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

Interim Action Closure Report

December 2010

Prepared For: Hardel Mutual Plywood Corp.

Prepared By:

GREYLOCK CONSULTING LLC

GC Project No. 0401

TABLE OF CONTENTS

1.0 INTRODUCTION

This Interim Action (IA) Closure Report presents a summary of upland soil and groundwater cleanup activities at Hardel Mutual Plywood Corporation's (Hardel's) property located at 1210 West Bay Drive NW in Olympia, Washington. The project area is located along the western shore of Budd Inlet as shown on the Vicinity Map (Figure 1). Upland soil and groundwater cleanup activities were performed at the Site in accordance with the Interim Action Plan (IAP) developed by Greylock Consulting LLC for the Site in December 2009 (Greylock, 2009).

This Interim Action (IA) consisted of free product removal and excavation and off-site disposal of upland soils containing elevated levels of diesel and/or heavy oil-range total petroleum hydrocarbons (TPH) and polyaromatic hydrocarbons (PAHs).

2.0 BACKGROUND INFORMATION

2.1 Site Description

The Former Hardel Plywood Site (Site) is located at 1210 West Bay Drive NW in Olympia, Washington (Thurston County tax parcel numbers 72600200100 & 91013100000). 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 consisted of asphalt pavement and concrete building foundations at the start of the project, with many of these features removed during the Interim Action. 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, to the west by West Bay Drive NW and residential/commercial properties, and to the east by Budd Inlet. The Site is presently vacant.

According to a City of Olympia Zoning Map, the upland portion of the Site is zoned "Urban Waterfront". The property is surrounded by a mix of uses, including commercial, residential and vacant industrial.

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).

2.2 Site History

The Site has been utilized by logging/lumber related businesses from as early as 1924 through 1996. 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 manufacturing facility. The only structures remaining after the fire were concrete building foundations, asphalt pavement, and an inactive rail line. Functioning storm drainage and water lines also remained on the property.

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 (UST) documented on the site. The Washington Department of Ecology's databases suggest that the tank was installed in 1964 and closed in place, but the date of closure is not listed. Personnel interviews suggest that the former UST was located east of the former welding shop.

The locations of buildings and activities at Hardel's Olympia site have changed over the years. Figure 2 depicts the site as it was configured in the 1980s. From 1960 through the early 1980s, the buildings and activities were located further west on the property.

From the early operations of the mill through the late 1980s, a panel oiler was used for concrete form plywood, BBOES (a 'B' grade panel, oiled and edge sealed). A diesel release agent was applied to both sides of the panel to prevent the form from adhering to concrete. In the late 1980s, Hardel stopped using diesel and switched the release agent from diesel to Noxcrete. In the 1960s through the mid 1980s, the panel oiler was located on the southwestern part of the site. Hardel staff reported that there were accidental releases of diesel from the panel oiler over the years.

On the northern part of the site, hydraulic oil was stored and used as part of the plant's operations. In the late 1960s and early 1970s there were two or three 55 gallon drums of hydraulic oil at the site at all times. A 1000 – gallon capacity above ground hydraulic oil tank was also located on the northern end of the site.

Hydraulic oil was used in the hot presses shown on Figure 2. During the years of operation at the site, hydraulic hoses which served the hot presses would periodically release oil due to accidental punctures or other breaches. Hardel employees stated that the accidental releases

resulted in spillage, despite efforts to avoid such releases. Hardel used its best efforts to clean up releases of oil.

2.3 Summary of Previous Environmental Studies

Previous environmental studies performed at the Site are listed below.

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 6, 2004.

Greylock, 2007. Draft Remedial Investigation. Former Hardel Plywood Site, 1210 NW West Bay Drive, Olympia, Washington. December 17, 2007.

Greylock, 2009a. Feasibility Study. Former Hardel Plywood Site, 1210 NW West Bay Drive, Olympia, Washington. May 8, 2009.

Greylock 2009b. Supplemental Subsurface Investigation. Former Hardel Plywood Site, 1210 NW West Bay Drive, Olympia, Washington. October 26, 2009.

Tetra Tech EM Inc., 1999

Tetra Tech EM Inc. performed a Phase 1 Environmental Site Assessment at the site in July 1999. This study involved historical research and interviews. No soil, groundwater, or sediment sampling was performed during that study by Tetra Tech. Potential areas of concern were identified based on historical features (Figure 2).

Stemen Environmental Inc., 2004

Stemen Environmental Inc. performed a Phase 2 Environmental Site Assessment on the 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 laboratory tested for total petroleum hydrocarbons (TPH), semi-volatiles, metals, and polychlorinated biphenyls (PCBs). Testing identified the presence of heavy oil and diesel-range petroleum products in soil and groundwater on the site. Free phase petroleum product was detected in borings on the northwestern end of the property. Laboratory testing confirmed the presence of polyaromatic hydrocarbons (PAHs) in soils on the northwestern portion of the property and in groundwater on the southwestern portion of the property.

Greylock Consulting LLC, 2007, 2009a, 2009b

Greylock completed a Remedial Investigation (RI) at the Site in December of 2007. Twenty-six (26) soil borings were advanced to depths ranging from approximately 12 to 20 ft below ground surface (bgs) using a direct push drill rig. Seven (7) of those borings were developed as shallow groundwater monitoring wells. Groundwater flow direction and tidal influence was assessed. Samples of soil and groundwater were tested in the laboratory for TPH and PAHs.

The RI concluded that shallow groundwater is present at approximately 3 to 4.5 ft bgs. The direction of groundwater flow was toward the east. Tidal fluctuation did not appear to affect the direction of groundwater flow at the Site.

The RI concluded that soil containing heavy oil, diesel, and PAHs above target cleanup levels were present along the western end of the Site. Groundwater in this area contained heavy oil and diesel above target cleanup levels. One well at the northwestern part of the Site (MW-1) contained oil, 0.95 ft thick, floating on the water table in 2007. Additional borings were recommended to further characterize the extent of soil and groundwater contamination at the Site.

Greylock completed a Supplemental Characterization and Feasibility Study at the Site in May, 2009. Eleven (11) supplemental soil borings were advanced to depths ranging from approximately 5 to 16 ft bgs using a direct push drill rig. Also, three (3) hand auger borings were advanced, west of the concrete slab.

Two discrete areas of concern (AOCs) were identified for soil and groundwater. AOC No. 1 was characterized by soil and groundwater containing heavy oil above target cleanup standards. Free product was observed on the water table in this area. AOC No. 2 was characterized by soil and groundwater containing diesel above target cleanup standards. Both areas were located along the western part of the site. Four different remedial options were evaluated for cleanup of soil and groundwater. The preferred remedial option for the Site was identified as free product removal along with excavation and off-site disposal of a preliminary estimate of 11,300 cubic yards of contaminated soils.

Greylock completed a Supplemental Subsurface Investigation in October, 2009. Eight (8) soil borings were advanced to depths ranging from approximately 4.5 to 20 ft bgs using a hollow stem auger rig. Two (2) wells were installed for the purpose of intercepting and recovering free product. This supplemental investigation encountered additional soil and groundwater impacted with heavy oil. The results of that investigation identified an additional estimated 3,650 cubic yards of soil that would require excavation and off-site disposal.

2.4 Nature of Contamination

"Area of Contamination 1" (AOC-1), located on the northwestern part of the site was characterized by elevated concentrations of heavy oil in soil . TPH concentrations ranged from 5,000 mg/kg at GB-8 to complete saturation at MW-1, MW-5 and MW-9. AOC-1 was completely covered by concrete or asphalt.

"Area of Contamination 2" (AOC-2), located on the southwestern part of the site was characterized by elevated concentrations of diesel in soil. Some elevated PAHs had also been detected in this area, but diesel was more widespread and thus was the primary contaminant that drove the cleanup of AOC-2. Diesel concentrations ranged from 3,200 mg/kg at GB-6 to 21,000 mg/kg at GB-20. AOC-2 was completely covered by concrete.

The Site contained two discrete areas of concern (AOC) for groundwater that were located within the two AOCs for soil. Prior to soil cleanup activities performed during the Interim Action, groundwater in AOC No. 1 contained free phase hydrocarbon product at MW-1, MW-5, and MW-9. AOC No. 2 contained dissolved diesel concentrations of 25,000 ug/L at MW-7 prior to the start of soil cleanup activities.

3.0 INTERIM CLEANUP ACTION

The purpose of the interim action (IA) at the Site was to remove free product and soil greater than target cleanup levels. A goal of the IA was to achieve an immediate improvement to human health and the environment as TPH and PAH contaminated soil and groundwater would no longer be present at the Site. This IA was conducted in accordance with the MTCA cleanup regulation and applicable state and federal laws described in WAC 173-340-430. In addition, the IA followed guidelines set forth in the "Draft Interim Action Work Plan" prepared by Greylock dated December 3, 2009. A licensed geologist from Greylock monitored the removal action.

3.1 Summary of Excavations and Subsurface Conditions

The following earthwork observation activities were completed during the IA:

- Concrete building foundations and former floor slabs were removed by Wyser Construction, Inc. (Wyser) of Snohomish, Washington to allow access to the contaminated soil beneath. In addition, buried concrete features encountered within the remedial excavation areas were removed by Wyser. Removed concrete was subsequently crushed onsite and used for shallow surficial fill above the water table ("clean" concrete only). Concrete footings showing evidence of petroleum staining were segregated from the clean concrete and later transported for off-site disposal at the Weyerhaeuser Regional Landfill in Cowlitz County, Washington. A total of

approximately 28.34 tons of stained concrete was hauled off-site for disposal at the Weyerhaeuser Regional Landfill.

- Monitoring wells within the planned excavation areas (wells MW-1, MW-5, MW-7, MW-8, and MW-9) were decommissioned by ESN Northwest, Inc. (ESN) of Olympia, Washington on June 28, 2010, prior to the start of soil excavation activities. Well MW-4 was decommissioned by ESN on September 30, 2010, due to the close proximity of the well to a UST search excavation in that area which may have affected the integrity of the well (the UST search is discussed later in this report). Monitoring well closure reports are attached in Appendix 1.

- Contaminated soil areas were excavated, free product was removed, and excavations were dewatered to the extent possible to allow for removal of soil at depth.

- Petroleum-impacted soil was excavated and loaded onto trucks and transported by Envirocon Trucking and Rock-On Trucking to the Weyerhaeuser Regional Landfill in Cowlitz County, Washington for off-site disposal. Wyser staged the work in three separate excavations, identified as EX-1, EX-2, and EX-3 (Figure 3). A total of approximately 23,331 tons of petroleum-contaminated soil and debris was removed from these three excavations and disposed of at the Weyerhaeuser Regional Landfill. A photograph of a "contaminated" soil stockpile taken on July 1, 2010, near excavation EX-1, is included as "Photo 4" in Appendix 2.

- Excavations were backfilled with "clean" fill material imported from a borrow pit operated by "Quality Rock Products" in Littlerock, Thurston County, Washington. Results of laboratory testing of a composite soil sample of sandy gravel fill material from the "Quality Rock Products" Littlerock borrow pit are included in Appendix 3. Referring to the laboratory report in Appendix 3, analysis of the composite soil sample collected by "Quality Rock Products" from their borrow pit in Littlerock on May 28, 2010 reportedly revealed no detectable concentrations (above the laboratory's lower reporting limits) of gasoline-, diesel-, or heavy oil range total petroleum hydrocarbons (test method NWTPH-HCID), polyaromatic hydrocarbons (test method 8270), volatile organic compounds (test method 8260/5035), and "trace level organic compounds" (test method SW846 8290). With respect to metals, laboratory testing of that composite soil sample

revealed low concentrations of chromium (9.8 parts-per-million (ppm) and 8.2 ppm, respectively in a duplicate analysis), and no reported concentrations of lead, cadmium, arsenic, silver, barium, selenium, and mercury (test method EPA-6020 series).

- A total of approximately 7,005 tons of "clean" drain rock imported from the "Quality Rock Products" borrow pit in Littlerock was placed as backfill in the excavations below the water level.

- A total of approximately 21,513 tons of "clean" sandy gravel fill material imported from the "Quality Rock Products" borrow pit was placed in lifts above the water level in the excavations. Backfill compaction testing for the sandy gravel fill was performed by Mayes Testing.

- An estimated 682 cubic yards of "clean" stockpiled overburden (brown silty sand with some gravel excavated from the upper approximately 3 vertical feet of excavation EX-1) was placed and compacted along the gentle slope up to the top of the concrete wall along the west perimeter of the work area. Referring to Table 1, results of laboratory analysis of 4 composite samples of the "overburden" stockpiled soils collected on July 6th and July 14th, 2010 revealed no detectable concentrations of diesel or heavy oil-range total petroleum hydrocarbons above the laboratory's lower reporting limits (test method NWTPH-DX/EX Extended).

- The upper approximately 1-foot of the work area was filled and graded with "clean" recycled crushed concrete from the Site.

- Rebar removed from concrete at the site was transported for recycling at Snizter Steel in Tacoma, Washington at the end of the construction project in October 2010.

- Site storm water was controlled within the work area during construction activities (within a perimeter silt fence). During demolition and excavation, site storm water was controlled by blocking catch basins in the active work areas.

Excavation "EX-1":

Excavation EX-1 (Figure 3 and Figure 4) was excavated to depths ranging from approximately 9-to-13 feet below the ground surface (bgs), with an average depth of approximately 10 feet bgs. The deeper areas of the excavation were in the western portion of EX-1. A photograph taken during soil excavation activities in the northwestern portion of EX-1 is included as "Photo 3" in Appendix 2.

General soil types encountered in excavation EX-1 consisted of an upper approximately 3 feet of brown silty sand with some gravel which was segregated and stockpiled as "overburden". As mentioned earlier, four (4) composite soil samples of this "overburden" material (approximately 682 cubic yards total volume) were collected for laboratory analysis in an effort to confirm the soil as "clean" with respect to diesel/heavy oil contaminants for reuse as backfill at the Site.

In general, a mix of brown and gray silty sand was encountered below the "overburden" soil. Abundant wood debris was encountered between depths of approximately 4-to-10 feet deep, along with silty sand containing sea shell fragments within that depth range and up to approximately 12 feet bgs. Brown gravelly sand was encountered in deeper excavated areas below approximately 12 feet bgs in the western portion of excavation EX-1. Groundwater seepage was noted at several locations on the north, south, and western sidewalls of the excavation at or below approximately 6 feet below the pre-existing ground surface.

Following receipt of confirmation soil sample analytical results from the final limits of excavation EX-1, backfilling began after dewatering the excavation by placing and compacting "clean" sandy gravel fill material in lifts.

Excavation "EX-2":

Excavation EX-2 (Figure 3 and Figure 4) was excavated to depths ranging from approximately 9-to-16 feet below the ground surface (bgs), with most of the excavation at approximately 16 feet bgs. The shallower areas of the excavation were nearby to the north and west of the former "press pit".

In general, grayish silty sand and/or sandy gravel was encountered in the upper approximately 4-to-6 feet of excavation EX-2. A mix of silty sand, clayey sand, and silty sand with sea shell fragments, along with abundant wood debris and "pockets" of sawdust were encountered below

approximately 4-to-6 feet deep. Heavy oil-like odors were common in the wood debris layer. A thick layer of sawdust fill material was generally encountered at a depth of approximately 15 feet bgs in excavation EX-2. Sawdust fill material was encountered at a shallower depth (approximately 9 feet bgs) nearby to the west and north of the former "press pit". An old concrete floor slab was found buried approximately 4 feet bgs in the northern portion of excavation EX-2, and was removed during excavation activities.

Groundwater seepage was noted at several locations on the north, south, and western sidewalls of the excavation below approximately 4 feet below the pre-existing ground surface.

"Free product" in the form of heavy oil was encountered on groundwater seepage entering the excavation immediately adjacent to a buried former concrete "press pit" in the western portion of excavation EX-2 ("Photo 5" in Appendix 2). The "free product" appeared to have migrated along and/or within buried utility piping immediately beneath the eastern side of the press pit and nearby to the south of the press pit. "Free product" was removed from excavation pit water using absorbent pads and booms. The "press pit" structure was removed and oil-impacted soils surrounding the press pit structure were excavated for off-site disposal as part of excavation EX-2.

During removal of the "press pit" structure a buried 55-gallon steel drum (oriented upright with no lid; see "Photo 7" in Appendix 2) and an old crushed remnant of what appeared to have been a small old rusted steel underground storage tank were encountered immediately below the western footing of the structure (below approximately 7 feet bgs). The drum was found to be packed full of silty sand. Several approximately dime-size holes were noted on the lower sides of the drum. An oil-like odor was noticed on clayey sand remaining on the surface of the potential crushed tank. The drum and potential tank remnant were both removed and soil excavation activities resumed in that area.

A strong petroleum-like odor was encountered in the eastern portion of excavation EX-2. This area was over-excavated until field observations revealed no obvious petroleum odors in remaining in-place soils ("Photo 6" in Appendix 2). Confirmation excavation sidewall and floor soil samples were collected in the over-excavated area for lab analysis.

Strong petroleum-like odors were detected in a thick layer (in general from approximately 4-to-15 feet bgs) of wood debris and clayey sand along a buried north-south trending non-operational ductile iron water pipe. This area was over-excavated northward along and near the former water pipe and "confirmation" sidewall and floor samples were collected for lab analysis at the excavation limits.

Excavation EX-2 was performed in several stages using soil berms in an effort to manage groundwater entering the excavation, along with drawing down the water level to the extent possible with a pump discharging water to the on-site treatment and storage system. Soil berms were removed either prior to or during backfilling activities.

Following receipt of confirmation soil sample analytical results from the final limits of excavation EX-2, backfilling began by placing "clean" rounded cobble fill material ("drain rock") in the excavation to approximately 1 foot above the water line at approximately 4 feet bgs ("Photo 8" in Appendix 2. The remaining portion of the excavation was backfilled and compacted with "clean" sandy gravel material in lifts.

Excavation "EX-3":

Much of excavation EX-3 (see Figure 3) was excavated to depths ranging from approximately 6-to-7 feet below the ground surface (bgs), with the exception of an area in the western portion of the excavation which averaged approximately 10 feet bgs.

General soil types encountered in excavation EX-3 consisted of an upper approximately 2-to-3 feet of brown and/or gray silty sand with some gravel. Abundant shredded wood and sawdust with moderate-to-strong diesel-like odors and some layers of silty sand was encountered between depths of approximately 2-to-5 feet deep in the western and northern portions of EX-3 (see "Photo 10" in Appendix 2), with wood debris and clayey sand layers extending to approximately 9 feet bgs in much of the western portion of EX-3. The wood debris and clayey sand layers were underlain by gravelly sand at a depth of approximately 9 feet bgs. The shredded wood layer in the southern and eastern portion of the excavation was generally thinner (up to approximately 1 foot thick) and underlain by grayish silty sand. Grayish silty sand with seashell fragments was encountered in the eastern and southern portions of the excavation at a depth of approximately 6-to-7 feet bgs.

Groundwater seepage was noted at several locations on the north, south, and western sidewalls of the excavation at or below approximately 5 feet below the pre-existing ground surface.

Excavation EX-3 was conducted in several stages using soil berms in an effort to manage abundant groundwater entering the excavation, along with drawing down the water level to the extent possible with a pump discharging water to the on-site treatment and storage system. Soil berms were removed either prior to or during backfilling activities.

Following receipt of confirmation soil sample analytical results from the final limits of excavation EX-3, backfilling began by placing "clean" rounded cobble fill material ("drain rock") in the excavation to approximately 1 foot above the water line at approximately 5 feet bgs. The remaining portion of the excavation was backfilled and compacted with "clean" sandy gravel material in lifts ("Photo 12" in Appendix 2).

Suspected Closed-in-Place UST Area:

On September 14, 2010, the concrete pad near or overlying the suspected location of a closed-in-place underground storage tank (UST) and immediate surrounding area (nearby to the west and northwest of former monitoring well MW-4) was excavated to a depth of approximately 6-to-7 feet below the ground surface in an effort to locate the top of the closed tank ("Photo 11" in Appendix 2). No underground storage tank or suspected product piping was found in the excavated area.

Groundwater seepage was encountered at a depth of approximately 5 feet below the ground surface. The excavation was backfilled with "clean" drain rock and crushed concrete.

3.2 Soil Sampling

Soil samples were collected from the floors and sidewalls of the remedial excavations to confirm that all soil above target cleanup levels had been removed following soil excavation activities.

- A total of 52 "confirmation" sidewall samples were collected on intervals of at least every 50 feet laterally in the three (3) completed excavations.

Fourteen "confirmation" sidewall soil samples were collected from EX-1, thirteen sidewall samples were collected from EX-2, and twenty-five sidewall samples were collected from EX-3.

- 9 floor samples were collected from the EX-1 and EX-2 excavations (combined total of 18 floor samples).
- 13 floor samples were collected from the EX-3 excavation.

The soil samples were collected into preconditioned 4-ounce capacity glassware containers with teflon-sealed lids provided by the project laboratory ("Photo 9" in Appendix 2), and were stored in a chilled cooler in an effort to preserve sample integrity. Samples were transported directly to the project laboratory in this condition at the end of each day. A chain-of-custody (COC) record was maintained for sample tracking.

Sample location map ID numbers and corresponding soil sample ID numbers (for sample locations shown on Figures 4 and 5), and general sample location descriptions for all "confirmation" soil samples collected from excavations EX-1, EX-2, and EX-3 are shown on Figure 4b and Figure 5b, respectively.

3.3 Laboratory Analysis / Results

Collected soil samples were analyzed for diesel/heavy oil-range total petroleum hydrocarbons by test method NWTPH-DX/DX Extended at ESN. Samples with abundant wood debris were prepared using silica gel/acid wash cleanup prior to analyses.

Results of soil laboratory testing of the "confirmation" soil samples collected from the final lateral limits and floors of the remedial excavations were all below (the Model Toxics Control Act (MTCA) Method A target cleanup level of 2,000 parts-per-million (ppm) for diesel/heavy oil in soil.

Areas within the excavations where collected interim soil samples had reported diesel/heavy oil concentrations above the MTCA Method A cleanup level were all over-excavated and re-sampled until laboratory testing results revealed compliance with the target cleanup level of 2,000 ppm. "Interim" soil sample laboratory testing results are shown on Table 2. Final confirmation soil sample results are shown on Tables 3, 4, and 5.

3.4 Excavation Dewatering and Pit Water Sampling / Results

Excavation Dewatering:

Excavation dewatering employed the use of a gasoline-fired pump attached to a 3-inch diameter discharge line connected to the on-site water treatment and storage system. Four (4) Baker Tanks with "reverse baffles" between the tanks were utilized to store and treat water pumped from the open excavations (excavation pit water including collected storm water runoff within the work area). Following on-site treatment, water was discharged to the sanitary sewer through 2-inch diameter PVC piping at a rate of up to approximately 85 gallons per minute. Treated groundwater discharge to the sanitary sewer system (LOTT Alliance) was performed in accordance with the "Discharge Authorization Letter" (dated March 17, 2010) and the "Discharge Authorization Letter Clarification" (dated June 8, 2010).

Through the course of the project, a total of approximately 1,250,600 gallons of treated water from the work area was discharged to the sanitary sewer system between July 9th and September 21st, 2010.

Eight (8) rounds of treated discharge water sampling and testing were performed during the excavation dewatering phases of the project. No detectable concentrations of diesel/heavy oil-range total petroleum hydrocarbons or carcinogenic PAHs were reported above the laboratory's lower reporting limits for those analytes during all eight (8) sampling events. Only trace concentrations of non-carcinogenic PAHs were reported in the lab tested water samples for the eight sampling events.

The on-site dewatering system was decommissioned in stages beginning with the removal of the two Baker Tanks at the end of the on-site treatment system line on September 27, 2010 (with the first two Baker Tanks in the treatment system remaining at the site). Wyser Construction later cleaned and rinsed the remaining two Baker Tanks, collecting the residual sediment into a 55-gallon drum. The drum of sediment was transported by Rock-On Trucking for disposal at the Weyerhaeuser Regional Landfill in Cowlitz County, Washington.

Residual water remaining in an on-site Baker Tank during the final stage of the project (less than 5,000-gallons) was sampled on October 7, 2010. Results of laboratory testing of that water sample revealed no detectable concentrations of diesel/heavy oil-range total petroleum hydrocarbons or carcinogenic PAHs above the laboratory's lower reporting limits for those

analytes. Only trace concentrations of non-carcinogenic PAHs were reported in that water sample collected on October 7, 2010. Following receipt of these laboratory results, Wyser Construction discharged this residual water to the sanitary sewer system.

The remaining two Baker Tanks were removed from the site on October 19, 2010, during final site grading activities.

Excavation Pit Water Sampling:

Prior to backfilling, pit water samples were collected from excavations EX-1, EX-2, and EX-3 using a sterile bailer. The pit water samples were collected on July 7th, July 27th, and August 26th, respectively for excavations EX-1, EX-2, and EX-3.

The water samples were transferred into preconditioned glassware containers provided by the project laboratory and were stored in a chilled cooler in an effort to preserve sample integrity, then transported to the laboratory in this condition. A chain-of-custody (COC) record was maintained for sample tracking.

Collected pit water samples were analyzed for diesel and heavy oil range total petroleum hydrocarbons (TPH-Dx) by test method NWTPH-DX/DX Extended. No detectable concentrations of diesel/heavy oil-range total petroleum hydrocarbons were reported above the laboratory's lower reporting limits for those analytes in the lab tested pit water samples.

The pit water sample collected from excavation EX-3 on August 26, 2010 was also analyzed for polycyclic aromatic hydrocarbons (PAHs) by test method 8270. No carcinogenic PAHs were detected above the laboratory's lower reporting limit of 0.1 parts-per-billion (ppb) in that pit water sample. Trace concentrations of non-carcinogenic PAHs consisting of acenapthene (7.6 ppb), fluoranthene (1.80 ppb), fluorene (1.70 ppb), phenanthrene (0.2 ppb), and pyrene (1.20 ppb) were reported in the lab tested pit water sample collected from excavation EX-3. All of these reported trace concentrations of PAHs are below the MTCA standard formula Method B compliance standards for groundwater and surface water. No MTCA Method A cleanup standards have been published for the PAH compounds detected in that pit water sample.

4.0 CONCLUSIONS

Results of cleanup confirmation soil sampling and laboratory testing from the floors and sidewalls of the three (3) on-site remedial excavations indicates that the removal of free product, the removal of contaminated groundwater and the removal of diesel/heavy oil-impacted soil in those areas was successful in achieving compliance with the Model Toxics Control Act (MTCA) target soil cleanup levels at the sampled localities.

Approximately 23,331 tons of diesel/heavy oil-impacted soil and debris was excavated and transported off-site by Envirocon Trucking and Rock-On Trucking to Weyerhauser's permitted landfill in Cowlitz County, Washington.

Approximately 1,250,600 gallons of treated water from the work area was discharged to the sanitary sewer system between July 9th and September 21st, 2010 in accordance with the LOTT "Discharge Authorization Letter".

As envisioned in the December 3, 2009-dated Draft Interim Action Work Plan, post-construction confirmational groundwater monitoring activities at the Site are planned to be performed to evaluate the long-term effectiveness of the Interim Action cleanup. The monitoring plan is expected to utilize the remaining groundwater monitoring wells at the Site, but will also include new groundwater monitoring wells at locations approved by the Washington Department of Ecology.

5.0 LIMITATIONS

We have prepared this report for the exclusive use of Hardel Mutual Plywood and their authorized agents and regulatory agencies. This report is not intended for use by others, and the information contained herein is not applicable to other sites. No one except Hardel Mutual Plywood and their authorized agents should rely on this report without first conferring with Greylock.

Greylock personnel performed this work in accordance with generally accepted standards of care that existed in the state of Washington at the time of this Interim Action. This report has been prepared in accordance with generally accepted professional practices in the area at this time. We make no other warranty, either expressed or implied.

This Interim Action report is based on conditions that existed at the time the work was completed. The findings of this report may be affected by the passage of time or events such as a change in property use or occupancy, or by natural events, such as floods, earthquakes, or groundwater fluctuations.

6.0 REFERENCES

Greylock, 2007. *Draft Remedial Investigation. Former Hardel Plywood Site, 1210 NW West Bay Drive, Olympia, Washington.* December 17, 2007.

Greylock, 2009a. *Feasibility Study. Former Hardel Plywood Site, 1210 NW West Bay Drive, Olympia, Washington.* May 8, 2009.

Greylock, 2009b. *Supplemental Subsurface Investigation. Former Hardel Plywood Site, 1210 NW West Bay Drive, Olympia, Washington.* November 4, 2009.

Greylock, 2009c. *Draft Interim Action Work Plan. Former Hardel Mutual Plywood Site, 1210 NW West Bay Drive, Olympia, Washington.* December 3, 2009.

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.

Tetra Tech EM Inc., 1999. *Phase 1 Environmental Site Assessment Hardel Mutual Plywood Waterfront Property.* July 1999.

Table 1: "Overburden" Soil Stockpile Sampling Results from EX-1*

Hardel Mutual Plywood, 1210 West Bay Drive NW, Olympia, WA

Test Method NWTPH-DX/DX Extended

All results and limits in parts-per-million (ppm) or mg/kg

Test Method NWTPH-DX Extended	MTCA Method A Criteria[1]	Sample ID:	SP-1A	SP-1B	SP-1C	SP-2
	(ppm)	Date Sampled:	07/06/10	07/06/10	07/06/10	07/14/10
Diesel	2,000		<50	<50	<50	<50
Heavy Oil	2,000		<100	<100	<100	<100

Notes: 1- Method A soil cleanup level for unrestricted land use as published in the Model Toxics Control Act (MTCA), Chapter 173-340 WAC.

* Each stockpile soil sample was collected as a 3-point composite sample.

Table 2: "Interim" Soil Sampling Results: Excavations "EX-1", "EX-2", and "EX-3".
All "interim" soil sample locations were over-excavated then re-sampled to confirm compliance with MTCA Method A cleanup levels for diesel/heavy oil (TPH-D and TPH-O).
Hardel Mutual Plywood, 1210 West Bay Drive NW, Olympia, WA
Test Method: NWTPH-DX/DX Extended
All results and limits in parts-per-million (ppm) or mg/kg

Test Method NWTPH-DX Extended	MTCA Method A Criteria[1] (ppm)	Interim Sample ID: / Date Sampled:	**EX-1-B5 07/07/10**	**EX-2-B1 07/14/10**	**EX-2-S3 07/14/10**	**OEX-2-S3 07/26/10**	**EX-2-S4 07/15/10**	**EX-2-S5 07/15/10**	**OEX-2-S5 07/26/10**	**EX-2-S9 07/22/10**	**EX-2-S11 07/26/10**	**EX-3-S14 09/02/10**	**EX-3-S21 09/10/10**	**EX-3-S15* 09/02/10**	**EX-3-S16* 09/02/10**
Diesel	2,000	Results (ppm):	<50	<50	<50	<50	<50	<50	<50	330	<50	37,000	10,700	140	<50
Heavy Oil	2,000	Results (ppm):	13,000	4,400	11,000	2,700	4,100/5,000 (Dup)	68,000	18,000	12,000	7,400/9,200 (Dup)	<100	<100	<100	<100
		Final over-excavation sample ID (see Tables 3 through 5):	EX-1-B5-OEX	OEX-2-B1[2]	OEX-2-S3A	OEX-2-S3A	OEX-2-S4	OEX-2-S5A	OEX-2-S5A	OEX-2-S9	OEX-2-S11	OEX-3-S14	OEX-3-S21	EX-3-S24	EX-3-S25, -S26, - S27

Notes:
1- Method A soil cleanup level for unrestricted land use as published in the Model Toxics Control Act (MTCA), Chapter 173-340 WAC.
2- Sample logged as "EX-2-B5" on original chain-of-custody form/lab report.
(DUP) - Indicates result of "duplicate" sample analysis.
* Locations of samples EX-3-S15 and EX-3-S16 (which had compliant lab testing results) ended up being excavated owing to the presence of diesel-impacted soil remaining nearby (remaining diesel-impacted soil was subsequently over-excavated and confirmation samples EX-3-S24, -S25, S26, and -S27 were collected at the new excavation wall limits in that area).

Table 3: "Confirmation" Soil Sampling Results: Excavation "EX-1"

Hardel Mutual Plywood, 1210 West Bay Drive NW, Olympia, WA

Test Method: NWTPH-DX/DX Extended

All results and limits in parts-per-million (ppm) or mg/kg

Test Method NWTPH-DX Extended	MTCA Method A Criteria[1]	Sample ID:	EX-1-B1	EX-1-S1	EX-1-S2	EX-1-B2	EX-1-S3	EX-1-S4	EX-1-B3	EX-1-S5	EX-1-B4	EX-1-S6	EX-1-B5-OEX
	(ppm)	Date Sampled:	07/01/10	07/01/10	07/01/10	07/01/10	07/01/10	07/06/10	07/06/10	07/06/10	07/06/10	07/07/10	07/12/10
Diesel	2,000		<25	<25	<25	<25	<25	<50	<50	72	<50	<50	<50
Heavy Oil	2,000		<50	1500	<50	<50	<50	<100	<100	<100	<100	<100	<100

Test Method NWTPH-DX Extended	MTCA Method A Criteria[1]	Sample ID:	EX-1-B6	EX-1-B7	EX-1-B8	EX-1-S7	EX-1-S8	EX-1-B9	EX-1-S9	EX-1-S10	EX-1-S11	EX-1-S12	EX-1-S13
	(ppm)	Date Sampled:	07/07/10	07/07/10	07/07/10	07/07/10	07/07/10	07/08/10	07/08/10	07/08/10	07/08/10	07/08/10	07/12/10
Diesel	2,000		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Heavy Oil	2,000		<100	<100	<100	<100	<100	<100	200	<100	<100	<100	250

Test Method NWTPH-DX Extended	MTCA Method A Criteria[1]	Sample ID:	EX-1-S14
	(ppm)	Date Sampled:	07/12/10
Diesel	2,000		<50
Heavy Oil	2,000		210

Notes: 1- Method A soil cleanup level for unrestricted land use as published in the Model Toxics Control Act (MTCA), Chapter 173-340 WAC.

Table 4: "Confirmation" Soil Sampling Results: Excavation EX-2

Hardel Mutual Plywood, 1210 West Bay Drive NW, Olympia, WA

Test Method: NWTPH-DX/DX Extended

All results and limits in parts-per-million (ppm) or mg/kg

Test Method NWTPH-DX Extended	MTCA Method A Criteria[1]	Sample ID:	EX-2-S1	EX-2-S2	OEX-2-B1[2]	OEX-2-S3A	OEX-2-S4	EX-2-B2	EX-2-B3	OEX-2-S5A	EX-2-B4	EX-2-S6	EX-2-B5
	(ppm)	Date Sampled:	07/13/10	07/13/10	08/04/10	07/29/10	07/26/10	07/15/10	07/15/10	07/29/10	07/15/10	07/15/10	07/22/10
Diesel	2,000		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Heavy Oil	2,000		<100	<100	<100	<100	420	<100	<100	<100	680	250	<100

Test Method NWTPH-DX Extended	MTCA Method A Criteria[1]	Sample ID:	EX-2-S7	EX-2-B6	EX-2-S8	OEX-2-S9	EX-2-S10	EX-2-B7	OEX-2-S11	EX-2-S12	EX-2-B8	EX-2-B9	EX-2-S13
	(ppm)	Date Sampled:	07/22/10	07/22/10	07/22/10	07/27/10	07/22/10	07/26/10	08/04/10	07/27/10	07/27/10	07/29/10	07/29/10
Diesel	2,000		<50	110	<50	<50	<50	<50	<50	<50	<50	<50	<50
Heavy Oil	2,000		<100	<100	<100	<100	200	<100	<100	<100	<100	<100	<100

Notes:
1- Method A soil cleanup level for unrestricted land use as published in the Model Toxics Control Act (MTCA), Chapter 173-340 WAC.
2- Sample logged as "OEX-2-B5" on original chain-of-custody form/lab report.

Table 5: "Confirmation" Soil Sampling Results: Excavation "EX-3"

Hardel Mutual Plywood, 1210 West Bay Drive NW, Olympia, WA
Test Method NWTPH-DX/DX Extended
All results and limits in parts-per-million (ppm) or mg/kg

Test Method NWTPH-DX Extended	MTCA Method A Criteria[1]	Sample ID:	EX-3-S1	EX-3-S2	EX-3-B1	EX-3-S3	EX-3-B2	EX-3-B3	EX-3-S4	EX-3-B4	EX-3-S5	EX-3-S6	EX-3-B-5
	(ppm)	Date Sampled:	08/11/10	08/11/10	08/11/10	08/11/10	08/11/10	08/12/10	08/12/10	08/12/10	08/12/10	08/17/10	08/19/10
Diesel	2,000		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Heavy Oil	2,000		<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100

Test Method NWTPH-DX Extended	MTCA Method A Criteria[1]	Sample ID:	EX-3-S7	EX-3-B6	EX-3-S8	EX-3-B7	EX-3-S9	EX-3-S10	EX-3-B8	EX-3-B9	EX-3-S11	EX-3-S12A	EX-3-S12B
	(ppm)	Date Sampled:	08/19/10	08/19/10	08/24/10	08/25/10	08/25/10	08/25/10	08/26/10	08/30/10	08/30/10	08/30/10	08/30/10
Diesel	2,000		<50	<50	<50	<50	<50	460 / 640 (Dup)	<50	<50	<50	<50	<50
Heavy Oil	2,000		110/<100 (Dup)	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100

Test Method NWTPH-DX Extended	MTCA Method A Criteria[1]	Sample ID:	EX-3-S13	EX-3-B10	EX-3-B11	EX-3-B12	EX-3-S17	EX-3-S18	EX-3-S20	OEX-3-S14	EX-3-B13	OEX-3-S21	EX-3-S22
	(ppm)	Date Sampled:	08/30/10	09/02/10	09/02/10	09/08/10	09/08/10	09/08/10	09/10/10	09/10/10	09/10/10	09/15/10	09/15/10
Diesel	2,000		<50	<50	<50	<50	<50	<50	100	<50	<50	<50	<50
Heavy Oil	2,000		<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100

Test Method NWTPH-DX Extended	MTCA Method A Criteria[1]	Sample ID:	EX-3-S23	EX-3-S24	EX-3-S25	EX-3-S26	EX-3-S27
	(ppm)	Date Sampled:	09/16/10	09/16/10	09/16/10	09/16/10	09/16/10
Diesel	2,000		1,300	<50	<50	<50	<50
Heavy Oil	2,000		<100	<100	<100	<100	<100

Notes: 1- Method A soil cleanup level for unrestricted land use as published in the Model Toxics Control Act (MTCA), Chapter 173-340 WAC.
(Dup) - Indicates result of "duplicate" sample analysis.

Table 6: Confirmation Soil Sample ID Numbers and Corresponding Map ID numbers.
General location descriptions
Hardel Mutual Plywood, 1210 West Bay Drive NW, Olympia, WA

Soil Sample ID #	Map ID #	Approximate depth below ground surface (feet)	General Location Description
EX-1-B1	1	13	Floor in western portion of EX-1
EX-1-S1	2	6	West sidewall in central portion of EX-1
EX-1-S2	3	6	Sidewall near northwest corner of EX-1
EX-1-B2	4	13	Floor in northwest portion of EX-1
EX-1-S3	5	6	North sidewall of EX-3
EX-1-S4	6	7	West sidewall south portion of EX-1
EX-1-B3	7	10	Floor in southwestern portion of EX-1
EX-1-S5	11	6	Northern sidewall of EX-1
EX-1-B4	12	9	Floor in northern portion of EX-1
EX-1-S6	13	6	Eastern sidewall in north portion EX-1
EX-1-B6	15	10	Floor in northeast portion of EX-1
EX-1-B7	16	9	Floor in central portion of EX-1
EX-1-B8	17	9	Floor in south portion of EX-1
EX-1-S7	18	7	East sidewall in northeast portion EX-1
EX-1-S8	19	6	East sidewall in central portion of EX-1
EX-1-B9	20	10	Floor in southeast portion of EX-1
EX-1-S9	21	6	East sidewall in south portion of EX-1
EX-1-S10	22	6	South sidewall of EX-1
EX-1-S11	23	6	South sidewall of EX-1
EX-1-S12	24	6	South sidewall of EX-1
EX-1-B5-OEX	25	16	Floor in northeastern portion of EX-1
EX-1-S13	26	9	East sidewall in northeast portion EX-1
EX-1-S14	27	8	West sidewall in northeast portion of EX-1
EX-2-S1	28	8	West sidewall of EX-2
EX-2-S2	29	8	West sidewall of EX-2
EX-2-B2	34	16	Floor in central portion of EX-2
EX-2-B3	35	16	Floor in central portion of EX-2
EX-2-B4	37	14	Floor in east portion of EX-2
EX-2-S6	38	10	East sidewall of EX-2
EX-2-B5	39	16	Floor in south portion of EX-2
EX-2-S7	40	9	South sidewall of EX-2
EX-2-B6	41	16	Floor in south portion of EX-2
EX-2-S8	42	8	East sidewall in south portion of EX-2
EX-2-S10	44	9	South sidewall of EX-2
EX-2-B7	46	10	Floor in west portion of EX-2
OEX-2-S4	47	9	North sidewall of EX-2
OEX-2-S9	50	8	East sidewall of EX-2
EX-2-S12	51	8	South sidewall in far eastern portion of EX-2
EX-2-B8	52	16	Floor in far eastern portion of EX-2
OEX-2-S3A	53	8	West sidewall of EX-2
EX-2-B9	54	15	Floor in north portion of EX-2
EX-2-S13	55	8	North sidewall of EX-2
OEX-2-S5A	56	8	North sidewall of EX-2
OEX-2-S11	57	9	East sidewall of EX-2
OEX-2-B1	58	16	Floor in west portion of EX-2
EX-3-S1	59	5	West sidewall in south portion of EX-3
EX-3-S2	60	4	Sidewall near southwestern corner of EX-3
EX-3-B1	61	7	Floor in southwest portion of EX-3
EX-3-S3	62	7	West sidewall in south portion of EX-3
EX-3-B2	63	12	Floor in southwest portion of EX-3
EX-3-B3	64	7	Floor in south portion of EX-3
EX-3-S4	65	4	South sidewall of EX-3
EX-3-B4	66	7	Floor in south portion of EX-3
EX-3-S5	67	4	South sidewall of EX-3
EX-3-S6	68	4	Southeast sidewall of EX-3
EX-3-B5	69	8	Floor in south portion of EX-3
EX-3-S7	70	7	West sidewall in central portion of EX-3
EX-3-B6	71	10	Floor in west portion of EX-3
EX-3-S8	72	6	West sidewall in central portion of EX-3
EX-3-B7	73	10	Floor in west portion of EX-3
EX-3-S9	74	5	West sidewall in central portion of EX-3
EX-3-S10	75	5	West sidewall in north portion of EX-3
EX-3-B8	76	6	Floor in central portion of EX-3
EX-3-B9	77	9	Floor in southeast portion of EX-3

EX-3-S11	78	4	Southeast sidewall of EX-3
EX-3-S12A	79	4	East sidewall of EX-3
EX-3-S12B	80	6	East sidewall of EX-3
EX-3-S13	81	6	East sidewall of EX-3
EX-3-B10	83	9	Central portion of EX-3
EX-3-B11	86	7	Floor in north portion of EX-3
EX-3-B12	87	9	Floor in east portion of EX-3
EX-3-S17	88	5	North sidewall in east portion of EX-3
EX-3-S18	89	5	North sidewall in east portion of EX-3
EX-3-S20	91	4	West sidewall in north portion of EX-3
OEX-3-S14	92	4	Sidewall near northwestern corner of EX-3
EX-3-B13	93	6	Floor in northwest portion of EX-3
EX-3-S22	95	4	North sidewall in western portion of EX-3
OEX-3-S21	96	4	North sidewall of EX-3
EX-3-S23	97	4	North sidewall of EX-3
EX-3-S24	98	4	Northeast sidewall of EX-3
EX-3-S25	99	4	East sidewall of EX-3
EX-3-S26	100	4	East sidewall of EX-3
EX-3-S27	101	4	East sidewall of EX-3

Figure 1. Vicinity Map

WEST BAY DRIVE

BURLINGTON NORTHERN RR

N 20°30'00" W
130.55'

N 14°22'11" W
403.33'

N 12°40'12" W
421.28'

N 74°05'00" E
99.96'

N 10°40'37" W
165.41'

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'

RELIABLE STEEL

N 89°31'12" E
76.97'

N 89°31'12" E
315.79'

N 84°01'33" E
632.49'

SHIPPING OFFICE & LUNCH ROOM
PATCH LINE
PLUG-CUTTING SAW
10' TRIM SAW
VENCER COMPOSER
METHYLENE CHLORIDE DRUMS
SPREADER
BANDER
SANDER
PLUG LINE ROUNDTABLE
DWN. PLUG LINE
TRUCK PORT LOADING AREA
REEL
UPSTAIRS PLUG LINE
PLUG LINE ROUNDTABLE
NEW SIDING SAW
SIDING SAW
10-OP HOT PRESS
24-OP HOT PRESS
EFB UNIT
BOILER ASH ACCUMULATION AREA
ROUT LINE
10' PATCH LINE
SCRUBBER CONTAINMENT
DRYER #2
PANEL TURNER
POLT B METHYL STORAGE
HOG
BLUE SILO
GLUE WASHWATER CONTAIINMENT
40-OP HOT PRESS
HOG ROOM
BOILER HOUSE
PIPE SHOP W/ BAGHOUSES ON TOP
1
2
3
CORE SAW
SPREADER
8' TRIM SAW
MAINTENANCE
WELD SHOP
SANDER DUST BIN
EXISTING FENCE
DRYER #1
AIR COMPRESSOR ROOM
PETROLEUM PRODUCTS & USED OIL
GLOVE SHACK
MAIN ENTRANCE
REST ROOMS
VENEER STORAGE AREA
PROPANE TANK
FORMER HARDEL MUTUAL PLYWOOD WATERFRONT FACILITY
CONFERENCE ROOM
SAFETY OFFICE
PURCHASING OFFICE
EXIST. TOP OF SLOPE
EXIST. SHORELINE
BUDD INLET

LEGEND

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

SCALE: 1"=80' FEET
0 40' 80' 160'

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

720 S. 333rd St., Ste. 210
Federal Way, WA 98003
office: 253-661-3520
cell/direct: 253-266-2838
www.greylockenv.com

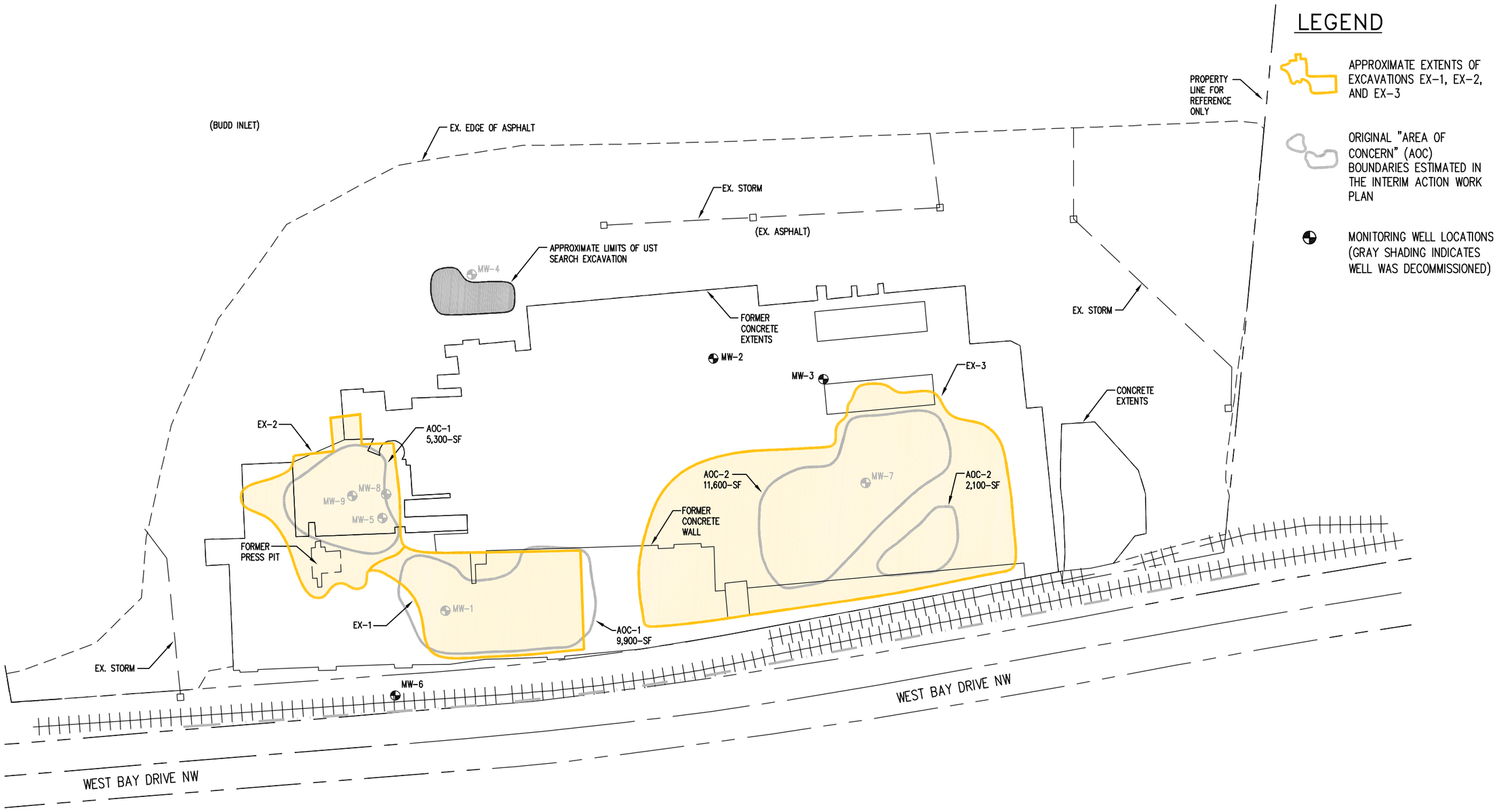
GREYLOCK CONSULTING LLC
Water Resources & Environmental Services

TITLE:

HISTORICAL FEATURES

Figure 2

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



Modified from KPFF Demolition and Site Plan, March 2010

720 S. 333rd St, Ste. 210
Federal Way, WA 98003
office: 253-661-3520
cel/direct: 253-266-2838
www.greylockenv.com
GREYLOCK CONSULTING LLC
Water Resources & Environmental Services

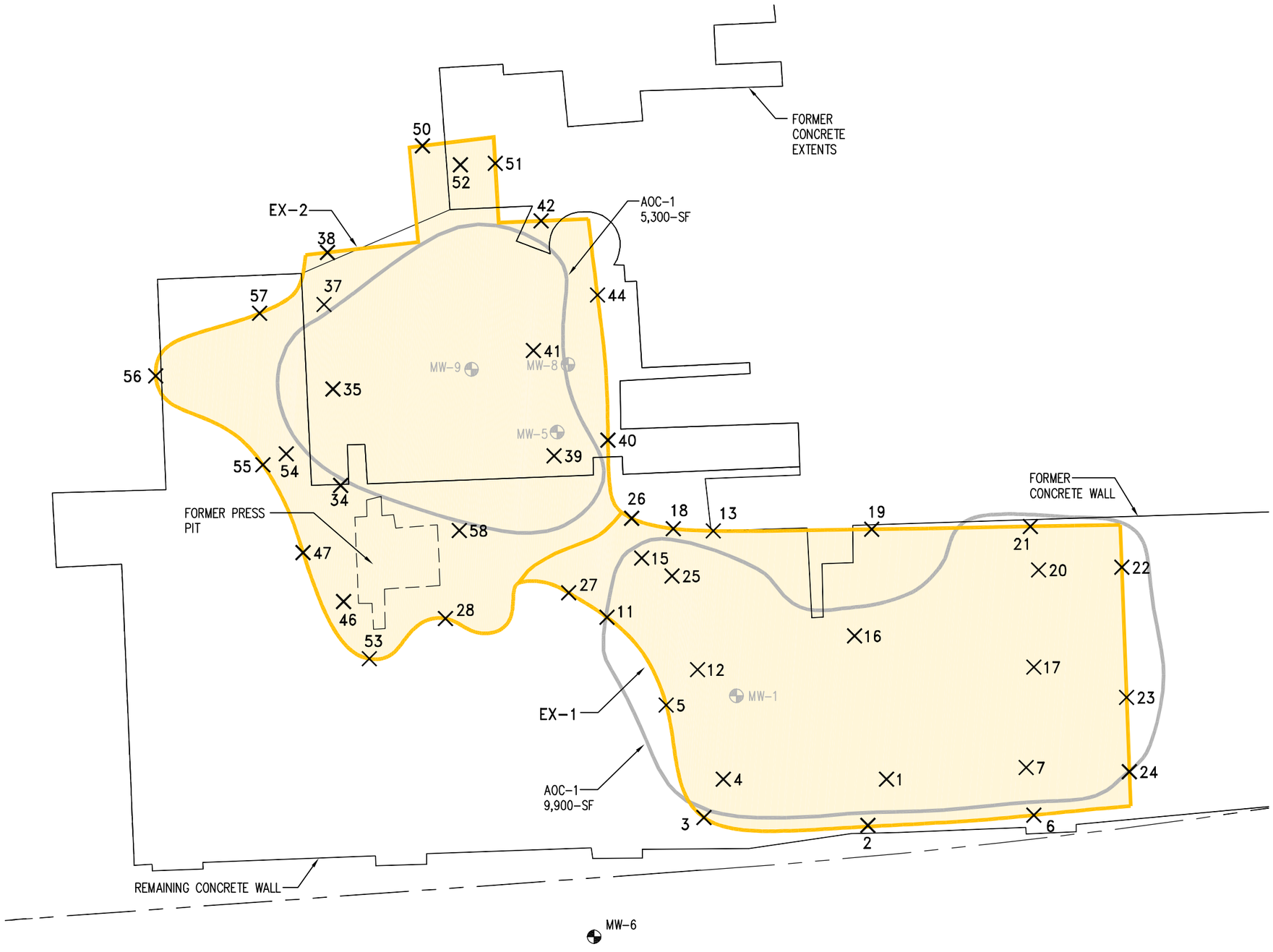
N E S W

0 80 160

APPROXIMATE SCALE IN FEET

FIGURE 3 : SITE OVERVIEW : APPROXIMATE EXTENT OF SOIL EXCAVATIONS

Project : Hardel Mutual Plywood Site
Location : Olympia, Washington
Client : Hardel Mutual Plywood Corp.
Project No : 0401.2



LEGEND

- APPROXIMATE LOCATIONS OF CONFIRMATION SOIL SAMPLES. (SEE NOTES ON FOLLOWING FIGURE 4B)
- APPROXIMATE EXTENTS OF EXCAVATIONS EX-1 & EX-2
- ORIGINAL "AREA OF CONCERN" (AOC) BOUNDARIES ESTIMATED IN THE INTERIM ACTION WORK PLAN
- MONITORING WELL LOCATIONS (GRAY SHADING INDICATES WELL WAS DECOMMISSIONED)

720 S. 333rd St, Ste. 210
Federal Way, WA 98003
office: 253-661-3520
cel/direct: 253-266-2838
www.greylockenv.com
GREYLOCK CONSULTING LLC
Water Resources & Environmental Services

Modified from KPFF Demolition and Site Plan, March 2010

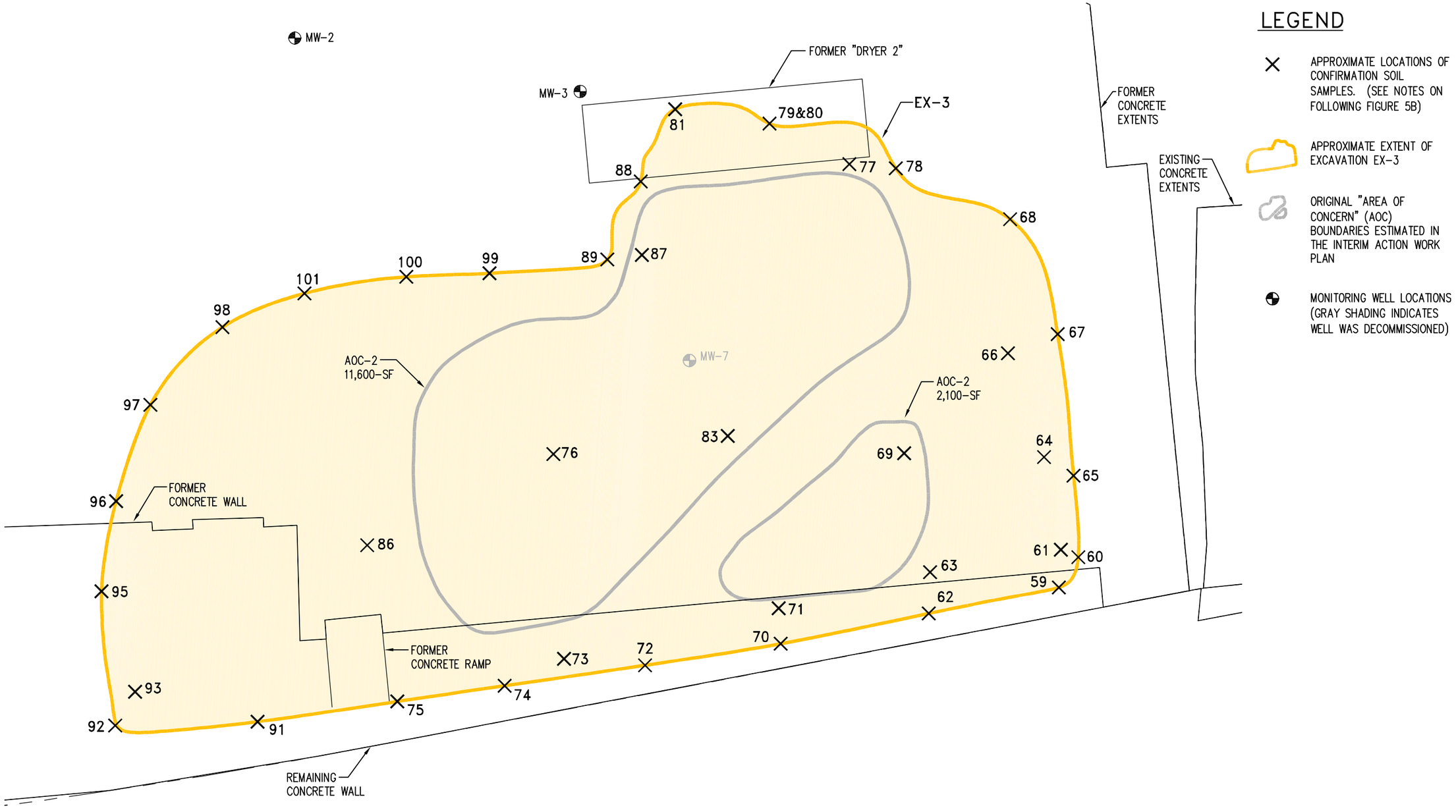
0 30 60
APPROXIMATE SCALE IN FEET

FIGURE 4 : EXCAVATION EXTENTS DETAIL – NORTH

Project : Hardel Mutual Plywood Environmental Cleanup
Location : Olympia, Washington
Client : Hardel Mutual Plywood Corp.
Project No : 0401.2

Figure 4B: Notes: Confirmation Soil Sample ID Numbers and Corresponding Map ID numbers.
Excavations "EX-1" and "EX-2"
Hardel Mutual Plywood, 1210 West Bay Drive NW, Olympia, WA

Map ID #	Soil Sample ID #	Approximate depth below ground surface (feet)	General Location Description
1	EX-1-B1	13	Floor in western portion of EX-1
2	EX-1-S1	6	West sidewall in central portion of EX-1
3	EX-1-S2	6	Sidewall near northwest corner of EX-1
4	EX-1-B2	13	Floor in northwest portion of EX-1
5	EX-1-S3	6	North sidewall of EX-3
6	EX-1-S4	7	West sidewall south portion of EX-1
7	EX-1-B3	10	Floor in southwestern portion of EX-1
11	EX-1-S5	6	Northern sidewall of EX-1
12	EX-1-B4	9	Floor in northern portion of EX-1
13	EX-1-S6	6	Eastern sidewall in north portion EX-1
15	EX-1-B6	10	Floor in northeast portion of EX-1
16	EX-1-B7	9	Floor in central portion of EX-1
17	EX-1-B8	9	Floor in south portion of EX-1
18	EX-1-S7	7	East sidewall in northeast portion EX-1
19	EX-1-S8	6	East sidewall in central portion of EX-1
20	EX-1-B9	10	Floor in southeast portion of EX-1
21	EX-1-S9	6	East sidewall in south portion of EX-1
22	EX-1-S10	6	South sidewall of EX-1
23	EX-1-S11	6	South sidewall of EX-1
24	EX-1-S12	6	South sidewall of EX-1
25	EX-1-B5-OEX	16	Floor in northeastern portion of EX-1
26	EX-1-S13	9	East sidewall in northeast portion EX-1
27	EX-1-S14	8	West sidewall in northeast portion of EX-1
28	EX-2-S1	8	West sidewall of EX-2
29	EX-2-S2	8	West sidewall of EX-2
34	EX-2-B2	16	Floor in central portion of EX-2
35	EX-2-B3	16	Floor in central portion of EX-2
37	EX-2-B4	14	Floor in east portion of EX-2
38	EX-2-S6	10	East sidewall of EX-2
39	EX-2-B5	16	Floor in south portion of EX-2
40	EX-2-S7	9	South sidewall of EX-2
41	EX-2-B6	16	Floor in south portion of EX-2
42	EX-2-S8	8	East sidewall in south portion of EX-2
44	EX-2-S10	9	South sidewall of EX-2
46	EX-2-B7	10	Floor in west portion of EX-2
47	OEX-2-S4	9	North sidewall of EX-2
50	OEX-2-S9	8	East sidewall of EX-2
51	EX-2-S12	8	South sidewall in far eastern portion of EX-2
52	EX-2-B8	16	Floor in far eastern portion of EX-2
53	OEX-2-S3A	8	West sidewall of EX-2
54	EX-2-B9	15	Floor in north portion of EX-2
55	EX-2-S13	8	North sidewall of EX-2
56	OEX-2-S5A	8	North sidewall of EX-2
57	OEX-2-S11	9	East sidewall of EX-2
58	OEX-2-B1	16	Floor in west portion of EX-2



Modified from KPFF Demolition and Site Plan, March 2010

720 S. 333rd St, Ste. 210
Federal Way, WA 98003
office: 253-661-3520
cel/direct: 253-266-2838
www.greylockenv.com
GREYLOCK CONSULTING LLC
Water Resources & Environmental Services

N W E S

0 30 60
APPROXIMATE SCALE IN FEET

FIGURE 5 : EXCAVATION EXTENTS DETAIL – SOUTH

Project : Hardel Mutual Plywood Environmental Cleanup
Location : Olympia, Washington
Client : Hardel Mutual Plywood Corp.
Project No : 0401.2

Figure 5B: Notes: Confirmation Soil Sample ID Numbers and Corresponding Map ID numbers.
Excavation "EX-3"
Hardel Mutual Plywood, 1210 West Bay Drive NW, Olympia, WA

Map ID #	Soil Sample ID #	Approximate depth below ground surface (feet)	General Location Description
59	EX-3-S1	5	West sidewall in south portion of EX-3
60	EX-3-S2	4	Sidewall near southwestern corner of EX-3
61	EX-3-B1	7	Floor in southwest portion of EX-3
62	EX-3-S3	7	West sidewall in south portion of EX-3
63	EX-3-B2	12	Floor in southwest portion of EX-3
64	EX-3-B3	7	Floor in south portion of EX-3
65	EX-3-S4	4	South sidewall of EX-3
66	EX-3-B4	7	Floor in south portion of EX-3
67	EX-3-S5	4	South sidewall of EX-3
68	EX-3-S6	4	Southeast sidewall of EX-3
69	EX-3-B5	8	Floor in south portion of EX-3
70	EX-3-S7	7	West sidewall in central portion of EX-3
71	EX-3-B6	10	Floor in west portion of EX-3
72	EX-3-S8	6	West sidewall in central portion of EX-3
73	EX-3-B7	10	Floor in west portion of EX-3
74	EX-3-S9	5	West sidewall in central portion of EX-3
75	EX-3-S10	5	West sidewall in north portion of EX-3
76	EX-3-B8	6	Central portion of EX-3
77	EX-3-B9	9	Floor in southeast portion of EX-3
78	EX-3-S11	4	Southeast sidewall of EX-3
79	EX-3-S12A	4	East sidewall of EX-3
80	EX-3-S12B	6	East sidewall of EX-3
81	EX-3-S13	6	East sidewall of EX-3
83	EX-3-B10	9	Floor in central portion of EX-3
86	EX-3-B11	7	Floor in north portion of EX-3
87	EX-3-B12	9	Floor in east portion of EX-3
88	EX-3-S17	5	North sidewall in east portion of EX-3
89	EX-3-S18	5	North sidewall in east portion of EX-3
91	EX-3-S20	4	West sidewall in north portion of EX-3
92	OEX-3-S14	4	Sidewall near northwestern corner of EX-3
93	EX-3-B13	6	Floor in northwest portion of EX-3
95	EX-3-S22	4	North sidewall in western portion of EX-3
96	OEX-3-S21	4	North sidewall of EX-3
97	EX-3-S23	4	North sidewall of EX-3
98	EX-3-S24	4	Northeast sidewall of EX-3
99	EX-3-S25	4	East sidewall of EX-3
100	EX-3-S26	4	East sidewall of EX-3
101	EX-3-S27	4	East sidewall of EX-3