Former Hardel Plywood Site
1210 West Bay Drive NW
Olympia, Washington

Draft Remedial Investigation Report

December 17, 2007

Prepared For:
Hardel Mutual Plywood, Inc.

Prepared By:

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GC Project No. 0364

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EXECUTIVE SUMMARY

In April, 2007, Department of Ecology (Ecology) and Hardel Mutual Plywood Corporation (Hardel) entered into Agreed Order No. DE-4108 to conduct a Remedial Investigation/Feasibility Study (RI/FS) at the property located at 1210 West Bay Drive NW, in Olympia, Washington (Site). Soil, groundwater, and sediment were evaluated for contaminants of concern (COCs). This report summarizes the RI activities and findings.

Soil

Soil at the western boundary of the Site contained heavy oil, diesel, and polyaromatic hydrocarbons (PAHs) above cleanup levels. Additional borings are needed to define the extent of soil above cleanup levels along the western boundary of the Site.

Groundwater

Groundwater at the western boundary of the Site contained heavy oil and diesel above cleanup levels. One well at the northwestern part of the Site contained oil, 0.95 ft thick, floating on the water table.

Groundwater above cleanup levels is at least 240 ft from the shoreline and does not appear to be migrating toward Budd Inlet.

Sediment

One sediment sample at the southern end of the tide lands contained bis(2-ethylhexyl)phthalate at a concentration 2 times the sediment quality standards (SQS) and 1.2 times the sediment cleanup screening level (CSL).

Three sediment samples collected from the tide lands contained dioxin concentrations ranging from 18 ng/KG to 41 ng/KG measured as Total 2,3,7,8-TCDD.

Wood

Shallow sediment (0 to 6 cm) on the tide lands most commonly contained 0 to 25% wood. Six sample locations, near the shore and south of the former rail road trestle contained greater than or equal to 75% wood at depths of approximately 5 to 30 cm.

1. INTRODUCTION

This report presents the Remedial Investigation (RI) completed by Greylock Consulting LLC (Greylock) for the Former Hardel Plywood Site (Site) at 1210 West Bay Drive NW in Olympia, Washington (Figure 1). The RI was completed in compliance with the Washington State Department of Ecology (Ecology) Agreed Order No. DE-4108 (Scope of Work Tasks 5 - 6).

1.1 PURPOSE

The RI was prepared by Greylock to present an interpretation of soil, groundwater, and sediment data to assess the nature and extent of contamination, and potential risks to human health and the environment associated with contaminated media at the Site.

This RI report was prepared in accordance with the Model Toxics Control Act Chapter 70.105D RCW and Cleanup Regulation Chapter 173-340-350. The goal of the RI is to collect sufficient information to enable the selection of a cleanup action for the Site.

1.2 REPORT ORGANIZATION

This report is divided into ten major sections including:

- Section 1: Introduction – describes the purpose of the RI, report organization, and Site description and history.
- Section 2: Physical Characteristics of the Study Area – describes the physical site characteristics including land use, geology, hydrogeology, surface water hydrology, soil and sediment, and various other site features.
- Section 3: Summary of Historical Investigations – provides a listing of previously completed site investigations and a general summary of the results.
- Section 4: Site Cleanup Levels – evaluates and identifies appropriate cleanup levels for site media.
- Section 5: Field Investigation and Findings – discusses the field work accomplished and compares analytical results against cleanup levels.
- Section 6: Conceptual Model and Exposure Pathways - identifies routes of possible exposure of onsite contaminants.
- Section 7: Interim Action Evaluation – evaluates the need for interim actions.

- Section 8: Data Gap Evaluation – evaluates the need for additional data.
- Section 9: Conclusions – provides a summary of the findings of the RI.
- Section 10: References

1.3 SITE DESCRIPTION AND HISTORY

This section presents Site background information including a description of the Site and its history.

1.3.1 SITE DESCRIPTION

The Site is located at 1210 West Bay Drive NW in Olympia, Washington (Figure 1). The property is 17.8 acres in size, consisting of approximately 6.7 acres of uplands and 11.1 acres of tide lands. The upland portion of the property consists of asphalt pavement and concrete building foundations. The property is generally level. It is bordered to the north by Budd Inlet and the former Delson Lumber site, to the south by the former Reliable Steel Site and BMT-Northwest metal fabricators, to the west by West Bay Drive NW and residential properties, and to the east by Budd Inlet. Currently the southern portion of the site is leased to BMT Northwest for equipment and tank storage.

The upland portion of the Site is zoned commercial-industrial. The property is surrounded by a mix of uses, including industrial, commercial, and residential.

The tideland portion of the property consists of a relatively steep rip-rapped embankment that adjoins a gentle sloping tide land. At the south-central portion of the tide land, remnants of a former railroad trestle are present.

1.3.2 HISTORY

The Site has been home to logging/lumber related businesses from as early as 1924 through1996. Between 1924 and 1951, the site was occupied by Henry McCleary Timber Company, Olympia Harbor Lumber Company, Olympia Towing, and West Side Log Dump (Tetra Tech, 1999). From 1951 through 1996 the site was used by Hardel as a plywood manufacturing facility. In 1996 a fire consumed the plant. The only structures remaining after the fire are concrete building foundations, asphalt pavement, and an inactive rail line.

Functioning storm drainage and water lines also are present on the property. Figure 2 shows the former layout of the facility.

When the plant was in operation, Hardel stored, handled, and used green veneer, petroleum products, caustic containing sodium hydroxide, low formaldehyde content resin, glue, pitch, and several finishing chemical products in the process of manufacturing plywood. The process created boiler ash waste which was recycled.

Hardel's 1990 spill contingency plan for the Site documents the presence of many tanks for the following purposes: caustic storage tank, glue storage tank, hydraulic oil storage tank, glue mixing tank, waste oil storage tank, resin storage tank, pitch scrubber tank, pitch settling tank and many 55-gallon drums of miscellaneous petroleum products. Most of these were located on the eastern side of the plant near the caustic storage area and the maintenance and welding shops. There also was one underground storage tank on the site. According to Ecology's databases it was installed in 1964 and closed in place, but the date of closure is not listed. Personnel interviews suggest it may be located east of the former welding shop.

Aerial photos of the Site in 1936, 1968, 1977, and 2003 were reviewed. The following was observed of the Site and surrounding areas:

1936: The most significant feature on the Site at this time was a rail line and a railroad trestle that occupied the south-central portion of the Site and extended into Budd Inlet. Only two small buildings are observed on the Site at this time. Large log rafts are observed on the properties to the north and south of the Site.

1968: Several buildings and structures are observed at the western part of the Site. Piles of lumber are also observed. Four rail cars are observed at the western-central edge of the property. Vehicle parking is observed on the eastern part of the Site. The railroad trestle is observed extending into Budd Inlet. Log rafts are observed on the property to the north of the Site.

1977: It appears that some filling occurred on the property between 1969 and 1977 as the property covers a larger area and is more rectangular in shape than was observed in the

1968 photo. A large warehouse building is observed in the center of the property. Most of the structures and activities are on the western end of the property. Six rail cars are observed on the western edge of the property. The railroad trestle appears to have been demolished by this date. A rectangular barge is observed on the southern portion of the tide lands.

2003: In the 2003 photo, the Site appears similar to its current condition. Concrete building foundations and asphalt cover the upland part of the Site. The southern part of the Site appears to have several parked containers. The rail line at the western end of the site is inactive, with overgrown vegetation. In this photo, remnants of a barge on the southern portion of the tide lands are observed.

2. PHYSICAL CHARACTERISTICS OF THE STUDY AREA

2.1 TOPOGRAPHY

The Site lies along the western portion of Budd Inlet. The Site is surrounded by steep bluffs to the west and Budd Inlet to the north and east.

The western edge of the Site consists of a relatively steep slope; however, the majority of the Site is relatively flat. The upland portion of the Site lies at an elevation of approximately 11 ft above Mean Sea Level (MSL). The tide lands are gently sloping. Most of the tide lands can be observed during an extreme low tide.

2.2 LAND USE

Land use in the vicinity of the Site is mixed. The Site as well as the properties to the north (former Delson Lumber) and to the south (former Reliable Steel) have historically been used for industrial purposes. Properties to the west of the Site have historically been used for residential purposes.

Future plans for the shoreline areas along West Bay Drive include commercial and residential development, and a possible public park south of the Reliable Steel site. Recently, the former industrial property to the north has been redeveloped and converted into commercial office space.

2.3 GEOLOGY

Budd Inlet lies in the southern Puget lowlands which were subjected to multiple glaciations during the Pleistocene. Wallace and Molenaar (1961) have mapped the surface soils at the Site as Alluvium (Qal) consisting of fine-grained flood plain deposits, marine alluvium, and artificial fill. Coastal bluffs to the west of the Site are comprised of glaciofluvial sands and gravels.

Boring logs from the site show fill, marine sands, and wood from 0 to 25 ft below ground surface (bgs). In some areas poorly sorted gravel is present.

2.4 HYDROGEOLOGY

Shallow groundwater is present at approximately 3 to 4 ft bgs on the upland portion of the Site. Shallow groundwater occurs in alluvial deposits and marine sands. The direction of groundwater flow is toward the east, with a slight northeast component. Groundwater at the site is tidally influenced, however, groundwater flow direction and gradient is strongly influenced by groundwater movement from the bluffs west of the Site.

2.5 SURFACE WATER

Budd Inlet borders the site to the north and east. Budd Inlet is a small, shallow embayment and has been classified as a stratified, partially mixed estuary (Eisner and Newton, 1997).

Storm water in the surrounding area drains to Budd Inlet. Runoff along West Bay Drive and along the steep bluffs to the west of the Site discharge as sheet flow and through drainage pipes to Budd Inlet. Storm water from these offsite areas discharges onto the tide lands portion of the Site. Storm water from the Site discharges through approximately 5 outfalls to Budd Inlet.

2.6 SEDIMENT

Sediment in Budd Inlet consists of clay, silt, sand and gravel. Within the maintained portion of the navigation channel, finer grained sediments predominate (typically about 30% clay,

40% silt, 25% sand, and 1% gravel) (Corps, 2007).

Approximately 11.1 acres of the Site are tidelands. The tidelands have a very shallow slope. The surface sediments consist primarily of silt and sand sized particles. Sediment in the area of the former railroad trestle consists predominantly of sand.

3. SUMMARY OF HISTORICAL INVESTIGATIONS

Three environmental assessment studies have been performed at the site. They are listed below.

- Ecology, 1999. Lower Budd Inlet Sediment Characterization Study, Midwest Site Evaluation and Chemical Screening of Selected Point Sources. Washington State Department of Ecology. Publication No. 99-305. February 1999.

- Tetra Tech EM Inc., 1999. Phase 1 Environmental Site Assessment (ESA) Hardel Mutual Plywood Waterfront Property. July 1999.

- Stemen Environmental Inc., 2004. Phase 2 Environmental Site Assessment Report. July 26, 2004.

3.1 ECOLOGY, 1999

Two sediment samples were collected by Ecology on the tide lands of the Hardel property on June 9-10, 1998. A map was not available in the Ecology, 1999 report, but it references "Former Hardel Plywood Site Drains", therefore it is assumed that samples were collected near the outfalls. Samples were analyzed for Percent Solids, Total Organic Carbon (TOC), Grain Size, SMS Metals, Semivolatiles, and Phenolics. Results from both samples were below the Washington State Sediment Quality Standards (SQS).

3.2 TETRA TECH EM INC., 1999

Tetra Tech EM Inc. performed a Phase 1 ESA at the site in July 1999. This study involved historical research and interviews. No soil, groundwater, or sediment sampling was performed during this study.

3.3 STEMEN ENVIRONMENTAL INC., 2004

Stemen Environmental Inc. performed a Phase 2 Environmental Site Assessment on property in June and July of 2004. A total of 34 investigative soil samples and 33 investigative water samples were collected from 33 exploratory borings. Select soil and water samples from borings and test pits were tested for Total Petroleum Hydrocarbons (TPH), semivolatiles, metals, and PCBs. Testing identified the presence of heavy oil and diesel range petroleum products in soil and groundwater at three locations on the site. Free phase petroleum product was detected in borings on the northwestern side of the property. Testing confirmed the presence of carcinogenic Polycyclic Aromatic Hydrocarbons (cPAH) in soils on the northwestern portion of the property and in groundwater on the southwestern portion of the property.

Well logs from this investigation indicated that groundwater is present at approximately 4 to 8 ft below ground surface (bgs). Near surface soils at the site consist of sandy gravel, silty clay, silty gravel, and sand (from 0 to 16 ft bgs). Wood chips were also encountered in several of the soil borings.

Groundwater data from this study are from "investigative groundwater samples" that were collected from direct push borings. Although useful as a screening tool, groundwater data from direct push borings are not of appropriate quality to be used for regulatory comparisons, and therefore will not be used in the RI.

4. SITE CLEANUP LEVELS

The Site currently lies in an area surrounded by industrial, commercial, and residential properties. The Site may be used for residential or commercial purposes in the future, therefore, MTCA Method A cleanup standards for unrestricted use were used to evaluate soil and groundwater cleanup levels. Where Method A standards were not available, Method B standards were used.

Sediment chemistry results were evaluated against Washington State Sediment Management Standard (SMS) Criteria. With respect to dioxin, results are reported but not evaluated

against criteria, as Ecology has not yet identified dioxin cleanup standards in Budd Inlet.

5. FIELD INVESTIGATION AND FINDINGS

Field work for the RI was carried out between July 30, and September 18, 2007. Details of the field program can be found in the Remedial Investigation Work Plan dated July 20, 2007.

5.1 SOIL

5.1.1 SOIL INVESTIGATION

Twenty-six (26) soil borings were installed to depths ranging from 12 to 20 ft bgs using a Direct Push drill rig (Figure 3). Borings were continuously logged. Soil was sampled by driving a piston sampler into undisturbed soil ahead of the borehole bottom. Samples were generally collected at every 5 ft, however, due to the presence of wood at depth, the recovery of some samples were not possible.

The following procedures were used to collect subsurface soil samples:

1. Driller retrieved sampler from borehole.
2. The sampler was opened and sample recovery was measured.
3. A soil sample was collected into a 4-ounce laboratory-grade sample jar if the sampled interval is to be submitted for analysis. Sample containers were labeled, secured with a chain-of-custody seal, placed in a chilled cooler.
4. The sample was described on a field log.

With the exception of locations where refusal was encountered, soil sample collection followed the following protocol:

Samples collected from the water table at each boring were submitted to ESN Northwest Inc. of Olympia, Washington for analysis of Total Petroleum Hydrocarbons by NWTPHD-Dx. If samples collected from the water table contained a chemical odor or sheen, the first sample at depth that did not show odor or sheen was submitted for analysis. In addition to TPH, soil samples collected at the water table that contained an odor or sheen were also analyzed for PAHs and Phenols by EPA Method 8270. Soil analytical results are provided in Table 1.

Boring logs are provided in Appendix A.

5.1.2 SOIL FINDINGS

Soil encountered from 0 to 25 ft below ground surface consisted predominantly of sand and silt. Significant wood was also encountered during drilling.

Chemicals found in soil above cleanup levels consist of Diesel, Heavy Oil, and PAHs (Benzo(a)pyrene, Benzo(k)fluoranthene, Chrysene, and Naphthalene. No phenols were detected in any of the soil samples. The highest diesel concentrations (3,200 mg/kg) were located at GB-8. The highest oil concentrations (5,600 mg/kg) were located at MW-1. PAH concentrations above cleanup levels were found only at GB-5 (Benzo(a)pyrene: 0.18 mg/kg, Benzo(k)fluoranthene: 0.27 mg/kg, Chrysene: 1.1 mg/kg, and Naphthalene: 8.2 mg/kg).

Soils above cleanup levels are found along the western end of the Site. Figure 4 shows the approximate extent of soils above cleanup levels. Soil contamination occurs in the vicinity of the former plug cutting saw and patch line along the west-central portion of the Site, and in the vicinity of the down plug line and sander along the southwest portion of the Site. It's unclear, based on existing borings, whether the two areas of contaminated soil connect. Additional borings are needed to identify the extent of soil contamination in this area.

5.2 GROUNDWATER

5.2.1 GROUNDWATER INVESTIGATION

Groundwater monitoring wells were installed at 7 borings across the site. Well locations are shown in Figure 3. Wells were constructed in accordance with Chapter 173-160 Washington Administrative Code (WAC) Part Two, General Requirements for Resource Protection Wells and Geotechnical Soil Borings (September 2,1998).

Two-inch-diameter monitoring wells were installed at all locations, with the exception of the upgradient well, MW-7. At this location, the driller encountered gravelly conditions at depth and was not able to construct a 2-inch well. A smaller diameter ¾ -inch well was installed at MW-7. Following construction, wells were developed by bailing.

All monitoring wells and soil borings were surveyed to the City of Olympia Bench Mark 908 (MSL Elevation 20.54) by Andresen Surveying PLLC of Littlerock, WA (Figure 5).

Water levels were collected from the monitoring wells during a low tide (-1.7 ft MLLW) on August 9, 2007, and during a high tide (+12.3 ft MLLW) on September 18, 2007. Water level measurements are provided in Table 2. During the high tide monitoring event, free phase hydrocarbon product (as oil) was observed in MW-1. The thickness measured was 0.95 ft.

To evaluate tidal lag, water levels were monitored during a low tide at three wells closest to Budd Inlet on September 11, 2007. Water levels were collected every 30 minutes at MW-2, MW-4, and MW-5 for four hours. Table 3 provides a summary of the measurements.

Groundwater samples were collected from the 7 newly constructed monitoring wells during a low tide on August 9, 2007. Samples were submitted to ESN for analysis of NWTPH-Dx, PAHs, Phenols, pH, and salinity. Groundwater analytical results are provided in Table 4.

5.2.2 GROUNDWATER FINDINGS

Shallow groundwater is present at approximately 4 feet below ground across the Site. Figure 6 shows a depiction of inferred and generalized groundwater contours during a low tide. Figure 7 shows a depiction of inferred and generalized groundwater contours during a high tide. Groundwater flow direction is consistently toward the east during high and low tides. There is a very slight northeast component of flow at the northern part of the Site. The groundwater gradient is relatively steep toward the western end of the site, and relatively flat toward the center of the site.

The tidal lag investigation indicated that there is some tidal influence at this site, however, no groundwater flow direction reversal was observed. MW-4, approximately 100 feet from Budd Inlet, showed a rise of 0.01 ft in 4 hours. MW-2, approximately 170 feet from Budd Inlet, showed a rise of 0.04 ft in 4 hours. MW-5, approximately 180 feet from Budd Inlet, showed a rise of 0.05 ft in 4 hours. Based on this information it appears that although some tidal influence is observed, groundwater entering from bluffs west of the Site controls the groundwater flow direction.

Groundwater analytical results indicated that cleanup levels are exceeded in only 2 of the 7 wells; MW-1 and MW-7. MW-1 contains free phase oil on the water table with a thickness of 0.95 ft. MW-7 contains dissolved diesel and oil above cleanup levels. These wells are approximately 240 and 260 feet away from the shoreline, respectively.

5.3 SEDIMENT

5.3.1 SEDIMENT INVESTIGATION

Four sediment samples were collected from three locations on the tide land portion of the Site on August 13, 2007 (Figure 8). GS-3 was a split sample of GS-2. Samples were collected from the biologically active zone (top 10 cm), consistent with protocols described in the Sediment Sampling and Analysis Plan Appendix (Ecology, 2003). Samples were analyzed by Columbia Analytical Laboratory in Kelso, Washington for metals, pesticides, PCBs, semivolatile organic compounds, sulfide, total organic carbon (TOC), and total solids. Samples were analyzed for dioxin by Pace Analytical Laboratory in Minneapolis, Minnesota. Samples were located using a handheld Global Positioning System (GPS) unit.

5.3.2 SEDIMENT FINDINGS

Four samples of surface sediment (top 10 cm) were collected for analysis at three locations (Figure 8).

Surface sediment across the Site consists predominantly of dark gray silt to sandy silt with shell fragments. Wood was found in some surface sediment as described in Section 5.4. Live worms were found at five of the transect stations and a live clam was found at one location.

5.3.2.1 SMS CHEMISTRY

Results of sediment chemistry is provided in Table 5. Samples GS-1, GS-2, and GS-3 contained no detectable chemicals above SMS criteria. Sample GS-4 contained bis(2-ethylhexyl)phthalate at a concentration of 94 mg/kg. This concentration is 2 times the sediment quality standards (SQS) and 1.2 times the sediment cleanup screening level (CSL).

5.2.3.2 DIOXIN

Dioxin concentrations at the site are provided below. All concentrations are reported as Total 2,3,7,8-TCDD calculated using 2005 WHO factors:

Sample GS-1: 18 ng/KG

Sample GS-2: 41 ng/KG

Sample GS-3 (split sample of GS-2): 35 ng/KG

Sample GS-4: 19 ng/KG

No regulatory comparisons are being made regarding these results due to the fact that Ecology has not yet determined cleanup levels for dioxins in Budd Inlet.

5.4 WOOD DEBRIS

5.4.1 WOOD DEBRIS INVESTIGATION

A visual assessment of wood debris was completed on the nearshore tide lands of the Site on August 13, 2007. Twenty-nine shallow cores were completed across the nearshore tide lands (Figure 8). A clam gun was used to sample sediment to a depth of 10 to 45 cm below ground. Sediment was extruded from the clam gun at the sample location, and the composition, estimated percent wood debris, color, and odor of sediments were noted on field logs. Sample locations were identified using a handheld GPS. A summary the wood debris investigation is provided in Table 6.

5.4.2 WOOD DEBRIS FINDINGS

The percent of wood debris encountered was highly dependent upon the depth and location sampled. Shallow sediment (0 to 6 cm) most commonly contained low percentages of wood (0 - 25%). Deeper sediment (6 to 30 cm) contained > 50% wood in 9 of 29 sample locations. The location with the highest percentage of wood was south of the former rail road trestle at samples T2.16 through T2.21 (Figure 8). In this area, the percentage of wood in sediment from 5 cm to 30 cm was greater than or equal to 75%. The area with high percentages of wood also appeared to be close to the bank as no wood was observed at GS-04 further out on the tide land.

Wood debris was not observed in the location of the former rail road trestle.

6. POTENTIAL EXPOSURE PATHWAYS

Potential exposure pathways for this site consist of:

1. Human contact with soil and/or groundwater above cleanup levels.
2. Migration of groundwater above cleanup levels to Budd Inlet, and subsequent contact with aquatic organisms.
3. Aquatic organisms in contact with sediment above cleanup levels.

Under the site's current condition, it appears that the first two exposure pathways are unlikely. Thick concrete covers the areas of impacted soil and groundwater on the Site. Human contact could not occur without breaching the concrete. Groundwater data from the RI have shown that impacted groundwater is at least 240 ft from the shoreline and does not appear to be migrating toward Budd Inlet.

If future development of the site were to include breaching concrete, then the human contact and groundwater migration pathways would need to be reassessed.

Based on the results of the sediment sampling program, one sample near the southern end of the site exceeded state standards for bis(2-ethylhexyl)phthalate. This poses a potential exposure pathway for aquatic organisms.

7. INTERIM ACTION EVALUATION

Agreed Order No. DE-4108 requires that Hardel evaluate if interim remedial actions are necessary at the Site. This requirement was included because free phase hydrocarbon product was encountered by Stemen (2004) during a Phase 2 Site Assessment.

Free phase hydrocarbon product (as heavy oil) was observed in MW-1 during the RI field program. The thickness of product was measured as 0.95 ft. The area of free product is consistent with the area identified by Stemen in 2004. Soil from borings surrounding MW-1 (GB-10, GB-11, GB-17, and MW-5) contained no hydrocarbons above cleanup levels. Groundwater in MW-5, down gradient of MW-1, contained no hydrocarbons above cleanup levels.

We do not believe an interim cleanup action is necessary due to the following:

1. It appears that oil floating on groundwater near MW-1 is not migrating, and
2. The area is currently covered by concrete, thus eliminating potential exposure pathways.

8. DATA GAP EVALUATION

Upon evaluation of the RI data, the following data gaps have been identified:

- The extent of soil above cleanup levels south and west of GB-8 has not been defined.
- The extent of soil above cleanup levels north and west of GB-6 has not been defined.
- The extent of sediment above SMS standards in the area of GS-4 has not been defined.

9. CONCLUSIONS

A Remedial Investigation at the Hardel Mutual Plywood Site in Olympia, Washington found the following:

- Soil at the western boundary of the Site contained heavy oil, diesel, and PAHs above cleanup levels. Additional borings are needed to define the extent of soil above cleanup levels.

- Groundwater at the western end of the Site contained heavy oil and diesel above cleanup levels. One well at the northwestern part of the Site contained oil, 0.95 ft thick, floating on the water table.

- Groundwater above cleanup levels is at least 240 ft from the shoreline and does not appear to be migrating toward Budd Inlet.

- Concrete covering contaminated soil and groundwater has minimized potential exposure pathways.

- Sediment at the southern end of the tide lands contained bis(2-ethylhexyl)phthalate above state Sediment Management Standards. The extent of sediment above SQS standards in this area has not been defined.

- Three surface sediment samples contained dioxin concentrations ranging from 18 ng/KG to 41 ng/KG measured as Total 2,3,7,8-TCDD.

- Shallow sediment (0 to 6 cm) on the tide lands most commonly contained 0 to 25% wood.

- Six sample locations, near the shore and south of the former rail road trestle contained greater than or equal to 75% wood at depths of approximately 5 to 30 cm.

10. REFERENCES

Ecology, 1999. *Lower Budd Inlet Sediment Characterization Study, Midwest Site Evaluation and Chemical Screening of Selected Point Sources. Washington State Department of Ecology*. Publication No. 99-305. February 1999.

Stemen Environmental Inc., 2004. *Phase 2 Environmental Site Assessment Report. Former Hardel Mutual Plywood Waterfront Property. 1210 NW West Bay Drive, Olympia, Washington.* July 26, 2004.

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Figures

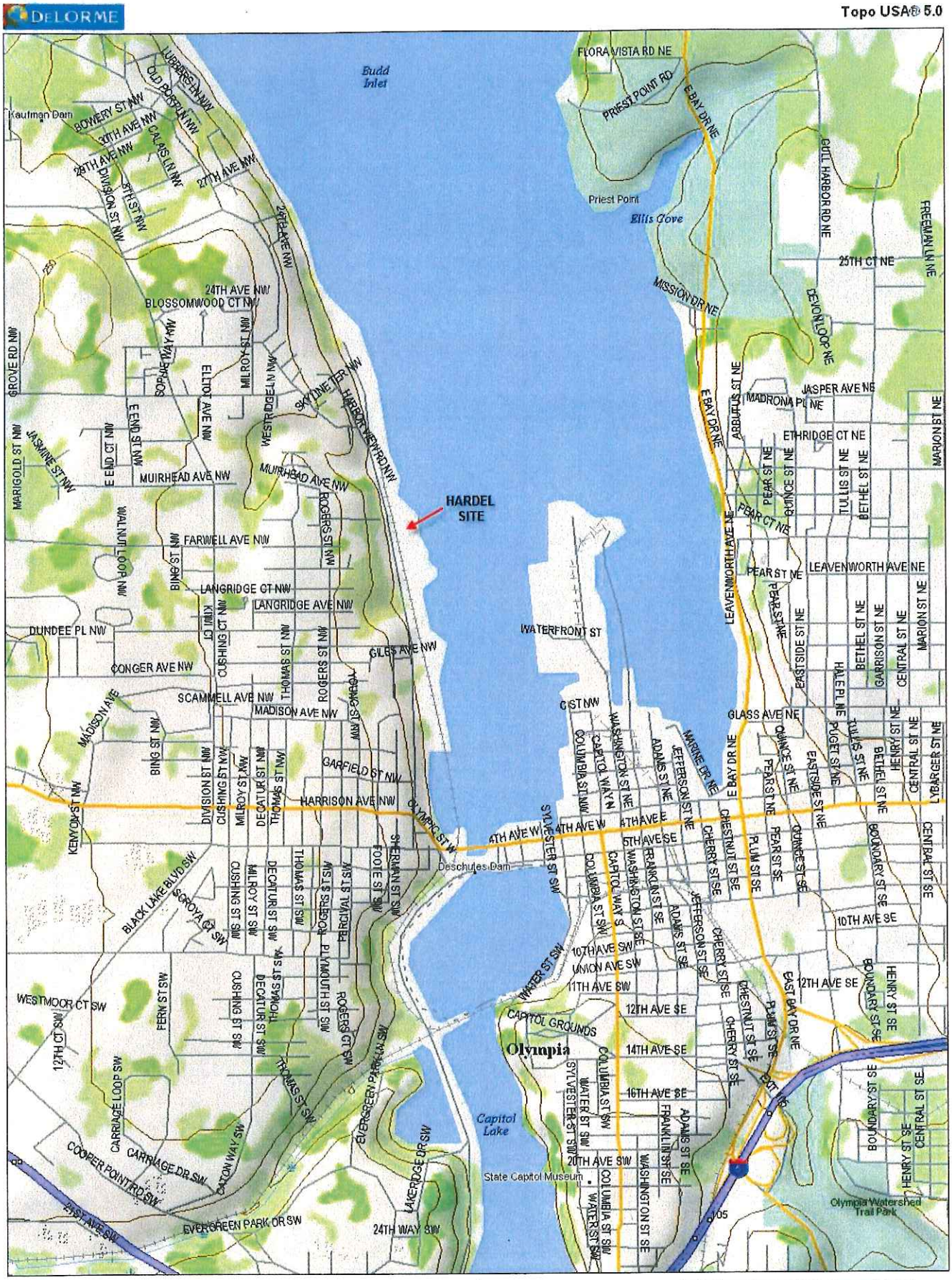
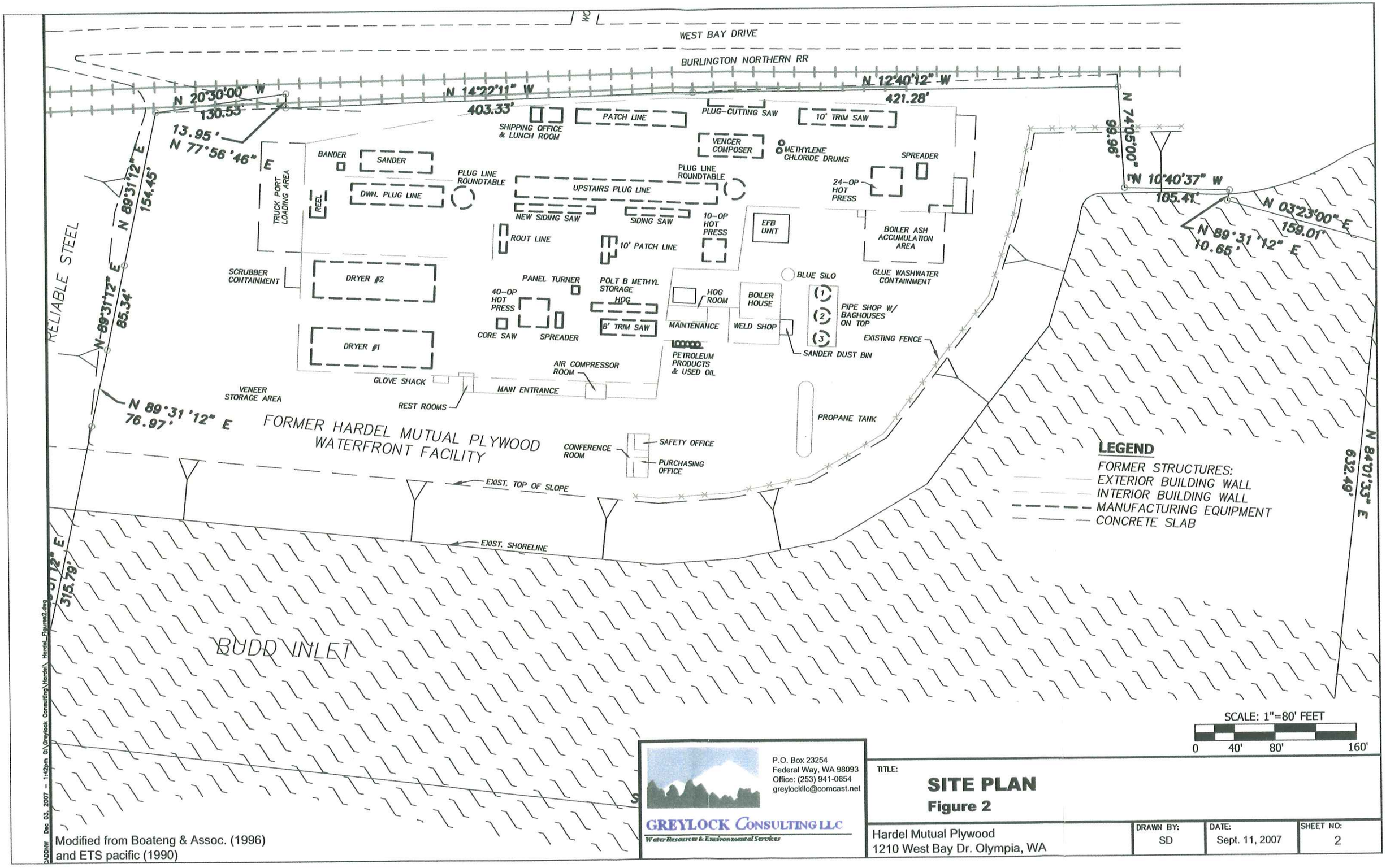


Figure 1. Vicinity Map



Modified from Boateng & Assoc. (1996) and ETS pacific (1990)

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GREYLOCK CONSULTING LLC
Water Resources & Environmental Services

TITLE:

SITE PLAN

Figure 2

	DRAWN BY:	DATE:	SHEET NO:
Hardel Mutual Plywood 1210 West Bay Dr. Olympia, WA	SD	Sept. 11, 2007	2

WEST BAY DRIVE

BURLINGTON NORTHERN RR

N 20°30'00" W 130.53'

N 14°22'11" W 403.33'

N 12°40'12" W 421.28'

N 74°50'00" W 99.96'

N 10°40'37" W 105.41'

N 03°23'00" E 159.01'

N 89°31'12" E 10.65'

13.95' N 77°56'46" E

N 89°31'12" E 154.45'

N 89°31'12" E 85.34'

N 89°31'12" E 76.97'

N 89°31'12" E 315.79'

RELIABLE STEEL

FORMER HARDEL MUTUAL PLYWOOD WATERFRONT FACILITY

BUDD INLET

EXIST. TOP OF SLOPE

EXIST. SHORELINE

GB-1 GB-2 GB-3 GB-4 GB-5 GB-6 GB-7 GB-8 GB-9 GB-10 GB-11 GB-12 GB-13 GB-14 GB-15 GB-16 GB-17 GB-18 GB-19

MW 1 MW 2 MW 3 MW 4 MW 5 MW 6 MW 7

SHIPPING OFFICE & LUNCH ROOM

PATCH LINE

PLUG-CUTTING SAW

10' TRIM SAW

VENEER COMPOSER

METHYLENE CHLORIDE DRUMS

SPREADER

BANDER

SANDER

PLUG LINE ROUNDTABLE

UPSTAIRS PLUG LINE

24-OP HOT PRESS

DWN. PLUG LINE

REEL

TRUCK PORT LOADING AREA

NEW SIDING SAW

SIDING SAW

10-OP HOT PRESS

EFB UNIT

BOILER ASH ACCUMULATION AREA

GLUE WASHWATER CONTAINMENT

ROUT LINE

10' PATCH LINE

SCRUBBER CONTAINMENT

DRYER #2

DRYER #1

PANEL TURNER

POLT B METHYL STORAGE

HOG

BLUE SILO

HOG ROOM

BOILER HOUSE

PIPE SHOP W/ BAGHOUSES ON TOP

40-OP HOT PRESS

CORE SAW

SPREADER

8' TRIM SAW

MAINTENANCE

WELD SHOP

SANDER DUST BIN

EXISTING FENCE

PETROLEUM PRODUCTS & USED OIL

AIR COMPRESSOR ROOM

GLOVE SHACK

MAIN ENTRANCE

REST ROOMS

VENEER STORAGE AREA

PROPANE TANK

CONFERENCE ROOM

SAFETY OFFICE

PURCHASING OFFICE

LEGEND

FORMER STRUCTURES:
EXTERIOR BUILDING WALL
INTERIOR BUILDING WALL
MANUFACTURING EQUIPMENT
CONCRETE SLAB

MONITORING WELL

SCALE: 1"=80' FEET

0 40' 80' 160'

Modified from Boateng & Assoc. (1996) and ETS pacific (1990)

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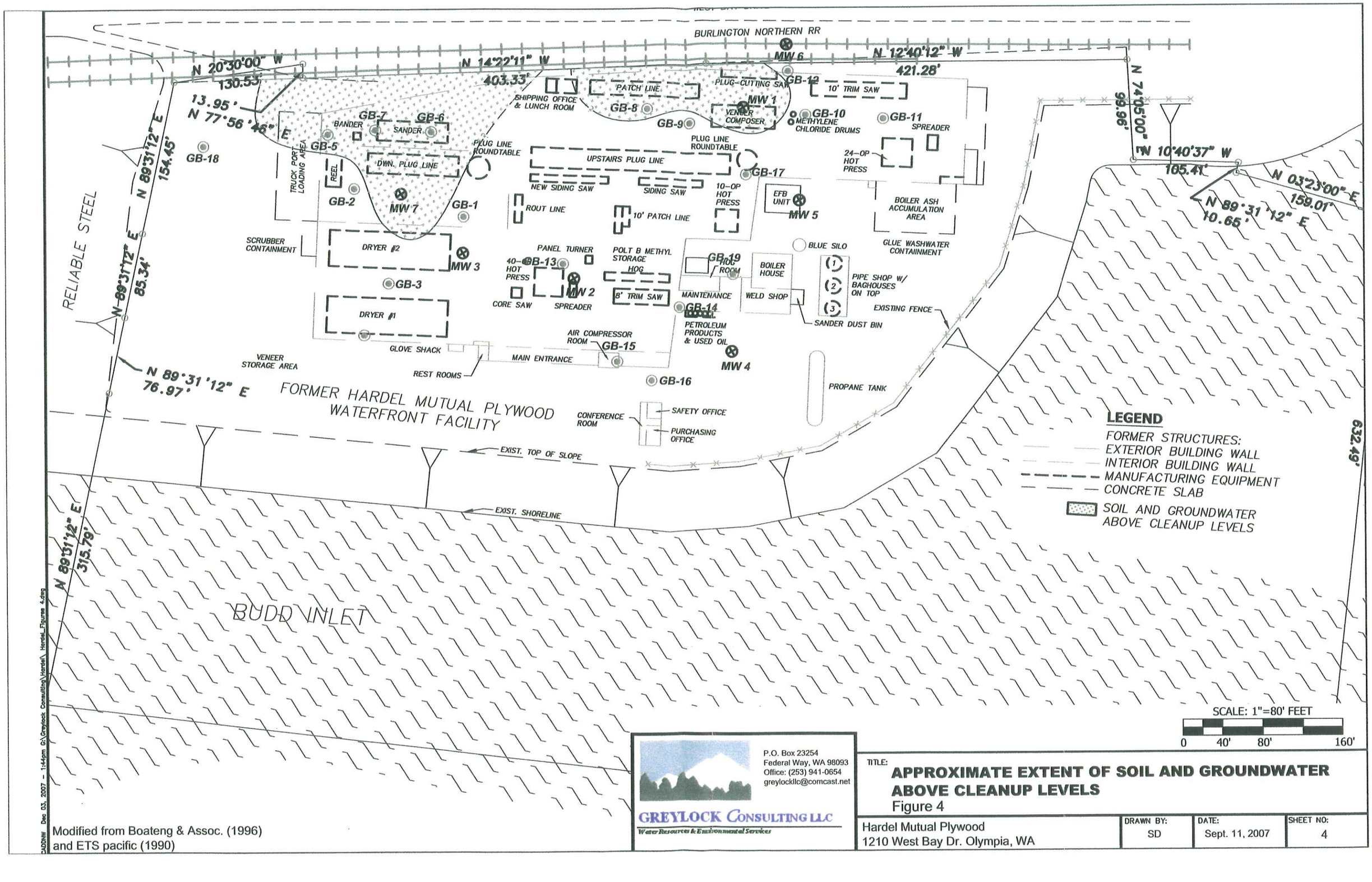
GREYLOCK CONSULTING LLC
Water Resources & Environmental Services

TITLE:

BORING AND WELL LOCATIONS

Figure 3

Hardel Mutual Plywood 1210 West Bay Dr. Olympia, WA	DRAWN BY: SD	DATE: Sept. 11, 2007	SHEET NO: 3



Modified from Boateng & Assoc. (1996) and ETS pacific (1990)

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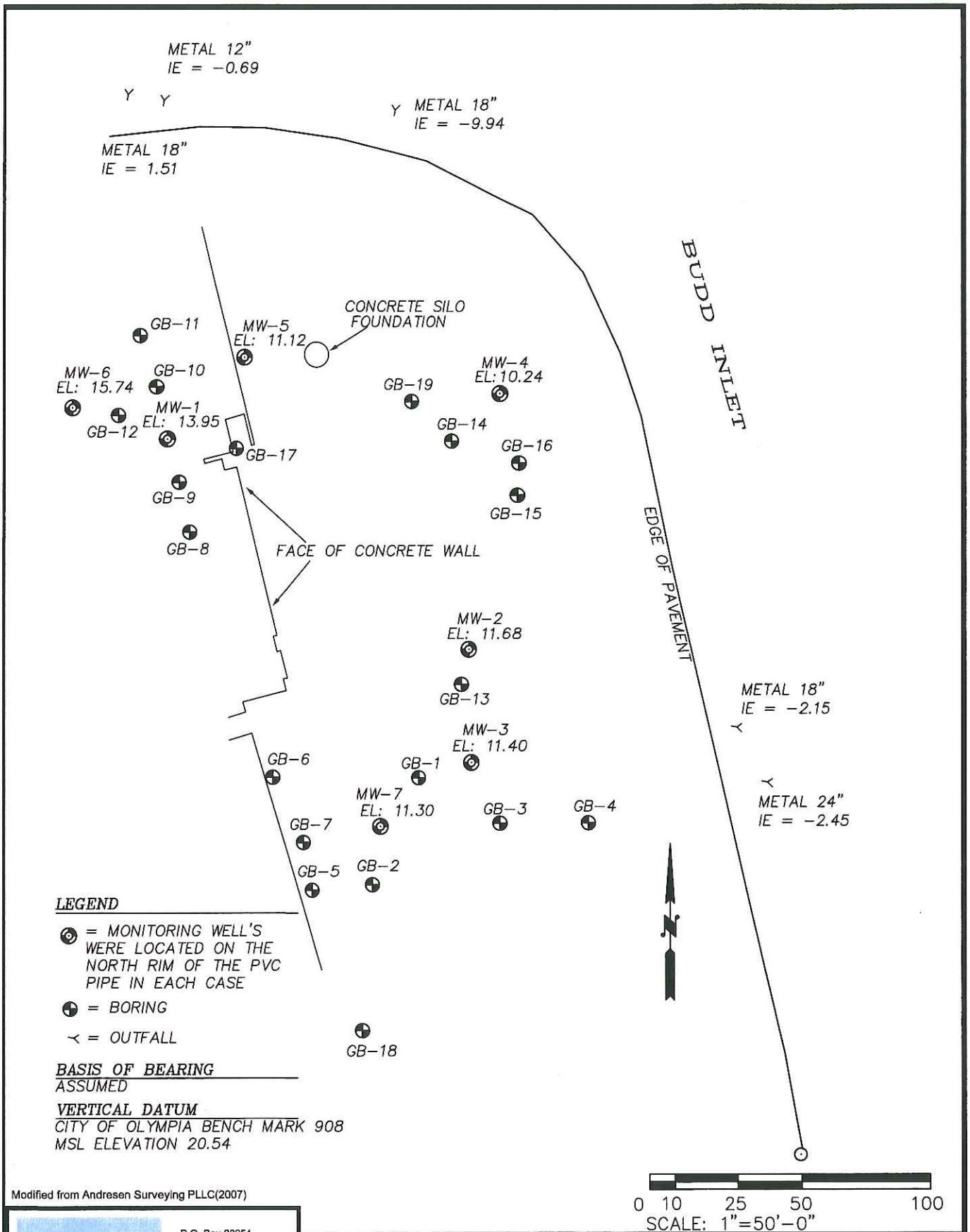
Water Resources & Environmental Services

TITLE:
APPROXIMATE EXTENT OF SOIL AND GROUNDWATER ABOVE CLEANUP LEVELS
Figure 4

	DRAWN BY:	DATE:	SHEET NO:
Hardel Mutual Plywood 1210 West Bay Dr. Olympia, WA	SD	Sept. 11, 2007	4



Modified from Andresen Surveying PLLC(2007)

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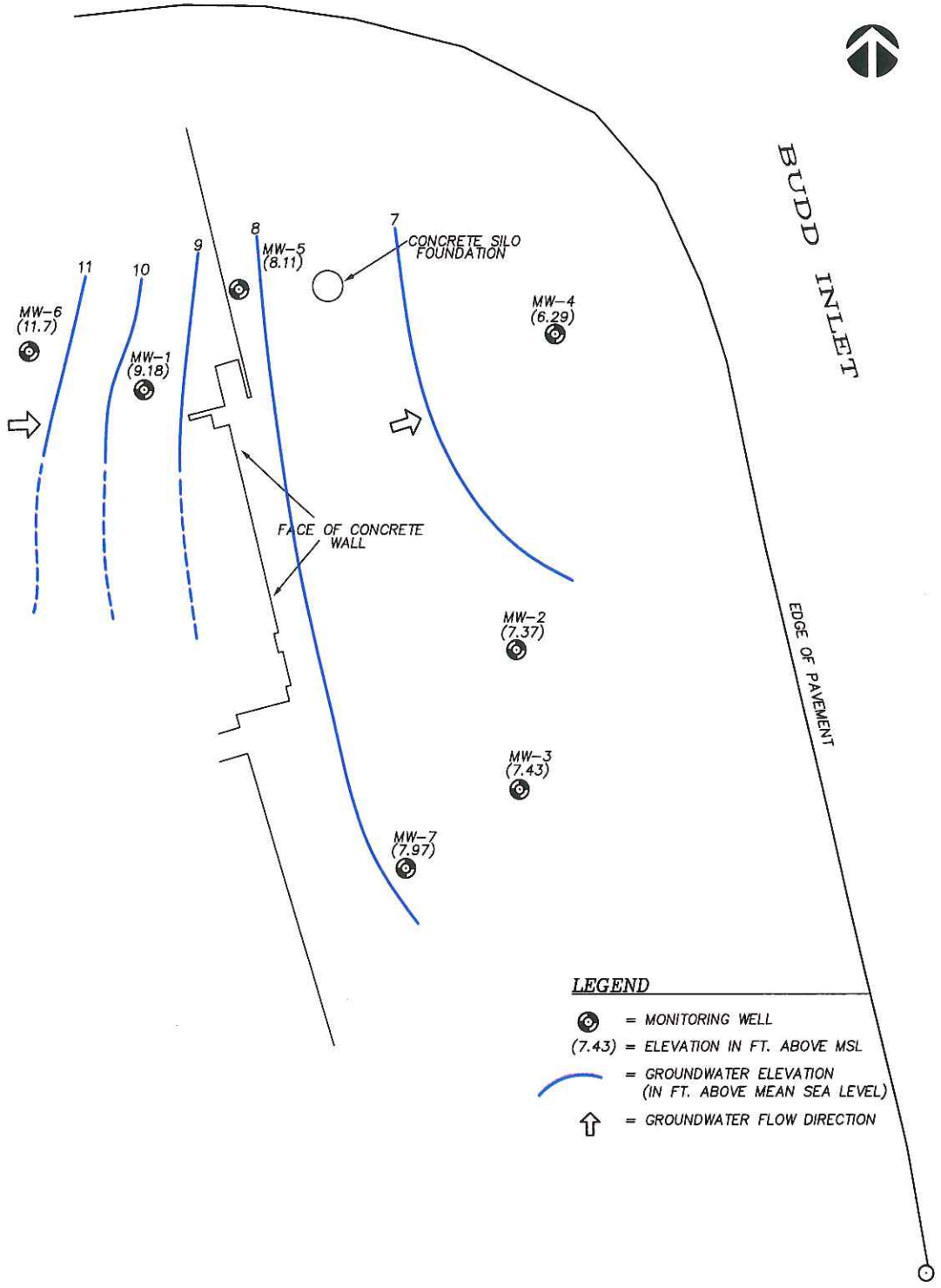
GREYLOCK CONSULTING LLC
Water Resources & Environmental Services

TITLE:

SITE SURVEY

Figure 5

Hardel Mutual Plywood 1210 West Bay Dr. Olympia, WA	DRAWN BY: SD	DATE: Sept. 17, 2007	SHEET NO: 5



Modified from Andresen Surveying PLLC

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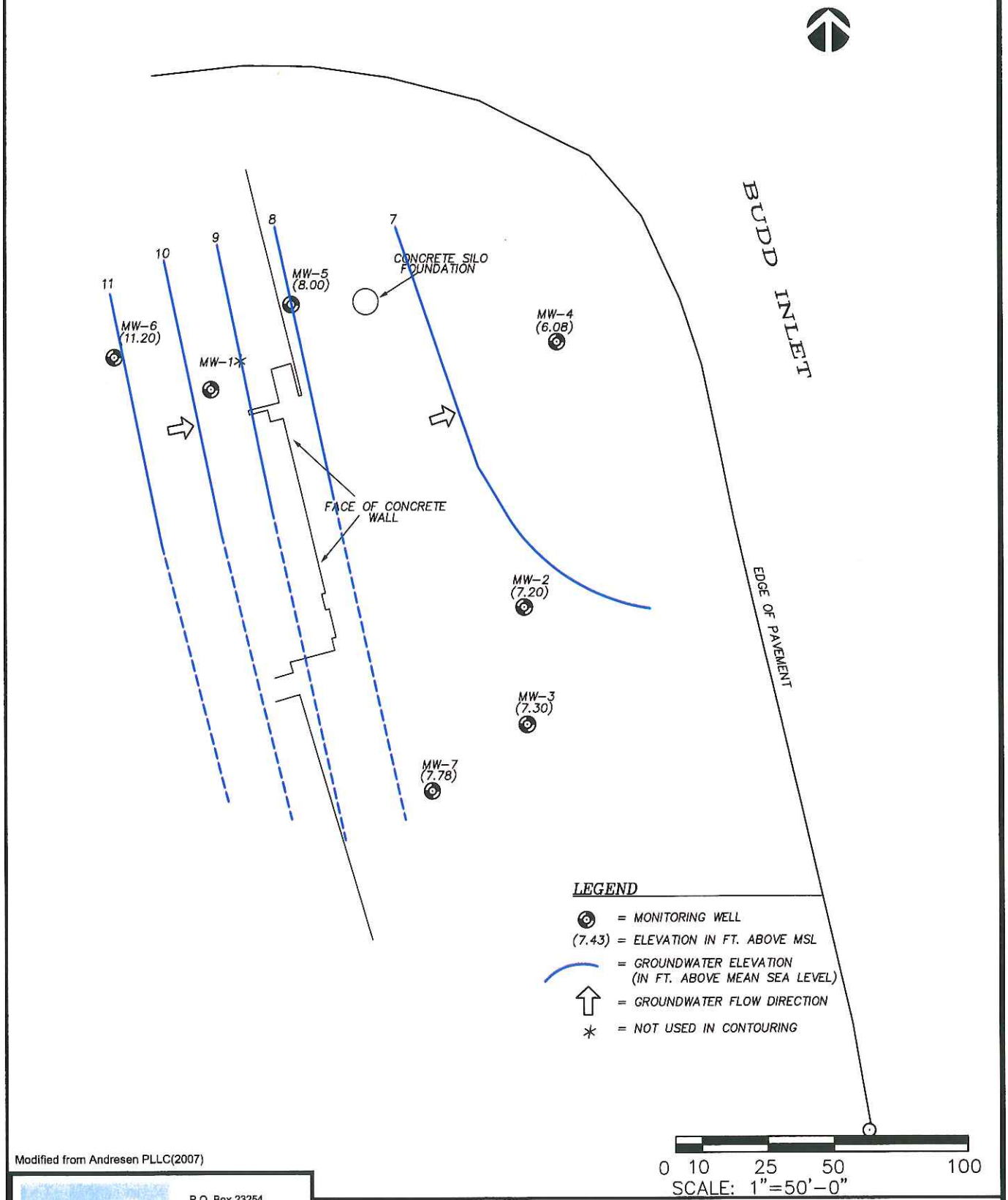
TITLE: Figure 6

INFERRED AND GENERALIZED GROUNDWATER CONTOURS

Low Tide: -1.7 ft MLLW @ 9:36 am.

Groundwater Elevation: Date: August 9, 2007

Hardel Mutual Plywood 1210 West Bay Dr. Olympia, WA	DRAWN BY:	DATE:	SHEET NO:
	SD	Sept. 17, 2007	6



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Water Resources & Environmental Services

TITLE: Figure 7

INFERRED AND GENERALIZED GROUNDWATER CONTOURS

High Tide: + 12.3 ft MLLW @ 11:54 am.

Groundwater Elevation: Date: September 18, 2007

Hardel Mutual Plywood 1210 West Bay Dr. Olympia, WA	DRAWN BY:	DATE:	SHEET NO:
	SD	Sept. 17, 2007	7

0 100 200 300 400 500 Feet

N

DRAFT

Prepared for:
Greylock Consulting LLC
by
Integral Consulting Inc.

Figure 8
Hardel Mutual Plywood Site,
Olympia, Washington
Sediment Sample and Transect Locations
(August 2007)

Tables

Table 1. Soil Analytical Results, Hardel Olympia (Page 1 of 3)

Sample ID:			GB-1-5	GB-1-10	GB-2-5	GB-2-10	GB-3-5	GB-4-6	GB-5-10	GB-5-16	GB-6-5	GB-7-6	GB-8-6.5
Date Sampled:			07/30/07	07/30/07	07/30/07	07/30/07	07/30/07	07/30/07	07/30/07	07/30/07	07/30/07	07/30/07	07/30/07
	MTCA Screening Criteria												
	Method A	Method B											
TPH in mg/kg													
Diesel/ Fuel Oil	2,000		ND	ND	260	ND	ND	ND	47	ND	**3,200**	55	ND
Heavy Oil	2,000		ND	ND	530	56	ND	ND	60	ND	ND	200	**5,000**
Mineral Oil	2,000		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semivolatiles in mg/kg													
Acenapthene		4,800	ND	-	ND	-	-	-	ND	ND	0.85	ND	ND
Acenapthylene			ND	-	ND	-	-	-	ND	ND	ND	ND	ND
Anthracene		24,000	ND	-	ND	-	-	-	2.4	0.18	0.12	ND	ND
Benzo(a)anthracene		0.14	ND	-	ND	-	-	-	ND	ND	ND	ND	ND
Benzo(a)pyrene	0.1	0.14	ND	-	ND	-	-	-	**0.18**	ND	ND	ND	ND
Benzo(b)fluoranthene		0.14	ND	-	ND	-	-	-	ND	ND	ND	ND	ND
Benzo(ghi)perylene			ND	-	ND	-	-	-	ND	ND	ND	ND	ND
Benzo(k)fluoranthene		0.14	ND	-	ND	-	-	-	**0.27**	ND	ND	ND	ND
Chrysene		0.14	ND	-	ND	-	-	-	**1.1**	ND	ND	ND	ND
Dibenzo(a,h)anthracene			ND	-	ND	-	-	-	ND	ND	ND	ND	ND
Fluorene		3,200	ND	-	ND	-	-	-	ND	ND	ND	ND	ND
Fluoranthene		3,200	ND	-	ND	-	-	-	ND	ND	0.14	ND	ND
Ideno(1,2,3-cd)pyrene			ND	-	ND	-	-	-	ND	ND	ND	ND	ND
Napthalene	5	1,600	ND	-	0.58	-	-	-	**8.2**	0.99	0.14	ND	ND
1-Methylnapthalene		24	ND	-	ND	-	-	-	ND	0.26	ND	ND	ND
2-Methylnapthalene		320	ND	-	ND	-	-	-	ND	0.43	0.15	ND	ND
Phenanthrene			ND	-	ND	-	-	-	ND	1.3	1.4	ND	ND
Pyrene		2400	ND	-	ND	-	-	-	ND	0.44	0.13	ND	ND
Phenol			ND	-	ND	-	-	-	ND	ND	ND	ND	ND
2-Chlorophenol			ND	-	ND	-	-	-	ND	ND	-	ND	ND
2-Methylphenol			ND	-	ND	-	-	-	ND	ND	-	ND	ND
2-Nitrophenol			ND	-	ND	-	-	-	ND	ND	-	ND	ND
4-Nitrophenol			ND	-	ND	-	-	-	ND	ND	-	ND	ND
2,4-Dimethylphenol			ND	-	ND	-	-	-	ND	ND	-	ND	ND
2,4-Dichlorophenol			ND	-	ND	-	-	-	ND	ND	-	ND	ND
4-Chloro-3-methylphenol			ND	-	ND	-	-	-	ND	ND	-	ND	ND
2,4,6-Trichlorophenol			ND	-	ND	-	-	-	ND	ND	-	ND	ND
2,4,5-Trichlorophenol			ND	-	ND	-	-	-	ND	ND	-	ND	ND
2,3,4,6-Tetrachlorophenol			ND	-	ND	-	-	-	ND	ND	-	ND	ND
2,3,5,6-Tetrachlorophenol			ND	-	ND	-	-	-	ND	ND	-	ND	ND
2,4-Dinitrophenol			ND	-	ND	-	-	-	ND	ND	-	ND	ND
Pentachlorophenol			ND	-	ND	-	-	-	ND	ND	-	ND	ND

BOLD = Exceeds one or more of the Screening Criteria
ND = Not Detected
- = Not Tested

Table 1. Soil Analytical Results, Hardel Olympia (Page 2 of 3)

Sample ID:			GB-8-9	GB-9-5-6	GB-10-5	GB-11-5	GB-12-5	GB-13-5	GB-14-4	GB-15-3	GB-16-5	GB-17-4	GB-18-6.5	GB-19-7
Date Sampled:			7/30/2007	07/30/07	07/30/07	07/30/07	07/30/07	07/31/07	07/31/07	07/31/07	07/31/07	07/31/07	07/31/07	07/31/07
	MTCA Screening Criteria													
	Method A	Method B												
TPH in mg/kg														
Diesel/ Fuel Oil	2,000		ND	ND	ND	ND	ND	ND	ND	ND	ND	44	ND	ND
Heavy Oil	2,000		1400	520	ND	ND	ND	ND	660	ND	ND	41	ND	ND
Mineral Oil	2,000		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semivolatiles in mg/kg														
Acenapthene		4,800		-	-	-	-	-	-	-	-	-	-	-
Acenapthylene				-	-	-	-	-	-	-	-	-	-	-
Anthracene		24,000		-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene		0.14		-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	0.1	0.14		-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene		0.14		-	-	-	-	-	-	-	-	-	-	-
Benzo(ghi)perylene				-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene		0.14		-	-	-	-	-	-	-	-	-	-	-
Chrysene		0.14		-	-	-	-	-	-	-	-	-	-	-
Dibenzo(a,h)anthracene				-	-	-	-	-	-	-	-	-	-	-
Fluorene		3,200		-	-	-	-	-	-	-	-	-	-	-
Fluoranthene		3,200		-	-	-	-	-	-	-	-	-	-	-
Ideno(1,2,3-cd)pyrene				-	-	-	-	-	-	-	-	-	-	-
Napthalene	5	1,600		-	-	-	-	-	-	-	-	-	-	-
1-Methylnapthalene		24		-	-	-	-	-	-	-	-	-	-	-
2-Methylnapthalene		320		-	-	-	-	-	-	-	-	-	-	-
Phenanthrene				-	-	-	-	-	-	-	-	-	-	-
Pyrene		2400		-	-	-	-	-	-	-	-	-	-	-
Phenol				-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol				-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol				-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol				-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol				-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol				-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol				-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol				-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol				-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol				-	-	-	-	-	-	-	-	-	-	-
2,3,4,6-Tetrachlorophenol				-	-	-	-	-	-	-	-	-	-	-
2,3,5,6-Tetrachlorophenol				-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol				-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol				-	-	-	-	-	-	-	-	-	-	-

BOLD = Exceeds one or more of the screening criteria
ND = Not Detected
- = Not Analyzed

Table 1. Soil Analytical Results, Hardel Olympia (Page 3 of 3)

Sample ID:	MTCA Screening Criteria		MW-1-6	MW-1-13	MW-2-7	MW-3-4.5	MW-4-4	MW-5-3.5	MW-6-6	MW-7-6	MW-7-10
Date Sampled:			07/31/07	07/31/07	07/31/07	08/01/07	08/01/07	08/01/07	08/01/07	08/01/07	08/01/07
	Method A	Method B									
TPH in mg/kg											
Diesel/ Fuel Oil	2,000		ND	ND	ND	ND	ND	ND	ND	130	ND
Heavy Oil	2,000		**5,600**	940	ND	ND	ND	ND	ND	ND	ND
Mineral Oil	2,000		ND	ND	ND	ND	ND	ND	ND	ND	ND
Semivolatiles in mg/kg											
Acenapthene		4,800	-	-	-	-	-	-	-	ND	ND
Acenapthylene			-	-	-	-	-	-	-	ND	ND
Anthracene		24,000	-	-	-	-	-	-	-	ND	ND
Benzo(a)anthracene		0.14	-	-	-	-	-	-	-	ND	ND
Benzo(a)pyrene	0.1	0.14	-	-	-	-	-	-	-	ND	ND
Benzo(b)fluoranthene		0.14	-	-	-	-	-	-	-	ND	ND
Benzo(ghi)perylene			-	-	-	-	-	-	-	ND	ND
Benzo(k)fluoranthene		0.14	-	-	-	-	-	-	-	ND	ND
Chrysene		0.14	-	-	-	-	-	-	-	ND	ND
Dibenzo(a,h)anthracene			-	-	-	-	-	-	-	ND	ND
Fluorene		3,200	-	-	-	-	-	-	-	ND	ND
Fluoranthene		3,200	-	-	-	-	-	-	-	ND	ND
Ideno(1,2,3-cd)pyrene			-	-	-	-	-	-	-	ND	ND
Napthalene	5	1,600	-	-	-	-	-	-	-	ND	ND
1-Methylnapthalene		24	-	-	-	-	-	-	-	0.4	ND
2-Methylnapthalene		320	-	-	-	-	-	-	-	ND	ND
Phenanthrene			-	-	-	-	-	-	-	ND	ND
Pyrene		2400	0.23	-	-	-	-	-	-	ND	ND
Phenol			-	-	-	-	-	-	-	ND	ND
2-Chlorophenol			-	-	-	-	-	-	-	ND	ND
2-Methylphenol			-	-	-	-	-	-	-	ND	ND
2-Nitrophenol			-	-	-	-	-	-	-	ND	ND
4-Nitrophenol			-	-	-	-	-	-	-	ND	ND
2,4-Dimethylphenol			-	-	-	-	-	-	-	ND	ND
2,4-Dichlorophenol			-	-	-	-	-	-	-	ND	ND
4-Chloro-3-methylphenol			-	-	-	-	-	-	-	ND	ND
2,4,6-Trichlorophenol			-	-	-	-	-	-	-	ND	ND
2,4,5-Trichlorophenol			-	-	-	-	-	-	-	ND	ND
2,3,4,6-Tetrachlorophenol			-	-	-	-	-	-	-	ND	ND
2,3,5,6-Tetrachlorophenol			-	-	-	-	-	-	-	ND	ND
2,4-Dinitrophenol			-	-	-	-	-	-	-	ND	ND
Pentachlorophenol			-	-	-	-	-	-	-	ND	ND

BOLD = Exceeds one or more Screening Criteria
ND = Not Detected
- = Not Tested

Table 2. Groundwater Elevations, Hardel Mutual Plywood Site, Olympia, WA

9-Aug-2007 Low Tide -1.7 ft MLLW @ 9:36 AM

Station	Time	MW Elevation (ft)	Depth to Water (ft)	Groundwater Elevation (ft)
MW-1	9:48	13.95	4.77	9.18
MW-2	10:00	11.68	4.31	7.37
MW-3	9:57	11.40	3.97	7.43
MW-4	10:04	10.24	3.95	6.29
MW-5	9:50	11.12	3.01	8.11
MW-6	9:45	15.74	4.03	11.71
MW-7	9:54	11.30	3.33	7.97

18-Sep-2007 High Tide 12.3 ft MLLW @ 11:54 AM

Station	Time	MW Elevation (ft)	Depth to Water (ft)	Groundwater Elevation (ft)	Product Thickness (ft)
MW-1	12:10	13.95	Not measured	-	0.95
MW-2	12:01	11.68	4.48	7.20	
MW-3	12:04	11.40	4.10	7.30	
MW-4	11:54	10.24	4.16	6.08	
MW-5	11:57	11.12	3.12	8.00	
MW-6	11:50	15.74	4.54	11.20	
MW-7	12:04	11.30	3.52	7.78	

Table 3. Tidal Lag Measurements
Hardel Olympia, Groundwater Elevations

11-Sep-07 Low Tide - 0.9 ft MLLW @ 12:25 PM

Station	Time AM	Elevation (ft above MSL)	Depth to GW (ft)	GW Elevation (ft above MSL)
MW-2	12:40	11.68	4.44	7.24
MW-4	12:35	10.24	4.02	6.22
MW-5	12:45	11.12	3.04	8.08
MW-2	1:07	11.68	4.44	7.24
MW-4	1:05	10.24	4.03	6.21
MW-5	1:10	11.12	3.04	8.08
MW-2	1:37	11.68	4.42	7.26
MW-4	1:35	10.24	4.03	6.21
MW-5	1:44	11.12	3.02	8.10
MW-2	2:10	11.68	4.43	7.25
MW-4	2:05	10.24	4.03	6.21
MW-5	2:13	11.12	3.02	8.10
MW-2	2:40	11.68	4.42	7.26
MW-4	2:35	10.24	4.03	6.21
MW-5	2:42	11.12	3.01	8.11
MW-2	3:07	11.68	4.42	7.26
MW-4	3:05	10.24	4.03	6.21
MW-5	3:10	11.12	3.01	8.11
MW-2	3:37	11.68	4.42	7.26
MW-4	3:35	10.24	4.02	6.22
MW-5	3:40	11.12	3.00	8.12
MW-2	4:07	11.68	4.40	7.28
MW-4	4:05	10.24	4.01	6.23
MW-5	4:10	11.12	2.99	8.13

Table 4. Groundwater Analytical Results, Hardel Olympia

Sample ID:	MTCA Screening Criteria		MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
Date Sampled:			8/9/07	8/9/07	8/9/07	8/9/07	8/9/07	8/9/07	8/9/07
	Method A	Method B							
TPH in ug/L									
Diesel/ Fuel Oil	500		ND	ND	ND	ND	ND	ND	25,000
Heavy Oil	500		14,000	ND	ND	ND	ND	ND	4,400
Mineral Oil	500		ND	ND	ND	ND	ND	ND	ND
Semivolatiles in ug/L									
Aniline			ND	ND	ND	ND	ND	ND	ND
Acenapthene			ND	ND	ND	ND	ND	ND	8.3
Acenapthylene			ND	ND	ND	ND	ND	ND	ND
Anthracene			ND	ND	ND	ND	ND	ND	ND
Azobenzene			ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene			ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene			ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene			ND	ND	ND	ND	ND	ND	ND
Benzo(ghi)perylene			ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene			ND	ND	ND	ND	ND	ND	ND
Benzyl alcohol			ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether			ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether			ND	ND	ND	ND	ND	ND	ND
Bis(2-chlorethoxy)methane			ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)adipate			ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate			ND	ND	ND	ND	ND	ND	ND
4-Bromophenylphenylether			ND	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate			ND	ND	ND	ND	ND	ND	ND
Carbazole			ND	ND	ND	ND	ND	ND	ND
Chrysene			ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene			ND	ND	ND	ND	ND	ND	ND
4-Chlorophenylphenylether			ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene			ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene			ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene			ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene			ND	ND	ND	ND	ND	ND	ND
Dibenzofuran			ND	ND	ND	ND	ND	ND	ND
Diethylphthalate			ND	ND	ND	ND	ND	ND	ND
Dimethylphthalate			ND	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate			ND	ND	ND	ND	ND	ND	ND
Di-n-octylphthalate			ND	ND	ND	ND	ND	ND	ND
1,3-Dinotrobenzene			ND	ND	ND	ND	ND	ND	ND
1,2-Dinitrobenzene			ND	ND	ND	ND	ND	ND	ND

Table 4. Groundwater Analytical Results, Hardel Olympia

Sample ID:			MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
Date Sampled:			8/9/07	8/9/07	8/9/07	8/9/07	8/9/07	8/9/07	8/9/07
	MTCA Screening Criteria								
	Method A	Method B							
1,4-Dinitrobenzene			ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene			ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene			ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2methylphenol			ND	ND	ND	ND	ND	ND	ND
Fluorene		640	ND	ND	1.2	ND	ND	ND	ND
Fluoranthene			ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene			ND	ND	ND	ND	ND	ND	ND
Hexochloroethane			ND	ND	ND	ND	ND	ND	ND
Ideno(1,2,3-cd)pyrene			ND	ND	ND	ND	ND	ND	ND
Isophorone			ND	ND	ND	ND	ND	ND	ND
Naphthalene			ND	ND	ND	ND	ND	ND	ND
1-Methylnapthalene			ND	ND	ND	8.2	ND	ND	17
2-Methylnapthalene			ND	ND	ND	ND	ND	ND	ND
3,4-Methylphenol			ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline			ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline			ND	ND	ND	ND	ND	ND	ND
Nitrobenzene			ND	ND	ND	ND	ND	ND	ND
N-Nitro-din-propylamine			ND	ND	ND	ND	ND	ND	ND
N-nitrosodiphenylamine			ND	ND	ND	ND	ND	ND	ND
Phenanthrene			ND	ND	ND	ND	ND	ND	5.2
Pyrene			ND	ND	ND	ND	ND	ND	ND
Pyridine			ND	ND	ND	ND	ND	ND	ND
Phenol			ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline			ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol			ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene			ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene			ND	ND	ND	ND	ND	ND	ND
2-Methylphenol			ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline			ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol			ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol			ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol			ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol			ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol			ND	ND	ND	ND	ND	ND	ND
1,2,4-Tricholorbenzene			ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol			ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol			ND	ND	ND	ND	ND	ND	ND
2,3,4,6-Tetrachlorophenol			ND	ND	ND	ND	ND	ND	ND
2,3,5,6-Tetrachlorophenol			ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol			ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol			ND	ND	ND	ND	ND	ND	ND

Table 4. Groundwater Analytical Results, Hardel Olympia

Sample ID: Date Sampled:	MW-1 8/9/07	MW-2 8/9/07	MW-3 8/9/07	MW-4 8/9/07	MW-5 8/9/07	MW-6 8/9/07	MW-7 8/9/07
pH	6.78	6.66	6.55	6.57	6.50	7.24	6.00

Bold = Exceeds one or more of the Screening Criteria

ND = Not Detected

- Not Analyzed

Table 5. Chemical concentrations in Hardel sediments compared to Washington State Sediment Management Standards.

Analyte	SMS		GS-1	GS-2	GS-3	GS-4
	SQS	CSL				
Conventionals						
Total organic carbon (%)	---	---	11.9	8.62	10.1	3.10
Metals (mg/kg DW)						
Arsenic	57	93	22 U	21 U	19 U	22 U
Cadmium	5.1	6.7	1.1 U	1.6	1.3	2.2
Chromium	260	270	34.7	26.7	25.0	35.5
Copper	390	390	75.3	44.8	43.4	50.2
Lead	450	530	93.8	24.2	25.2	43.5
Mercury	0.41	0.59	0.09	0.19	0.16	0.23
Silver	6.1	6.1	2.5	2.1 U	1.9 U	2.2 U
Zinc	410	960	107	90.7	80.5	166
LPAH (mg/kg OC)						
2-Methylnaphthalene	38	64	0.28 U	0.37 U	0.29 U	0.87 U
Acenaphthene	16	57	0.34 U	0.45 U	0.36 U	3.5 J
Acenaphthylene	66	66	0.40 U	0.53 U	0.42 U	1.3 U
Anthracene	220	1200	0.35 U	0.46 U	0.37 U	6.5 J
Fluorene	23	79	0.33 U	0.44 U	0.35 U	2.7 J
Naphthalene	99	170	0.36 U	0.49 U	0.38 U	1.8 J
Phenanthrene	100	480	0.29 J	1.4 J	0.89 J	29
Low Molecular Weight PAH	370	780	0.29 JT	1.4 JT	0.89 JT	44 JT
HPAH (mg/kg OC)						
Benzo(a)anthracene	110	270	0.34 J	1.5 J	1.3 J	27
Benzo(a)pyrene	99	210	0.50 U	1.2 J	1.6 J	28
Benzo(b+k)fluoranthene	230	450	0.49 U	2.1 J	2.5 J	45 J
Benzo(g,h,i)perylene	31	78	0.50 U	0.85 J	1.2 J	17 J
Chrysene	110	460	0.36 J	1.6 J	1.6 J	35
Dibenzo(a,h)anthracene	12	33	0.69 U	0.92 U	0.72 U	3.9 J
Fluoranthene	160	1200	0.54 J	3.2 J	2.3 J	55
Indeno(1,2,3-cd)pyrene	34	88	1.0 U	1.4 U	1.1 U	17 J
Pyrene	1000	1400	0.46 J	2.8 J	2.0 J	48
High Molecular Weight PAH	960	5300	1.7 JT	13 JT	13 JT	280 JT
Chlorinated Hydrocarbons (mg/kg OC)						
1,2,4-Trichlorobenzene	0.81	1.8	0.28 U	0.37 U	0.29 U	0.87 U
1,2-Dichlorobenzene	2.3	2.3	0.45 U	0.60 U	0.47 U	1.4 U
1,4-Dichlorobenzene	3.1	9	0.44 U	0.58 U	0.46 U	1.4 U
Phthalates (mg/kg OC)						
Bis(2-ethylhexyl) phthalate	47	78	0.46 U	4.9 J	2.3 J	*94*
Butylbenzyl phthalate	4.9	64	0.41 U	0.55 U	0.43 U	4.2 J
Dibutyl phthalate	220	1700	0.84 J	1.1 J	0.92 J	3.9 J
Diethyl phthalate	61	110	0.35 U	0.48 U	0.38 U	1.1 U
Dimethyl phthalate	53	53	0.41 U	0.55 U	0.44 U	1.3 U
Di-n-octyl phthalate	58	4500	0.60 U	0.80 U	0.62 U	1.9 U
Ionizable Organics (mg/kg DW)						
2,4-Dimethylphenol	0.029	0.029	0.045 U	0.044 U	0.040 U	0.037 U
2-Methylphenol	0.063	0.063	0.050 U	0.048 U	0.044 U	0.041 U
4-Methylphenol	0.67	0.67	0.050 J	0.048 U	0.20 J	0.041 U
Pentachlorophenol	0.36	0.69	0.37 U	0.36 U	0.33 U	0.30 U
Phenol	0.42	1.2	0.067 J	0.056 U	0.052 U	0.047 U
Benzoic acid	0.65	0.65	0.42 U	0.40 U	0.37 U	0.34 U
Benzyl alcohol	0.057	0.073	0.050 U	0.048 U	0.045 U	0.041 U
Miscellaneous Extractables (mg/kg OC)						
Dibenzofuran	15	58	0.29 U	0.39 U	0.31 U	0.94 J
Hexachlorobutadiene	3.9	6.2	0.35 U	0.48 U	0.38 U	1.1 U
Hexachlorobenzene	0.38	2.3	0.37 U	0.49 U	0.39 U	1.2 U
N-Nitrosodiphenylamine	11	11	0.45 U	0.60 U	0.48 U	1.4 U
PCBs (mg/kg OC)						
Total PCBs	12	65	1.7 UT	2.3 UT	2.0 UT	6.1 UT

U=undetected at reported concentration
J = estimated concentration below reporting limits
T = calculated sum of individual compounds or congeners
OC = organic carbon
DW = dry weight

SMS = Washington State sediment management standards
SQS = sediment quality standards
CSL = cleanup screening levels
XXX Exceeds SQS
XXX Exceeds CSL

Table 6. Wood Debris Investigation Log, Hardel Olympia
August 13, 2007

Transect No.	Sampler	Time	Depth	Description
T-1.1	SD	1107	0-10 cm	30% Fine Wood
				70% Silty Sand; Dark Gray to Black
			10 - 38 cm	10% Fine Wood
				90% Silty Sand: Dark Gray to Black
T-1.2	SD	1118	0 - 3 cm	100% Silty Sand
			3 - 38 cm	80% Fine Wood
				20% Silty Sand
T-1.3	TS/LW	1124	0 - 5 cm	100% Sand and Silt: Dark Gray
			5 - 15 cm	70% Sand and Silt: Dark Gray
				30% Wood
				A couple different types of worms found throughout
T-1.4	TS/LW	1128	0 cm	100% Silt and Clayey Silt on surface, Brown in color
			0 - 3 cm	100% Clayey Silt, Dark Gray
			3 - 15 cm	85% Clayey Silt, Dark Gray
				15% Small wood debris, Lt brown in color
			15 cm	Obstruction of large piece of wood
T-2.1	SD	1205	0 -1 cm	100% Sandy Silt: Olive Color (algae on surface)
			1 - 38 cm	95% Gravelly Sandy Silt
				5% Wood chunks > 1 inch.
T-2.2	TS/LW	1317	0 cm	Small wood debris and shell fragments on surface
			0 - 10 cm	80% Sandy Silt; Dark Brown/Gray
				20% Wood
T-2.3	SD	1310	0 - 38 cm	15% Wood
				85% Sandy Silt w/Shells: Dark Gray w/some organic material
T-2.4	TS/LW	1323	0 - 6 cm	100% Silt: Brownish Gray
			6 - 7 cm	85 % Sandy Silt: Dk Brown/Gray
				15% Wood
			7 - 10 cm	90% Wood
				10% Sandy Silt: Dk Brown/Gray

Table 6. Wood Debris Investigation Log, Hardel Olympia
August 13, 2007

Transect No.	Sampler	Time	Depth	Description
T-2.5	SD	1325	0 cm	Some large wood on surface
			0 - 15 cm	80% Wood: Wood chunks 3 to 4 inches in size
				20% Sandy Silt
			15 cm	Obstruction of large piece of wood
T-2.6	TS/LW	1330	0 - 6 cm	100% Sandy Silt; Dk brown w/shell fragments
			6 - 25 cm	60% Sandy Silt: Dk brown
				40% Wood
T-2.7	SD	1338	0 - 30 cm	60% Wood: Large chunks, 2-5 inches in length
				40% Sandy Silt: Dark gray to black
			30 cm	Obstruction of large piece of wood
T-2.8	TS/LW	1336	0 - 6 cm	>90% Sandy Silt; Dk brown/gray
				< 10% Small Wood w/ shell fragments
			6 - 25 cm	50% Wood; Large pieces
				50% Sandy Silt; Dk brown/gray
T-2.9	TS/LW	1340	0 - 6 cm	100% Silt with Clay; Dk brown/gray
			6 - 25 cm	90% Wood
				10% Silt with Clay: Dk brown/gray
T-2.10	TS/LW	1345	0 - 20 cm	100% Clay, Silt, Sand; Dense, hard, w/shell fragments
			20 - 25 cm	60% Clay, Silt, Sand
				40% Wood
T-2.11	SD	1353	0 - 3 cm	95% Sandy Silt: Dark gray
				5% Wood
			3 - 38 cm	60% Wood: Large chunks up to 4 inches
				40% Sandy Silt: Dark gray
T-2.12	TS/LW	1353	0 - 6 cm	10% Sandy Silt; Dark brown/gray
			6 - 30 cm	50% Sandy Silt; Dark brown/gray
				50% Wood

Table 6. Wood Debris Investigation Log, Hardel Olympia
August 13, 2007

Transect No.	Sampler	Time	Depth	Description
T-2.13	SD	1403	0-5 cm	100% Silt with shell fragments: gray
			5 - 30 cm	90% Wood: large chunks, 2 to 5 inches
				10% Sandy Silt: gray
T-2.14	TS/LW	1357	0 - 10 cm	80% Sandy Silt; Dk brown/gray w/shell fragments
				20% Small wood pieces
				Worms present
			10 cm	Large wood obstruction
T-2.15	SD	1409	0 cm	Surface is olive in color (algae)
			0 - 20 cm	95% Silt: gray
				5% wood
			20 - 38 cm	80% Silt: gray
				20 % wood (1/2 to 1 inch)
T-2.16	TS/LW	1416	0 - 1/2 cm	100% Silt; brown/gray, strong sulfide odor
			1/2 - 5 cm	100% Clayey Silty Sand; Dk gray/black
			5 - 20 cm	80% Wood
				20% Clayey Silty Sand; Dk gray/black w/shell fragments
				Wood thins from 10 to 20 cm
T-2.17	TS/LW	1428	0 - 0.2 cm	100% Silt; Brown, thin layer
			0.2 - 1 cm	100% Clayey, Silty Sand; Dk gray/black w/shells
			1 - 38 cm	80% Wood; small fragments, large worms present
				20% Clayey Silty Sand; Dk gray/black
T-2.18	SD	1426	0 - 5 cm	95% Silt: dark gray; live worms
				5 % Wood
			5 - 38 cm	75% Wood: fine wood
				25% Silt: Dark Gray
T-2.19	TS/LW	1437	0 - 4 cm	100% Silt: Dk brown/black
			4 - 20 cm	100% Wood: Large pieces

Table 6. Wood Debris Investigation Log, Hardel Olympia
August 13, 2007

Transect No.	Sampler	Time	Depth	Description
T-2.20	TS/LW	1442	0 - 10 cm	80 % Wood; fine 20 % Sandy Silt; Dk gray/black
			10 - 30 cm	95% Wood: fine; sawdust texture, appears fresh, undecomposed 5% Sandy Silt: Dk gray/black
T-2.21	TS/LW	1415	0 - 10 cm	100% Clayey, Sandy Silt; Gray
			10 - 30 cm	90% Wood: Mostly larger pieces 10% Clayey, Sandy Silt: Gray
T-3.1	TS/LW	1416	0 - 30 cm	100% Slightly Silty Sand, Brown; worms and live clams
			30 - 45 cm	Same as above but less oxidized; Black/Dk Brown in color
T-3.2	TS/LW	1422	0 - 25 cm	> 90% Clayey, Silty Sand; Brown/Dk Brown; shell fragments througout < 10% Wood
			25 cm	Color changes to Dk brown/black; a bit more wood than 0 - 25 cm
GS-04	TS/LW	1230	0 - 3 cm	100% Silt; Gray, Dk brown
			3 - 10 cm	100% Clayey Silt, Dk gray, stiff, no wood
GS-02	TS/LW	1150	0 - 10 cm	90% Silt with Sand, V Dk gray 10% Wood

Appendices

A. Boring Logs
B. Upland Analytical Reports
C. Sediment Analytical Reports

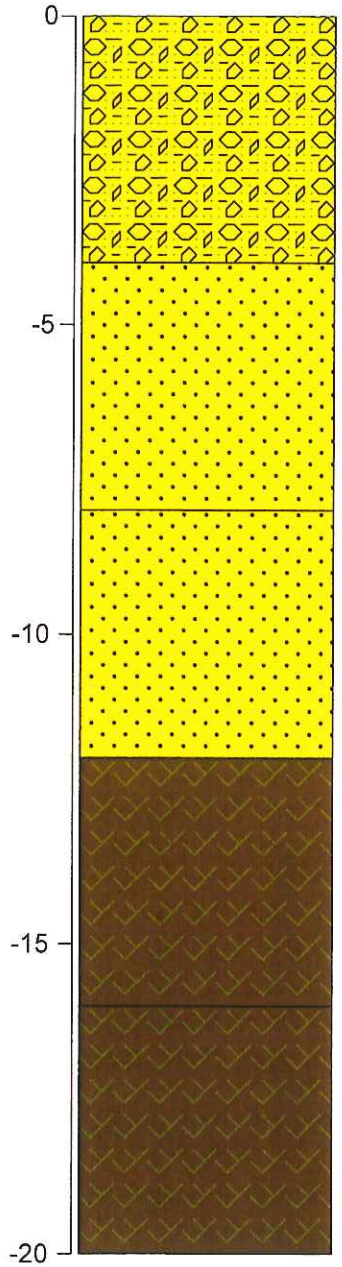
Appendix A – Boring Logs

Hardel Olympia

Boring Number GB-1

Greylock Consulting LLC
Date: July 30, 2007; 8:05 AM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen

DEPTH **LITHOLOGY**



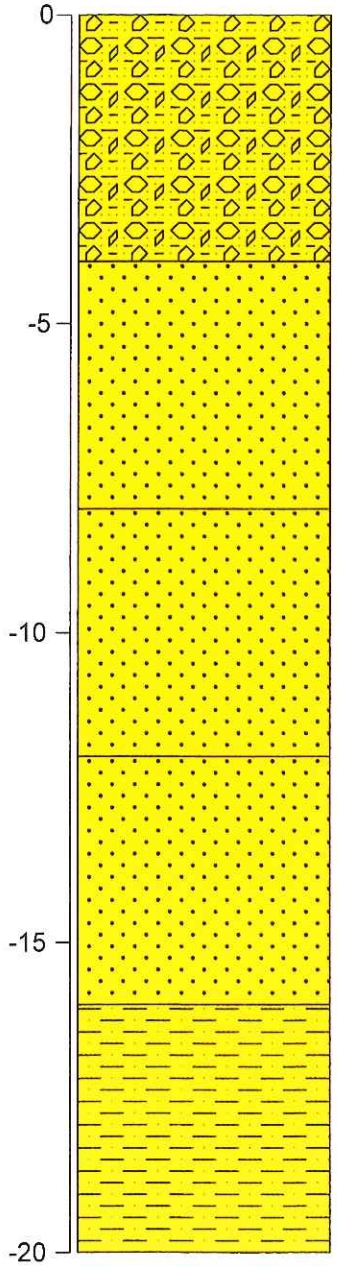
Gravel and Sand: Brown
Sand: Brown to Gray Water @ 4.5 ft; No Odor
Sand: Gray with shells
Wood: Small particles; up to 1/2 inch
Wood: Medium particles; up to 1 inch Bottom of boring @ 20 ft

Hardel Olympia

Boring Number GB-2

Greylock Consulting LLC
Date: July 30, 2007; 8:42 AM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen

DEPTH **LITHOLOGY**



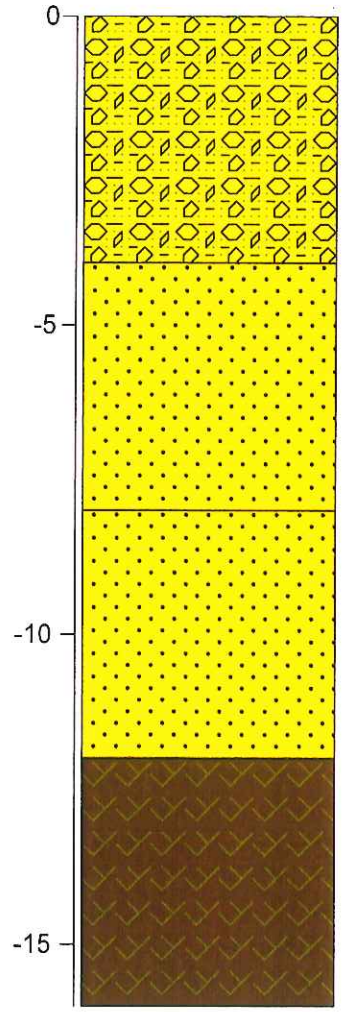
Gravel and Sand: Wood and Slight Petroleum Odor at 4 ft
Sand: Gray with Wood; Very Slight Petroleum Odor Water @ 4.5 ft
Sand: Gray with Shells
Sand: to 13.5 ft; No Petroleum Odor Wood from 13.5 to 16 ft (chips up to 1 inch)
Silt: Wood from 16 to 17 ft Silt from 17 to 20 ft: Gray with shells Bottom of boring @ 20 ft

Hardel Olympia

Boring Number GB-3

Greylock Consulting LLC
Date: July 30, 2007; 9:15 AM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen

DEPTH **LITHOLOGY**



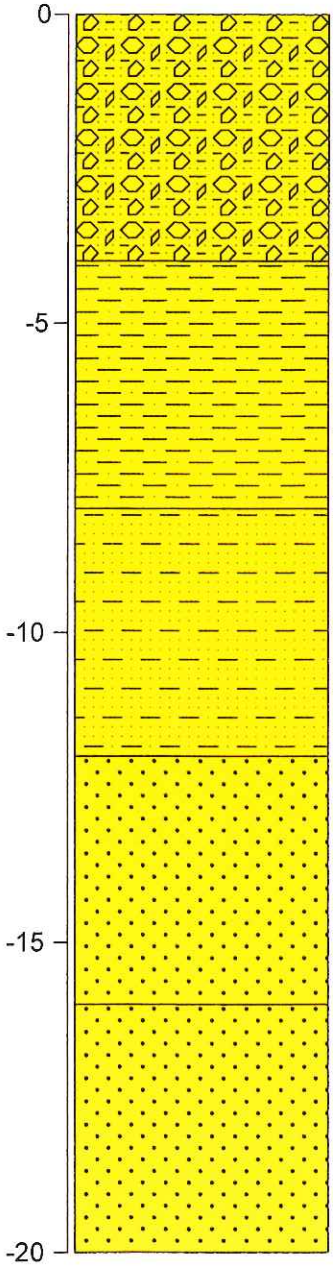
Gravel and Sand: Brown to Gray
Sand: Gray with Shells Water @ 5 ft
Sand: Pea Gravel from 8 - 9 ft Sand from 9 - 11.5 ft Wood from 11.5 - 12 ft
Wood: Bottom of Boring @ 16 ft

Hardel Olympia

Boring Number GB-4

Greylock Consulting LLC
Date: July 30, 2007; 9:57 AM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen

DEPTH **LITHOLOGY**



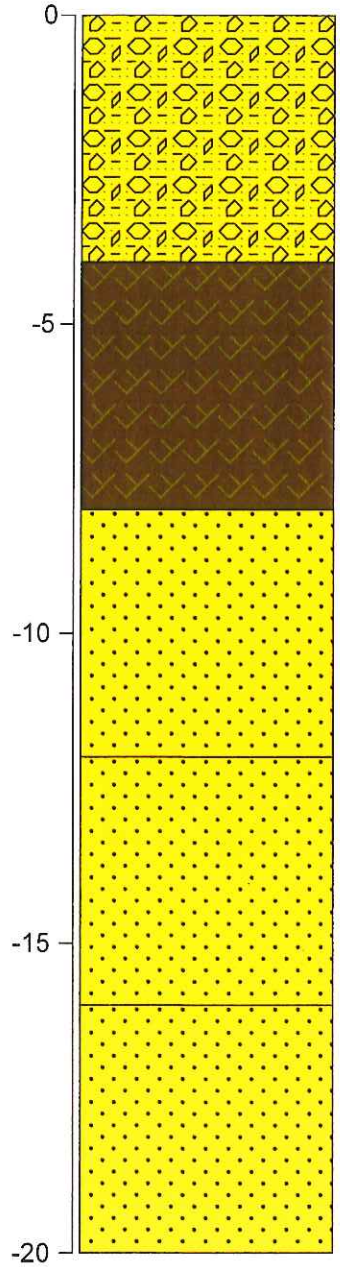
Gravel and Sand: Dry; No Odor
Silt: with Sand and Clay Water @ 5.5 ft; No Odor Wood from 7 - 8 ft
Sand and Silt: with Wood from 8 - 9 ft Silt from 9 - 10.5 ft Sand from 10.5 - 12 ft
Sand: Gray
Sand: with Wood (chunks up to 1 inch) Bottom of boring @ 20 ft

Hardel Olympia

Boring Number GB-5

Greylock Consulting LLC
Date: July 30, 2007; 10:35 AM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen

DEPTH **LITHOLOGY**



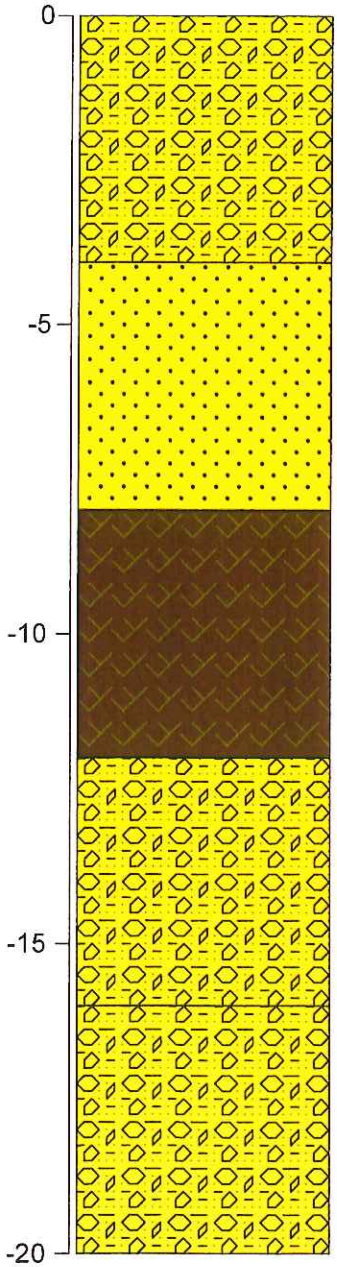
Gravel and Sand: No Recovery due to wood Very strong petroleum odor in top 4 ft
Wood: Solid Wood from 4 - 8 ft; Wood is saturated with oil. Could not get a sample due to wood. Water @ 4 ft.
Sand: Gray; Strong Petroleum Odor 8 - 10 ft: Wood 10 - 12 ft: Sand with shells.
Sand: with Gravel; Moderate Odor
Sand: Gravelly Sand; No sheen, No odor 16 - 17 ft: Gray fine to medium Sand 17 - 20 ft: Light Brown Gravelly Sand Bottom of Boring @ 20 ft

Hardel Olympia

Boring Number GB-6

Greylock Consulting LLC
Date: July 30, 2007; 11:35 AM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen

DEPTH **LITHOLOGY**



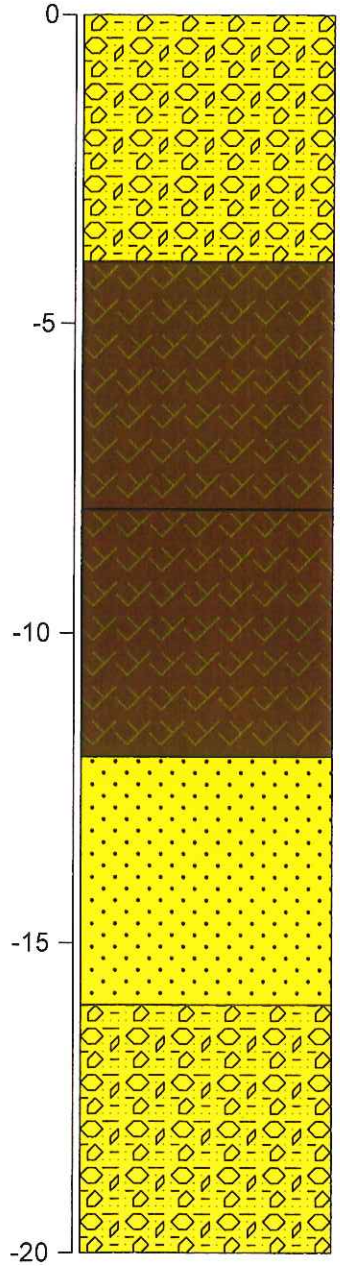
Gravel and Sand: 0 - 2 ft Wood Chips: 2 - 4 ft; 1/2 to 1 inch.
Sand: with Wood Water @ 4 ft; Slight Petroleum Odor 6 - 7 ft: Silt 7 - 8 ft: Fine Wood
Wood: with some Sand; No Odor
Gravel and Sand: Gray
Gravel and Sand: Light Yellow Brown Bottom of boring @ 20 ft

Hardel Olympia

Boring Number GB-7

Greylock Consulting LLC
Date: July 30, 2007; 12:42 PM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen

DEPTH **LITHOLOGY**



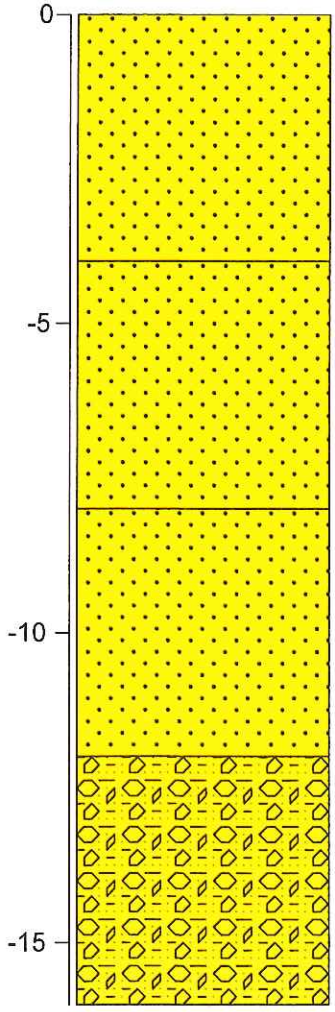
Gravel and Sand: Gray
Wood: Lens of Sand in the Wood @ 6 ft; only enough sample for 1 jar Slight Petroleum Odor
Wood: No recovery
Sand: Gray with Gravel; No Odor @ 13 ft
Gravel and Sand: Light Yellow Brown; No Odor Bottom of Boring @ 20 ft.

Hardel Olympia

Boring Number GB-8

Greylock Consulting LLC
Date: July 30, 2007; 1:28 PM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen

DEPTH **LITHOLOGY**



Sand: Fine, Gray; No Odor

Sand: Water @ 5 ft

Silty Sand w/ Slight Sheen from 6.5 - 7.5 ft

Sand: Gray 8 - 10 ft; No Odor or Sheen

Silt 10 - 11 ft

Wood 11 - 12 ft

Gravel and Sand:
Wood with Sand from 12 - 13 ft

Gray Gravelly Sand from 13 - 15 ft

Lt. Yellow Brown Gravelly Sand from 15 - 16 ft; No Odor

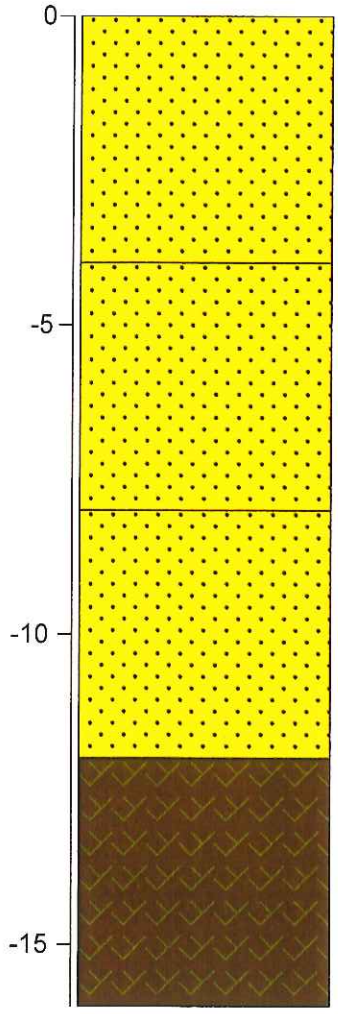
Bottom of Boring @ 16 ft

Hardel Olympia

Boring Number GB-9

Greylock Consulting LLC
Date: July 30, 2007; 1:52 PM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen

DEPTH **LITHOLOGY**



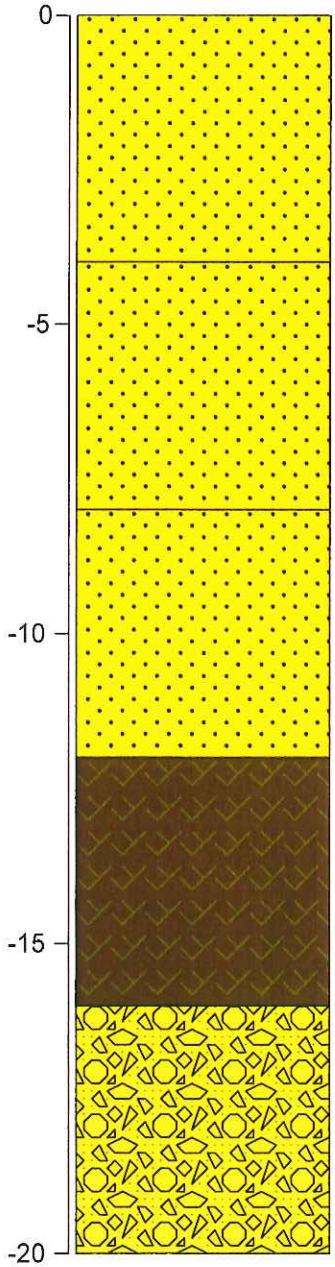
Sand: Gray; No Odor
Sand: Gray Water @ 5 ft
Sand: Gray with Shells
Wood: Not much recovery Bottom of boring @ 16 ft.

Hardel Olympia

Boring Number GB-11

Greylock Consulting LLC
Date: July 30, 2007; 3:00 PM
Elevation: Approx. 11 ft MSL
Field Party: Stemen/Dudziak

DEPTH **LITHOLOGY**



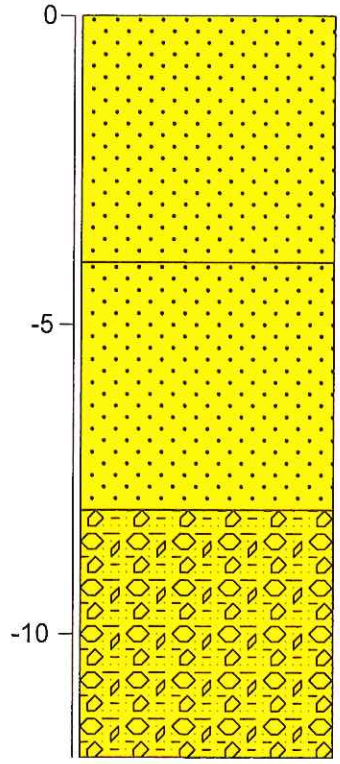
Sand: Brown
Sand: Brown Water @ 5.5 ft
Sand: Gray; becoming gravelly at 10 ft.
Wood: Medium to Dark Fine Wood
Gravel: Gray Sandy Gravel

Hardel Olympia

Boring Number GB-12

Greylock Consulting LLC
Date: July 30, 2007; 3:50 PM
Elevation: Approx. 11 ft MSL
Field Party: Stemen/Dudziak

DEPTH **LITHOLOGY**



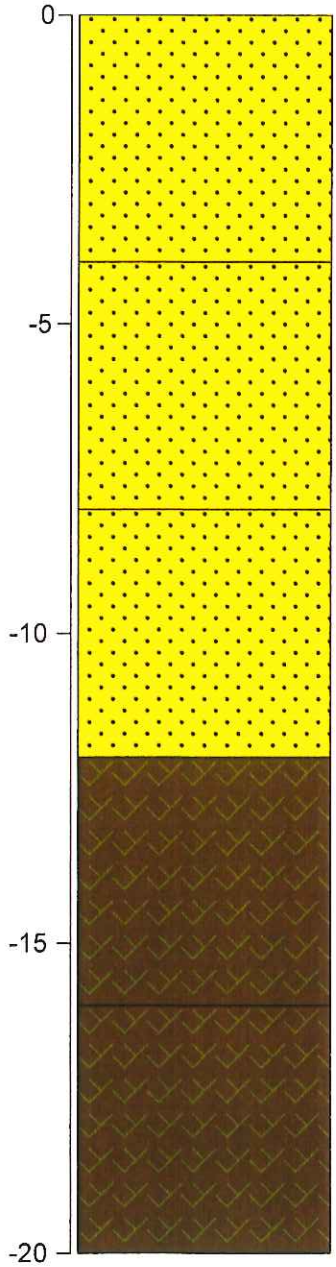
Sand: Brown
Sand: Gray; Wet
Gravel and Sand: Gravelly Sand from 8 - 10 ft Fine Wood from 10 -12 ft Refusal at 12 ft (possible foundation footing)

Hardel Olympia

Boring Number GB-13

Greylock Consulting LLC
Date: July 31, 2007; 7:00 AM
Elevation: Approx. 11 ft MSL
Field Party: Stemen/Dudziak

DEPTH **LITHOLOGY**



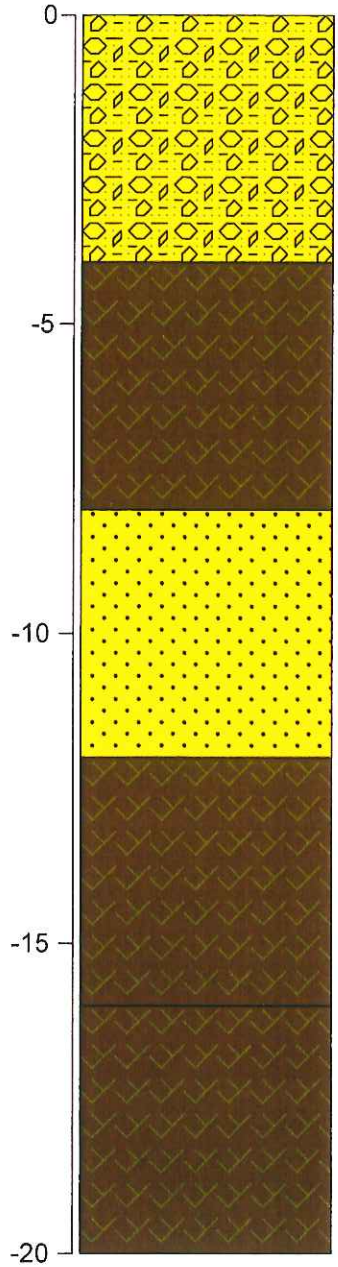
Sand: Brown
Sand: Gray Water @ 4 ft Pea Gravel from 4.5 - 5.5
Sand: Gray from 8 - 10 ft Medium Wood Chunks from 10 - 12 ft
Wood: Medium to Fine
Wood: Medium to Fine Bottom of Boring @ 20 ft.

Hardel Olympia

Boring Number GB-14

Greylock Consulting LLC
Date: July 31, 2007; 7:30 AM
Elevation: Approx. 11 ft MSL
Field Party: Stemen/Dudziak

DEPTH **LITHOLOGY**



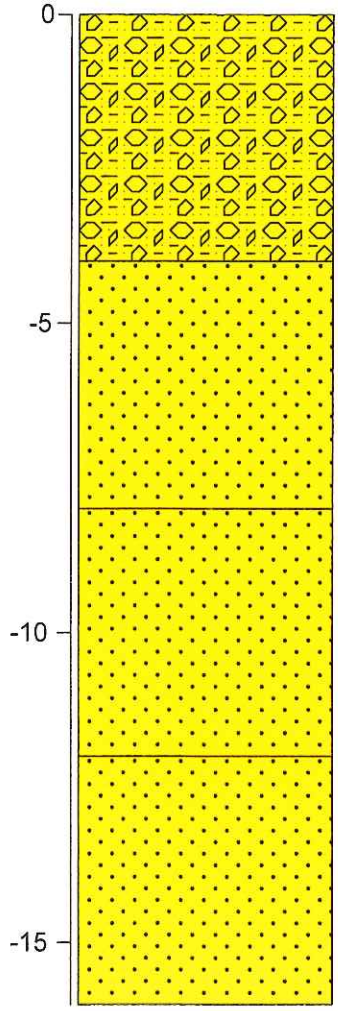
Gravel and Sand: Gray
Wood: Medium to Fine @ 4 - 6 ft Gray Sand from 6 - 8 ft
Sand: Gray from 8 - 11 ft Wood from 11 - 12 ft
Wood: Medium
Wood: Medium Bottom of Boring @ 20 ft.

Hardel Olympia

Boring Number GB-15

Greylock Consulting LLC
Date: July 31, 2007; 10:05 AM
Elevation: Approx. 11 ft MSL
Field Party: Stemen/Dudziak

DEPTH **LITHOLOGY**



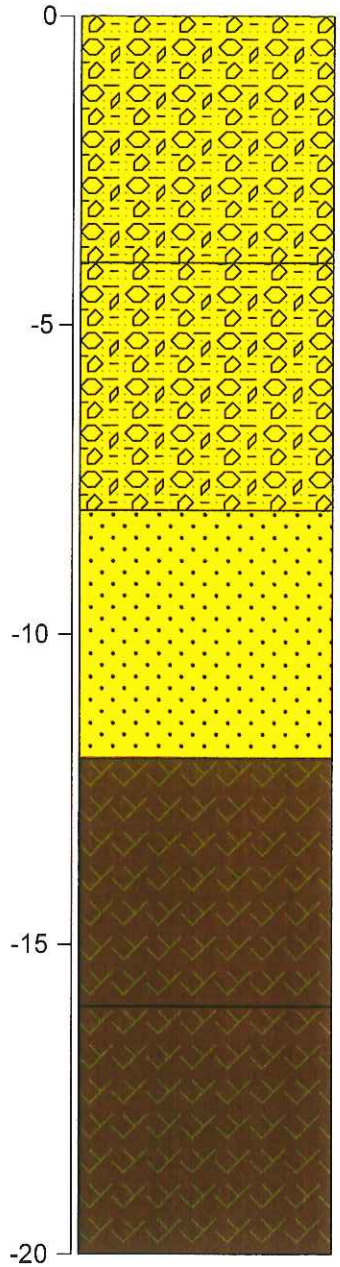
Gravel and Sand: Brown Water @ 3 ft
Sand: Brown
Sand: Brown to Gray
Sand: Gray w/ shells

Hardel Olympia

Boring Number GB-16

Greylock Consulting LLC
Date: July 31, 2007; 9:40 AM
Elevation: Approx. 11 ft MSL
Field Party: Stemen/Dudziak

DEPTH **LITHOLOGY**



Gravel and Sand: Gray

Gravel and Sand: from 4 - 5 ft; Water @ 4 ft

Wood from 5 - 6 ft

Silt from 6 - 7 ft

Gravelly Sand from 7 - 8 ft

Sand: Gray

Wood: Medium

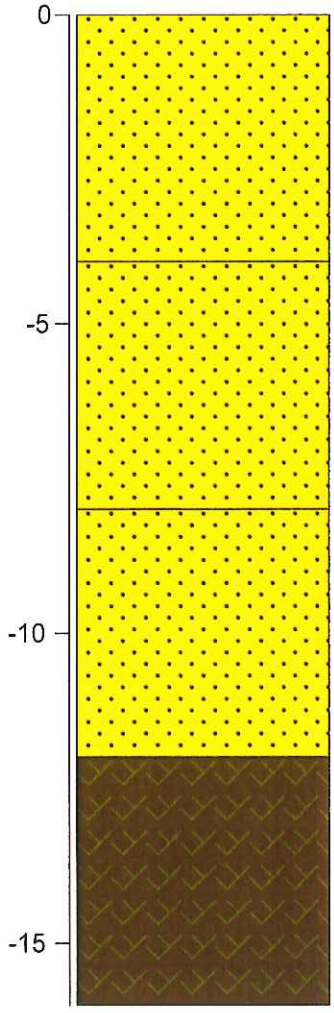
Wood: Medium

Hardel Olympia

Boring Number GB-17

Greylock Consulting LLC
Date: July 31, 2007; 11:05 AM
Elevation: Approx. 11 ft MSL
Field Party: Stemen/Dudziak

DEPTH **LITHOLOGY**



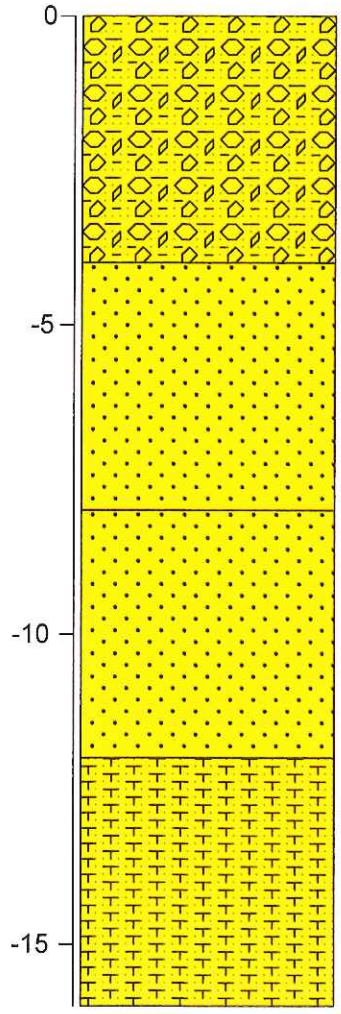
Sand: Gray w/some shells; No Odor
Sand: Gray Water @ 4 ft
Sand: Gray with Shells
Wood: Bottom of boring @ 16 ft.

Hardel Olympia

Boring Number GB-18

Greylock Consulting LLC
Date: July 31, 2007; 1:44 PM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen

DEPTH **LITHOLOGY**



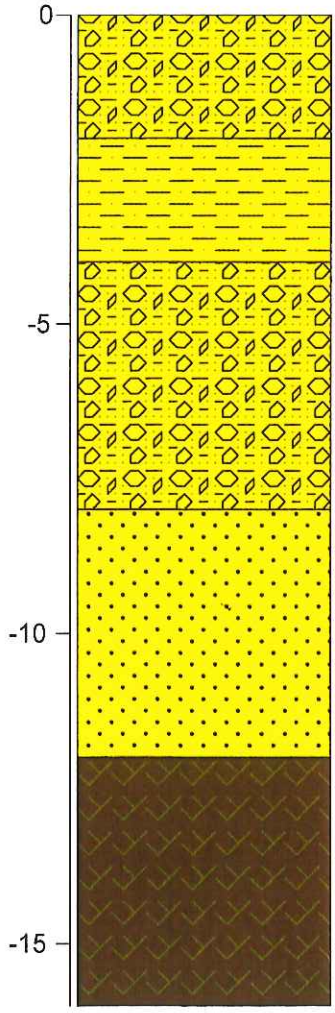
Gravel and Sand: Fill Wood from 3 - 4 ft
Sand: Gray Water @ 4.5 ft; No Odor, No Sheen
Sand: Gray
Silty Sand: Gray from 12 - 15 ft Yellow Brown Gravelly, Silty Sand from 15 - 16 ft Bottom of Boring @ 16 ft.

Hardel Olympia

Boring Number GB-19

Greylock Consulting LLC
Date: July 31, 2007; 2:20 PM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen

DEPTH **LITHOLOGY**

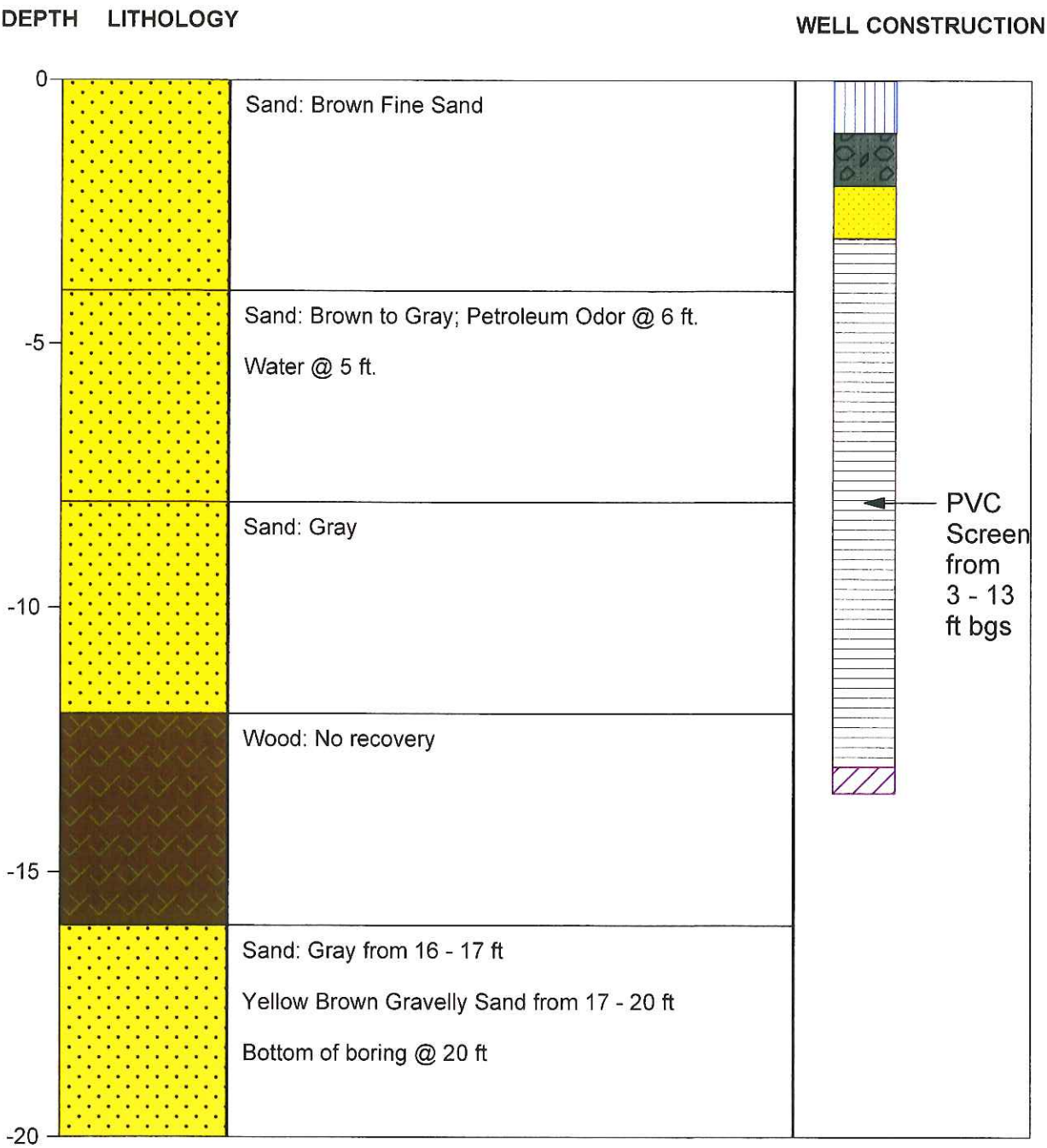


Gravel and Sand: Fill
Silt: Dry
Gravel and Sand: Silty Gravelly Sand Large wood chunks from 5 - 7 ft Sand with shells from 7 - 8 ft No Odor, No Sheen
Sand: Wet with shells Brown to Gray Wood at 11 ft
Wood: Large pieces Bottom of boring @ 16 ft

Hardel Olympia

Well Number MW-1

Greylock Consulting LLC
Date: July 31, 2007; 12:06 PM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen



Hardel Olympia

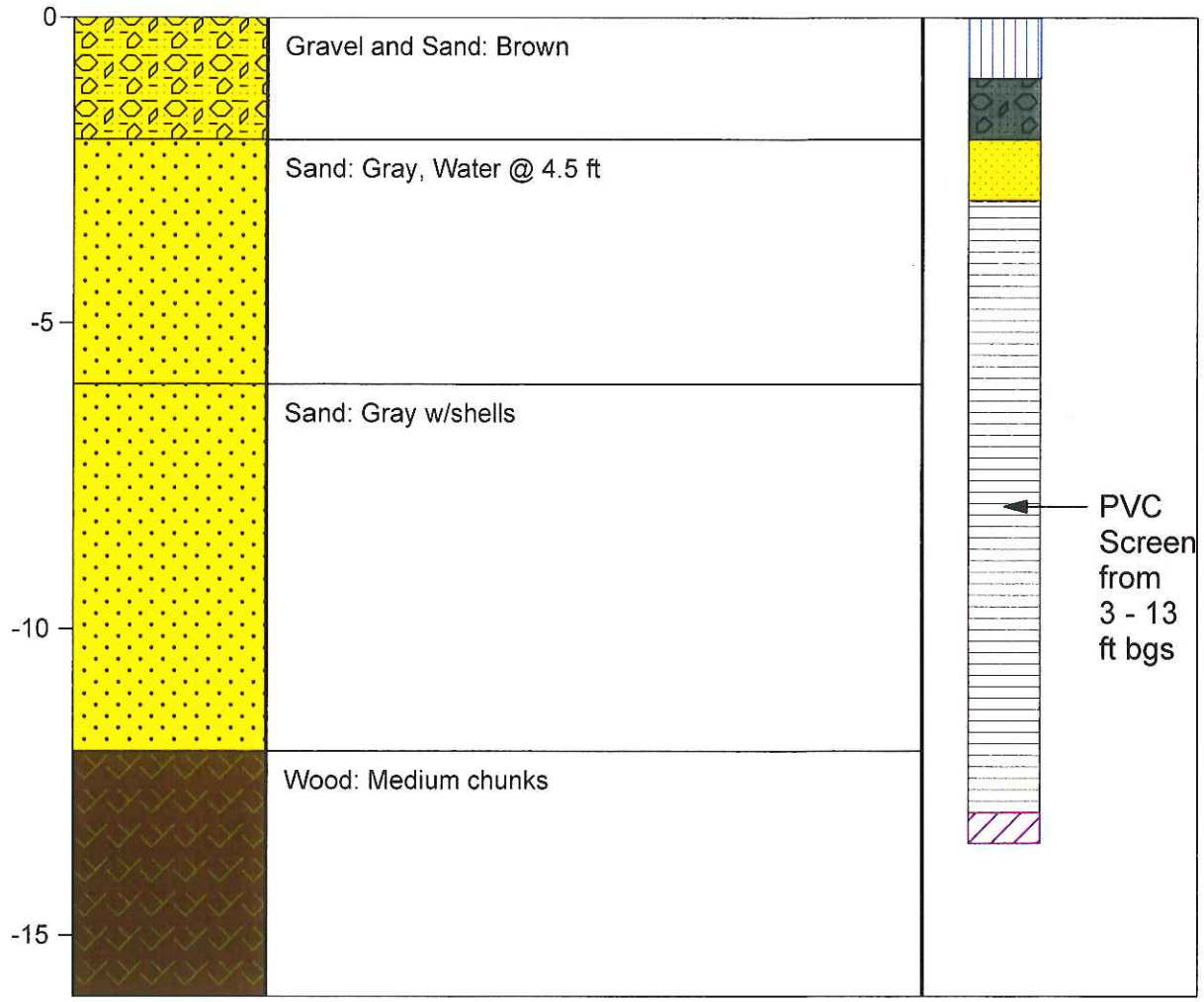
Well Number MW-2

Greylock Consulting LLC
Date: July 31, 2007; 3:53 PM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen

Hardel Olympia

Well Number MW-3

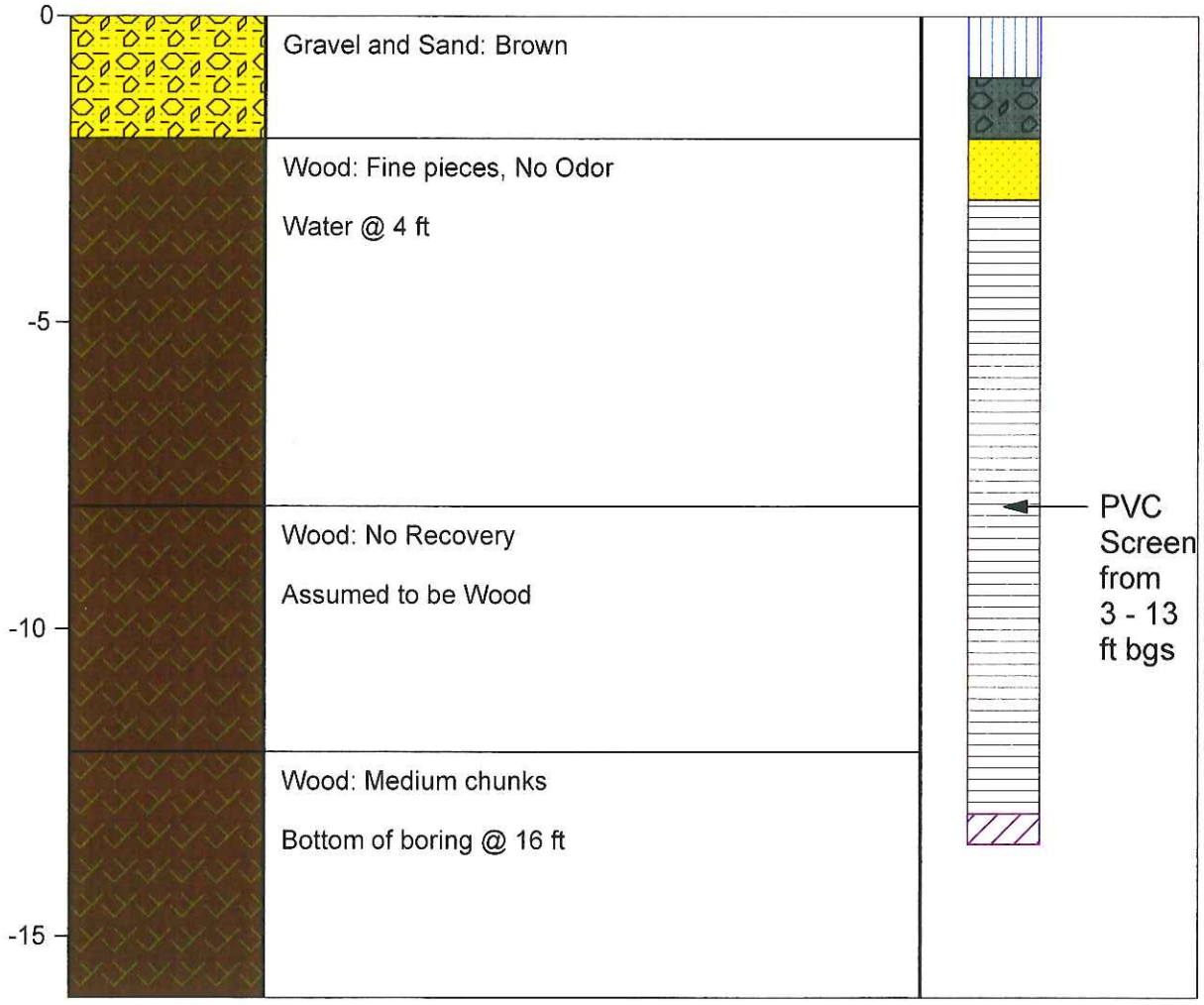
Greylock Consulting LLC
Date: August 1, 2007; 8:45 AM
Elevation: Approx. 11 ft MSL
Field Party: Stemen/Dudziak



Hardel Olympia

Well Number MW-4

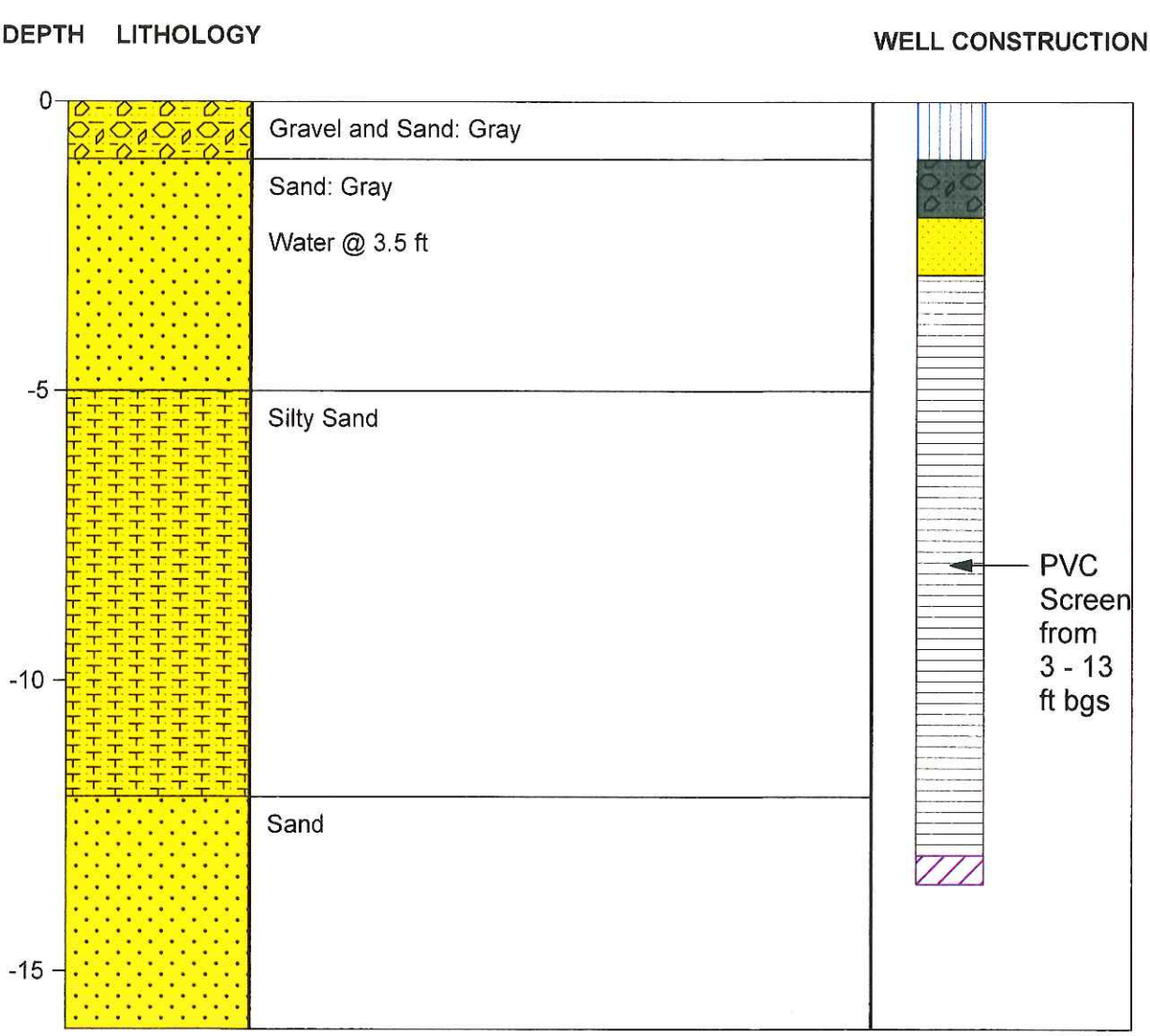
Greylock Consulting LLC
Date: August 1, 2007; 10:30 AM
Elevation: Approx. 11 ft MSL
Field Party: Stemen/Dudziak



Hardel Olympia

Well Number MW-5

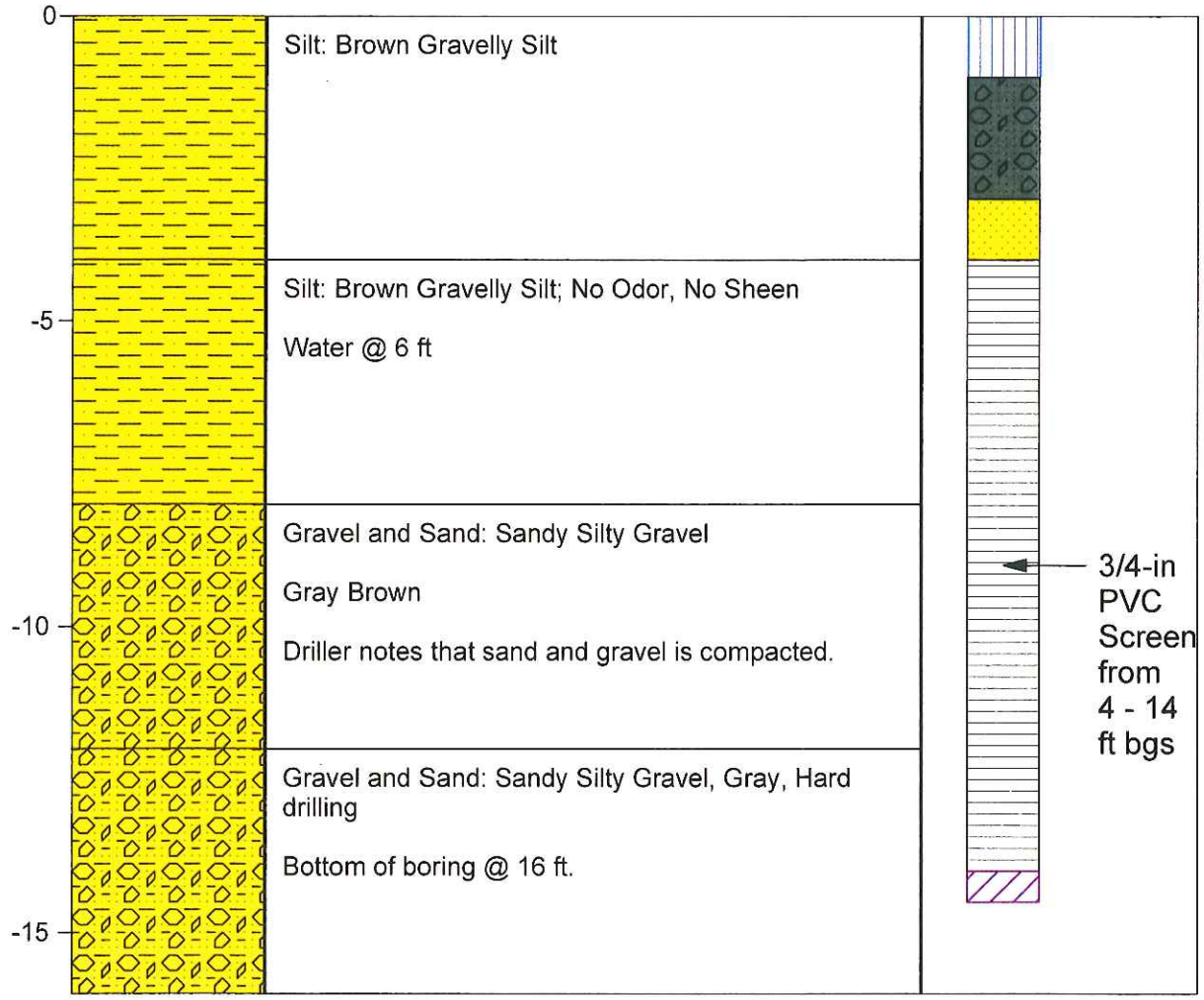
Greylock Consulting LLC
Date: August 1, 2007; 12:00 PM
Elevation: Approx. 11 ft MSL
Field Party: Stemen/Dudziak



Hardel Olympia

Well Number MW-6

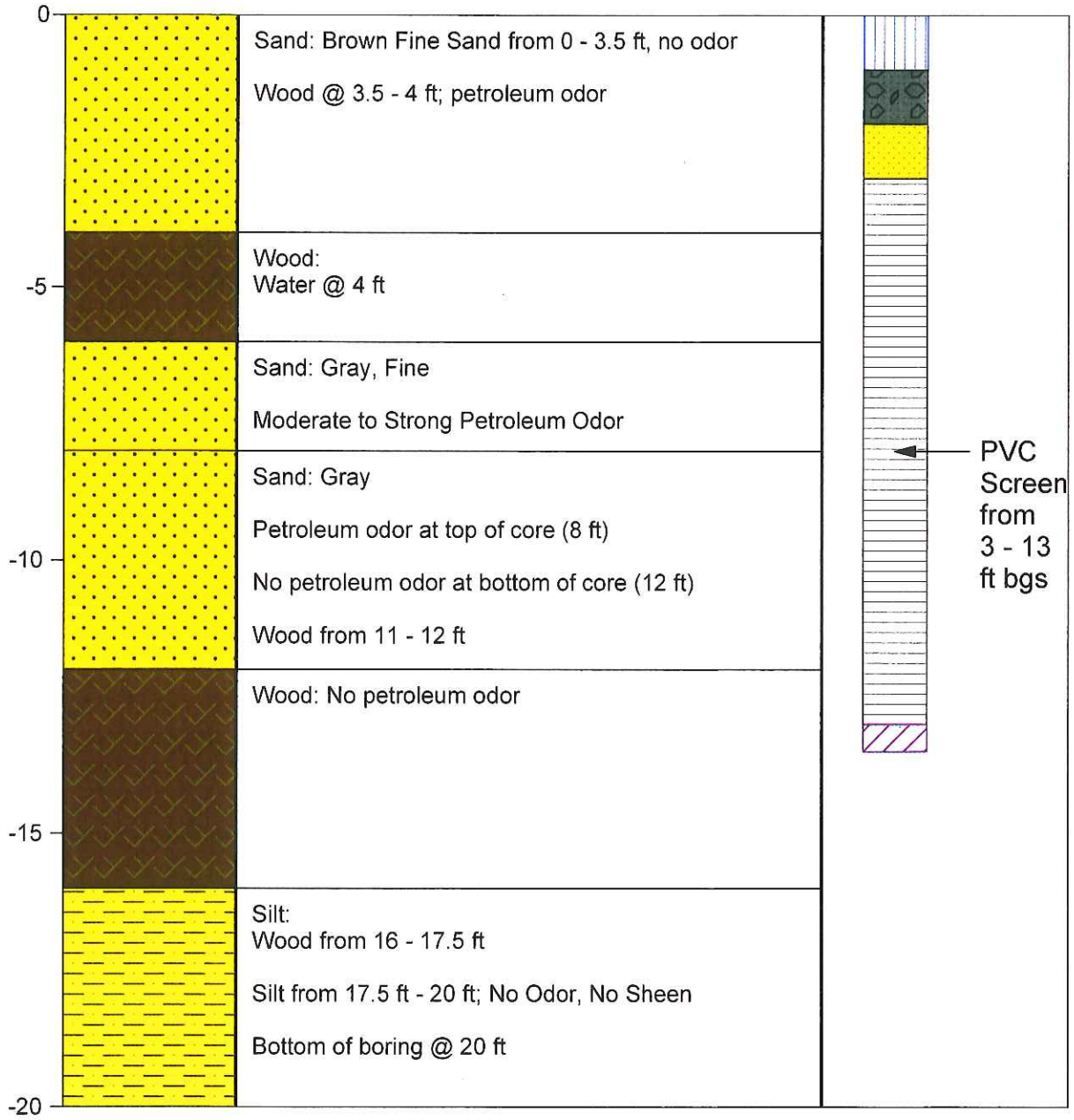
Greylock Consulting LLC
Date: August 1, 2007; 1:39 PM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen



Hardel Olympia

Well Number MW-7

Greylock Consulting LLC
Date: August 1, 2007; 3:07 PM
Elevation: Approx. 11 ft MSL
Field Party: Dudziak/Stemen



Appendix B – Upland Analytical Reports

ESN NORTHWEST CHEMISTRY LABORATORY

Hardel-Olympia PROJECT
Olympia, Washington
Greylock Consulting
Client Project #0364

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Oil (mg/kg)	Mineral Oil (mg/kg)
Method Blank	8/6/2007	90	nd	nd	nd
GB-1-5'	8/6/2007	103	nd	nd	nd
GB-1-10'	8/6/2007	105	nd	nd	nd
GB-2-5'	8/6/2007	108	**260**	**530**	nd
GB-2-10'	8/6/2007	104	nd	**56**	nd
GB-3-5'	8/6/2007	102	nd	nd	nd
GB-3-5' Dup.	8/6/2007	92	nd	nd	nd
GB-4-6'	8/6/2007	105	nd	nd	nd
GB-5-10'	8/6/2007	101	**47**	**60**	nd
GB-5-16'	8/6/2007	100	nd	nd	nd
GB-6-5'	8/6/2007	int.	**3200**	nd	nd
GB-7-6'	8/6/2007	103	**55**	**200**	nd
GB-8-6.5-7.5'	8/6/2007	100	nd	**5000**	nd
GB-8-9'	8/6/2007	103	nd	**1400**	nd
GB-9-5-6'	8/6/2007	108	nd	**520**	nd
GB-10-5'	8/6/2007	102	nd	nd	nd
GB-11-5'	8/6/2007	80	nd	nd	nd
GB-12-5'	8/6/2007	109	nd	nd	nd
GB-12-5' Dup.	8/6/2007	109	nd	nd	nd
Method Detection Limits			20	40	40

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: S. Loague, S. Korosec

ESN NORTHWEST CHEMISTRY LABORATORY

Hardel-Olympia PROJECT
Olympia, Washington
Greylock Consulting
Client Project #0364

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Oil (mg/kg)	Mineral Oil (mg/kg)
Method Blank	8/7/2007	108	nd	nd	nd
GB-13-5'	8/7/2007	100	nd	nd	nd
GB-14-4'	8/7/2007	100	nd	**660**	nd
GB-15-3'	8/7/2007	107	nd	nd	nd
GB-16-5'	8/7/2007		nd	nd	nd
GB-17-4'	8/7/2007	100	**44**	**41**	nd
GB-18-6.5'	8/7/2007	83	nd	nd	nd
MW-1-6'	8/7/2007	int.	nd	**5,600**	nd
MW-1-13'	8/7/2007	87	nd	**940**	nd
GB-19-7'	8/7/2007	119	nd	nd	nd
MW-2-7'	8/7/2007	108	nd	nd	nd
Method Detection Limits			20	40	40

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: S. Loague, S. Korosec

ESN NORTHWEST CHEMISTRY LABORATORY

Hardel-Olympia PROJECT
Olympia, Washington
Greylock Consulting
Client Project #0364

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Oil (mg/kg)	Mineral Oil (mg/kg)
Method Blank	8/8/2007	91	nd	nd	nd
MW-3-4.5'	8/8/2007	126	nd	nd	nd
MW-4-4'	8/8/2007	89	nd	nd	nd
MW-5-3.5'	8/8/2007	106	nd	nd	nd
MW-6-6'	8/8/2007	96	nd	nd	nd
MW-7-6'	8/8/2007	125	**130**	nd	nd
MW-7-10'	8/8/2007	95	nd	nd	nd
Method Detection Limits			20	40	40

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: S. Loague, S. Korosec

ESN NORTHWEST CHEMISTRY LABORATORY

FORMER HARDEL PLYWOOD SITE PROJECT
Olympia, Washington
Greylock Consulting

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (ug/L)	Oil (ug/L)	Mineral Oil (ug/L)
Method Blank	8/13/2007	76	nd	nd	nd
MW-1	8/13/2007	85	nd	**14,000**	nd
MW-2	8/13/2007	71	nd	nd	nd
MW-3	8/13/2007	85	nd	nd	nd
MW-4	8/13/2007	76	nd	nd	nd
MW-5	8/13/2007	93	nd	nd	nd
MW-6	8/13/2007	83	nd	nd	nd
MW-7	8/13/2007	int.	**25,000**	**4,400**	nd
Method Detection Limits			200	400	400

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: M.Olson

ESN NORTHWEST CHEMISTRY LABORATORY

FORMER HARDEL PLYWOOD SITE PROJECT
Olympia, Washington
Greylock Consulting

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analyses of pH (Method 150.1) in Water

Sample Number	Date Analyzed	pH
MW-1	8/10/2007	**6.78**
MW-2	8/10/2007	**6.66**
MW-3	8/10/2007	**6.55**
MW-4	8/10/2007	**6.57**
MW-5	8/10/2007	**6.50**
MW-6	8/10/2007	**7.24**
MW-7	8/10/2007	**6.00**

"nd" Indicates not detected at the listed detection limits

ANALYSES PERFORMED BY: M.Olson

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number:	S70803.4
Client:	Greylock Consulting
Client Job Name:	Handel - Olympic
Client Job Number:	0364

Analytical Results

PAH SIM (8270), mg/kg		MTH BLK	LCS	GB-1-5	GB-2-5	GB-5-10	GB-5-16
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/07/07	08/07/07	08/06/07	08/06/07	08/06/07	08/06/07
Date analyzed	Limits	08/07/07	08/07/07	08/07/07	08/07/07	08/07/07	08/07/07
Moisture, %							
Acenaphthene	0.10	nd	113%	nd	nd	nd	nd
Acenaphthylene	0.10	nd		nd	nd	nd	nd
Anthracene	0.10	nd		nd	nd	**2.4**	**0.18**
Benzo(a)anthracene*	0.10	nd		nd	nd	nd	nd
Benzo(a)pyrene*	0.10	nd	124%	nd	nd	**0.18**	nd
Benzo(b)fluoranthene*	0.10	nd		nd	nd	nd	nd
Benzo(ghi)perylene	0.10	nd		nd	nd	nd	nd
Benzo(k)fluoranthene*	0.10	nd		nd	nd	**0.27**	nd
Chrysene*	0.10	nd		nd	nd	**1.1**	nd
Dibenzo(a,h)anthracene*	0.10	nd		nd	nd	nd	nd
Fluorene	0.10	nd		nd	nd	nd	nd
Fluoranthene	0.10	nd	98%	nd	nd	nd	nd
Indeno(1,2,3-cd)pyrene*	0.10	nd		nd	nd	nd	nd
Naphthalene	0.10	nd		nd	**0.58**	**8.2**	**0.99**
1-Methylnaphthalene	0.10	nd		nd	nd	nd	**0.26**
2-Methylnaphthalene	0.10	nd		nd	nd	nd	**0.43**
Phenanthrene	0.10	nd		nd	nd	nd	**1.3**
Pyrene	0.10	nd		nd	nd	nd	**0.44**
Total Carcinogens				nd	nd	nd	nd
Surrogate recoveries:							
2-Fluorobiphenyl		111%	114%	104%	114%	114%	131%
p-Terphenyl-d14		122%	125%	110%	108%	115%	107%

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte
nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
M - matrix interference
J - estimated value
Results reported on dry-weight basis
Acceptable Recovery limits: 50% TO 150%
Acceptable RPD limit: 35%

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number:	S70803.4
Client:	Greylock Consulting
Client Job Name:	Handel - Olympic
Client Job Number:	0364

Analytical Results		DUP				
PAH SIM (8270), mg/kg		**GB-5-16**	**GB-7-6**	**GB-8-6.5-7.5**	**MW-7-6**	**MW-7-10**
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/06/07	08/06/07	08/06/07	08/06/07	08/06/07
Date analyzed	Limits	08/07/07	08/07/07	08/07/07	08/07/07	08/07/07
Moisture, %						
Acenaphthene	0.10	nd	nd	nd	nd	nd
Acenaphthylene	0.10	nd	nd	nd	nd	nd
Anthracene	0.10	**0.18**	nd	nd	nd	nd
Benzo(a)anthracene*	0.10	nd	nd	nd	nd	nd
Benzo(a)pyrene*	0.10	nd	nd	nd	nd	nd
Benzo(b)fluoranthene*	0.10	nd	nd	nd	nd	nd
Benzo(ghi)perylene	0.10	nd	nd	nd	nd	nd
Benzo(k)fluoranthene*	0.10	nd	nd	nd	nd	nd
Chrysene*	0.10	nd	nd	nd	nd	nd
Dibenzo(a,h)anthracene*	0.10	nd	nd	nd	nd	nd
Fluorene	0.10	nd	nd	nd	nd	nd
Fluoranthene	0.10	nd	nd	nd	nd	nd
Indeno(1,2,3-cd)pyrene*	0.10	nd	nd	nd	nd	nd
Naphthalene	0.10	**0.92**	nd	nd	nd	nd
1-Methylnaphthalene	0.10	**0.24**	nd	nd	**0.40**	nd
2-Methylnaphthalene	0.10	**0.40**	nd	nd	nd	nd
Phenanthrene	0.10	**1.3**	nd	nd	nd	nd
Pyrene	0.10	**0.41**	nd	nd	nd	nd
Total Carcinogens		nd	nd	nd	nd	nd
Surrogate recoveries:						
2-Fluorobiphenyl		95%	115%	130%	107%	134%
p-Terphenyl-d14		128%	112%	101%	103%	101%

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte
nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
M - matrix interference
J - estimated value
Results reported on dry-weight basis
Acceptable Recovery limits: 50% TO 150%
Acceptable RPD limit: 35%

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number:	S70803.4
Client:	Greylock Consulting
Client Job Name:	Handel - Olympic
Client Job Number:	0364

Analytical Results

PAH SIM (8270), mg/kg		MS	MSD	RPD
Matrix	Soil	Soil	Soil	
Date extracted	Reporting	08/06/07	08/06/07	
Date analyzed	Limits	08/07/07	08/07/07	
Moisture, %				
Acenaphthene	0.10	94%	91%	3%
Acenaphthylene	0.10			
Anthracene	0.10			
Benzo(a)anthracene*	0.10			
Benzo(a)pyrene*	0.10			
Benzo(b)fluoranthene*	0.10			
Benzo(ghi)perylene	0.10			
Benzo(k)fluoranthene*	0.10			
Chrysene*	0.10			
Dibenzo(a,h)anthracene*	0.10			
Fluorene	0.10			
Fluoranthene	0.10			
Indeno(1,2,3-cd)pyrene*	0.10			
Naphthalene	0.10			
1-Methylnaphthalene	0.10			
2-Methylnaphthalene	0.10			
Phenanthrene	0.10			
Pyrene	0.10	114%	112%	2%
Total Carcinogens				
Surrogate recoveries:				
2-Fluorobiphenyl		121%	128%	
p-Terphenyl-d14		128%	121%	

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte
nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
M - matrix interference
J - estimated value
Results reported on dry-weight basis
Acceptable Recovery limits: 50% TO 150%
Acceptable RPD limit: 35%

ESN NW BELLEVUE CHEMISTRY LABORATORY
Tel:(425) 957-9872, Fax: (425) 957-9904

ESN Job Number: S70803.4
Client: Greylock Consulting
Client Job Name: Handel - Olympic
Client Job Number: 0364

Analytical Results

8270, mg/kg		MTH BLK	LCS	GB-1-5	GB-2-5	GB-5-10	GB-5-16
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/09/07	08/09/07	08/06/07	08/06/07	08/06/07	08/06/07
Date analyzed	Limits	08/09/07	08/09/07	08/09/07	08/09/07	08/09/07	08/09/07
Moisture, %							
Phenol	1.0	nd		nd	nd	nd	nd
2-Chlorophenol	1.0	nd		nd	nd	nd	nd
2-Methylphenol (o-cresol)	1.0	nd		nd	nd	nd	nd
N-Nitroso-di-n-propylamine	1.0	nd		--	--	--	--
2-Nitrophenol	5.0	nd		nd	nd	nd	nd
4-Nitrophenol	5.0	nd		nd	nd	nd	nd
2,4-Dimethylphenol	1.0	nd		nd	nd	nd	nd
2,4-Dichlorophenol	5.0	nd		nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd		--	--	--	--
Hexachlorobutadiene	1.0	nd	109%	--	--	--	--
4-Chloro-3-methylphenol	5.0	nd		nd	nd	nd	nd
2,4,6-Trichlorophenol	5.0	nd		nd	nd	nd	nd
2,4,5-Trichlorophenol	5.0	nd		nd	nd	nd	nd
2,3,4,6-Tetrachlorophenol	1.0	nd		nd	nd	nd	nd
2,3,5,6-Tetrachlorophenol	1.0	nd		nd	nd	nd	nd
2,4-Dinitrophenol	5.0	nd		nd	nd	nd	nd
4,6-Dinitro-2-methylphenol	5.0	nd		nd	nd	nd	nd
Pentachlorophenol	5.0	nd		nd	nd	nd	nd
Fluoranthene	0.1	nd	105%	--	--	--	--
Pyrene	0.1	nd		--	--	--	--
Surrogate recoveries							
2-Fluorophenol		115%		36%	56%	68%	64%
Phenol-d6		100%		32%	50%	64%	61%
Nitrobenzene-d5		84%	50%	69%	91%	94%	116%
2-Fluorobiphenyl		117%	80%	109%	128%	128%	122%
2,4,6-Tribromophenol		121%		109%	129%	121%	118%
4-Terphenyl-d14		116%	67%	102%	105%	124%	106%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
"--' Not reported
Soil values based on wet weight
Acceptable Recovery limits:
2-Flurophenol: 10-135 %
Phenol - d5: 10-135 %
2,4,6- tribromophenol: 29-159%
Nitrobenzene - d5: 20-120 %
2-Flurobiphenyl: 50-150%
p-Terphenyl-d14: 50-150%
Acceptable RPD limit: 35%

ESN NW BELLEVUE CHEMISTRY LABORATORY
Tel:(425) 957-9872, Fax: (425) 957-9904

ESN Job Number: S70803.4
Client: Greylock Consulting
Client Job Name: Handel - Olympic
Client Job Number: 0364

Analytical Results		DUP					
8270, mg/kg		**GB-5-16**	**GB-7-6**	**GB-8-6.5-7.5**	**MW-7-6**	**MW-7-10**	**MS**
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/06/07	08/06/07	08/06/07	08/06/07	08/06/07	08/06/07
Date analyzed	Limits	08/09/07	08/09/07	08/09/07	08/09/07	08/09/07	08/09/07
Moisture, %							
Phenol	1.0	nd	nd	nd	nd	nd	102%
2-Chlorophenol	1.0	nd	nd	nd	nd	nd	114%
2-Methylphenol (o-cresol)	1.0	nd	nd	nd	nd	nd	
N-Nitroso-di-n-propylamine	1.0	--	--	--	--	--	96%
2-Nitrophenol	5.0	nd	nd	nd	nd	nd	
4-Nitrophenol	5.0	nd	nd	nd	nd	nd	69%
2,4-Dimethylphenol	1.0	nd	nd	nd	nd	nd	
2,4-Dichlorophenol	5.0	nd	nd	nd	nd	nd	
1,2,4-Trichlorobenzene	1.0	--	--	--	--	--	101%
Hexachlorobutadiene	1.0	--	--	--	--	--	
4-Chloro-3-methylphenol	5.0	nd	nd	nd	nd	nd	85%
2,4,6-Trichlorophenol	5.0	nd	nd	nd	nd	nd	
2,4,5-Trichlorophenol	5.0	nd	nd	nd	nd	nd	
2,3,4,6-Tetrachlorophenol	1.0	nd	nd	nd	nd	nd	
2,3,5,6-Tetrachlorophenol	1.0	nd	nd	nd	nd	nd	
2,4-Dinitrophenol	5.0	nd	nd	nd	nd	nd	
4,6-Dinitro-2-methylphenol	5.0	nd	nd	nd	nd	nd	
Pentachlorophenol	5.0	nd	nd	nd	nd	nd	106%
Fluoranthene	0.1	--	--	--	--	--	
Pyrene	0.1	--	--	--	--	--	82%
Surrogate recoveries							
2-Fluorophenol		62%	65%	62%	62%	63%	91%
Phenol-d6		59%	62%	60%	57%	60%	127%
Nitrobenzene-d5		84%	97%	81%	79%	80%	123%
2-Fluorobiphenyl		116%	126%	121%	123%	121%	108%
2,4,6-Tribromophenol		95%	99%	115%	102%	126%	123%
4-Terphenyl-d14		126%	113%	121%	129%	120%	102%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
"--' Not reported
Soil values based on wet weight
Acceptable Recovery limits:
2-Flurophenol: 10-135 %
Phenol - d5: 10-135 %
2,4,6- tribromophenol: 29-159%
Nitrobenzene - d5: 20-120 %
2-Flurobiphenyl: 50-150%
p-Terphenyl-d14: 50-150%
Acceptable RPD limit: 35%

ESN NW BELLEVUE CHEMISTRY LABORATORY
Tel:(425) 957-9872, Fax: (425) 957-9904

ESN Job Number:	S70803.4
Client:	Greylock Consulting
Client Job Name:	Handel - Olympic
Client Job Number:	0364

Analytical Results

8270, mg/kg		MSD	RPD
Matrix	Soil	Soil	
Date extracted	Reporting	08/06/07	
Date analyzed	Limits	08/09/07	
Moisture, %			
Phenol	1.0	102%	0%
2-Chlorophenol	1.0	107%	6%
2-Methylphenol (o-cresol)	1.0		
N-Nitroso-di-n-propylamine	1.0	96%	0%
2-Nitrophenol	5.0		
4-Nitrophenol	5.0	66%	4%
2,4-Dimethylphenol	1.0		
2,4-Dichlorophenol	5.0		
1,2,4-Trichlorobenzene	1.0	101%	0%
Hexachlorobutadiene	1.0		
4-Chloro-3-methylphenol	5.0	84%	1%
2,4,6-Trichlorophenol	5.0		
2,4,5-Trichlorophenol	5.0		
2,3,4,6-Tetrachlorophenol	1.0		
2,3,5,6-Tetrachlorophenol	1.0		
2,4-Dinitrophenol	5.0		
4,6-Dinitro-2-methylphenol	5.0		
Pentachlorophenol	5.0	98%	8%
Fluoranthene	0.1		
Pyrene	0.1	83%	1%

Surrogate recoveries	
2-Fluorophenol	125%
Phenol-d6	116%
Nitrobenzene-d5	122%
2-Fluorobiphenyl	132%
2,4,6-Tribromophenol	124%
4-Terphenyl-d14	107%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
"--' Not reported
Soil values based on wet weight
Acceptable Recovery limits:
2-Flurophenol: 10-135 %
Phenol - d5: 10-135 %
2,4,6- tribromophenol: 29-159%
Nitrobenzene - d5: 20-120 %
2-Flurobiphenyl: 50-150%
p-Terphenyl-d14: 50-150%
Acceptable RPD limit: 35%

ESN NW BELLEVUE CHEMISTRY LABORATORY
Tel:(425) 957-9872, Fax: (425) 957-9904

ESN Job Number: S70813.2
Client: Greylock Consulting
Client Job Name: Former Hardel Plywood Site
Client Job Number: 070809

Analytical Results

8270, µg/L		MTH BLK	LCS	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MS
Matrix	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07
Date analyzed	Limits	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07
Pyridine	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Aniline	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Phenol	2.0	nd		nd	nd	nd	nd	nd	nd	nd	113%
2-Chlorophenol	2.0	nd		nd	nd	nd	nd	nd	nd	nd	127%
Bis (2-chloroethyl) ether	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
1,3-Dichlorobenzene	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
1,4-Dichlorobenzene	2.0	nd	126%	nd	nd	nd	nd	nd	nd	nd	91%
1,2-Dichlorobenzene	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Benzyl alcohol	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
2-Methylphenol (o-cresol)	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Bis (2-chloroisopropyl) ether	10.0	nd		nd	nd	nd	nd	nd	nd	nd	
3,4-Methylphenol (m,p-cresol)	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Hexachlorethane	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
N-Nitroso-di-n-propylamine	2.0	nd		nd	nd	nd	nd	nd	nd	nd	98%
Nitrobenzene	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Isophorone	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
2-Nitrophenol	10.0	nd		nd	nd	nd	nd	nd	nd	nd	
4-Nitrophenol	10.0	nd		nd	nd	nd	nd	nd	nd	nd	71%
2,4-Dimethylphenol	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Bis (2-chloroethoxy) methane	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
2,4-Dichlorophenol	10.0	nd		nd	nd	nd	nd	nd	nd	nd	
1,2,4-Trichlorobenzene	2.0	nd		nd	nd	nd	nd	nd	nd	nd	116%
Naphthalene	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
4-Chloroaniline	10.0	nd		nd	nd	nd	nd	nd	nd	nd	
Hexachlorobutadiene	2.0	nd	121%	nd	nd	nd	nd	nd	nd	nd	
4-Chloro-3-methylphenol	10.0	nd		nd	nd	nd	nd	nd	nd	nd	85%
2-Methylnapthalene	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
1-Methylnapthalene	2.0	nd		nd	nd	nd	8.2	nd	nd	17	
Hexachlorocyclopentadiene	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
2,4,6-Trichlorophenol	10.0	nd		nd	nd	nd	nd	nd	nd	nd	
2,4,5-Trichlorophenol	10.0	nd		nd	nd	nd	nd	nd	nd	nd	
2-Chloronaphthalene	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
2-Nitroaniline	10.0	nd		nd	nd	nd	nd	nd	nd	nd	
1,4-Dinitrobenzene	10.0	nd		nd	nd	nd	nd	nd	nd	nd	
Dimethylphthalate	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Acenaphthylene	0.2	nd		nd	nd	nd	nd	nd	nd	nd	
1,3-Dinotrobenzene	10.0	nd		nd	nd	nd	nd	nd	nd	nd	
2,6-Dinitrotoluene	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
1,2-Dinitrobenzene	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Acenaphthene	0.2	nd	101%	nd	nd	nd	nd	nd	nd	8.3	91%
3-Nitroaniline	10.0	nd		nd	nd	nd	nd	nd	nd	nd	
Dibenzofuran	2.0	nd		nd	nd	nd	nd	nd	nd	4.0	
2,4-Dinitrotoluene	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
2,3,4,6-Tetrachlorophenol	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
2,3,5,6-Tetrachlorophenol	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
2,4-Dinitrophenol	10.0	nd		nd	nd	nd	nd	nd	nd	nd	
Fluorene	0.2	nd		nd	nd	1.2	nd	nd	nd	nd	

ESN NW BELLEVUE CHEMISTRY LABORATORY
Tel:(425) 957-9872, Fax: (425) 957-9904

ESN Job Number: S70813.2
Client: Greylock Consulting
Client Job Name: Former Hardel Plywood Site
Client Job Number: 070809

Analytical Results

8270, µg/L		MTH BLK	LCS	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MS
Matrix	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07
Date analyzed	Limits	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07	08/15/07
4-Chlorophenylphenylether	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Diethylphthalate	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
4-Nitroaniline	10.0	nd		nd	nd	nd	nd	nd	nd	nd	
4,6-Dinitro-2-methylphenol	10.0	nd		nd	nd	nd	nd	nd	nd	nd	
N-nitrosodiphenylamine	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Azobenzene	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
4-Bromophenylphenylether	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Hexachlorobenzene	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Pentachlorophenol	10.0	nd		nd	nd	nd	nd	nd	nd	nd	102%
Phenanthrene	0.2	nd		nd	nd	nd	nd	nd	nd	5.2	
Anthracene	0.2	nd		nd	nd	nd	nd	nd	nd	nd	
Carbazole	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Di-n-butylphthalate	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Fluoranthene	0.2	nd	104%	nd	nd	nd	nd	nd	nd	nd	
Pyrene	0.2	nd		nd	nd	nd	nd	nd	nd	nd	80%
Butylbenzylphthalate	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Bis(2-ethylhexyl) adipate	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Benzo(a)anthracene	0.2	nd		nd	nd	nd	nd	nd	nd	nd	
Chrysene	0.2	nd		nd	nd	nd	nd	nd	nd	nd	
Bis (2-ethylhexyl) phthalate	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Di-n-octyl phthalate	2.0	nd		nd	nd	nd	nd	nd	nd	nd	
Benzo(b)fluoranthene	0.2	nd		nd	nd	nd	nd	nd	nd	nd	
Benzo(k)fluoranthene	0.2	nd		nd	nd	nd	nd	nd	nd	nd	
Benzo(a)pyrene	0.2	nd		nd	nd	nd	nd	nd	nd	nd	
Dibenzo(a,h)anthracene	0.2	nd		nd	nd	nd	nd	nd	nd	nd	
Benzo(ghi)perylene	0.2	nd		nd	nd	nd	nd	nd	nd	nd	
Indeno(1,2,3-cd)pyrene	0.2	nd		nd	nd	nd	nd	nd	nd	nd	
Surrogate recoveries											
2-Fluorophenol		81%		M	M	M	M	M	M	M	105%
Phenol-d6		77%		M	M	M	M	M	M	M	103%
Nitrobenzene-d5		72%	50%	61%	54%	45%	52%	52%	38%	60%	109%
2-Fluorobiphenyl		118%	74%	98%	126%	84%	126%	123%	70%	61%	121%
2,4,6-Tribromophenol		103%		79%	30%	19%	31%	24%	M	36%	128%
4-Terphenyl-d14		107%	65%	101%	116%	76%	115%	111%	54%	45%	112%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
C - coelution with sample peaks
M - matrix interference
Acceptable Recovery limits:
2-Flurophenol: 10-135 %
Phenol - d5: 10-135 %
2,4,6- tribromophenol: 19-159%
Nitrobenzene - d5: 20-120 %
2-Flurobiphenyl: 50-150%
p-Terphenyl-d14: 40-150%
Acceptable RPD limit: 35%

ESN NW BELLEVUE CHEMISTRY LABORATORY
Tel:(425) 957-9872, Fax: (425) 957-9904

ESN Job Number:	S70813.2
Client:	Greylock Consulting
Client Job Name:	Former Hardel Plyw
Client Job Number:	070809

Analytical Results

8270, µg/L		MSD	RPD
Matrix	Water	Water	
Date extracted	Reporting	08/15/07	
Date analyzed	Limits	08/15/07	
Pyridine	2.0		
Aniline	2.0		
Phenol	2.0	118%	4%
2-Chlorophenol	2.0	129%	2%
Bis (2-chloroethyl) ether	2.0		
1,3-Dichlorobenzene	2.0		
1,4-Dichlorobenzene	2.0	92%	1%
1,2-Dichlorobenzene	2.0		
Benzyl alcohol	2.0		
2-Methylphenol (o-cresol)	2.0		
Bis (2-chloroisopropyl) ether	10.0		
3,4-Methylphenol (m,p-cresol)	2.0		
Hexacholorethane	2.0		
N-Nitroso-di-n-propylamine	2.0	94%	4%
Nitrobenzene	2.0		
Isophorone	2.0		
2-Nitrophenol	10.0		
4-Nitrophenol	10.0	66%	7%
2,4-Dimethylphenol	2.0		
Bis (2-chloroethoxy) methane	2.0		
2,4-Dichlorophenol	10.0		
1,2,4-Trichlorobenzene	2.0	116%	0%
Naphthalene	2.0		
4-Chloroaniline	10.0		
Hexachlorobutadiene	2.0		
4-Chloro-3-methylphenol	10.0	84%	1%
2-Methylnapthalene	2.0		
1-Methylnapthalene	2.0		
Hexachlorocyclopentadiene	2.0		
2,4,6-Trichlorophenol	10.0		
2,4,5-Trichlorophenol	10.0		
2-Chloronaphthalene	2.0		
2-Nitroaniline	10.0		
1,4-Dinitrobenzene	10.0		
Dimethylphthalate	2.0		
Acenaphthylene	0.2		
1,3-Dinotrobenzene	10.0		
2,6-Dinitrotoluene	2.0		
1,2-Dinitrobenzene	2.0		
Acenaphthene	0.2	87%	4%
3-Nitroaniline	10.0		
Dibenzofuran	2.0		
2,4-Dinitrotoluene	2.0		
2,3,4,6-Tetrachlorophenol	2.0		
2,3,5,6-Tetrachlorophenol	2.0		
2,4-Dinitrophenol	10.0		
Fluorene	0.2		
4-Chlorophenylphenylether	2.0		
Diethylphthalate	2.0		
4-Nitroaniline	10.0		
4,6-Dinitro-2-methylphenol	10.0		
N-nitrosodiphenylamine	2.0		
Azobenzene	2.0		
4-Bromophenylphenylether	2.0		
Hexachlorobenzene	2.0		
Pentachlorophenol	10.0	88%	15%
Phenanthrene	0.2		
Anthracene	0.2		
Carbazole	2.0		
Di-n-butylphthalate	2.0		
Fluoranthene	0.2		
Pyrene	0.2	81%	1%
Butylbenzylphthalate	2.0		
Bis(2-ethylhexyl) adipate	2.0		
Benzo(a)anthracene	0.2		
Chrysene	0.2		
Bis (2-ethylhexyl) phthalate	2.0		
Di-n-octyl phthalate	2.0		
Benzo(b)fluoranthene	0.2		
Benzo(k)fluoranthene	0.2		
Benzo(a)pyrene	0.2		
Dibenzo(a,h)anthracene	0.2		
Benzo(ghi)perylene	0.2		
Indeno(1,2,3-cd)pyrene	0.2		

Surrogate recoveries	
2-Fluorophenol	100%
Phenol-d6	114%

ESN NW BELLEVUE CHEMISTRY LABORATORY
Tel:(425) 957-9872, Fax: (425) 957-9904

ESN Job Number:	S70813.2
Client:	Greylock Consulting
Client Job Name:	Former Hardel Plyw
Client Job Number:	070809

Analytical Results

8270, µg/L		MSD	RPD
Matrix	Water	Water	
Date extracted	Reporting	08/15/07	
Date analyzed	Limits	08/15/07	
Nitrobenzene-d5		109%	
2-Fluorobiphenyl		130%	
2,4,6-Tribromophenol		120%	
4-Terphenyl-d14		119%	

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
C - coelution with sample peaks
M - matrix interference
Acceptable Recovery limits:
2-Flurophenol: 10-135 %
Phenol - d5: 10-135 %
2,4,6- tribromophenol: 19-159%
Nitrobenzene - d5: 20-120 %
2-Flurobiphenyl: 50-150%
p-Terphenyl-d14: 40-150%
Acceptable RPD limit: 35%

SPECTRA Laboratories

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

08/21/2007

ESN Northwest
1210 Eastside St. S.E.
Suite 200
Olympia, WA 98501
Attn: Julie Woods

Project: Grey/Ock/Hardel
Sample Matrix: Water
Date Sampled: 08/13/2007
Date Received: 08/13/2007
Spectra Project: 2007080201

Client ID	Spectra #	Analyte	Result	Units	Method
MW-3	1	Salinity	0.55		SM2520B
MW-4	2	Salinity	0.47		SM2520B
MW-5	3	Salinity	0.56		SM2520B
MW-6	4	Salinity	0.14		SM2520B

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a7/scj

ESN NORTHWEST | Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: Suzanne Dudziak

ADDRESS: Greylock Consulting PO Box 23254 Federal Way WA

PHONE: 253 941 0654 FAX: 253 941 2705

CLIENT PROJECT #: 0364 PROJECT MANAGER: SD

DATE: 7-30-07 PAGE 1 OF 2

PROJECT NAME: Handel - Olympia

LOCATION: 1210 West Bay Dr

COLLECTOR: S Dudziak DATE OF COLLECTION 7/30

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	TPH - HCID	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (d & o)	PAH 8100	PAH 8270	PCBs 8082	Pesticides 8081	ASBESTOS-PLM	RCRA 8	MTCA 5	Pb	NOTES	Total Number of Containers	Laboratory Note Number
1. GB-1-5'	5'	810	S	2 containers																		2	
2. GB-1-10'	10'	817	S																			2	
3. GB-2-5'	5	849	S																			2	
4. GB-2-10'	10	855	S																			2	
5. GB-2-13.5	13.5	902	S																				
6. GB-3-5'	5'	931	S																				
7. GB-3-10'	10	940	S																				
8. GB-4-6'	4-6	1001	S																				
9. GB-4-11.5	11.5	1010	S																			2	
10 GB-5-10	10	1055	S																			2	
11. GB-5-16	16	1112	S																				
12. GB-5-17	17	1124	S																				
13. GB-6-5	5	1144	S																			2	
14. GB-6-10	10	1151	S																				
15. GB-5-15.5	15.5	1110	S																				
16. GB-7-6'	6	1300	S																				
17. GB-7-12	12	1304	S																				
18. GB-7-13	13	1306	S																				

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
[signature]	7/30/07 1650	[signature]	7-30-07 1658
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ ESN DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND /COLD	
NOTES:	

LABORATORY NOTES: EMAILED
Wait to Run until you recieve a call from Suzanne

Turn Around Time: 24 HR 48 HR 5 DAY

ESN NORTHWEST | Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: Suzanne Dudziak
ADDRESS: Greylock Consulting PO Box 23254 Federal Way WA
PHONE: 253 941 0654 FAX: 253 941 2705
CLIENT PROJECT #: 0364 PROJECT MANAGER: SD

DATE: 7-30-07 PAGE 2 OF 2
PROJECT NAME: Handel - Olympic
LOCATION: 1210 W Bay Drive
COLLECTOR: S Dudziak DATE OF COLLECTION 7/30

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	TPH - HCID	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (d & o)	PAH 8100	PAH 8270	PCBs 8082	Pesticides 8081	ASBESTOS-PLM	RCRA 8	MTCA 5	Pb	NOTES	Total Number of Containers	Laboratory Note Number
1. GB-7-17	17	1320	S																				
2. GB-8-6.5-7.5	6.5-7.5	1337	S																			2	
3. GB-8-9	9	1348	S																				
4. ~~GB-8~~																							
5. GB-9-5-6'	5-6'	1400	S																			2	
6. GB-9-10'	10'	1410	S																			2	
7. GB-9-15'	15'	1420	S																				
8. GB-10-5'	5'	1444	S																				
9. GB11-5	5	1505	S																				
10. GB-11-8	8	1515	S																				
11. GB-11-14	14	1525	S																				
12. GB-12-5	5	1600	S																				
13.																							
14.																							
15.																							
16.																							
17.																							
18.																							

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
[signature]	7/31/07 1650	[signature]	7-30-07 1650
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ ESN DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND /COLD	
NOTES:	

LABORATORY NOTES:
Wait to run until notified by Suzanne

Turn Around Time: 24 HR 48 HR 5 DAY

ESN NORTHWEST | Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: Grey Rock Consulting LLC

ADDRESS: PO Box 23254 Federal Way

PHONE: 253 941 0654 FAX: 253 941 2705

CLIENT PROJECT #: Hansler PROJECT MANAGER: S. Dudziak

DATE: 7/31/07 PAGE 1 OF

PROJECT NAME: Hansler

LOCATION: Olympia, WA

COLLECTOR: Paul Stenger DATE OF COLLECTION 7/31

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	TPH - HCID	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (d & o)	PAH 8100	PAH 8270	PCBs 8082	Pesticides 8081	ASBESTOS-PLM	RCRA 8	MTCA 5	Pb	NOTES	Total Number of Containers	Laboratory Note Number
1. GB13-5	5	810	S	Jar																			
2. GB14-4	4	840	S	"																			
3. GB14-11	11	850	S	"																			
4. GB15-3	3	1010	S	"																			
5. GB15-11	11	1015	S	"																			
6. GB16-5	5	950	S	"																			
7. GB16-11	11	955	S	"																			
8. GB17-4	4	1135	S	"																			
9. GB17-8	8	1120	S	"																			
10. GB18-6.5	6.5	1351	S																			2	
11. MW-1-6	6	1211	S																				
12. MW-1-13	13	1226	S																				
13. GB-19-7'	7	1431	S																				
14. MW-2-7'	7	1603	S																			1	
15. MW-2-12'	12	1611	S																			1	
16.																							
17.																							
18.																							

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Sean Dudziak	7-31 1615	[signature]	7-31 1615
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ ESN DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND /COLD	
NOTES:	

LABORATORY NOTES: ~~HOLD~~ EMAILED Suzanne will call with instructions

Turn Around Time: 24 HR 48 HR 5 DAY

ESN NORTHWEST | Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: Greyhawk Consulting LLC
ADDRESS: PO Box 23254 Federal Wy WA
PHONE: 253-941-0654 FAX: 253-941
CLIENT PROJECT #: Harbor PROJECT MANAGER: S Dudziak

DATE: 8/1/07 PAGE 1 OF 1
PROJECT NAME: Harbor
LOCATION: Olympia, WA
COLLECTOR: P. Stevens / S Dudziak DATE OF COLLECTION 8/1/07

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	TPH - HCID	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (d & o)	PAH 8100	PAH 8270	PCBs 8082	Pesticides 8081	ASBESTOS-PLM	RCRA 8	MTCA 5	Pb	NOTES	Total Number of Containers	Laboratory Note Number
1. MW-3-4.5	4.5	835	S	JAR																		1	
2. MW-3-6	6	900	S																			1	
3. MW-3-11	11	905	S																			1	
4. MW 4-4	4	1040	S																			1	
5. MW 5-3.5	3.5	1009	S																			1	
6. MW6-6'	6'	1351	S																			6	
7. MW7-6'	6'	1516	S																			2	
8. MW7-10'	10'	1524	S																			2	
9. MW7-17.5'	17.5	1541	S																			1	
10.																							
11.																							
12.																							
13.																							
14.																							
15.																							
16.																							
17.																							
18.																							

EMAILED

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
[signature]	8/1/07 1220	1220 [signature]	8/1/07
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Sylvie Dudziak	8/1/07	[signature]	8-1-07 / 3553

SAMPLE DISPOSAL INSTRUCTIONS
☐ ESN DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND /COLD	
NOTES:	

LABORATORY NOTES:
HOLD - Suzanne will call or email with instructions

Turn Around Time: 24 HR 48 HR 5 DAY

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS # 070809-PW1

CLIENT: Greylock Consulting

SITE: Former Hardel Plywood Site
1210 West Bay Drive NW
Olympia, WA

LAB: ESN | DHS #

MUST MEET SPECIFICATIONS
☐ EPA ☐ LIA ☐ OTHER ☐ RWQCB REGION

SPECIAL INSTRUCTIONS

Invoice and Report to: Greylock Attn: Suzanne Dudziak
253-641-0654
greylockllc@comcast.net

SAMPLE I.D.	DATE	TIME	MATRIX S = Soil W = H2O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: NWWTPH-D-Extended	SVOCs by 8270	pH	Salinity					ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1	8/9	1200	W	3		X	X	X									
MW-2	"	1225	"	"		X	X	X									
MW-3	"	1215	"	"		X	X	X	X								
MW-4	"	1210	"	"		X	X	X	X								
MW-5	"	1205	"	"		X	X	X	X								
MW-6	"	1145	"	"		X	X	X	X								
MW-7	"	1230	"	"		X	X	X									

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY
	8/9/07		D. Koskela

RESULTS NEEDED NO LATER THAN: As Contracted

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
D. Koskela	8/9/07	1250	Anna Hamden	8/9/07	12:50pm
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

5-day

ESN NORTHWEST CHEMISTRY LABORATORY

FORMER HARDEL PLYWOOD SITE PROJECT
Olympia, Washington
Greylock Consulting
Client Project #0364

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Oil (mg/kg)	Mineral Oil (mg/kg)
Method Blank	8/24/2007	84	nd	nd	nd
GB-6-10'	8/24/2007	85	nd	nd	nd
GB-8-9'	8/24/2007	75	nd	**300**	nd
GB-8-9' Dup.	8/24/2007	82	nd	**520**	nd
Method Detection Limits			20	40	40

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: M.Olson

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number: S70823.2
Client: Greylock Consulting
Client Job Name: Hardel - Olympic
Client Job Number: 0364

Analytical Results

PAH(8270), mg/kg		MTH BLK	LCS	GB-6-5	MW-1-6	MS	MSD	RPD
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Date extracted	Reporting	08/29/07	08/29/07	08/27/07	08/27/07	08/27/07	08/27/07	
Date analyzed	Limits	08/29/07	08/29/07	08/29/07	08/29/07	08/29/07	08/29/07	
Moisture, %								
Acenaphthene	0.10	nd	112%	**0.85**	nd	94%	91%	3%
Acenaphthylene	0.10	nd		nd	nd			
Anthracene	0.10	nd		**0.12**	nd			
Benzo(a)anthracene*	0.10	nd		nd	nd			
Benzo(a)pyrene*	0.10	nd	93%	nd	nd			
Benzo(b)fluoranthene*	0.10	nd		nd	nd			
Benzo(ghi)perylene	0.10	nd		nd	nd			
Benzo(k)fluoranthene*	0.10	nd		nd	nd			
Chrysene*	0.10	nd		nd	nd			
Dibenzo(a,h)anthracene*	0.10	nd		nd	nd			
Fluorene	0.10	nd		nd	nd			
Fluoranthene	0.10	nd	120%	**0.14**	nd			
Indeno(1,2,3-cd)pyrene*	0.10	nd		nd	nd			
Naphthalene	0.10	nd		**0.14**	nd			
1-Methylnaphthalene	0.10	nd		nd	nd			
2-Methylnaphthalene	0.10	nd		**0.15**	nd			
Phenanthrene	0.10	nd		**1.4**	nd			
Pyrene	0.10	nd		**0.13**	**0.23**	110%	108%	2%
Total Carcinogens				nd	nd			
Surrogate recoveries:								
2-Fluorobiphenyl		115%	114%	120%	111%	114%	126%	
p-Terphenyl-d14		114%	111%	118%	118%	125%	105%	

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte
nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
M - matrix interference
J - estimated value
Results reported on dry-weight basis
Acceptable Recovery limits: 50% TO 150%
Acceptable RPD limit: 35%

Appendix C – Sediment Analytical Reports

Organic Analysis:
Organochlorine Pesticides

Summary Package

Sample and QC Results

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis

Service Request: K0707362

Cover Page - Organic Analysis Data Package
Organochlorine Pesticides

Sample Name	Lab Code	Date Collected	Date Received
GS-1	K0707362-001	08/13/2007	08/16/2007
GS-2	K0707362-002	08/13/2007	08/16/2007
GS-3	K0707362-003	08/13/2007	08/16/2007
GS-4	K0707362-004	08/13/2007	08/16/2007
GS-4MS	KWG0709249-1	08/13/2007	08/16/2007
GS-4DMS	KWG0709249-2	08/13/2007	08/16/2007

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case-narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Ajith Kumar

Date: 10/5/07 Title: Scientist

u:\Stealth\Crystal.rpt\FormSSum.rpt SuperSet Reference: RR77674

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	08/13/2007
Sample Matrix:	Sediment	**Date Received:**	08/16/2007

Organochlorine Pesticides

Sample Name:	GS-1	**Units:**	ug/Kg
Lab Code:	K0707362-001	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8081A		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
beta-BHC	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
gamma-BHC (Lindane)	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
delta-BHC	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Heptachlor	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Aldrin	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Heptachlor Epoxide	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
gamma-Chlordane†	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Endosulfan I	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
alpha-Chlordane	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Dieldrin	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
4,4'-DDE	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Endrin	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Endosulfan II	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
4,4'-DDD	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Endrin Aldehyde	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Endosulfan Sulfate	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
4,4'-DDT	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Endrin Ketone	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Methoxychlor	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Toxaphene	ND	U	250	1	08/27/07	10/01/07	KWG0709249	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	37	32-138	10/01/07	Acceptable
Decachlorobiphenyl	72	23-162	10/01/07	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	08/13/2007
Sample Matrix:	Sediment	**Date Received:**	08/16/2007

Organochlorine Pesticides

Sample Name:	GS-2	**Units:**	ug/Kg
Lab Code:	K0707362-002	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8081A		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
beta-BHC	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
gamma-BHC (Lindane)	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
delta-BHC	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
Heptachlor	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
Aldrin	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
Heptachlor Epoxide	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
gamma-Chlordane†	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
Endosulfan I	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
alpha-Chlordane	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
Dieldrin	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
4,4'-DDE	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
Endrin	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
Endosulfan II	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
4,4'-DDD	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
Endrin Aldehyde	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
Endosulfan Sulfate	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
4,4'-DDT	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
Endrin Ketone	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
Methoxychlor	ND	U	4.2	1	08/27/07	10/01/07	KWG0709249	
Toxaphene	ND	U	210	1	08/27/07	10/01/07	KWG0709249	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	58	32-138	10/01/07	Acceptable
Decachlorobiphenyl	57	23-162	10/01/07	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis
Sample Matrix: Sediment

Service Request: K0707362
Date Collected: 08/13/2007
Date Received: 08/16/2007

Organochlorine Pesticides

Sample Name: GS-3
Lab Code: K0707362-003

Extraction Method: EPA 3541
Analysis Method: 8081A

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
beta-BHC	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
gamma-BHC (Lindane)	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
delta-BHC	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Heptachlor	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Aldrin	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Heptachlor Epoxide	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
gamma-Chlordane†	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Endosulfan I	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
alpha-Chlordane	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Dieldrin	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
4,4'-DDE	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Endrin	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Endosulfan II	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
4,4'-DDD	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Endrin Aldehyde	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Endosulfan Sulfate	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
4,4'-DDT	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Endrin Ketone	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Methoxychlor	ND	U	5.0	1	08/27/07	10/01/07	KWG0709249	
Toxaphene	ND	U	250	1	08/27/07	10/01/07	KWG0709249	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	68	32-138	10/01/07	Acceptable
Decachlorobiphenyl	70	23-162	10/01/07	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	08/13/2007
Sample Matrix:	Sediment	**Date Received:**	08/16/2007

Organochlorine Pesticides

Sample Name:	GS-4	**Units:**	ug/Kg
Lab Code:	K0707362-004	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8081A		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
beta-BHC	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
gamma-BHC (Lindane)	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
delta-BHC	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
Heptachlor	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
Aldrin	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
Heptachlor Epoxide	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
gamma-Chlordane†	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
Endosulfan I	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
alpha-Chlordane	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
Dieldrin	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
4,4'-DDE	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
Endrin	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
Endosulfan II	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
4,4'-DDD	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
Endrin Aldehyde	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
Endosulfan Sulfate	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
4,4'-DDT	ND	Ui	4.7	1	08/27/07	09/26/07	KWG0709249	
Endrin Ketone	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
Methoxychlor	ND	U	4.2	1	08/27/07	09/26/07	KWG0709249	
Toxaphene	ND	U	210	1	08/27/07	09/26/07	KWG0709249	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	70	32-138	09/26/07	Acceptable
Decachlorobiphenyl	80	23-162	09/26/07	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA

Organochlorine Pesticides

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG0709249-6	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8081A		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
beta-BHC	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
gamma-BHC (Lindane)	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
delta-BHC	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
Heptachlor	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
Aldrin	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
Heptachlor Epoxide	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
gamma-Chlordane†	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
Endosulfan I	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
alpha-Chlordane	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
Dieldrin	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
4,4'-DDE	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
Endrin	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
Endosulfan II	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
4,4'-DDD	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
Endrin Aldehyde	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
Endosulfan Sulfate	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
4,4'-DDT	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
Endrin Ketone	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
Methoxychlor	ND	U	1.7	1	08/27/07	09/26/07	KWG0709249	
Toxaphene	ND	U	83	1	08/27/07	09/26/07	KWG0709249	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	54	32-138	09/26/07	Acceptable
Decachlorobiphenyl	82	23-162	09/26/07	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Greylock Consulting LLC
Project Name : Hardel Sediment Analysis
Project Number : NA
Sample Matrix : SEDIMENT

Service Request : K0707362
Date Collected : 08/13/07
Date Received : 08/16/07

Ammonia as Nitrogen

Prep Method : SOP
Analysis Method : SM 4500-NH3 G Modified
Test Notes :

Units : mg/Kg
Basis : Dry

Sample Name	Lab Code	MRL	Dilution Factor	Date Prepared	Date Analyzed	Result	Result Notes
GS-1	K0707362-001	0.74	1	8/17/2007	08/28/07	5.98	
GS-2	K0707362-002	0.74	1	8/17/2007	08/28/07	10.9	
GS-3	K0707362-003	0.74	1	8/17/2007	08/28/07	10.9	
GS-4	K0707362-004	0.74	1	8/17/2007	08/28/07	15.6	
Method Blank	K0707362-MB	0.74	1	8/17/2007	08/28/07	ND	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

Report By: CSKILLERN

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Greylock Consulting LLC
Project Name : Hardel Sediment Analysis
Project Number : NA
Sample Matrix : SEDIMENT

Service Request : K0707362
Date Collected : 8/13/2007
Date Received : 8/16/2007
Date Prepared : 08/17/07
Date Analyzed : 08/28/07

Duplicate Summary
Inorganic Parameters

Sample Name : GS-1
Lab Code : K0707362-001DUP
Test Notes :

Units : mg/Kg
Basis : Dry

Analyte	Prep Method	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Ammonia as Nitrogen	SOP	SM 4500-NH3 G Modified	0.74	5.98	5.64	5.81	6	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

Report By: CSKILLERN

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	Greylock Consulting LLC	**Service Request :**	K0707362
Project Name :	Hardel Sediment Analysis	**Date Collected :**	NA
Project Number :	NA	**Date Received :**	NA
Sample Matrix :	WATER	**Date Prepared :**	08/17/07
		Date Analyzed :	08/28/07

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name :	Lab Control Sample	Units :	mg/Kg
Lab Code :	K0707362-LCS	Basis :	Dry
Test Notes :			

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	SOP	SM 4500-NH3 G Modified	2.45	2.61	107	90-110	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

Report By: CSKILLERN

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Greylock Consulting LLC
Project : Hardel Sediment Analysis

Service Request : K0707362
Date Collected : NA
Date Received : NA

Ammonia as Nitrogen
SM 4500-NH3 G Modified
Units: mg/L

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	8/28/2007	2.00	1.99	100
CCV2 Result	8/28/2007	2.00	1.98	99
CCV3 Result	8/28/2007	2.00	1.98	99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Greylock Consulting LLC
Project : Hardel Sediment Analysis

Service Request : K0707362
Date Collected : NA
Date Received : NA

Ammonia as Nitrogen
SM 4500-NH3 G Modified
Units: mg/L

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	8/28/2007	0.05	ND
CCB2 Result	8/28/2007	0.05	ND
CCB3 Result	8/28/2007	0.05	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Greylock Consulting LLC
Project Name : Hardel Sediment Analysis
Project Number : NA
Sample Matrix : SEDIMENT

Service Request : K0707362
Date Collected : 08/13/07
Date Received : 08/16/07

Sulfide, Total

Prep Method : EPA 9030B Modified
Analysis Method : 9030M
Test Notes :

Units : mg/Kg
Basis : Dry

Sample Name	Lab Code	MRL	Dilution Factor	Date Prepared	Date Analyzed	Result	Result Notes
GS-1	K0707362-001	1.5	1	8/21/2007	08/21/07	153	
GS-2	K0707362-002	1.5	1	8/21/2007	08/21/07	667	
GS-3	K0707362-003	1.5	1	8/21/2007	08/21/07	522	
GS-4	K0707362-004	1.5	1	8/21/2007	08/21/07	487	
Method Blank	K0707362-MB	1.5	1	8/21/2007	08/21/07	ND	

M Modified

Report By: CSKILLERN

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Greylock Consulting LLC
Project Name : Hardel Sediment Analysis
Project Number : NA
Sample Matrix : SEDIMENT

Service Request : K0707362
Date Collected : NA
Date Received : NA
Date Prepared : 08/21/07
Date Analyzed : 08/21/07

Duplicate Summary
Inorganic Parameters

Sample Name : Batch QC
Lab Code : K0707231-001DUP
Test Notes :

Units : mg/Kg
Basis : Dry

Analyte	Prep Method	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Sulfide, Total	EPA 9030B Modified	9030M	5.9	35.2	29.2	32	19	

M Modified

Report By: CSKILLERN

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Greylock Consulting LLC
Project Name : Hardel Sediment Analysis
Project Number : NA
Sample Matrix : SEDIMENT

Service Request : K0707362
Date Collected : NA
Date Received : NA
Date Prepared : 08/21/07
Date Analyzed : 08/21/07

Matrix Spike Summary
Inorganic Parameters

Sample Name : Batch QC
Lab Code : K0707231-001MS
Test Notes :

Units : mg/Kg
Basis : Dry

Analyte	Prep Method	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sulfide, Total	EPA 9030B Modified	9030M	150	1300	35.2	975	72	46-144	

M Modified

Report By: CSKILLERN

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	Greylock Consulting LLC	**Service Request :**	K0707362
Project Name :	Hardel Sediment Analysis	**Date Collected :**	NA
Project Number :	NA	**Date Received :**	NA
Sample Matrix :	SEDIMENT	**Date Prepared :**	08/21/07
		Date Analyzed :	08/21/07

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name :	Lab Control Sample	Units :	mg/Kg
Lab Code :	K0707362-LCS	Basis :	Dry
Test Notes :			

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sulfide, Total	EPA 9030B Modified	9030M	8.0	6.7	84	51-125	

M Modified

Report By: CSKILLERN

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Greylock Consulting LLC
Project : Hardel Sediment Analysis

Service Request : K0707362
Date Collected : NA
Date Received : NA

Sulfide, Total
9030M
Units: mg/L

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	8/21/2007	1.89	1.91	101
CCV2 Result	8/21/2007	1.89	1.91	101
CCV3 Result	8/21/2007	1.89	1.90	101

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Greylock Consulting LLC
Project : Hardel Sediment Analysis

Service Request : K0707362
Date Collected : NA
Date Received : NA

Sulfide, Total
9030M
Units: mg/L

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	8/21/2007	0.1	ND
CCB2 Result	8/21/2007	0.1	ND
CCB3 Result	8/21/2007	0.1	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Greylock Consulting LLC
Project Name : Hardel Sediment Analysis
Project Number : NA
Sample Matrix : SEDIMENT

Service Request : K0707362
Date Collected : 08/13/07
Date Received : 08/16/07

Carbon, Total Organic (TOC)

Prep Method : Method
Analysis Method : PSEP TOC
Test Notes :

Units : Percent
Basis : Dry

Sample Name	Lab Code	MRL	Dilution Factor	Date Prepared	Date Analyzed	Result	Result Notes
GS-1	K0707362-001	0.05	1	8/22/2007	09/05/07	11.9	
GS-2	K0707362-002	0.05	1	8/22/2007	09/05/07	8.62	
GS-3	K0707362-003	0.05	1	8/22/2007	09/05/07	10.1	
GS-4	K0707362-004	0.05	1	8/22/2007	09/05/07	3.10	
Method Blank	K0707362-MB	0.05	1	8/22/2007	09/05/07	ND	

Report By: CSKILLERN

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Greylock Consulting LLC
Project Name : Hardel Sediment Analysis
Project Number : NA
Sample Matrix : SEDIMENT

Service Request : K0707362
Date Collected : NA
Date Received : NA
Date Prepared : 08/22/07
Date Analyzed : 09/05/07

Duplicate Summary
Inorganic Parameters

Sample Name : Batch QC
Lab Code : K0707231-013DUP
Test Notes :

Units : Percent
Basis : Dry

Analyte	Prep Method	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Carbon, Total Organic (TOC)	Method	PSEP TOC	0.05	2.72	2.76	2.74	1	

Report By: CSKILLERN

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Greylock Consulting LLC
Project Name : Hardel Sediment Analysis
Project Number : NA
Sample Matrix : SEDIMENT

Service Request : K0707362
Date Collected : NA
Date Received : NA
Date Prepared : 08/22/07
Date Analyzed : 09/05/07

Matrix Spike Summary
Inorganic Parameters

Sample Name : Batch QC
Lab Code : K0707231-013MS
Test Notes :

Units : Percent
Basis : Dry

Analyte	Prep Method	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Carbon, Total Organic (TOC)	Method	PSEP TOC	0.05	10.8	2.72	11.7	83	75-125	

Report By: CSKILLERN

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	Greylock Consulting LLC	**Service Request :**	K0707362
Project Name :	Hardel Sediment Analysis	**Date Collected :**	NA
Project Number :	NA	**Date Received :**	NA
Sample Matrix :	SEDIMENT	**Date Prepared :**	08/22/07
		Date Analyzed :	09/05/07

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name :	Lab Control Sample	Units :	Percent
Lab Code :	K0707362-LCS	Basis :	Dry
Test Notes :			

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Carbon, Total Organic (TOC)	Method	PSEP TOC	0.89	0.88	99	85-115	

Report By:CSKILLERN

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Greylock Consulting LLC
Project : Hardel Sediment Analysis

Service Request : K0707362
Date Collected : NA
Date Received : NA

Carbon, Total Organic (TOC)
PSEP TOC
Units: Percent

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	9/5/2007	20.0	19.2	96
CCV2 Result	9/5/2007	20.0	18.4	92
CCV3 Result	9/5/2007	20.0	19.3	97
CCV4 Result	9/5/2007	20.0	18.9	95

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Greylock Consulting LLC
Project : Hardel Sediment Analysis

Service Request : K0707362
Date Collected : NA
Date Received : NA

Carbon, Total Organic (TOC)
PSEP TOC
Units: Percent

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	9/5/2007	0.05	ND
CCB2 Result	9/5/2007	0.05	ND
CCB3 Result	9/5/2007	0.05	ND
CCB4 Result	9/5/2007	0.05	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis
Sample Matrix: Sediment

Service Request: K0707362
Date Collected: 8/13/2007
Date Received: 8/16/2007
Date Analyzed: 9/18/2007

Particle Size Determination
Puget Sound Estuary Program Protocol

Sample Name: GS-1
Lab Code: K0707362-001

Sand Fraction: Dry Weight (Grams)	20.2998
Sand Fraction: Weight Recovered (Grams)	23.3542
Sand Fraction: Percent Recovery	115

Description	Phi Size	Dry Weight (Grams)	Percent of Total Weight Recovered
Gravel	<-1 Ø	7.6518	33.0
Sand, Very Coarse	-1 to 0 Ø	3.7414	16.2
Sand, Coarse	0 to 1 Ø	4.5322	19.6
Sand, Medium	1 to 2 Ø	4.4854	19.4
Sand, Fine	2 to 3 Ø	2.2257	9.61
Sand, Very Fine	3 to 4 Ø	0.6919	2.99
Silt	4 to 8 Ø	3.1900	13.8
Clay	> 8 Ø	2.0100	8.68
	Total	28.5284	123

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	8/13/2007
Sample Matrix:	Sediment	**Date Received:**	8/16/2007
		Date Analyzed:	9/18/2007

Particle Size Determination
Puget Sound Estuary Program Protocol

Sample Name: GS-2
Lab Code: K0707362-002

Sand Fraction:	Dry Weight (Grams)	20.8709
Sand Fraction:	Weight Recovered (Grams)	20.3479
Sand Fraction:	Percent Recovery	97.5

Description	Phi Size	Dry Weight (Grams)	Percent of Total Weight Recovered
Gravel	<-1 Ø	3.5973	10.7
Sand, Very Coarse	-1 to 0 Ø	1.8043	5.37
Sand, Coarse	0 to 1 Ø	2.0784	6.18
Sand, Medium	1 to 2 Ø	3.3143	9.86
Sand, Fine	2 to 3 Ø	4.6496	13.8
Sand, Very Fine	3 to 4 Ø	3.8923	11.6
Silt	4 to 8 Ø	11.0150	32.8
Clay	> 8 Ø	2.4750	7.36
	Total	32.8262	97.7

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	8/13/2007
Sample Matrix:	Sediment	**Date Received:**	8/16/2007
		Date Analyzed:	9/18/2007

Particle Size Determination
Puget Sound Estuary Program Protocol

Sample Name: GS-3
Lab Code: K0707362-003

Sand Fraction: Dry Weight (Grams)	22.2065
Sand Fraction: Weight Recovered (Grams)	21.5120
Sand Fraction: Percent Recovery	96.9

Description	Phi Size	Dry Weight (Grams)	Percent of Total Weight Recovered
Gravel	<-1 Ø	5.4297	16.3
Sand, Very Coarse	-1 to 0 Ø	2.1379	6.42
Sand, Coarse	0 to 1 Ø	2.5262	7.58
Sand, Medium	1 to 2 Ø	3.6105	10.8
Sand, Fine	2 to 3 Ø	4.1006	12.3
Sand, Very Fine	3 to 4 Ø	3.0389	9.12
Silt	4 to 8 Ø	10.4000	31.2
Clay	> 8 Ø	2.5300	7.60
	Total	33.7738	101

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	8/13/2007
Sample Matrix:	Sediment	**Date Received:**	8/16/2007
		Date Analyzed:	9/18/2007

Particle Size Determination
Puget Sound Estuary Program Protocol

Sample Name: GS-4
Lab Code: K0707362-004

Sand Fraction: Dry Weight (Grams)	17.8227
Sand Fraction: Weight Recovered (Grams)	17.5459
Sand Fraction: Percent Recovery	98.4

Description	Phi Size	Dry Weight (Grams)	Percent of Total Weight Recovered
Gravel	<-1 Ø	3.6662	10.0
Sand, Very Coarse	-1 to 0 Ø	0.7964	2.17
Sand, Coarse	0 to 1 Ø	1.0730	2.93
Sand, Medium	1 to 2 Ø	1.2374	3.37
Sand, Fine	2 to 3 Ø	1.9006	5.18
Sand, Very Fine	3 to 4 Ø	5.9693	16.3
Silt	4 to 8 Ø	23.2450	63.4
Clay	> 8 Ø	2.5800	7.03
	Total	40.4679	110

Organic Analysis:
Polychlorinated Biphenyls (PCBs)

Summary Package

Sample and QC Results

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis

Service Request: K0707362

Cover Page - Organic Analysis Data Package
Polychlorinated Biphenyls (PCBs)

Sample Name	Lab Code	Date Collected	Date Received
GS-1	K0707362-001	08/13/2007	08/16/2007
GS-2	K0707362-002	08/13/2007	08/16/2007
GS-3	K0707362-003	08/13/2007	08/16/2007
GS-4	K0707362-004	08/13/2007	08/16/2007
GS-4MS	KWG0709250-1	08/13/2007	08/16/2007
GS-4DMS	KWG0709250-2	08/13/2007	08/16/2007

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Jeff Grindstaff

Date: 9/28/07 Title: GC Manager

u:\Stealth\Crystal.rpt\FormSSum.rpt SuperSet Reference: RR77271

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	08/13/2007
Sample Matrix:	Sediment	**Date Received:**	08/16/2007

Polychlorinated Biphenyls (PCBs)

Sample Name:	GS-1	**Units:**	mg/Kg
Lab Code:	K0707362-001	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.10	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1221	ND	U	0.20	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1232	ND	U	0.10	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1242	ND	U	0.10	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1248	ND	U	0.10	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1254	ND	U	0.10	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1260	ND	U	0.10	1	08/27/07	09/19/07	KWG0709250	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	77	33-141	09/19/07	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	08/13/2007
Sample Matrix:	Sediment	**Date Received:**	08/16/2007

Polychlorinated Biphenyls (PCBs)

Sample Name:	GS-2	**Units:**	mg/Kg
Lab Code:	K0707362-002	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.099	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1221	ND	U	0.20	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1232	ND	U	0.099	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1242	ND	U	0.099	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1248	ND	U	0.099	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1254	ND	U	0.099	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1260	ND	U	0.099	1	08/27/07	09/19/07	KWG0709250	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	62	33-141	09/19/07	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	08/13/2007
Sample Matrix:	Sediment	**Date Received:**	08/16/2007

Polychlorinated Biphenyls (PCBs)

Sample Name:	GS-3	**Units:**	mg/Kg
Lab Code:	K0707362-003	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.10	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1221	ND	U	0.20	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1232	ND	U	0.10	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1242	ND	U	0.10	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1248	ND	U	0.10	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1254	ND	U	0.10	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1260	ND	U	0.10	1	08/27/07	09/19/07	KWG0709250	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	76	33-141	09/19/07	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	08/13/2007
Sample Matrix:	Sediment	**Date Received:**	08/16/2007

Polychlorinated Biphenyls (PCBs)

Sample Name:	GS-4	**Units:**	mg/Kg
Lab Code:	K0707362-004	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.095	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1221	ND	U	0.19	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1232	ND	U	0.095	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1242	ND	U	0.095	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1248	ND	U	0.095	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1254	ND	U	0.095	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1260	ND	U	0.095	1	08/27/07	09/19/07	KWG0709250	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	90	33-141	09/19/07	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA

Polychlorinated Biphenyls (PCBs)

Sample Name:	Method Blank	**Units:**	mg/Kg
Lab Code:	KWG0709250-4	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.034	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1221	ND	U	0.067	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1232	ND	U	0.034	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1242	ND	U	0.034	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1248	ND	U	0.034	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1254	ND	U	0.034	1	08/27/07	09/19/07	KWG0709250	
Aroclor 1260	ND	U	0.034	1	08/27/07	09/19/07	KWG0709250	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	88	33-141	09/19/07	Acceptable

Comments:

Organic Analysis:
Semi-Volatile Organic Compounds by GC/MS

Summary Package

Sample and QC Results

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis

Service Request: K0707362

Cover Page - Organic Analysis Data Package
Semi-Volatile Organic Compounds by GC/MS

Sample Name	Lab Code	Date Collected	Date Received
GS-1	K0707362-001	08/13/2007	08/16/2007
GS-2	K0707362-002	08/13/2007	08/16/2007
GS-3	K0707362-003	08/13/2007	08/16/2007
GS-4	K0707362-004	08/13/2007	08/16/2007
GS-2MS	KWG0709056-1	08/13/2007	08/16/2007
GS-2DMS	KWG0709056-2	08/13/2007	08/16/2007

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Carl Dogan

Date: 9/19/07 Title: SVM Supervisor

u:\Stealth\Crystal.rpt\FormSSum.rpt SuperSet Reference: RR76922

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis
Sample Matrix: Sediment

Service Request: K0707362
Date Collected: 08/13/2007
Date Received: 08/16/2007

Semi-Volatile Organic Compounds by GC/MS

Sample Name: GS-1
Lab Code: K0707362-001

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: mg/Kg
Basis: Dry

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	4.4	1	08/22/07	09/08/07	KWG0709056	
Aniline	ND	U	2.2	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroethyl) Ether	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Phenol	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
2-Chlorophenol	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
1,3-Dichlorobenzene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
1,4-Dichlorobenzene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
1,2-Dichlorobenzene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Benzyl Alcohol	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroisopropyl) Ether	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
2-Methylphenol	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Hexachloroethane	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
N-Nitrosodi-n-propylamine	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
4-Methylphenol†	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Nitrobenzene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Isophorone	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
2-Nitrophenol	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
2,4-Dimethylphenol	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroethoxy)methane	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
2,4-Dichlorophenol	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Benzoic Acid	ND	U	4.4	1	08/22/07	09/08/07	KWG0709056	
1,2,4-Trichlorobenzene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Naphthalene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
4-Chloroaniline	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Hexachlorobutadiene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
4-Chloro-3-methylphenol	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
2-Methylnaphthalene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Hexachlorocyclopentadiene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
2,4,6-Trichlorophenol	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
2,4,5-Trichlorophenol	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
2-Chloronaphthalene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
2-Nitroaniline	ND	U	4.4	1	08/22/07	09/08/07	KWG0709056	
Acenaphthylene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis
Sample Matrix: Sediment

Service Request: K0707362
Date Collected: 08/13/2007
Date Received: 08/16/2007

Semi-Volatile Organic Compounds by GC/MS

Sample Name: GS-1
Lab Code: K0707362-001

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: mg/Kg
Basis: Dry

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
2,6-Dinitrotoluene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Acenaphthene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
3-Nitroaniline	ND	U	4.4	1	08/22/07	09/08/07	KWG0709056	
2,4-Dinitrophenol	ND	U	4.4	1	08/22/07	09/08/07	KWG0709056	
Dibenzofuran	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
4-Nitrophenol	ND	U	4.4	1	08/22/07	09/08/07	KWG0709056	
2,4-Dinitrotoluene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Fluorene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
4-Chlorophenyl Phenyl Ether	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Diethyl Phthalate	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
4-Nitroaniline	ND	U	4.4	1	08/22/07	09/08/07	KWG0709056	
2-Methyl-4,6-dinitrophenol	ND	U	4.4	1	08/22/07	09/08/07	KWG0709056	
N-Nitrosodiphenylamine	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
4-Bromophenyl Phenyl Ether	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Hexachlorobenzene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Pentachlorophenol	ND	U	4.4	1	08/22/07	09/08/07	KWG0709056	
Phenanthrene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Anthracene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Di-n-butyl Phthalate	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Fluoranthene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Pyrene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Butyl Benzyl Phthalate	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
3,3'-Dichlorobenzidine	ND	U	4.4	1	08/22/07	09/08/07	KWG0709056	
Benz(a)anthracene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Chrysene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Bis(2-ethylhexyl) Phthalate	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Di-n-octyl Phthalate	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Benzo(b)fluoranthene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Benzo(k)fluoranthene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Benzo(a)pyrene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Indeno(1,2,3-cd)pyrene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Dibenz(a,h)anthracene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	08/13/2007
Sample Matrix:	Sediment	**Date Received:**	08/16/2007

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	GS-1	**Units:**	mg/Kg
Lab Code:	K0707362-001	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzo(g,h,i)perylene	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	44	12-84	09/08/07	Acceptable
Phenol-d6	49	21-94	09/08/07	Acceptable
Nitrobenzene-d5	56	10-112	09/08/07	Acceptable
2-Fluorobiphenyl	46	10-107	09/08/07	Acceptable
2,4,6-Tribromophenol	58	30-103	09/08/07	Acceptable
Terphenyl-d14	60	30-120	09/08/07	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis
Sample Matrix: Sediment

Service Request: K0707362
Date Collected: 08/13/2007
Date Received: 08/16/2007

Semi-Volatile Organic Compounds by GC/MS

Sample Name: GS-2
Lab Code: K0707362-002

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: mg/Kg
Basis: Dry

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	4.3	1	08/22/07	09/08/07	KWG0709056	
Aniline	ND	U	2.2	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroethyl) Ether	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Phenol	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
2-Chlorophenol	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
1,3-Dichlorobenzene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
1,4-Dichlorobenzene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
1,2-Dichlorobenzene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Benzyl Alcohol	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroisopropyl) Ether	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
2-Methylphenol	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Hexachloroethane	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
N-Nitrosodi-n-propylamine	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
4-Methylphenol†	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Nitrobenzene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Isophorone	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
2-Nitrophenol	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
2,4-Dimethylphenol	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroethoxy)methane	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
2,4-Dichlorophenol	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Benzoic Acid	ND	U	4.3	1	08/22/07	09/08/07	KWG0709056	
1,2,4-Trichlorobenzene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Naphthalene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
4-Chloroaniline	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Hexachlorobutadiene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
4-Chloro-3-methylphenol	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
2-Methylnaphthalene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Hexachlorocyclopentadiene	ND	U	0.72	1	08/22/07	09/08/07	KWG0709056	
2,4,6-Trichlorophenol	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
2,4,5-Trichlorophenol	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
2-Chloronaphthalene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
2-Nitroaniline	ND	U	4.3	1	08/22/07	09/08/07	KWG0709056	
Acenaphthylene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis
Sample Matrix: Sediment

Service Request: K0707362
Date Collected: 08/13/2007
Date Received: 08/16/2007

Semi-Volatile Organic Compounds by GC/MS

Sample Name: GS-2
Lab Code: K0707362-002

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: mg/Kg
Basis: Dry

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
2,6-Dinitrotoluene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Acenaphthene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
3-Nitroaniline	ND	U	4.3	1	08/22/07	09/08/07	KWG0709056	
2,4-Dinitrophenol	ND	U	4.3	1	08/22/07	09/08/07	KWG0709056	
Dibenzofuran	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
4-Nitrophenol	ND	U	4.3	1	08/22/07	09/08/07	KWG0709056	
2,4-Dinitrotoluene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Fluorene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
4-Chlorophenyl Phenyl Ether	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Diethyl Phthalate	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
4-Nitroaniline	ND	U	4.3	1	08/22/07	09/08/07	KWG0709056	
2-Methyl-4,6-dinitrophenol	ND	U	4.3	1	08/22/07	09/08/07	KWG0709056	
N-Nitrosodiphenylamine	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
4-Bromophenyl Phenyl Ether	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Hexachlorobenzene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Pentachlorophenol	ND	U	4.3	1	08/22/07	09/08/07	KWG0709056	
Phenanthrene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Anthracene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Di-n-butyl Phthalate	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Fluoranthene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Pyrene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Butyl Benzyl Phthalate	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
3,3'-Dichlorobenzidine	ND	U	4.3	1	08/22/07	09/08/07	KWG0709056	
Benz(a)anthracene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Chrysene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Bis(2-ethylhexyl) Phthalate	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Di-n-octyl Phthalate	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Benzo(b)fluoranthene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Benzo(k)fluoranthene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Benzo(a)pyrene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Indeno(1,2,3-cd)pyrene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	
Dibenz(a,h)anthracene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis
Sample Matrix: Sediment

Service Request: K0707362
Date Collected: 08/13/2007
Date Received: 08/16/2007

Semi-Volatile Organic Compounds by GC/MS

Sample Name: GS-2
Lab Code: K0707362-002

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzo(g,h,i)perylene	ND	U	0.71	1	08/22/07	09/08/07	KWG0709056	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	53	12-84	09/08/07	Acceptable
Phenol-d6	63	21-94	09/08/07	Acceptable
Nitrobenzene-d5	66	10-112	09/08/07	Acceptable
2-Fluorobiphenyl	52	10-107	09/08/07	Acceptable
2,4,6-Tribromophenol	74	30-103	09/08/07	Acceptable
Terphenyl-d14	71	30-120	09/08/07	Acceptable

† **Analyte Comments**

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis
Sample Matrix: Sediment

Service Request: K0707362
Date Collected: 08/13/2007
Date Received: 08/16/2007

Semi-Volatile Organic Compounds by GC/MS

Sample Name: GS-3
Lab Code: K0707362-003

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: mg/Kg
Basis: Dry

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	4.0	1	08/22/07	09/08/07	KWG0709056	
Aniline	ND	U	2.0	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroethyl) Ether	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Phenol	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
2-Chlorophenol	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
1,3-Dichlorobenzene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
1,4-Dichlorobenzene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
1,2-Dichlorobenzene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Benzyl Alcohol	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroisopropyl) Ether	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
2-Methylphenol	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Hexachloroethane	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
N-Nitrosodi-n-propylamine	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
4-Methylphenol†	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Nitrobenzene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Isophorone	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
2-Nitrophenol	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
2,4-Dimethylphenol	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroethoxy)methane	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
2,4-Dichlorophenol	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Benzoic Acid	ND	U	4.0	1	08/22/07	09/08/07	KWG0709056	
1,2,4-Trichlorobenzene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Naphthalene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
4-Chloroaniline	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Hexachlorobutadiene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
4-Chloro-3-methylphenol	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
2-Methylnaphthalene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Hexachlorocyclopentadiene	ND	U	0.66	1	08/22/07	09/08/07	KWG0709056	
2,4,6-Trichlorophenol	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
2,4,5-Trichlorophenol	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
2-Chloronaphthalene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
2-Nitroaniline	ND	U	4.0	1	08/22/07	09/08/07	KWG0709056	
Acenaphthylene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis
Sample Matrix: Sediment

Service Request: K0707362
Date Collected: 08/13/2007
Date Received: 08/16/2007

Semi-Volatile Organic Compounds by GC/MS

Sample Name: GS-3
Lab Code: K0707362-003

Units: mg/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
2,6-Dinitrotoluene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Acenaphthene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
3-Nitroaniline	ND	U	4.0	1	08/22/07	09/08/07	KWG0709056	
2,4-Dinitrophenol	ND	U	4.0	1	08/22/07	09/08/07	KWG0709056	
Dibenzofuran	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
4-Nitrophenol	ND	U	4.0	1	08/22/07	09/08/07	KWG0709056	
2,4-Dinitrotoluene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Fluorene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
4-Chlorophenyl Phenyl Ether	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Diethyl Phthalate	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
4-Nitroaniline	ND	U	4.0	1	08/22/07	09/08/07	KWG0709056	
2-Methyl-4,6-dinitrophenol	ND	U	4.0	1	08/22/07	09/08/07	KWG0709056	
N-Nitrosodiphenylamine	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
4-Bromophenyl Phenyl Ether	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Hexachlorobenzene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Pentachlorophenol	ND	U	4.0	1	08/22/07	09/08/07	KWG0709056	
Phenanthrene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Anthracene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Di-n-butyl Phthalate	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Fluoranthene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Pyrene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Butyl Benzyl Phthalate	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
3,3'-Dichlorobenzidine	ND	U	4.0	1	08/22/07	09/08/07	KWG0709056	
Benz(a)anthracene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Chrysene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Bis(2-ethylhexyl) Phthalate	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Di-n-octyl Phthalate	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Benzo(b)fluoranthene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Benzo(k)fluoranthene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Benzo(a)pyrene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Indeno(1,2,3-cd)pyrene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	
Dibenz(a,h)anthracene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	08/13/2007
Sample Matrix:	Sediment	**Date Received:**	08/16/2007

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	GS-3	**Units:**	mg/Kg
Lab Code:	K0707362-003	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzo(g,h,i)perylene	ND	U	0.65	1	08/22/07	09/08/07	KWG0709056	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	51	12-84	09/08/07	Acceptable
Phenol-d6	55	21-94	09/08/07	Acceptable
Nitrobenzene-d5	62	10-112	09/08/07	Acceptable
2-Fluorobiphenyl	54	10-107	09/08/07	Acceptable
2,4,6-Tribromophenol	64	30-103	09/08/07	Acceptable
Terphenyl-d14	63	30-120	09/08/07	Acceptable

† **Analyte Comments**

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis
Sample Matrix: Sediment

Service Request: K0707362
Date Collected: 08/13/2007
Date Received: 08/16/2007

Semi-Volatile Organic Compounds by GC/MS

Sample Name: GS-4
Lab Code: K0707362-004

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: mg/Kg
Basis: Dry

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	3.5	1	08/22/07	09/08/07	KWG0709056	
Aniline	ND	U	1.8	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroethyl) Ether	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Phenol	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
2-Chlorophenol	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
1,3-Dichlorobenzene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
1,4-Dichlorobenzene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
1,2-Dichlorobenzene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Benzyl Alcohol	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroisopropyl) Ether	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
2-Methylphenol	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Hexachloroethane	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
N-Nitrosodi-n-propylamine	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
4-Methylphenol†	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Nitrobenzene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Isophorone	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
2-Nitrophenol	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
2,4-Dimethylphenol	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroethoxy)methane	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
2,4-Dichlorophenol	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Benzoic Acid	ND	U	3.5	1	08/22/07	09/08/07	KWG0709056	
1,2,4-Trichlorobenzene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Naphthalene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
4-Chloroaniline	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Hexachlorobutadiene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
4-Chloro-3-methylphenol	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
2-Methylnaphthalene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Hexachlorocyclopentadiene	ND	U	0.59	1	08/22/07	09/08/07	KWG0709056	
2,4,6-Trichlorophenol	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
2,4,5-Trichlorophenol	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
2-Chloronaphthalene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
2-Nitroaniline	ND	U	3.5	1	08/22/07	09/08/07	KWG0709056	
Acenaphthylene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis
Sample Matrix: Sediment

Service Request: K0707362
Date Collected: 08/13/2007
Date Received: 08/16/2007

Semi-Volatile Organic Compounds by GC/MS

Sample Name: GS-4
Lab Code: K0707362-004

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: mg/Kg
Basis: Dry

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
2,6-Dinitrotoluene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Acenaphthene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
3-Nitroaniline	ND	U	3.5	1	08/22/07	09/08/07	KWG0709056	
2,4-Dinitrophenol	ND	U	3.5	1	08/22/07	09/08/07	KWG0709056	
Dibenzofuran	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
4-Nitrophenol	ND	U	3.5	1	08/22/07	09/08/07	KWG0709056	
2,4-Dinitrotoluene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Fluorene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
4-Chlorophenyl Phenyl Ether	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Diethyl Phthalate	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
4-Nitroaniline	ND	U	3.5	1	08/22/07	09/08/07	KWG0709056	
2-Methyl-4,6-dinitrophenol	ND	U	3.5	1	08/22/07	09/08/07	KWG0709056	
N-Nitrosodiphenylamine	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
4-Bromophenyl Phenyl Ether	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Hexachlorobenzene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Pentachlorophenol	ND	U	3.5	1	08/22/07	09/08/07	KWG0709056	
Phenanthrene	**0.91**		0.58	1	08/22/07	09/08/07	KWG0709056	
Anthracene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Di-n-butyl Phthalate	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Fluoranthene	**1.7**		0.58	1	08/22/07	09/08/07	KWG0709056	
Pyrene	**1.5**		0.58	1	08/22/07	09/08/07	KWG0709056	
Butyl Benzyl Phthalate	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
3,3'-Dichlorobenzidine	ND	U	3.5	1	08/22/07	09/08/07	KWG0709056	
Benz(a)anthracene	**0.84**		0.58	1	08/22/07	09/08/07	KWG0709056	
Chrysene	**1.1**		0.58	1	08/22/07	09/08/07	KWG0709056	
Bis(2-ethylhexyl) Phthalate	**2.9**		0.58	1	08/22/07	09/08/07	KWG0709056	
Di-n-octyl Phthalate	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Benzo(b)fluoranthene	**1.0**		0.58	1	08/22/07	09/08/07	KWG0709056	
Benzo(k)fluoranthene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Benzo(a)pyrene	**0.86**		0.58	1	08/22/07	09/08/07	KWG0709056	
Indeno(1,2,3-cd)pyrene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	
Dibenz(a,h)anthracene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	08/13/2007
Sample Matrix:	Sediment	**Date Received:**	08/16/2007

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	GS-4	**Units:**	mg/Kg
Lab Code:	K0707362-004	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzo(g,h,i)perylene	ND	U	0.58	1	08/22/07	09/08/07	KWG0709056	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	53	12-84	09/08/07	Acceptable
Phenol-d6	58	21-94	09/08/07	Acceptable
Nitrobenzene-d5	66	10-112	09/08/07	Acceptable
2-Fluorobiphenyl	51	10-107	09/08/07	Acceptable
2,4,6-Tribromophenol	68	30-103	09/08/07	Acceptable
Terphenyl-d14	66	30-120	09/08/07	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis
Sample Matrix: Sediment

Service Request: K0707362
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: KWG0709056-5

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: mg/Kg
Basis: Dry

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	1.5	1	08/22/07	09/08/07	KWG0709056	
Aniline	ND	U	0.73	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroethyl) Ether	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Phenol	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
2-Chlorophenol	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
1,3-Dichlorobenzene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
1,4-Dichlorobenzene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
1,2-Dichlorobenzene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Benzyl Alcohol	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroisopropyl) Ether	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
2-Methylphenol	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Hexachloroethane	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
N-Nitrosodi-n-propylamine	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
4-Methylphenol†	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Nitrobenzene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Isophorone	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
2-Nitrophenol	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
2,4-Dimethylphenol	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Bis(2-chloroethoxy)methane	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
2,4-Dichlorophenol	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Benzoic Acid	ND	U	1.5	1	08/22/07	09/08/07	KWG0709056	
1,2,4-Trichlorobenzene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Naphthalene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
4-Chloroaniline	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Hexachlorobutadiene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
4-Chloro-3-methylphenol	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
2-Methylnaphthalene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Hexachlorocyclopentadiene	ND	U	0.25	1	08/22/07	09/08/07	KWG0709056	
2,4,6-Trichlorophenol	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
2,4,5-Trichlorophenol	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
2-Chloronaphthalene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
2-Nitroaniline	ND	U	1.5	1	08/22/07	09/08/07	KWG0709056	
Acenaphthylene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	

Comments:

Client: Greylock Consulting LLC
Project: Hardel Sediment Analysis
Sample Matrix: Sediment

Service Request: K0707362
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: KWG0709056-5

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: mg/Kg
Basis: Dry

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
2,6-Dinitrotoluene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Acenaphthene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
3-Nitroaniline	ND	U	1.5	1	08/22/07	09/08/07	KWG0709056	
2,4-Dinitrophenol	ND	U	1.5	1	08/22/07	09/08/07	KWG0709056	
Dibenzofuran	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
4-Nitrophenol	ND	U	1.5	1	08/22/07	09/08/07	KWG0709056	
2,4-Dinitrotoluene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Fluorene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
4-Chlorophenyl Phenyl Ether	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Diethyl Phthalate	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
4-Nitroaniline	ND	U	1.5	1	08/22/07	09/08/07	KWG0709056	
2-Methyl-4,6-dinitrophenol	ND	U	1.5	1	08/22/07	09/08/07	KWG0709056	
N-Nitrosodiphenylamine	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
4-Bromophenyl Phenyl Ether	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Hexachlorobenzene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Pentachlorophenol	ND	U	1.5	1	08/22/07	09/08/07	KWG0709056	
Phenanthrene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Anthracene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Di-n-butyl Phthalate	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Fluoranthene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Pyrene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Butyl Benzyl Phthalate	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
3,3'-Dichlorobenzidine	ND	U	1.5	1	08/22/07	09/08/07	KWG0709056	
Benz(a)anthracene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Chrysene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Bis(2-ethylhexyl) Phthalate	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Di-n-octyl Phthalate	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Benzo(b)fluoranthene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Benzo(k)fluoranthene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Benzo(a)pyrene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Indeno(1,2,3-cd)pyrene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	
Dibenz(a,h)anthracene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Greylock Consulting LLC	**Service Request:**	K0707362
Project:	Hardel Sediment Analysis	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	mg/Kg
Lab Code:	KWG0709056-5	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzo(g,h,i)perylene	ND	U	0.24	1	08/22/07	09/08/07	KWG0709056	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	55	12-84	09/08/07	Acceptable
Phenol-d6	57	21-94	09/08/07	Acceptable
Nitrobenzene-d5	65	10-112	09/08/07	Acceptable
2-Fluorobiphenyl	66	10-107	09/08/07	Acceptable
2,4,6-Tribromophenol	59	30-103	09/08/07	Acceptable
Terphenyl-d14	69	30-120	09/08/07	Acceptable

† **Analyte Comments**

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

METALS

- Cover Page -
INORGANIC ANALYSIS DATA PACKAGE

Client: Greylock Consulting LLC

Service Request: K0 707362

Project No.:

Project Name: Hardel Sediment Analysis

Sample No.	Lab Sample ID.
GS-1	K0707362-001
GS-2	K0707362-002
GS-2D	K0707362-002D
GS-2S	K0707362-002S
GS-3	K0707362-003
GS-4	K0707362-004
GS-4D	K0707362-004D
GS-4S	K0707362-004S
Method Blank	K0707362-MB

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Signature: _____ Date: 9/17/07

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client:	Greylock Consulting LLC	Service Request:	K0707362
Project No.:	NA	Date Collected:	08/13/07
Project Name:	Hardel Sediment Analysis	Date Received:	08/16/07
Matrix:	SEDIMENT	Units:	MG/KG
		Basis:	Dry

Sample Name: GS-1 Lab Code: K0707362-001

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Antimony	6010B	11	2	9/6/07	9/10/07	11	U	
Arsenic	6010B	22	2	9/6/07	9/10/07	22	U	
Cadmium	6010B	1.1	2	9/6/07	9/10/07	1.1	U	
Chromium	6010B	2.2	2	9/6/07	9/10/07	34.7		
Copper	6010B	2.2	2	9/6/07	9/10/07	75.3		
Lead	6010B	22	2	9/6/07	9/10/07	93.8		
Mercury	7471A	0.02	1	9/10/07	9/10/07	0.09		
Nickel	6010B	4.3	2	9/6/07	9/10/07	25.1		
Silver	6010B	2.2	2	9/6/07	9/10/07	2.5		
Zinc	6010B	2.2	2	9/6/07	9/10/07	107		

% Solids: 33.9

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client:	Greylock Consulting LLC	Service Request:	K0707362
Project No.:	NA	Date Collected:	08/13/07
Project Name:	Hardel Sediment Analysis	Date Received:	08/16/07
Matrix:	SEDIMENT	Units:	MG/KG
		Basis:	Dry

Sample Name: GS-2 Lab Code: K0707362-002

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Antimony	6010B	11	2	9/6/07	9/10/07	11	U	
Arsenic	6010B	21	2	9/6/07	9/10/07	21	U	
Cadmium	6010B	1.1	2	9/6/07	9/10/07	1.6		
Chromium	6010B	2.1	2	9/6/07	9/10/07	26.7		
Copper	6010B	2.1	2	9/6/07	9/10/07	44.8		
Lead	6010B	21	2	9/6/07	9/10/07	24.2		
Mercury	7471A	0.02	1	9/10/07	9/10/07	0.19		
Nickel	6010B	4.2	2	9/6/07	9/10/07	20.7		
Silver	6010B	2.1	2	9/6/07	9/10/07	2.1	U	
Zinc	6010B	2.1	2	9/6/07	9/10/07	90.7		

% Solids: 35.0

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client:	Greylock Consulting LLC	Service Request:	K0707362
Project No.:	NA	Date Collected:	08/13/07
Project Name:	Hardel Sediment Analysis	Date Received:	08/16/07
Matrix:	SEDIMENT	Units:	MG/KG
		Basis:	Dry

Sample Name: GS-3 Lab Code: K0707362-003

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Antimony	6010B	10	2	9/6/07	9/10/07	10	U	
Arsenic	6010B	19	2	9/6/07	9/10/07	19	U	
Cadmium	6010B	1.0	2	9/6/07	9/10/07	1.3		
Chromium	6010B	1.9	2	9/6/07	9/10/07	25.0		
Copper	6010B	1.9	2	9/6/07	9/10/07	43.4		
Lead	6010B	19	2	9/6/07	9/10/07	25.2		
Mercury	7471A	0.02	1	9/10/07	9/10/07	0.16		
Nickel	6010B	3.9	2	9/6/07	9/10/07	20.7		
Silver	6010B	1.9	2	9/6/07	9/10/07	1.9	U	
Zinc	6010B	1.9	2	9/6/07	9/10/07	80.5		

% Solids: 38.1

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client:	Greylock Consulting LLC	Service Request:	K0707362
Project No.:	NA	Date Collected:	08/13/07
Project Name:	Hardel Sediment Analysis	Date Received:	08/16/07
Matrix:	SEDIMENT	Units:	MG/KG
		Basis:	Dry

Sample Name: GS-4 Lab Code: K0707362-004

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Antimony	6010B	11	2	9/6/07	9/10/07	11	U	
Arsenic	6010B	22	2	9/6/07	9/10/07	22	U	
Cadmium	6010B	1.1	2	9/6/07	9/10/07	2.2		
Chromium	6010B	2.2	2	9/6/07	9/10/07	35.5		
Copper	6010B	2.2	2	9/6/07	9/10/07	50.2		
Lead	6010B	22	2	9/6/07	9/10/07	43.5		
Mercury	7471A	0.02	1	9/10/07	9/10/07	0.23		
Nickel	6010B	4.3	2	9/6/07	9/10/07	27.3		
Silver	6010B	2.2	2	9/6/07	9/10/07	2.2	U	
Zinc	6010B	2.2	2	9/6/07	9/10/07	166		

% Solids: 41.7

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client:	Greylock Consulting LLC	Service Request:	KO707362
Project No.:	NA	Date Collected:	
Project Name:	Hardel Sediment Analysis	Date Received:	
Matrix:	SEDIMENT	Units:	MG/KG
		Basis:	Dry

Sample Name: Method Blank Lab Code: K0707362-MB

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Antimony	6010B	10	2	9/6/07	9/10/07	10	U	
Arsenic	6010B	20	2	9/6/07	9/10/07	20	U	
Cadmium	6010B	1.0	2	9/6/07	9/10/07	1.0	U	
Chromium	6010B	2.0	2	9/6/07	9/10/07	2.0	U	
Copper	6010B	2.0	2	9/6/07	9/10/07	2.0	U	
Lead	6010B	20	2	9/6/07	9/10/07	20	U	
Mercury	7471A	0.02	1	9/10/07	9/10/07	0.02	U	
Nickel	6010B	4.0	2	9/6/07	9/10/07	4.0	U	
Silver	6010B	2.0	2	9/6/07	9/10/07	2.0	U	
Zinc	6010B	2.0	2	9/6/07	9/10/07	2.0	U	

% Solids: 100.0

Comments:

Columbia Analytical Services, INC.
An Employee - Owned Company

CHAIN OF CUSTODY

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222x07 • FAX (360) 636-1068

SR#: 1070736L2

PAGE 1 OF 1 COC #

PROJECT NAME: Hardel Sediment Analysis
PROJECT NUMBER:
PROJECT MANAGER: Suzanne Dudziak
COMPANY/ADDRESS: Greylock Consulting LLC
P.O. Box 23254
CITY/STATE/ZIP: Federal Way, WA 98093
E-MAIL ADDRESS: greylockllc@comcast.net
PHONE # 253 941 0654 FAX# 253 941 2705
SAMPLER'S SIGNATURE: TRM

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS 625 ☐ 8270 ☑ 8270LL ☐	Volatile Organics 624 ☐ 8260 ☐ 8021 ☐ BTEX ☐	Hydrocarbons (*see below) Gas ☐ Diesel ☐ Oil ☐	Fuel Fingerprint (FIQ) ☐ NW-HCID Screen ☐	Oil & Grease/TRPH 1664 HEM ☐ 1664 SGT ☐	PCB's 8082 Aroclors ☑ Congeners ☐	Pesticides/Herbicides 608 ☐ 8081A ☑ 8141A ☐ 8151A ☐	Chlorophenolics - 8151M Tri ☐ Tetra ☐ PCP ☐	PAHS 8310 ☐ SIM ☐	Metals, Total or Dissolved (See list below) 6010B	Cyanide ☐	Hex-Chrom ☐	pH, Cond., Cl, SO_4, PO_4, F, NO_2, NO_3, BOD, TSS, TDS (circle)	NH_3-N, COD, Total-P, TKN, TOC, DOC (circle) NO_2+NO_3	TOX 9020 ☐ AOX 1650 ☐ 506 ☐	9030M/Sulfide	7471A/Hg	PSEP/grain size, TOC, TS	ASM4500-NH_3 Ammonia	REMARKS
GS-1	8/13/07	10:45	1	sed	3	✓					✓	✓			✓						✓	✓	✓	✓	
GS-2	"	11:57	2	"	3	✓					✓	✓			✓						✓	✓	✓	✓	
GS-3	"	11:57	3	"	3	✓					✓	✓			✓						✓	✓	✓	✓	
GS-4	"	12:35	4	"	3	✓					✓	✓			✓						✓	✓	✓	✓	

REPORT REQUIREMENTS

___ I. Routine Report: Method Blank, Surrogate, as required
___ II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

INVOICE INFORMATION

P.O. # 19507
Bill To: Mr. David Wild
P.O. Box 540
Chehalis, WA 98532

TURNAROUND REQUIREMENTS

____ 24 hr. ____ 48 hr.
____ 5 Day
____ Standard (10-15 working days)
____ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

- requested analyses should match those requested in the lab contract agreement, which was all Washington sediment management standards except TBT.
- Results go to David Wild and to Suzanne Dudziak at Greylock Consulting via email at greylockllc@comcast.net

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: TRM	Signature:	Signature:	Signature:
Date/Time: 8/15/07 1035	Date/Time: 8/16/07 1015	Date/Time:	Date/Time:
Printed Name: Tom Schulz	Printed Name: Les Kennedy	Printed Name:	Printed Name:
Firm: Integral	Firm: CAS	Firm:	Firm:

Appendix B

Sample Analysis Summary

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Pace Analytical™

Method 1613 Sample Analysis Results

Client - Greylock Consulting, LLC

Client's Sample ID	GS-1		
Lab Sample ID	1057128001		
Filename	F70823A_08		
Injected By	SMT		
Total Amount Extracted	30.1 g	Matrix	Solid
% Moisture	66.5	Dilution	NA
Dry Weight Extracted	10.1 g	Collected	08/13/2007
ICAL Date	07/14/2007	Received	08/15/2007
CCal Filename(s)	F70822B_16	Extracted	08/18/2007
Method Blank ID	BLANK-13972	Analyzed	08/23/2007 16:46

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1.3	—	0.99	2,3,7,8-TCDF-13C	2.00	102
Total TCDF	38.0	—	0.99	2,3,7,8-TCDD-13C	2.00	91
				1,2,3,7,8-PeCDF-13C	2.00	87
2,3,7,8-TCDD	ND	—	0.99	2,3,4,7,8-PeCDF-13C	2.00	92
Total TCDD	83.0	—	0.99	1,2,3,7,8-PeCDD-13C	2.00	94
				1,2,3,4,7,8-HxCDF-13C	2.00	109
1,2,3,7,8-PeCDF	ND	—	5.00	1,2,3,6,7,8-HxCDF-13C	2.00	94
2,3,4,7,8-PeCDF	ND	—	5.00	2,3,4,6,7,8-HxCDF-13C	2.00	97
Total PeCDF	87.0	—	5.00	1,2,3,7,8,9-HxCDF-13C	2.00	91
				1,2,3,4,7,8-HxCDD-13C	2.00	104
1,2,3,7,8-PeCDD	ND	—	5.00	1,2,3,6,7,8-HxCDD-13C	2.00	87
Total PeCDD	50.0	—	5.00	1,2,3,4,6,7,8-HpCDF-13C	2.00	72
				1,2,3,4,7,8,9-HpCDF-13C	2.00	53
1,2,3,4,7,8-HxCDF	8.4	—	5.00	1,2,3,4,6,7,8-HpCDD-13C	2.00	69
1,2,3,6,7,8-HxCDF	7.5	—	5.00	OCDD-13C	4.00	41
2,3,4,6,7,8-HxCDF	8.4	—	5.00			
1,2,3,7,8,9-HxCDF	ND	—	5.00	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	310.0	—	5.00	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	6.6	—	5.00	2,3,7,8-TCDD-37Cl4	0.20	96
1,2,3,6,7,8-HxCDD	36.0	—	5.00			
1,2,3,7,8,9-HxCDD	14.0	—	5.00			
Total HxCDD	310.0	—	5.00			
1,2,3,4,6,7,8-HpCDF	250.0	—	5.00	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	9.4	—	5.00	Equivalence: 18 ng/Kg		
Total HpCDF	260.0	—	5.00	(Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	550.0	—	5.00			
Total HpCDD	1300.0	—	5.00			
OCDF	410.0	—	9.90			
OCDD	3800.0	—	9.90			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613 Sample Analysis Results

Client - Greylock Consulting, LLC

Client's Sample ID	GS-2		
Lab Sample ID	1057128002		
Filename	F70823A_09		
Injected By	SMT		
Total Amount Extracted	27.5 g	Matrix	Solid
% Moisture	62.8	Dilution	NA
Dry Weight Extracted	10.2 g	Collected	08/13/2007
ICAL Date	07/14/2007	Received	08/15/2007
CCal Filename(s)	F70822B_16	Extracted	08/18/2007
Method Blank ID	BLANK-13972	Analyzed	08/23/2007 17:33

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	2.5	—	0.98		2,3,7,8-TCDF-13C	2.00	95
Total TCDF	49.0	—	0.98		2,3,7,8-TCDD-13C	2.00	85
					1,2,3,7,8-PeCDF-13C	2.00	82
2,3,7,8-TCDD	1.6	—	0.98		2,3,4,7,8-PeCDF-13C	2.00	85
Total TCDD	40.0	—	0.98		1,2,3,7,8-PeCDD-13C	2.00	85
					1,2,3,4,7,8-HxCDF-13C	2.00	103
1,2,3,7,8-PeCDF	ND	—	4.90		1,2,3,6,7,8-HxCDF-13C	2.00	90
2,3,4,7,8-PeCDF	5.9	—	4.90		2,3,4,6,7,8-HxCDF-13C	2.00	94
Total PeCDF	140.0	—	4.90		1,2,3,7,8,9-HxCDF-13C	2.00	90
					1,2,3,4,7,8-HxCDD-13C	2.00	97
1,2,3,7,8-PeCDD	11.0	—	4.90		1,2,3,6,7,8-HxCDD-13C	2.00	81
Total PeCDD	79.0	—	4.90		1,2,3,4,6,7,8-HpCDF-13C	2.00	72
					1,2,3,4,7,8,9-HpCDF-13C	2.00	57
1,2,3,4,7,8-HxCDF	11.0	—	4.90		1,2,3,4,6,7,8-HpCDD-13C	2.00	67
1,2,3,6,7,8-HxCDF	—	15	4.90	E	OCDD-13C	4.00	47
2,3,4,6,7,8-HxCDF	8.8	—	4.90				
1,2,3,7,8,9-HxCDF	ND	—	4.90		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	240.0	—	4.90		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	11.0	—	4.90		2,3,7,8-TCDD-37Cl4	0.20	89
1,2,3,6,7,8-HxCDD	59.0	—	4.90				
1,2,3,7,8,9-HxCDD	24.0	—	4.90				
Total HxCDD	440.0	—	4.90				
1,2,3,4,6,7,8-HpCDF	320.0	—	4.90		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	13.0	—	4.90		Equivalence: 41 ng/Kg		
Total HpCDF	690.0	—	4.90		(Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	950.0	—	4.90				
Total HpCDD	2100.0	—	4.90				
OCDF	520.0	—	9.80				
OCDD	6200.0	—	9.80				

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E = PCDE Interference

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613 Sample Analysis Results

Client - Greylock Consulting, LLC

Client's Sample ID	GS-3		
Lab Sample ID	1057128003		
Filename	F70823A_10		
Injected By	SMT		
Total Amount Extracted	26.4 g	Matrix	Solid
% Moisture	61.4	Dilution	NA
Dry Weight Extracted	10.2 g	Collected	08/13/2007
ICAL Date	07/14/2007	Received	08/15/2007
CCal Filename(s)	F70822B_16	Extracted	08/18/2007
Method Blank ID	BLANK-13972	Analyzed	08/23/2007 18:20

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	2.8	—	0.98		2,3,7,8-TCDF-13C	2.00	93
Total TCDF	50.0	—	0.98		2,3,7,8-TCDD-13C	2.00	82
					1,2,3,7,8-PeCDF-13C	2.00	81
2,3,7,8-TCDD	1.4	—	0.98		2,3,4,7,8-PeCDF-13C	2.00	82
Total TCDD	42.0	—	0.98		1,2,3,7,8-PeCDD-13C	2.00	84
					1,2,3,4,7,8-HxCDF-13C	2.00	99
1,2,3,7,8-PeCDF	ND	—	4.90		1,2,3,6,7,8-HxCDF-13C	2.00	87
2,3,4,7,8-PeCDF	6.2	—	4.90		2,3,4,6,7,8-HxCDF-13C	2.00	88
Total PeCDF	130.0	—	4.90		1,2,3,7,8,9-HxCDF-13C	2.00	85
					1,2,3,4,7,8-HxCDD-13C	2.00	96
1,2,3,7,8-PeCDD	7.2	—	4.90		1,2,3,6,7,8-HxCDD-13C	2.00	79
Total PeCDD	56.0	—	4.90		1,2,3,4,6,7,8-HpCDF-13C	2.00	68
					1,2,3,4,7,8,9-HpCDF-13C	2.00	54
1,2,3,4,7,8-HxCDF	9.6	—	4.90		1,2,3,4,6,7,8-HpCDD-13C	2.00	67
1,2,3,6,7,8-HxCDF	—	13	4.90	E	OCDD-13C	4.00	48
2,3,4,6,7,8-HxCDF	11.0	—	4.90				
1,2,3,7,8,9-HxCDF	ND	—	4.90		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	230.0	—	4.90		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	9.8	—	4.90		2,3,7,8-TCDD-37Cl4	0.20	92
1,2,3,6,7,8-HxCDD	55.0	—	4.90				
1,2,3,7,8,9-HxCDD	22.0	—	4.90				
Total HxCDD	380.0	—	4.90				
1,2,3,4,6,7,8-HpCDF	310.0	—	4.90		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	12.0	—	4.90		Equivalence: 35 ng/Kg		
Total HpCDF	320.0	—	4.90		(Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	870.0	—	4.90				
Total HpCDD	2000.0	—	4.90				
OCDF	510.0	—	9.80				
OCDD	6100.0	—	9.80				

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E = PCDE Interference

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613 Sample Analysis Results

Client - Greylock Consulting, LLC

Client's Sample ID	GS-4		
Lab Sample ID	1057128004		
Filename	F70823A_11		
Injected By	SMT		
Total Amount Extracted	23.9 g	Matrix	Solid
% Moisture	54.8	Dilution	NA
Dry Weight Extracted	10.8 g	Collected	08/13/2007
ICAL Date	07/14/2007	Received	08/15/2007
CCal Filename(s)	F70822B_16	Extracted	08/18/2007
Method Blank ID	BLANK-13972	Analyzed	08/23/2007 19:07

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	2.30	—	0.92	2,3,7,8-TCDF-13C	2.00	96
Total TCDF	34.00	—	0.92	2,3,7,8-TCDD-13C	2.00	87
				1,2,3,7,8-PeCDF-13C	2.00	83
2,3,7,8-TCDD	0.94	—	0.92	2,3,4,7,8-PeCDF-13C	2.00	85
Total TCDD	24.00	—	0.92	1,2,3,7,8-PeCDD-13C	2.00	90
				1,2,3,4,7,8-HxCDF-13C	2.00	101
1,2,3,7,8-PeCDF	ND	—	4.60	1,2,3,6,7,8-HxCDF-13C	2.00	87
2,3,4,7,8-PeCDF	ND	—	4.60	2,3,4,6,7,8-HxCDF-13C	2.00	91
Total PeCDF	64.00	—	4.60	1,2,3,7,8,9-HxCDF-13C	2.00	87
				1,2,3,4,7,8-HxCDD-13C	2.00	101
1,2,3,7,8-PeCDD	ND	—	4.60	1,2,3,6,7,8-HxCDD-13C	2.00	80
Total PeCDD	24.00	—	4.60	1,2,3,4,6,7,8-HpCDF-13C	2.00	71
				1,2,3,4,7,8,9-HpCDF-13C	2.00	59
1,2,3,4,7,8-HxCDF	ND	—	4.60	1,2,3,4,6,7,8-HpCDD-13C	2.00	70
1,2,3,6,7,8-HxCDF	5.70	—	4.60	OCDD-13C	4.00	53
2,3,4,6,7,8-HxCDF	5.10	—	4.60			
1,2,3,7,8,9-HxCDF	ND	—	4.60	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	240.00	—	4.60	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	5.70	—	4.60	2,3,7,8-TCDD-37Cl4	0.20	97
1,2,3,6,7,8-HxCDD	33.00	—	4.60			
1,2,3,7,8,9-HxCDD	12.00	—	4.60			
Total HxCDD	260.00	—	4.60			
1,2,3,4,6,7,8-HpCDF	190.00	—	4.60	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	7.30	—	4.60	Equivalence: 19 ng/Kg		
Total HpCDF	200.00	—	4.60	(Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	720.00	—	4.60			
Total HpCDD	1800.00	—	4.60			
OCDF	390.00	—	9.20			
OCDD	6200.00	—	9.20			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1057128

Page: 1 of 1

1121484

Section A Required Client Information:

Company: Hardel Mutual Ply
Address: PO Box 540 Wood
Chehalis WA 98532
Email To: david@hardel.com
Phone: Fax:
Requested Due Date/TAT: Standard Turn

Section B Required Project Information:

Report To: Greylock Consulting
Copy To: Attn: S. Dudziak
email: Greylockllc@comcast.net
Purchase Order No.: 19507
Project Name: Hardel RI
Project Number: 0364

Section C Invoice Information:

Attention: David Wild
Company Name: Hardel Mutual Plywood
Address: PO Box 540
Pace Quote Reference: Chehalis, WA 98532
Pace Project Manager: M. Christie
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: WA

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: Dioxin Level 4 QA/QC	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GS-1 (1)	Sediment X	SL	G			8/13	1045		2										X		001
2	GS-2		SL	G			8/13	1157		1										X		002
3	GS-3		SL	G			8/13	1157		2										X		003
4	GS-4		SL	G			8/13	1235		1										X		004
5	~~MS/MSD~~																					
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
(1) Extra Sample for MS/MSD Email Results To: greylockllc@comcast.net	Suzanne Dudziak	8/14/07	1600	PACE	8/15/07	0930	3.6	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Suzanne Dudziak

SIGNATURE of SAMPLER: Suzanne Dudziak

DATE Signed (MM/DD/YY): 08/14/07

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Report No.: 1057128