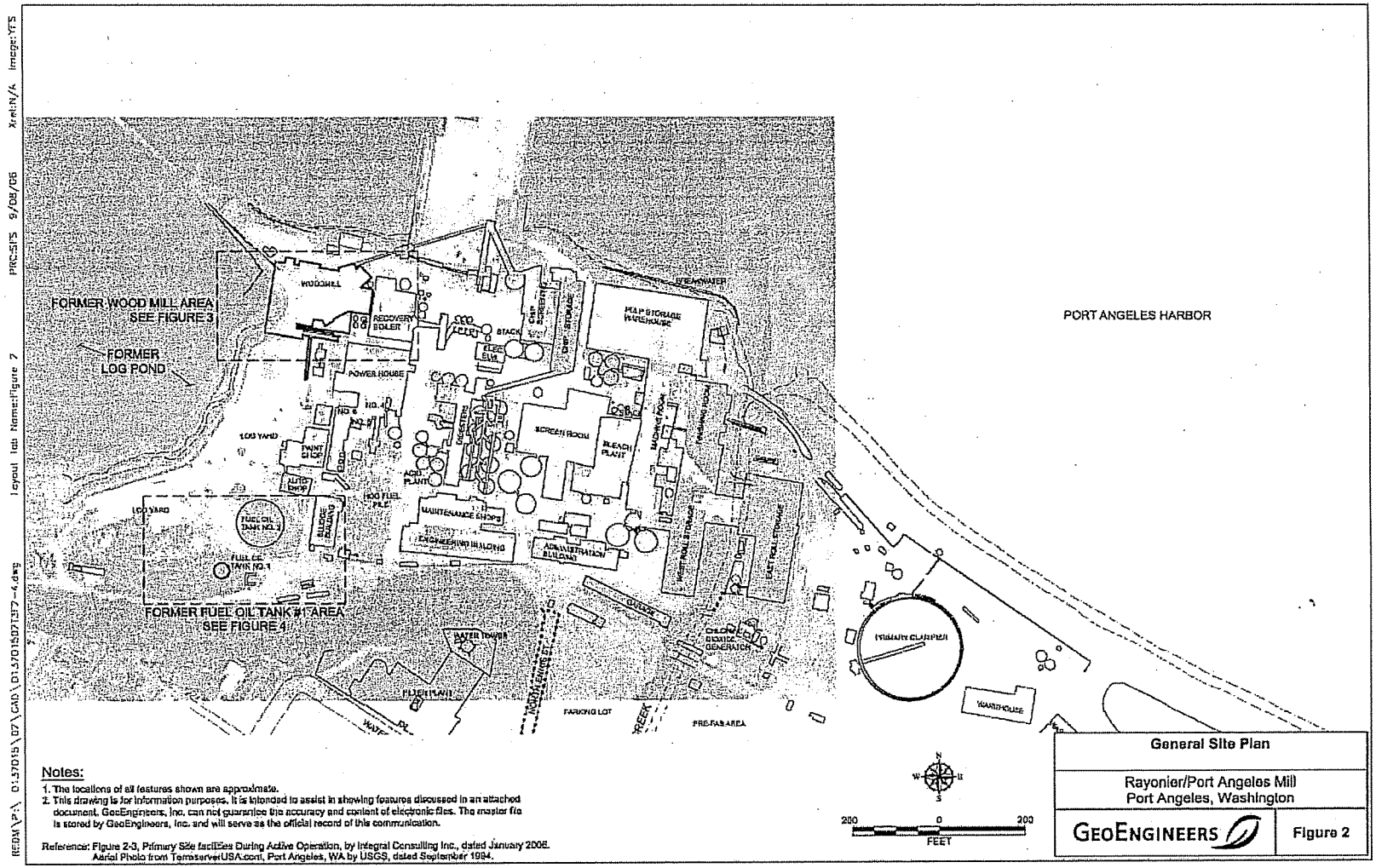


Figure 2. Rayonier property showing former facilities, including two remediation sites (in boxes).

BACKGROUND

The Rayonier Port Angeles Mill was constructed near a nineteenth century Klallam village, *I'e'nis (*or *I-eh-nus,* or *Y'innis)*. According to late nineteenth century accounts by members of the Puget Sound Cooperative Colony who settled on the west side of the creek, the village was on the east side of the mouth of Ennis Creek (LeWarne 1975:33). The artist Paul Kane, who traveled through the region in 1847, arrived at I'e'nis on May 9 of that year. He stayed three days, during which time he made several sketches. He described I'e'nis as a "Clallum village or fort" consisting of a large roofed structure with "compartments or pens" for 30 or 40 families, surrounded by a double row of sharpened pickets (Harper 1971). One of Kane's sketches depicts a battle with the Makah, who had recently raided I'e'nis after the villagers caught a whale whose carcass had drifted away from the Makah. A painting made from the sketch shows the stockaded village and several graves a short distance to its east; the graves were not in the original sketch but appear in a separate sketch entitled *"Graves at I-eh-nus"* (Harper 1971:304; Robbins et al. 1997:11).

No known historical photographs depict I'e'nis, although several photos show Native Americans and canoes on Hollywood Beach, between Ennis Creek and Ediz Hook. One of these photos, taken between 1897 and 1900, shows a camp with temporary shelters and canoes on the beach west of Ennis Creek. A long wharf or pier is barely visible to the east in the background of the photo; it could be the one associated with the Puget Sound Cooperative Colony's sawmill near the mouth of Ennis Creek (Robbins et al. 1997:Figure 3).

Sustained Euroamerican use of lower Ennis Creek began when the Puget Sound Cooperative Colony (PSCC), the first of several utopian communities built in the Puget Sound region during the late nineteenth and early twentieth centuries, was established in 1887 (LeWarne 1975). Buildings were initially constructed on the west side of the creek and included a sawmill, hotel, school, store, and residences (Figure 3). At this time, Klallam people still occupied their village on the east side of the creek. In addition to providing lumber for the growing Colony, the PSCC's mill also supplied lumber, shakes, and shingles for a number of early structures in Port Angeles built by Colony members, including the Opera House, schools, churches, and the town's first office building. The lumber market collapsed during the depression of 1893 and the same year, the PSCC sawmill burned down (Harper 1969; LeWarne 1975). Shortly afterward, the Colony went into receivership and in 1904 the site was abandoned.

The sawmill was located some distance west of the other major buildings of the Colony; according to historic maps from 1891 and 1892 and photographs (Figures 3, 4, and 5), the mill and wharf were north and slightly west of Chambers Street. This would place them about 450 ft. (140 m) west of the current project's Oil Tank No. 1 remediation location—a somewhat different location than was estimated by Robbins et al., which place the mill only about 65 ft. (20 m) west of the oil tank.

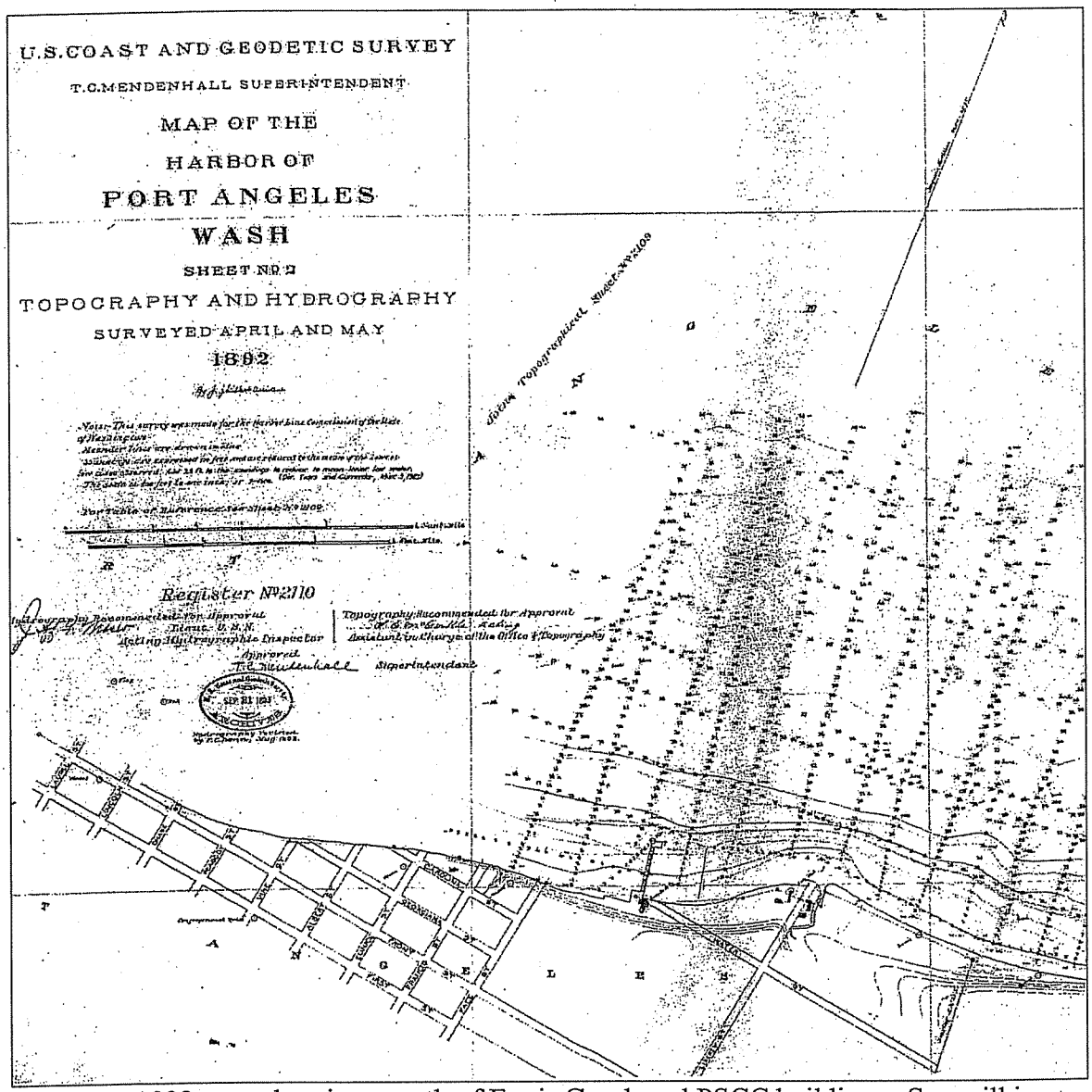


Figure 3. 1892 map showing mouth of Ennis Creek and PSCC buildings. Sawmill is building with wharf to west of other PSCC structures (North Olympic Library System, Port Angeles).

SUMMARY AND CONCLUSIONS

No evidence of archaeological deposits associated with prehistoric or historic period Native American occupation was observed at the north or south remediation sites. At the north site, intact sediments were deeply buried beneath 16 to 35 ft. of fill and hog fuel deposited during operation of the mill between the 1930s and 1990s. Excavation was terminated within fill or sawdust/hog fuel over most of the north remediation site. Intact sediments exposed in test pits appeared to be intertidal or subtidal and contained no cultural material. Pilings and structural remains removed during the remediation were from the wood mill building, although some pilings or other elements could have originated as parts of the spruce mill.

At the south remediation site, one to two courses of logs were exposed about 7 ft. bs, at the base of fill on sandy beach sediments. No other structural elements such as pilings were uncovered, and the logs appeared to form some kind of cribbing and/or decking set directly on the beach. The origin of this feature is not clear, as it is at some distance from the known or estimated locations of both Puget Sound Cooperative Colony and Spruce Mill structures, but it may have been designed to hold timber, logs, or milled lumber. According to historical sources, the PSCC mill burned down in 1893. The feature is not likely to be considered significant under criteria of the National Register of Historic Places as an individual property nor is it likely to be a significant contributing element of the PSCC, which is listed on the Washington Heritage Register.

This report should be submitted to the appropriate agencies, including the Washington State Department of Archaeology and Historic Preservation and the Lower Elwha Klallam Tribe, for comment.

REFERENCES CITED

Craig, Paul
2006 Geologist, GeoEngineers, Redmond, WA. Personal communication, August.

Dunn, Larry
2006 Cultural Resources division, Lower Elwha Klallam Tribe, Port Angeles. Personal communication, August.

Harper, Mrs. Irwin C.
1969 National Register of Historic Places Nomination Form, Puget Sound Cooperative Colony (45CA236H). On file, Washington State Department of Archaeology and Historic Preservation, Olympia.

Harper, J.Russell (editor)
1971 *Paul Kane's Frontier.* University of Toronto Press, Toronto.

LeWarne, Charles P.
1975 *Utopias on Puget Sound, 1885-1915.* University of Washington Press, Seattle.

Rayonier, Inc.
1997 *Community Update: Port Angeles Mill Dismantling.* Public newsletter, March. Vol. 1, No. 1.

Robbins, J.R., L.A. Forsman, and L.L. Larson
1997 *Rayonier, Incorporated Port Angeles Mill, Port Angeles, Clallam County, Washington, Dismantling and Remediation Project Cultural Resource Asssessment.* LAAS Technical Report 97-15. Submitted to Rayonier, Inc., Port Angeles, WA.

U.S. Coast and Geodetic Survey.
1892 *Map of the Harbor of Port Angeles, Wash.* Sheet No. 2. Topography and Hydrography. On file, North Olympic Library System, Port Angeles.

Ware, W.J.
1891 *Map Showing the Townsite of Port Angeles.* On file, North Olympic Library System, Port Angeles.

GeoEngineers

APPENDIX D
FIELD PROCEDURES

APPENDIX D
FIELD PROCEDURES

SOIL SAMPLING

Soil samples were collected using a track-mounted excavator bucket or by hand directly from the excavation limits. Discrete soil samples were obtained by hand using a decontaminated stainless steel trowel. In general, the samples were obtained from undisturbed soil located approximately 3 inches to 6 inches into undisturbed soil in the sidewalls or base of the excavation. Each sample location was mapped. The sampling frequency was generally as follows:

Description	Sample Frequency
Excavation Base	One discrete sample spaced approximately 40-foot on center (staggered). In some instances, the sample density was increased for further characterization. Soil samples were obtained from locations representative of unexcavated soil.
Excavation Sidewalls	One discrete soil sample at approximately 40-feet on center. In some instances, the sample density was increased for further characterization. Soil samples were obtained from locations representative of unexcavated soil.

A portion of each sample was retained for logging and field screening. Selected samples were submitted for chemical analysis. EPA- and Ecology-recommended sample handling procedures were followed including, but not limited to: immediately placing soil samples in 4-ounce laboratory-prepared glass sample containers; filling each 4-ounce container completely to minimize headspace; and/or placing the sample containers in labeled and iced coolers during transport to the laboratory. Chain of custody procedures were followed during sample storage and in transport to the testing laboratory. Field records indicating the sample identification and the origin of the sample were maintained.

Logging of Soil Samples

Soil samples obtained from the excavation were visually observed and the soil type classified in general accordance with American Society for Testing and Materials (ASTM) D-2488-90. Soil classifications were included in the field sample log information.

Field Screening

The field screening methods for this project were as follows:

- Visual screening consists of inspecting the soil for stains indicative of petroleum-related contamination.
- Water sheen screening involves placing soil in water and observing the water surface for signs of sheen. Sheen screening may detect both volatile and nonvolatile petroleum hydrocarbons. Sheen classifications are as follows:

No Sheen (NS)	No visible sheen on water surface.
Slight Sheen (SS)	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil may produce a slight sheen.
Moderate Sheen (MS)	Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; few remaining areas of no sheen on water surface.
Heavy Sheen (HS)	Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Field screening results are site-specific. The results may vary with temperature, moisture content, soil lithology, organic content and type of contaminant. The presence or absence of a sheen does not necessarily indicate the presence or absence of petroleum hydrocarbons.

EQUIPMENT RINSATE SAMPLING PROCEDURE

The rinsate sample was collected after cleaning and decontamination of the sampling trowel under normal operating conditions. Collection of a rinsate sample was conducted by pouring purified water over the apparatus and into the sample containers.

DEWATERING FLUID SAMPLING

Dewatering fluid stored in the East and West Storage tanks at the site were sampled to characterize the fluid for disposal. New polyethylene tubing was used to obtain a sample from each tank. A siphon was established with the new tubing in each tank and the fluid transferred to laboratory-supplied containers. The tubing was slowly moved up and down in the water column of each tank to obtain a representative sample from the tank. Fluid was transferred to the sample containers by decanting the fluid down the side of the container. Each sample container was filled to reduce headspace.

APPENDIX E
SOIL DISPOSAL (TONNAGE) TALLY

Bruch & Bruch Construction
Rayonier Mill Cleanup 2006
Soil to Port Angeles Landfill

Date	Loads	Average Tonnage	Total Tons	Material
08/02/06	40	28.58	1,143.20	Soil
08/03/06	53	30.27	1,604.31	Soil
08/04/06	3	22.40	67.20	Concrete
08/04/06	39	29.87	1,164.93	Soil
08/07/06	39	29.83	1,163.37	Soil
08/08/06	8	29.83	238.64	Soil
08/09/06	55	30.55	1,680.25	Soil
08/10/06	33	27.80	917.40	Soil
Totals	**270**		**7,979.30**	

Date	Truck #	Gross	Tare	Net	Tons	Material
08/10/06	BB4	81,800	36,500	45,300	22.65	Soil
	BB5	96,080	39,580	56,500	28.25	Soil
	DA17	90,100	38,000	52,100	26.05	Soil
	DA13	101,340	41,300	60,040	30.02	Soil
	DL11	99,640	39,980	59,660	29.83	Soil
	JD7	98,300	36,500	61,800	30.90	Soil
	CJ12	92,600	37,860	54,740	27.37	Soil
	CJ8	93,560	38,900	54,660	27.33	Soil
08/09/06	BB4	94,500	36,500	58,000	29.00	Soil
	BB5	97,840	39,560	58,280	29.14	Soil
	CJ12	103,020	37,860	65,160	32.58	Soil
	CJ8	101,900	38,900	63,000	31.50	Soil
	DL11	99,200	39,960	59,240	29.62	Soil
	JD7	99,430	36,500	62,930	31.47	Soil
08/08/06	BB5	98,240	39,400	58,840	29.42	Soil
	DL11	99,120	39,760	59,360	29.68	Soil
	CJ12	99,980	37,860	62,120	31.06	Soil
	CJ8	97,200	38,900	58,300	29.15	Soil
08/07/06	BB4	95,500	36,500	59,000	29.50	Soil
	BB5	97,240	39,440	57,800	28.90	Soil
	DL11	98,680	39,990	58,690	29.35	Soil
	CJ8	98,860	39,040	59,820	29.91	Soil
	CJ12	100,800	37,860	62,940	31.47	Soil
08/04/06	CJ-SIDE	80,880	38,400	42,480	21.24	Concrete
	CJ-SIDE	86,900	38,400	48,500	24.25	Concrete
	CJ-SIDE	81,740	38,320	43,420	21.71	Concrete
	BB4	92,500	36,500	56,000	28.00	Soil
	BB5	98,060	39,520	58,540	29.27	Soil
	CJ8	102,080	39,040	63,040	31.52	Soil
	CJ12	99,740	37,820	61,920	30.96	Soil
	DL11	99,220	39,980	59,240	29.62	Soil
08/03/06	BB4	96,300	36,500	59,800	29.90	Soil
	BB5	99,870	39,560	60,310	30.16	Soil
	DA17	98,100	38,200	59,900	29.95	Soil
	DA13	101,420	41,300	60,120	30.06	Soil
	CJ12	101,760	37,820	63,940	31.97	Soil
	CJ8	100,480	39,040	61,440	30.72	Soil
	DL11	98,220	39,910	58,310	29.16	Soil
08/02/06	BB4	91,500	36,500	55,000	27.50	Soil
	BB5	97,840	39,560	58,280	29.14	Soil
	DL11	97,980	39,880	58,100	29.05	Soil
	CJ12	94,820	39,040	55,780	27.89	Soil
	CJ8	96,820	38,200	58,620	29.31	Soil

Note: Table above was provided by Bruch & Bruch Construction.

GeoEngineers

APPENDIX F
CHEMICAL ANALYTICAL DATA

APPENDIX F
CHEMICAL ANALYTICAL DATA

SAMPLES

Chain-of-custody procedures were followed during the transport of the field samples to the accredited analytical laboratory. The samples were held in cold storage pending extraction and/or analysis. The analytical results and quality control records are included in this appendix.

ANALYTICAL DATA REVIEW

The laboratory(s) maintains an internal quality assurance program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike recoveries, matrix spike duplicate recoveries, blank spike recoveries and blank spike duplicate recoveries to evaluate the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The data quality goals were included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and noted any exceptions in the laboratory report. Any data quality exceptions documented by the accredited laboratory were reviewed by GeoEngineers and are addressed in the data quality exception section of this appendix.

DATA QUALITY EXCEPTION SUMMARY

A summary of the data notations and significant data quality exceptions noted in the laboratory report or during our review is presented below. With the qualifications noted below, it is our opinion that the analytical data are of acceptable quality for their intended use in this report.

- The sample "WM-EX-9-[080706]-10.0 had two surrogates outside of control limits. The sample was re-extracted with similar results, indicating probable matrix interference. The sample data are considered acceptable for the purposes of this study based on the acceptable surrogate recoveries for other samples and for laboratory quality control samples.

- The sample (WM-EX-16-[080806]-14.0) chosen for the NS/MSD pair had relatively high levels of background contamination and so did not yield meaningful recovery or reproducibility data for all analytes. A spike blank extracted with this batch had all parameters in control, so the data are considered acceptable for the purpose of this study.

- Sample WM-EX-10-[080806]-16.0 (Lab ID: 08-097-34) was extracted outside of hold time. This sample was re-analyzed to demonstrate the variability of concentrations of cPAHs. Despite being extracted approximately two weeks outside of the recommended hold time, the sample data are considered acceptable for the purposes of this study based on the persistence of cPAHs in soil.

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

August 15, 2006

Paul Craig
GeoEngineers, Inc.
8410 154th Avenue NE
Redmond, WA 98052

Re: Analytical Data for Project 0137-015-02
Laboratory Reference No. 0608-062

Dear Paul:

Enclosed are the analytical results and associated quality control data for samples submitted on August 5, 2006.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

Case Narrative

Samples were collected on August 1, 2, 3, and 4, 2006 and received by the laboratory on August 5, 2006. They were maintained at the laboratory at a temperature of 2°C to 6°C except as noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
FOT-EX-1-[080106]-9.5	08-062-01	Soil	8-1-06	8-5-06	
FOT-EX-2-[080206]-9.0	08-062-02	Soil	8-2-06	8-5-06	
FOT-EX-3-[080206]-11.0	08-062-03	Soil	8-2-06	8-5-06	
FOT-EX-4-[080206]-8.0	08-062-04	Soil	8-2-06	8-5-06	
FOT-EX-5-[080206]-15.0	08-062-05	Soil	8-2-06	8-5-06	
FOT-EX-6-[080206]-3.0	08-062-06	Soil	8-2-06	8-5-06	
FOT-EX-7-[080206]-3.0	08-062-07	Soil	8-2-06	8-5-06	
FOT-EX-8-[080206]-8.0	08-062-08	Soil	8-2-06	8-5-06	
FOT-EX-9-[080206]-6.0	08-062-09	Soil	8-2-06	8-5-06	
FOT-EX-12-[080306]-6.0	08-062-10	Soil	8-3-06	8-5-06	
FOT-EX-13-[080306]-13.0	08-062-11	Soil	8-3-06	8-5-06	
FOT-EX-14-[080306]-9.0	08-062-12	Soil	8-3-06	8-5-06	
WM-EX-1-[080306]-8.0	08-062-13	Soil	8-3-06	8-5-06	
WM-EX-2-[080306]-11.0	08-062-14	Soil	8-3-06	8-5-06	
WM-EX-3-[080306]-10.0	08-062-15	Soil	8-3-06	8-5-06	
WM-EX-4-[080406]-13.0	08-062-16	Soil	8-4-06	8-5-06	
WM-EX-5-[080406]-16.0	08-062-17	Soil	8-4-06	8-5-06	

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-12-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-01
Client ID:	**FOT-EX-1-[080106]-9.5**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0082
2-Methylnaphthalene	ND		0.0082
1-Methylnaphthalene	ND		0.0082
Acenaphthylene	ND		0.0082
Acenaphthene	ND		0.0082
Fluorene	ND		0.0082
Phenanthrene	ND		0.0082
Anthracene	ND		0.0082
Fluoranthene	ND		0.0082
Pyrene	ND		0.0082
Benzo[a]anthracene	ND		0.0082
Chrysene	ND		0.0082
Benzo[b]fluoranthene	ND		0.0082
Benzo[k]fluoranthene	ND		0.0082
Benzo[a]pyrene	ND		0.0082
Indeno(1,2,3-c,d)pyrene	ND		0.0082
Dibenz[a,h]anthracene	ND		0.0082
Benzo[g,h,i]perylene	ND		0.0082

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	59	49 - 121
2-Fluorobiphenyl	61	53 - 110
Terphenyl-d14	95	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-12-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-02
Client ID:	**FOT-EX-2-[080206]-9.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0072
2-Methylnaphthalene	ND		0.0072
1-Methylnaphthalene	ND		0.0072
Acenaphthylene	ND		0.0072
Acenaphthene	ND		0.0072
Fluorene	ND		0.0072
Phenanthrene	ND		0.0072
Anthracene	ND		0.0072
Fluoranthene	ND		0.0072
Pyrene	ND		0.0072
Benzo[a]anthracene	ND		0.0072
Chrysene	ND		0.0072
Benzo[b]fluoranthene	ND		0.0072
Benzo[k]fluoranthene	ND		0.0072
Benzo[a]pyrene	ND		0.0072
Indeno(1,2,3-c,d)pyrene	ND		0.0072
Dibenz[a,h]anthracene	ND		0.0072
Benzo[g,h,i]perylene	ND		0.0072

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	54	49 - 121
2-Fluorobiphenyl	56	53 - 110
Terphenyl-d14	93	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-12-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-03
Client ID:	**FOT-EX-3-[080206]-11.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0083
2-Methylnaphthalene	0.014		0.0083
1-Methylnaphthalene	0.042		0.0083
Acenaphthylene	ND		0.0083
Acenaphthene	0.019		0.0083
Fluorene	0.028		0.0083
Phenanthrene	0.17		0.0083
Anthracene	0.017		0.0083
Fluoranthene	0.051		0.0083
Pyrene	0.39		0.0083
Benzo[a]anthracene	0.16		0.0083
Chrysene	0.31		0.0083
Benzo[b]fluoranthene	0.068		0.0083
Benzo[k]fluoranthene	0.011		0.0083
Benzo[a]pyrene	0.10		0.0083
Indeno(1,2,3-c,d)pyrene	0.019		0.0083
Dibenz[a,h]anthracene	0.018		0.0083
Benzo[g,h,i]perylene	0.045		0.0083

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	62	49 - 121
2-Fluorobiphenyl	69	53 - 110
Terphenyl-d14	98	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-12-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-04
Client ID:	**FOT-EX-4-[080206]-8.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0078
2-Methylnaphthalene	ND		0.0078
1-Methylnaphthalene	ND		0.0078
Acenaphthylene	ND		0.0078
Acenaphthene	ND		0.0078
Fluorene	ND		0.0078
Phenanthrene	ND		0.0078
Anthracene	ND		0.0078
Fluoranthene	ND		0.0078
Pyrene	ND		0.0078
Benzo[a]anthracene	ND		0.0078
Chrysene	ND		0.0078
Benzo[b]fluoranthene	ND		0.0078
Benzo[k]fluoranthene	ND		0.0078
Benzo[a]pyrene	ND		0.0078
Indeno(1,2,3-c,d)pyrene	ND		0.0078
Dibenz[a,h]anthracene	ND		0.0078
Benzo[g,h,i]perylene	ND		0.0078

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	58	49 - 121
2-Fluorobiphenyl	61	53 - 110
Terphenyl-d14	92	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-12-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-05
Client ID:	**FOT-EX-5-[080206]-15.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0083
2-Methylnaphthalene	ND		0.0083
1-Methylnaphthalene	ND		0.0083
Acenaphthylene	ND		0.0083
Acenaphthene	ND		0.0083
Fluorene	ND		0.0083
Phenanthrene	ND		0.0083
Anthracene	ND		0.0083
Fluoranthene	ND		0.0083
Pyrene	ND		0.0083
Benzo[a]anthracene	ND		0.0083
Chrysene	ND		0.0083
Benzo[b]fluoranthene	ND		0.0083
Benzo[k]fluoranthene	ND		0.0083
Benzo[a]pyrene	ND		0.0083
Indeno(1,2,3-c,d)pyrene	ND		0.0083
Dibenz[a,h]anthracene	ND		0.0083
Benzo[g,h,i]perylene	ND		0.0083

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	65	49 - 121
2-Fluorobiphenyl	67	53 - 110
Terphenyl-d14	96	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-13-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-06
Client ID:	**FOT-EX-6-[080206]-3.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0080
2-Methylnaphthalene	0.015		0.0080
1-Methylnaphthalene	0.017		0.0080
Acenaphthylene	ND		0.0080
Acenaphthene	ND		0.0080
Fluorene	ND		0.0080
Phenanthrene	0.0084		0.0080
Anthracene	ND		0.0080
Fluoranthene	ND		0.0080
Pyrene	ND		0.0080
Benzo[a]anthracene	ND		0.0080
Chrysene	ND		0.0080
Benzo[b]fluoranthene	ND		0.0080
Benzo[k]fluoranthene	ND		0.0080
Benzo[a]pyrene	ND		0.0080
Indeno(1,2,3-c,d)pyrene	ND		0.0080
Dibenz[a,h]anthracene	ND		0.0080
Benzo[g,h,i]perylene	0.0083		0.0080

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	76	49 - 121
2-Fluorobiphenyl	78	53 - 110
Terphenyl-d14	104	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-12-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-07
Client ID:	**FOT-EX-7-[080206]-3.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0072
2-Methylnaphthalene	ND		0.0072
1-Methylnaphthalene	0.015		0.0072
Acenaphthylene	ND		0.0072
Acenaphthene	ND		0.0072
Fluorene	ND		0.0072
Phenanthrene	0.0098		0.0072
Anthracene	ND		0.0072
Fluoranthene	ND		0.0072
Pyrene	ND		0.0072
Benzo[a]anthracene	ND		0.0072
Chrysene	ND		0.0072
Benzo[b]fluoranthene	ND		0.0072
Benzo[k]fluoranthene	ND		0.0072
Benzo[a]pyrene	ND		0.0072
Indeno(1,2,3-c,d)pyrene	ND		0.0072
Dibenz[a,h]anthracene	ND		0.0072
Benzo[g,h,i]perylene	ND		0.0072

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	65	49 - 121
2-Fluorobiphenyl	68	53 - 110
Terphenyl-d14	94	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-13-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-08
Client ID:	**FOT-EX-8-[080206]-8.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0078
2-Methylnaphthalene	ND		0.0078
1-Methylnaphthalene	ND		0.0078
Acenaphthylene	ND		0.0078
Acenaphthene	ND		0.0078
Fluorene	ND		0.0078
Phenanthrene	ND		0.0078
Anthracene	ND		0.0078
Fluoranthene	ND		0.0078
Pyrene	0.012		0.0078
Benzo[a]anthracene	ND		0.0078
Chrysene	0.010		0.0078
Benzo[b]fluoranthene	ND		0.0078
Benzo[k]fluoranthene	ND		0.0078
Benzo[a]pyrene	ND		0.0078
Indeno(1,2,3-c,d)pyrene	ND		0.0078
Dibenz[a,h]anthracene	ND		0.0078
Benzo[g,h,i]perylene	ND		0.0078

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	70	49 - 121
2-Fluorobiphenyl	69	53 - 110
Terphenyl-d14	97	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-13-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-09
Client ID:	**FOT-EX-9-[080206]-6.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	ND		0.0075
2-Methylnaphthalene	ND		0.0075
1-Methylnaphthalene	ND		0.0075
Acenaphthylene	ND		0.0075
Acenaphthene	ND		0.0075
Fluorene	ND		0.0075
Phenanthrene	ND		0.0075
Anthracene	ND		0.0075
Fluoranthene	ND		0.0075
Pyrene	ND		0.0075
Benzo[a]anthracene	ND		0.0075
Chrysene	ND		0.0075
Benzo[b]fluoranthene	ND		0.0075
Benzo[k]fluoranthene	ND		0.0075
Benzo[a]pyrene	ND		0.0075
Indeno(1,2,3-c,d)pyrene	ND		0.0075
Dibenz[a,h]anthracene	ND		0.0075
Benzo[g,h,i]perylene	ND		0.0075

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	70	49 - 121
2-Fluorobiphenyl	69	53 - 110
Terphenyl-d14	92	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-13-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-10
Client ID:	**FOT-EX-12-[080306]-6.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	ND		0.0072
2-Methylnaphthalene	ND		0.0072
1-Methylnaphthalene	ND		0.0072
Acenaphthylene	ND		0.0072
Acenaphthene	ND		0.0072
Fluorene	ND		0.0072
Phenanthrene	ND		0.0072
Anthracene	ND		0.0072
Fluoranthene	ND		0.0072
Pyrene	ND		0.0072
Benzo[a]anthracene	ND		0.0072
Chrysene	ND		0.0072
Benzo[b]fluoranthene	ND		0.0072
Benzo[k]fluoranthene	ND		0.0072
Benzo[a]pyrene	ND		0.0072
Indeno(1,2,3-c,d)pyrene	ND		0.0072
Dibenz[a,h]anthracene	ND		0.0072
Benzo[g,h,i]perylene	ND		0.0072

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	63	49 - 121
2-Fluorobiphenyl	66	53 - 110
Terphenyl-d14	98	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-13-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-11
Client ID:	**FOT-EX-13-[080306]-13.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	ND		0.0085
2-Methylnaphthalene	ND		0.0085
1-Methylnaphthalene	ND		0.0085
Acenaphthylene	ND		0.0085
Acenaphthene	ND		0.0085
Fluorene	ND		0.0085
Phenanthrene	0.0086		0.0085
Anthracene	ND		0.0085
Fluoranthene	ND		0.0085
Pyrene	0.0092		0.0085
Benzo[a]anthracene	ND		0.0085
Chrysene	0.0094		0.0085
Benzo[b]fluoranthene	ND		0.0085
Benzo[k]fluoranthene	ND		0.0085
Benzo[a]pyrene	ND		0.0085
Indeno(1,2,3-c,d)pyrene	ND		0.0085
Dibenz[a,h]anthracene	ND		0.0085
Benzo[g,h,i]perylene	ND		0.0085

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	61	49 - 121
2-Fluorobiphenyl	65	53 - 110
Terphenyl-d14	93	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-13-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-12
Client ID:	**FOT-EX-14-[080306]-9.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	ND		0.0073
2-Methylnaphthalene	ND		0.0073
1-Methylnaphthalene	ND		0.0073
Acenaphthylene	ND		0.0073
Acenaphthene	ND		0.0073
Fluorene	ND		0.0073
Phenanthrene	ND		0.0073
Anthracene	ND		0.0073
Fluoranthene	ND		0.0073
Pyrene	ND		0.0073
Benzo[a]anthracene	ND		0.0073
Chrysene	ND		0.0073
Benzo[b]fluoranthene	ND		0.0073
Benzo[k]fluoranthene	ND		0.0073
Benzo[a]pyrene	ND		0.0073
Indeno(1,2,3-c,d)pyrene	ND		0.0073
Dibenz[a,h]anthracene	ND		0.0073
Benzo[g,h,i]perylene	ND		0.0073

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	64	49 - 121
2-Fluorobiphenyl	66	53 - 110
Terphenyl-d14	94	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-13-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-13
Client ID:	**WM-EX-1-[080306]-8.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	ND		0.0073
2-Methylnaphthalene	ND		0.0073
1-Methylnaphthalene	ND		0.0073
Acenaphthylene	ND		0.0073
Acenaphthene	ND		0.0073
Fluorene	ND		0.0073
Phenanthrene	0.010		0.0073
Anthracene	ND		0.0073
Fluoranthene	0.012		0.0073
Pyrene	0.014		0.0073
Benzo[a]anthracene	ND		0.0073
Chrysene	ND		0.0073
Benzo[b]fluoranthene	ND		0.0073
Benzo[k]fluoranthene	ND		0.0073
Benzo[a]pyrene	ND		0.0073
Indeno(1,2,3-c,d)pyrene	ND		0.0073
Dibenz[a,h]anthracene	ND		0.0073
Benzo[g,h,i]perylene	ND		0.0073

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	70	49 - 121
2-Fluorobiphenyl	75	53 - 110
Terphenyl-d14	100	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-13-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-14
Client ID:	**WM-EX-2-[080306]-11.0**

Compound:	Results	Flags	PQL
Naphthalene	0.010		0.0075
2-Methylnaphthalene	ND		0.0075
1-Methylnaphthalene	ND		0.0075
Acenaphthylene	ND		0.0075
Acenaphthene	0.014		0.0075
Fluorene	ND		0.0075
Phenanthrene	0.023		0.0075
Anthracene	0.020		0.0075
Fluoranthene	0.066		0.0075
Pyrene	0.11		0.0075
Benzo[a]anthracene	0.031		0.0075
Chrysene	0.036		0.0075
Benzo[b]fluoranthene	0.039		0.0075
Benzo[k]fluoranthene	0.0092		0.0075
Benzo[a]pyrene	0.027		0.0075
Indeno(1,2,3-c,d)pyrene	0.019		0.0075
Dibenz[a,h]anthracene	ND		0.0075
Benzo[g,h,i]perylene	0.039		0.0075

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	69	49 - 121
2-Fluorobiphenyl	77	53 - 110
Terphenyl-d14	100	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-13-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-15
Client ID:	**WM-EX-3-[080306]-10.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0075
2-Methylnaphthalene	ND		0.0075
1-Methylnaphthalene	ND		0.0075
Acenaphthylene	ND		0.0075
Acenaphthene	ND		0.0075
Fluorene	ND		0.0075
Phenanthrene	0.013		0.0075
Anthracene	ND		0.0075
Fluoranthene	0.035		0.0075
Pyrene	0.050		0.0075
Benzo[a]anthracene	0.0092		0.0075
Chrysene	0.011		0.0075
Benzo[b]fluoranthene	0.017		0.0075
Benzo[k]fluoranthene	ND		0.0075
Benzo[a]pyrene	0.0090		0.0075
Indeno(1,2,3-c,d)pyrene	ND		0.0075
Dibenz[a,h]anthracene	ND		0.0075
Benzo[g,h,i]perylene	0.0093		0.0075

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	67	49 - 121
2-Fluorobiphenyl	69	53 - 110
Terphenyl-d14	95	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-13-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-16
Client ID:	**WM-EX-4-[080406]-13.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0077
2-Methylnaphthalene	ND		0.0077
1-Methylnaphthalene	ND		0.0077
Acenaphthylene	ND		0.0077
Acenaphthene	0.012		0.0077
Fluorene	ND		0.0077
Phenanthrene	0.010		0.0077
Anthracene	ND		0.0077
Fluoranthene	0.013		0.0077
Pyrene	0.019		0.0077
Benzo[a]anthracene	ND		0.0077
Chrysene	ND		0.0077
Benzo[b]fluoranthene	ND		0.0077
Benzo[k]fluoranthene	ND		0.0077
Benzo[a]pyrene	ND		0.0077
Indeno(1,2,3-c,d)pyrene	ND		0.0077
Dibenz[a,h]anthracene	ND		0.0077
Benzo[g,h,i]perylene	ND		0.0077

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	70	49 - 121
2-Fluorobiphenyl	71	53 - 110
Terphenyl-d14	92	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-10-06
Date Analyzed:	8-13-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-062-17
Client ID:	**WM-EX-5-[080406]-16.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	0.019		0.0077
2-Methylnaphthalene	ND		0.0077
1-Methylnaphthalene	ND		0.0077
Acenaphthylene	ND		0.0077
Acenaphthene	0.022		0.0077
Fluorene	0.027		0.0077
Phenanthrene	0.026		0.0077
Anthracene	ND		0.0077
Fluoranthene	0.11		0.0077
Pyrene	0.074		0.0077
Benzo[a]anthracene	0.013		0.0077
Chrysene	0.0087		0.0077
Benzo[b]fluoranthene	0.0083		0.0077
Benzo[k]fluoranthene	ND		0.0077
Benzo[a]pyrene	ND		0.0077
Indeno(1,2,3-c,d)pyrene	ND		0.0077
Dibenz[a,h]anthracene	ND		0.0077
Benzo[g,h,i]perylene	ND		0.0077

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	57	49 - 121
2-Fluorobiphenyl	59	53 - 110
Terphenyl-d14	90	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM
METHOD BLANK QUALITY CONTROL

Date Extracted:	8-10-06
Date Analyzed:	8-12-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	MB0810S1

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0067
2-Methylnaphthalene	ND		0.0067
1-Methylnaphthalene	ND		0.0067
Acenaphthylene	ND		0.0067
Acenaphthene	ND		0.0067
Fluorene	ND		0.0067
Phenanthrene	ND		0.0067
Anthracene	ND		0.0067
Fluoranthene	ND		0.0067
Pyrene	ND		0.0067
Benzo[a]anthracene	ND		0.0067
Chrysene	ND		0.0067
Benzo[b]fluoranthene	ND		0.0067
Benzo[k]fluoranthene	ND		0.0067
Benzo[a]pyrene	ND		0.0067
Indeno(1,2,3-c,d)pyrene	ND		0.0067
Dibenz[a,h]anthracene	ND		0.0067
Benzo[g,h,i]perylene	ND		0.0067

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	62	49 - 121
2-Fluorobiphenyl	65	53 - 110
Terphenyl-d14	95	64 - 123

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PAHs by EPA 8270C/SIM
MS/MSD QUALITY CONTROL

Date Extracted: 8-10-06
Date Analyzed: 8-12-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-062-07

Compound:	Sample Amount	Spike Amount	MS	Percent Recovery	MSD	Percent Recovery	Recovery Limits	Flags
Naphthalene	ND	0.0833	0.0638	77	0.0656	79	30-115	
Acenaphthylene	ND	0.0833	0.0667	80	0.0649	78	46-125	
Acenaphthene	ND	0.0833	0.0703	84	0.0680	82	40-119	
Fluorene	ND	0.0833	0.0775	93	0.0728	87	50-133	
Phenanthrene	0.00911	0.0833	0.0869	93	0.0844	90	48-128	
Anthracene	ND	0.0833	0.0742	89	0.0721	87	53-134	
Fluoranthene	ND	0.0833	0.0823	99	0.0831	100	50-143	
Pyrene	ND	0.0833	0.0810	97	0.0813	98	44-139	
Benzo[a]anthracene	ND	0.0833	0.0857	103	0.0867	104	62-129	
Chrysene	ND	0.0833	0.0775	93	0.0777	93	42-127	
Benzo[b]fluoranthene	ND	0.0833	0.0764	92	0.0798	96	57-132	
Benzo[k]fluoranthene	ND	0.0833	0.0774	93	0.0762	91	57-131	
Benzo[a]pyrene	ND	0.0833	0.0731	88	0.0753	90	59-132	
Indeno(1,2,3-c,d)pyrene	ND	0.0833	0.0740	89	0.0750	90	55-135	
Dibenz[a,h]anthracene	ND	0.0833	0.0763	92	0.0781	94	36-146	
Benzo[g,h,i]perylene	ND	0.0833	0.0814	98	0.0831	100	42-140	

	RPD	RPD Limit	Flags
Naphthalene	3	25	
Acenaphthylene	3	25	
Acenaphthene	3	25	
Fluorene	6	25	
Phenanthrene	3	25	
Anthracene	3	25	
Fluoranthene	1	25	
Pyrene	0	25	
Benzo[a]anthracene	1	25	
Chrysene	0	25	
Benzo[b]fluoranthene	4	25	
Benzo[k]fluoranthene	2	25	
Benzo[a]pyrene	3	25	
Indeno(1,2,3-c,d)pyrene	1	25	
Dibenz[a,h]anthracene	2	25	
Benzo[g,h,i]perylene	2	25	

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PCBs by EPA 8082

Date Extracted: 8-8-06
Date Analyzed: 8-12-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-062-01
Client ID: **FOT-EX-1-[080106]-9.5**

	Result	PQL
Aroclor 1016:	**ND**	0.062
Aroclor 1221:	**ND**	0.062
Aroclor 1232:	**ND**	0.062
Aroclor 1242:	**ND**	0.062
Aroclor 1248:	**ND**	0.062
Aroclor 1254:	**ND**	0.062
Aroclor 1260:	**ND**	0.062

Surrogate	Percent Recovery	Control Limits
Decachlorobiphenyl	77	41-128

Flags:

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PCBs by EPA 8082

Date Extracted: 8-8-06
Date Analyzed: 8-12-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-062-02
Client ID: **FOT-EX-2-[080206]-9.0**

	Result	PQL
Aroclor 1016:	**ND**	0.054
Aroclor 1221:	**ND**	0.054
Aroclor 1232:	**ND**	0.054
Aroclor 1242:	**ND**	0.054
Aroclor 1248:	**ND**	0.054
Aroclor 1254:	**ND**	0.054
Aroclor 1260:	**ND**	0.054

Surrogate	Percent Recovery	Control Limits
Decachlorobiphenyl	86	41-128

Flags:

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PCBs by EPA 8082

Date Extracted: 8-8-06
Date Analyzed: 8-12-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-062-03
Client ID: **FOT-EX-3-[080206]-11.0**

	Result	PQL
Aroclor 1016:	**ND**	0.063
Aroclor 1221:	**ND**	0.063
Aroclor 1232:	**ND**	0.063
Aroclor 1242:	**ND**	0.063
Aroclor 1248:	**ND**	0.063
Aroclor 1254:	**ND**	0.063
Aroclor 1260:	**ND**	0.063

Surrogate	Percent Recovery	Control Limits
Decachlorobiphenyl	82	41-128

Flags:

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PCBs by EPA 8082

Date Extracted: 8-8-06
Date Analyzed: 8-12-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-062-04
Client ID: **FOT-EX-4-[080206]-8.0**

	Result	PQL
Aroclor 1016:	**ND**	0.059
Aroclor 1221:	**ND**	0.059
Aroclor 1232:	**ND**	0.059
Aroclor 1242:	**ND**	0.059
Aroclor 1248:	**ND**	0.059
Aroclor 1254:	**ND**	0.059
Aroclor 1260:	**ND**	0.059

Surrogate	Percent Recovery	Control Limits
Decachlorobiphenyl	79	41-128

Flags:

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PCBs by EPA 8082

Date Extracted: 8-8-06
Date Analyzed: 8-12-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-062-05
Client ID: **FOT-EX-5-[080206]-15.0**

	Result	PQL
Aroclor 1016:	**ND**	0.063
Aroclor 1221:	**ND**	0.063
Aroclor 1232:	**ND**	0.063
Aroclor 1242:	**ND**	0.063
Aroclor 1248:	**ND**	0.063
Aroclor 1254:	**ND**	0.063
Aroclor 1260:	**ND**	0.063

Surrogate	Percent Recovery	Control Limits
Decachlorobiphenyl	83	41-128

Flags:

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PCBs by EPA 8082

Date Extracted: 8-8-06
Date Analyzed: 8-12-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-062-10
Client ID: **FOT-EX-12-[080306]-6.0**

	Result	PQL
Aroclor 1016:	**ND**	0.054
Aroclor 1221:	**ND**	0.054
Aroclor 1232:	**ND**	0.054
Aroclor 1242:	**ND**	0.054
Aroclor 1248:	**ND**	0.054
Aroclor 1254:	**ND**	0.054
Aroclor 1260:	**ND**	0.054

Surrogate	Percent Recovery	Control Limits
Decachlorobiphenyl	89	41-128

Flags:

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PCBs by EPA 8082

Date Extracted: 8-8-06
Date Analyzed: 8-12-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-062-11
Client ID: **FOT-EX-13-[080306]-13.0**

	Result	PQL
Aroclor 1016:	**ND**	0.064
Aroclor 1221:	**ND**	0.064
Aroclor 1232:	**ND**	0.064
Aroclor 1242:	**ND**	0.064
Aroclor 1248:	**ND**	0.064
Aroclor 1254:	**ND**	0.064
Aroclor 1260:	**ND**	0.064

Surrogate	Percent Recovery	Control Limits
Decachlorobiphenyl	77	41-128

Flags:

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PCBs by EPA 8082

Date Extracted: 8-8-06
Date Analyzed: 8-12-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-062-12
Client ID: **FOT-EX-14-[080306]-9.0**

	Result	PQL
Aroclor 1016:	**ND**	0.055
Aroclor 1221:	**ND**	0.055
Aroclor 1232:	**ND**	0.055
Aroclor 1242:	**ND**	0.055
Aroclor 1248:	**ND**	0.055
Aroclor 1254:	**ND**	0.055
Aroclor 1260:	**ND**	0.055

Surrogate	Percent Recovery	Control Limits
Decachlorobiphenyl	79	41-128

Flags:

Date of Report: August 15, 2006
Samples Submitted: August 5, 2006
Laboratory Reference: 0608-062
Project: 0137-015-02

PCBs by EPA 8082

Date Extracted: 8-8-06
Date Analyzed: 8-12-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-062-13
Client ID: **WM-EX-1-[080306]-8.0**

	Result	PQL
Aroclor 1016:	**ND**	0.055
Aroclor 1221:	**ND**	0.055
Aroclor 1232:	**ND**	0.055
Aroclor 1242:	**ND**	0.055
Aroclor 1248:	**ND**	0.055
Aroclor 1254:	**ND**	0.055
Aroclor 1260:	**ND**	0.055

Surrogate	Percent Recovery	Control Limits
Decachlorobiphenyl	83	41-128

Flags:

Libby Environmental, Inc.

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

Chain of Custody Record

08-062

Date: 08-04-2006 Page: 1 of 2

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Project Manager: Paul Craig
Project Name: PORT ANGELES I
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08-01 to 08-04

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
FOT-EX-1-[080106]-9.5	9.5	1015	S	2									X	X		
FOT-EX-2-[080206]-9.0	9.0	0800											X	X		
FOT-EX-3-[080206]-11.0	11.0	0815											X	X		
FOT-EX-4-[080206]-8.0	8.0	0915											X	X		
FOT-EX-5-[080206]-15.0	15.0	1320											X	X		
~~FOT-PCS-1-[080206]-11~~	~~12~~												~~X~~	~~X~~		DO NOT RUN
FOT-EX-6-[080206]-3.0	3.0	1515											X	X		
FOT-EX-7-[080206]-3.0	3.0	1525											X	X		
FOT-EX-8-[080206]-8.0	8.0	1645											X	X		
FOT-EX-9-[080206]-6.0	6.0	1630											X	X		
FOT-EX-12-[080306]-6.0	6.0	1035											X	X		
FOT-EX-13-[080306]-13.0	13.0	1045											X	X		
FOT-EX-14-[080306]-9.5	9.0	1125											X	X		
WM-EX-1-[080306]-8.0	8.0	1345											X	X		
WM-EX-2-[080306]-11.0	11.0	1350											X	X		
WM-EX-3-[080306]-10.0	10.0	1420											X	X		

Relinquished by: Date / Time 8.5.06 / 1010
Received by
Relinquished by: Date / Time
Received by Date / Time 8/5/06 1400
Relinquished by: Date / Time

Sample Receipt:
Good Condition?

Remarks:
STA

Libby Environmental, Inc.

Chain of Custody Record

08-062

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

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Date: 08-04-2006 Page: 1 of 1
Project Manager: Paul Craig
Project Name: PORT ANGELES I
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08-02 to 08-03/04

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 e SIM	PCB's 8082	MTCA 5 Metals			Field Notes
WM-EX-4-[080406]-13.0	13.0	1325	S	2								X	X					
WM-EX-5-[080406]-16.0	16.0	1400	S	1								X	X					

Relinquished by:	Date / Time	Received by	Date / Time
	8.5.06/1010		8/5/06 1010
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:
STA

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

August 23, 2006

Paul Craig
GeoEngineers, Inc.
8410 154th Avenue NE
Redmond, WA 98052

Re: Analytical Data for Project 0137-015-02
Laboratory Reference No. 0608-097

Dear Paul:

Enclosed are the analytical results and associated quality control data for samples submitted on August 9, 2006.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

Case Narrative

Samples were collected on August 7, 8, and 9, 2006 and received by the laboratory on August 9, 2006. They were maintained at the laboratory at a temperature of 2°C to 6°C except as noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Total Suspended Solids EPA 160.2 Analysis

Sample 08-097-08,09, Storage Tank [080906] was analyzed outside of holding time.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
EAST Tank-[080906]	08-097-08	Water	8-9-06	8-9-06	
WEST Tank-[080906]	08-097-09	Water	8-9-06	8-9-06	

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Date Prepared	Date Analyzed	Flags
Lab ID:	08-097-08,09				
Client ID:	**STORAGE TANK [080906]**				
Benzene	**ND**	1.0	08-11-06	08-11-06	
Toluene	**ND**	1.0	08-11-06	08-11-06	
Ethyl Benzene	**ND**	1.0	08-11-06	08-11-06	
m,p-Xylene	**ND**	1.0	08-11-06	08-11-06	
o-Xylene	**ND**	1.0	08-11-06	08-11-06	
TPH-Gas	**110**	100	08-11-06	08-11-06	
Surrogate: Fluorobenzene	100%	74-124			

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

NWTPH-Gx/BTEX
METHOD BLANK QUALITY CONTROL

Date Extracted: 8-11-06
Date Analyzed: 8-11-06

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0811W1

	Result	Flags	PQL
Benzene	**ND**		1.0
Toluene	**ND**		1.0
Ethyl Benzene	**ND**		1.0
m,p-Xylene	**ND**		1.0
o-Xylene	**ND**		1.0
TPH-Gas	**ND**		100

Surrogate Recovery:
Fluorobenzene 102%

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

NWTPH-Gx/BTEX
DUPLICATE QUALITY CONTROL

Date Extracted: 8-11-06
Date Analyzed: 8-11-06

Matrix: Water
Units: ug/L (ppb)

Lab ID:	08-069-02 **Original**	08-069-02 **Duplicate**	**RPD**	**Flags**
Benzene	**1.94**	**2.06**	6	
Toluene	**ND**	**ND**	NA	
Ethyl Benzene	**ND**	**ND**	NA	
m,p-Xylene	**ND**	**ND**	NA	
o-Xylene	**ND**	**ND**	NA	
TPH-Gas	**ND**	**ND**	NA	
Surrogate Recovery: Fluorobenzene	97%	95%		

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

NWTPH-Gx/BTEX
MS/MSD QUALITY CONTROL

Date Extracted: 8-11-06
Date Analyzed: 8-11-06

Matrix: Water
Units: ug/L (ppb)

Spike Level: 50.0 ppb

Lab ID:	08-069-02 **MS**	Percent Recovery	08-069-02 **MSD**	Percent Recovery	**RPD**	**Flags**
Benzene	**53.9**	**104**	**53.8**	**104**	0	
Toluene	**51.6**	**103**	**51.4**	**103**	0	
Ethyl Benzene	**51.3**	**103**	**51.1**	**102**	0	
m,p-Xylene	**51.4**	**103**	**51.1**	**102**	1	
o-Xylene	**51.3**	**103**	**51.2**	**102**	0	

Surrogate Recovery:			
Fluorobenzene	98%		100%

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

pH
EPA 150.1

Date Analyzed:	8-11-06
Matrix:	Water

Client ID	Lab ID	pH (@ 25°C)
STORAGE TANK - [080906]	08-097-08,09	**7.0**

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

TOTAL LEAD
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	08-097-08,09					
Client ID:	**Storage Tank - [080906]**					
Lead	**5.1**	1.1	200.8	08-18-06	08-18-06	

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

TOTAL LEAD
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Extracted:	8-18-06
Date Analyzed:	8-18-06
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB0818W1

Analyte	Method	Result	PQL
Lead	200.8	**ND**	1.1

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

TOTAL LEAD
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Extracted: 8-18-06
Date Analyzed: 8-18-06

Matrix: Water
Units: ug/L (ppb)

Lab ID: 08-097-08,09

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Lead	**5.12**	**5.15**	1	1.1	

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

TOTAL LEAD
EPA 200.8
MS/MSD QUALITY CONTROL

Date Extracted: 8-18-06
Date Analyzed: 8-18-06

Matrix: Water
Units: ug/L (ppb)

Lab ID: 08-097-08,09

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	110	**100**	87	**106**	92	6	

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Date Prepared	Date Analyzed	Flags
Lab ID:	08-097-08,09				
Client ID:	**STORAGE TANK -[080906]**				
Diesel Range Hydrocarbons	**0.26**	0.25	08-11-06	08-11-06	Y
Lube Oil Range	**ND**	0.40	08-11-06	08-11-06	Y
Surrogate: o-terphenyl	110%	50-150			

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted:	8-11-06
Date Analyzed:	8-11-06
Matrix:	Water
Units:	mg/L (ppm)
Lab ID:	MB0811W1
Diesel Range:	**ND**
PQL:	0.25
Identification:	---
Lube Oil Range:	**ND**
PQL:	0.40
Identification:	---
Surrogate Recovery	
o-Terphenyl:	103%
Flags:	Y

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted:	8-11-06
Date Analyzed:	8-11-06
Matrix:	Water
Units:	mg/L (ppm)

Lab ID:	08-093-01	08-093-01 DUP
Diesel Range:	**0.671**	**0.610**
PQL:	0.25	0.25
RPD:	10	
Surrogate Recovery		
o-Terphenyl:	106%	106%
Flags:	Y	Y

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PCBs by EPA 8082

Date Extracted: 8-11-06
Date Analyzed: 8-15-06

Matrix: Water
Units: ug/L (ppb)

Lab ID	Client ID	Results	PCB Type	Surrogate % Recovery	PQL	Flags
08-097-08,09	STORAGE TANK-[080906]	ND	----	78	0.050	

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PCBs by EPA 8082
METHOD BLANK QUALITY CONTROL

Date Extracted: 8-11-06
Date Analyzed: 8-15-06

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0811W1

	Result	PQL
Aroclor 1016:	**ND**	0.050
Aroclor 1221:	**ND**	0.050
Aroclor 1232:	**ND**	0.050
Aroclor 1242:	**ND**	0.050
Aroclor 1248:	**ND**	0.050
Aroclor 1254:	**ND**	0.050
Aroclor 1260:	**ND**	0.050
Aroclor 1262:	**ND**	0.050
Aroclor 1268:	**ND**	0.050

Surrogate	Percent Recovery	Control Limits
Decachlorobiphenyl	91	30-138

Flags:

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PCBs by EPA 8082
SB/SBD QUALITY CONTROL

Date Extracted: 8-11-06
Date Analyzed: 8-15-06

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0811W1

Spike Level: 0.500

	SB	Percent Recovery	SBD	Percent Recovery	RPD
Aroclor 1260:	0.418	84	0.400	80	4
PQL	0.050		0.050		

Surrogate	Percent Recovery	Percent Recovery	Control Limits
Decachlorobiphenyl	86	85	30-138

Flags:

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

TOTAL SUSPENDED SOLIDS
EPA 160.2

Date Analyzed: 8-22-06

Matrix: Water
Units: mg/L

Client ID	Lab ID	Result	PQL
Storage Tank-[080906]	08-097-08,09	**60**	4.0

Date of Report: August 23, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

TOTAL SUSPENDED SOLIDS
EPA 160.2
QUALITY CONTROL

Date Analyzed: 8-22-06

Matrix: Water
Units: mg/L

METHOD BLANK QUALITY CONTROL

Lab ID	Result	PQL
MB0822W1	ND	2.0

SPIKE BLANK QUALITY CONTROL

Lab ID	Result	Spiked Amount	Percent Recovery	Control Limit	Flag
SB0822W1	87.0	100	87	60-140	

DUPLICATE QUALITY CONTROL

Lab ID	Sample Result	Duplicate Result	RPD	Control Limit	Flag
08-097-08,09	60.0	58.0	3	36	

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons indicative of diesel fuel are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

ENO RIVER LABS

Prepared for: Onsite Environmental
Reference ID: 0137-015-02

Project Summary 66979A
Method 1613B
Concentrations shown in pg/L

	BLANK	STORAGE TANK- (080906)
Analytes		
2,3,7,8-TCDD	< 10.0	< 10.0
Extraction Date	8/16/2006	8/16/2006
Analysis Date	8/22/2006	8/23/2006
Primary Filename	T061932	T061959
Confirm Filename	N/A	N/A
Dilution Filename	N/A	N/A

Data Flag Descriptions:
< Not detected -1613 Minimum Levels reported
[..] EMPC Value
B Analyte detected in Blank
C Value reported from Confirmatory Analysis
D Value reported from Dilution Analysis
E Estimated Value - Above Calibration Range
J Estimated Value- Below Calibration Range
N/A Not Applicable
Q Quantitative Interference Present
S Analyte saturated
X Interference from Diphenyl Ethers

2445 S. Alston Avenue, Durham NC 27713 @ 919-281-4040 @ FAX 919-281-4070 @ www.enoriverlabs.com

ENO RIVER LABS, LLC
Ongoing Precision and Recovery - Sample Results

Project: 66979 - A
Matrix: AQUEOUS
Method: 161B

File: T061931
SAS#:
Contract#: n/a

Extraction Date: 08/16/06
Analysis Date: 08/22/06
Analysis Time: 16:32

NOTE: Concentrations are concentrations in the final extract.
3rd Revision Table 7 Performance Specifications.

ISOMER	SPIKED. (ng/mL)	OBSERVED (ng/mL)	Perf.Specs.... from	to	%Recovery
2378-TCDD	10.0	11.4	7.3	14.6	114
Labeled Compound	**SPIKED. (ng/mL)**	**OBSERVED (ng/mL)**	**Perf.Specs.... from**	**to**	**%Recovery**
13C12-2378-TCDD	100.0	100	25.0	141.0	100
37Cl-2378-TCDD	10.0	11.0	3.7	15.8	110

MILES 4.22.39
GRY_PSUM v1.12

Processed By: PaB Date: 08/24/06

Onsite Environmental

EPA 1613B

Lab Project: **66979A**
Client Sample: **BLANK**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T061932**

Client Project:	0137-015-02				
Sample Matrix:	AQUEOUS	Date Received:	/ /	Spike File:	SP161B2S
Lab ID:	BLANK	Date Extracted:	08/16/2006	ICal:	TF5714B
		Date Analyzed:	08/22/2006	ConCal:	TB61925
Sample Size:	1.000 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T061932	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	n/a

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	1.5				—

Internal Standard	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	1970	98.4	31%-137%	0.82	27:11	1.007	—

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	217	108	42%-164%	27:12	1.007	—

Recovery Standard	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.84	27:00	—

Data Reviewer: Pab 08/24/2006

161B_PSR v2.04, LARS 6.25.06

Eno River Labs, LLC®
2445 S. Alston Ave. • Durham, North Carolina 27713
Phone: (919) 281-4040 • Fax: (919) 281-4070

Printed: 11:05 08/24/2006

Onsite Environmental

EPA 1613B

Lab Project: **66979A** 1613, Revision B PCDD/PCDF Analysis (c)

Client Sample: **STORAGE TANK-(080906)** Analysis File: **T061959**

Client Project:	0137-015-02				
Sample Matrix:	AQUEOUS	Date Received:	08/16/2006	Spike File:	SP161B2S
Lab ID:	421-99-3	Date Extracted:	08/16/2006	ICal:	TF5714B
		Date Analyzed:	08/23/2006	ConCal:	TB61945
Sample Size:	1.015 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T061932	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	n/a

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	1.6				—

Internal Standard	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	1620	82.3	31%-137%	0.81	27:14	1.007	—

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	178	90.1	42%-164%	27:15	1.007	—

Recovery Standard	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.80	27:03	—

Data Reviewer: Pam 08/24/2006

161B_PSR v2.04, LARS 6.25.06

Eno River Labs, LLC®
2445 S. Alston Ave. • Durham, North Carolina 27713
Phone: (919) 281-4040 • Fax: (919) 281-4070

Printed: 09:53 08/24/2006

ENO RIVER LABS

Prepared for: Onsite Environmental
Reference ID: 0137-015-02

Project Summary 66979B

Method 1613B

Concentrations shown in pg/g

	BLANK	FOT-EX-10-(080706)-11.5	WM-EX-14-(080806)-14.0
Total TEQ	**0.3**	**2.3**	**0.3**
TEQ based on EPA 1989a			
Analytes			
2,3,7,8-TCDD	< 1.00	< 1.00	< 1.00
1,2,3,7,8-PeCDD	< 5.00	< 5.00	< 5.00
1,2,3,4,7,8-HxCDD	< 5.00	< 5.00	< 5.00
1,2,3,6,7,8-HxCDD	< 5.00	< 5.00	< 5.00
1,2,3,7,8,9-HxCDD	< 5.00	< 5.00	< 5.00
1,2,3,4,6,7,8-HpCDD	< 5.00	13.6	< 5.00
1,2,3,4,6,7,8,9-OCDD	< 10.0	69.2	40.2
2,3,7,8-TCDF	< 1.00	< 1.00 C	< 1.00
1,2,3,7,8-PeCDF	< 5.00	< 5.00	< 5.00
2,3,4,7,8-PeCDF	< 5.00	< 5.00	< 5.00
1,2,3,4,7,8-HxCDF	< 5.00	< 5.00	< 5.00
1,2,3,6,7,8-HxCDF	< 5.00	< 5.00	< 5.00
2,3,4,6,7,8-HxCDF	< 5.00	< 5.00	< 5.00
1,2,3,7,8,9-HxCDF	< 5.00	< 5.00	< 5.00
1,2,3,4,6,7,8-HpCDF	< 5.00	< 5.00	< 5.00
1,2,3,4,7,8,9-HpCDF	< 5.00	< 5.00	< 5.00
1,2,3,4,6,7,8,9-OCDF	< 10.0	< 10.0	< 10.0
Total TCDD	< 1.00	24.6	1.2
Total PeCDD	< 5.00	27.4	< 5.00
Total HxCDD	< 5.00	23.6	< 5.00
Total HpCDD	< 5.00	24.6	10.5
Total TCDF	< 1.00	10.3	< 1.00
Total PeCDF	< 5.00	5.3	< 5.00
Total HxCDF	< 5.00	5.9 X	< 5.00
Total HpCDF	< 5.00	< 5.00	< 5.00
Extraction Date	8/24/2006	8/24/2006	8/24/2006
Analysis Date	9/6/2006	9/7/2006	9/7/2006
Primary Filename	T062082	T062104	T062084
Confirm Filename	N/A	P060845	N/A
Dilution Filename	N/A	N/A	N/A

Data Flag Descriptions:
< Not detected -1613 Minimum Levels reported
[..] EMPC Value
B Analyte detected in Blank
C Value reported from Confirmatory Analysis
D Value reported from Dilution Analysis
E Estimated Value - Above Calibration Range
J Estimated Value- Below Calibration Range
N/A Not Applicable
Q Quantitative Interference Present
S Analyte saturated
X Interference from Diphenyl Ethers

2445 S. Alston Avenue, Durham NC 27713 ◎ 919-281-4040 ◎ FAX 919-281-4070 ◎ www.enoriverlabs.com

ENO RIVER LABS, LLC
Ongoing Precision and Recovery - Sample Results

Project: 66979 - B
Matrix: SOLID
Method: 161B

File: T062081
SAS#:
Contract#: n/a

Extraction Date: 08/24/06
Analysis Date: 09/06/06
Analysis Time: 22:05

NOTE: Concentrations are concentrations in the final extract.
3rd Revision Table 7 Performance Specifications.

ISOMER	SPIKED. (ng/mL)	OBSERVED (ng/mL)	Perf.Specs.... from	to	%Recovery
2378-TCDD	10.0	9.6	6.7	15.8	95.9
2378-TCDF	10.0	8.6	7.5	15.8	86.3
12378-PeCDD	50.0	47.6	35.0	71.0	95.3
12378-PeCDF	50.0	45.5	40.0	67.0	91.1
23478-PeCDF	50.0	44.8	34.0	80.0	89.6
123478-HxCDD	50.0	45.7	35.0	82.0	91.5
123678-HxCDD	50.0	47.3	38.0	67.0	94.7
123789-HxCDD	50.0	46.0	32.0	81.0	91.9
123478-HxCDF	50.0	41.3	36.0	67.0	82.6
123678-HxCDF	50.0	46.1	42.0	65.0	92.3
234678-HxCDF	50.0	45.9	35.0	78.0	91.7
123789-HxCDF	50.0	41.5	39.0	65.0	82.9
1234678-HpCDD	50.0	45.0	35.0	70.0	89.9
1234678-HpCDF	50.0	48.5	41.0	61.0	97.0
1234789-HpCDF	50.0	50.5	39.0	69.0	101
OCDD	100.0	92.5	78.0	144.0	92.5
OCDF	100.0	82.7	63.0	170.0	82.7

Labeled Compound	SPIKED. (ng/mL)	OBSERVED (ng/mL)	Perf.Specs.... from	to	%Recovery
13C12-2378-TCDD	100.0	100	20.0	175.0	100
13C12-2378-TCDF	100.0	103	22.0	152.0	103
13C12-12378-PeCDD	100.0	82.6	21.0	227.0	82.6
13C12-12378-PeCDF	100.0	89.0	21.0	192.0	89.0
13C12-23478-PeCDF	100.0	91.6	13.0	328.0	91.6
13C12-123478-HxCDD	100.0	98.5	21.0	193.0	98.5
13C12-123678-HxCDD	100.0	105	25.0	163.0	105
13C12-123478-HxCDF	100.0	104	19.0	202.0	104
13C12-123678-HxCDF	100.0	109	21.0	159.0	109
13C12-234678-HxCDF	100.0	106	22.0	176.0	106
13C12-123789-HxCDF	100.0	113	17.0	205.0	113
13C12-1234678-HpCDD	100.0	107	26.0	166.0	107
13C12-1234678-HpCDF	100.0	107	21.0	158.0	107
13C12-1234789-HpCDF	100.0	100	20.0	186.0	100
13C12-OCDD	200.0	201	26.0	397.0	100
37Cl-2378-TCDD	10.0	9.4	3.1	19.1	94.4

MILES 4.22.39
GRY_PSUM v1.12

Processed By: Pat3 Date: 09/07/06

Onsite Environmental

EPA 1613B

Lab Project: **66979B**
Client Sample: **BLANK**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T062082**

Client Project:	0137-015-02				
Sample Matrix:	SOLID	Date Received:	/ /	Spike File:	SP161B2S
Lab ID:	BLANK	Date Extracted:	08/24/2006	ICal:	TF5714B
		Date Analyzed:	09/06/2006	ConCal:	TB62074
Sample Size:	10.000 g	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T062082	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	n/a

Analytes	Conc. (pg/g)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	0.09				—
1,2,3,7,8-PeCDD	ND	0.1				—
1,2,3,4,7,8-HxCDD	ND	0.10				—
1,2,3,6,7,8-HxCDD	ND	0.1				—
1,2,3,7,8,9-HxCDD	ND	0.10				—
1,2,3,4,6,7,8-HpCDD	ND	0.2				—
1,2,3,4,6,7,8,9-OCDD	ND	0.3				—
2,3,7,8-TCDF	ND	0.07				—
1,2,3,7,8-PeCDF	ND	0.09				—
2,3,4,7,8-PeCDF	ND	0.08				—
1,2,3,4,7,8-HxCDF	ND	0.07				—
1,2,3,6,7,8-HxCDF	ND	0.06				—
2,3,4,6,7,8-HxCDF	ND	0.07				—
1,2,3,7,8,9-HxCDF	ND	0.1				—
1,2,3,4,6,7,8-HpCDF	ND	0.09				—
1,2,3,4,7,8,9-HpCDF	ND	0.1				—
1,2,3,4,6,7,8,9-OCDF	ND	0.2				—

Totals	Conc. (pg/g)	Number	DL	Flags
Total TCDD	ND		0.09	—
Total PeCDD	ND		0.1	—
Total HxCDD	ND		0.10	—
Total HpCDD	ND		0.2	—
Total TCDF	ND		0.07	—
Total PeCDF	ND		0.08	—
Total HxCDF	ND		0.07	—
Total HpCDF	ND		0.1	—

Eno River Labs, LLC®
2445 S. Alston Ave. • Durham, North Carolina 27713
Phone: (919) 281-4040 • Fax: (919) 281-4070

Printed: 11:34 09/07/2006

Onsite Environmental

EPA 1613B

Lab Project: **66979B** 1613, Revision B PCDD/PCDF Analysis (c)

Client Sample: **FOT-EX-10-(080706)-11.5** Analysis File: **T062104**

Client Project:	0137-015-02				
Sample Matrix:	SOLID	Date Received:	08/16/2006	Spike File:	SP161B22
Lab ID:	421-99-1	Date Extracted:	08/24/2006	ICal:	TF5714B
		Date Analyzed:	09/07/2006	ConCal:	TB62090
Sample Size:	12.000 g	Dilution Factor:	n/a	% Moisture:	14.8
Dry Weight:	10.224 g	Blank File:	T062082	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	85.2

Analytes	Conc. (pg/g)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	0.40		0.72	27:09	1.000	J
1,2,3,7,8-PeCDD	1.2		1.35	31:22	1.001	J
1,2,3,4,7,8-HxCDD	0.88		1.26	34:27	1.000	J
1,2,3,6,7,8-HxCDD	1.8		1.29	34:31	1.000	J
1,2,3,7,8,9-HxCDD	1.8		1.23	34:51	1.010	J
1,2,3,4,6,7,8-HpCDD	13.6		0.97	37:51	1.000	
1,2,3,4,6,7,8,9-OCDD	69.2		0.82	41:34	1.000	
2,3,7,8-TCDF	1.7		0.70	26:28	1.001	
1,2,3,7,8-PeCDF	0.76		1.40	30:22	1.001	J
2,3,4,7,8-PeCDF	0.80		1.50	31:01	1.000	J
1,2,3,4,7,8-HxCDF	0.59		1.09	33:44	1.000	J
1,2,3,6,7,8-HxCDF	0.25		1.20	33:50	1.000	J
2,3,4,6,7,8-HxCDF	0.38		1.25	34:20	1.000	J
1,2,3,7,8,9-HxCDF	ND	0.3				
1,2,3,4,6,7,8-HpCDF	1.4		0.98	36:47	1.000	J
1,2,3,4,7,8,9-HpCDF	ND	0.5				
1,2,3,4,6,7,8,9-OCDF	3.3		0.86	41:46	1.005	J

Totals	Conc. (pg/g)	Number	DL	Flags
Total TCDD	24.6	7		
Total PeCDD	27.4	5		
Total HxCDD	23.6	6		
Total HpCDD	24.6	2		
Total TCDF	10.3	10		
Total PeCDF	5.3	5		
Total HxCDF	5.9	7		X
Total HpCDF	3.8	2		

161B_PSR v2.04, LARS 6.25.06

Eno River Labs, LLC®
2445 S. Alston Ave. • Durham, North Carolina 27713
Phone: (919) 281-4040 • Fax: (919) 281-4070

Printed: 14:20 09/08/2006

Onsite Environmental

EPA 1613B

Lab Project: **66979B** 1613, Revision B, Tetra Only PCDD/PCDF Analysis (c)
Client Sample: FOT-EX-10-(080706)-11.5 Analysis File: **P060845**

Client Project:	0137-015-02				
Sample Matrix:	SOLID	Date Received:	08/16/2006	Spike File:	SPCONB22
Lab ID:	421-99-1	Date Extracted:	08/24/2006	ICal:	PF27176
		Date Analyzed:	09/08/2006	ConCal:	P060842
Sample Size:	12.000 g	Dilution Factor:	n/a	% Moisture:	14.8
Dry Weight:	10.224 g	Blank File:	T062082	% Lipid:	n/a
GC Column:	DB-225	Analyst:	JSY	% Solids:	85.2

Analytes	Conc. (pg/g)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDF	0.71		0.67	22:20	1.001	J__

Internal Standard	Conc. (pg/g)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	128	65.5	29%-140%	0.76	22:18	1.052	___

Recovery Standard	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.84	21:12	___

Data Reviewer: PaB 09/11/2006

CONB_PSR v1.00, LARS 6.25.06

Eno River Labs, LLC®
2445 S. Alston Ave. • Durham, North Carolina 27713
Phone: (919) 281-4040 • Fax: (919) 281-4070

Printed: 06:19 09/11/2006

Onsite Environmental

EPA 1613B

Lab Project: **66979B** 1613, Revision B PCDD/PCDF Analysis (c)

Client Sample: **WM-EX-14-(080806)-14.0** Analysis File: **T062084**

Client Project:	0137-015-02				
Sample Matrix:	SOLID	Date Received:	08/16/2006	Spike File:	SP161B22
Lab ID:	421-99-2	Date Extracted:	08/24/2006	ICal:	TF5714B
		Date Analyzed:	09/07/2006	ConCal:	TB62074
Sample Size:	11.100 g	Dilution Factor:	n/a	% Moisture:	9.0
Dry Weight:	10.101 g	Blank File:	T062082	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	91.0

Analytes	Conc. (pg/g)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	0.07				
1,2,3,7,8-PeCDD	ND	0.09				
1,2,3,4,7,8-HxCDD	ND	0.06				
1,2,3,6,7,8-HxCDD	0.17		1.13	34:32	1.000	J
1,2,3,7,8,9-HxCDD	0.14		1.10	34:52	1.010	J
1,2,3,4,6,7,8-HpCDD	4.3		0.92	37:51	1.000	J
1,2,3,4,6,7,8,9-OCDD	40.2		0.83	41:34	1.000	
2,3,7,8-TCDF	ND	0.1				
1,2,3,7,8-PeCDF	ND	0.06				
2,3,4,7,8-PeCDF	ND	0.06				
1,2,3,4,7,8-HxCDF	0.14		1.13	33:45	1.000	J
1,2,3,6,7,8-HxCDF	ND	0.05				
2,3,4,6,7,8-HxCDF	ND	0.05				
1,2,3,7,8,9-HxCDF	ND	0.06				
1,2,3,4,6,7,8-HpCDF	0.39		0.99	36:47	1.000	J
1,2,3,4,7,8,9-HpCDF	ND	0.10				
1,2,3,4,6,7,8,9-OCDF	2.3		1.00	41:46	1.005	J

Totals	Conc. (pg/g)	Number	DL	Flags
Total TCDD	1.2	4		
Total PeCDD	0.33	1		
Total HxCDD	2.2	5		
Total HpCDD	10.5	2		
Total TCDF	ND		0.1	
Total PeCDF	0.52	1		
Total HxCDF	0.72	4		
Total HpCDF	1.7	2		

161B_PSR v2.04, LARS 6.25.06

Eno River Labs, LLC®
2445 S. Alston Ave. • Durham, North Carolina 27713
Phone: (919) 281-4040 • Fax: (919) 281-4070

Printed: 11:57 09/07/2006

Libby Environmental, Inc.

Chain of Custody Record

08-097

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

Date: 08-07-2006 Page: 1 of 4

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Project Manager: Paul Craig
Project Name: PORT ANGELES I
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08--07-2006 → 8/7/06

Sample Number	Depth	Time	Sample Type	Container Type	~~VOA 8021B~~ TPH-D	VOA 8021B BTEX Only	~~VOA 8260~~ PH	~~SEMI VOL 8270~~ TOTAL LEAD	~~NWTPH-HCID~~ TPH-G	~~NWTPH-Gx~~ LEAD BY EPA 6020	~~NWTPH-Dx~~	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	RCRA 8 METALS (TOTAL)	TOTAL SOLIDS DRY WT/FILTRANS EPA 160.3	Field Notes
WM-EX-6-[080706]-9.0	9.0	0900	S	4oz								X	X					
WM-EX-7-[080706]-8.5	8.5	0930										X	X					
WM-EX-8-[080706]-15.0	15.0	1000										X	X					
WM-EX-9-[080706]-10.0	10.0	1015										X	X					
FOT-EX-16-[080706]-8.0	8.0	1420										X	X					
FOT-EX-15-[080706]-11.0	11.0	1435										X	X					
FOT-EX-10-[080706]-11.5	11.5	1545								X		X	X				X	
EAST TANK-[080906]	—	1130	W	1-L Amb		X					X	X	X			X	X	COMPOSITE TOGETHER; NEW SAMPLE NAME
WEST TANK-[080906]	—	1200	W	"		X					X	X	X			X	X	"STORAGE TANK-[080906]
STORAGE TANK-[080906]	—	—	W	"	X	X	X	X	X				X				X	

Relinquished by:	Date / Time	Received by	Date / Time
	8.9.6/1700		8-9-06 1700
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:

08-097

Libby Environmental, Inc.

Chain of Custody Record

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

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Date: 08-08-2006 Page: 3 of 4
Project Manager: Paul Craig
Project Name: PORT ANGELES I
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08--08-2006

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	Dissolved	Do Not Use	Field Notes
WM-EX-11-[080806]-17.0		1800	SOIL	4oz Glass								X	X		X			
WM-EX-17-[080806]-14.0		1810	SOIL	4oz Glass								X	X		X			

Relinquished by:	Date / Time	Received by	Date / Time
	8.9.6/1700		8-9-06 1700
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:

~~Libby~~ Environmental, Inc.

Chain of Custody Record

08-096 08-097

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

Date: 08-08-2006 Page: 4 of 4

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Project Manager: Paul Craig
Project Name: PORT ANGELES I
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08--08-2006

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	Dioxins/Furans EPA 1613 B		Field Notes
OT-EX-17-[080806]-3.0	3.0	1010	SOIL	4oz Glass							X		X	X		X		
OT-EX-18-[080806]-7.0	7.0	1040	SOIL	4oz Glass							X		X	X		X		
OT-EX-19-[080806]-4.0	4.0	1055	SOIL	4oz Glass							X		X	X		X		
OT-EX-19-[080806]-9.0	9.0	1425	SOIL	4oz Glass							X		X	X		X		
OT-EX-20-[080806]-7.0	7.0	1430	SOIL	4oz Glass							X		X	X		X		
OT-EX-21-[080806]-7.0	7.0	1435	SOIL	4oz Glass							X		X	X		X		
OT-EX-22-[080806]-5.0	5.0	1440	SOIL	4oz Glass							X		X	X		X		
OT-EX-23-[080806]-5.0	5.0	1445	SOIL	4oz Glass							X		X	X		X		
OT-EX-24-[080806]-5.0	5.0	1450	SOIL	4oz Glass							X		X	X		X		
WM-EX-10-[080806]-16.0	16.0	1120	SOIL	4oz Glass							X		X	X		X		
~~WM-EX-11-[080806]-12.0~~		~~1150~~	~~SOIL~~	~~4oz Glass~~							X		X	X		X		F12
WM-EX-12-[080806]-8.0	8.0	1225	SOIL	4oz Glass							X		X	X		X		
WM-EX-13-[080806]-9.0	9.0	1350	SOIL	4oz Glass							X		X	X		X		
WM-EX-14-[080806]-14.0	14.0	1600	SOIL	4oz Glass							X		X	X		X	X	
WM-EX-15-[080806]-14.0	14.0	1610	SOIL	4oz Glass									X	X		X		
~~WM-Dup-1-[080806]~~		~~1645~~	~~SOIL~~	~~4oz Glass~~												X		E12
WM-EX-16-[080806]-14.0	14.0	1730	SOIL	4oz Glass									X	X		X		

Relinquished by:	Date / Time	Received by	Date / Time
	8-9-06/1700		8-9-06/1700
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:

08-09

Libby Environmental, Inc.

Chain of Custody Record

139 Libby Road NE   Ph: 360-352-2110
lympia, WA 98506   Fax: 360-352-4154

lient: GeoEngineers, Inc.
ddress: 8410 154th Ave NE, Redmond, WA 98052
hone: 425-861-6000   Fax: 425-861-6050
lient Project # 0137-015-02

Date: 08-09-2006   Page: 2 of 4
Project Manager: Paul Craig
Project Name: PORT ANGELES MILL
Location: Port Angeles, Washington
Collector: Paul Craig   Date of Collection: 08--09-2006

Sample Number	Depth (ft.)	Time	Sample Type	Container Type	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	~~NWTPH-Dx~~ Do Not Run	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	Bunker C Do Not Run			Field Notes
VM-EX-18-[080906]9.0	9.0	0810	SOIL	4oz Gl						X		X	X		X			
VM-EX-25-[080906]-5.0	5.0	0835	SOIL	4oz Gl						X		X	X		X			
VM-EX-26-[080906]-5.0	5.0	0840	SOIL	4oz Gl						X		X	X		X			
VM-EX-27-[080906]-8.0	8.0	0845	SOIL	4oz Gl						X		X	X		X			
VM-EX-28-[080906]-8.0	8.0	0850	SOIL	4oz Gl						X		X	X		X			
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														

Relinquished by:	Date / Time	Received by	Date / Time	Sample Receipt:		Remarks:
[signature]	8-9-6 / 1700	[signature]	8-9-06 1700			
Relinquished by:	Date / Time	Received by	Date / Time	Good Condition?		
				Cold?		
Relinquished by:	Date / Time	Received by	Date / Time	Seals Intact?		
				Total Number of Containers		

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 12, 2006

Paul Craig
GeoEngineers, Inc.
8410 154th Avenue NE
Redmond, WA 98052

Re: Analytical Data for Project 0137-015-02
Laboratory Reference No. 0608-097

Dear Paul:

Enclosed are the analytical results and associated quality control data for samples submitted on August 9, 2006.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

Case Narrative

Samples were collected on August 7, 8, and 9, 2006 and received by the laboratory on August 9, 2006. They were maintained at the laboratory at a temperature of 2°C to 6°C except as noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

PAHs EPA 8270C/SIM Analysis

The sample in the sample containers for FOT-EX-22 [080806]-5.0 were inhomogeneous; therefore they were composited prior to analysis.

The sample WM-EX-9-[080706]-10.0 had two surrogates outside of control limits. The sample was re-extracted with similar results, indicating probable matrix interference. No further action was taken.

The sample WM-EX-16-[080806]-14.0 chosen for the MS/MSD pair had relatively high levels of background contamination and so did not yield meaningful recovery or reproducibility data for all analytes. A spike blank extracted with this batch had all parameters in control, no further action was deemed necessary.

Sample WM-EX-10-[080806]-16.0 (Lab ID: 08-097-34) was extracted outside of hold time.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
WM-EX-6-[080706]-9.0	08-097-01	Soil	8-7-06	8-9-06	
WM-EX-7-[080706]-8.5	08-097-02	Soil	8-7-06	8-9-06	
WM-EX-8-[080706]-15.0	08-097-03	Soil	8-7-06	8-9-06	
WM-EX-9-[080706]-10.0	08-097-04	Soil	8-7-06	8-9-06	
FOT-EX-16-[080706]-8.0	08-097-05	Soil	8-7-06	8-9-06	
FOT-EX-15-[080706]-11.0	08-097-06	Soil	8-7-06	8-9-06	
FOT-EX-10-[080706]-11.5	08-097-07	Soil	8-7-06	8-9-06	
WM-EX-18-[080906]-9.0	08-097-10	Soil	8-9-06	8-9-06	
FOT-EX-25-[080906]-5.0	08-097-11	Soil	8-9-06	8-9-06	
FOT-EX-26-[080906]-5.0	08-097-12	Soil	8-9-06	8-9-06	
FOT-EX-27-[080906]-8.0	08-097-13	Soil	8-9-06	8-9-06	
FOT-EX-28-[080906]-8.0	08-097-14	Soil	8-9-06	8-9-06	
WM-EX-11-[080806]-17.0	08-097-15	Soil	8-8-06	8-9-06	
WM-EX-17-[080806]-14.0	08-097-16	Soil	8-8-06	8-9-06	
FOT-EX-17-[080806]-3.0	08-097-17	Soil	8-8-06	8-9-06	
FOT-EX-18-[080806]-7.0	08-097-18	Soil	8-8-06	8-9-06	
FOT-EX-11-[080806]-9.0	08-097-19	Soil	8-8-06	8-9-06	
FOT-EX-19-[080806]-9.0	08-097-20	Soil	8-8-06	8-9-06	
FOT-EX-20-[080806]-7.0	08-097-21	Soil	8-8-06	8-9-06	
FOT-EX-21-[080806]-7.0	08-097-22	Soil	8-8-06	8-9-06	
FOT-EX-22-[080806]-5.0	08-097-23	Soil	8-8-06	8-9-06	
FOT-EX-23-[080806]-5.0	08-097-24	Soil	8-8-06	8-9-06	
FOT-EX-24-[080806]-5.0	08-097-25	Soil	8-8-06	8-9-06	
WM-EX-10-[080806]-16.0	08-097-26	Soil	8-8-06	8-9-06	
WM-EX-12-[080806]-8.0	08-097-27	Soil	8-8-06	8-9-06	
WM-EX-13-[080806]-9.0	08-097-28	Soil	8-8-06	8-9-06	
WM-EX-14-[080806]-14.0	08-097-29	Soil	8-8-06	8-9-06	
WM-EX-15-[080806]-14.0	08-097-30	Soil	8-8-06	8-9-06	
WM-EX-16-[080806]-14.0	08-097-31	Soil	8-8-06	8-9-06	
WM-DUP-1-080806	08-097-32	Soil	8-8-06	8-9-06	
FOT-DUP-2-080806	08-097-33	Soil	8-8-06	8-9-06	
WM-EX-10-[080806]-16.0	08-097-34	Soil	8-8-06	9-1-06	

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

TOTAL LEAD
EPA 6020

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	08-097-07					
Client ID:	**FOT-EX-10-[080706]-11.5**					
Lead	**1.3**	1.1	6020	08-14-06	08-17-06	

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

TOTAL LEAD
EPA 6020
METHOD BLANK QUALITY CONTROL

Date Extracted:	8-14-06
Date Analyzed:	8-17-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	MB0814S2

Analyte	Method	Result	PQL
Lead	6020	**ND**	1.0

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

TOTAL LEAD
EPA 6020
DUPLICATE QUALITY CONTROL

Date Extracted: 8-14-06
Date Analyzed: 8-17-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-113-02

Analyte	Sample Result	Duplicate Result	RPD	Flags	PQL
Lead	**3.16**	**3.15**	0		1.0

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

TOTAL LEAD
EPA 6020
MS/MSD QUALITY CONTROL

Date Extracted: 8-14-06
Date Analyzed: 8-17-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-113-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	250	**202**	80	**201**	79	1	

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-01
Client ID:	**WM-EX-6-[080706]-9.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	0.014		0.0073
2-Methylnaphthalene	ND		0.0073
1-Methylnaphthalene	ND		0.0073
Acenaphthylene	ND		0.0073
Acenaphthene	0.047		0.0073
Fluorene	0.045		0.0073
Phenanthrene	0.095		0.0073
Anthracene	0.012		0.0073
Fluoranthene	0.071		0.0073
Pyrene	0.044		0.0073
Benzo[a]anthracene	0.013		0.0073
Chrysene	0.010		0.0073
Benzo[b]fluoranthene	ND		0.0073
Benzo[k]fluoranthene	ND		0.0073
Benzo[a]pyrene	ND		0.0073
Indeno(1,2,3-c,d)pyrene	ND		0.0073
Dibenz[a,h]anthracene	ND		0.0073
Benzo[g,h,i]perylene	ND		0.0073

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	59	49 - 121
2-Fluorobiphenyl	73	53 - 110
Terphenyl-d14	96	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-02
Client ID:	**WM-EX-7-[080706]-8.5**

Compound:	Results	Flags	PQL
Naphthalene	0.0084		0.0073
2-Methylnaphthalene	ND		0.0073
1-Methylnaphthalene	ND		0.0073
Acenaphthylene	ND		0.0073
Acenaphthene	0.034		0.0073
Fluorene	0.012		0.0073
Phenanthrene	0.054		0.0073
Anthracene	0.022		0.0073
Fluoranthene	0.21		0.0073
Pyrene	0.13		0.0073
Benzo[a]anthracene	0.064		0.0073
Chrysene	0.080		0.0073
Benzo[b]fluoranthene	0.055		0.0073
Benzo[k]fluoranthene	0.018		0.0073
Benzo[a]pyrene	0.031		0.0073
Indeno(1,2,3-c,d)pyrene	0.017		0.0073
Dibenz[a,h]anthracene	ND		0.0073
Benzo[g,h,i]perylene	0.026		0.0073

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	55	49 - 121
2-Fluorobiphenyl	70	53 - 110
Terphenyl-d14	91	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-03
Client ID:	**WM-EX-8-[080706]-15.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	ND		0.0073
2-Methylnaphthalene	ND		0.0073
1-Methylnaphthalene	ND		0.0073
Acenaphthylene	ND		0.0073
Acenaphthene	0.042		0.0073
Fluorene	0.0077		0.0073
Phenanthrene	0.012		0.0073
Anthracene	ND		0.0073
Fluoranthene	0.072		0.0073
Pyrene	0.042		0.0073
Benzo[a]anthracene	ND		0.0073
Chrysene	ND		0.0073
Benzo[b]fluoranthene	ND		0.0073
Benzo[k]fluoranthene	ND		0.0073
Benzo[a]pyrene	ND		0.0073
Indeno(1,2,3-c,d)pyrene	ND		0.0073
Dibenz[a,h]anthracene	ND		0.0073
Benzo[g,h,i]perylene	ND		0.0073

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	57	49 - 121
2-Fluorobiphenyl	70	53 - 110
Terphenyl-d14	94	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-04
Client ID:	**WM-EX-9-[080706]-10.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0078
2-Methylnaphthalene	ND		0.0078
1-Methylnaphthalene	ND		0.0078
Acenaphthylene	ND		0.0078
Acenaphthene	0.017		0.0078
Fluorene	ND		0.0078
Phenanthrene	ND		0.0078
Anthracene	ND		0.0078
Fluoranthene	ND		0.0078
Pyrene	ND		0.0078
Benzo[a]anthracene	ND		0.0078
Chrysene	ND		0.0078
Benzo[b]fluoranthene	ND		0.0078
Benzo[k]fluoranthene	ND		0.0078
Benzo[a]pyrene	ND		0.0078
Indeno(1,2,3-c,d)pyrene	ND		0.0078
Dibenz[a,h]anthracene	ND		0.0078
Benzo[g,h,i]perylene	ND		0.0078

Surrogate :	Percent Recovery		Control Limits
Nitrobenzene-d5	33	Q	49 - 121
2-Fluorobiphenyl	41	Q	53 - 110
Terphenyl-d14	88		64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-05
Client ID:	**FOT-EX-16-[080706]-8.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0078
2-Methylnaphthalene	ND		0.0078
1-Methylnaphthalene	ND		0.0078
Acenaphthylene	ND		0.0078
Acenaphthene	ND		0.0078
Fluorene	ND		0.0078
Phenanthrene	ND		0.0078
Anthracene	ND		0.0078
Fluoranthene	ND		0.0078
Pyrene	0.016		0.0078
Benzo[a]anthracene	ND		0.0078
Chrysene	0.0091		0.0078
Benzo[b]fluoranthene	ND		0.0078
Benzo[k]fluoranthene	ND		0.0078
Benzo[a]pyrene	ND		0.0078
Indeno(1,2,3-c,d)pyrene	ND		0.0078
Dibenz[a,h]anthracene	ND		0.0078
Benzo[g,h,i]perylene	ND		0.0078

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	55	49 - 121
2-Fluorobiphenyl	69	53 - 110
Terphenyl-d14	90	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-06
Client ID:	**FOT-EX-15-[080706]-11.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0075
2-Methylnaphthalene	ND		0.0075
1-Methylnaphthalene	ND		0.0075
Acenaphthylene	ND		0.0075
Acenaphthene	ND		0.0075
Fluorene	ND		0.0075
Phenanthrene	ND		0.0075
Anthracene	ND		0.0075
Fluoranthene	ND		0.0075
Pyrene	ND		0.0075
Benzo[a]anthracene	ND		0.0075
Chrysene	ND		0.0075
Benzo[b]fluoranthene	ND		0.0075
Benzo[k]fluoranthene	ND		0.0075
Benzo[a]pyrene	ND		0.0075
Indeno(1,2,3-c,d)pyrene	ND		0.0075
Dibenz[a,h]anthracene	ND		0.0075
Benzo[g,h,i]perylene	ND		0.0075

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	52	49 - 121
2-Fluorobiphenyl	60	53 - 110
Terphenyl-d14	96	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-07
Client ID:	**FOT-EX-10-[080706]-11.5**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	ND		0.0076
2-Methylnaphthalene	ND		0.0076
1-Methylnaphthalene	ND		0.0076
Acenaphthylene	ND		0.0076
Acenaphthene	ND		0.0076
Fluorene	ND		0.0076
Phenanthrene	0.011		0.0076
Anthracene	ND		0.0076
Fluoranthene	ND		0.0076
Pyrene	0.0081		0.0076
Benzo[a]anthracene	ND		0.0076
Chrysene	ND		0.0076
Benzo[b]fluoranthene	ND		0.0076
Benzo[k]fluoranthene	ND		0.0076
Benzo[a]pyrene	ND		0.0076
Indeno(1,2,3-c,d)pyrene	ND		0.0076
Dibenz[a,h]anthracene	ND		0.0076
Benzo[g,h,i]perylene	ND		0.0076

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	49	49 - 121
2-Fluorobiphenyl	63	53 - 110
Terphenyl-d14	93	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-10
Client ID:	**WM-EX-18-[080906]-9.0**

Compound:	Results	Flags	PQL
Naphthalene	0.033		0.0073
2-Methylnaphthalene	0.019		0.0073
1-Methylnaphthalene	0.053		0.0073
Acenaphthylene	0.0077		0.0073
Acenaphthene	0.18		0.0073
Fluorene	0.15		0.0073
Phenanthrene	0.41		0.0073
Anthracene	0.051		0.0073
Fluoranthene	0.51		0.0073
Pyrene	0.43		0.0073
Benzo[a]anthracene	0.18		0.0073
Chrysene	0.23		0.0073
Benzo[b]fluoranthene	0.12		0.0073
Benzo[k]fluoranthene	0.025		0.0073
Benzo[a]pyrene	0.13		0.0073
Indeno(1,2,3-c,d)pyrene	0.049		0.0073
Dibenz[a,h]anthracene	0.026		0.0073
Benzo[g,h,i]perylene	0.11		0.0073

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	55	49 - 121
2-Fluorobiphenyl	67	53 - 110
Terphenyl-d14	93	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-11
Client ID:	**FOT-EX-25-[080906]-5.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	ND		0.0074
2-Methylnaphthalene	ND		0.0074
1-Methylnaphthalene	ND		0.0074
Acenaphthylene	ND		0.0074
Acenaphthene	ND		0.0074
Fluorene	ND		0.0074
Phenanthrene	0.010		0.0074
Anthracene	ND		0.0074
Fluoranthene	0.010		0.0074
Pyrene	0.0090		0.0074
Benzo[a]anthracene	ND		0.0074
Chrysene	ND		0.0074
Benzo[b]fluoranthene	ND		0.0074
Benzo[k]fluoranthene	ND		0.0074
Benzo[a]pyrene	ND		0.0074
Indeno(1,2,3-c,d)pyrene	ND		0.0074
Dibenz[a,h]anthracene	ND		0.0074
Benzo[g,h,i]perylene	ND		0.0074

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	52	49 - 121
2-Fluorobiphenyl	67	53 - 110
Terphenyl-d14	91	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-12
Client ID:	**FOT-EX-26-[080906]-5.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	0.0088		0.0071
2-Methylnaphthalene	0.037		0.0071
1-Methylnaphthalene	0.022		0.0071
Acenaphthylene	ND		0.0071
Acenaphthene	ND		0.0071
Fluorene	ND		0.0071
Phenanthrene	0.037		0.0071
Anthracene	0.010		0.0071
Fluoranthene	0.023		0.0071
Pyrene	0.030		0.0071
Benzo[a]anthracene	0.014		0.0071
Chrysene	0.035		0.0071
Benzo[b]fluoranthene	0.021		0.0071
Benzo[k]fluoranthene	ND		0.0071
Benzo[a]pyrene	0.027		0.0071
Indeno(1,2,3-c,d)pyrene	0.022		0.0071
Dibenz[a,h]anthracene	0.0089		0.0071
Benzo[g,h,i]perylene	0.12		0.0071

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	59	49 - 121
2-Fluorobiphenyl	73	53 - 110
Terphenyl-d14	97	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-13
Client ID:	**WFOTEX-27-[080906]-8.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	ND		0.0078
2-Methylnaphthalene	ND		0.0078
1-Methylnaphthalene	ND		0.0078
Acenaphthylene	ND		0.0078
Acenaphthene	ND		0.0078
Fluorene	ND		0.0078
Phenanthrene	0.012		0.0078
Anthracene	ND		0.0078
Fluoranthene	0.0080		0.0078
Pyrene	0.0095		0.0078
Benzo[a]anthracene	ND		0.0078
Chrysene	0.0096		0.0078
Benzo[b]fluoranthene	ND		0.0078
Benzo[k]fluoranthene	ND		0.0078
Benzo[a]pyrene	ND		0.0078
Indeno(1,2,3-c,d)pyrene	ND		0.0078
Dibenz[a,h]anthracene	ND		0.0078
Benzo[g,h,i]perylene	ND		0.0078

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	53	49 - 121
2-Fluorobiphenyl	64	53 - 110
Terphenyl-d14	93	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-14
Client ID:	**FOT-EX-28-[080906]-8.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0078
2-Methylnaphthalene	ND		0.0078
1-Methylnaphthalene	ND		0.0078
Acenaphthylene	ND		0.0078
Acenaphthene	ND		0.0078
Fluorene	ND		0.0078
Phenanthrene	ND		0.0078
Anthracene	ND		0.0078
Fluoranthene	ND		0.0078
Pyrene	ND		0.0078
Benzo[a]anthracene	ND		0.0078
Chrysene	ND		0.0078
Benzo[b]fluoranthene	ND		0.0078
Benzo[k]fluoranthene	ND		0.0078
Benzo[a]pyrene	ND		0.0078
Indeno(1,2,3-c,d)pyrene	ND		0.0078
Dibenz[a,h]anthracene	ND		0.0078
Benzo[g,h,i]perylene	ND		0.0078

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	52	49 - 121
2-Fluorobiphenyl	65	53 - 110
Terphenyl-d14	90	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-15
Client ID:	**WM-EX-11-[080806]-17.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	0.023		0.0089
2-Methylnaphthalene	ND		0.0089
1-Methylnaphthalene	ND		0.0089
Acenaphthylene	ND		0.0089
Acenaphthene	0.30		0.0089
Fluorene	0.095		0.0089
Phenanthrene	0.031		0.0089
Anthracene	0.012		0.0089
Fluoranthene	0.031		0.0089
Pyrene	0.023		0.0089
Benzo[a]anthracene	ND		0.0089
Chrysene	ND		0.0089
Benzo[b]fluoranthene	ND		0.0089
Benzo[k]fluoranthene	ND		0.0089
Benzo[a]pyrene	ND		0.0089
Indeno(1,2,3-c,d)pyrene	ND		0.0089
Dibenz[a,h]anthracene	ND		0.0089
Benzo[g,h,i]perylene	ND		0.0089

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	60	49 - 121
2-Fluorobiphenyl	69	53 - 110
Terphenyl-d14	91	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-17-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-16
Client ID:	**WM-EX-17-[080806]-14.0**

Compound:	Results	Flags	PQL
Naphthalene	0.0096		0.0074
2-Methylnaphthalene	ND		0.0074
1-Methylnaphthalene	ND		0.0074
Acenaphthylene	ND		0.0074
Acenaphthene	0.019		0.0074
Fluorene	0.020		0.0074
Phenanthrene	0.027		0.0074
Anthracene	ND		0.0074
Fluoranthene	0.034		0.0074
Pyrene	0.022		0.0074
Benzo[a]anthracene	ND		0.0074
Chrysene	ND		0.0074
Benzo[b]fluoranthene	ND		0.0074
Benzo[k]fluoranthene	ND		0.0074
Benzo[a]pyrene	ND		0.0074
Indeno(1,2,3-c,d)pyrene	ND		0.0074
Dibenz[a,h]anthracene	ND		0.0074
Benzo[g,h,i]perylene	ND		0.0074

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	81	49 - 121
2-Fluorobiphenyl	79	53 - 110
Terphenyl-d14	94	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-17-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-17
Client ID:	**FOT-EX-17-[080806]-3.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0094
2-Methylnaphthalene	ND		0.0094
1-Methylnaphthalene	ND		0.0094
Acenaphthylene	ND		0.0094
Acenaphthene	ND		0.0094
Fluorene	ND		0.0094
Phenanthrene	0.050		0.0094
Anthracene	ND		0.0094
Fluoranthene	0.16		0.0094
Pyrene	0.18		0.0094
Benzo[a]anthracene	0.11		0.0094
Chrysene	0.15		0.0094
Benzo[b]fluoranthene	0.18		0.0094
Benzo[k]fluoranthene	0.058		0.0094
Benzo[a]pyrene	0.11		0.0094
Indeno(1,2,3-c,d)pyrene	0.083		0.0094
Dibenz[a,h]anthracene	0.022		0.0094
Benzo[g,h,i]perylene	0.12		0.0094

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	73	49 - 121
2-Fluorobiphenyl	73	53 - 110
Terphenyl-d14	83	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-17-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-18
Client ID:	**FOT-EX-18-[080806]-7.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0069
2-Methylnaphthalene	ND		0.0069
1-Methylnaphthalene	ND		0.0069
Acenaphthylene	ND		0.0069
Acenaphthene	ND		0.0069
Fluorene	ND		0.0069
Phenanthrene	ND		0.0069
Anthracene	ND		0.0069
Fluoranthene	ND		0.0069
Pyrene	ND		0.0069
Benzo[a]anthracene	ND		0.0069
Chrysene	ND		0.0069
Benzo[b]fluoranthene	ND		0.0069
Benzo[k]fluoranthene	ND		0.0069
Benzo[a]pyrene	ND		0.0069
Indeno(1,2,3-c,d)pyrene	ND		0.0069
Dibenz[a,h]anthracene	ND		0.0069
Benzo[g,h,i]perylene	ND		0.0069

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	73	49 - 121
2-Fluorobiphenyl	72	53 - 110
Terphenyl-d14	90	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-17-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-19
Client ID:	**FOT-EX-11-[080806]-9.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	ND		0.0073
2-Methylnaphthalene	ND		0.0073
1-Methylnaphthalene	ND		0.0073
Acenaphthylene	ND		0.0073
Acenaphthene	ND		0.0073
Fluorene	ND		0.0073
Phenanthrene	ND		0.0073
Anthracene	ND		0.0073
Fluoranthene	ND		0.0073
Pyrene	ND		0.0073
Benzo[a]anthracene	ND		0.0073
Chrysene	ND		0.0073
Benzo[b]fluoranthene	ND		0.0073
Benzo[k]fluoranthene	ND		0.0073
Benzo[a]pyrene	ND		0.0073
Indeno(1,2,3-c,d)pyrene	ND		0.0073
Dibenz[a,h]anthracene	ND		0.0073
Benzo[g,h,i]perylene	ND		0.0073

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	77	49 - 121
2-Fluorobiphenyl	76	53 - 110
Terphenyl-d14	93	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-17-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-20
Client ID:	**FOT-EX-19-[080806]-9.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	ND		0.0080
2-Methylnaphthalene	ND		0.0080
1-Methylnaphthalene	ND		0.0080
Acenaphthylene	ND		0.0080
Acenaphthene	ND		0.0080
Fluorene	ND		0.0080
Phenanthrene	ND		0.0080
Anthracene	ND		0.0080
Fluoranthene	ND		0.0080
Pyrene	ND		0.0080
Benzo[a]anthracene	ND		0.0080
Chrysene	ND		0.0080
Benzo[b]fluoranthene	ND		0.0080
Benzo[k]fluoranthene	ND		0.0080
Benzo[a]pyrene	ND		0.0080
Indeno(1,2,3-c,d)pyrene	ND		0.0080
Dibenz[a,h]anthracene	ND		0.0080
Benzo[g,h,i]perylene	ND		0.0080

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	64	49 - 121
2-Fluorobiphenyl	62	53 - 110
Terphenyl-d14	89	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-17-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-21
Client ID:	**FOT-EX-20-[080806]-7.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0075
2-Methylnaphthalene	ND		0.0075
1-Methylnaphthalene	ND		0.0075
Acenaphthylene	ND		0.0075
Acenaphthene	ND		0.0075
Fluorene	ND		0.0075
Phenanthrene	ND		0.0075
Anthracene	ND		0.0075
Fluoranthene	ND		0.0075
Pyrene	ND		0.0075
Benzo[a]anthracene	ND		0.0075
Chrysene	ND		0.0075
Benzo[b]fluoranthene	ND		0.0075
Benzo[k]fluoranthene	ND		0.0075
Benzo[a]pyrene	ND		0.0075
Indeno(1,2,3-c,d)pyrene	ND		0.0075
Dibenz[a,h]anthracene	ND		0.0075
Benzo[g,h,i]perylene	ND		0.0075

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	67	49 - 121
2-Fluorobiphenyl	66	53 - 110
Terphenyl-d14	88	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-11-06
Date Analyzed:	8-17-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-22
Client ID:	**FOT-EX-21-[080806]-7.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	ND		0.0071
2-Methylnaphthalene	ND		0.0071
1-Methylnaphthalene	ND		0.0071
Acenaphthylene	ND		0.0071
Acenaphthene	ND		0.0071
Fluorene	ND		0.0071
Phenanthrene	ND		0.0071
Anthracene	ND		0.0071
Fluoranthene	ND		0.0071
Pyrene	ND		0.0071
Benzo[a]anthracene	ND		0.0071
Chrysene	ND		0.0071
Benzo[b]fluoranthene	ND		0.0071
Benzo[k]fluoranthene	ND		0.0071
Benzo[a]pyrene	ND		0.0071
Indeno(1,2,3-c,d)pyrene	ND		0.0071
Dibenz[a,h]anthracene	ND		0.0071
Benzo[g,h,i]perylene	ND		0.0071

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	69	49 - 121
2-Fluorobiphenyl	71	53 - 110
Terphenyl-d14	89	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-14-06
Date Analyzed:	8-18-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-23
Client ID:	**FOT-EX-22-[080806]-5.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0072
2-Methylnaphthalene	0.0074		0.0072
1-Methylnaphthalene	ND		0.0072
Acenaphthylene	ND		0.0072
Acenaphthene	ND		0.0072
Fluorene	ND		0.0072
Phenanthrene	0.012		0.0072
Anthracene	ND		0.0072
Fluoranthene	0.011		0.0072
Pyrene	0.018		0.0072
Benzo[a]anthracene	0.0079		0.0072
Chrysene	0.014		0.0072
Benzo[b]fluoranthene	0.015		0.0072
Benzo[k]fluoranthene	ND		0.0072
Benzo[a]pyrene	0.017		0.0072
Indeno(1,2,3-c,d)pyrene	0.013		0.0072
Dibenz[a,h]anthracene	ND		0.0072
Benzo[g,h,i]perylene	0.035		0.0072

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	77	49 - 121
2-Fluorobiphenyl	85	53 - 110
Terphenyl-d14	99	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-14-06
Date Analyzed:	8-17-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-24
Client ID:	**FOT-EX-23-[080806]-5.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0071
2-Methylnaphthalene	ND		0.0071
1-Methylnaphthalene	ND		0.0071
Acenaphthylene	ND		0.0071
Acenaphthene	ND		0.0071
Fluorene	ND		0.0071
Phenanthrene	ND		0.0071
Anthracene	ND		0.0071
Fluoranthene	0.0081		0.0071
Pyrene	0.0091		0.0071
Benzo[a]anthracene	ND		0.0071
Chrysene	ND		0.0071
Benzo[b]fluoranthene	ND		0.0071
Benzo[k]fluoranthene	ND		0.0071
Benzo[a]pyrene	ND		0.0071
Indeno(1,2,3-c,d)pyrene	ND		0.0071
Dibenz[a,h]anthracene	ND		0.0071
Benzo[g,h,i]perylene	ND		0.0071

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	71	49 - 121
2-Fluorobiphenyl	69	53 - 110
Terphenyl-d14	87	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-14-06
Date Analyzed:	8-18-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-25
Client ID:	**FOT-EX-24-[080806]-5.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0069
2-Methylnaphthalene	0.015		0.0069
1-Methylnaphthalene	0.0096		0.0069
Acenaphthylene	ND		0.0069
Acenaphthene	ND		0.0069
Fluorene	ND		0.0069
Phenanthrene	0.040		0.0069
Anthracene	ND		0.0069
Fluoranthene	0.064		0.0069
Pyrene	0.056		0.0069
Benzo[a]anthracene	0.013		0.0069
Chrysene	0.040		0.0069
Benzo[b]fluoranthene	0.030		0.0069
Benzo[k]fluoranthene	0.0078		0.0069
Benzo[a]pyrene	0.017		0.0069
Indeno(1,2,3-c,d)pyrene	0.010		0.0069
Dibenz[a,h]anthracene	ND		0.0069
Benzo[g,h,i]perylene	0.018		0.0069

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	70	49 - 121
2-Fluorobiphenyl	74	53 - 110
Terphenyl-d14	91	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-14-06
Date Analyzed:	8-17-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-26
Client ID:	**WM-EX-10-[080806]-16.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	0.21		0.0081
2-Methylnaphthalene	0.094		0.0081
1-Methylnaphthalene	0.081		0.0081
Acenaphthylene	0.019		0.0081
Acenaphthene	0.26		0.0081
Fluorene	0.32		0.0081
Phenanthrene	1.4		0.041
Anthracene	0.18		0.0081
Fluoranthene	1.8		0.041
Pyrene	1.2		0.041
Benzo[a]anthracene	0.48		0.0081
Chrysene	0.39		0.0081
Benzo[b]fluoranthene	0.50		0.0081
Benzo[k]fluoranthene	0.18		0.0081
Benzo[a]pyrene	0.33		0.0081
Indeno(1,2,3-c,d)pyrene	0.16		0.0081
Dibenz[a,h]anthracene	0.054		0.0081
Benzo[g,h,i]perylene	0.16		0.0081

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	66	49 - 121
2-Fluorobiphenyl	66	53 - 110
Terphenyl-d14	81	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-14-06
Date Analyzed:	8-17-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-27
Client ID:	**WM-EX-12-[080806]-8.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	0.017		0.0073
2-Methylnaphthalene	ND		0.0073
1-Methylnaphthalene	ND		0.0073
Acenaphthylene	ND		0.0073
Acenaphthene	0.016		0.0073
Fluorene	0.014		0.0073
Phenanthrene	0.069		0.0073
Anthracene	0.014		0.0073
Fluoranthene	0.14		0.0073
Pyrene	0.11		0.0073
Benzo[a]anthracene	0.039		0.0073
Chrysene	0.045		0.0073
Benzo[b]fluoranthene	0.034		0.0073
Benzo[k]fluoranthene	0.0087		0.0073
Benzo[a]pyrene	0.026		0.0073
Indeno(1,2,3-c,d)pyrene	0.012		0.0073
Dibenz[a,h]anthracene	ND		0.0073
Benzo[g,h,i]perylene	0.019		0.0073

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	68	49 - 121
2-Fluorobiphenyl	69	53 - 110
Terphenyl-d14	85	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-14-06
Date Analyzed:	8-17-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-28
Client ID:	**WM-EX-13-[080806]-9.0**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0079
2-Methylnaphthalene	ND		0.0079
1-Methylnaphthalene	ND		0.0079
Acenaphthylene	ND		0.0079
Acenaphthene	ND		0.0079
Fluorene	ND		0.0079
Phenanthrene	0.033		0.0079
Anthracene	ND		0.0079
Fluoranthene	0.12		0.0079
Pyrene	0.16		0.0079
Benzo[a]anthracene	0.087		0.0079
Chrysene	0.098		0.0079
Benzo[b]fluoranthene	0.082		0.0079
Benzo[k]fluoranthene	0.024		0.0079
Benzo[a]pyrene	0.069		0.0079
Indeno(1,2,3-c,d)pyrene	0.029		0.0079
Dibenz[a,h]anthracene	0.010		0.0079
Benzo[g,h,i]perylene	0.038		0.0079

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	53	49 - 121
2-Fluorobiphenyl	59	53 - 110
Terphenyl-d14	84	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-14-06
Date Analyzed:	8-18-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-29
Client ID:	**WM-EX-14-[080806]-14.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	ND		0.0075
2-Methylnaphthalene	ND		0.0075
1-Methylnaphthalene	ND		0.0075
Acenaphthylene	ND		0.0075
Acenaphthene	ND		0.0075
Fluorene	ND		0.0075
Phenanthrene	ND		0.0075
Anthracene	ND		0.0075
Fluoranthene	ND		0.0075
Pyrene	ND		0.0075
Benzo[a]anthracene	ND		0.0075
Chrysene	ND		0.0075
Benzo[b]fluoranthene	ND		0.0075
Benzo[k]fluoranthene	ND		0.0075
Benzo[a]pyrene	ND		0.0075
Indeno(1,2,3-c,d)pyrene	ND		0.0075
Dibenz[a,h]anthracene	ND		0.0075
Benzo[g,h,i]perylene	ND		0.0075

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	61	49 - 121
2-Fluorobiphenyl	64	53 - 110
Terphenyl-d14	86	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-14-06
Date Analyzed:	8-18-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-30
Client ID:	**WM-EX-15-[080806]-14.0**

Compound:	Results	Flags	PQL
Naphthalene	0.010		0.0076
2-Methylnaphthalene	ND		0.0076
1-Methylnaphthalene	ND		0.0076
Acenaphthylene	ND		0.0076
Acenaphthene	0.026		0.0076
Fluorene	0.014		0.0076
Phenanthrene	0.056		0.0076
Anthracene	0.014		0.0076
Fluoranthene	0.15		0.0076
Pyrene	0.26		0.0076
Benzo[a]anthracene	0.17		0.0076
Chrysene	0.26		0.0076
Benzo[b]fluoranthene	0.080		0.0076
Benzo[k]fluoranthene	0.015		0.0076
Benzo[a]pyrene	0.14		0.0076
Indeno(1,2,3-c,d)pyrene	0.034		0.0076
Dibenz[a,h]anthracene	0.034		0.0076
Benzo[g,h,i]perylene	0.11		0.0076

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	72	49 - 121
2-Fluorobiphenyl	75	53 - 110
Terphenyl-d14	95	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-14-06
Date Analyzed:	8-18&21-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-31
Client ID:	**WM-EX-16-[080806]-14.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	0.17		0.0073
2-Methylnaphthalene	0.042		0.0073
1-Methylnaphthalene	1.7		0.073
Acenaphthylene	0.030		0.0073
Acenaphthene	0.21		0.0073
Fluorene	0.25		0.0073
Phenanthrene	0.99		0.073
Anthracene	0.15		0.0073
Fluoranthene	1.2		0.073
Pyrene	1.3		0.073
Benzo[a]anthracene	0.50		0.0073
Chrysene	0.84		0.0073
Benzo[b]fluoranthene	0.22		0.0073
Benzo[k]fluoranthene	0.034		0.0073
Benzo[a]pyrene	0.39		0.0073
Indeno(1,2,3-c,d)pyrene	0.080		0.0073
Dibenz[a,h]anthracene	0.084		0.0073
Benzo[g,h,i]perylene	0.24		0.0073

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	67	49 - 121
2-Fluorobiphenyl	71	53 - 110
Terphenyl-d14	90	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM
METHOD BLANK QUALITY CONTROL

Date Extracted:	8-11-06
Date Analyzed:	8-14-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	MB0811S1

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0067
2-Methylnaphthalene	ND		0.0067
1-Methylnaphthalene	ND		0.0067
Acenaphthylene	ND		0.0067
Acenaphthene	ND		0.0067
Fluorene	ND		0.0067
Phenanthrene	ND		0.0067
Anthracene	ND		0.0067
Fluoranthene	ND		0.0067
Pyrene	ND		0.0067
Benzo[a]anthracene	ND		0.0067
Chrysene	ND		0.0067
Benzo[b]fluoranthene	ND		0.0067
Benzo[k]fluoranthene	ND		0.0067
Benzo[a]pyrene	ND		0.0067
Indeno(1,2,3-c,d)pyrene	ND		0.0067
Dibenz[a,h]anthracene	ND		0.0067
Benzo[g,h,i]perylene	ND		0.0067

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	61	49 - 121
2-Fluorobiphenyl	73	53 - 110
Terphenyl-d14	100	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM
METHOD BLANK QUALITY CONTROL

Date Extracted:	8-14-06
Date Analyzed:	8-17-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	MB0814S1

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0067
2-Methylnaphthalene	ND		0.0067
1-Methylnaphthalene	ND		0.0067
Acenaphthylene	ND		0.0067
Acenaphthene	ND		0.0067
Fluorene	ND		0.0067
Phenanthrene	ND		0.0067
Anthracene	ND		0.0067
Fluoranthene	ND		0.0067
Pyrene	ND		0.0067
Benzo[a]anthracene	ND		0.0067
Chrysene	ND		0.0067
Benzo[b]fluoranthene	ND		0.0067
Benzo[k]fluoranthene	ND		0.0067
Benzo[a]pyrene	ND		0.0067
Indeno(1,2,3-c,d)pyrene	ND		0.0067
Dibenz[a,h]anthracene	ND		0.0067
Benzo[g,h,i]perylene	ND		0.0067

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	68	49 - 121
2-Fluorobiphenyl	67	53 - 110
Terphenyl-d14	88	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM
MS/MSD QUALITY CONTROL

Date Extracted: 8-11-06
Date Analyzed: 8-17-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-097-22

Compound:	Sample Amount	Spike Amount	MS	Percent Recovery	MSD	Percent Recovery	Recovery Limits	Flags
Naphthalene	ND	0.0833	0.0626	75	0.0699	84	30-115	
Acenaphthylene	ND	0.0833	0.0628	75	0.0708	85	46-125	
Acenaphthene	ND	0.0833	0.0637	76	0.0715	86	40-119	
Fluorene	ND	0.0833	0.0673	81	0.0733	88	50-133	
Phenanthrene	ND	0.0833	0.0715	86	0.0752	90	48-128	
Anthracene	ND	0.0833	0.0703	84	0.0742	89	53-134	
Fluoranthene	ND	0.0833	0.0783	94	0.0808	97	50-143	
Pyrene	ND	0.0833	0.0759	91	0.0778	93	44-139	
Benzo[a]anthracene	ND	0.0833	0.0825	99	0.0841	101	62-129	
Chrysene	ND	0.0833	0.0750	90	0.0759	91	42-127	
Benzo[b]fluoranthene	ND	0.0833	0.0746	89	0.0755	91	57-132	
Benzo[k]fluoranthene	ND	0.0833	0.0745	89	0.0769	92	57-131	
Benzo[a]pyrene	ND	0.0833	0.0736	88	0.0749	90	59-132	
Indeno(1,2,3-c,d)pyrene	ND	0.0833	0.0725	87	0.0748	90	55-135	
Dibenz[a,h]anthracene	ND	0.0833	0.0745	89	0.0768	92	36-146	
Benzo[g,h,i]perylene	ND	0.0833	0.0711	85	0.0733	88	42-140	

	RPD	RPD Limit	Flags
Naphthalene	11	25	
Acenaphthylene	12	25	
Acenaphthene	12	25	
Fluorene	9	25	
Phenanthrene	5	25	
Anthracene	5	25	
Fluoranthene	3	25	
Pyrene	3	25	
Benzo[a]anthracene	2	25	
Chrysene	1	25	
Benzo[b]fluoranthene	1	25	
Benzo[k]fluoranthene	3	25	
Benzo[a]pyrene	2	25	
Indeno(1,2,3-c,d)pyrene	3	25	
Dibenz[a,h]anthracene	3	25	
Benzo[g,h,i]perylene	3	25	

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM
SB/SBD QUALITY CONTROL

Date Extracted: 8-14-06
Date Analyzed: 8-22-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: SB0814S1

Compound:	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
Naphthalene	0.0833	0.0573	69	0.0503	60	30-115	
Acenaphthylene	0.0833	0.0583	70	0.0549	66	46-125	
Acenaphthene	0.0833	0.0576	69	0.0540	65	40-119	
Fluorene	0.0833	0.0603	72	0.0579	70	50-133	
Phenanthrene	0.0833	0.0620	74	0.0636	76	48-128	
Anthracene	0.0833	0.0615	74	0.0643	77	53-134	
Fluoranthene	0.0833	0.0673	81	0.0707	85	50-143	
Pyrene	0.0833	0.0665	80	0.0696	84	44-139	
Benzo[a]anthracene	0.0833	0.0720	86	0.0771	93	62-129	
Chrysene	0.0833	0.0642	77	0.0686	82	42-127	
Benzo[b]fluoranthene	0.0833	0.0671	81	0.0718	86	57-132	
Benzo[k]fluoranthene	0.0833	0.0661	79	0.0719	86	57-131	
Benzo[a]pyrene	0.0833	0.0637	76	0.0690	83	59-132	
Indeno(1,2,3-c,d)pyrene	0.0833	0.0643	77	0.0679	81	55-135	
Dibenz[a,h]anthracene	0.0833	0.0677	81	0.0725	87	36-146	
Benzo[g,h,i]perylene	0.0833	0.0638	77	0.0686	82	42-140	

	RPD	RPD Limit	Flags
Naphthalene	13	25	
Acenaphthylene	6	25	
Acenaphthene	6	25	
Fluorene	4	25	
Phenanthrene	3	25	
Anthracene	5	25	
Fluoranthene	5	25	
Pyrene	5	25	
Benzo[a]anthracene	7	25	
Chrysene	7	25	
Benzo[b]fluoranthene	7	25	
Benzo[k]fluoranthene	8	25	
Benzo[a]pyrene	8	25	
Indeno(1,2,3-c,d)pyrene	6	25	
Dibenz[a,h]anthracene	7	25	
Benzo[g,h,i]perylene	7	25	

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-16-06
Date Analyzed:	8-21-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-32
Client ID:	**WM-DUP-1-080806**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	0.019		0.0077
2-Methylnaphthalene	0.011		0.0077
1-Methylnaphthalene	0.011		0.0077
Acenaphthylene	ND		0.0077
Acenaphthene	0.039		0.0077
Fluorene	0.035		0.0077
Phenanthrene	0.11		0.0077
Anthracene	0.019		0.0077
Fluoranthene	0.21		0.0077
Pyrene	0.15		0.0077
Benzo[a]anthracene	0.053		0.0077
Chrysene	0.045		0.0077
Benzo[b]fluoranthene	0.073		0.0077
Benzo[k]fluoranthene	0.022		0.0077
Benzo[a]pyrene	0.047		0.0077
Indeno(1,2,3-c,d)pyrene	0.025		0.0077
Dibenz[a,h]anthracene	ND		0.0077
Benzo[g,h,i]perylene	0.027		0.0077

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	66	49 - 121
2-Fluorobiphenyl	64	53 - 110
Terphenyl-d14	78	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	8-16-06
Date Analyzed:	8-21-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-33
Client ID:	**FOT-DUP-2-080806**

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0072
2-Methylnaphthalene	ND		0.0072
1-Methylnaphthalene	ND		0.0072
Acenaphthylene	ND		0.0072
Acenaphthene	ND		0.0072
Fluorene	ND		0.0072
Phenanthrene	ND		0.0072
Anthracene	ND		0.0072
Fluoranthene	ND		0.0072
Pyrene	ND		0.0072
Benzo[a]anthracene	ND		0.0072
Chrysene	ND		0.0072
Benzo[b]fluoranthene	ND		0.0072
Benzo[k]fluoranthene	ND		0.0072
Benzo[a]pyrene	ND		0.0072
Indeno(1,2,3-c,d)pyrene	ND		0.0072
Dibenz[a,h]anthracene	ND		0.0072
Benzo[g,h,i]perylene	0.022		0.0072

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	68	49 - 121
2-Fluorobiphenyl	70	53 - 110
Terphenyl-d14	81	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM
METHOD BLANK QUALITY CONTROL

Date Extracted:	8-16-06
Date Analyzed:	8-21-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	MB0816S1

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0067
2-Methylnaphthalene	ND		0.0067
1-Methylnaphthalene	ND		0.0067
Acenaphthylene	ND		0.0067
Acenaphthene	ND		0.0067
Fluorene	ND		0.0067
Phenanthrene	ND		0.0067
Anthracene	ND		0.0067
Fluoranthene	ND		0.0067
Pyrene	ND		0.0067
Benzo[a]anthracene	ND		0.0067
Chrysene	ND		0.0067
Benzo[b]fluoranthene	ND		0.0067
Benzo[k]fluoranthene	ND		0.0067
Benzo[a]pyrene	ND		0.0067
Indeno(1,2,3-c,d)pyrene	ND		0.0067
Dibenz[a,h]anthracene	ND		0.0067
Benzo[g,h,i]perylene	ND		0.0067

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	69	49 - 121
2-Fluorobiphenyl	69	53 - 110
Terphenyl-d14	89	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM
SB/SBD QUALITY CONTROL

Date Extracted: 8-16-06
Date Analyzed: 8-21-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: SB0816S1

Compound:	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
Naphthalene	0.0833	0.0589	71	0.0567	68	30-115	
Acenaphthylene	0.0833	0.0611	73	0.0609	73	46-125	
Acenaphthene	0.0833	0.0602	72	0.0599	72	40-119	
Fluorene	0.0833	0.0638	77	0.0636	76	50-133	
Phenanthrene	0.0833	0.0662	79	0.0673	81	48-128	
Anthracene	0.0833	0.0653	78	0.0664	80	53-134	
Fluoranthene	0.0833	0.0707	85	0.0720	86	50-143	
Pyrene	0.0833	0.0698	84	0.0710	85	44-139	
Benzo[a]anthracene	0.0833	0.0758	91	0.0767	92	62-129	
Chrysene	0.0833	0.0678	81	0.0690	83	42-127	
Benzo[b]fluoranthene	0.0833	0.0680	82	0.0710	85	57-132	
Benzo[k]fluoranthene	0.0833	0.0692	83	0.0698	84	57-131	
Benzo[a]pyrene	0.0833	0.0646	78	0.0660	79	59-132	
Indeno(1,2,3-c,d)pyrene	0.0833	0.0674	81	0.0686	82	55-135	
Dibenz[a,h]anthracene	0.0833	0.0711	85	0.0720	86	36-146	
Benzo[g,h,i]perylene	0.0833	0.0681	82	0.0695	83	42-140	

	RPD	RPD Limit	Flags
Naphthalene	4	25	
Acenaphthylene	0	25	
Acenaphthene	0	25	
Fluorene	0	25	
Phenanthrene	2	25	
Anthracene	2	25	
Fluoranthene	2	25	
Pyrene	2	25	
Benzo[a]anthracene	1	25	
Chrysene	2	25	
Benzo[b]fluoranthene	4	25	
Benzo[k]fluoranthene	1	25	
Benzo[a]pyrene	2	25	
Indeno(1,2,3-c,d)pyrene	2	25	
Dibenz[a,h]anthracene	1	25	
Benzo[g,h,i]perylene	2	25	

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PCBs by EPA 8082

Date Extracted: 8-10&14-06
Date Analyzed: 8-14,15&16-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID	Client ID	Results	PCB Type	Surrogate % Recovery	PQL	Flags
08-097-01	WM-EX-6-[080706]-9.0	ND	----	83	0.055	
08-097-02	WM-EX-7-[080706]-8.5	ND	----	66	0.055	
08-097-03	WM-EX-8-[080706]-15.0	ND	----	78	0.055	
08-097-04	WM-EX-9-[080706]-10.0	ND	----	83	0.058	
08-097-05	FOT-EX-15-[080706]-11.0	ND	----	80	0.058	
08-097-06	FOT-EX-15-[080706]-11.0	ND	----	78	0.056	
08-097-07	FOT-EX-10-[080706]-11.5	ND	----	77	0.057	
08-097-10	WM-EX-18-[080906]9.0	ND	----	75	0.055	
08-097-11	FOT-EX-25-[080906]-5.0	ND	----	76	0.056	
08-097-12	FOT-EX-26-[080906]-5.0	ND	----	77	0.053	
08-097-13	FOT-EX-27-[080906]-8.0	ND	----	84	0.058	
08-097-14	FOT-EX-28-[080906]-8.0	ND	----	73	0.058	
08-097-15	WM-EX-11-[080806]-17.0	ND	----	77	0.067	
08-097-16	WM-EX-17-[080806]-14.0	ND	----	85	0.056	
08-097-17	FOT-EX-17-[080806]-3.0	0.083	1254	80	0.070	
		0.25	1260		0.070	
08-097-18	FOT-EX-18-[080806]-7.0	ND	----	97	0.052	
08-097-19	FOT-EX-11-[080806]-9.0	ND	----	90	0.055	
08-097-20	FOT-EX-19-[080806]-9.0	ND	----	87	0.060	
08-097-21	FOT-EX-20-[080806]-7.0	ND	----	92	0.056	
08-097-22	FOT-EX-21-[080806]-7.0	ND	----	92	0.053	
08-097-23	FOT-EX-22-[080806]-5.0	ND	----	98	0.054	
08-097-24	FOT-EX-23-[080806]-5.0	ND	----	96	0.053	
08-097-25	FOT-EX-24-[080806]-5.0	ND	----	98	0.052	
08-097-26	WM-EX-10-[080806]-16.0	0.088	1260	82	0.061	
08-097-27	WM-EX-12-[080806]-8.0	ND	----	95	0.055	
08-097-28	WM-EX-13-[080806]-9.0	ND	----	87	0.060	
08-097-29	WM-EX-14-[080806]-14.0	ND	----	98	0.056	
08-097-30	WM-EX-15-[080806]-14.0	ND	----	87	0.057	
08-097-31	WM-EX-16-[080806]-14.0	ND	----	90	0.055	

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PCBs by EPA 8082
METHOD BLANK QUALITY CONTROL

Date Extracted: 8-10-06
Date Analyzed: 8-11-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB0810S1

	Result	PQL
Aroclor 1016:	**ND**	0.050
Aroclor 1221:	**ND**	0.050
Aroclor 1232:	**ND**	0.050
Aroclor 1242:	**ND**	0.050
Aroclor 1248:	**ND**	0.050
Aroclor 1254:	**ND**	0.050
Aroclor 1260:	**ND**	0.050
Aroclor 1262:	**ND**	0.050
Aroclor 1268:	**ND**	0.050

Surrogate	Percent Recovery	Control Limits
Decachlorobiphenyl	97	41-128

Flags:

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PCBs by EPA 8082
METHOD BLANK QUALITY CONTROL

Date Extracted: 8-14-06
Date Analyzed: 8-15-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB0814S1

	Result	PQL
Aroclor 1016:	**ND**	0.050
Aroclor 1221:	**ND**	0.050
Aroclor 1232:	**ND**	0.050
Aroclor 1242:	**ND**	0.050
Aroclor 1248:	**ND**	0.050
Aroclor 1254:	**ND**	0.050
Aroclor 1260:	**ND**	0.050
Aroclor 1262:	**ND**	0.050
Aroclor 1268:	**ND**	0.050

Surrogate	Percent Recovery	Control Limits
Decachlorobiphenyl	97	41-128

Flags:

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PCBs by EPA 8082
MS/MSD QUALITY CONTROL

Date Extracted: 8-10-06
Date Analyzed: 8-11-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-100-02

Spike Level: 0.500

	MS	Percent Recovery	MSD	Percent Recovery	RPD
Aroclor 1260:	0.432	86	0.367	73	16
PQL	0.050		0.050		

Surrogate	Percent Recovery	Percent Recovery	Control Limits
Decachlorobiphenyl	94	85	41-128

Flags:

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PCBs by EPA 8082
MS/MSD QUALITY CONTROL

Date Extracted: 8-14-06
Date Analyzed: 8-15-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 08-097-19

Spike Level: 0.500

	MS	Percent Recovery	MSD	Percent Recovery	RPD
Aroclor 1260:	0.407	81	0.420	84	3
PQL	0.050		0.050		

Surrogate	Percent Recovery	Percent Recovery	Control Limits
Decachlorobiphenyl	90	92	41-128

Flags:

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PCBs by EPA 8082

Date Extracted: 8-16-06
Date Analyzed: 8-16-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID	Client ID	Results	PCB Type	Surrogate % Recovery	PQL	Comments/ Flags
08-097-32	WM-DUP-1-080806	ND	----	81	0.057	
08-097-33	FOT-DUP-2-080806	ND	----	91	0.11	

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PCBs by EPA 8082
METHOD BLANK QUALITY CONTROL

Date Extracted: 8-16-06
Date Analyzed: 8-16-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB0816S1

	Result	PQL
Aroclor 1016:	**ND**	0.050
Aroclor 1221:	**ND**	0.050
Aroclor 1232:	**ND**	0.050
Aroclor 1242:	**ND**	0.050
Aroclor 1248:	**ND**	0.050
Aroclor 1254:	**ND**	0.050
Aroclor 1260:	**ND**	0.050
Aroclor 1262:	**ND**	0.050
Aroclor 1268:	**ND**	0.050

Surrogate	Percent Recovery	Control Limits
Decachlorobiphenyl	103	41-128

Flags:

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PCBs by EPA 8082
SB/SBD QUALITY CONTROL

Date Extracted: 8-16-06
Date Analyzed: 8-16-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: SB0816S1

Spike Level: 0.500

	SB	Percent Recovery	SBD	Percent Recovery	RPD
Aroclor 1260:	0.367	73	0.439	88	19
PQL	0.050		0.050		

Surrogate	Percent Recovery	Percent Recovery	Control Limits
Decachlorobiphenyl	93	105	41-128

Flags:

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM

Date Extracted:	9-8-06
Date Analyzed:	9-8-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	08-097-34
Client ID:	**WM-EX-10-[080806]-16.0**

Compound:	**Results**	**Flags**	**PQL**
Naphthalene	0.24		0.0084
2-Methylnaphthalene	0.12		0.0084
1-Methylnaphthalene	0.079		0.0084
Acenaphthylene	0.21		0.0084
Acenaphthene	2.0		0.17
Fluorene	0.62		0.0084
Phenanthrene	3.5		0.17
Anthracene	1.5		0.17
Fluoranthene	22		0.42
Pyrene	16		0.17
Benzo[a]anthracene	7.4		0.17
Chrysene	5.4		0.17
Benzo[b]fluoranthene	9.1		0.17
Benzo[k]fluoranthene	3.3		0.17
Benzo[a]pyrene	5.9		0.17
Indeno(1,2,3-c,d)pyrene	2.4		0.17
Dibenz[a,h]anthracene	0.83		0.0084
Benzo[g,h,i]perylene	2.6		0.17

Surrogate :	**Percent Recovery**	**Control Limits**
Nitrobenzene-d5	87	49 - 121
2-Fluorobiphenyl	80	53 - 110
Terphenyl-d14	103	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM
METHOD BLANK QUALITY CONTROL

Date Extracted:	9-8-06
Date Analyzed:	9-8-06
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	MB0908S1

Compound:	Results	Flags	PQL
Naphthalene	ND		0.0067
2-Methylnaphthalene	ND		0.0067
1-Methylnaphthalene	ND		0.0067
Acenaphthylene	ND		0.0067
Acenaphthene	ND		0.0067
Fluorene	ND		0.0067
Phenanthrene	ND		0.0067
Anthracene	ND		0.0067
Fluoranthene	ND		0.0067
Pyrene	ND		0.0067
Benzo[a]anthracene	ND		0.0067
Chrysene	ND		0.0067
Benzo[b]fluoranthene	ND		0.0067
Benzo[k]fluoranthene	ND		0.0067
Benzo[a]pyrene	ND		0.0067
Indeno(1,2,3-c,d)pyrene	ND		0.0067
Dibenz[a,h]anthracene	ND		0.0067
Benzo[g,h,i]perylene	ND		0.0067

Surrogate :	Percent Recovery	Control Limits
Nitrobenzene-d5	83	49 - 121
2-Fluorobiphenyl	83	53 - 110
Terphenyl-d14	93	64 - 123

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

PAHs by EPA 8270C/SIM
MS/MSD QUALITY CONTROL

Date Extracted: 9-8-06
Date Analyzed: 9-8-06

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 09-037-13

Compound:	Sample Amount	Spike Amount	MS	Percent Recovery	MSD	Percent Recovery	Recovery Limits	Flags
Naphthalene	ND	0.0833	0.0538	65	0.0644	77	30-115	
Acenaphthylene	ND	0.0833	0.0686	82	0.0760	91	46-125	
Acenaphthene	ND	0.0833	0.0679	81	0.0746	90	40-119	
Fluorene	ND	0.0833	0.0691	83	0.0738	89	50-133	
Phenanthrene	ND	0.0833	0.0728	87	0.0764	92	48-128	
Anthracene	ND	0.0833	0.0748	90	0.0796	95	53-134	
Fluoranthene	ND	0.0833	0.0834	100	0.0852	102	50-143	
Pyrene	ND	0.0833	0.0817	98	0.0844	101	44-139	
Benzo[a]anthracene	ND	0.0833	0.0714	86	0.0776	93	62-129	
Chrysene	ND	0.0833	0.0771	93	0.0849	102	42-127	
Benzo[b]fluoranthene	ND	0.0833	0.0861	103	0.0997	120	57-132	
Benzo[k]fluoranthene	ND	0.0833	0.0827	99	0.0915	110	57-131	
Benzo[a]pyrene	ND	0.0833	0.0821	98	0.0952	114	59-132	
Indeno(1,2,3-c,d)pyrene	ND	0.0833	0.0785	94	0.0914	110	55-135	
Dibenz[a,h]anthracene	ND	0.0833	0.0786	94	0.0903	108	36-146	
Benzo[g,h,i]perylene	0.00803	0.0833	0.0825	89	0.0967	106	42-140	

	RPD	RPD Limit	Flags
Naphthalene	18	25	
Acenaphthylene	10	25	
Acenaphthene	10	25	
Fluorene	7	25	
Phenanthrene	5	25	
Anthracene	6	25	
Fluoranthene	2	25	
Pyrene	3	25	
Benzo[a]anthracene	8	25	
Chrysene	10	25	
Benzo[b]fluoranthene	15	25	
Benzo[k]fluoranthene	10	25	
Benzo[a]pyrene	15	25	
Indeno(1,2,3-c,d)pyrene	15	25	
Dibenz[a,h]anthracene	14	25	
Benzo[g,h,i]perylene	16	25	

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

% MOISTURE
Page 1 of 2

Date Analyzed: 08-10,11&14-06

Client ID	Lab ID	% Moisture
WM-EX-6-[080706]-9.0	08-097-01	9
WM-EX-7-[080706]-8.5	08-097-02	9
WM-EX-8-[080706]-15.0	08-097-03	9
WM-EX-9-[080706]-10.0	08-097-04	14
FOT-EX-16-[080706]-8.0	08-097-05	14
FOT-EX-15-[080706]-11.0	08-097-06	11
FOT-EX-10-[080706]-11.5	08-097-07	12
WM-EX-18-[080906]-9.0	08-097-10	9
FOT-EX-25-[080906]-5.0	08-097-11	10
FOT-EX-26-[080906]-5.0	08-097-12	6
FOT-EX-27-[080906]-8.0	08-097-13	14
FOT-EX-28-[080906]-8.0	08-097-14	14
WM-EX-11-[080806]-17.0	08-097-15	25
WM-EX-17-[080806]-14.0	08-097-16	10
FOT-EX-17-[080806]-3.0	08-097-17	29
FOT-EX-18-[080806]-7.0	08-097-18	4
FOT-EX-11-[080806]-9.0	08-097-19	9
FOT-EX-19-[080806]-9.0	08-097-20	17
FOT-EX-20-[080806]-7.0	08-097-21	11
FOT-EX-21-[080806]-7.0	08-097-22	6
FOT-EX-22-[080806]-5.0	08-097-23	7
FOT-EX-23-[080806]-5.0	08-097-24	6
FOT-EX-24-[080806]-5.0	08-097-25	4
WM-EX-10-[080806]-16.0	08-097-26	18
WM-EX-12-[080806]-8.0	08-097-27	9
WM-EX-13-[080806]-9.0	08-097-28	16
WM-EX-14-[080806]-14.0	08-097-29	11
WM-EX-15-[080806]-14.0	08-097-30	12
WM-EX-16-[080806]-14.0	08-097-31	9

Date of Report: September 12, 2006
Samples Submitted: August 9, 2006
Laboratory Reference: 0608-097
Project: 0137-015-02

% MOISTURE
Page 2 of 2

Date Analyzed: 8-16&9-8-06

Client ID	Lab ID	% Moisture
WM-EX-DUP-1-080806	08-097-32	13
FOT-EX-DUP-2-080806	08-097-33	7
WM-EX-10-[080806]-16.0	08-097-34	21

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons indicative of diesel fuel are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Libby Environmental, Inc.

Chain of Custody Record

08-097

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

Page: 1 of 4

Date: 08-07-2006

Client: GeoEngineers, Inc.

Project Manager: Paul Craig

Address: 8410 154th Ave NE, Redmond, WA 98052

Project Name: PORT ANGELES I

Phone: 425-861-6000 Fax: 425-861-6050

Location: Port Angeles, Washington

Client Project # 0137-015-02

Collector: Paul Craig

Date of Collection: 08--07-2006 → 8/7/06

Sample Number	Depth	Time	Sample Type	Container Type	~~VOA 8021B~~ TPH-D	VOA 8021B BTEX Only	~~VOA 8260~~ PH	~~SEMI-VOL 8270~~ TOTAL LEAD	~~NWTPH-HCID~~ TPH-G	NWTPH-Gx LEAD BY EPA 6020	~~NWTPH-Dx~~	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	RCRA 8 METALS (TOTAL)	TOTAL SOLIDS	DIOXIN/FURANS EPA 1613B	Field Notes
WM-EX-6-[080706]-9.0	9.0	0900	S	4oz								X	X						
WM-EX-7-[080706]-8.5	8.5	0930										X	X						
WM-EX-8-[080706]-15.0	15.0	1000										X	X						
WM-EX-9-[080706]-10.0	10.0	1015										X	X						
FOT-EX-16-[080706]-8.0	8.0	1420										X	X						
FOT-EX-15-[080706]-11.0	11.0	1435										X	X						
FOT-EX-10-[080706]-11.5	11.5	1545								X		X	X				X		
EAST TANK-[080906]	—	1130	W	1-L Amb		X					X	X	X			X	X		Composite together: NEW Sample name "STORAGE TANK-[080906]
WEST TANK-[080906]	—	1200	W			X					X	X	X			X	X		
STORAGE TANK-[080906]	—	—	W		X	X	X	X	X				X				X		

Relinquished by:	Date / Time	Received by	Date / Time
	8.9.6/1700		8-9-06 1700
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:

08-097

Libby Environmental, Inc.

Chain of Custody Record

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

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Date: 08-08-2006 Page: 3 of 4
Project Manager: Paul Craig
Project Name: PORT ANGELES I
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08--08-2006

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	Winkler & Dissolved Mn		Field Notes
WM-EX-11-[080806]-17.0		1800	SOIL	4oz Glass								X	X		X			
WM-EX-17-[080806]-14.0		1810	SOIL	4oz Glass								X	X		X			

Relinquished by: Date / Time 8.9.06 1700 Received by Date / Time 8-9-06 1700
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:

NSME

Chain of Custody Record 08-096 08-097

~~Libby~~ Environmental, Inc.

19 Libby Road NE
mpia, WA 98506

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

ent: GeoEngineers, Inc.
dress: 8410 154th Ave NE, Redmond, WA 98052
one: 425-861-6000 Fax: 425-861-6050
ent Project # 0137-015-02

Date: 08-08-2006 Page: 4 of 4
Project Manager: Paul Craig
Project Name: PORT ANGELES I
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08--08-2006

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~~ Do Not Run	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	~~Dioxins/Furans~~ Do Not Run EPA 1613 B	Field Notes
)T-EX-17-[080806]-3.0	3.0	1010	SOIL	4oz Glass							X	X	X		X		
)T-EX-18-[080806]-7.0	7.0	1040	SOIL	4oz Glass							X	X	X		X		
)T-EX-19-[080806]-4.0	4.0	1055	SOIL	4oz Glass							X	X	X		X		
)T-EX-19-[080806]-9.0	9.0	1425	SOIL	4oz Glass							X	X	X		X		
)T-EX-20-[080806]-7.0	7.0	1430	SOIL	4oz Glass							X	X	X		X		
)T-EX-21-[080806]-7.0	7.0	1435	SOIL	4oz Glass							X	X	X		X		
)T-EX-22-[080806]-5.0	5.0	1440	SOIL	4oz Glass							X	X	X		X		
)T-EX-23-[080806]-5.0	5.0	1445	SOIL	4oz Glass							X	X	X		X		
)T-EX-24-[080806]-5.0	5.0	1450	SOIL	4oz Glass							X	X	X		X		
'M-EX-10-[080806]-16.0	16.0	1120	SOIL	4oz Glass							X	X	X		X		
~~'M-EX-11-[080806]-12.0~~		~~1150~~	~~SOIL~~	~~4oz Glass~~													
'M-EX-12-[080806]-8.0	8.0	1225	SOIL	4oz Glass							X	X	X		X		
/M-EX-13-[080806]-9.0	9.0	1350	SOIL	4oz Glass							X	X	X		X		
/M-EX-14-[080806]-14.0	14.0	1600	SOIL	4oz Glass							X	X	X		X	X	
/M-EX-15-[080806]-14.0	14.0	1610	SOIL	4oz Glass							X	X	X		X		
~~/M-Dup-1-[080806]~~		~~1645~~	~~SOIL~~	~~4oz Glass~~													
/M-EX-16-[080806]-14.0	14.0	1730	SOIL	4oz Glass							X	X	X		X		

elinquished by: Date / Time 8-9-06/1700 Received by Date / Time 8-9-06/1700

elinquished by: Date / Time Received by Date / Time

elinquished by: Date / Time Received by Date / Time

Sample Receipt:

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

Remarks:

08-09

ibby Environmental, Inc.

Chain of Custody Record

39 Libby Road NE
mpia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

ent: GeoEngineers, Inc.
dress: 8410 154th Ave NE, Redmond, WA 98052
one: 425-861-6000 Fax: 425-861-6050
ent Project # 0137-015-02

Date: 08-09-2006 Page: 2 of 4
Project Manager: Paul Craig
Project Name: PORT ANGELES MILL
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08--09-2006

Sample Number	Depth (ft.)	Time	Sample Type	Container Type	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	~~NWTPH-Dx~~ Do Not Run	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	~~Bunker C~~ Do Not Run			Field Notes
M-EX-18-[080906]9.0	9.0	0810	SOIL	4oz Gl						~~X~~		X	X		~~X~~			
M-EX-25-[080906]-5.0	5.0	0835	SOIL	4oz Gl						~~X~~		X	X		~~X~~			
M-EX-26-[080906]-5.0	5.0	0840	SOIL	4oz Gl						~~X~~		X	X		~~X~~			
M-EX-27-[080906]-8.0	8.0	0845	SOIL	4oz Gl						~~X~~		X	X		~~X~~			
M-EX-28-[080906]-8.0	8.0	0850	SOIL	4oz Gl						~~X~~		X	X		~~X~~			
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														

Relinquished by	Date / Time	Received by	Date / Time
[signature]	8-9-6 / 1700	[signature]	8-9-06 1700

Sample Receipt:

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

Remarks:

Libby Environmental, Inc.

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

September 26, 2006

GeoEngineers

SEP 29 2006

Routing

Paul Craig
GeoEngineers Inc.
8410 154TH Avenue NE
Redmond, WA 98052

Dear Mr. Craig:

Please find enclosed the analytical data report for the Rayonier Port Angeles Mill Project located in Port Angeles, Washington. Mobile Laboratory Services were conducted on August 2ND – 9TH, 2006. Soil and water samples were analyzed for Diesel & Buncker C by NWTPH-Dx/Dx Extended.

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.

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

RAYONIER-PORT ANGELES MILL PROJECT
Port Angeles, Washington
Rayonier Lumber Company/GEI
Client Project #0137-015-02
Libby Project No.L060802-10

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Bunker C (mg/kg)	Oil (mg/kg)
Method Blank	8/2/2006	118	nd	nd	nd
FOT-EX-1-[080106]-9.5	8/2/2006	109	nd	nd	nd
FOT-EX-2-[080206]-9.0	8/2/2006	116	nd	nd	nd
FOT-EX-3-[080206]-11.0	8/2/2006	109	nd	nd	nd
FOT-EX-3-[080206]-11.0 Dup	8/2/2006	113	nd	nd	nd
FOT-EX-4-[080206]-8.0	8/2/2006	93	nd	nd	nd
FOT-EX-5-[080206]-15.0	8/2/2006	92	nd	nd	nd
FOT-PCS-1-[080206]-11	8/2/2006	int	<1300	41000	<2000
Practical Quantitation Limit			25	80	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

RAYONIER-PORT ANGELES MILL PROJECT
Port Angeles, Washington
Rayonier Lumber Company/GEI
Client Project #0137-015-02
Libby Project No.L060802-10

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Bunker C (mg/kg)	Oil (mg/kg)
Method Blank	8/3/2006	112	nd	nd	nd
FOT-EX-6-[080206]-3.0	8/3/2006	124	nd	nd	nd
FOT-EX-7-[080206]-3.0	8/3/2006	106	nd	nd	nd
FOT-EX-8-[080206]-8.0	8/3/2006	102	nd	nd	nd
FOT-EX-9-[080206]-6.0	8/3/2006	108	nd	nd	nd
FOT-EX-9-[080206]-6.0 Dup	8/3/2006	128	nd	nd	nd
FOT-EX-10-[080306]-10.5	8/3/2006	int	nd	4900	nd
FOT-EX-11-[080306]-8.0	8/3/2006	int	nd	67000	nd
FOT-EX-12-[080306]-6.0	8/3/2006	134	nd	nd	nd
FOT-EX-13-[080306]-13.0	8/3/2006	124	nd	nd	nd
FOT-EX-14-[080306]-9.5	8/3/2006	110	nd	nd	nd
WM-EX-1-[080306]-8.0	8/3/2006	96	nd	nd	nd
WM-EX-2-[080306]-11.0	8/3/2006	104	nd	nd	nd
WM-EX-3-[080306]-10.0	8/3/2006	110	nd	nd	nd
WM-EX-3-[080306]-10.0 Dup	8/3/2006	114	nd	nd	nd
Practical Quantitation Limit			25	80	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

RAYONIER-PORT ANGELES MILL PROJECT
Port Angeles, Washington
Rayonier Lumber Company/GEI
Client Project #0137-015-02
Libby Project No.L060802-10

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Bunker C (mg/kg)	Oil (mg/kg)
Method Blank	8/4/2006	91	nd	nd	nd
FOT-DUP-1-[080406]	8/4/2006	int	nd	4000	nd
WM-EX-4-[080406]-13.0	8/4/2006	68	nd	nd	nd
WM-EX-5-[080406]-16.0	8/4/2006	116	nd	1440	nd
Practical Quantitation Limit			25	80	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

RAYONIER-PORT ANGELES MILL PROJECT
Port Angeles, Washington
Rayonier Lumber Company/GEI
Client Project #0137-015-02
Libby Project No.L060802-10

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Bunker C (mg/kg)	Oil (mg/kg)
Method Blank	8/7/2006	97%	nd	nd	nd
WM-EX-6-[080706]-9.0	8/7/2006	114%	nd	nd	nd
WM-EX-7-[080706]-8.5	8/7/2006	117%	nd	nd	nd
WM-EX-7-[080706]-8.5 DUPL	8/7/2006	111%	nd	nd	nd
WM-EX-8-[080706]-15.0	8/7/2006	111%	nd	nd	nd
WM-EX-9-[080706]-10.0	8/7/2006	113%	nd	nd	nd
FOT-EX-16-[080706]-8.0	8/7/2006	115%	nd	nd	nd
FOT-EX-15-[080706]-11.0	8/7/2006	114%	nd	nd	nd
FOT-EX-10-[080706]-11.5	8/7/2006	108%	nd	nd	nd
Practical Quantitation Limit			25	80	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

RAYONIER-PORT ANGELES MILL PROJECT
Port Angeles, Washington
Rayonier Lumber Company/GEI
Client Project #0137-015-02
Libby Project No.L060802-10

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Bunker C (mg/kg)	Oil (mg/kg)
Method Blank	8/8/2006	105%	nd	nd	nd
FOT-EX-17-[080806]-3.0	8/8/2006	108%	nd	nd	nd
FOT-EX-17-[080806]-3.0 DUPL	8/8/2006	91%	nd	nd	nd
FOT-EX-18-[080806]-7.0	8/8/2006	82%	nd	918	nd
FOT-EX-11-[080806]-9.0	8/8/2006	108%	nd	320	nd
FOT-EX-19-[080806]-9.0	8/8/2006	77%	nd	nd	nd
FOT-EX-20-[080806]-7.0	8/8/2006	65%	nd	nd	nd
FOT-EX-21-[080806]-7.0	8/8/2006	89%	nd	516	nd
FOT-EX-22-[080806]-5.0	8/8/2006	74%	nd	760	nd
FOT-EX-23-[080806]-5.0	8/8/2006	97%	nd	nd	nd
FOT-EX-24-[080806]-5.0	8/8/2006	105%	nd	nd	nd
WM-EX-10-[080806]-16.0	8/8/2006	123%	nd	709	nd
WM-EX-11-[080806]-12.0	8/8/2006	104%	nd	20,100	nd
WM-EX-11-[080806]-17.0	8/8/2006	133%	nd	nd	nd
WM-EX-12-[080806]-8.0	8/8/2006	126%	nd	nd	nd
WM-EX-13-[080806]-9.0	8/8/2006	89%	nd	300	nd
WM-EX-14-[080806]-14.0	8/8/2006	121%	nd	184	nd
WM-EX-15-[080806]-14.0	8/8/2006	121%	nd	nd	nd
WM-EX-16-[080806]-14.0	8/8/2006	81%	nd	nd	nd
WM-EX-17-[080806]-14.0	8/8/2006	106%	nd	nd	nd
WM-Dup-1-[080806]	8/8/2006	74%	nd	730	nd
Practical Quantitation Limit			25	80	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

RAYONIER-PORT ANGELES MILL PROJECT
Port Angeles, Washington
Rayonier Lumber Company/GEI
Client Project #0137-015-02
Libby Project No.L060802-10

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Bunker C (mg/kg)	Oil (mg/kg)
Method Blank	8/9/2006	75%	nd	nd	nd
WM-EX-18-[080906]-9.0	8/9/2006	int	nd	1,780	nd
FOT-EX-25-[080906]-5.0	8/9/2006	115%	nd	nd	nd
FOT-EX-26-[080906]-5.0	8/9/2006	83%	nd	204	nd
FOT-EX-27-[080906]-8.0	8/9/2006	98%	nd	nd	nd
FOT-EX-28-[080906]-8.0	8/9/2006	75%	nd	nd	nd
Practical Quantitation Limit			25	80	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: Bobby Johnson

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

RAYONIER-PORT ANGELES MILL PROJECT
Port Angeles, Washington
Rayonier Lumber Company/GEI
Client Project #0137-015-02
Libby Project No.L060802-10

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/L)	Bunker C (mg/L)	Oil (mg/L)
Method Blank	8/9/2006	75%	nd	nd	nd
WM-RINSATE-1-[080806]	8/9/2006	88%	nd	ND	nd
Practical Quantitation Limit			0.25	0.50	0.50

"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: Bobby Johnson

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

RAYONIER-PORT ANGELES MILL PROJECT
Port Angeles, Washington
Rayonier Lumber Company/GEI
Client Project #0137-015-02
Libby Project No.L060802-10

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (ug/l)	Bunker C (ug/l)	Oil (ug/l)
Method Blank	8/4/2006	96	nd	nd	nd
FOT-RINSATE-[080406]	8/4/2006	78	nd	ND	nd
Practical Quantitation Limit			250	500	500

"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, Inc. — Chain of Custody Record

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

Client: GeoEngineers
Address: Redmond, WA
Phone: Fax:
Client Project # 0137-015-02

Date: 8-3-06 Page: 1 of
Project Manager: Paul Craig
Project Name: PA Mill
Location: Port Angeles, WA
Collector: Paul Craig Date of Collection: 8-3-06

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 Pat-Ex-1-[080306]-0.0	0.0	1015	S	4oz						X							
2 Pat-Ex-2-[080306]-9.0	9.0	0830								X							
3 Pat-Ex-3-[080306]-11.0	11.0	0815								X							
4 Pat-Ex-4-[080306]-8.0	8.0	0915								X							
5 Pat-Ex-5-[080306]-15.0	15.0	1320								X							
6 Pat-Ex-6-[080306]-11	11.0	1315								X							Hot-Hot-Hot
7 Pat-Ex-6-[080206]-3.0	3.0	1515								X							
8 Pat-Ex-7-[080206]-3.0	3.0	1525								X							MED Hot
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	

Relinquished by:	Date / Time	Received by	Date / Time
Relinquished by:	Date / Time	Received by	Date / Time
			8-3-06
Relinquished by:	Date / Time	Received by	Date / Time

Sample Receipt:

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

Remarks:

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

L1084

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • Fax: (425) 885-4603

Laboratory Number:

Company: GEC

Project Number: 0134-015-02

Project Name: KIMBERLY-PORT ANGELES MILL

Project Manager: Paul Crosby

Sampled by: Paul Crosby

(Check One)
- [x] Same Day
- [ ] 1 Day
- [ ] 2 Day
- [ ] 3 Day
- [ ] Standard (7 working days) (TPH analysis 5 working days)
- [ ] (other)

Sample ID	Date	Time	# Containers	Matrix	NWTPH-HCID	NWTPH-GX/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	VPH	EPH					% Moisture
KIM-EX-8-[080206]-8.0	8-2-6	1645	5	1			X																	
KIM-EX-9-[080206]-6.0	8-2-6	1650					X																	
KIM-EX-10-[080306]-10.5	8-3-6	0940					X																	
KIM-EX-11-[080306]-8.0		0945					X																	
FAT-EX-12-[080306]-6.0		1035					X																	
FAT-EX-13-[080306]-13.0		1045					X																	
FAT-EX-14-[080306]-9.0		1125					X																	
WM-EX-1-[080306]-8.0		1345					X																	
WM-EX-2-[080306]-11.0		1350					X																	
WM-EX-3-[080306]-10.0		1420					X																	

Relinquished by	Paul Crosby	GEC	8/3/06	1435
Received by	Johnny Christian	Libby	8/3/06	11-1-16
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Chromatograms with final report ☐

DISTRIBUTION LEGEND: White - OnSite Copy, Yellow - Report Copy, Pink - Client Copy

Chain of Custody

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • Fax: (425) 885-4603

Company: GEE

Project Number: 0157-015-02

Project Name: PORT ANGELES MILL

Project Manager: PAUL CRAIG

Sampled by: PAUL CRAIG

Turnaround Time

(Check One)

- ☑ Same Day
- ☐ 1 Day
- ☐ 2 Day
- ☐ 3 Day
- ☐ Standard (7 working days) (TPH analysis 5 working days)
- ☐ _____ (other)

Laboratory Number:

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Sample Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	VPH	EPH					% Moisture
	FOT-DUP-1-[080406]	8/4/6	0845	S	1			X																	
	FOT-RINSATE-[080406]		0900	W	2			X																	
	WM-EX4-[080406]-13.0		1325	S	1			X																	
	WM-EX-5-[080406]-11.0		1400	S	1			X																	

Relinquished by	Signature	Company	Date	Time	Standard / Special Instructions
Relinquished by					
Received by	Donny Smith	Lab by Inc	8-11-06	1530	
Relinquished by					
Received by					
Relinquished by					
Received by					
Reviewed by/Date		Reviewed by/Date			Chromatograms with final report ☐

DISTRIBUTION LEGEND: White - OnSite Copy, Yellow - Report Copy, Pink - Client Copy

Libby Environmental, Inc.

Chain of Custody Record

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

Date: 08-07-2006 Page: 1 of 1

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Project Manager: Paul Craig
Project Name: PORT ANGELES I
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08--07-2006

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
WM-EX-6-[080706]-9.0	9.0	0900	S	4oz							X							
WM-EX-7-[080706]-8.5	8.5	0930	"	"							X							
WM-EX-8-[080706]-15.0	15.0	1000									X							
WM-EX-9-[080706]-10.0	10.0	1015									X							
FOT-EX-16-[080706]-8.0	8.0	1420									X							
FOT-EX-15-[080706]-11.0	11.0	1435									X							
FOT-EX-10-[080706]-11.5	11.5	1545	"	"							X							

Relinquished by:	Date / Time	Received by	Date / Time
	08-08-06 / 1935		
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:

Libby Environmental, Inc.

Chain of Custody Record

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

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Date: 08-08-2006 Page: 1 of 2
Project Manager: Paul Craig
Project Name: PORT ANGELES I
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08--08-2006

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	(un)Ker C	Field Notes
FOT-EX-17-[080806]-3.0	3.0	1010	SOIL	4oz Glass						X					X		
FOT-EX-18-[080806]-7.0	7.0	1040	SOIL	4oz Glass						X					X		
FOT-EX-~~16~~-[080806]-~~4.0~~ 9.0	4.0	1055	SOIL	4oz Glass						X					X		
FOT-EX-19-[080806]-9.0	9.0	1425	SOIL	4oz Glass						X					X		
FOT-EX-20-[080806]-7.0	7.0	1430	SOIL	4oz Glass						X					X		
FOT-EX-21-[080806]-7.0	7.0	1435	SOIL	4oz Glass						X					X		
FOT-EX-22-[080806]-5.0	5.0	1440	SOIL	4oz Glass						X					X		
FOT-EX-23-[080806]-5.0	5.0	1445	SOIL	4oz Glass						X					X		
FOT-EX-24-[080806]-5.0	5.0	1450	SOIL	4oz Glass						X					X		
WM-EX-10-[080806]-16.0	16.0	1120	SOIL	4oz Glass						X					X		
WM-EX-11-[080806]-12.0	12.0	1150	SOIL	4oz Glass						X					X		
WM-EX-12-[080806]-8.0	8.0	1225	SOIL	4oz Glass						X					X		
WM-EX-13-[080806]-9.0	9.0	1350	SOIL	4oz Glass						X					X		
WM-EX-14-[080806]-14.0	14.0	1600	SOIL	4oz Glass						X					X		
WM-EX-15-[080806]-14.0	14.0	1610	SOIL	4oz Glass						X					X		
WM-Dup-1-[080806]	—	1645	SOIL	4oz Glass						X					X		
WM-EX-16-[080806]-14.0	14.0	1730	SOIL	4oz Glass						X					X		

	Date / Time		Date / Time	Sample Receipt:		Remarks:
Relinquished by:	08-08-06/1940	Received by				
Relinquished by:	Date / Time	Received by	Date / Time	Good Condition?		
				Cold?		
Relinquished by:	Date / Time	Received by	Date / Time	Seals Intact?		
				Total Number of Containers		

Libby Environmental, Inc.

Chain of Custody Record

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

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Date: 08-08-2006 Page: 2 of 2
Project Manager: Paul Craig
Project Name: PORT ANGELES I
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08-08-2006

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	Silver	Lead	Field Notes
WM-EX-11-[080806]-17.0	17.0	1800	SOIL	4oz Glass						X						X		
WM-EX-17-[080806]-14.0	14.0	1810	SOIL	4oz Glass						X						X		
WM-RINSATE-[080806]	—	1650	WATER	1-L Amber						X								

Relinquished by:	Date / Time	Received by	Date / Time
	08-08-06 1940		8-8-06
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:

Libby Environmental, Inc.

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

Chain of Custody Record

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Date: 08-09-2006 Page: 1 of 1
Project Manager: Paul Craig
Project Name: PORT ANGELES MILL
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08--09-2006

Sample Number	Depth (ft.)	Time	Sample Type	Container Type	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	Bunker C			Field Notes
WM-EX-18-[080906]9.0	9.0	0810	SOIL	4oz Gl						X					X			
Po WM-EX-25-[080906]-5.0	5.0	0835	SOIL	4oz Gl						X					X			
Po WM-EX-26-[080906]-5.0	5.0	0840	SOIL	4oz Gl						X					X			
Po WM-EX-27-[080906]-8.0	8.0	0845	SOIL	4oz Gl						X					X			
Po WM-EX-28-[080906]-8.0	8.0	0850	SOIL	4oz Gl						X					X			
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														

Relinquished by	Date / Time	Received by	Date / Time
[signature]	8-9-06 / 1335	[signature]	8-9-06 / 1335
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:

Libby Environmental, Inc.

4139 Libby Road NE
Olympia, WA 98506

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

Chain of Custody Record

Client: GeoEngineers
Address: Redmond, WA
Phone: Fax:
Client Project # 0137-015-02

Date: 8-3-06
Page: 1 of
Project Manager: Paul Craig
Project Name: PA Mill
Location: Port Angeles, WA
Collector: Paul Craig
Date of Collection: 8-3-06

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 Pot-Ex-1-[08020]-01	9.5	1015	S	4oz						X						
2 Pot-Ex-2-[08020]-01	9.0	0830								X						
3 Pot-Ex-3-[08020]-01	11.0	0815								X						
4 Pot-Ex-4-[08020]-01	8.0	0915								X						
5 Pot-Ex-5-[08020]-01	11.0	1320								X						
6 Pot-Pits-1-[08020]-01	11.0	1315								X						
7 Pot-Ex-6-[080206]-3.0	3.0	1515								X						Hot-Hot-Hot
8 Pot-Ex-7-[080206]-3.0	3.0	1525								X						
9																MED HOT
10																
11																
12																
13																
14																
15																
16																
17																
18																

Relinquished by:	Date / Time	Received by	Date / Time
Relinquished by:	Date / Time	Received by	8-3-06 Date / Time
Relinquished by:	Date / Time	Received by	Date / Time

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

Sample Receipt:

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

Remarks:

L1084

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • Fax: (425) 885-4603

Company: GEC

Project Number: 0131-013-02

Project Name: KIMBERLY-PORT ANGELES MILL

Project Manager: PAUL CRAIG

Sampled by: PAUL CRAIG

(Check One)
- [x] Same Day
- [ ] 1 Day
- [ ] 2 Day
- [ ] 3 Day
- [ ] Standard (7 working days) (TPH analysis 5 working days)
- [ ] _____ (other)

Laboratory Number:

	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	VPH	EPH					% Moisture
FOT-EX-8-[080606]-8.0			X																	
FOT-EX-9-[080606]-6.0			X																	
FOT-EX-10-[080306]-10.5			X																	
FOT-EX-11-[080306]-8.0			X																	
FOT-EX-12-[080306]-6.0			X																	
FOT-EX-13-[080306]-13.0			X																	
FOT-EX-14-[080306]-9.0			X																	
WM-EX-1-[080306]-8.0			X																	
WM-EX-2-[080306]-11.0			X																	
WM-EX-3-[080306]-10.0			X																	

Relinquished by		GEC	8/3/06	1435
Received by		Lobby	8/3/06	1446
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Chromatograms with final report [ ]

DISTRIBUTION LEGEND: White - OnSite Copy, Yellow - Report Copy, Pink - Client Copy

Libby Environmental, Inc.

Chain of Custody Record

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

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Date: 08-08-2006 Page: 2 of 2
Project Manager: Paul Craig
Project Name: PORT ANGELES I
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08-08-2006

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	Lead per C	Field Notes
WM-EX-11-[080806]-17.0	17.0	1800	SOIL	4oz Glass							X					X	
WM-EX-17-[080806]-14.0	14.0	1810	SOIL	4oz Glass							X					X	
WM-RINSATE-[080806]	—	1650	WATER	1-L Amb.							X						

Relinquished by:	Date / Time	Received by	Date / Time	Sample Receipt:	Remarks:
	08-08-06/1940				
Relinquished by:	Date / Time	Received by	Date / Time	Good Condition?	
				Cold?	
Relinquished by:	Date / Time	Received by	Date / Time	Seals Intact?	
				Total Number of Containers	

Libby Environmental, Inc.

Chain of Custody Record

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

Date: 08-07-2006 Page: 1 of 1

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Project Manager: Paul Craig
Project Name: PORT ANGELES I
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08--07-2006

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
WM-EX-6-[080706]-9.0	9.0	0900	S	4oz							X							
WM-EX-7-[080706]-8.5	8.5	0930	"	"							X							
WM-EX-8-[080706]-15.0	15.0	1000									X							
WM-EX-9-[080706]-10.0	10.0	1015									X							
FOT-EX-16-[080706]-8.0	8.0	1420									X							
FOT-EX-15-[080706]-11.0	11.0	1435									X							
FOT-EX-10-[080706]-11.5	11.5	1545	"	"							X							

Relinquished by:	Date / Time	Received by	Date / Time
	08-08-06/1935		
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:

Libby Environmental, Inc.

Chain of Custody Record

4138 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 08-08-2006 Page: 1 of 2

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Project Manager: Paul Craig
Project Name: PORT ANGELES I
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08--08-2006

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	Pun Ver C	Field Notes
FOT-EX-17-[080806]-3.0	3.0	1010	SOIL	4oz Glass						X					X		
FOT-EX-18-[080806]-7.0	7.0	1040	SOIL	4oz Glass						X					X		
FOT-EX-19-[080806]-4.0 9.0	4.0	1055	SOIL	4oz Glass						X					X		
FOT-EX-19-[080806]-9.0	9.0	1425	SOIL	4oz Glass						X					X		
FOT-EX-20-[080806]-7.0	7.0	1430	SOIL	4oz Glass						X					X		
FOT-EX-21-[080806]-7.0	7.0	1435	SOIL	4oz Glass						X					X		
FOT-EX-22-[080806]-5.0	5.0	1440	SOIL	4oz Glass						X					X		
FOT-EX-23-[080806]-5.0	5.0	1445	SOIL	4oz Glass						X					X		
FOT-EX-24-[080806]-5.0	5.0	1450	SOIL	4oz Glass						X					X		
WM-EX-10-[080806]-16.0	16.0	1120	SOIL	4oz Glass						X					X		
WM-EX-11-[080806]-12.0	12.0	1150	SOIL	4oz Glass						X					X		
WM-EX-12-[080806]-8.0	8.0	1225	SOIL	4oz Glass						X					X		
WM-EX-13-[080806]-9.0	9.0	1350	SOIL	4oz Glass						X					X		
WM-EX-14-[080806]-14.0	14.0	1600	SOIL	4oz Glass						X					X		
WM-EX-15-[080806]-14.0	14.0	1610	SOIL	4oz Glass						X					X		
WM-Dup-1-[080806]	—	1645	SOIL	4oz Glass						X					X		
WM-EX-16-[080806]-14.0	14.0	1730	SOIL	4oz Glass						X					X		

Relinquished by:	Date / Time	Received by	Date / Time
	08-08-06/1940		
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:

Libby Environmental, Inc.

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

Chain of Custody Record

Client: GeoEngineers, Inc.
Address: 8410 154th Ave NE, Redmond, WA 98052
Phone: 425-861-6000 Fax: 425-861-6050
Client Project # 0137-015-02

Date: 08-09-2006 Page: 1 of 1
Project Manager: Paul Craig
Project Name: PORT ANGELES MILL
Location: Port Angeles, Washington
Collector: Paul Craig Date of Collection: 08-09-2006

Sample Number	Depth (ft.)	Time	Sample Type	Container Type	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	Bunker C			Field Notes
WM-EX-18-[080906]9.0	9.0	0810	SOIL	4oz Gl						X					X			
PO ~~WM~~-EX-25-[080906]-5.0	5.0	0835	SOIL	4oz Gl						X					X			
PO ~~WM~~-EX-26-[080906]-5.0	5.0	0840	SOIL	4oz Gl						X					X			
PO ~~WM~~-EX-27-[080906]-8.0	8.0	0845	SOIL	4oz Gl						X					X			
PO ~~WM~~-EX-28-[080906]-8.0	8.0	0850	SOIL	4oz Gl						X					X			
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														
			SOIL	4oz Gl														

Relinquished by:	Date / Time	Received by	Date / Time
[signature]	8-9-06 / 1335	[signature]	8-9-06 / 1335

Sample Receipt:
Good Condition?
Cold?
Seals Intact?
Total Number of Containers

Remarks:

Paul Craig

From: Paul Craig
Sent: Thursday, August 24, 2006 3:59 PM
To: LibbyEnv@aol.com
Subject: Rayonier - Port Angeles Mill COC Adjustments
Attachments: Amended COCs - Libby.pdf

Post-it® Fax Note 7671

Date 9-20-06	# of pages ▲ 7
To SHERRY	From PAUL CRAIG
Co./Dept.	Co.
Phone #	Phone #
Fax # 360 352 4154	Fax #

Sherry,

I've gotten through my review of samples names on the COCs and have a few adjustments.

1) FOT-EX-19-[080806]-4.0 will be adjusted to FOT-EX-11-[080806]-9.0
2) Add WM-RINSATE-[080806]
3) Adjust

WM-EX-25-[080906]-5.0	to	FOT-EX-25-[080906]-5.0
WM-EX-26-[080906]-5.0	to	FOT-EX-26-[080906]-5.0
WM-EX-27-[080906]-8.0	to	FOT-EX-27-[080906]-8.0
WM-EX-28-[080906]-8.0	to	FOT-EX-28-[080906]-8.0

I've attached the amended COCs for your records.

A couple of other items:

** I can't locate the COC for samples WM-EX-4-[080406]-13.0 and WM-EX-5-[080406]-16.0 and it would be helpful if you could resurrect that one.
** Please remove any water samples that Randy Boston submitted so that they are included in a stand-alone report.

Thanks very much for your help. Please call me with any questions.

Paul Craig, LG
Project Geologist
GeoEngineers, Inc.

P :: 425.861.6078
C :: 206-793-4589
E :: pcraig@geoengineers.com
W :: www.geoengineers.com

GeoEngineers

APPENDIX G
REPORT LIMITATIONS AND GUIDELINES FOR USE

APPENDIX G
REPORT LIMITATIONS AND GUIDELINES FOR USE[1]

This Appendix provides information to help you manage your risks with respect to the use of this report.

ENVIRONMENTAL SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES, PERSONS AND PROJECTS

This report has been prepared for use by Rayonier Properties, LLC. This report may be provided to regulatory agencies for their review. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except those named above should rely on this environmental report without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

THIS ENVIRONMENTAL REPORT IS BASED ON A UNIQUE SET OF PROJECT-SPECIFIC FACTORS

This report has been prepared to document the interim remedial action activities related to the excavation of contaminated soil at the Port Angeles Former Mill Site. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

ENVIRONMENTAL REGULATIONS ARE ALWAYS EVOLVING

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

RELIANCE CONDITIONS FOR THIRD PARTIES

Our report was prepared for the exclusive use of our Client. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and generally accepted environmental practices in this area at the time this report was prepared.

---

[1] Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

Uncertainty May Remain Even After This Cleanup Project Is Completed

Our interpretation of subsurface conditions in this study is based on field observations and chemical analytical data from widely-spaced sampling locations. It is always possible that contamination exists in areas that were not explored, sampled or analyzed.

Subsurface Conditions Can Change

This environmental report is based on conditions that existed at the time the remediation was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

Soil End Use

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other sites or for other on-site uses of the effected media (soil and/or groundwater). Note that hazardous substances may be present in some of the site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject site or reuse of the effected media on site to evaluate the potential for associated environmental liabilities. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject site to another location or its reuse on site in instances that we were not aware of or could not control.

Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

Read These Provisions Closely

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

Geotechnical, Geologic And Geoenvironmental Reports Should Not Be Interchanged

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.