PRELIMINARY INVESTIGATION DATA REPORT

DUWAMISH SHIPYARD, INC. (SITE #1429) SEATTLE, WASHINGTON

Prepared for

Duwamish Shipyard, Inc. 5658 West Marginal Way SW Seattle, Washington 98106

Prepared by

Anchor Environmental, L.L.C. 1423 Third Avenue, Suite 300 Seattle, Washington 98101

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1 INTRODUCTION

As required by the Washington Department of Ecology (Ecology) in its letters dated July 10, 2006 (Ecology 2006a) and August 3, 2006 (Ecology 2006b), this *Preliminary Investigation Data Report* (Data Report) provides the results of an investigation to determine the nature and extent of soil and groundwater contamination at the Duwamish Shipyard, Inc., (DSI) property (Property). Ecology approved the *Preliminary Investigation Work Plan* (Work Plan; Anchor 2006) on September 25, 2006 and fieldwork commenced on September 27, 2006. All samples were submitted for analytical testing by September 29, 2006. This submittal met Ecology's initial deadline of October 20, 2006.

This report presents the results of the sampling and analysis program as described in the Work Plan. The remainder of the report is organized as follows:

- Section 2 Property Background
- Section 3 Field Investigation and Sampling
- Section 4 Chemical Analyses
- Section 5 References

2 PROPERTY BACKGROUND

2.1 Property Description and Use

The Property occupies approximately 5 upland acres on the west bank of the Lower Duwamish Waterway (LDW) and is located at 5658 West Marginal Way SW in Seattle, Washington (Figure 1). The Property is either paved or covered with concrete-floored buildings. The Property is bordered to the north by the Alaska Marine Lines (AML) container facility and to the south by the Glacier Northwest Seattle Cement Facility. DSI also leases a graving dock from AML located directly adjacent to the northern DSI/AML property boundary. West Marginal Way is located immediately west of DSI, and AML owns additional staging property across this roadway. The Property is located in a highly industrialized area and is currently zoned for General Industrial (IG1 U/85) use. The eastern property boundary abuts the LDW. The LDW was placed by EPA on the National Priorities List (NPL or Superfund) in September 2001. The preliminary boundaries of the LDW Superfund Site extend from the Turning Basin downstream to Harbor Island. The Property is located within this initial delineation (approximately between River Miles 1.3 and 1.4). In addition, the Property is listed on Ecology's Contaminated Sediment Sites List, which was first published in 1996.

2.1.1 Property Ownership History

DSI purchased the original property as a tax title purchase from King County in May 1941. It then purchased a submerged parcel from Commercial Waterway District #1 in 1960, which was a mooring area for logs and vessels. In 1964, DSI exchanged the large southern portion of this submerged parcel with the Port of Seattle (Port) for land adjacent to DSI's southern boundary in order to allow the Port to develop a cement terminal. This parcel of land along the southern boundary was owned by the United States government prior to the Port and was leased and operated by Reichhold, Inc., between 1945 and 1961 for the manufacturing of various resins and formaldehyde products. The following year, DSI purchased the parcel to the west of DSI's original tract from General Construction Company. This was part of a larger parcel later sold to AML in 1999. Figure 2 shows the historic property boundaries.

2.1.2 DSI Ship Repair Activities

DSI engages in the repair and maintenance of floating vessels and equipment, including tug boats, barges, dredges, fishing vessels, small passenger vessels, and other types of commercial vessels. It provides services to approximately 60 to 65 vessels per year. The hulls of the vessels repaired are generally constructed of steel and, infrequently, aluminum or fiberglass. DSI's ship repair services include machine and electrical work, carpentry, steel fabrication, pipe-fitting, sand blasting, pressure washing, and painting. The haul-out facilities at the Property include two steel drydocks (owned by DSI) and a graving dock (leased from AML).

The two steel drydocks are located along the shoreline, oriented generally in a north-south direction. Both drydocks have been updated to provide containment for pressure wash wastewater. Wastewater flows to one end of the drydock, where it is captured in a collection sump and pumped onshore to a Delta Pollution Control flocculation pretreatment system prior to discharge to the King County sanitary sewer.

The AML graving dock is 410 feet long and 138 feet wide. Repairs in the graving dock take place below the surface level of the river. Vessels are floated into the graving dock, then the tide gates are shut and the water is pumped out to create a dry work environment. Pumps are used to continuously keep the concrete floor of the dock dry due to leaking from the tide gates. DSI has installed a containment system to separate pressure wash water from the water that seeps in through the tide gate.

Originally, DSI only had a marine railway for docking vessels. The majority of the vessels were wooden fish boats. Boats would be pulled up on the railway and could be sidetracked onto timbers on the shore. DSI frequently sidetracked boats in the fall, worked on them over the winter, and launched them in the spring. The work consisted mainly of wooden hull repairs and painting. DSI ended the sidetracking process in the late 1950s.

DSI acquired its first floating drydock in 1967. The floating drydock is a small, steel dock that is still in use by DSI. It acquired a second, larger wood drydock in approximately 1969. After this time, most of the vessel dockings were made on the

drydocks. DSI sold the large wooden drydock in 1990 and replaced it with the current 1,000-ton steel drydock. Most of the vessels that DSI currently repairs are of steel construction. Occasionally, DSI will work on aluminum hulls or fiberglass, but it no longer works on wooden vessels.

2.1.3 Environmental Controls

The stormwater system servicing the Property consists of 10 catch basins that convey water from the paved parking areas and active industrial areas to a 10-inch-diameter trunk line. This line then discharges to a sump located adjacent to the former marine railway. Stormwater enters the sump and is pumped through a centrifugal separator to remove grit prior to discharge via outfall (as shown on Figure 3). Incident rainfall is the only source of stormwater to the Property, as surface drainages are not allowed to enter the Property. The catch basins that receive runoff have been fitted with catch basin inserts and oil sorbent pillows. The system was constructed in the mid-1970s and is currently operated under National Pollutant Discharge Elimination System (NPDES) Permit No. WA-003093-7. This permit also regulates potential stormwater discharges from operations on the AML graving dock and the two movable drydocks used for repair of various vessels.

2.2 Independent Remedial Actions

The purpose of this section is to summarize the past remedial actions that have been performed at the Property, including the decommissioning of two underground storage tanks (USTs) and one independent remedial action. The locations of these projects are shown on Figure 3.

2.2.1 1986 Leaded Gasoline UST Closure

In 1986, prior to the enactment of the UST regulations (Chapter 173-360 Washington Administrative Code [WAC]), a 500-gallon UST, holding leaded gasoline, was closed in place. Based on available information, that UST was first installed in the 1960s. This tank is located within close proximity to a 26KV, 100-foot-tall power pole and an adjacent building foundation. At the time of the UST closure, a representative from Seattle City Light visited the Property to assess the threat to the power pole. The representative concurred with DSI's concerns and recommended to the Seattle Fire

Department that the UST be filled in place. At the time of closure, no subsurface samples were collected. Although closed in place, the UST does appear on the most recent UST list update that was issued on August 10, 2006.

2.2.2 2000 Diesel and Gasoline UST Excavations

In 2000, four USTs containing diesel fuel and unleaded gasoline were excavated and removed. Those four USTs were installed between 1968 and 1979. The excavation was performed by Quality Tank Service, Inc., a certified UST decommissioning contractor. The excavation was also supervised by Roy Kuroiwa, a professional engineer registered in the State of Washington. During the initial excavation, 60 cubic yards (cy) of soil were excavated with the USTs, prior to collection of bottom and sidewall soil samples. Seven of the initial confirmation samples contained concentrations of total petroleum hydrocarbons (TPH; diesel [TPH-Dx] and gasoline [TPH-G] range) and benzene above Model Toxics Control Act (MTCA) Method A industrial cleanup levels for soil. An additional 20 cy of soil were excavated from these locations and samples were recollected. Five of the second round of confirmation samples exceeded MTCA industrial cleanup levels. Four of the samples exceeded the TPH-G cleanup level and one exceeded the benzene cleanup level. These data are summarized in Table 1. No groundwater samples were collected as part of the confirmation sampling program.

2.2.3 1993 Independent Remedial Action

During the development of the parcel previously leased to and subsequently purchased by AML (shown as Areas A and B on Figure 2), soil affected by an unknown release of petroleum product was discovered. Historically, this area of the property now owned by AML and formerly owned by DSI was leased by DSI to various entities for storage of used machinery, parking of trucks and trailers, and storage and distribution of lumber. In August 1993, Environmental Services Limited performed a preliminary site assessment consisting of five soil borings, five test pits, and four monitoring wells (the only remaining well, MW4, is shown on Figure 3). The results indicated TPH constituents in soil and groundwater exceeding MTCA industrial cleanup levels. In response, DSI contracted with Hart Crowser, Inc. (HCI), in October 1993 to oversee the excavation of approximately 650 cy of soil.

During excavation of the affected soil, several restrictions (a 26KV buried powerline, a pad-supported power transformer foundation, the graving dock foundation, and the shallow groundwater table) were encountered, preventing completion of excavation of the delineated area. Upon removal, 12 soil confirmation samples were collected from the excavation sidewalls. All of these samples met MTCA industrial cleanup levels for semivolatile organic chemicals (SVOCs) and eight were below MTCA industrial cleanup levels for TPH-G, TPH-Dx, and TPH-O (lubricant oil range). The excavation area was backfilled and capped with asphalt, and an additional monitoring well (shown as MW5 on Figure 3) was installed to assess downgradient groundwater quality.

Groundwater samples were collected from MW4 and MW5 over four events in 1994 (two wet and two dry) and one event in February of 1999. Analysis of the MW4 data, reported by HCI, indicated a 25 percent reduction in TPH concentrations, although they did not meet MTCA groundwater cleanup levels based on Method B for protection of surface water. Groundwater cleanup levels were calculated based on Method B for protection of surface water, and not drinking water standards, because the Property and surrounding properties are industrial and do not serve as a drinking water source. Furthermore, the LDW is not classified for use as a domestic water source. For all five sampling events, MW5 met MTCA groundwater cleanup levels for TPH. Benzene, toluene, ethylbenzene, and xylenes (BTEX) were not found to be above detectable concentrations. No additional soil samples were collected after the remedial action was completed.

3 FIELD INVESTIGATION AND SAMPLING

Based on our review of the available data and field reconnaissance, 12 upland sampling locations were selected as shown on Figure 4. In accordance with the Work Plan, two soil samples and one groundwater sample were collected at each location (for a total of 24 soil and 12 groundwater samples). The wells installed as part of the 1993 Independent Remedial Action were redeveloped and sampled, producing two additional groundwater samples. Finally, solids from each of the catch basins and the stormwater system sump were collected. Table 2 includes a list of all stations and sample identifiers.

This section describes the techniques implemented for drilling test borings, sampling groundwater, and collecting soil and catch basin solids samples. Tasks related to drilling (reconnaissance groundwater sampling during drilling, borehole logging, and soil classification) are also described. The methods outlined in this section conform to requirements in the Washington State Minimum Standards for Construction and Maintenance of Wells, Chapter 173-160 WAC and are in compliance with Ecology MTCA Regulations, Chapter 173-340 WAC.

3.1 Borehole Drilling Method

The borings were advanced by direct push (Geoprobe[™]) drill rig. Coring commenced at the ground surface with a 5-foot-long, 1.5-inch inside-diameter (ID) core sampler. Continuous samples were collected with the core sampler into disposable, single-use plastic liners. Liners were cut in half lengthwise to remove the soil sample for identification and subsampling.

Between each sample interval, a new liner was placed inside the core sampler. The process was repeated prior to refusal as sufficient water was encountered within two 5-foot sample intervals. Between samples, the core sampler was decontaminated, stored, and handled consistent with the procedures specified in the Work Plan (Anchor 2006).

Each core sample was examined to develop a lithologic boring log. This activity was performed by a geologist licensed in Washington. The samples were described in the field as to their color, structure, texture, mineral composition, moisture, and percent recovery, according to American Society for Testing and Materials (ASTM) Method D-2488, *Standard*

Practice for Description and Identification of Soils (Visual-Manual Procedures). Samples were also examined for evidence of possible contamination, including presence of anthropogenic material, chemical odor, and staining. All observations are noted on the exploratory boring log forms provided in Appendix A.

3.2 Borehole Sampling

This section describes the methods used for soil, groundwater, and catch basin solids sample collection and processing. All field work was performed in accordance with the procedures required in the Work Plan (Anchor 2006).

3.2.1 Soil Sampling

At each borehole location, two soil samples were collected. Soil samples were collected in two intervals above the groundwater table. The upper sample consisted of a 3-foot composite collected from 0 to 3 feet below the existing ground surface. The lower sample consisted of a 2-foot composite collected immediately above the observed water table, generally between 3 and 5 feet below the existing ground surface.

A volatile organic compound (VOC) soil sample from each interval was collected using an Encore sampler kit, following EPA Method 5035A, to ensure minimal volatilization of the VOCs. The remaining soil from each interval was then homogenized and placed into the appropriate sample jar either for archive or additional non-VOC analyses.

3.2.2 Borehole Groundwater Sampling

One groundwater sample was obtained from each direct-push borehole using a 10-foot long polyvinyl chloride (PVC) well screen. The well screen was lowered into the open borehole after soil sampling was complete.

Groundwater samples were collected using a peristaltic pump equipped with new, disposable polyethylene intake tubing. Water samples were drawn through the screen and to the ground surface and discharged directly to sample bottles. VOC and NWTPH-Gx samples were collected first by slowly pumping groundwater directly into laboratory-supplied glass vials so that no head space remained in the vials. All

measurements and samples collected were noted on the field sampling data sheets provided in Appendix B.

For all metals samples, both total and dissolved samples were analyzed. Dissolved metals samples were filtered in the field with a new, disposable 0.45-micron in-line filter as the sample was pumped into the appropriate container. Field water quality parameters (pH, specific conductance, and temperature) were measured by collecting groundwater from the tubing into a clean open mouth container and measuring field water quality parameters using a portable, calibrated meter. Any equipment in contact with samples was properly decontaminated between samples.

3.3 Borehole Decommissioning

Boreholes were decommissioned in accordance with state regulations (Chapter 173-160 WAC). All temporary well materials were removed from the borehole and the boreholes were abandoned by the hole with bentonite chips and hydrating.

3.4 Catch Basin Solids Sampling

Prior to sampling, the thickness of the solid media was determined using a steel rod. If present, samples of solids contained within each catch basin were collected using a stainless steel spoon. The samples were homogenized and placed into the appropriate composite sample jar. Only the sample collected from the basin adjacent to the outfall sump was submitted for analysis. All remaining samples were sent to the analytical laboratory for archiving and preservation at 4° Celsius. As stated in the Work Plan (Anchor 2006), no catch basin water was collected. A summary of the catch basin sampling notes is provided in Appendix B.

3.5 Monitoring Well Groundwater Sampling

After development, one groundwater sample was collected from each of the two monitoring wells installed in 1993 (Hart Crowser 1994). Specific procedures are described in the following sections.

3.5.1 Well Development

The monitoring wells were developed with a combination of surging, bailing, and pumping. Development continued until a minimum of 10 casing volumes of water was removed from the well, the groundwater became clear, and field parameters were stable. After development, groundwater from monitoring well MW-4 was clear and colorless; groundwater from MW-5 was clear and amber in color. Copies of the well development field forms are in Appendix B.

3.5.2 Water Level Monitoring

Depth-to-water (groundwater elevation) was measured with an electronic water-level indicator. Levels were measured to the nearest 0.01 foot from a surveyed mark at the top of the PVC casing. Measurements were recorded immediately on FSDS with the date, time (on a 24-hour clock), reference point, and signature of the person who made the measurements. The water-level indicator was decontaminated in between each well sampling event.

3.5.3 Groundwater Sample Collection

Groundwater sampling was performed in accordance with the methods required in the Work Plan. Purging and sampling were conducted using a peristaltic pump equipped with new, disposable polyethylene intake tubing. Prior to sampling, a minimum of three well casing volumes was purged. After each well casing volume was removed, field water-quality parameters (pH, specific conductance, and temperature) were recorded using a portable, calibrated meter equipped with a flow-through cell. Purging continued until field parameters stabilized to within 10 percent of the previous reading before a sample was collected. Water samples were drawn through the well screen and to the ground surface and discharged directly to sample bottles. VOC and NWTPH-Gx samples were collected first by slowly pumping groundwater directly into laboratory-supplied glass vials so that no head space remained in the vials. All measurements and samples collected were noted on the field sampling data sheets provided in Appendix B.

For all metals samples, both total and dissolved samples were analyzed. Dissolved metals samples were filtered in the field with a new, disposable 0.45-micron in-line filter

as the sample was pumped into the appropriate container. Any equipment in contact with samples was properly decontaminated between samples.

3.6 Surveying

After the field component of the investigation was complete, APS Survey and Mapping, L.L.C. (Issaquah, Washington) performed a survey of the 12 borehole locations. Survey information for the 1993 Independent Remedial Action monitoring wells was previously collected by Jim Hart and Associates (Kirkland, Washington) in 1993. All horizontal coordinates are referenced to Washington State Plane North, NAD-83. All vertical coordinates are referenced to mean lower low water (MLLW).

3.7 Deviations from the Work Plan

During groundwater sampling from the temporary boreholes, PVC well screen, screened over the entire 10-foot interval, was used instead of a wire-wrapped stainless steel well point as noted in the Work Plan. This deviation is not likely to affect sample results. No other deviations from the Work Plan occurred.

4 CHEMICAL ANALYSES

Samples were analyzed for appropriate constituents for groundwater and soil as set forth in MTCA regulations as well as the metals analyte list contained in Ecology's Sediment Management Standards (SMS) (Chapter 173-204 WAC; Ecology 1995). Chemical analysis was performed according to the requirements as outlined in the Work Plan (Anchor 2006), including sample analysis as well as quality assurance/quality control (QA/QC) measures, including calibration, duplicates, blanks, and spikes. Analysis also included a full data review, validation, and verification (presented in Appendix D), and the production of electronic data deliverables.

4.1 Comparison of Results to MTCA Cleanup Levels

Tables 3 and 4 summarize the chemical analytical results for all soil and groundwater samples, respectively, collected during the field investigation. Copies of the chemistry laboratory data package are provided as a CD-ROM attachment to this report. These data were compared to the MTCA Method A industrial cleanup levels to provide an initial assessment of the potential for contaminated soil and groundwater on the Property. Exceedances of the cleanup levels are noted on the tables. Results were as follows:

- TPH-Gx was detected in five of the 24 soil samples and was non-detect in all
 groundwater samples, including the monitoring wells. No free product was
 observed during sampling. These concentrations represent a decrease from those
 collected during the 2000 UST excavation.
- TPH-Dx was detected in both soil sample intervals at location DSI-06 and was nondetect in all groundwater samples, including the monitoring wells. No free product was observed during sampling.
- Benzene was detected in two surficial soil samples, but was only detected in groundwater at one location (DSI-07).
- These TPH-Gx, TPH-Dx, and benzene concentrations represent a decrease from those collected during the 2000 UST excavation and the last monitoring well sampling event conducted in 1999.
- Arsenic was detected in two soil samples and in nine of the 12 borehole groundwater samples (measured on a total basis).
- In addition to arsenic, cadmium and lead were detected in the subsurface soil sample at DSI-09; however, only lead (measured on a total basis) was detected in borehole groundwater at that location.

- Pesticides were not detected in any of the soil or groundwater samples.
- Polychlorinated biphenyls (PCBs; Aroclors) were not detected in any of the soil or groundwater samples.
- Vinyl chloride was detected in three of the 12 borehole groundwater samples.
- Benzo(a)pyrene was detected in soil and groundwater at sample location (DSI-12).

4.2 Comparison of Results to SMS and Marine Surface Water Criteria

Because the Property is located adjacent to a surface water body (i.e., the Duwamish Waterway), subsets of Tables 3 and 4 were developed for comparison to the SMS and Washington State Marine Surface Water Standards, Chapter 173-201A WAC (Ecology 2006c), and presented in Tables 5 and 6. The catch basin solids data are also presented in Table 5. Please note that the data in this table have been organic carbon normalized, where appropriate, to allow a direct comparison with the SMS Sediment Quality Standards (SQS) and Cleanup Screening Level (CSL) values. Results were as follows:

- The catch basin solids sample showed detects of some metals (copper, mercury, and zinc), one polyaromatic hydrocarbon (PAH; acenaphthene), and two phthalates [butylbenzylphthalate and bis(2-ethylhexyl)phthalate]. No water sample was collected at this location.
- Cadmium, copper, lead, and zinc were detected in the DSI-09 subsurface sample above the SMS SQS and CSL.
- Mercury was detected in the DSI-11 surface sample above the SMS SQS and CSL.
- In the surface and subsurface DSI-12 samples, various PAHs were detected above the SMS SQS and CSL.
- No surface water criteria exceedances were noted for any of the nearshore borehole groundwater samples.

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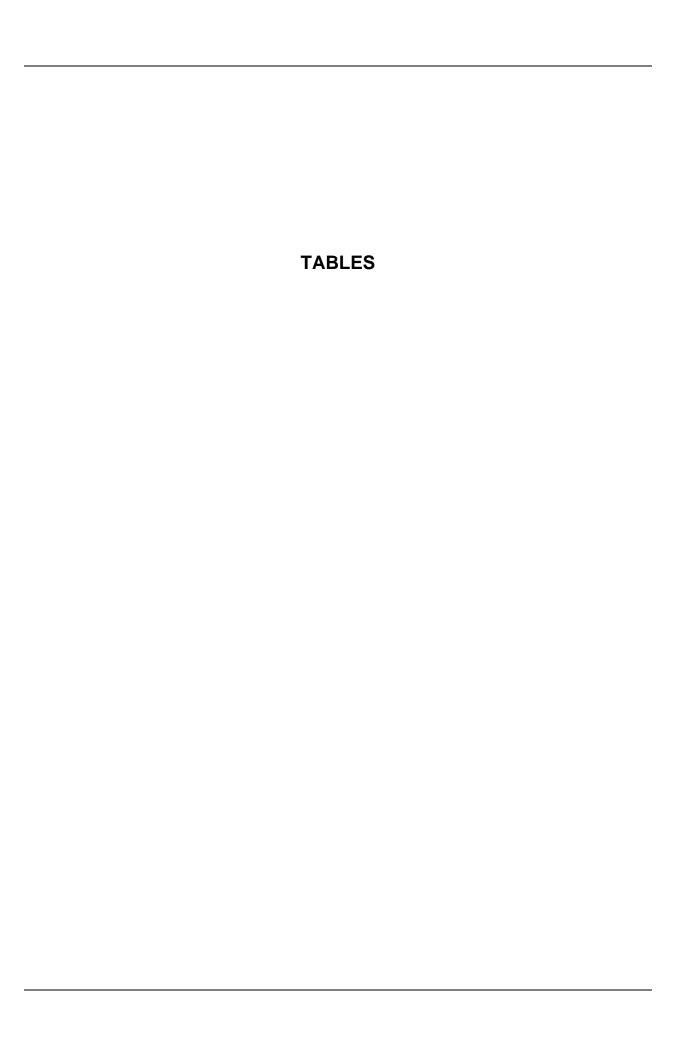


Table 1
Summary of Confirmation Sampling Exceedances

Sample ID	Constituent	Concentration (mg/kg)	MTCA Method A Industrial Cleanup Level (mg/kg)
В3	TPH-G	170	100
B4(1)	TPH-G	800	100
B1(2)	Benzene	0.7	0.5
SS-1	TPH-G	140	100
SS-3(2)	TPH-G	300	100

mg/kg: milligrams per kilogram

Table 2
Summary of Sample Coordinates and Intervals

Station ID	Soil/Catch Basin Sample ID	-	Interval	Groundwater Sample ID		ed Sample	Northing (feet)	Easting (feet)	Ground Surface Elevation
	DSI01-SO-A	0	3	DSI01-GW	0	10	204362.38	1267483.65	15.85
DSI01	DSI01-SO-B	4	6	-			204362.38	1267483.65	15.85
	DSI02-SO-A	0	3	DSI02-GW	_	_	204484.72	1267482.28	16.55
DSI02	DSI02-SO-B	3	5	-			204484.72	1267482.28	16.55
	DSI03-SO-A	0	3	DSI03-GW	0	10	204614.54	1267538.20	16.56
DSI03	DSI03-SO-B	5	6.5	-			204614.54	1267538.20	16.56
	DSI04-SO-A	0	3	DSI04-GW	0	10	204577.53	1267677.30	14.95
DSI04	DSI04-SO-B	3	5	-	-	10	204577.53	1267677.30	14.95
	DSI05-SO-A	0	3	DSI05-GW	0	10	204414.79	1267664.49	15.38
DSI05	DSI05-SO-B	3	5	-	0	10	204414.79	1267664.49	15.38
	DSI06-SO-A	0	3	DSI06-GW	0	10	204403.48	1267832.57	15.38
DSI06	DSI06-SO-B	4	6	-	U	10	204403.48	1267832.57	15.38
	DSI07-SO-A	0	3	DSI07-GW	0	10	204440.17	1267843.29	15.30
DSI07	DSI07-SO-B	3	5	-	U	10	204440.17	1267843.29	15.30
	DSI08-SO-A	0	3	DSI08-GW	0	10	204599.08	1267815.08	15.08
DSI08	DSI08-SO-B	3	5	- D0100 GVV	U	10	204599.08	1267815.08	15.08
	DSI09-SO-A	0	3	DSI09-GW	0	10	204599.10	1267972.09	15.10
DSI09	DSI09-SO-B	3	5	- D0103 GVV	U	10	204599.10	1267972.09	15.10
	DSI10-SO-A	0	3	DSI10-GW	0	10	204399.10	1267928.63	14.96
DSI10	DSI10-SO-A	3	5	D3110-34V	U	10	204456.02	1267928.63	14.96
	DSI10-30-B	0	3	DSI11-GW	0	10	204458.81	1267970.43	14.74
DSI11	DSI11-SO-A	3	5	DSITI-GW	U	10	204358.81	1267970.43	14.74
	DSI11-30-B DSI12-SO-A	0	3	DSI12-GW	0	10	204269.04	1267970.43	14.38
DSI12	DSI12-SO-A DSI12-SO-B	3	5	D3112-GVV	U	10	204269.04	1267970.42	14.38
DSI13	DSI13-CB-YYMMDD	3	3	-				1267506.84	15.60
DSI14	DSI14-CB-YYMMDD	-	-	-	-	-	204534.18 204487.92	1267506.84	15.31
DSI14 DSI15		-	-			-			14.60
DSI15 DSI16	DSI15-CB-YYMMDD DSI16-CB-YYMMDD	-	-	-	-	-	204566.32 204603.21	1267577.87 1267662.99	14.60
DSI16 DSI17		-	-	-	-	-			14.75
DSI17 DSI18	DSI17-CB-YYMMDD DSI18-CB-YYMMDD	-	-				204482.78 204572.22	1267687.03	14.66
			-	-	-	-		1267818.66	
DSI19	DSI19-CB-YYMMDD	-	-	-	-	-	204512.92	1267823.23	14.49
DSI20	DSI20-CB-YYMMDD	-	-	-	-	-	204435.85	1267776.70	14.43
DSI21	DSI21-CB-YYMMDD	-	- 4.5	-	-	-	204471.91	1267822.86	15.23
DSI22	DSI22-CB-YYMMDD	0	1.5	-	-	-	204481.19	1268018.19	-
DSI23	DSI23-CB-YYMMDD	-	-		-	-	204460.68	1267966.97	14.59
MW-4	-	-	-	MW4-GW-YYMMDD	5	17	204675.26	1267474.81	20.09
MW-5	-	-	-	MW5-GW-YYMMDD	11	16	204585.26	1267494.81	16.49

Northing and Easting coordinates are referenced to the Washington State Coordinate System, North Zone in U.S. Survey feet Ground surface elevation coordinates are referenced to mean lower low water (MLLW) in feet.

Table 3
Summary of Analytical Results for Soil Samples and Comparison with MTCA Method A Cleanup Levels

		DOI - 1	DOI 61	DO: 65	D01.55	D01.55	DOL 65	DO: 5	DOLG :	B01.5-	D0: 4-	DO: 45	DO: 45	B01 5=	BO 1.5=
Locat		DSI-01	DSI-01	DSI-02	DSI-02	DSI-03	DSI-03	DSI-04	DSI-04	DSI-05	DSI-05	DSI-06	DSI-06	DSI-07	DSI-07
	ple ID	DSI01-SO-A	DSI01-SO-B	DSI02-SO-A	DSI02-SO-B	DSI03-SO-A	DSI03-SO-B	DSI04-SO-A	DSI04-SO-B	DSI05-SO-A	DSI05-SO-B	DSI06-SO-A	DSI06-SO-B	DSI07-SO-A	DSI07-SO-B
Sample		9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/28/2006	9/28/2006
Depth In		0-3 ft	4-6 ft	0-3 ft	3-5 ft	0-3 ft	5-6.5 ft	0-3 ft	3-5 ft	0-3 ft	3-5 ft	0-3 ft	4-6 ft	0-3 ft	3-5 ft
Sample I		SO N	SO	SO N	SO	SO	SO								
Conventionals (%)	rype industriai	N	N	IN	IN	N	IN IN	N	IN	IN	IN	IN	IN	N	N
Total solids		88.40	80.20	96.10	78.60	96.10	89.40	74.30	87.60	76.70	88.90	78.40	90.20	74.10	95.50
Total Organic Carbon		1.11	0.384	0.305	0.698	0.325	0.781	0.579	0.084	1.07	0.226	1.37	0.308	1.05	0.097
TPH (mg/kg)		1.11	0.304	0.303	0.030	0.323	0.701	0.379	0.004	1.07	0.220	1.37	0.300	1.03	0.097
TPH - Gasoline Range	30/100 ⁽¹⁾	5.3 U	6.3 U	4.8 U	22	92	110	20	6.4 U	16	8.4	120	13	74	36
TPH - Diesel Range	2000	65	12	15	66	61	380	40	5.5 U	46	5.7 U	2700	2200	16	20
TPH - Motor Oil Range	2000	140	33	170	130	110	310	100	11 U	160	11 U	260	190	29	18
Metals (mg/kg)	2000	140	33	170	100	110	310	100	110	100	110	200	130	23	10
Arsenic	20	48.1 J	3.5	18.9	5.8	7.1	10.4	6.4	1.1	7.1	1.3	7.0	2.2	4.3 J	1.6
Cadmium	2	0.4	0.2	2 U	0.3	1 U	0.5	0.5	0.2 U	0.6	0.2 U	0.3	0.2 U	0.3 U	0.2 U
Chromium	2000	20.4	15.9	5	21.7	61	34	27.2	10.4	21.1	11.0	20.0	15.2	19.6	25.9
Chromium VI	19	0.125 UJ	0.135 UJ	0.116 UJ	0.140 UJ	0.111 UJ	0.126 UJ	0.151 UJ	0.127 UJ	0.142 UJ	0.127 UJ	0.143 UJ	0.120 UJ	0.150 UJ	0.115 UJ
Copper		103 J	20.4	55	33.6	539	238	45.9	9.0	122	11.9	37.1	18.2	52.1 J	10.3
Lead	1000	36 J	6	20 U	32	460	94	14	2 U	78	3	14	6	11 J	3
Mercury	2	0.09	0.05 U	0.05	0.20	0.05 U	0.05 U	0.15	0.04 U	0.27	0.04 U	0.14	0.05 U	0.72 J	0.04 U
Silver		0.3 U	0.3 U	3 U	0.4 U	2 U	0.8 U	0.4 U	0.3 U						
Zinc		192	36.8	57	57.7	129	160	85.4	21.9	127	26.4	57.5	33.6	53.2	29.1
Pesticides (µg/kg)															
4,4'-DDD		3.3 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U	3.2 U	3.1 U	28	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U
4,4'-DDE		3.3 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U	3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U
4,4'-DDT	4000	3.3 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U	3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U
Total DDT (U=1/2)		4.95 U	4.8 U	4.8 U	4.95 U	4.8 U	4.8 U	4.8 U	4.65 U	31.1	4.8 U	4.8 U	4.95 U	4.8 U	4.8 U
Aldrin		1.6 U	1.7 U	1.6 U	1.6 U										
alpha-BHC		1.6 U	1.7 U	1.6 U	1.6 U										
beta-BHC		1.6 U	1.7 U	1.6 U	1.6 U										
delta-BHC		1.6 U	1.7 U	1.6 U	1.6 U										
gamma-BHC (Lindane)	10	1.6 U	1.7 U	1.6 U	1.6 U										
alpha-Chlordane		1.6 U	1.7 U	1.6 U	1.6 U										
gamma-Chlordane Dieldrin		1.6 U	1.6 U 3.2 U	1.6 U 3.2 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U 3.2 U	1.6 U				
Endosulfan I		3.3 U 1.6 U	3.2 U 1.6 U	3.2 U 1.6 U	3.3 U 1.6 U	8.5 U 1.6 U	1.6 U	1.6 U	3.1 U 1.6 U	3.1 U 1.6 U	3.2 U 1.6 U	3.2 U 1.6 U	3.3 U 1.7 U	1.6 U	3.2 U 1.6 U
Endosulfan II		3.3 U	3.2 U	3.2 U	3.3 U	9.9 U	7.2 U	3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U
Endosulfan Sulfate		3.3 U	3.2 U	3.2 U	3.3 U	9.9 U	3.2 U	3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U
Endosulian Sullate		3.3 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U	3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U
Endrin aldehyde		3.3 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U	3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U
Endrin ketone		3.3 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U	3.2 U	3.1 U	3.1 U	3.2 U	3.2 U	3.3 U	3.2 U	3.2 U
Heptachlor		1.6 U	1.7 U	1.6 U	1.6 U										
Heptachlor Epoxide		1.6 U	1.7 U	1.6 U	1.6 U										
Methoxychlor		16 U	17 U	16 U	16 U										
Toxaphene		160 U	170 U	160 U	160 U										
PCBs (µg/kg)															
Aroclor 1016		9.8 U	9.8 U	9.7 U	9.7 U	48 U	9.5 U	9.6 U	9.5 U	9.8 U	9.6 U	9.7 U	9.7 U	9.7 U	9.6 U
Aroclor 1221		9.8 U	9.8 U	9.7 U	9.7 U	48 U	9.5 U	9.6 U	9.5 U	9.8 U	9.6 U	9.7 U	9.7 U	9.7 U	9.6 U
Aroclor 1232		9.8 U	9.8 U	9.7 U	9.7 U	48 U	9.5 U	9.6 U	9.5 U	9.8 U	9.6 U	9.7 U	9.7 U	9.7 U	9.6 U
Aroclor 1242		9.8 U	9.8 U	9.7 U	9.7 U	48 U	9.5 U	9.6 U	9.5 U	9.8 U	9.6 U	9.7 U	9.7 U	9.7 U	9.6 U
Aroclor 1248		9.8 U	9.8 U	9.7 U	9.7 U	48 U	9.5 U	9.6 U	9.5 U	9.8 U	9.6 U	9.7 U	9.7 U	9.7 U	9.6 U
Aroclor 1254		9.8 U	9.8 U	9.7 U	9.7 U	48 U	9.5 U	9.6 U	9.5 U	39 U	9.6 U	9.7 U	9.7 U	9.7 U	9.6 U
Aroclor 1260		43 J	10 J	9.7 UJ	9.7 UJ	300 J	94 J	9.6 UJ	9.5 UJ	46 J	9.6 UJ	9.7 UJ	9.7 UJ	9.7 U	9.6 U
Total PCBs (U=1/2)	10000	72.4	39.4	34 U	34 U	444	122	33.6 U	33.2 U	90	33.6 U	34 U	34 U	34 U	33.6 U
SVOCs (µg/kg)															

Table 3
Summary of Analytical Results for Soil Samples and Comparison with MTCA Method A Cleanup Levels

Location ID		DSI-01	DSI-01	DSI-02	DSI-02	DSI-03	DSI-03	DSI-04	DSI-04	DSI-05	DSI-05	DSI-06	DSI-06	DSI-07	DSI-07
Sample ID		DSI01-SO-A	DSI01-SO-B	DSI-02 DSI02-SO-A	DSI-02 DSI02-SO-B	DSI-03 DSI03-SO-A	DSI-03 DSI03-SO-B	DSI-04 DSI04-SO-A	DSI-04 DSI04-SO-B	DSI05-SO-A	DSI-05 DSI05-SO-B	DSI06-SO-A	DSI-06 DSI06-SO-B	DSI-07 DSI07-SO-A	DSI-07 DSI07-SO-B
Sample Date		9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/28/2006	9/28/2006
Depth Interval		0-3 ft	4-6 ft	0-3 ft	3-5 ft	0-3 ft	5-6.5 ft	0-3 ft	3-5 ft	0-3 ft	3-5 ft	0-3 ft	4-6 ft	0-3 ft	3-5 ft
Sample Matrix		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	so
Sample Type		N	N	N	N	N	N	N	N	N	N	N	N	N	N
1,2,3-Trichlorobenzene		4.6 U	5.6 U	4.8 U	5.2 U	5.2 U	4.6 U	6.5 U	5.6 U	6.4 UJ	6.4 U	470 U	5.5 U	6.1 U	6.2 U
1,2,4-Trichlorobenzene		4.6 U	5.6 U	4.8 U	5.2 U	5.2 U	4.6 U	6.5 U	5.6 U	6.4 UJ	6.4 U	470 U	5.5 U	6.1 U	6.2 U
1,2,4-Trimethylbenzene		0.9 U	1.1 U	3.8	100	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	120	1.1 U	3200	51
1,2-Dichlorobenzene		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	93 U	1.1 U	1.2 U	1.2 U
1,3,5-Trimethylbenzene		0.9 U	1.1 U	1.2	39	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	93 U	1.1 U	80	15
1,3-Dichlorobenzene		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	93 U	1.1 U	1.2 U	1.2 U
1,4-Dichlorobenzene		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	93 U	1.1 U	1.2 U	1.2 U
2,4-Dimethylphenol															
2-Methylnaphthalene		19	5.0 U	4.7	98	4.7 U	40	16	5.0 U	26	4.7 U	33	27 U	22	66
2-Methylphenol															
4-Methylphenol															
Acenaphthene		5.8	5.0 U	4.7 U	120	5.6	4.7 U	5.0 U	5.0 U	4.9 U	4.7 U	30 U	27 U	5.0 U	9.9
Acenaphthylene		9.1	5.0 U	4.7 U	4.8 U	4.7 U	4.7 U	5.0 U	5.0 U	6.4	4.7 U	30 U	48	5.0 U	5.0 U
Anthracene		44	8.4	4.7 U	100	5.1	8.5	5.9	5.0 U	12	4.7 U	30 U	27 U	5.5	7.9
Benzo(a)anthracene		64	9.9	4.7 U	110	9.8	11	14	5.0 U	28	4.7 U	30	43	14	6.4
Benzo(a)pyrene	2000	56	9.4	5.7	110	10	12	8.4	5.0 U	29	4.7 U	39	99	11	5.9
Benzo(b)fluoranthene		120	15	11	72	12	21	16	5.0 U	48	4.7 U	57	91	16	5.9
Benzo(g,h,i)perylene		65	9.4	5.7	38	7.0	5.2	5.0 U	5.0 U	13	4.7 U	30 U	54	9.5	5.0 U
Benzo(k)fluoranthene		74	17	9.4	90 J	14	15	13	5.0 U	28	4.7 U	54	94	14	5.0 U
Benzoic acid															
Benzyl alcohol															
bis(2-Ethylhexyl)phthalate															
Butylbenzylphthalate											4 7 1 1				
Chrysene		130	22	10	140 J	17	31	25	5.0 U	50	4.7 U	78	120	22	6.9
Dibenzo(a,h)anthracene		18	5.0 U	4.7 U	12	4.7 U	4.7 U	5.0 U	5.0 U	4.9 U	4.7 U	30 U	27 U	5.0 U	5.0 U
Dibenzofuran		12	5.0 U	4.7 U	56	4.7 U	9.4	5.4	5.0 U	16	4.7 U	30 U	27 U	5.0 U	5.0 U
Diethylphthalate															
Dimethylphthalate Di-n-butylphthalate															
Di-n-octylphthalate															
Fluoranthene		170	36	11	270	26	38	40	5.0 U	96	4.7 U	120	120	45	15
Fluorene		11	5.0 U	4.7 U	120	5.1	19	5.0 U	5.0 U	6.9	4.7 U	30 U	27	5.0 U	14
Hexachlorobenzene		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 U
Hexachlorobutadiene		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 U
Hexachloroethane															
Indeno(1,2,3-cd)pyrene		54	8.9	4.7 U	37	5.6	4.7 U	5.4	5.0 U	13	4.7 U	30 U	48	7.0	5.0 U
Naphthalene	5000	24	5.0	5.2	180	6.5	12	13	5.0 U	53	4.7 U	57	27	69	47
n-Nitrosodiphenylamine															
Pentachlorophenol															
Phenanthrene		68	14	7.6	410 J	27	100	24	5.0 U	91	4.7 U	90	80	25	13
Phenol															
Pyrene		140	29	10	280	21	37	33	5.0 U	72	4.7 U	160	320	34	21
Total PAHs (U=1/2)		1053	194	92	2091	176	319	210	40 U	551	37.6 U	790	1212	282	165
Volatiles (µg/kg)															
1,1,1,2-Tetrachloroethane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	93 U	1.1 U	1.2 U	1.2 U
1,1,1-Trichloroethane	2000	13	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
1,1,2,2-Tetrachloroethane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	93 U	1.1 U	1.2 U	1.2 U
1,1,2-Trichloroethane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
1,1-Dichloroethane		10	7.9	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
1,1-Dichloroethene		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U

Table 3
Summary of Analytical Results for Soil Samples and Comparison with MTCA Method A Cleanup Levels

		DOI 04				<u> </u>	and Compans					DOI 00	501.00	501.05	501.05
Location ID		DSI-01	DSI-01	DSI-02	DSI-02	DSI-03	DSI-03	DSI-04	DSI-04	DSI-05	DSI-05	DSI-06	DSI-06	DSI-07	DSI-07
Sample ID		DSI01-SO-A	DSI01-SO-B	DSI02-SO-A	DSI02-SO-B	DSI03-SO-A	DSI03-SO-B	DSI04-SO-A	DSI04-SO-B	DSI05-SO-A	DSI05-SO-B	DSI06-SO-A	DSI06-SO-B	DSI07-SO-A	DSI07-SO-B
Sample Date		9/27/2006 0-3 ft	9/27/2006 4-6 ft	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/28/2006	9/28/2006
Depth Interval Sample Matrix	MTCA A	SO	4-6 II SO	0-3 ft SO	3-5 ft SO	0-3 ft SO	5-6.5 ft SO	0-3 ft SO	3-5 ft SO	0-3 ft SO	3-5 ft SO	0-3 ft SO	4-6 ft SO	0-3 ft SO	3-5 ft SO
Sample Matrix Sample Type	Industrial	N N	N N	N N	N N	N N	N N	N N	N N	N N	N N	N N	N N	SO N	N N
1,1-Dichloropropene		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
1,2,3-Trichloropropane		1.8 U	2.2 U	1.9 U	2.1 U	2.1 U	1.8 U	2.6 U	2.2 U	2.5 UJ	2.6 U	190 U	2.2 U	2.4 U	2.5 U
1,2-Dibromo-3-chloropropane		4.6 U	5.6 U	4.8 U	5.2 U	5.2 U	4.6 U	6.5 U	5.6 U	6.4 UJ	6.4 U	470 U	5.5 U	6.1 U	6.2 U
1,2-Dibromoethane	5	0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
1,2-Dichloroethane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
1,2-Dichloropropane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
1,3-Dichloropropane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
2,2-Dichloropropane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
2-Butanone		11	12	5.2	18	11	5.2	9.2	5.6 U	6.4 U	10	780	13	27	16
2-Chlorotoluene		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	93 U	1.1 U	1.2 U	1.2 U
2-Hexanone		4.6 U	5.6 U	4.8 U	5.2 U	5.2 U	4.6 U	6.5 U	5.6 U	6.4 U	6.4 U	470 U	5.5 U	6.1 U	6.2 U
4-Chlorotoluene		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	93 U	1.1 U	1.2 U	1.2 U
4-Isopropyltoluene		0.9 U	1.1 U	1.0 U	6.0	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	93 U	1.1 U	1.2 U	1.3
4-Methyl-2-pentanone		4.6 U	5.6 U	4.8 U	5.2 U	5.2 U	4.6 U	6.5 U	5.6 U	6.4 U	6.4 U	470 U	5.5 U	6.1 U	6.2 U
Acetone		77	70	83	160	85	41 U	66	29 U	51 U	90	6500	92	6.1 U	110
Benzene	30	0.9 U 0.9 U	1.2	1.0 U	2.0	1.0 U 1.0 U	0.9 U 0.9 U	1.6 1.3 U	1.1 U 1.1 U	1.8	1.3 U	260 93 U	1.7 1.1 U	50 1.2 U	6.0
Bromobenzene Bromochloromethane		0.9 U	1.1 U 1.1 U	1.0 U 1.0 U	1.0 U 1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ 1.3 U	1.3 U 1.3 U	93 U	1.1 U	1.2 U	1.2 U 1.2 U
Bromodichloromethane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Bromoform		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Bromomethane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Carbon disulfide		1.8	11	1.2	4.9	1.4	1.2	8.6	1.1 U	1.3 U	17	93 U	30	3.3	10
Carbon tetrachloride		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Chloroethane		1.5	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Chloroform		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Chloromethane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
cis-1,2-Dichloroethene		0.9 U	2.2	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
cis-1,3-Dichloropropene		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Dibromochloromethane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Dibromomethane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Dichlorodifluoromethane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Dichloromethane	20 6000	2.1 U	2.6 U	1.9 U	2.1 U	2.1 U	1.8 U	2.6 U	2.2 U	2.5 U	2.6 U	190 U	2.5 U	2.6	2.5 U 7.4
Ethylbenzene		0.9 U	1.1 U	1.0 U	6.0	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	60	
Isopropylbenzene n-Butylbenzene		0.9 U 0.9 U	1.1 U 1.1 U	1.0 U 1.0 U	19 4.4	1.0 U 1.0 U	0.9 U 0.9 U	1.3 U 1.3 U	1.1 U 1.1 U	1.3 UJ 1.3 UJ	1.3 U 1.3 U	93 U 93 U	1.1 U 1.1 U	34 22	5.0 20
n-Propylbenzene		0.9 U	1.1 U	1.0 U	9.9	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	93 U	1.1 U	120	28
sec-Butylbenzene		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	93 U	1.1 U	1.2 U	5.4
Styrene		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
tert-Butylbenzene		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 UJ	1.3 U	93 U	1.1 U	1.2 U	1.2 U
tert-Butylmethylether	100	0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Tetrachloroethene	50	3.7	1.3	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Toluene	7000	0.9 U	1.1 U	1.8	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	5.5	1.2 U
trans-1,2-Dichloroethene		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
trans-1,3-Dichloropropene		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Trichloroethene	30	0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Trichlorofluoromethane		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
Vinyl chloride		0.9 U	1.1 U	1.0 U	1.0 U	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	93 U	1.1 U	1.2 U	1.2 U
m,p-Xylenes		0.9 U	1.1 U	3.6	47	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	290	1.5	160	13
o-Xylene		0.9 U	1.1 U	1.8	26	1.0 U	0.9 U	1.3 U	1.1 U	1.3 U	1.3 U	100	1.1 U	5.1	1.2 U

Table 3
Summary of Analytical Results for Soil Samples and Comparison with MTCA Method A Cleanup Levels

Location ID Sample ID Sample Date Depth Interval	BATCA A	DSI-08 DSI08-SO-A 9/28/2006 0-3 ft SO	DSI-08 DSI08-SO-B 9/28/2006 3-5 ft	DSI-09 DSI09-SO-A 9/28/2006 0-3 ft	DSI-09 DSI09-SO-B 9/28/2006 3-5 ft	DSI-10 DSI10-SO-A 9/28/2006 0-3 ft	DSI-10 DSI10-SO-B 9/28/2006 3-5 ft	DSI-11 DSI11-SO-A 9/28/2006 0-3 ft	DSI-11 DSI11-SO-B 9/28/2006 3-5 ft	DSI-12 DSI12-SO-A 9/28/2006 0-3 ft	DSI-12 DSI12-SO-B 9/28/2006 3-5 ft SO
Sample Matrix Sample Type	MTCA A Industrial	N N	SO N								
Conventionals (%)	muusman		N	N	N N	N	N	N	N .	N	N
Total solids		70.40	92.90	92.60	89.60	69.70	95.30	76.10	93.70	87.70	86.70
Total Organic Carbon		0.661	0.133	0.939	2.35	1.30	0.147	1.34	0.099	1.25	1.12
TPH (mg/kg)											
TPH - Gasoline Range	30/100 ⁽¹⁾	8.8 U	6.7 U	14	200	8.3 U	6.0 U	8.0	5.9 U	6.6 U	27
TPH - Diesel Range	2000	6.7 U	5.4 U	42	56	16	5.2 U	120	5.5 U	88	170
TPH - Motor Oil Range	2000	21	11 U	87	110	39	10 U	180	11 U	130	240
Metals (mg/kg)	2000		110	OI .	110		100	100	110	100	240
Arsenic	20	4.8	0.7	3.7	20.2	6.2	1.9	4.4	1.4	17.1	3.3
Cadmium	2	0.3 U	0.2 U	0.3	8.5	0.3 U	0.2 U	0.3	0.2 U	0.2	0.2 U
Chromium	2000	17.7	9.7	17.4	36	20.2	14.2	17.1	11.4	20.1	15.5
Chromium VI	19	0.160 UJ	0.116 UJ	0.117 UJ	0.124 UJ	0.157 UJ	0.117 UJ	2.05 J	0.120 UJ	0.125 UJ	0.123 UJ
Copper		31.0	8.5	65.9	3310	29.0	8.8	49.0	8.4	34.2	18.1
Lead	1000	11	2 U	118	4940	8	11	92	2 U	20	6
Mercury	2	0.10	0.05 U	0.31	0.18	0.11	0.04 U	0.76	0.04 U	0.08	0.05 U
Silver		0.4 U	0.3 U	0.3 U	1.2	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U
Zinc		52.3	30.5	115	5840	43.7	25.2	78.3	23.0	77.4	36.8
Pesticides (µg/kg)		02.0	00.0	110	0010	40.11	20.2	7 0.0	20.0	771-7	00.0
4,4'-DDD		3.2 U	3.2 U	3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	3.3 U	3.3 U
4,4'-DDE		3.2 U	3.2 U	3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	3.3 U	3.3 U
4,4'-DDT	4000	3.2 U	3.2 U	3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	3.3 U	12 U
Total DDT (U=1/2)		4.8 U	4.8 U	4.8 U	4.95 U	4.95 U	4.95 U	4.8 U	4.95 U	4.95 U	9.3 U
Aldrin		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	1.6 U	1.6 U
alpha-BHC		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	1.6 U	1.6 U
beta-BHC		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	4.0 U	3.1 U
delta-BHC		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	1.6 U	1.6 U
gamma-BHC (Lindane)	10	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	1.6 U	1.6 U
alpha-Chlordane		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	1.6 U	1.6 U
gamma-Chlordane		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	1.6 U	1.6 U
Dieldrin		3.2 U	3.2 U	3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	3.3 U	3.3 U
Endosulfan I		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	1.6 U	1.6 U
Endosulfan II		3.2 U	3.2 U	3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	3.3 U	3.3 U
Endosulfan Sulfate		3.2 U	3.2 U	3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	19 U	21 U
Endrin		3.2 U	3.2 U	3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	14 U	17 U
Endrin aldehyde		3.2 U	3.2 U	3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	3.3 U	3.3 U
Endrin ketone		3.2 U	3.2 U	3.2 U	3.3 U	3.3 U	3.3 U	3.2 U	3.3 UJ	15 U	16 U
Heptachlor		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	1.6 U	1.6 U
Heptachlor Epoxide		1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	1.6 U	3.8 U
Methoxychlor		16 U	16 U	16 U	16 U	16 U	17 U	16 U	16 UJ	16 U	16 U
Toxaphene		160 U	160 U	160 U	160 U	160 U	170 U	160 U	160 UJ	160 U	160 U
PCBs (µg/kg)											
Aroclor 1016		9.8 U	9.5 U	9.6 U	9.8 U	9.8 U	9.4 U	9.8 U	9.9 U	29 U	29 U
Aroclor 1221		9.8 U	9.5 U	9.6 U	9.8 U	9.8 U	9.4 U	9.8 U	9.9 U	29 U	29 U
Aroclor 1232		9.8 U	9.5 U	9.6 U	9.8 U	9.8 U	9.4 U	9.8 U	9.9 U	29 U	29 U
Aroclor 1242		9.8 U	9.5 U	9.6 U	9.8 U	9.8 U	9.4 U	9.8 U	9.9 U	29 U	29 U
Aroclor 1248		9.8 U	9.5 U	9.6 U	9.8 U	9.8 U	9.4 U	9.8 U	9.9 U	29 U	29 U
Aroclor 1254		9.8 U	9.5 U	9.6 U	9.8 U	9.8 U	9.4 U	9.8 U	9.9 U	29 U	29 U
Aroclor 1260		9.8 U	9.5 U	9.6 U	9.8 U	9.8 U	9.4 U	35	9.9 U	29 U	29 U
Total PCBs (U=1/2)	10000	34.3 U	33.2 U	33.6 U	34.3 U	34.3 U	32.9 U	64.4	34.6 U	102 U	102 U
SVOCs (µg/kg)	. 0000	3 0	55.2 6	20.00	3 1.0 0	31.00	52.00	V	3 0		1020

Table 3
Summary of Analytical Results for Soil Samples and Comparison with MTCA Method A Cleanup Levels

Location ID Sample ID Sample Date		DSI-08 DSI08-SO-A 9/28/2006	DSI-08 DSI08-SO-B 9/28/2006	DSI-09 DSI09-SO-A 9/28/2006	DSI-09 DSI09-SO-B 9/28/2006	DSI-10 DSI10-SO-A 9/28/2006	DSI-10 DSI10-SO-B 9/28/2006	DSI-11 DSI11-SO-A 9/28/2006	DSI-11 DSI11-SO-B 9/28/2006	DSI-12 DSI12-SO-A 9/28/2006	DSI-12 DSI12-SO-B 9/28/2006
Depth Interval		0-3 ft	3-5 ft								
Sample Matrix		so									
Sample Type	Industrial	N	N	N	N	N	N	N	N	N	N
1,2,3-Trichlorobenzene		6.4 U	5.7 U	5.2 U	5.0 UJ-	6.0 U	5.1 U	5.6 U	5.3 U	4.9 U	5.4 U
1,2,4-Trichlorobenzene		6.4 U	5.7 U	5.2 U	5.0 UJ-	6.0 U	5.1 U	5.6 U	5.3 U	4.9 U	5.4 U
1,2,4-Trimethylbenzene		1.3 U	1.2 U	1.0 U	1.4 J-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
1,2-Dichlorobenzene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
1,3,5-Trimethylbenzene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
1,3-Dichlorobenzene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
1,4-Dichlorobenzene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
2,4-Dimethylphenol											
2-Methylnaphthalene		5.0	4.9 U	47	34	7.8	5.0 U	19	4.8 U	230	300
2-Methylphenol											
4-Methylphenol											
Acenaphthene		5.0 U	4.9 U	82	30	4.8 U	5.0 U	6.9	4.8 U	37 U	45
Acenaphthylene		5.0 U	4.9 U	14	5.4	4.8 U	5.0 U	14	4.8 U	880	1700
Anthracene		5.0 U	4.9 U	87	19	11	5.0 U	18	4.8 U	290	450
Benzo(a)anthracene		12	4.9 U	160	27	18	5.0 U	54	4.8 U	1800	3600
Benzo(a)pyrene	2000	12	4.9 U	180	23	15	5.0 U	61	4.8 U	3000	7900
Benzo(b)fluoranthene		18	4.9 U	240	35	20	5.0 U	73	4.8 U	1700	3400
Benzo(g,h,i)perylene		8.4	4.9 U	110	9.9	6.3	5.0 U	37	4.8 U	1300	2900
Benzo(k)fluoranthene		13	4.9 U	230	26	18	5.0 U	67	4.8 U	2100	5600
Benzoic acid											
Benzyl alcohol											
bis(2-Ethylhexyl)phthalate											
Butylbenzylphthalate											
Chrysene		22	4.9 U	280	54	23	5.0 U	87	4.8 U	3000	7500
Dibenzo(a,h)anthracene		5.0 U	4.9 U	38	5.0 U	4.8 U	5.0 U	8.4	4.8 U	390	900
Dibenzofuran		5.0 U	4.9 U	32	18	6.8	5.0 U	7.9	4.8 U	37 U	38 U
Diethylphthalate											
Dimethylphthalate											
Di-n-butylphthalate											
Di-n-octylphthalate											
Fluoranthene		37	4.9 U	480	91	61	5.0 U	120	4.8 U	2500	6000
Fluorene		5.0 U	4.9 U	88	35	7.3	5.0 U	7.9	4.8 U	67	53
Hexachlorobenzene		1.6 U	1.7 U	1.6 U	1.6 UJ	1.6 U	1.6 U				
Hexachlorobutadiene		1.6 U	1.7 U	1.6 U	1.6 UJ	1.6 U	1.6 U				
Hexachloroethane											
Indeno(1,2,3-cd)pyrene		7.4	4.9 U	110	9.4	6.3	5.0 U	35	4.8 U	1200	2700
Naphthalene	5000	5.0 U	4.9 U	74	58	7.3	5.0 U	24	4.8 U	340	470
n-Nitrosodiphenylamine											
Pentachlorophenol											
Phenanthrene		26	4.9 U	370	140	27	5.0 U	54	4.8 U	510	640
Phenol											
Pyrene		32	4.9 U	400	110	51	5.0 U	120	4.8 U	4000	10000
Total PAHs (U=1/2)		203	39.2 U	2943	675	278	40 U	787	38.4 U	23096	53858
Volatiles (µg/kg)											
1,1,1,2-Tetrachloroethane		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
1,1,1-Trichloroethane	2000	1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
1,1,2,2-Tetrachloroethane		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
1,1,2-Trichloroethane		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
1,1-Dichloroethane		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
1,1-Dichloroethene		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U

Table 3
Summary of Analytical Results for Soil Samples and Comparison with MTCA Method A Cleanup Levels

Location ID		DSI-08	DSI-08	DSI-09	DSI-09	DSI-10	DSI-10	DSI-11	DSI-11	DSI-12	DSI-12
Sample ID		DSI08-SO-A	DSI08-SO-B	DSI09-SO-A	DSI09-SO-B	DSI10-SO-A	DSI10-SO-B	DSI11-SO-A	DSI11-SO-B	DSI12-SO-A	DSI12-SO-B
Sample Date		9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006
Depth Interval		0-3 ft	3-5 ft	0-3 ft	3-5 ft	0-3 ft	3-5 ft	0-3 ft	3-5 ft	0-3 ft	3-5 ft
Sample Matrix	MTCA A	so	so	so	so	so	so	so	so	so	so
Sample Type	Industrial	N	N	N	N	N	N	N	N	N	N
1,1-Dichloropropene		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
1,2,3-Trichloropropane		2.6 U	2.3 U	2.1 U	2.0 UJ-	2.4 U	2.0 U	2.2 U	2.1 U	2.0 U	2.2 U
1,2-Dibromo-3-chloropropane		6.4 U	5.7 U	5.2 U	5.0 UJ-	6.0 U	5.1 U	5.6 U	5.3 U	4.9 U	5.4 U
1,2-Dibromoethane	5	1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
1,2-Dichloroethane		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
1,2-Dichloropropane		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
1,3-Dichloropropane		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
2,2-Dichloropropane		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
2-Butanone		6.6	5.7 U	10	5.0 U	6.5	5.1 U	12	9.4	5.6	5.4 U
2-Chlorotoluene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
2-Hexanone		6.4 U	5.7 U	5.2 U	5.0 UJ-	6.0 U	5.1 U	5.6 U	5.3 U	4.9 U	5.4 U
4-Chlorotoluene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
4-Isopropyltoluene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
4-Methyl-2-pentanone		6.4 U	5.7 U	5.2 U	5.0 U	6.0 U	5.1 U	5.6 U	5.3 U	4.9 U	5.4 U
Acetone		62	49	100	55	55	35 U	96	70	57	45
Benzene	30	1.3 U	1.2 U	1.0	1.3	1.2 U	1.0 U	2.3	1.1 U	1.4	3.0
Bromobenzene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Bromochloromethane		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Bromodichloromethane		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Bromoform		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Bromomethane		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Carbon disulfide		1.3 U	1.2 U	1.0 U	1.6	1.2 U	1.0	1.9	15	1.0 U	1.1 U
Carbon tetrachloride		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Chloroethane		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Chloroform		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Chloromethane		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
cis-1,2-Dichloroethene		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
cis-1,3-Dichloropropene		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U 1.1 U
Dibromochloromethane Dibromomethane		1.3 U	1.2 U	1.0 U	1.0 UJ- 1.0 U	1.2 U	1.0 U	1.1 U 1.1 U	1.1 U	1.0 U	1.1 U
Dichlorodifluoromethane		1.3 U 1.3 U	1.2 U 1.2 U	1.0 U 1.0 U	1.0 U	1.2 U 1.2 U	1.0 U 1.0 U	1.1 U	1.1 U 1.1 U	1.0 U 1.0 U	1.1 U
	20	2.8	2.3 U	2.1 U	2.0 U	2.4 U	2.3	2.2 U			2.2 U
Dichloromethane Ethylbenzene	6000	1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	2.1 U 1.1 U	2.0 U 1.0 U	1.1 U
Isopropylbenzene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
n-Butylbenzene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
n-Propylbenzene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
sec-Butylbenzene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Styrene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
tert-Butylbenzene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
tert-Butylmethylether	100	1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Tetrachloroethene	50	3.6	1.4	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Toluene	7000	1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	3.4
trans-1,2-Dichloroethene		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
trans-1,3-Dichloropropene		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Trichloroethene	30	1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Trichlorofluoromethane		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
Vinyl chloride		1.3 U	1.2 U	1.0 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
m,p-Xylenes		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U
o-Xylene		1.3 U	1.2 U	1.0 U	1.0 UJ-	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U

Table 3 Notes

Qualifiers:

- N normal field sample
- FD field duplicate
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U The analyte was analyzed for, but not detected above the sample reporting limit.
- Denotes criteria exceedance
 - **Bold** Denotes detections

Notes:

- -- No numerical criterion of this type for this chemical
- MTCA Model Toxics Control Act (WAC 173-340)
- HPAH High molecular weight polycyclic aromatic hydrocarbon
- LPAH Low molecular weight polycyclic aromatic hydrocarbon
- mg/kg milligrams per kilogram
- μg/kg micrograms per kilogram
- (1) If benzene is present, the cleanup level is 30 mg/kg. If benzene is not present, the cleanup level is 100 mg/kg

December 2006

Table 4
Summary of Analytical Results for Groundwater Samples and Comparison with MTCA Method A Cleanup Levels

Location ID		DSI-01	DSI-02	DSI-03	DSI-04	DSI-05	DSI-06	DSI-07	DSI-07	DSI-08	DSI-09	DSI-10	DSI-11	DSI-12	MW-4	MW-5
Sample ID		DSI01-GW	DSI02-GW	DSI03-GW	DSI04-GW	DSI05-GW	DSI06-GW	DSI07-GW	DSI57-GW	DSI08-GW	DSI09-GW	DSI10-GW	DSI11-GW	DSI12-GW	MW-4-GW-060929	MW-5-GW-060929
Sample Date		9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/29/2006	9/29/2006
Sample Matrix		WG	WG													
Sample Type		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
TPH (mg/L)	maastriai	I.								14					N	- 14
TPH - Gasoline Range	800/1000 ⁽¹⁾	0.25 U	2.0	2.2	0.25 U	0.25 U										
TPH - Diesel Range	500	0.25 U	0.25 U	0.23	0.25 U	0.25 U	0.25 U	1.9	1.9	0.25 U	0.25 U	0.25 U	3.2	0.63	0.35	0.25 U
TPH - Motor Oil Range	500	0.50 U	0.23 U	0.50 U	0.23 U	0.23 U	0.50 U	0.50 U	0.50 U	0.50 U	0.23 U	0.23 U	0.50 U	0.50 U	0.50 U	0.50 U
Metals-dissolved (µg/L)	300	0.50 0	0.50 0	0.50 0	0.50 0	0.30 0	0.50 0	0.50 0	0.50 0	0.50 0	0.50 0	0.50 0	0.50 0	0.50 0	0.30 0	0.30 0
Arsenic		68.4	2.4	1.5	2.2	0.6	1.8	3.8	4.2	1.4	1.6	0.8	0.8	5.0	1.0	3.4
Cadmium		0.2 U	0.2 U													
Chromium		0.5 UJ	0.5 U	2 U	2 U	2 U	0.5 U	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	1 U	42
Copper		0.5 U	0.5 U	0.8	0.7	0.5 U	0.5 U	0.6	1.1	0.7	0.9	0.5 U	0.5 U	0.5 U	0.5 U	14.3
Lead		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Mercury		0.1 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U					
Silver		0.2 U	0.4													
Zinc		5	4 U	13	4 U	7	5	6	7	4 U	44	7	8	4 U	4	8
Metals-total (µg/L)				1.2											<u> </u>	-
Arsenic	5	84.4	16.4	9.5	11.2	2	2.3	9.5	7.2	11.8	2.6	2.4	6.7	32.5	1.0	4.9
Cadmium	5	0.3	0.3	0.2	0.2	0.2 U	0.2 U	0.2 U	0.2 U	0.3	0.2 U	0.3	1.6	0.3	0.2 U	0.2 U
Chromium	50	7	49	38	29	6	2 U	21	14	37	5 U	5	34	20	1 U	54
Copper		18.5	86.7	53	55.6	15.2	7.5	39.1	24	70.4	34.4	26.1	49.2	126	0.5 U	29
Lead	15	3	11	8	13	6	2	6	5	12	55	14	10	27	1 U	2
Mercury	2	0.1 U	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.10 U	0.10 U	0.12	0.10 U	0.10 U	0.10 U	0.12	0.10 U	0.10 U
Silver		0.2 UJ	0.3	0.3	0.2 U	0.4	0.2	0.2 U	0.2 U	0.2	0.2 U	0.8				
Zinc		33	137	147	92	25	9	61	42	103	98	19	154	109	4	14
Pesticides (µg/L)																
4,4'-DDD		0.011 U	0.010 U	0.010 U												
4,4'-DDE		0.011 U	0.010 U	0.010 U												
4,4'-DDT	0.3	0.011 U	0.010 U	0.010 U												
Total DDT (U=1/2)		0.017 U	0.015 U	0.015 U												
Aldrin		0.0054 U	0.0056 U	0.0055 U	0.0054 U	0.0053 U	0.0055 U	0.0050 U	0.0050 U							
alpha-BHC		0.0054 U	0.0056 U	0.0055 U	0.0054 U	0.0053 U	0.0055 U	0.0050 U	0.0050 U							
beta-BHC		0.0054 U	0.0056 U	0.0055 U	0.0054 U	0.0053 U	0.0055 U	0.0050 U	0.0050 U							
delta-BHC		0.0054 U	0.0056 U	0.0055 U	0.0054 U	0.0053 U	0.0055 U	0.0050 U	0.0050 U							
gamma-BHC (Lindane)		0.0054 U	0.0056 U	0.0055 U	0.0054 U	0.0053 U	0.0055 U	0.0050 U	0.018 U	0.0050 U	0.0050 U					
alpha-Chlordane		0.0054 U	0.0056 U	0.0055 U	0.0054 U	0.0053 U	0.0055 U	0.0050 U	0.0050 U							
gamma-Chlordane		0.0054 U	0.0056 U	0.0055 U	0.0054 U	0.0053 U	0.0055 U	0.0050 U	0.0050 U							
Dieldrin		0.011 U	0.010 U	0.010 U												
Endosulfan I		0.0054 U	0.0056 U	0.0055 U	0.0054 U	0.0053 U	0.0055 U	0.0050 U	0.0050 U							
Endosulfan II		0.011 U	0.010 U	0.010 U												
Endosulfan Sulfate		0.011 U	0.010 U	0.010 U												
Endrin		0.011 U	0.010 U	0.010 U												
Endrin aldehyde		0.011 U	0.010 U	0.010 U												
Endrin ketone		0.011 U	0.010 U	0.010 U												
Heptachlor		0.0054 U	0.0056 U	0.0055 U	0.0054 U	0.0053 U	0.0055 U	0.0050 U	0.0050 U							
Heptachlor Epoxide		0.0054 U	0.0056 U	0.0055 U	0.0054 U	0.0053 U	0.0055 U	0.0050 U	0.0050 U							
Methoxychlor		0.054 U	0.056 U	0.055 U	0.054 U	0.053 U	0.055 U	0.050 U	0.050 U							
Toxaphene		0.54 U	0.56 U	0.55 U	0.54 U	0.53 U	0.55 U	0.50 U	0.50 U							

Table 4
Summary of Analytical Results for Groundwater Samples and Comparison with MTCA Method A Cleanup Levels

Lagation	· ID	DCI 04	DSI-02	DCI 03	DCI 04	DCLOF	DCI 00	DCI 07	DCI 07	DCI 00	DCI 00	DCI 40	DCI 44	DCI 40	MW-4	BANA/ E
Location		DSI-01		DSI-03	DSI-04	DSI-05	DSI-06	DSI-07	DSI-07	DSI-08	DSI-09	DSI-10	DSI-11	DSI-12		MW-5
Sampl		DSI01-GW	DSI02-GW	DSI03-GW	DSI04-GW	DSI05-GW	DSI06-GW	DSI07-GW	DSI57-GW	DSI08-GW	DSI09-GW	DSI10-GW	DSI11-GW	DSI12-GW	MW-4-GW-060929	MW-5-GW-060929
Sample D		9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/29/2006	9/29/2006
Sample Ma		WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG
Sample T	ype Industrial	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
PCBs (µg/L)		0.00011	0.000.11	0.00011	0.000.11	0.00011	0.000.11	0.000.11	0.000.11	0.00011	0.00011	0.00011	0.00011	0.000.11	0.00011	0.000.111
Aroclor 1016		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 UJ
Aroclor 1221		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.080 U	0.080 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 UJ
Aroclor 1232		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.040 U	0.080 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 UJ
Aroclor 1242		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 UJ
Aroclor 1248		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 UJ
Aroclor 1254		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 UJ
Aroclor 1260		0.020 UJ	0.020 UJ	0.020 UJ	0.020 UJ	0.020 UJ	0.020 UJ	0.020 UJ	0.020 UJ	0.020 U	0.020 UJ	0.020 UJ	0.020 UJ	0.020 UJ	0.020 U	0.020 UJ
Total PCBs (U=1/2)	0.1	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.11 U	0.13 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
SVOCs (µg/L)																
1,2,3-Trichlorobenzene		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U
1,2,4-Trichlorobenzene		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U
1,2,4-Trimethylbenzene		0.2 U	0.4	0.2 U	0.2 U	0.2 U	0.2 U	24	26	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
1,2-Dichlorobenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
1,3,5-Trimethylbenzene		0.2 U	0.3	0.2 U	0.2 U	0.2 U	0.2 U	10	12	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
1,3-Dichlorobenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
1,4-Dichlorobenzene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
2-Methylnaphthalene		0.10 U	0.07 U	0.11	0.02 U	0.12	0.06 U	32	28	0.06 U	0.08 U	0.06 U	0.07 U	0.47	1.3	0.01 U
Acenaphthene		0.07	0.03	0.01	0.01 U	0.06	0.09	0.54	0.53	0.01 J	0.05	0.11	0.22	2.2	2.9	0.01 U
Acenaphthylene		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 J	0.06	0.06	0.01 U	0.01 U	0.01 U	0.02	1.8	0.08	0.01 U
Anthracene		0.02	0.01 J	0.02	0.01 U	0.01 J	0.01 J	0.03	0.03	0.01 J	0.02	0.01 U	0.01	2.6	0.14	0.01 U
Benzo(a)anthracene		0.01 J	0.01 U	0.03	0.01 U	0.01 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01	0.01 U	0.01 U	3.4	0.01 U	0.01 U
Benzo(a)pyrene	0.1	0.01 U	0.01 U	0.02	0.01 U	0.01 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 J	0.01 U	0.01 U	3.5	0.01 U	0.01 U
Benzo(b)fluoranthene		0.01 U	0.01 U	0.02	0.01 U	0.01 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 J	0.01 J	0.01 U	2.0	0.01 U	0.01 U
Benzo(g,h,i)perylene		0.01 U	0.01 U	0.01 J	0.01 U	0.01 J	0.01 U	0.01 J	0.01 U	0.01 U	0.01 U	0.01 J	0.01 U	1.9	0.01 U	0.01 U
Benzo(k)fluoranthene		0.01 U	0.01 U	0.03	0.01 U	0.01 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 J	0.01 J	0.01 U	2.2	0.01 U	0.01 U
Chrysene		0.01	0.01 J	0.06	0.01 U	0.02	0.01 J	0.01 J	0.01 J	0.01 J	0.01	0.02	0.01 J	5.0	0.01 U	0.01 U
Dibenzo(a,h)anthracene		0.01 U	0.01 U	0.00 0.01 J	0.01 U	0.01 U	0.01 U	0.01 U	0.65	0.01 U	0.01 U					
Dibenzofuran		0.01	0.01	0.01	0.01 U	0.01 J	0.01 J	0.010	0.010	0.01 J	0.01 J	0.01 U	0.010	0.44	0.010	0.01 U
Fluoranthene		0.05	0.01	0.01	0.01	0.013	0.013	0.14	0.14	0.01 3	0.013	0.01 J	0.03	8.5	0.13	0.01 J
Fluorene		0.05	0.02	0.02	0.01 U	0.02	0.03	0.02	0.02	0.02 0.01 J	0.04	0.01 J	0.03	3.3	2.0	0.01 J
		0.0054 U	0.0056 U	0.0055 U	0.01 U	0.0053 U	0.0055 U	0.0050 U	0.0050 U	0.01 J	0.0050 U	0.013 0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.013 0.0050 U
Hexachlorobenzene		0.0054 U		0.0055 U		0.0053 U							0.0050 U			
Hexachlorobutadiene	==		0.0056 U		0.0054 U		0.0055 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U		0.0050 U		
Indeno(1,2,3-cd)pyrene	400	0.01 U	0.01 U	0.01 J	0.01 U	0.01 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	1.5	0.01 U	0.01 U
Naphthalene	160	0.12	0.12	0.13	0.07	0.16	0.15	4.7	4.2	0.08	0.10	0.10	0.20	1.2	8.7	0.01 J
Phenanthrene		0.14	0.05	0.06	0.01	0.04	0.04	0.31	0.31	0.03	0.13	0.02	0.04	5.6	0.15	0.02
Pyrene		0.04	0.02	0.01	0.01 J	0.02	0.05	0.02	0.02	0.01	0.05	0.01	0.02	11	0.07	0.01 J
Total PAHs (U=1/2)		0.55	0.33	0.46	0.16	0.41	0.45	6.3	5.75	0.22	0.5	0.34	0.74	56.4	14.2	0.11
Volatiles (µg/L)		22	2 2	2 2								6.57:			2.217	2.27
1,1,1,2-Tetrachloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
1,1,1-Trichloroethane	200	1.0	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
1,1,2,2-Tetrachloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
1,1,2-Trichloroethane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
1,1-Dichloroethane		0.2	0.2 U	0.2 U	0.2 U	0.2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4	0.6 U
1,1-Dichloroethene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
1,1-Dichloropropene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
1,2,3-Trichloropropane		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U
1,2-Dibromo-3-chloropropane		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U
1,2-Dibromoethane	0.01	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
1,2-Dichloroethane	5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
1,2-Dichloropropane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
1,3-Dichloropropane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
2,2-Dichloropropane		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
2-Butanone		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U
2-Chlorotoluene		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U
2-Hexanone		3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	9.0 U
		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.6 U

Table 4
Summary of Analytical Results for Groundwater Samples and Comparison with MTCA Method A Cleanup Levels

Location ID Sample ID		DSI-01 DSI01-GW	DSI-02 DSI02-GW	DSI-03 DSI03-GW	DSI-04 DSI04-GW	DSI-05 DSI05-GW	DSI-06 DSI06-GW	DSI-07 DSI07-GW	DSI-07 DSI57-GW	DSI-08 DSI08-GW	DSI-09 DSI09-GW	DSI-10 DSI10-GW	DSI-11 DSI11-GW	DSI-12 DSI12-GW	MW-4 MW-4-GW-060929	MW-5 MW-5-GW-060929
Sample Date		9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/29/2006	9/29/2006
Sample Matrix	MTCA A	WG	WG													
Sample Type	Industrial	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
4-Isopropyltoluene	==	0.2 U	0.6 U													
4-Methyl-2-pentanone		1.0 U	3.0 U													
Acetone		5.4	8.0	6.3	3.8	3.0 U	3.8	3.0 U	3.0 U	5.5	4.7	4.7	6.3	6.3	4.1	9.0 U
Benzene	5	0.2 U	0.2 U	0.2 U	0.2 U	0.2	0.6	180	210	0.3	0.2 U	0.6 U				
Bromobenzene		0.2 U	0.6 U													
Bromochloromethane		0.2 U	0.6 U													
Bromodichloromethane		0.2 U	0.6 U													
Bromoform		0.2 U	0.6 U													
Bromomethane		0.2 U	0.6 U													
Carbon disulfide		0.2	0.6	0.2 U	0.3	0.2 U	0.2 U	0.2 U	0.6 U							
Carbon tetrachloride		0.2 U	0.6 U													
Chloroethane		0.2 U	0.6 U													
Chloroform		0.2 U	0.6 U													
Chloromethane		0.2 U	0.6 U													
cis-1,2-Dichloroethene		0.5	0.2 U	0.2	0.6	0.2 U	0.6 U									
cis-1,3-Dichloropropene		0.2 U	0.6 U													
Dibromochloromethane		0.2 U	0.6 U													
Dibromomethane		0.2 U	0.6 U													
Dichlorodifluoromethane		0.2 U	0.6 U													
Dichloromethane	5	0.3 U	0.3	0.9 U												
Ethylbenzene	700	0.2 U	10	11	0.2 U	0.6 U										
Isopropylbenzene		0.2 U	25	28	0.2 U	0.2 U	0.2 U	0.5	0.5	0.2 U	0.6 U					
n-Butylbenzene		0.2 U	14	13	0.2 U	0.6 U										
n-Propylbenzene		0.2 U	94	110	0.2 U	0.2 U	0.2 U	0.5	0.5	0.2 U	0.6 U					
sec-Butylbenzene		0.2 U	8.2	8.5	0.2 U	0.2 U	0.2 U	0.2	0.2	0.2 U	0.6 U					
Styrene		0.2 U	0.6 U													
tert-Butylbenzene		0.2 U	0.5	0.2 U	0.6 U											
tert-Butylmethylether	20	0.2 U	0.6 U													
Tetrachloroethene	5	0.2 U	0.6 U													
Toluene	1000	0.5	0.7	0.6	0.5	0.4	0.4	4.4	4.6	0.4	0.4	0.7	0.5	0.4	0.2 U	0.6 U
trans-1,2-Dichloroethene		0.2 U	0.6 U													
trans-1,3-Dichloropropene		0.2 U	0.6 U													
Trichloroethene		0.2 U	0.6 U													
Trichlorofluoromethane	==	0.2 U	0.6 U													
Vinyl chloride	0.2	0.2 U	0.2 U	0.2 U	0.6	0.3	0.2 U	0.2 U	0.2 U	0.4	0.2 U	0.6 U				
m,p-Xylenes	1000	0.4 U	0.5	0.5	0.4 U	0.4 U	0.4	6.4	7.1	0.4 U	0.4 U	0.4 U	0.5	0.5	0.4 U	1.2 U
o-Xylene		0.2 U	0.2	0.2	0.2 U	0.2 U	0.2	0.2 U	0.9	0.2 U	0.2 U	0.2 U	0.3	0.3	0.2 U	0.6 U

Oualifiers:

- N Normal field sample
- FD Field duplicate
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U The analyte was analyzed for, but not detected above the sample reporting limit.
- Denotes criteria exceedance

Bold Denotes detections

Notes:

- -- No numerical criterion of this type for this chemical
- MTCA Model Toxics Control Act (WAC 173-340)
- HPAH High molecular weight polycyclic aromatic hydrocarbon
- LPAH Low molecular weight polycyclic aromatic hydrocarbon
- mg/L milligrams per liter
- μg/L micrograms per liter
 - If benzene is present, the cleanup level is 800 mg/L. If benzene is not present, the cleanup level is 1,000 mg/L.

Table 5
Summary of Analytical Results for Selected Soil Samples (Organic Carbon Normalized) and Comparison with Washington Sediment Management Standards

	Location ID			DSI-09	DSI-09	DSI-10	DSI-10	DSI-11	DSI-11	DSI-12	DSI-12	DSI-22
	Sample ID			DSI09-SO-A	DSI09-SO-B	DSI10-SO-A	DSI10-SO-B	DSI11-SO-A	DSI11-SO-B	DSI12-SO-A	DSI12-SO-B	DSI22-CB-060929
	Sample Date			9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/29/2006
	epth Interval			0-3 ft	3-5 ft							
	mple Matrix	SMS	SMS	SO	SE							
	Sample Type	SQS	CSL	N	N	N	N	N	N	N	N	N
Conventionals (%)												
Total solids				92.60	89.60	69.70	95.30	76.10	93.70	87.70	86.70	67.00
Total Organic Carbon				0.939	2.35	1.30	0.147	1.34	0.099	1.25	1.12	3.28
Metals (mg/kg)												
Arsenic		57	93	3.7	20.2	6.2	1.9	4.4	1.4	17.1	3.3	29.7 J
Cadmium		5.1	6.7	0.3	8.5 * #	0.3 U	0.2 U	0.3	0.2 U	0.2	0.2 U	2
Chromium		260	270	17.4	36	20.2	14.2	17.1	11.4	20.1	15.5	87
Chromium VI				0.117 UJ	0.124 UJ	0.157 UJ	0.117 UJ	2.05 J	0.120 UJ	0.125 UJ	0.123 UJ	
Copper		390	390	65.9	3310 * #	29.0	8.8	49.0	8.4	34.2	18.1	2450 * #
Lead		450	530	118	4940 * #	8	11	92	2 U	20	6	350 J
Mercury		0.41	0.59	0.31	0.18	0.11	0.04 U	0.76 * #	0.04 U	0.08	0.05 U	1.05 * #
Silver		6.1	6.1	0.3 U	1.2	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	2 U
Zinc		410	960	115	5840 * #	43.7	25.2	78.3	23.0	77.4	36.8	2600 * #
PCBs (mg/kg-OC)								_				
Total PCBs (SMS)		12	65	1.02 U	0.417 U	0.754 U	6.39 U	2.61	10 U	2.32 U	2.59 U	11.9 U
LPAH (mg/kg-OC)												
Naphthalene		99	170	7.88	2.47	0.562	3.4 U	1.79	4.85 U	27.2	42	12.5
Acenaphthylene		66	66	1.49	0.23	0.369 U	3.4 U	1.04	4.85 U	70.4 * #	152 * #	1.8 U
Acenaphthene		16	57	8.73	1.28	0.369 U	3.4 U	0.515	4.85 U	2.96 U	4.02	22.6 J *
Fluorene		23	79	9.37	1.49	0.562	3.4 U	0.59	4.85 U	5.36	4.73	17.7
Phenanthrene		100	480	39.4	5.96	2.08	3.4 U	4.03	4.85 U	40.8	57.1	67.1
Anthracene		220	1200	9.27	0.809	0.846	3.4 U	1.34	4.85 U	23.2	40.2	13.4
2-Methylnaphthalene		38	64	5.01	1.45	0.6	3.4 U	1.42	4.85 U	18.4	26.8	4.88
Total LPAH (SMS)		370	780	76.1	12.2	4.05	3.4 U	9.33	4.85 U	167	300	133
HPAH (mg/kg-OC)												
Fluoranthene		160	1200	51.1	3.87	4.69	3.4 U	8.96	4.85 U	200 *	536 *	97.6
Pyrene		1000	1400	42.6	4.68	3.92	3.4 U	8.96	4.85 U	320	893	79.3 J
Benzo(a)anthracene		110	270	17	1.15	1.38	3.4 U	4.03	4.85 U	144 *	321 * #	14.6
Chrysene		110	460	29.8	2.3	1.77	3.4 U	6.49	4.85 U	240 *	670 * #	39.6
Benzo(a)pyrene		99	210	19.2	0.979	1.15	3.4 U	4.55	4.85 U	240 * #	705 * #	21
Indeno(1,2,3-cd)pyrene		34	88	11.7	0.4	0.485	3.4 U	2.61	4.85 U	96 * #	241 * #	8.54
Dibenzo(a,h)anthracene		12	33	4.05	0.213 U	0.369 U	3.4 U	0.627	4.85 U	31.2 *	80.4 * #	2.44
Benzo(g,h,i)perylene		31	78	11.7	0.421	0.485	3.4 U	2.76	4.85 U	104 * #	259 * #	9.76
Total benzofluoranthenes	(SMS)	230	450	50.1	2.6	2.92	3.4 U	10.4	4.85 U	304 *	804 * #	50.9
Total HPAH (SMS)		960	5300	237	16.4	16.8	3.4 U	49.4	4.85 U	1679 *	4509 *	324
Chlorinated Hydrocarbons (mg	/kg-OC)											
1,4-Dichlorobenzene		3.1	9	0.106 U	0.0426 UJ-	0.0923 U	0.68 U	0.0821 U	1.11 U	0.08 U	0.0982 U	1.8 U
1,2-Dichlorobenzene		2.3	2.3	0.106 U	0.0426 UJ-	0.0923 U	0.68 U	0.0821 U	1.11 U	0.08 U	0.0982 U	1.8 U
1,2,4-Trichlorobenzene		0.81	1.8	0.554 U	0.213 UJ-	0.462 U	3.47 U	0.418 U	5.35 U	0.392 U	0.482 U	1.8 U
Hexachlorobenzene		0.38	2.3	0.17 U	0.0681 U	0.123 U	1.16 U	0.119 U	1.62 UJ	0.128 U	0.143 U	1.8 U
Phthalates (mg/kg-OC)												
Dimethylphthalate		53	53	NA	1.8 U							
Diethylphthalate		61	110	NA	1.8 U							
Di-n-butylphthalate		220	1700	NA	5.49							
Butylbenzylphthalate		4.9	64	NA	14.3 *							
bis(2-Ethylhexyl)phthalate)	47	78	NA	488 * #							
Di-n-octylphthalate		58	4500	NA	24.4							
Misc Extractables (mg/kg-OC)												
Dibenzofuran		15	58	3.41	0.766	0.523	3.4 U	0.59	4.85 U	2.96 U	3.39 U	14.6
Hexachlorobutadiene		3.9	6.2	0.17 U	0.0681 U	0.123 U	1.16 U	0.119 U	1.62 UJ	0.128 U	0.143 U	1.8 U
n-Nitrosodiphenylamine		11	11	NA	3.96 UJ							

Table 5
Summary of Analytical Results for Selected Soil Samples (Organic Carbon Normalized) and Comparison with Washington Sediment Management Standards

Location	on ID		DSI-09	DSI-09	DSI-10	DSI-10	DSI-11	DSI-11	DSI-12	DSI-12	DSI-22
Samp	le ID		DSI09-SO-A	DSI09-SO-B	DSI10-SO-A	DSI10-SO-B	DSI11-SO-A	DSI11-SO-B	DSI12-SO-A	DSI12-SO-B	DSI22-CB-060929
Sample	Date		9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/29/2006
Depth Into	erval		0-3 ft	3-5 ft							
Sample M	atrix SMS	SMS	so	SE							
Sample '	Type SQS	CSL	N	N	N	N	N	N	N	N	N
Phenols (µg/kg)											
Phenol	420	1200	NA	140 J							
2-Methylphenol	63	63	NA	59 U							
4-Methylphenol	670	670	NA	96							
2,4-Dimethylphenol	29	29	NA	59 U							
Pentachlorophenol	360	690	NA	290 UJ							
Misc Extractables (µg/kg)											
Benzyl alcohol	57	73	NA	240 U							
Benzoic acid	650	650	NA	590 U							
Dibenzofuran			32	18	6.8	5.0 U	7.9	4.8 U	37 U	38 U	480
Hexachloroethane			NA	59 U							
Hexachlorobutadiene			1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 UJ	1.6 U	1.6 U	59 U
n-Nitrosodiphenylamine			NA	130 UJ							

Qualifiers:

- N normal field sample
- FD field duplicate
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U The analyte was analyzed for, but not detected above the sample reporting limit.
- Denotes criteria exceedance
 - * Exceeds SQS criteria
 - # Exceeds CSL criteria
- **Bold** Denotes detections

Notes:

- -- No numerical criterion of this type for this chemical
- NA Sample not analyzed for this chemical
- HPAH High molecular weight polycyclic aromatic hydrocarbon
- LPAH Low molecular weight polycyclic aromatic hydrocarbon
- SMS Sediment Management Standards (WAC 173-204)
- SQS Sediment Quality Standards (WAC 173-204-320)
- CSL Cleanup Screening Level (WAC 173-204-520)
- mg/kg miligrams per kilogram
- μg/kg micrograms per kilogram
- OC organic carbon normalized

Where laboratory analysis indicates a chemical is not detected in a sediment sample, the detection limit will be reported, except as noted. Where chemical criteria in this table represent the sums of individual compounds (e.g., total LPAHs and total HPAHs), isomers (e.g., total benzofluoranthenes), or groups of aroclors/congeners (e.g., total PCBs), and a chemical analysis identifies an undetected value for one or more individual compounds, isomers, or groups of congeners, the SMS require that the sum of the detected values should be used as the sum of the respective compounds or groups of isomers or aroclors/congeners. If all values are undetected, then the highest detection limit should be used as the sum of the respective compounds or groups of isomers or aroclors/congeners.

The listed values represent concentrations in parts per million (ppm) "normalized" on a total organic carbon (TOC) basis. To normalize to TOC, the dry-weight concentration for each parameter is divided by the decimal fraction representing the percent TOC content of the sediment.

The total LPAH criteria will be compared to the sum of the concentrations of the following LPAH compounds: naphthalene, acenaphthylene, acenaphthylene, acenaphthylene, and anthracene. 2-methylnaphthalene is not included in the LPAH definition under the SMS. Inclusion of 2-methylnaphthalene in the LPAH definition under the SMS is being considered. The total LPAH criteria are not the sums of the corresponding criteria listed for the individual LPAH compounds.

The total HPAH criteria will be compared to the sum of the concentrations of the following HPAH compounds: fluoranthene, pyrene, benz[a]-anthracene, chrysene, total benzo-fluoranthenes, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, dibenz[a,h]anthracene, and benzo-[g,h,i]-perylene. The total HPAH criteria are not the sums of the corresponding criteria listed for the individual HPAH compounds.

The total benzofluoranthenes criteria will be compared to the sums of the concentrations of the b, j, and k isomers of benzofluoranthene.

Table 6
Summary of Analytical Results for Selected Groundwater Samples and Comparison with Washington Marine Water Quality Criteria

	Location ID Sample ID Sample Date Sample Matrix Sample Type	Washington Marine	Washington Marine Acute	DSI-06 DSI06-GW 9/27/2006 WG N	DSI-07 DSI07-GW 9/28/2006 WG N	DSI-07 DSI57-GW 9/28/2006 WG FD	DSI-08 DSI08-GW 9/28/2006 WG N	DSI-09 DSI09-GW 9/28/2006 WG N	DSI-10 DSI10-GW 9/28/2006 WG N	DSI-11 DSI11-GW 9/28/2006 WG N	DSI-12 DSI12-GW 9/28/2006 WG N
TPH (mg/L)											
TPH - Gasoline R				0.25 U	2.0	2.2	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TPH - Diesel Ran				0.25 U	1.9	1.9	0.25 U	0.25 U	0.25 U	3.2	0.63
TPH - Motor Oil R Metals-dissolved (µg/L)				0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Arsenic	!	36	69	1.8	3.8	4.2	1.4	1.6	0.8	0.8	5.0
Cadmium		9.3	42	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chromium				0.5 U	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U
Copper		3.1	4.8	0.5 U	0.6	1.1	0.7	0.9	0.5 U	0.5 U	0.5 U
Lead		8.1	210	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Mercury		0.025	1.8	0.1 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Silver			1.9	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Zinc Metals-total (µg/L)		81	90	5	6	7	4 U	44	7	8	4 U
Arsenic				2.3	9.5	7.2	11.8	2.6	2.4	6.7	32.5
Cadmium				0.2 U	0.2 U	0.2 U	0.3	0.2 U	0.3	1.6	0.3
Chromium				2 U	21	14	37	5 U	5	34	20
Copper				7.5	39.1	24	70.4	34.4	26.1	49.2	126
Lead				2	6	5	12	55	14	10	27
Mercury				0.1 U	0.10 U	0.10 U	0.12	0.10 U	0.10 U	0.10 U	0.12
Silver				0.2 U	0.2 U	0.2 U	0.4	0.2	0.2 U	0.2 U	0.2
Zinc				9	61	42	103	98	19	154	109
Pesticides (μg/L) 4,4'-DDD		0.001	0.13	0.011 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
4,4'-DDE		0.001	0.13	0.011 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
4,4'-DDT		0.001	0.13	0.011 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Total DDT (U=1/2)			0.017 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U
Aldrin		0.0019	0.71	0.0055 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
alpha-BHC				0.0055 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
beta-BHC				0.0055 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
delta-BHC	dono			0.0055 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
gamma-BHC (Lin- alpha-Chlordane	dane)		0.16	0.0055 U 0.0055 U	0.0050 U 0.0050 U	0.0050 U 0.0050 U	0.0050 U 0.0050 U	0.0050 U 0.0050 U	0.0050 U 0.0050 U	0.0050 U 0.0050 U	0.018 U 0.0050 U
gamma-Chlordan	Δ			0.0055 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Dieldrin	<u> </u>	0.0019	0.71	0.011 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Endosulfan I				0.0055 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Endosulfan II				0.011 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Endosulfan Sulfat	е			0.011 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Endrin		0.0023	0.037	0.011 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Endrin aldehyde				0.011 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Endrin ketone			0.052	0.011 U	0.010 U 0.0050 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U 0.0050 U
Heptachlor Heptachlor Epoxid	10	0.0036	0.053	0.0055 U 0.0055 U	0.0050 U	0.0050 U 0.0050 U	0.0050 U 0.0050 U	0.0050 U 0.0050 U	0.0050 U 0.0050 U	0.0050 U 0.0050 U	0.0050 U
Methoxychlor	ue .			0.0055 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.0050 U
Toxaphene		0.0002	0.21	0.55 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
PCBs (µg/L)											
Aroclor 1016				0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Aroclor 1221				0.020 U	0.080 U	0.080 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Aroclor 1232				0.020 U	0.040 U	0.080 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Aroclor 1242 Aroclor 1248				0.020 U 0.020 U	0.020 U 0.020 U	0.020 U 0.020 U	0.020 U 0.020 U	0.020 U 0.020 U	0.020 U 0.020 U	0.020 U 0.020 U	0.020 U 0.020 U
Aroclor 1254				0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Aroclor 1260				0.020 UJ	0.020 UJ	0.020 UJ	0.020 U	0.020 UJ	0.020 UJ	0.020 UJ	0.020 UJ
Total PCBs (U=1/	(2)	0.03	10	0.07 U	0.11 U	0.13 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
SVOCs (µg/L)											
1,2,3-Trichlorober				0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorober				0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbe				0.2 U 0.2 U	24 0.2 U	26 0.2 U	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U	0.2 U	0.2 U 0.2 U
1,2-Dichlorobenze 1,3,5-Trimethylbe				0.2 U	0.2 U	0.2 U 12	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U
1,3-Dichlorobenze				0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,4-Dichlorobenze				0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Methylnaphthal				0.06 U	32	28	0.06 U	0.08 U	0.06 U	0.07 U	0.47
Acenaphthene				0.09	0.54	0.53	0.01 J	0.05	0.11	0.22	2.2
Acenaphthylene				0.01 J	0.06	0.06	0.01 U	0.01 U	0.01 U	0.02	1.8
Anthracene				0.01 J	0.03	0.03	0.01 J	0.02	0.01 U	0.01	2.6
Dan==/-\	200			0.01 U	0.01 U	0.01 U	0.01 U	0.01	0.01 U	0.01 U	3.4 3.5
Benzo(a)anthrace	ene			0.04.11	Λ Λ1 ΙΙ		0 01 11	Λ Λ1 Ι	0.04 !!	Λ Λ1 ΙΙ	
Benzo(a)pyrene				0.01 U 0.01 U	0.01 U 0.01 U	0.01 U 0.01 U	0.01 U 0.01 U	0.01 J 0.01 J	0.01 U 0.01 J	0.01 U 0.01 U	
Benzo(a)pyrene Benzo(b)fluoranth	iene			0.01 U	0.01 U	0.01 U	0.01 U	0.01 J	0.01 J	0.01 U	2.0
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle	nene ene			0.01 U 0.01 U	0.01 U 0.01 J	0.01 U 0.01 U	0.01 U 0.01 U	0.01 J 0.01 U		0.01 U 0.01 U	2.0 1.9
Benzo(a)pyrene Benzo(b)fluoranth	nene ene			0.01 U	0.01 U	0.01 U	0.01 U	0.01 J	0.01 J 0.01 J	0.01 U	2.0
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle Benzo(k)fluoranth	iene ene ene	 	 	0.01 U 0.01 U 0.01 U	0.01 U 0.01 J 0.01 U	0.01 U 0.01 U 0.01 U	0.01 U 0.01 U 0.01 U	0.01 J 0.01 U 0.01 J	0.01 J 0.01 J 0.01 J	0.01 U 0.01 U 0.01 U	2.0 1.9 2.2 5.0 0.65
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle Benzo(k)fluoranth Chrysene Dibenzo(a,h)anth	iene ene ene	 		0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.01 J	0.01 U 0.01 J 0.01 U 0.01 J 0.01 U 0.14	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.14	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.01 J	0.01 J 0.01 U 0.01 J 0.02 0.01 U 0.01 J	0.01 J 0.01 J 0.01 J 0.02 0.01 U 0.01 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.03	2.0 1.9 2.2 5.0 0.65 0.44
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle Benzo(k)fluoranth Chrysene Dibenzo(a,h)anth Dibenzofuran Fluoranthene	iene ene ene	 	 	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.01 J 0.03	0.01 U 0.01 J 0.01 U 0.01 J 0.01 U 0.01 U 0.01 U 0.01 U 0.01 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.14 0.02	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.01 J 0.02	0.01 J 0.01 U 0.01 J 0.02 0.01 U 0.01 J 0.04	0.01 J 0.01 J 0.01 J 0.02 0.01 U 0.01 U 0.01 J	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.03 0.03	2.0 1.9 2.2 5.0 0.65 0.44 8.5
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle Benzo(k)fluoranth Chrysene Dibenzo(a,h)anth Dibenzofuran Fluoranthene Fluorene	nene ene ene racene	 		0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.01 J 0.03 0.03	0.01 U 0.01 J 0.01 U 0.01 J 0.01 U 0.01 U 0.01 U 0.14 0.02 0.57	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.14 0.02 0.54	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.01 J 0.02 0.01 J	0.01 J 0.01 U 0.01 J 0.02 0.01 U 0.01 J 0.04 0.03	0.01 J 0.01 J 0.01 J 0.02 0.01 U 0.01 U 0.01 J 0.01 J	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.03 0.03	2.0 1.9 2.2 5.0 0.65 0.44 8.5 3.3
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle Benzo(k)fluoranth Chrysene Dibenzo(a,h)anth Dibenzofuran Fluoranthene Fluorene Hexachlorobenze	nene ene ene racene	 	 	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.01 J 0.01 J 0.03 0.03	0.01 U 0.01 J 0.01 U 0.01 J 0.01 U 0.01 U 0.14 0.02 0.57 0.0050 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.14 0.02 0.54 0.0050 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.01 J 0.02 0.01 J 0.0050 U	0.01 J 0.01 U 0.01 J 0.02 0.01 U 0.01 J 0.04 0.03 0.0050 U	0.01 J 0.01 J 0.01 J 0.02 0.01 U 0.01 U 0.01 J 0.01 J 0.0050 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.03 0.03 0.16 0.0050 U	2.0 1.9 2.2 5.0 0.65 0.44 8.5 3.3
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle Benzo(k)fluoranth Chrysene Dibenzo(a,h)anth Dibenzofuran Fluoranthene Fluorene Hexachlorobenze Hexachlorobutadi	nene racene ne	 		0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.01 J 0.03 0.03 0.0055 U 0.0055 U	0.01 U 0.01 J 0.01 U 0.01 J 0.01 U 0.01 U 0.14 0.02 0.57 0.0050 U 0.0050 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.14 0.02 0.54 0.0050 U 0.0050 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.01 J 0.02 0.01 J 0.0050 U 0.0050 U	0.01 J 0.01 U 0.01 J 0.02 0.01 U 0.01 J 0.04 0.03 0.0050 U 0.0050 U	0.01 J 0.01 J 0.01 J 0.02 0.01 U 0.01 U 0.01 J 0.01 J 0.0050 U 0.0050 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.03 0.03 0.16 0.0050 U 0.0050 U	2.0 1.9 2.2 5.0 0.65 0.44 8.5 3.3 0.0050 U 0.0050 U
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle Benzo(k)fluoranth Chrysene Dibenzo(a,h)anth Dibenzofuran Fluoranthene Fluorene Hexachlorobenze Hexachlorobutadi Indeno(1,2,3-cd)p	nene racene ne			0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.03 0.03 0.0055 U 0.01 U	0.01 U 0.01 J 0.01 U 0.01 J 0.01 U 0.01 U 0.14 0.02 0.57 0.0050 U 0.0050 U 0.01 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.14 0.02 0.54 0.0050 U 0.01 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.01 J 0.02 0.01 J 0.0050 U 0.01 U	0.01 J 0.01 U 0.01 J 0.02 0.01 U 0.01 J 0.04 0.03 0.0050 U 0.01 U	0.01 J 0.01 J 0.01 J 0.02 0.01 U 0.01 U 0.01 J 0.01 J 0.0050 U 0.0050 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.03 0.03 0.16 0.0050 U 0.0050 U 0.01 U	2.0 1.9 2.2 5.0 0.65 0.44 8.5 3.3 0.0050 U 0.0050 U
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle Benzo(k)fluoranth Chrysene Dibenzo(a,h)anth Dibenzofuran Fluoranthene Fluorene Hexachlorobenze Hexachlorobutadi Indeno(1,2,3-cd)p Naphthalene	nene racene ne			0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.01 J 0.03 0.03 0.0055 U 0.01 U 0.15	0.01 U 0.01 J 0.01 U 0.01 J 0.01 U 0.01 U 0.14 0.02 0.57 0.0050 U 0.0050 U 4.7	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.14 0.02 0.54 0.0050 U 0.0050 U 4.2	0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.01 J 0.02 0.01 J 0.0050 U 0.0050 U 0.01 U	0.01 J 0.01 U 0.01 J 0.02 0.01 U 0.01 J 0.04 0.03 0.0050 U 0.0050 U 0.01 U	0.01 J 0.01 J 0.01 J 0.02 0.01 U 0.01 U 0.01 J 0.0050 U 0.0050 U 0.01 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.03 0.03 0.16 0.0050 U 0.0050 U 0.01 U 0.20	2.0 1.9 2.2 5.0 0.65 0.44 8.5 3.3 0.0050 U 0.0050 U 1.5 1.2
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle Benzo(k)fluoranth Chrysene Dibenzo(a,h)anth Dibenzofuran Fluoranthene Fluorene Hexachlorobenze Hexachlorobutadi Indeno(1,2,3-cd)p Naphthalene Phenanthrene	nene racene ne			0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.03 0.03 0.0055 U 0.0055 U 0.15 0.04	0.01 U 0.01 J 0.01 U 0.01 J 0.01 U 0.14 0.02 0.57 0.0050 U 0.0050 U 0.01 U 4.7 0.31	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.14 0.02 0.54 0.0050 U 0.0050 U 4.2 0.31	0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.02 0.01 J 0.0050 U 0.0050 U 0.01 U 0.08 0.03	0.01 J 0.01 U 0.01 J 0.02 0.01 U 0.01 J 0.04 0.03 0.0050 U 0.0050 U 0.01 U 0.10	0.01 J 0.01 J 0.01 J 0.02 0.01 U 0.01 U 0.01 J 0.0050 U 0.0050 U 0.01 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.03 0.03 0.16 0.0050 U 0.0050 U 0.01 U 0.20 0.04	2.0 1.9 2.2 5.0 0.65 0.44 8.5 3.3 0.0050 U 0.0050 U 1.5 1.2
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle Benzo(k)fluoranth Chrysene Dibenzo(a,h)anth Dibenzofuran Fluoranthene Fluorene Hexachlorobenze Hexachlorobutadi Indeno(1,2,3-cd)p Naphthalene	nene ne ene ne ene ne ene ne ene ene en			0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.01 J 0.03 0.03 0.0055 U 0.01 U 0.15	0.01 U 0.01 J 0.01 U 0.01 J 0.01 U 0.01 U 0.14 0.02 0.57 0.0050 U 0.0050 U 4.7	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.14 0.02 0.54 0.0050 U 0.0050 U 4.2	0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.01 J 0.02 0.01 J 0.0050 U 0.0050 U 0.01 U	0.01 J 0.01 U 0.01 J 0.02 0.01 U 0.01 J 0.04 0.03 0.0050 U 0.0050 U 0.01 U	0.01 J 0.01 J 0.01 J 0.02 0.01 U 0.01 U 0.01 J 0.0050 U 0.0050 U 0.01 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.03 0.03 0.16 0.0050 U 0.0050 U 0.01 U 0.20	2.0 1.9 2.2 5.0 0.65 0.44 8.5 3.3 0.0050 U 0.0050 U 1.5 1.2
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle Benzo(k)fluoranth Chrysene Dibenzo(a,h)anth Dibenzofuran Fluoranthene Fluorene Hexachlorobenze Hexachlorobutadi Indeno(1,2,3-cd)p Naphthalene Phenanthrene Pyrene	nene ne ene ne ene ne ene ne ene ene en			0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.03 0.03 0.0055 U 0.015 U 0.15 0.04 0.05	0.01 U 0.01 J 0.01 U 0.01 J 0.01 U 0.01 U 0.14 0.02 0.57 0.0050 U 0.0050 U 0.01 U 4.7 0.31 0.02	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.14 0.02 0.54 0.0050 U 0.0050 U 0.01 U 4.2 0.31 0.02	0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.02 0.01 J 0.0050 U 0.0050 U 0.01 U 0.08 0.03 0.01	0.01 J 0.01 U 0.01 J 0.02 0.01 U 0.01 J 0.04 0.03 0.0050 U 0.0050 U 0.01 U 0.10 0.13 0.05	0.01 J 0.01 J 0.01 J 0.02 0.01 U 0.01 U 0.01 J 0.0050 U 0.0050 U 0.01 U 0.01 U	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.03 0.03 0.16 0.0050 U 0.0050 U 0.01 U 0.20 0.04 0.02	2.0 1.9 2.2 5.0 0.65 0.44 8.5 3.3 0.0050 U 0.0050 U 1.5 1.2 5.6
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle Benzo(k)fluoranth Chrysene Dibenzo(a,h)anth Dibenzofuran Fluoranthene Fluorene Hexachlorobenze Hexachlorobutadi Indeno(1,2,3-cd)p Naphthalene Phenanthrene Pyrene Total PAHs (U=1/ Volatiles (µg/L) 1,1,1,2-Tetrachlor	nene racene ne ene oyrene 2)			0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.03 0.03 0.0055 U 0.015 0.01 U 0.15 0.04 0.05 0.45	0.01 U 0.01 J 0.01 U 0.01 J 0.01 U 0.01 U 0.14 0.02 0.57 0.0050 U 0.0050 U 0.01 U 4.7 0.31 0.02 6.3	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.14 0.02 0.54 0.0050 U 0.0050 U 0.01 U 4.2 0.31 0.02 5.75	0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.02 0.01 J 0.0050 U 0.0150 U 0.01 U 0.08 0.03 0.01 0.22	0.01 J 0.01 U 0.01 J 0.02 0.01 U 0.01 J 0.04 0.03 0.0050 U 0.01 U 0.10 0.13 0.05 0.5	0.01 J 0.01 J 0.01 J 0.02 0.01 U 0.01 U 0.01 J 0.0050 U 0.0050 U 0.01 U 0.10 0.02 0.01 0.34	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.03 0.03 0.16 0.0050 U 0.0050 U 0.01 U 0.20 0.04 0.02 0.74	2.0 1.9 2.2 5.0 0.65 0.44 8.5 3.3 0.0050 U 0.0050 U 1.5 1.2 5.6 11 56.4
Benzo(a)pyrene Benzo(b)fluoranth Benzo(g,h,i)peryle Benzo(k)fluoranth Chrysene Dibenzo(a,h)anth Dibenzofuran Fluoranthene Fluorene Hexachlorobenze Hexachlorobutadi Indeno(1,2,3-cd)p Naphthalene Phenanthrene Pyrene Total PAHs (U=1/	nene ene racene ne ene oyrene 2) roethane ane			0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.03 0.03 0.0055 U 0.0055 U 0.01 U 0.15 0.04 0.05	0.01 U 0.01 J 0.01 U 0.01 J 0.01 U 0.01 U 0.14 0.02 0.57 0.0050 U 0.0050 U 0.01 U 4.7 0.31 0.02 6.3	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.14 0.02 0.54 0.0050 U 0.0050 U 0.01 U 4.2 0.31 0.02 5.75	0.01 U 0.01 U 0.01 U 0.01 J 0.01 J 0.02 0.01 J 0.0050 U 0.0050 U 0.01 U 0.08 0.03 0.01 0.22	0.01 J 0.01 U 0.01 J 0.02 0.01 U 0.01 J 0.04 0.03 0.0050 U 0.0050 U 0.01 U 0.10 0.13 0.05 0.5	0.01 J 0.01 J 0.01 J 0.02 0.01 U 0.01 U 0.01 J 0.0050 U 0.0050 U 0.01 U 0.10 0.02 0.01 0.34	0.01 U 0.01 U 0.01 U 0.01 J 0.01 U 0.03 0.03 0.16 0.0050 U 0.0050 U 0.01 U 0.20 0.04 0.02 0.74	2.0 1.9 2.2 5.0 0.65 0.44 8.5 3.3 0.0050 U 0.0050 U 1.5 1.2 5.6 11

Table 6
Summary of Analytical Results for Selected Groundwater Samples and Comparison with Washington Marine Water Quality Criteria

Location ID Sample ID Sample Date Sample Matrix Sample Type	Washington Marine	Washington Marine Acute	DSI-06 DSI06-GW 9/27/2006 WG N	DSI-07 DSI07-GW 9/28/2006 WG N	DSI-07 DSI57-GW 9/28/2006 WG FD	DSI-08 DSI08-GW 9/28/2006 WG N	DSI-09 DSI09-GW 9/28/2006 WG N	DSI-10 DSI10-GW 9/28/2006 WG N	DSI-11 DSI11-GW 9/28/2006 WG N	DSI-12 DSI12-GW 9/28/2006 WG N
1,1,2-Trichloroethane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloropropene			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,3-Trichloropropane			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-chloropropane			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3-Dichloropropane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2,2-Dichloropropane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Butanone			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Hexanone			3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
4-Chlorotoluene			0.2 U	0.2 U	0.2 U	0.2 U	0.0 U	0.2 U	0.2 U	0.2 U
4-Isopropyltoluene			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
4-Methyl-2-pentanone			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Acetone			3.8	3.0 U	3.0 U	5.5	4.7	4.7	6.3	6.3
Benzene			0.6	180	210	0.3	0.2 U	0.2 U	0.3 0.2 U	0.2 U
Bromobenzene			0.0 U	0.2 U	0.2 U	0.3 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromochloromethane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromodichloromethane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromoform			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromomethane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Carbon disulfide			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.3	0.2 U	0.2 U
Carbon tetrachloride			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroethane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloromethane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dibromochloromethane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dibromomethane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dichlorodifluoromethane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dichloromethane			0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Ethylbenzene			0.2 U	10	11	0.2 U				
Isopropylbenzene			0.2 U	25	28	0.2 U	0.2 U	0.2 U	0.5	0.5
n-Butylbenzene			0.2 U	14	13	0.2 U				
n-Propylbenzene			0.2 U	94	110	0.2 U	0.2 U	0.2 U	0.5	0.5
sec-Butylbenzene			0.2 U	8.2	8.5	0.2 U	0.2 U	0.2 U	0.2	0.2
Styrene			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
tert-Butylbenzene			0.2 U	0.2 U	0.5	0.2 U				
tert-Butylmethylether			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Tetrachloroethene			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Toluene			0.4	4.4	4.6	0.4	0.4	0.7	0.5	0.4
trans-1,2-Dichloroethene			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichloroethene			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichlorofluoromethane			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Vinyl chloride			0.2 U	0.2 U	0.2 U	0.4	0.2 U	0.2 U	0.2 U	0.2 U
m,p-Xylenes			0.4	6.4	7.1	0.4 U	0.4 U	0.4 U	0.5	0.5
o-Xylene			0.2	0.2 U	0.9	0.2 U	0.2 U	0.2 U	0.3	0.3

<u>Oualifiers:</u>

- N normal field sample
- FD field duplicate
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- ${\bf U}_{\rm c}$ The analyte was analyzed for, but not detected above the sample reporting limit.

Denotes criteria exceedance

* Exceeds chronic criteria

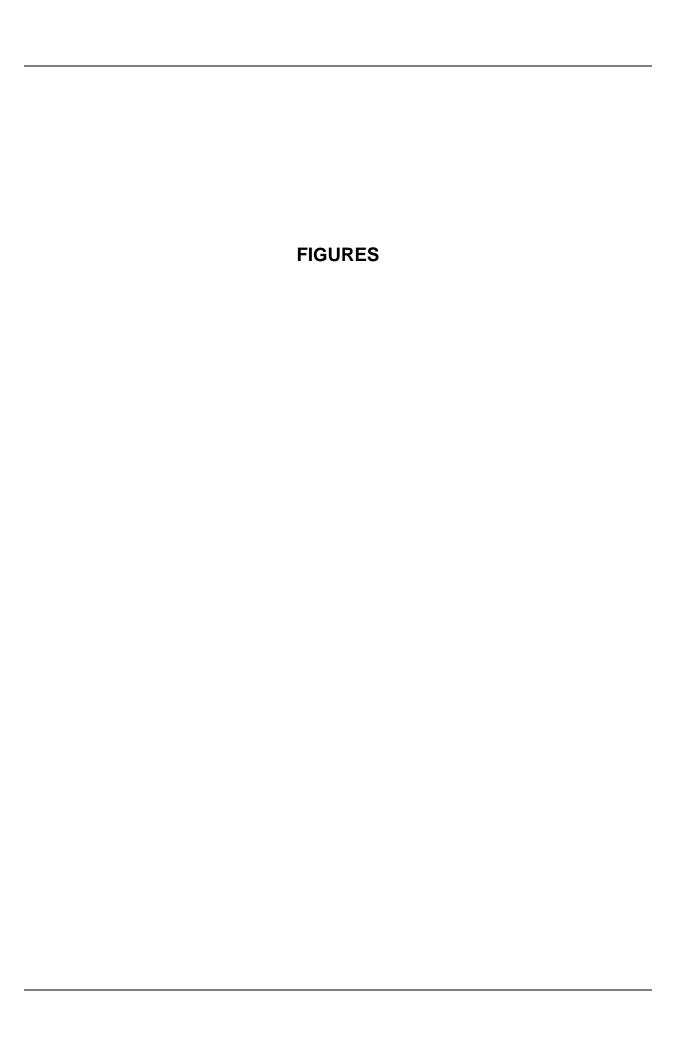
Exceeds acute criteria **Bold** Denotes detections

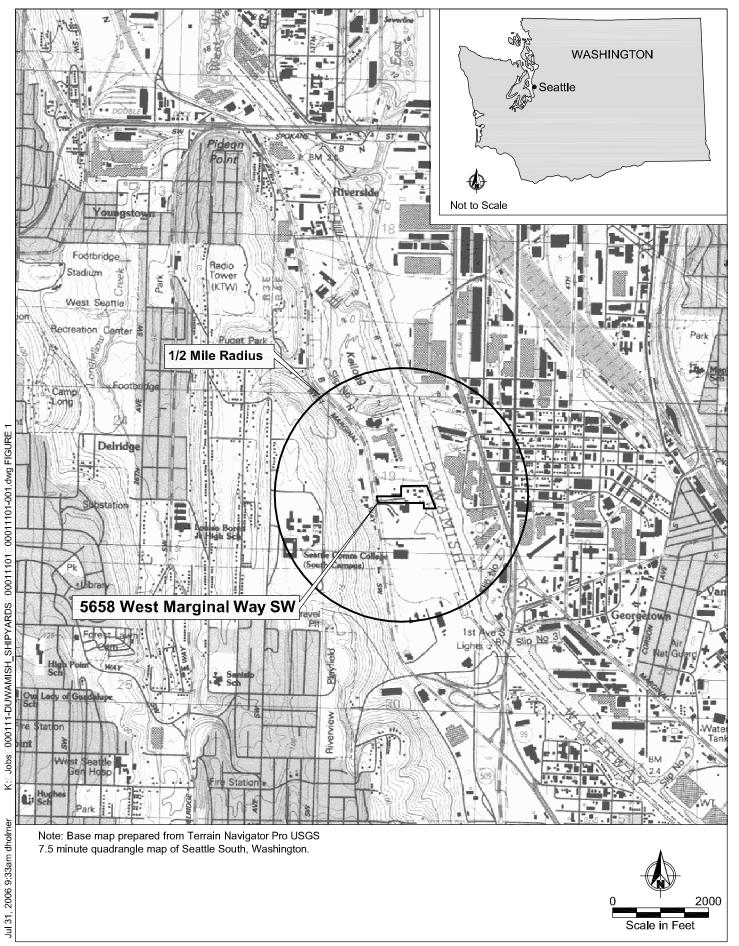
Notes:

-- No numerical criterion of this type for this chemical

NA Sample not analyzed for this chemical

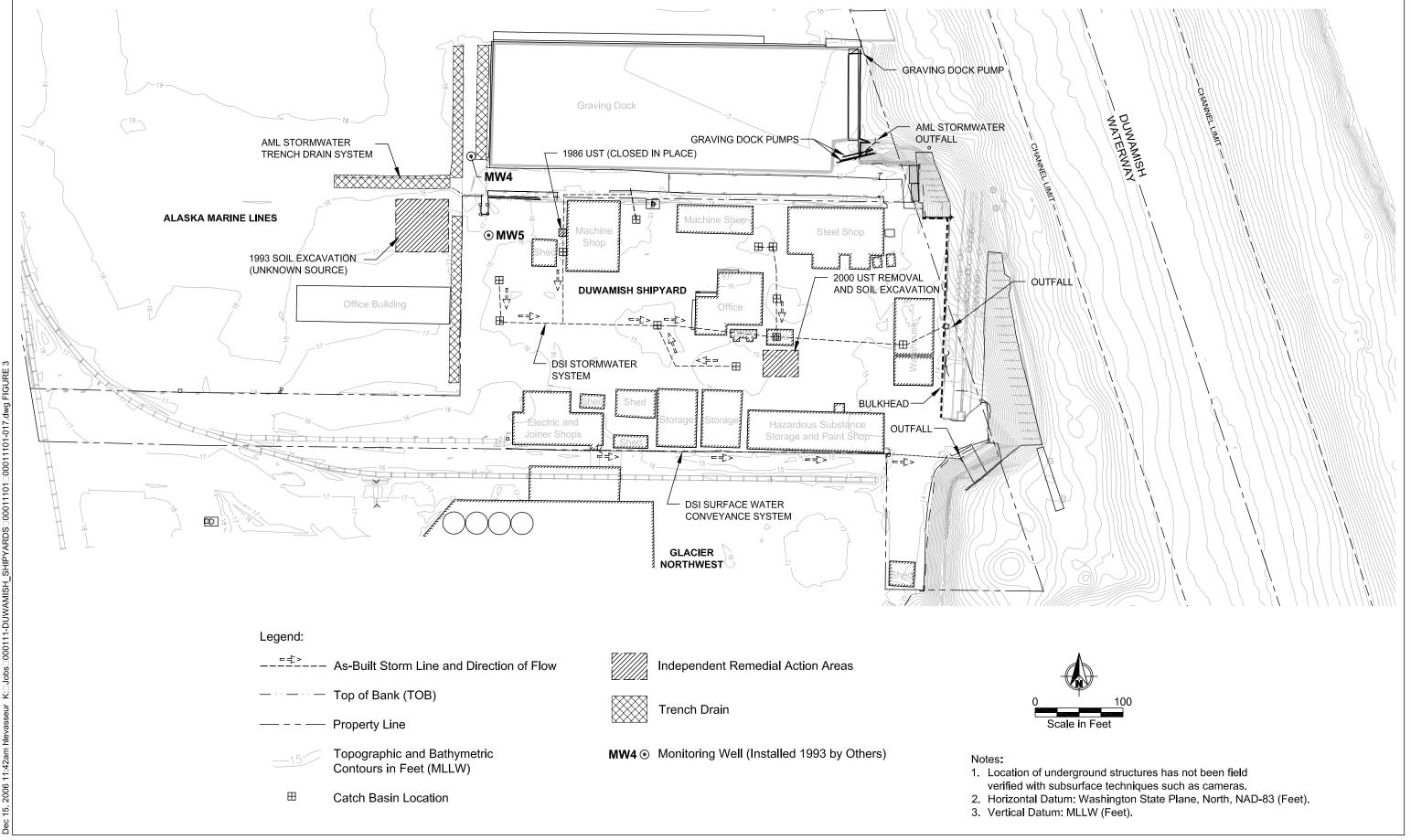
 $\begin{array}{ll} mg/L & milligrams \ per \ liter \\ \mu g/L & micrograms \ per \ liter \end{array}$





















APPENDIX A EXPLORATORY BORING LOGS



LOGOF

CLIENT/PROJECT NAMEDuwamish Shipyard, Inc	BORING #DSI01
PROJECT NUMBER <u>000111-01 / Task 8</u>	_ DATE BEGAN09/27/06
GEOLOGIST/ENGINEERJohn Renda	_ DATE COMPLETED09/27/06
DRILLING CONTRACTOR Holt Drilling, Inc. / Boart Longyear	_ TOTAL DEPTH10 feet
DRILLING METHOD Direct Push / Geoprobe	_ SHEET1OF1
HOLE DIAMETER 2-inch	

		DRILLING METHOD <u>Direct Push / Geoprobe</u> SHEET <u>1</u> OF <u>1</u>					
EXPLORATORY BORING HOLE DIAMETER						TER	<u>2-inch</u>
		SAMPLING DATA					Field location of boring
WELL OR PIEZOMETER DETAILS	Sample Time	SAMPLE NUMBER	RECOVERY (feet)	DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
				\ /			0.0 to 0.5 feet: ASPHALT
	11:30	DSI01-SO-A	4.0		1 2 3	SM	0.5 to 1.0 feet: GRAVEL BASE FILL 1.0 to 3.0 feet: SILTY SAND (SM); gray; 60 percent fine sand; 40 percent nonplastic fines; moist.
	'	ļ'		 		ML	3.0 to 3.5 feet: GRAVELLY SILT (ML); gray; 60 to 70 percent nonplastic to low plasticity fines; 30 to 40 percent fine to medium gravel, subrounded to
	<u> </u>			+	<u>4</u>	\	well rounded; moist.
Bentonite	11:40	DSI01-SO-B			<u>5</u>	SP	3.5 to 5.5 feet: SAND (SP); dark gray; fine sand; trace fines; laminated; moist.
]	\	<u>6</u>	ML	5.5 to 6.0 feet: SILT (ML); dark gray; low to medium plasticity fines; 5 to 10
			5.0		<u>7</u> <u>8</u> <u>9</u>	SP	percent fine to coarse sand, angular; moist. 6.0 to 9.0 feet: SAND (SP); dark gray; fine to medium sand; trace nonplastic fines; wet.
				/		ML	9.0 to 10.0 feet: SILT (ML); light brown; low to medium plasticity fines;
	12:10	DSI01-GW			10 11 12 13 14 15 16 17 18 19 20	IVIL	trace fine wood fragments and root hairs; black laminations; wet. Boring terminated at 10 feet.
Remarks:	Water samr	le collected from term	inal der	oth by p		l-inch c	liameter, 10-foot long screen into borehole and pumping with a peristaltic pump. After



LOGOF

CLIENT/PROJECT NAMEDuwamish Shipyard, Inc	BORING #DSI02
PROJECT NUMBER <u>000111-01 / Task 8</u>	DATE BEGAN09/27/06
GEOLOGIST/ENGINEERJohn Renda	_ DATE COMPLETED09/27/06
DRILLING CONTRACTOR Holt Drilling, Inc. / Boart Longyear	_ TOTAL DEPTH10 feet
DRILLING METHOD Direct Push / Geoprobe	_ SHEET1OF1
HOLE DIAMETER 2-inch	

EXPLORATORY BORING HOLE DIAMET					DIAME	IEK	2-inch
		SAMPLING DATA					Field location of boring
WELL OR PIEZOMETER DETAILS	Sample Time	SAMPLE NUMBER	RECOVERY (feet)	DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
				\ /			0.0 to 0.5 feet: ASPHALT
	10:20	DSI02-SO-A	4.0		1 2 3		0.5 to 1.0 feet: GRAVEL BASE FILL 1.0 to 3.0 feet: CONCRETE
. i	10:30	DSI02-SO-B			<u>4</u>	ML	3.0 to 4.5 feet: SILT (ML); dark gray to black; low to medium plasticity fines; trace charred wood; moist.
Bentonite			4.0		<u>5</u> 6 7 8	SP	4.5 to 8.0 feet: SAND (SP); dark gray; fine to medium sand; trace fine, subrounded gravel; moist. @ 5.0 feet: WET
	11:15	DSI02-GW			9 10	SM	8.0 to 10.0 feet: SILTY SAND (SP); dark gray; fine sand; 20 percent low plasticity fines; wet.
					11 12 13		Boring terminated at 10 feet.
					<u>14</u>		
					<u>15</u> <u>16</u>		
					<u>17</u>		
					<u>18</u>		
Ramarke:	Water camp	le collected from term	inal der	oth by p	19 20	-inch d	liameter, 10-foot long screen into borehole and pumping with a peristaltic pump. After



CLIENT/PROJECT NAMEDuwamish Shipyard, Inc.	BORING #DSI03
PROJECT NUMBER 000111-01 / Task 8	_ DATE BEGAN09/27/06
GEOLOGIST/ENGINEERJohn Renda	DATE COMPLETED 09/27/06
DRILLING CONTRACTOR Holt Drilling, Inc. / Boart Longyear	TOTAL DEPTH 10 feet
DRILLING METHOD Direct Push / Geoprobe	SHEET_1_OF_1
HOLE DIAMETER 2-inch	

LOG OF			DRILLING METHOD <u>Direct Push / Geoprobe</u> SHEET 1 OF 1 HOLE DIAMETER 2-inch				
EX	EXPLORATORY BORING			HOLE	DIAME.		
		SAMPLING DATA					Field location of boring
WELL OR PIEZOMETER DETAILS	Sample Time	SAMPLE NUMBER	RECOVERY (feet)	DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
							0.0 to 0.5 feet: ASPHALT
	9:20	DSI03-SO-A	4.0		1 2 3	ML	 0.5 to 1.5 feet: GRAVEL BASE FILL 1.5 to 2.0 feet: GRAVELLY SAND (SP); light brown; 70 percent fine to medium sand; 30 percent fine gravel, subangular to well rounded; moist.
	<u> </u> '	<u> </u>	 -		.	\	2.0 to 3.0 feet: SILT (ML); rust brown; medium plasticity fines; 2-inch thick
	<u> </u> '	 	 -		4	۱ ۱	wood chunk; 10 percent fine gravel; moist.
Bentonite			<u> </u>		<u>5</u>		3.0 to 8.0 feet: SAND (SP); grayish brown; fine to medium sand; 20 to 30 percent low plasticity fines; moist.
Be	9:30	DSI03-SO-B			<u>6</u>	SP	
] '		<u>7</u>		@ 6.5 feet: WET
			5.0		<u>8</u>		
			- -		<u>9</u>	SM	8.0 to 10.0 feet: SILTY SAND (SP); dark gray; fine sand; 20 percent low plasticity fines; wet.
	10:00	DSI03-GW	 '	<u> </u>	<u>10</u>		
					<u>11</u>		Boring terminated at 10 feet.
					<u>12</u>		
					<u>13</u>		
					14		
					15 16		
					16 17		
					18		
					<u>19</u>		
Domorko	Water com	ple collected from torm	pinal day	nth by n	20	Linch d	liameter 10-foot long screen into horehole and numping with a peristaltic nump. After



LOGOF

CLIENT/PROJECT NAME <u>Duwamish Shipyard, Inc.</u>	BORING # <u>DSI04</u>
PROJECT NUMBER <u>000111-01 / Task 8</u>	DATE BEGAN09/27/06
GEOLOGIST/ENGINEER <u>John Renda</u>	_ DATE COMPLETED09/27/06
DRILLING CONTRACTOR Holt Drilling, Inc. / Boart Longyear	TOTAL DEPTH10 feet
DRILLING METHOD <u>Direct Push / Geoprobe</u>	SHEET 1 OF 1
HOLF DIAMETER 2-inch	

					ING ME		<u>Direct Push / Geoprobe</u> SHEET 1 OF 1 2-inch
EX	PLUKA		7	HOLE	DIAIVIE	IEK	
WELL OR PIEZOMETER DETAILS	Time	SAMPLING DATA SAMPLE NUMBER	ÆRY	I. ED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring
WELL (PIEZOI	Sample Time		RECOVERY (feet)	DEPTH SAMPLED	DEPTH	SOIL G	LITHOLOGIC DESCRIPTION
				\ /	,		0.0 to 0.5 feet: ASPHALT 0.5 to 1.0 feet: GRAVEL BASE FILL
	12:30	DSI04-SO-A	4.0		<u>2</u> 3	ML	1.0 to 3.0 feet: SILT (ML); dark gray; low to medium plasticity fines; moist.
Bentonite	12:40	DSI04-SO-B			<u>4</u> <u>5</u>		3.0 to 8.0 feet: SAND (SP); brown; fine to medium sand; trace fines; moist to wet.
Ben			4.0		<u>6</u> 7	SP	@ 5.0 feet: WET; color change to grayish brown
				\bigwedge	<u>8</u> 9	ML	8.0 to 9.0 feet: SILT WITH SAND (ML); grayish brown; medium plasticity fines; 20 to 30 percent fine sand; wet.
	13:10	DSI04-GW			<u>10</u>	ОН	9.0 to 10.0 feet: ORGANIC SILT (OH); light brown; medium to high plasticity fines; 20 percent root hairs, grass, and reeds; moist.
					<u>11</u>		Boring terminated at 10 feet.
					<u>12</u>		
					13 14		
					<u>15</u>		
					<u>16</u>		
					<u>17</u>		
					<u>18</u> <u>19</u>		
Remarks:	Water same	ole collected from term	inal der	oth by p	<u>20</u>	-inch d	liameter, 10-foot long screen into borehole and pumping with a peristaltic pump. After



LOG OF

CLIENT/PROJECT NAME <u>Duwamish Shipyard, Inc.</u>	BORING # <u>DSI05</u>
PROJECT NUMBER <u>000111-01 / Task 8</u>	DATE BEGAN09/27/06
GEOLOGIST/ENGINEERJohn Renda	_ DATE COMPLETED09/27/06
DRILLING CONTRACTOR Holt Drilling, Inc. / Boart Longyear	_ TOTAL DEPTH10 feet
DRILLING METHOD <u>Direct Push / Geoprobe</u>	SHEET1OF1
HOLE DIAMETER 2-inch	

EX	PLORA	TORY BORING	}	HOLE	E DIAMETER 2-inch			
		SAMPLING DATA					Field location of boring	
WELL OR PIEZOMETER DETAILS	Sample Time	SAMPLE NUMBER	RECOVERY (feet)	DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION	
				\ /			0.0 to 0.5 feet: ASPHALT	
	13:15	DSI05-SO-A	4.0		1 2 3	ML	1.0 to 3.0 feet: SILT (ML); gray; medium to high plasticity fines; moist.	
Bentonite	13:30	DSI05-SO-B			<u>4</u> 5		3.0 to 9.0 feet: SAND WITH SILT (SP-SM); grayish brown; fine sand; 10 to 15 percent nonplastic to low plasticity fines; moist to wet.	
Bento					<u>6</u> <u>7</u>	SP - SM	@ 5.0 feet: WET	
			4.0		<u>8</u> 9			
	13:45	DSI05-GW	,		<u>10</u>	ОН	9.0 to 10.0 feet: ORGANIC SILT (OH) ; light brown with black laminations and fissures; medium to high plasticity fines; 20 percent root hairs, grass, and reeds; moist.	
					11 12		Boring terminated at 10 feet.	
					<u>13</u> <u>14</u>			
					<u>15</u>			
					<u>16</u> <u>17</u>			
					<u>18</u>			
					<u>19</u> <u>20</u>			



CLIENT/PROJECT NAMEDuwamish Shipyard, Inc	_BORING # <u>DSI06</u>
PROJECT NUMBER000111-01 / Task 8	_ DATE BEGAN09/27/06
GEOLOGIST/ENGINEERJohn Renda	_ DATE COMPLETED09/27/06
DRILLING CONTRACTOR Holt Drilling, Inc. / Boart Longyear	TOTAL DEPTH10 feet
DRILLING METHOD <u>Direct Push / Geoprobe</u>	_SHEET1OF1
HOLE DIAMETER 2-inch	ļ.

LOG OF EXPLORATORY BORING			.	DRILLING METHOD_ HOLE DIAMETER			<u>Direct Push / Geoprobe</u> SHEET <u>1</u> OF <u>1</u> 2-inch	
·		201171	SAMPLING DATA					Field location of boring
WELL OR PIEZOMETER	DETAILS	Sample Time	SAMPLE NUMBER	RECOVERY (feet)	DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
					\ /			0.0 to 0.5 feet: ASPHALT
		14:05	DSI06-SO-A	4.0		1 2 3	ML	0.5 to 1.0 feet: GRAVEL BASE FILL 1.0 to 3.0 feet: SILT (ML); gray; medium to high plasticity fines; moist.
Juli Juli Juli Juli Juli Juli Juli Juli		14:20	DSI06-SO-B			<u>4</u> <u>5</u>		3.0 to 8.0 feet: SAND (SP) ; grayish brown; fine to medium sand; trace nonplastic to low plasticity fines; moist.
Bentonite		14.20	D3100-3O-B			<u>6</u> 7	SP	@ 6.0 feet: WET
				4.0	\bigwedge	<u>8</u>		8.0 to 10.0 feet: ORGANIC SILT (OH); light brown with black laminations and fissures; medium to high plasticity fines; 10 to 15 percent root hairs,
		14:45	DSI06-GW			<u>9</u> 10	ОН	grass, and reeds; moist.
						<u>11</u>		Boring terminated at 10 feet.
						<u>12</u> <u>13</u>		
						<u>14</u>		
						<u>15</u> <u>16</u>		
						<u>17</u>		
						<u>18</u>		
						<u>19</u> <u>20</u>		liameter, 10-foot long screen into borehole and pumping with a peristaltic pump. After



LOGOF

CLIENT/PROJECT NAME <u>Duwamish Shipyard, Inc.</u>	_ BORING # <u>DSI07</u>
PROJECT NUMBER <u>000111-01 / Task 8</u>	_ DATE BEGAN09/28/06
GEOLOGIST/ENGINEER <u>John Renda</u>	_ DATE COMPLETED09/28/06
DRILLING CONTRACTOR Holt Drilling, Inc. / Boart Longyear	_ TOTAL DEPTH <u>10 feet</u>
DRILLING METHOD <u>Direct Push / Geoprobe</u>	_ SHEET1OF1
HOLE DIAMETER 2-inch	

LOG OF DRILLING METH EXPLORATORY BORING HOLE DIAMETE							
EX					DIAME	IEK	2-inch
		SAMPLING DATA	1				Field location of boring
WELL OR PIEZOMETER DETAILS	Sample Time	SAMPLE NUMBER	RECOVERY (feet)	DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
				\ /			0.0 to 0.5 feet: ASPHALT
	8:10	DSI07-SO-A	4.0		1 2 3	ML	0.5 to 1.0 feet: GRAVEL BASE FILL 1.0 to 3.0 feet: SILT (ML); gray; low to medium plasticity fines; moist.
Bentonite	8:20	DSI07-SO-B			<u>4</u> <u>5</u>	SP	3.0 to 7.0 feet: SAND (SP) ; dark grayish brown; fine to medium sand; trace nonplastic to low plasticity fines; petroleum hydrocarbon-like odor; moist.
Beni					<u>6</u> <u>7</u>	<u> </u>	@ 5.0 feet: WET @ 6.0 feet: 2-inch thick wood chunk
			4.0	\bigwedge	<u>8</u> 9	SM	 7.0 to 8.0 feet: SILTY SAND (SM); gray; 70 percent fine sand; 30 percent nonplastic to low plasticity fines; slight petroleum hydrocarbon-like odor; wet. 8.0 to 10.0 feet: ORGANIC SILT (OH); light brown with black laminations
	9:00	DSI07-GW		/ \	<u>10</u>		and fissures; medium to high plasticity fines; 30 percent root hairs, grass, and reeds; moist. @ 9.7 feet: 2-inch thick fine sand lense with roots, reeds, and grass.
					11 12		Boring terminated at 10 feet.
					<u>13</u>		
					14 15		
					<u>16</u>		
					<u>17</u> <u>18</u>		
					<u>19</u>		
Remarks:	Water samr	ole collected from term	inal der	oth by n	20	-inch d	liameter, 10-foot long screen into borehole and pumping with a peristaltic pump. After



CLIENT/PROJECT NAMEDuwamish Shipyard, Inc	BORING #DSI08
PROJECT NUMBER <u>000111-01 / Task 8</u>	_ DATE BEGAN09/28/06
GEOLOGIST/ENGINEERJohn Renda	_ DATE COMPLETED09/28/06
DRILLING CONTRACTOR Holt Drilling, Inc. / Boart Longyear	_ TOTAL DEPTH10 feet
DRILLING METHOD Direct Push / Geoprobe	_ SHEET1OF1
HOLE DIAMETER 2-inch	

LOG OF			!	DRILLING METHOD <u>Direct Push / Geoprobe</u> SHEET <u>1</u> OF <u>1</u>				
EX	PLORA	TORY BORING	3	HOLE	DIAME [*]		2-inch	
		SAMPLING DATA					Field location of boring	
WELL OR PIEZOMETER DETAILS	Sample Time	SAMPLE NUMBER	RECOVERY (feet)	DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION	
							0.0 to 0.5 feet: ASPHALT	
	9:20	DSI08-SO-A	4.0		1 2 3		 0.5 to 1.0 feet: GRAVEL BASE FILL 1.0 to 2.5 feet: SILTY SAND (SM); light brown; 50 to 60 percent fine sand; 40 to 50 percent medium to high plasticity fines; rust-colored sandy laminations; moist. 2.5 to 7.0 feet: SAND (SP); dark grayish brown; fine to medium sand; trace 	
Bentonite	9:30	DSI08-SO-B			<u>4</u> <u>5</u>	SP	nonplastic to low plasticity fines; < 5 percent fine to medium, subrounded to well rounded gravel; moist.	
Bent					<u>6</u> <u>7</u>		@ 5.0 feet: WET	
		<u> </u>	4.0		<u>8</u>	SM	7.0 to 8.0 feet: SILTY SAND (SM) ; gray; 70 to 80 percent fine sand; 20 to 30 percent nonplastic to low plasticity fines; wet.	
	9:50	DSI08-GW			9 10	ОН	8.0 to 10.0 feet: ORGANIC SILT (OH) ; light brown with black laminations and fissures; medium to high plasticity fines; 20 percent root hairs, grass, and reeds; moist.	
					<u>11</u>			
					<u>12</u>		Boring terminated at 10 feet.	
					<u>13</u>			
					<u>14</u>			
					<u>15</u>			
					<u>16</u>			
					<u>17</u>			
					<u>18</u>			
					<u>19</u>			
Remarks:	Water sam	ple collected from term	ninal de	pth by p	20 lacing 1		diameter, 10-foot long screen into borehole and pumping with a peristaltic pump. After	



LOG OF

CLIENT/PROJECT NAMEDuwamish Shipyard, Inc	BORING #DSI09
PROJECT NUMBER <u>000111-01 / Task 8</u>	DATE BEGAN09/28/06
GEOLOGIST/ENGINEERJohn Renda	_ DATE COMPLETED09/28/06
DRILLING CONTRACTOR Holt Drilling, Inc. / Boart Longyear	_ TOTAL DEPTH10 feet
DRILLING METHOD Direct Push / Geoprobe	_ SHEET1OF1
HOLE DIAMETER 2-inch	

FX	LOG OF DRILLING METHO EXPLORATORY BORING HOLE DIAMETER						<u>Direct Push / Geoprobe</u> SHEET 1 OF 1 2-inch
	SAMPLING DATA						Field location of boring
WELL OR PIEZOMETER DETAILS	Sample Time	SAMPLE NUMBER	RECOVERY (feet)	DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
				\ /			0.0 to 0.5 feet: ASPHALT
	10:10	DSI09-SO-A	4.0		1 2 3	SP	1.0 to 3.5 feet: SAND (SP); grayish brown; fine to medium sand; ; moist.
inite	10:20	DSI09-SO-B			<u>4</u> 5	SW-SM	3.5 to 4.0 feet: SILTY SAND (SW-SM) ; brown, black, and gray; fine to coarse sand; 20 to 30 percent low to medium plasticity fines; 2-inch thick wood chunk; brass screw; moist.
Bentonite			4.0		<u>6</u> 7 8	SP	4.0 to 8.0 feet: SAND (SP); grayish brown; fine to medium sand; trace nonplastic to low plasticity fines; moist.@ 5.0 feet: WET
	10:40	DSI09-GW			<u>9</u> 10	ОН	8.0 to 10.0 feet: ORGANIC SILT (OH) ; light brown with black laminations and fissures; medium to high plasticity fines; root hairs, grass, and reeds increasing with depth (8-9 feet 10 to 15 percent organic; 9 to 10 feet 20 to 30 percent organic); moist.
Pomarke			inal dar	th by o	11 12 13 14 15 16 17 18 19 20	inch d	Boring terminated at 10 feet. Boring terminated at 10 feet.



CLIENT/PROJECT NAMEDuwamish Shipyard, Inc	BORING #DSI10
PROJECT NUMBER <u>000111-01 / Task 8</u>	DATE BEGAN09/28/06
GEOLOGIST/ENGINEERJohn Renda	_ DATE COMPLETED09/28/06
DRILLING CONTRACTOR Holt Drilling, Inc. / Boart Longyear	_ TOTAL DEPTH10 feet
DRILLING METHOD Direct Push / Geoprobe	_ SHEET1OF1
HOLE DIAMETER 2-inch	

							Direct Push / Geoprobe SHEET 1 OF 1
EX	PLORA	TORY BORING	3	HOLE	DIAME	TER	2-inch
		SAMPLING DATA					Field location of boring
WELL OR PIEZOMETER DETAILS	Sample Time	SAMPLE NUMBER	RECOVERY (feet)	DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
				\ /			0.0 to 0.5 feet: ASPHALT
	11:00	DSI10-SO-A	4.0		1 2 3	SM	 0.5 to 1.0 feet: GRAVEL BASE FILL 1.0 to 3.0 feet: SILTY SAND (SM); gray; 70 percent fine sand; 30 percent medium plasticity fines; rust-colored sandy laminations; moist.
Bentonite	11:10	DSI10-SO-B			<u>4</u> <u>5</u>	SP	3.0 to 6.0 feet: SAND (SP); grayish brown; fine to medium sand; trace nonplastic to low plasticity fines; moist.
Ben				\	6		@ 5.0 feet: WET
			4.0		<u>6</u> <u>7</u> <u>8</u>	SP- SM	6.0 to 8.0 feet: SAND WITH SILT (SP-SM); grayish brown; fine sand; 10 to 15 percent nonplastic to low plasticity fines; wet.
	11:25	DSI10-GW			<u>9</u> 10	ОН	8.0 to 10.0 feet: ORGANIC SILT (OH) ; light brown with black laminations and fissures; medium to high plasticity fines; root hairs, grass, and reeds increasing with depth (8-9 feet 10 to 15 percent organic; 9 to 10 feet 20 to 30 percent organic); moist.
					<u>11</u>		
					<u>12</u>		Boring terminated at 10 feet.
					<u>13</u>		
					<u>14</u>		
					<u>15</u>		
					<u>16</u>		
					<u>17</u>		
					<u>18</u>		
					<u>19</u>		
	Water com				<u>20</u>		lighter 10 feet long coreen into herehole and numning with a perioteltic numn. After



CLIENT/PROJECT NAMEDuwamish Shipyard, Inc	BORING # <u>DSI11</u>
PROJECT NUMBER <u>000111-01 / Task 8</u>	DATE BEGAN09/28/06
GEOLOGIST/ENGINEER <u>John Renda</u>	_ DATE COMPLETED09/28/06
DRILLING CONTRACTOR Holt Drilling, Inc. / Boart Longyear	_ TOTAL DEPTH <u>10 feet</u>
DRILLING METHOD <u>Direct Push / Geoprobe</u>	_ SHEET1OF1
HOLE DIAMETER 2-inch	

	LC	OG OF		DRILL	ING ME	THOD.	<u>Direct Push / Geoprobe</u> SHEET <u>1</u> OF <u>1</u>
EX	PLORA [*]	TORY BORING	3	HOLE	DIAME	TER	
		SAMPLING DATA					Field location of boring
WELL OR PIEZOMETER DETAILS	Sample Time	SAMPLE NUMBER	RECOVERY (feet)	DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
				\ /			0.0 to 0.5 feet: ASPHALT
	11:45	DSI11-SO-A	3.5		1 2 3	SM	 0.5 to 1.0 feet: GRAVEL BASE FILL 1.0 to 3.0 feet: SILTY SAND (SM); gray; 70 percent fine sand; 30 percent medium plasticity fines; moist.
Bentonite	11:50	DSI11-SO-B			<u>4</u> <u>5</u>		3.0 to 7.0 feet: SAND (SP) ; dark grayish brown; fine to medium sand; trace nonplastic to low plasticity fines; moist.
Bent					<u>6</u> <u>7</u>		@ 5.0 feet: WET
			4.0	$\vdash \!\!\! \downarrow$			7.0 to 8.0 feet: SAND WITH SILT (SP-SM) ; dark grayish brown; fine sand; 10 to 15 percent nonplastic to low plasticity fines; wet.
	12:10	DSI11-GW			<u>8</u> 9 10	0	8.0 to 10.0 feet: ORGANIC SILT (OH); light brown with black laminations and fissures; medium to high plasticity fines; 10 to 20 percent root hairs, grass, and reeds; moist.
111111111111							
					<u>11</u>		
					<u>12</u>		Boring terminated at 10 feet.
					<u>13</u>		
					<u>14</u>		
					<u>15</u>		
					<u>16</u>		
					<u>17</u>		
					<u>18</u>		
					<u>19</u>		
			I	Ī	<u>20</u>		



CLIENT/PROJECT NAMEDuwamish Shipyard, Inc	BORING # <u>DSI12</u>
PROJECT NUMBER <u>000111-01 / Task 8</u>	DATE BEGAN09/28/06
GEOLOGIST/ENGINEER <u>John Renda</u>	_ DATE COMPLETED09/28/06
DRILLING CONTRACTOR Holt Drilling, Inc. / Boart Longyear	_ TOTAL DEPTH10 feet
DRILLING METHOD <u>Direct Push / Geoprobe</u>	_ SHEET1OF1
HOLE DIAMETER 2-inch	

							Direct Push / Geoprobe SHEET 1 OF 1
EXPLORATORY BORING HOLE						TER	2-inch
	SAMPLING DATA		•			Field location of boring	
WELL OR PIEZOMETER DETAILS	Sample Time	SAMPLE NUMBER	RECOVERY (feet)	DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
							0.0 to 0.5 feet: ASPHALT
	12:30	DSI12-SO-A	3.0		1 2 3	SM	 0.5 to 1.0 feet: GRAVEL BASE FILL 1.0 to 4.0 feet: SILTY SAND (SM); light brown; 70 percent fine sand; 30 percent medium plasticity fines; rust-colored and dark gray laminations; moist.
	12:40	DSI12-SO-B		H	<u>4</u>		
Bentonite					<u>5</u> 6	SM	4.0 to 6.0 feet: SILTY SAND (SM) ; gray; 70 to 80 percent fine sand; 20 to 30 percent medium plasticity fines; trace fine to medium, subrounded gravel; wet.
				1	7 8 9	SP	6.0 to 7.0 feet: SAND (SP); grayish brown; fine to medium sand; wet.
	13:00	DSI12-GW	4.5			ОН	7.0 to 10.0 feet: ORGANIC SILT (OH); light brown with black laminations and fissures; medium to high plasticity fines; 30 percent root hairs, grass, and reeds; moist.
					11		
					<u>12</u>		Boring terminated at 10 feet.
					<u>13</u>		
					<u>14</u>		
					<u>15</u>		
					<u>16</u>		
					<u>17</u>		
					<u>18</u>		
					<u>19</u>		
					<u>20</u>		

APPENDIX B FIELD DOCUMENTATION NOTES

Field sampling data sheets for Geoprobe™ boring groundwater samples

Monitoring well development forms

Field sampling data sheets for monitoring well groundwater samples

Catch basin summary data sheet

V		A	RONME	H(OR	·			Office:		Port 03) 670	land, O	,	4	0 03) 670)-1128
PROJ	ECT N	IAM	E: Du	ıwamis	h Shipy	ard, Ind				W	ELL ID	: 175	TO	<u>-1</u>	The second second	
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/	· /		•		•		•		•		•			X 3		•
Gal/ft =	(dia./2) ² :	x 0.163	1"=	0.041	2" =	0.163	3"=	0.367	4"=	0.653	6" =	1.469	10"=	4.080	12"=	5.875
§ METHO	DDS: (A) S	ubmersi	ble Pump (B) Peristaltic	Pump (C) Di	sposable Bai	ler (D) PVC/T	eflon Bailer	(E) Dedicate	ed Bailer (F) Dedicated F	ump (G) Oth	ner =			
GRO	JNDW	VATI	ER SAN	1PLIN	G DAT	${f A}$ (if prod	uct is dete	cted, do l	NOT samj	ple)		Sampl	e Depth	÷		[√if used]
Bottle	Bottle Type Date Time Method Amount & Volume mL Preservative [circle] Ice Filter pH \(\sqrt{VOA Glass} \) \(\frac{9}{27} \) \(\frac{10}{2} \) \(\frac{1}{2} \) \(\frac{1}															
VOA																
Ambe																
White	White Poly / / : 250, 500, 1L None YES NO NA															
	White Poly / : 250, 500, 1L None YES NO NA Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO															
	Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO Green Poly / : 250, 500, 1L NaOH YES NO															
	Green Poly / / : 250, 500, 1L NaOH YES NO ded Total Poly 9 127104 2:10 B 1 250,500/1L HNO3 YES NO V															
	ed Total Poly 9/27/C4 2:10 B 1 250(500)1L (HNO3) YES NO 1															
Red Dis	ed Diss. Poly 9/24/4 12: 10 B 1 250/500, 1L HNO, YES YES															
<u> </u>		/	1		:			250, 5	00, 1L	· · · · · · · · · · · · · · · · · · ·			YES			
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ا ي و	VOA - G		***************************************	THE RESERVE THE PARTY OF THE PA	260B) (BTI	A harrie	PH-Gx) -Dx) (TPH-	440.41 (0)	140						······	
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alysi r Bo	GREEN -	- Poly		(Cyanide)					<u> </u>	, .		·········				
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	(dia./2) ²			0.041	2"=	0.163	3" = ler (D) PVC/T	0.367	4"=	0.653	6"=	1.469	10" =	4.080	12" =	5.875
) Dedicated I	T				[√if used]
	Bottle Type Date Time Method Amount & Volume mL Preservative [circle] Ice Filter pH √															
	VOA Glass 9 174106 1:15 B 6 (40 ml) (HCI) YES (NO)															
	Amber Glass 9 1 2 4 0 6 11: 15 B (0) 4 (6 250, 500, 1L (None) (HCl) (H ₂ SO ₄) (YES) NO															
	Amber Glass 9 1 2 4 0 0 1 : 15 B (250, 500, 1L (None) (HCl) (H ₂ SO ₄) (YES) NO															
																
	Yellow Poly / / : 250, 500, 1L H ₂ SO ₄ YES NO															
	Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO Green Poly / : 250, 500, 1L NaOH YES NO															
Red Tot	al Poly	91	27/06		: 15	B	(1)	250,(5)	00, 1L	·	(HNO ₃)		(YES)	(NO)		
Red Dis	s. Poly	9.10	27/Xp		: 15	_B		250, 5 0	00,1L		HNO ₃		YES)	YES		-
		/	- / "		: -			250, 50	00, 1L				YES			
		T	otal Bottle	es (includ	e duplicat	e count):	(4)									· · · · · · · · · · · · · · · · · · ·
	ВС	TTLE	ГҮРЕ	TYPICA	L ANALY	SIS ALLOV	VED PER B	OTTLE TY	PE (Circle	applicab	le or write r	non-standa	rd analysi	s below)	· · · · · · · · · · · · · · · · · · ·	
_	VOA - G					EX) (NWT)	2001-				-					•
Analysis Allowed per Bottle Type	AMBER				(TPH-HCID)		-Dx) (TPH-		&Grease)			esticides)				
Allc tle T	WHITE				onductivity)	(TDS) (T	otal Keldahl N	(Turbidity)		ty) (HCO	₃ /CO ₃) (CI)	(SO ₄) (N	IO ₃) (NO	2) (F)		
lysis Bot	GREEN			(Cyanide)	100) (100	ar PO ₄) (10	otai Keidani N	itrogen) (i	NH ₃) (NO	0 ₃ /NO ₂)						
Ana	RED TO		oly		(Ba) (Be)	(Ca) (Cd) (C	Co) (Cr) (Cu	(Fe) (Hg	(Pb) (Mg	() (Mn) (N	li) (Ag) (Se	e) (Tl) (V) (Zn) (Hg)	(K) (Na)	-	
	RED DIS	SOLVEI	O - Poly				Co) (Cr) (Cu									
		·														
WATE			Y DAT	'A		Start Tir	ne:	•				Pump/I	Bailer Ir	let Dept	h:	
Meas.	Meth	od §	Purge	d (gal)	Р	H	E Conc	l (μS)	°F Ten	np(°C)	Other	Diss O ₂	(mg/l)	W	ater Qu	ality
4							, ,									
3									•							
2														· .		
1												•				
0	B	,	0.560	30 KRT				····						Cloud	1. Tr	7
[Casing]	[Select	A-G]	(Cumulati	ve Totals]					[Circle	units]			·	The state of the s	Clarity, Col	lor]
Sc	ree	2016	ed	Cro	m /	0-	10	0 4	eet		/ /			(
SAMP!	LER•		$\mathcal{A}_{i,j}$	2-	Tith	00.0	200			6	Hilo		/44.	000	160	

(SIGNATURE)

(PRINTED NAME)

1	× ,	A	NC	H	OR					6630		land, O	•		U .	
LX	Office: (503) 670-1108 Fax: (503) 670-1128 ROJECT NAME: Duwamish Shipyard, Inc. WELL ID: D. 3 ITE ADDRESS: Seattle, Washington BLIND ID: DUP ID: NA WIND FROM: N NE E SE S SW W NW LIGHT MEDIUM HEAVY															
PROJ	ECT N	IAM	E: Du	ıwamis	h Shipy	ard, Ind	С.			W	ELL ID	: DS	IE	3		
SITE	ADDF	RESS	: Sea	attle, W	ashing	ton				BLI	ND ID	: DS	IO	3-(3W	
									7	Ι	OUP ID	·				NA
				and the second s	-	L	S	SW	W	NW	CLIC	GHT)	MEI	DIUM	`H	EAVY
1	WEAT.	HER	: SUI	NNY)	CLC	DUDY	RA	IN		?	TE	MPERA	TURE:		<u>O.</u>	°C
HYD	ROLO	GY/	LEVEL	MEAS	UREMI	ENTS (N	Vearest 0.0	1 ft)		[Product	Thickness]	[Water	Column]	(Cir	cle appropr [Water C	riate unitel Column x Gal/ft]
Da	ate	1	Time	DT-B	ottom	DT-P	roduct	DT-V	Nater	DTP	-DTW	DTB	-DTW		Volu	ıme (gal)
915	27/06	IC):05		•		•	5	.5		•		•	X 1		•
/	/		•		•		•		•		•			X 3		•
Gal/ft =	(dia./2) ²	x 0.163	1"=	0.041	2"=	0.163	3"=	0.367	4" =	0.653	6" =	1.469	10"=	4.080	12" =	5.8 7 5
							ler (D) PVC/T				Dedicated I	ump (G) Oth	ier =			
							luct is dete					*	e Depth	:		[√if used]
-	Туре		Date		me	Method ⁵	Amount			Pres	ervative	[circle]	Ice	Filter	pΗ	√ √
	VOA Glass 9 127 106 10:00 B 6 40 ml HCl YES NO Amber Glass 9 127 106 10:00 B 427 446 250,500, 1L (None) (HCl) (H ₂ SO ₄) YES NO															
	White Poly / : 250, 500, 1L None YES NO NA															
 	White Poly / : 250, 500, 1L None YES NO NA Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO NO															
	Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO Green Poly / : 250, 500, 1L NaOH YES NO															
	Green Poly / / : 250, 500, 1L NaOH YES NO															
	Red Total Poly 9 127106 0:00 B 1 250(500, 1L HNO2 YES NO V															
Red Di	Red Diss. Poly 9/27/06 10:00 B 1 250(500, 1L (HNO) (YES) (YES)															
/ / : 250, 500, 1L YES																
	ı — — —		otal Bottle				(4)						-			
	VOA - G	TTLE	TYPE			SIS ALLOV	WED PER B	OTTLE T	YPE (Circle	applicabl	e or write 1	non-standa	rd analysi	s below)		
ed	AMBER			And the second second		The same and the s	-Dx) (TPH-	418.1) (Oi	l &Grease)	(8081A)	(PCBs) (P	esticides))				
Mow Typ	WHITE -	Poly			nductivity)			·) (SO ₄) (N	NO ₃) (NO	2) (F)		
Analysis Allowed per Bottle Type	YELLOW			(COD) (I	TOC) (Tota	al PO ₄) (To	otal Keldahl N	litrogen) (NH ₃) (NO	3/NO ₂)						
naly ser E	GREEN -		1	(Cyanide)	m > m > .	(2) (2)	- 606	5 = . <i>6</i> 5	(20)							
< -	RED DIS			(As) (Sb)	(Ba) (Be) (Ca) (Cd) (C	Co) (Cr) (Cu Co) (Cr) (Cu	(Fe) (He	(Pb) (Mg	(Mn) (N	ii) ((Ag) (Se	e) (T1) (V) ((Zn) (Hg)	(K) (Na)		
					. , \	, 623. (/ C = 28 00 00 00	(/ \		, (, (1	-, (1-8) (00	, (, (-)((4-6)	(-x) (1 xa)		
WATE	R QU	ALIT	Y DAT	`A	Purge S	Start Tii	me:	:				Pump/	Bailer Ir	ılet Dept	h:	
Meas.	Meth	od §	Purge	d (gal)	p.	Н	E Cond	d (μS)	°F Ten	1p(°C)	Other	Diss O			ater Qu	ality
4																
3									•							
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0	B		1 .0	00 🛴	$-(_{\mathcal{O}}\cdot$	50	27	02	20.	30	171.7	3.	10	cloude	tan	
[Casing]	[Select	A-G]	[Cumulati	ve Totals]		, ,			[Circle	units]		******		İ	Clarity, Co	
\bigcirc					A		100) . E								
DCV	een	ed	tr	OM	6	to	10 F	eet.								
SAMP	LER:	<u>Ke</u>	II () ED NAME	R.		tke	meie	<u>/</u>	((SIGNATI	IRE))	H	[CNu	eJe	

Δ'	R	Λ		<i>'</i> الا						6650) SW Re		•		0	
V	- I	NV	BUNNE	III	Į,				0.44				OR 97224			
	TOM E	N V I	n u N M E	WIAL,	L.L.C.	· · · · · · · · · · · · · · · · · · ·			Office:		03) 670-:		Fax:	(5	03) 670)-1128
	ECT N			·	h Shipy		2.				ELL ID	The state of the s	IO	4	- P 1-	
SITE	ADDR	ESS	: Sea	attle, W	ashing	ton					IND ID	All Santa	J.O	4	Gn	<i>J</i>
	·			1		1					DUP ID	1			· •	NA
	ND FR			(NE	E	SE	S	SW	W	NW	The same of the sa	GHT)		DIUM	H	EAVY
1	WEAT]	HER	: SUI	VNY	CLC	UDY	RA	IN		?	TEN	MPERA	TURE:		<u> 2. </u>	°C
HYD	ROLO	GY/	LEVEL	MEAS	UREMI	ENTS (N	Jearest 0.01	(ft)		[Product	t Thickness]	[Water	Column]	(Cir	cle appropr [Water C	riate units1 Column x Gal/ft]
	ate		Time	DT-B	Bottom	DT-P	roduct	DT-V	Vater	DTF	P-DTW	DTB	-DTW		Volu	ıme (gal)
912	7/06		3:11		•		•	4	27		•			X 1	1000.00	•
1.	/	:			•		•		•		•			X 3		•
	(dia./2) ² x			0.041	2"=	0.163	3" =	0.367	4"=	0.653	6" =	1.469	10"=	4.080	12"=	5.875
							ler (D) PVC/T) Dedicated P	7				
							uct is detec						e Depth			[√if used]
	Bottle Type Date Time Method Amount & Volume mL Preservative [circle] Ice Filter pH \(\sqrt{VOA Glass} \) \(\frac{1}{2} \) \(\lambda \) \(\frac{1}{3} \) \(\lambda \) \(
	VOA Glass 9 12710¢ 1 3: 10 B 6 40 ml HCl YES NO / Amber Glass 9 12710¢ 1 3: 10 B 17040¢ 250, 500/1L (None) (HCl) (H ₂ SO ₄) YES NO /															
Ambe	Amber Glass 9 12 + 10c 13: 10 B 12 + 10c 250, 500 1L (None) (HCl) (H ₂ SO ₄) YES NO NA White Poly 1 : 250, 500, 1L None YES NO NA															
White	White Poly / : 250, 500, 1L None YES NO NA Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO															
Yellov	White Poly / : 250, 500, 1L None YES NO NA Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO															
Greer	Green Poly / / : 250, 500, 1L NaOH YES NO															
Red To	Green Poly / / : 250, 500, 1L NaOH YES NO Led Total Poly 9 124 106 13: (0 5 1) 250,500,1L (HNO ₃) YES (NO)															
Red Di																
		/	/		:			250, 50	00, 1L	***************************************			YES	-		
		T	otal Bottle	s (include	e duplicat	e count):	(14)		<u></u>		:					·
		TTLE	TYPE				VED PER B	OTTLE TY	PE (Circle	applicabl	le or write r	non-standa	ırd analysi	s below)		
, l	VOA - G			V.	260B) (BTE	Contract of the Contract of th	No. of the Control of					-				
ype	AMBER -		(·		Dx) (TPH-4					esticides)		٠.	**	
Analysis Allowed per Bottle Type	YELLOW	<u> </u>			onductivity) FOC) (Tota		S) (BOD) tal Keldahl N				3/CO3) (CI)	(SO ₄) (1	NO ₃) (NO ₂	(F)		
lysis Bot	GREEN -			(Cyanide)	(10td	-, - ~4) (1C	an remain in	raogen) (I	. 113 <i>)</i> (INO	3/1402)						
Ana	RED TOT		oly		(Ba) (Be) (Ca) (Cd) (C	Co) (Cr) (Cu	(Fe) (Hg	(Pb) (Mg) (Mn) (N	Ji) (Ag) Se) (Tl) (V) ((Zn) (Hg)	(K) (Na)		
	RED DISS	SOLVEI	D - Poly	(As) (Sb)	(Ba) (Be) (Ca) (Cd) (C	Co) ((Cr)) (Cu	(Fe) (Hg	(Pb) (Mg) (Mn) (N	Ji) (Ag) (Se) (T1) (V) ((Zn) (Hg)	(K) (Na)		
<u> </u>													-			
			TY DAT		Purge S			:						let Dept	h:	
Meas.	Meth	od ^s	Purge	d (gal)	p)	7	E Cond	(μS)	°F Ten	np (C)	Other	Diss O	₂ (mg/l)	W	ater Qu	ality
4					•				•						,	
3				-	•				•					···		
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0	5	A (C)	0540.6		(0.	47	5	2	21.	43	-735		56	Cloud	- Company	an
[Casing]	[Select /		[Cumulativ	•					[Circle	units]				[Clarity, Co	lor]
S) CV	ee	ned	fr	rom	0	40	10-	fee	et.						
			/	<u> </u>	and the second second second second	No.				1/2	191		//	1		
SAMP	ren		011.			-6-				1/	2//1		14	£		1
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	— フ E	IV V I	NUNME	NIAL,	L.L.C			Magazi i mananan sahan sijan sa	Office:	NAME OF TAXABLE PARTY.	3) 670-		Fax:	(5	03) 670)-1128
	ECT N					ard, In	с.	·			ELL ID	the same of	SI	05)	
SITE	ADDI	RESS	: Se	attle, W	<i>l</i> ashing	ton					ND ID	- SS	SI	05	-G1	V
					· K	,	· · · · · · · · · · · · · · · · · · ·				UP ID					NA
	ND FF			(NE	E	SE	S	SW	W	NW		GHÌ)	<u></u>	DIUM	Н	EAVY
,	VEAT.	HER	:L_(SU	YNN	CLC	DUDY	RA	.IN		?	TEI	MPERA	TURE:		<u> 2.</u>	°C
HYD	ROLO	GY/I	LEVEL	MEAS	UREM	ENTS (N	Jearest 0.0	1 ft)		[Product	Thickness]	[Water	Column]	ICir.	Cle appropr [Water C	iate units! Column x Gal/ft]
	ate	<u> </u>	Γime	DT-E	Bottom	DT-P	roduct	DT-V	Vater	DTP-	DTW	DTB-	DTW		Volu	ıme (gal)
912	7/06	13	3:SC		•		•	H	.55		•		•	X 1		•
/	/		•	<u> </u>	•		•	·	•		•		• .	X 3		•
Gal/ft =	(dia./2)2	x 0.163	1"=	0.041	2"=	0.163	3"=	0.367	4"=	0.653	6" =	1.469	10" =	4.080	12" =	5.875
							ler (D) PVC/T				Dedicated I	ump (G) Oth	er =			
GROU	GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample) Sample Depth: [√if used] Bottle Type Date Time Method Amount & Volume mL Preservative [circle] Ice Filter pH √															
	Bottle Type Date Time Method Amount & Volume mL Preservative [circle] Ice Filter pH √ VOA Glass 9/27/06 3:45 R 6 40 ml HCl YES NO /															
VOA	VOA Glass 9/27/06 3:45 B 6 40 ml (HCI) (YES) (NO)															
Ambei	Amber Glass 9 127106 13:45 B (274 6 250,500) 1L (None) (HCl) (H ₂ SO ₄) YES (NO)															
White	White Poly / : 250, 500, 1L None YES NO NA															
Yellov	White Poly / : 250, 500, 1L None YES NO NA Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO NO															
Green	Yellow Poly / / : 250, 500, 1L H ₂ SO ₄ YES NO Green Poly / / : 250, 500, 1L NaOH YES NO															
Red To	Green Poly / : 250,500,1L NaOH YES NO ded Total Poly 9/3 +100 13:45 B 1 250,600,1L (HNO3) YES NO V															
Red Dis																
· .		/	/		:			250, 5	00, 1L	,			YES		1	
		To	otal Bottle	es (includ	e duplicat	e count):	(14)							·		
	во	TTLE	ГҮРЕ				WED PER B	OTTLE T	YPE (Circle	e applicable	or write i	non-standa	rd analysi	s below)		
_	VOA - G					EX) (NWT	Marie Sail Control				-					
ower Type	AMBER WHITE				(TPH-HCID) onductivity)	(TDS) (T		(Turbidity)	l &Grease)	(8081A) (ty) (HCO ₃	Dana and San	esticides)		v ==		
s Alli	YELLOW		***************************************	<u> </u>	TOC) (Total		otal Keldahl N			0 ₃ /NO ₂)	(CO ₃) (CI)) (SO ₄) (N	NO ₃) (NO ₂	2) (F)		
nalysis Allowed oer Bottle Type	GREEN -	Poly		(Cyanide)						31-1-27						
Ang	RED TO	ΓAL - Po					Co) (Cr) (Cu									
	RED DIS	SOLVED	- Poly	(As) (Sb)	(Ba) (Be) ((Ca) (Cd) (C	Co) (Cr) (Cu	(Fe) (Hg	<u>) (РЬ)</u> (Ме	g) (Mn) (Ni) (Ag) (Se	e) (T1) (V) (Zn) (Hg)	(K) (Na)		
YAZ A TE	R OIT	A T T7	Y DAT	- A	D	Charl T'	•••					I 20 - 7		1 . 5		
Meas.	Meth		Purge	Les		Start Tir H		1 ()	017 Tr-	- 60	Otl	 		let Dept		
4	wein	ou	ruige	u (gai)	, P		E Conc	ι (μο)	°F Ten	up (C)	Other	Diss O ₂	(mg/I)	W	ater Qu	ality
3				•		•			•						·····	
									•			<u> </u>				
2									•							
1	D.		m ed o	20-		-,1	- January	-, , ,	10	<i></i>	07 71	المستندين	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		-fi	
0 [Casing]	[Select	A-Gl	0.5 -0.		6.	34	<u> </u>	34	8.	58.	-86.4	5.	33	Clou		jan
,	1001001			, O miloj				_	(Circie)	unioj					Clarity) Co	iorj
S	cre	en	ed	Fr	Om	0	to	104	eet.	;)		- marine	A CONTRACTOR OF THE PARTY OF TH			
SAMP	-	PRINT	2 // JED NAME	R		Fke	meit	21	- -		PE		13/4	Pine	Ol.	

4	X ,	AI	VC	'Н)R					6650	SW Re Port	dwood land, O			0	
X	. 7 E	NVII	RONME	NTAL,	L.L.C.	•			Office:	(50	1011 13) 670-1	,	Fax:		603) 670)-1128
PROJ	ECT N	[AM]	E: Du	ıwamis	h Shipy	ard, Inc	С.			***************************************	ELL ID:		TA	Ce .	- /	
	ADDF				Jashing		· · · · · · · · · · · · · · · · · · ·		<u> </u>		ND ID		ĪĐ	6-6	W	•
				A CONTRACTOR OF THE PARTY OF TH	<u> </u>						UP ID:	47		water Named	25 1000	NA
WI	ND FR	OM:	N	(NE	PΕ	SE	S	SW	W	NW	LIC	GHT)	MEI	DIUM	H	EAVY
7	VEAT.	HER:	SUI	VÑŶ)	CLC	UDY	RA	IN		?	TEN	MPERA	TURE:	1097	2.	· °C
HYD	ROLO	GY/I	LEVEL	MEAS	UREMI	ENTS (N	Jearest 0.01	l ft)		[Product	Thickness]	[Water	Column	[Cir	cle appropr [Water C	iate units! olumn x Gal/ft]
Da			ime		Bottom		roduct		Water	DTP	-DTW	DTB-	-DTW]	Volu	ıme (gal)
912	17100	14	:46		•		•	5	:34		•			X 1		
1	/		:		•		•		•		•			X 3		•
Gal/ft =	(dia./2) ² >	0.163	1"=	0.041	2" = .	0.163	3"=	0.367	4" =	0.653	6"=	1.469	10"=	4.080	12" =	5.875
							ler (D) PVC/T				Dedicated P	ump (G) Oth	ner =			
				IPLIN	G DAT		uct is dete	····		ple)		Sampl	e Depth	:		[√if used]
	Bottle Type Date Time Method Amount & Volume mL Preservative [circle] Ice Filter pH VOA Glass 9/2400 L1:45 B (6) (40 m) (HCl) (YES) (NO) (And the Classical Reservation Company Company															
<u> </u>	Amber Glass 9124106 14:45 B 10746 250(500)1L ((None) (HCl) (H ₂ SO ₄) (YES) (NO)															
Ambe	Amber Glass 9124106 14:45 B 1250(500)1L (None) (HCl) (H ₂ SO ₄) YES NO NA White Poly / / : 250,500,1L None YES NO NA															
White	White Poly / : 250, 500, 1L None YES NO NA Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO															
Yellov	Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO Green Poly / : 250, 500, 1L NaOH YES NO															
Green	Green Poly / / : 250, 500, 1L NaOH YES NO															
Red To	Red Total Poly 9/27/06 14:45 B 1 250(500) 1L (HNO ₃) YES (NO)															
Red Diss. Poly 9 127100 14:45 B 1 250,600 1L (HNO3) (YES) (YES)																
<u> </u>	Red Diss. Poly 9 /27/06 /4: 45 B 1 250,600 1L (HNO3) (YES) (YES) (YES) 1 250,500,1L YES YES															
·	·				e duplicat		[14]								·	N
	VOA - G	TTLE T	TYPE			SIS ALLOV	VED PER B	OTTLE T	YPE (Circle	applicabl	e or write r	non-standa	rd analysi	s below)		
e q	AMBER	-				(NWTPH	Carried Asignations	118.1) (Oi	l &Grease)	(8081A)	(PCBs) (Re	esticides)				
ullow Typ	WHITE -	Poly			onductivity)	(TDS) (T		(Turbidity)		<u> </u>	₃ /CO ₃) (CI)	The second second	NO ₃) (NO	2) (F)	***************************************	
Analysis Allowed per Bottle Type	YELLOW			(COD) (ГОС) (Tota	al PO ₄) (To	otal Keldahl N	itrogen) (NH ₃) (NC	₃ /NO ₂)						
naly ser E	GREEN -		T	(Cyanide)		C \ (G)\)	- 16 No	S	V-77 01							
	RED TO			(As) (Sb)	(Ba) (Be) (Co) (Cr) (Cu Co) (Cr) (Cu	(Fe) (Hg	(Pb) (Me	(Mn) (N	ii) (Ag) (Se) (II) (V)() (II) (V)((Zn) (Hg)	(K) (Na)		
		······································				, Carrier V		, , , , , ,		, (, (-		7 (3-7 (1) ((24) (244)	· · · · · · · · · · · · · · · · · · ·	
WATE	R QU	ALIT	Y DAT	Ά	Purge S	Start Tir	me:	:		40%		Pump/	Bailer Ir	ılet Dept	h:	:
Meas.	Meth	od §	Purge	d (gal)	p.	H	E Cond	l (μS)	°F Ten	np (°C)	Other	Diss O	2 (mg/l)	W	ater Qu	ality
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3																
2									•							
1																
0	B		0.56-0.0		(0.	20	4	37	18.	20	-55.8	5.	26	Cloud	lu te	Per
[Casing]	[Select.		[Cumulati	ve Totals]				-	[Circle	units]				- manninghi - Manninghi	Clarity, Co	
Sc	re	en	ed	+	nom	0	+0	10	fee	t.	7					
SAMP		PRINTI	ED NAME	R	er year and the contract of th	THE	eme	ier	<u> </u>	SIGNATU	(RE)		Ha	one	9	



6650 SW Redwood Lane, Suite 110

Portland, OR 97224

$ \vee$		NVII	RONME	NTAL,	L.L.C.	•			Office:	(50	1 01 t 1-03) 670	•	Fax:		603) 670)-1128
PROJ	ECT N	AM	E: Du	ıwamis	h Shipy	ard, In	C.		Mario Albaniania anno anno		ELL ID		TO:	7		
	ADDR				ashing						ND ID		TO	7-0	W.	
											OUP ID	1	T =		24/	NA O
WI	ND FR	OM	N	NE	Е	SE	S	SW	W	NW		GHT)	MFI	DIUM	, , , , , , , , , , , , , , , , , , , 	EAVY
	VEATI		- Community of	NNY)		UDY	RA	-		?		Control of the Contro	TURE:	2004	L	°C
			The second second	Washington and Street of Street or S	<u></u>		<u></u>	·			-				cle appropr	iate units)
							Jearest 0.0		A7		Thickness]	1	Column]	1		olumn x Gal/ft] ime (gal)
	ate	<u> </u>	lime	I DI-B	ottom	D1-P	roduct		Water	DIP	-DTW	DIR	-DTW	1 7/4	VOIU	ine (gai)
110	306	<u> </u>	<u> 1: [</u>	<u> </u>	•		•	5	.18		•		•	X 1		
	<u>· /· </u>		<u>:</u>		<u>.</u>		.		.		<u>. </u>	<u> </u>	T	X 3		•
	(dia./2) ² x		1"=	0.041	2"=	0.163	3"=	0.367	4" =	0.653	6" =	1.469	10" =	4.080	12" =	5.875
							ler (D) PVC/T				Dedicated P	T				
	T			T			luct is dete					1	e Depth	:		[√if used]
Bottle			Date			Method ⁵	Amoun	t & Volu	ıme mL	Pres	ervative	[circle]	Ice	Filter	pН	. 1
. VOA	Glass	91	2810b	09	:00	B	(6)	40	ml)		(HCl)		(YES)	(NO)		
Amber Glass 9 100 00 09:00 B 6 00 00 00 00 00 00 00 00 00 00 00 00 00																
White	White Poly / : 250, 500, 1L None YES NO NA Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO															
Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO Green Poly / : 250, 500, 1L NaOH YES NO																
Green	Poly	/	/		:			250, 5	00, 1L		NaOH	·····	YES	NO		
Red To	al Poly	9/1	98/06	09	:00	B	(1)	250/5	00)1L		(HNÔ ₃)		(YES)	NO)		
Red Dis	s. Poly			09	:00						The same of the sa					
Red Diss. Poly 9 /28/Clo 09:00 B 1 250, 500, 1L (HNO ₃) (YES) (YES) 250, 500, 1L (YES) YES YES																
		To	otal Bottle	es (include	e duplicat	e count):	cetse!	(28	- Color					<u></u>	**************************************	
	BO	TTLE			Maria Ma		WED PER B		All Address of the Parket of t	e applicabl	e or write r	non-standa	ırd analysi	s below)		
	VOA - GI				260B) (BTE					- F F		TOXI DULLIA	ara araiy si	o Delevi)		
be de	AMBER -	Glass		(PAHs) ((TPH-HCID)	(NWTPH	Dx) (TPH-	418.1) (Oi	l &Grease)	(8081A)	(PCBs) (Pc	esticides)	$\overline{}$			
J L	WHITE-	Poly		(pH) (Co	nductivity)	(TDS) (T	SS) (BOD)	(Turbidity) (Alkalini	ty) (HCO	₃ /CO ₃) (Cl)	(SO ₄) (I	NO ₃) (NO ₂	2) (F)		
Analysis Allowed per Bottle Type	YELLOW	- Poly		(COD) (I	ГОС) (Tota	al PO ₄) (To	otal Keldahl N	litrogen) ((NH ₃) (NC) ₃ /NO ₂)						
ralys er B	GREEN -			(Cyanide)												
Ψ a l	RED TOT						Co) (Cr) (Cr									
	RED DISS	SOLVEL) - Poly	(As) (Sb)	(Ba) (Be) (Ca) ((Cd)) (Co) (Cr) (Cu	(Fe) (Hg	(Pb) (M ₁	g) (Mn) (N	li) ((Ag)) (Se) (Tl) (V) ((Zn) (Hg)	(K) (Na)		
WATE	R OLL	ΔΙΙΤ	Y DAT	ΓΔ	Purge S	Start Ti	me'	•				Pumn/	Bailer In	lot Dont	.L.	
Meas.	Metho			d (gal)		H	E Conc	1 (115)	°F Ter	nn (°C)	Other		2 (mg/l)	<u> </u>		-1:1
4	WICTIN	ou .	Luige	u (841),	1		L Conc	ι (μυ)	1 161	mp (C)	Other	D135 O	2 (111g/1)	VV	ater Qu	ality
3				•		•							•			
									•					·		
2			•	•	•		•		•							
1	0		000		7	10	1.0	2 0	10			מית.	00/			
0 [Casing]	Select A		O.S.L. 0.0	(4-14-1	<u>(o·</u>	<u>55</u>	<u> 10°</u>	391	[Circle	+2	-105.4	<u> </u>	.84	Cloud	9,9	vay
	een		From	200	40	104	eet.		-	•	0	ţ			[Clarity, Col	for]
Hur	Dra€	$\frac{1}{2}$	nho	n-lik	6 0	200	in	wat	er.	note	2d 4	Sher	150	ump	ina	VOCs
7,0) I /	,		hal-	\mathcal{A}		. ''ゟ.	V - C1	P O	MINGO	5 W	ater	<u>^.</u>		C	
SIIC	ht:	SNE	jen	note	CX C	n S	sunta	ice (DI P	18	3 (manuscrame of the second	TA		
$\mathcal{Q}_{\mathbf{A}}$) T TPP	1/	211		1.	エレ				/				IV,	\ 1 A .	1 9
SAMP		DDIATE	211U	<u> </u>	11	tKe,	neie	<u>V</u>	-	1661	1777	<u> </u>	10	166	MU	SEX
	(1	rkin'i'	ED NAME)					•	SIGNATU	JRE)					

4	×,	A	NC	·H($\bigcap R$					6650	SW Re Port	dwood land, O	-		0	
X		NVI	RONME	NTAL,	L.L.C.				Office:	(50	03) 670-:	-	Fax:		03) 670)-1128
PROJ	ECT N	IAM	E: Du	ıwamis	h Shipy	ard, Inc	С.	Action of the Control		- Andread - englanded england	ELL ID	***	STO	77 ·	/	Al-anata-page statement
SITE	ADDR	RESS	: Sea	attle, W	ashing	ton	······································		The second se	BLI	IND ID	: 05	SIL	78-	Gu	
							· · · · · · · · · · · · · · · · · · ·			Ι	OUP ID				<u></u>	NA
WI	ND FR	OM	: N	NE	Е	SE	S	SW	W	NW	LIC	GHT)	MEI	OIUM	H	EAVY
1	VEAT	HER	: SUI	NNY)	CLC	DUDY	RA	IN	and the same of th	?	TE	MPERA	TURE:	6 F (0	₹ .	°C
HYD	ROLO	GY/	LEVEL	MEAS	UREMI	ENTS (N	Jearest 0.01	l ft)		[Product	t Thickness)	[Water	Column]	lCir	ele annronr [Water C	iate unitsl olumn x Gal/ft]
	ate		lime	1	Bottom		roduct		Water	DTF	P-DTW	DTB	-DTW]	Volu	ıme (gal)
916	8106	00	1:53		•		•	5	./0		•		•	X 1		
. /	1		:		•		•				•			Х3		•
Gal/ft =	(dia./2) ² x	0.163	1"=	0.041	2"=	0.163	3"=	0.367	4"=	0.653	6"=	1.469	10" =	4.080	12" =	5.875
							ler (D) PVC/T) Dedicated F	ump (G) Oth	ier =			
		ATI	ER SAM	1		A (if prod	uct is dete	cted, do	NOT sam	ple)		Sampl	e Depth			[√if used]
Bottle	Bottle Type															
VOA	VOA Glass 9 1/28/06 09:50 B 6 40 ml HCI YES NO L Amber Glass 9 1/28/06 09:50 B 6/4 cm 250/500/1L (None) (HCl) (H ₂ SO ₄) YES NO L															
Ambei	Amber Glass 9 128106 C9:50 B C/4 cgr 250,500 1L (None) (HCl) (H ₂ SO ₄) YES NO V White Poly / : 250,500,1L None YES NO NA															
White																
Yellov	Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO															
Green	Green Poly / / : 250, 500, 1L NaOH YES NO															
Red Tot	Green Poly / : 250, 500, 1L NaOH YES NO Red Total Poly 9/28/06 9:50 6 1 250,500, 1L HNO3 YES NO V															
Red Dis	s. Poly	9.6	2810G	09	:SU	B	(1)	250,(5	00, 1L		(HNO ₃)		(YES)	YES		-
		/	1		:			250, 5	500, 1L				YES			
		T	otal Bottle				(14)									
		TTLE	TYPE		22		WED PER B	OTTLE T	YPE (Circle	applicab	le or write r	non-standa	ırd analysi	s below)		
De a	VOA - G				260B) (BTI (TPH-HCID)		PH-Gx) -Dx) (TPH-	118.1) (0	il &Grease)	(Q001 A)	(PCBs) (P	osticidos!				
Typ	WHITE -			A STATE OF THE PARTY.	onductivity)	The state of the s	rando.	(Turbidity		ty) (HCO	Manager C		NO ₃) (NO ₃) (F)	·	
Analysis Allowed per Bottle Type	YELLOW	I - Poly		(COD) (ΓΟC) (Tota	al PO ₄) (To	otal Keldahl N	itrogen)	(NH ₃) (NC) ₃ /NO ₂)						
er B	GREEN -	Poly		(Cyanide)		- Collection of the Collection										
Αď	RED TOT	·					Co) (Cr) (Cu Co) (Cr) (Cu									
	KED DIS	OLVEI	J- Foly	(AS) (30)	(Da) (De) ((Ca) (Ca)	20) ((CI) ((CII	F (re) (H	sh (IPB) (Me	5) (Mn) (N	N1) ((Ag)) (Se) (11) (V)((Zn) (Hg)	(K) (Na)	·	
WATE	R QU	ALI7	Y DAT	Ā	Purge S	Start Ti	ne:	:				Pump/	Bailer In	let Dept	h:	
Meas.	Meth	od §	Purge	d (gal)+		Н	E Cond	l (μS)	°F Ten	np (°C)	Other	Diss O			ater Qu	ality
4									•							
3							······································		•	*****						
2			•													
1												•	. ,			
0	B		0.5L 0. 6	90 _{KGT}	(o ·	60	f	78	19.	80	-57.5	4.	44	Clou	du	tan
[Casing]	[Select A		[Cumulativ	ve Totals]		,			[Circle	units]					Clarity, Col	
S	cre	en	ed.	fro	m	0 4	to 10	7	eet.	_	/					
SAMP	י מין ז			0	A COLUMN TO A COLU		ĸ				11.0	The second second	Constitution of the Constitution of	6	. 0	· ·
JAWIP	-	PRINT	ED NAME))	*****	Ker	neie	V	(SIGNATI	JRE)	9	10	(Cell	rese	

A S	2	Δ	1/	' /	OR					6650	SW Re		-		0	
IV		NVI	RONNE	LATM	 	•			Ott:	, <u></u>		land, 0			00) (7)) 4455
DROT	ECum = .	7 A B C	C		1. 01 •	1 +	-	<u>Silveriferrimentini etrikip</u>	Office:	-	03) 670-1		Fax:	(5 ~~~	03) 670	J-1128
	ECT N					ard, Ind	<u>C.</u>				ELL ID:	According or	716	21		<u> </u>
SITE.	ADDR	(ESS	: Sea	attle, N	<i>l</i> ashing	ton					ND ID:		<u> </u>	27-	<u>-61</u>	$\mathcal{N}_{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline$
*,,,	(TP-C =				} _	1	T -				OUP ID:		· ·			NA
	ND FR		NON-THURSDAY.	NE	E	SE	S	SW	W	NW		GHT/	L	DIUM	<u>H</u>	EAVY
1	WEAT!	riER:	: SU	NNÝ)	CLC	DUDY	RA	1N	<u></u>	?	J TEN	MPERA	TURE:		<u>020·</u>	°C
HYD	<u>ROLO</u>	GY/I	LEVEL	MEAS	<u>UREM</u> I	ENTS (N	Jearest 0.0	1 ft)		[Product	Thickness]	[Water (Column]	(Cir.	cle appropr [Water C	riate unitsl Column x Gal/ft]
Da	ate	r	lime		Bottom	1	roduct	1	Water	DTP	-DTW	DTB-	DTW		Volu	ıme (gal)
912	18106	10	:41		•		• .	5	64		<u>. </u>			X 1		•
/	/		:		•		•							Х3		•
Gal/ft =	(dia./2) ² >	x 0.163	1"=	0.041	2"=	0.163	3"=	0.367	4"=	0.653	6" =	1.469	10" =	4.080	12" =	5.875
§ METHO	DDS: (A) S	ubmersil			***		iler (D) PVC/T				Dedicated P					-
					***		luct is dete						e Depth:			[√if used]
	Bottle Type Date Time Method Amount & Volume mL Preservative [circle] Ice Filter pH √ VOA Glass 9/28/06 0:40 B 6 40 ml HCl YES NO √															
Amber																
White																
	White Poly / : 250, 500, 1L None YES NO NA Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO															
	Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO Green Poly / : 250, 500, 1L NaOH YES NO															
 	Green Poly / / : 250, 500, 1L NaOH YES NO Red Total Poly 9 128 / O															
	Red Total Poly 9 128 106 10:40 B 1 250(500) 1L (HNO ₃) YES NO															
Neu DE	Red Diss. Poly 9 128/06 0:40 B 1 250,500 1L HNO ₃ YES YES															
		/	- /	<u> </u>	الاستان	0.00	100	250, 50	υυ, 1L				YES			L
	- BC	TC TTLE T			e duplicat		(4)	OTT	/DE //					. 1. 1		
	VOA - G		. 11 E			EX) (NWT	WED PER B	OTTLE T	ırı (Circle	e applicabl	e or write r	ion-standa	ru analysi:	s pelow)	water passes and the same and t	
g g	AMBER			1	- Company	(NWTPH	- Control of the Cont	418.1) (Oil	l &Grease)	(8081A)	(PCBs) (Pe	sticides)				
llow Tyr	WHITE -	Poly		deline.	onductivity)	April Manufacture		(Turbidity)			₃ /CO ₃) (CI)		IO ₃) (NO ₂) (F)		
nalysis Allowed er Bottle Type	YELLOW		************		ΓΟC) (Tota	al PO ₄) (To	otal Keldahl N	litrogen) (i) ₃ /NO ₂)						Eliatoria de la companya della companya della companya de la companya de la companya della compa
naly: er B	GREEN -		,	(Cyanide)				3								
A _P	RED TO						Co) (Cr) (Cu Co) (Cr) (Cu									
	טוט טייא (גוט	JULY EL	- 101A	(30)	(na) (pe) (رها (ردها) (۱	un (CI) (CI)	u (re) (Hg	(Irdy (Mg	5) (MIN) (N	(Se	, (11) (V) (Lny (Hg)	(K) (Na)	***************************************	
WATE	R OU	ALIT	Y DAT	$\overline{\mathbf{A}}$	Purge (Start Tir	ne:	•				Pump/	Bailer In	let Dept	h·	
Meas.	Meth			d (gal)		H	E Conc	l (uS)	°F Ten	np/oc	Other	Diss O ₂			ater Qu	ality
4				19,77				()		****	~CI			VV	acci Qu	y
3			<u> </u>						•			•				· · · · · · · · · · · · · · · · · · ·
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1			,	-		•	······································		•			•				
0	D		nel a	1000	- /	11	١>	7.71	10	<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	2010	<i>f</i>)	0	- 1.	1)	
(Casing)	[Select		O.S.L.O.		(0.	11	<u> </u>	(04)	[Circle	units1	-56.8	<u>.</u>	257	Clou	2000	Tan
	(Select)		0	C.	~)./\/\	0	40	10		et				l	(Clakity) Col	101]
SAMP	3	1/	· · · · · · · · · · · · · · · · · · ·	0	[-1]	eme	2	E alternation.	,		6		TH	7		
JEANVIE .	_	PRINTI	ED NAME)		<u>eme</u>	LIER		(SIGNATI	JRE)		116	LIL		<u> </u>

Ŷ		A	RONME	H(OR		٠		Office:			land, O	R 9722	4		1120
DDOI	COJECT NAME: Duwamish Shipyard, Inc. TE ADDRESS: Seattle, Washington BLIND ID: DUP ID: NA WIND FROM: N NE E SE S SW W NW LIGHT MEDIUM HEAVY WEATHER: SUNNY CLOUDY RAIN YDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft) Office: (503) 670-1108 Fax: (503) 670-1128 WELL ID: NA NA WELL ID: NA Product Thickness [Water Column]															
							C.					District of the second	7116) 	-1	
SILE	ADDI	(ESS	: Sea	attie, vi	asning	ton		······································				<u> </u>	>4 10	-670	U_{-}	**************************************
TA7T 1	NID ED	ÒM	. NI	DAIR	TE	CE	Τ .	CTAT	747	,			1 3 657		· · · · · ·	
			- Acquire Control	200			 	<u> </u>	W	·	 \	A STATE OF THE STA		200	H	
,	VEA1.	HEK	SUI	NINY	CLC	YUUY	KA	.IN		?	TER	MPERA	TURE:	S	<u>人·</u>	
HYD	<u>ROLO</u>	GY/I	LEVEL	MEAS	UREMI	ENTS (N	Jearest 0.0	1 ft)		[Product	Thickness]	[Water	ColumnJ	-		
	ate	t	lime .	DT-E	Bottom	DT-P	roduct	DT-V	Vater	DTP	P-DTW	DTB	-DTW		Volu	me (gal)
912	S De		1:3		•		•	5	:05		•			X 1		•
/	/	,	:		•		•		•					X 3		
Gal/ft =	(dia./2) ² >	x 0.163	1"=	0.041	2"=	0.163	3"=	0.367	4" =	0.653	6" =	1.469	10" =	4.080	12" =	5.875
§ METHO	DDS: (A) S	ubmersi	ble Pump (B)	Peristaltic	Pump (C) Di	sposable Bai	ler (D) PVC/T	eflon Bailer	(E) Dedicate	ed Bailer (F) Dedicated F	ump (G) Oth	ner =			
GROU	JNDW	ATE	ER SAM	IPLIN	G DAT	A (if prod	uct is dete	cted, do 1	NOT samj	ple)		Sampl	e Depth	:		[√if used]
Bottle	Bottle Type Date Time Method Amount & Volume mL Preservative [circle] Ice Filter pH $\sqrt{\text{VOA Glass}}$ $Q/\partial B/\partial Q$ $1:25$ B G 40 ml HCI YES NO															
VOA	VOA Glass 9/28/0φ 1:25 B 6 (40 ml) (HCl) (YES) (NO)															
Ambei	Amber Glass 18/00 1:25 C/LET 250,600/1L (None) (HCl) (H ₂ SO ₄) YES NO NA White Poly / / : 250,500,1L None YES NO NA															
White	Amber Glass 9 135 100 1 : 25 B (G) (KET 250,600) 1L (None) (HCl) (H ₂ SO ₄) YES NO															
Yellov	White Poly / / : 250, 500, 1L None YES NO NA															
	Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO Green Poly / : 250, 500, 1L NaOH YES NO															
	Green Poly / / : 250, 500, 1L NaOH YES NO ed Total Poly 9 28/06 : 25 \$ (1) 250(500, 1L (HNO ₃) YES NO															
	Green Poly / / : 250, 500, 1L NaOH YES NO															
Red DE	ss. 1 Oly	1	40100		· 			-			(HNO ₃)		Annah St. Co.	YES	·	
			/		:		100	250, 5	00, IL			OFFICE	YES			
	PO.	TTLE	otal Bottle				<u> </u>	0000 000	TT (C) 1							
	VOA - G		LIFE			X) (NWT	VED PER B	UTILET	YPE (Circle	е аррисаы	le or write r	non-standa	rd analysi	s below)		
eq pe	AMBER		:			(NWTPH	and the latest and th	418.1) (Oi	&Grease)	(8081A) ((PCBs) (P	esticides)				
Ilow Tyr	WHITE-	Poly		Name and Address of the Owner, where the Owner, which the	nductivity)	(TDS) (T			(Alkalini		- Co.	Name and Address of the Party o	NO ₃) (NO ₂	2) (F)	······	
sis A ottle	YELLOW	/ - Poly		(COD) (T	ГОС) (Tota	al PO ₄) (To	tal Keldahl N	itrogen) (ŇH ₃) (NO) ₃ /NO ₂)						
Analysis Allowed per Bottle Type	GREEN -			(Cyanide)					· · ·	·						
Āα	RED TO			(As) (Sb)	(Ba) (Be) (Ca) (Cd) (C	Co) (Cr) (Cu	(Fe) (Hg	(Pb) (Mg	g) (Mn) (N	li) (Ag) (Se	(T1) (V) ((Zn) (Hg)	(K) (Na)		
	RED DIS	SOLVEL) - Poly	(AS) (Sb)	(Ba) (Be) (Ca) (Ca) (C	Co) ((Cr) (Cu	(Fe) (Hg) ((Pb)) (Mg	g) (Mn) (N	li) (Ag)) (Se) (T1) (V)((Zn) (Hg)	(K) (Na)		
WATE	R OII	AIIT	Y DAT	'Δ	Purce	Start Tir	m <i>e:</i>					Pump/	Railar In	let Dept	Ja .	
Meas.	Meth			d (gal)		H	E Cond	1 (118)	°E Ton	an CoC	Other	Diss O				_1:.
4	Wielli	ou	Turget	1 (See)	I .		L Conc	ι (μο)	r ren	iipi Ci	Other	DISS O	(111g/1) [VV	ater Qu	ality
3					•							<u> </u>				
			•			·			•			•				
2		·	•		•				•							
1	ര		0000		7.		Statement	Sections	00	\triangle	Service of the second		Successive Superior	A	A	
(Casing)	[Select.		(Cumulativ		Q	38		t	Circle	401	765	<u> </u>	75	Cloud	wite	7/
	·		nec	A .	Tron	n É	ナナ	0 /		nuis,	f.			1	Clarity, Co	orj
SAMP	_	PRINT) O	R			<u>mei</u>	er	-	SIGNATO	J. T.		Ha	one	De	

, ,	S.	Λ	\	· Ц /	OR					6650) SW Re		,		0 .	Manual Programme Control of the Cont
			RONME			•			O(()	/=		land, O			00) (50	
DROI	DOT N	ta Camban da Abban		MINISTER STREET	1 (1)	1 т			Office:		03) 670-1		Fax	: (5	03) 670)-1128
	ECT N					ard, Ind	2.		· · · · · · · · · · · · · · · · · · ·		ELL ID	Apriles	>1		- }	<u></u>
SILE.	ADDI	CC33	: 56	attie, vi	ashing	ton					IND ID		>411	-6	$\mathcal{W}_{\underline{}}$	D.T.A.
W/T	ND FR	OM	: N	(NE	E	SE	S	SW	W	NW	OUP ID:	GHT)	MIZT	OIUM		NA
	VEAT.			NNY		DUDY	RA	<u> </u>	VV	?	-	MPERA	<u> </u>	· · · · · ·	7 7	EAVY ° C
				Water at 18th and 18th at 18th					<u></u>	·					le annronr	
						1	Jearest 0.0		17 /		Thickness]	T	Column]	1 I		Column × Gal/ft] Ime (gal)
Da			lime	DI-E	Bottom	DI-P	roduct	D1-\	Water	DIF	'-DTW	DIR	-DTW		VOIL	une (gai)
1/0	13106	0	4:16		•		•		·77	ļ	•		•	X 1		•
	/		:		· 		<u> </u>		·		·	<u> </u>		X 3		•
	(dia./2) ² >	·	1"=	0.041	2"=	0.163	3"=	0.367	4"=	0.653	6"=	1.469	10"=	4.080	12" =	5.875
							ler (D) PVC/T uct is dete			*****) Dedicated P	7		-		[√if used]
Bottle			Date	T	me		Amoun				owrotir.		e Depth	T	Y T	
		- 45							- 74 ₄	Pres	ervative	[circle]	Ice	Filter	рН	√
	VOA Glass 9 / 28 / 06 2: 0 B 6 40 ml HCl YES NO Amber Glass 9 / 28 / 06 2: 0 B 6 40 ml HCl YES NO White Poly 7 2: 0 250,500,1L None YES NO NA															
	White Poly / : 250, 500, 1L None YES NO NA															
	White Poly / : 250, 500, 1L None YES NO NA Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO															
Green Poly / / : 250, 500, 1L NaOH YES NO																
7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7																
Kea Dis	ss. Pory	7/2	10100	10	:10_	5	<u>U</u>	· Vin			(HNO ₃)			(YES)		
			/ - 1D (1)	<u> </u>	:			250, 5	00, 1L				YES			
T 1	BO.	TTLE				e count):	(14)	OTTEL T	VDF (C: 1	3. 1.						
	VOA - G		IIIE		260B) (BT)		VED PER B PH-Gx)	OTTLET	TPE (CIrcle	е аррисав	le or write r	ion-standa	ird analysi	s below)		
be d	AMBER	Glass			(TPH-HCID)		-Dx) (TPH-	418.1) (Oi	l &Grease)	(8081A)	(PCBs) (P	esticides)	······			
Allow e Ty	WHITE -	Poly		(pH) (Co	onductivity)	(TDS) (T	SS) (BOD)	(Turbidity)) (Alkalini	ty) (HCO	₃ /CO ₃) (CI)	(SO ₄) (I	NO ₃) (NO	2) (F)		
Analysis Allowed per Bottle Type	YELLOW		********	<u> </u>	ΓΟC) (Tota	al PO ₄) (To	otal Keldahl N	litrogen) (NH ₃) (NC) ₃ /NO ₂)						
naly per E	GREEN -		nlv.	(Cyanide)	(Ba) (Ba)	(Ca) (Ca))(Co) (Cr) (Cu	N (T.) /13	1)62) A	-) ()(-) ()	12 627) (T1) (T1)	6 V a. v	<i>a</i> c. o	· · · · · · · · · · · · · · · · · · ·	
4 -	RED DIS						20) (Cr) (Cu									
								·		/ \ / \	7 (3	7 (> (->)		(11)		
WATE	R QU	ALIT	Y DAT	A g	Purge :	Start Tii	ne:	:				Pump/	Bailer Ir	ılet Dept	h:	
Meas.	Meth	od §	Purge	d (gal),	р	H	E Conc	l (μS)	°F Ter	np ℃	Other	Diss O	(mg/l)	W	ater Qu	ality
4				· · · · · · · · · · · · · · · · · · ·		•			•							
3									•							
2									•			٠	·			
1									•							
0	e	>	0.560.	OF KRT	6	.21	71	17	19.	58	-69.2	4.	80	cloud	u 7	90
[Casing]	[Select.	A-G]	[Cumulati	ve Totals]					[Circle	units]			inne-ul	The state of the s	Clarity, Co	lor]
S	CM	ee.	ned	1 t	VON	r le	Tto	/C	fe	et.		and the same of th				
SAMP	LER:	6	la R		Titk	eme	ier		-	6	les		H	En	Œ,	

V	火	A	RONME	H(•			Office:			land, O 1108	•	4	03) 670)-1128
PROJ	ECT N	IAM	E: Du	ıwamis	sh Shipy	ard, Ind	С.			W	ELL ID	: []	SI	12		
SITE	ADDF	RESS	: Sea	attle, W	Vashing	ton				BLI	ND ID	: 0	SI	12-	Gh	1
										I	UP ID			1		NA
WI	ND FR	ROM	: N	NE	Е	SE	S	SW	W.	(NW)	(LIC	GHT)	MEI	OIUM	Н	EAVY
. 1	VEAT	HER	: (SU	NNY	CLC	UDY	RA	IN		?		MPERA	TURE:	(° F).7	₹.	°C
HVD	ROI O	CV/	IEVEI	MEVC	I ID EN/I	ENITS A	Jearest 0.03	. (1)	L	Product	Thickness]	[[Mator	Column]	ICir	cle annronr	
Da		I	Time		Bottom		roduct		Vater		-DTW	T	-DTW	1		olumn x Gal/ft] ime (gal)
	18/106		3:04		ottom		roduct	7.1	Yatti		-DIVV	I DID	-10144	X 1	, 0,2	(841)
1	1	1 4	<u>>·//38</u> ·		•		•	1	• >		•	-	•	1		•
C-1/6	(3) (2)2	0.160		0.041		0.162		0.047	4"	L	•	1	1	X 3		•
	(dia./2) ² >		1" =	0.041	2" =	0.163	3"=	0.367	4" =	0.653	6"=	1.469	10" =	4.080	12" =	5.875
							ler (D) PVC/T luct is dete				Dedicated P	Т		 		[√if used]
										ī			e Depth	T		
	Bottle Type Date Time Method Amount & Volume mL Preservative [circle] Ice Filter pH \(\sqrt{VOA Glass} \) VOA Glass 9/28/00 3:00 B 6 40 mD (HCl) (H-SQ) VES NO Amber Glass 9/28/00 3:00 B 6 40 mD (None) (HCl) (H-SQ) VES NO 1 1 1 1 1 1 1 1 1															
	Amber Glass 9 08/00 3:00 B 6 442 250,500/1L (None) (HCl) (H ₂ SO ₄) (YES) (NO)															
	Amber Glass 9 08 00 3:00 B 0 4 250, 500 1L (None) (HCl) (H ₂ SO ₄) (FES) NO NA White Poly / / : 250, 500, 1L None YES NO NA															
	White Poly / : 250, 500, 1L None YES NO NA Yellow Poly / : 250, 500, 1L H ₂ SO ₄ YES NO															
Green Poly / / : 250, 500, 1L NaOH YES NO																
Red Total Poly 9 28 06 3:00 B 1 250 500 1L (HNO) YES NO														2		
Red Total Poly 9 108 100 3:00 8 1 250/500/1L HNO3 YES NO 1 Red Diss. Poly 9 108 100 13:00 8 1 250/500/1L HNO3 YES YES YES																
7		/	/		:			250, 50	00, 1L				YES			
		To	otal Bottle	es (includ	e duplicat	e count):	(14)				:					
	ВО	TTLE	ГҮРЕ				v ed p ér b	OTTLE T	YPE (Circle	e applicabl	e or write r	non-standa	rd analysi	s below)		
-	VOA - G			400		X) (NWT)	Carcoga _{(a),0,} majazo —				-		-			
умес	AMBER -			Comments	(TPH-HCID)	100	-Dx) (TPH-			(8081A) <	- and and and	esticides)				
A Alle	WHITE -				onductivity) TOC) (Tota		SS) (BOD) otal Keldahl N	(Turbidity)			/CO ₃) (Cl)	(SO ₄) (P	10 ₃) (NO	2) (F)		
llysis Bor	GREEN -			(Cyanide)	, (1108010	1113) (110	31102)		***************************************		**************************************		
Analysis Allowed per Bottle Type	RED TO	ΓAL - Po	oly	(As) (Sb)	(Ba) (Be) (Ca) ((Cd)) (Co) (Cr) (Cy	(Fe) (Hg	(Pb) (Mg	g) (Mn) (N	i) (Ag) (Se	(Tl) (V)	(Zn) (Hg)	(K) (Na)		
	RED DIS	SOLVE	O - Poly	(As) (Sb)	(Ba) (Be) (Ca) (Cd) (C	Co) (Cr) (Cu	(Hg) (Pb) (Me	g) (Mn) (N	i) ((Ag)) (Se) (Tl) (V)	(Zn) (Hg)	(K) (Na)		
					T			4								
			Y DAT	7			ne: 🌃	······			***********			let Dept	h:	
Meas.	Meth	od ^{\$}	Purge	1 (gal)	p.	H	E Cond	l (μS)	°F Ten	np(°C')	Other	Diss O ₂	(mg/l)	W	ater Qu	ality
4				- 450						,						
3									•							
2 .									•							
1												•				
0	B	>	0.54.0.6	o Ket	6.	60	20	28	20.	22	-58.8	4.	160	Clou	da "	Fan
[Casing]	[Select		[Cumulati					***************************************	[Circle	units]			-1-34 1		Clarity, Co	lor]
S	Cre	en	ed	F	om 1	0-	to /	04	Peet		1,	maniana	,			
SAMP	_	RINT!) 2 (q ed Name	Ri	b.	ker	meie	20	. (SIGNATU		1	H	Proved	<u> </u>	



Project No. 000111-0	Date: 9-27-06 Well: MW-4
Site Location: Duwamish Shippard Seattle WA	Initial DTB: 15.20 Final DTB: 17/00
Name: Kelly Titkemeien	Initial DTW: 8.94 Final DTW: 9.18
Development Method: Surge, p-pump, bail	Pore Volume: 1,02
Total Water Removed: 16.0 gallons	Casing Diameter: 2//
Water Contained ? KET_NO YES	Meter #: 16903
Estimate of specific capacity or recharge to well:	

Time	Cum. Vol. Removed	Sand/Silt (ml/1000ml)	Temp.	EC	рН	DTW (TOC)	Appearance/Comments
1600	0		*************************************			8.94	BEGIN SURGING W/ SURGE BLOCK
	<u> </u>			Manager Deliver to the Control of th		The state of the s	END SURGING KRT
1605	Ê		And the state of t			8.94	Surge block will not go further than
1608 1610	2.0	360 KT				8.94	Purge with bailer Surge with bailer
1625	20						
1626	2.5	300	19.20	505	6.79		end surging
1629	5.0	275	11.00	303	(S. 7)	0.0-	Cloudy tan (D) 4.96, CRP-33.1)
1657		845				9.05	end purging w/ bailer
	5.0	0.05	1-10			CA (8	begin p-pumping (4" of polyethylenetyby
1711	7.5	200	17.85	505	667	9.13	Cloudy, tan (00 395, ORP-184)
1722	9.5	<50	17.87	505	6.57	9.13	clear, cdarless/DO 3.39, ORP -20.8)
1734	11.0	<50	1742	7	6.50	9.13	(lear, colorless (00 2.40, ORP-58.8)
1747	125	<50	17.71	370		9.13	Clear coloness (DO 2.56, ORP-61.7)
1754	13.5		17.75	310	6.56		Clear, colorless (DO 1.76, ORP-65.3)
1802	14.5	< 20	17.73		6.54	9.13	clear, colorless (NO 224, ORP -6/2)
1811	15,5	<20	17.83	352	6.53	9.18	Clear, colon 1858/DD 2.19, ORP -46.3
1812	16.0	Consideration and Consideratio			-	Carried State Control of the Control	end p-pumping
						VP0-71-0-1000-100-1-1-1-1-1-1-1-1-1-1-1-1-	



Project No. 000111-01	Date: 9-28-00Well: MW-5	
Site Location: Duwanish Shippand Seattle, WA	Initial DTB: 15.80 Final DTB: 15.80	
Name: Kelly R. Titkemeier	Initial DTW: 10,20 Final DTW: 10,30	
Development Method: Surge / p-pump /1001	Pore Volume: 0.92	
Total Water Removed:	Casing Diameter: 2"	
Water Contained ? REC NO (YES)	Meter #: 1(0903	
Estimate of specific capacity or recharge to well:		

Time	Cum. Vol. Removed	Sand/Silt (ml/1000ml)	Temp.	EC	рH	DTW (TOC)	Appearance/Comments
1342	0	Control of the Contro				10.20	Sulfur-like odor noted when well cap was
1349	0			Control (Control of Control of Co	***************************************	10.20	BEGIN SURGING WITH SURGE BLOCK
1359	0	San				Name and the second	END SURGING
The state of the s	0			The second of th	And the second s		install to "ad polyethylene tubing KET
	Ð	3	44.00	The second secon		en de la companya de	hear prumping KRT
1412	<i>D</i>			**************************************	100 may 100 ma	-	BEGIN BAILING W/ BAILER
1414	2.0	300	17.35	1063	6.63	10.48	Cloudy dark bn/gray (1) 462, ORP-55.4)
1428	5.5	275		Santa and Santa			Cloudy dark brown/gray
1445	5,5		Management of the Control	Warmhann, garger 17	-	Salaring Services.	install 35" ad polyothylene tubing
1448	5.5		Name of the last o			10.06	BEGIN P-PUMPING
1458	6,5	200	16.17	1090	6.51	10.65	cloudy, tan (DO 0.82, ORP -73.7)
1506	7.5		And the second s	**************************************		**************************************	DRYTLET RECHARGE > tubing too long,
1517	7.5	200	20.10	1080	6.87	10.21	begin p-pumping (resund (DOS.05, ORP-683
1540	8.5	200	17.69	1093	6-79	10.25	cloudy, tan (005.6do, 189-70.4)
1545	8,5			-	- Angelia Caralina (Angelia Caralina Ca	- Company	install to od polyothylene tubing
1547	85		-	- GRT			begin/resume p-pumping.
155	9.5	175	15.99	1000	6.49	10.51	cloudy tan (DO 1.13, ORP-19.5)
1557	10.5	175	15,70	-			Cloudy, tan (DO 0.91, arp-74.8)
1604	11.5	125	15.68				Cloudy, amber (DO 0.13, ARP 79.9)
1610	12.5	100			1	i	Cloudy amber (00 0.74, ORP-819)
1616	3.5	100	15-66e	1099	6.53 KART	10.76	31. Cloudy, amber (DO, 0.85, ORP-84.2)



Project No. 000111-01	Date: 9-28-06 Well: Mh	7-5
Site Location: Duwamish Shipward, Seattle WA	Initial DTB: \(S.80\)	Final DTB: / 580
Name: Kella Titkemeinen	Initial DTW: 10.20	Final DTW: 1030
Development Method: Surge /bail/p-pump	Pore Volume: 0.92	
Total Water Removed:	Casing Diameter:	
Water Contained? MO YES	Meter #: (99) 3	
Estimate of specific capacity or recharge to well:		

Time	Cum. Vol. Removed	Sand/Silt (ml/1000ml)	Temp.	EC	рН	DTW (TOC)	Appearance/Comments
1620	14.5	/00	15.67	1097	<i>6.53</i>		St. Claudy, amber (DO 1.08, ORP-85.3)
1624	15,5	100	15.68	1097	6.53	10.77	V. Sl. cloudy, amber (DO 0.99, ORP-85.7)
1627	16.5	<100	15.71	1098	6.54	10.80	clear, amber (00 1.13, aRP -87.7)
1630	17.5	00</td <td>15.70</td> <td>1098</td> <td>6.53</td> <td>10.82</td> <td>dear, amber (DO 1.14 alp-87.8)</td>	15.70	1098	6.53	10.82	dear, amber (DO 1.14 alp-87.8)
1639	18.5	<50	15.73	1099	655	10.78	Clear, amber (DO 1.28, ORP-89.2)
1647	19.5	<20	15,72	1098	le.54		clear amber (00 1.41, ORP - 91.1)
1655	20.5	< 10	15.65	1098	6.55	10.77	Clear, amber (DO 1.57, AP -920)
1656	21.0		and the second second	Charles May (Charles And Advisor)			end p-pumping
			•				
			·				
				-			

Unidentifiable oder from water/well

ANCHOR 6650 SW Redwood Lane, Suite 110 Portland, OR 97224																	
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7,		10 0 1 0		18 : AL,	L. L. U	•			Office:	- Company of the Comp	03) 670-		Fax	: (5	03) 670)-1128	
<u>-</u> -	ECT N				<u>-</u>	ard, In	C.	***************************************			ELL ID	2 1 100					
SITE.	ADDR	ESS	: Sea	attle, W	ashing	ton	·				IND ID		1-G	W-0	600	129	
				T / ***		,	T	.	.,	Ι	OUP ID	•			NA		
	ND FR			(NE)	E	SE	S	SW	W	NW		GHT)		DIUM	`H	EAVY	
WEATHER: SUNNY CLOUDY RAI										?	TE	MPERA	TURE:	<u> </u>	<u> </u>	°C	
HYD	ROLO	GY/I	LEVEL	MEAS	UREM	ENTS (N	Jearest 0.01	1 ft)		[Produc	t Thickness]	[Water	Column]	[Cir	cle appropr [Water C	iate units) olumn x Gal/ft]	
Da			ime		ottom		roduct		Water	DTF	P-DTW	DTB-	-DTW]	Volu	me (gal)	
912	9100	()¢	1:06	17	.20		·	9	.03		· which was a second se	8		1 X1	T	.33	
1	1/				• ,	and the second second	•		***************************************	- The Control of the San State of the Sa	•		-1	X3	4	1.00	
Gal/ft =	(dia./2) ² x	0.163	1"=	0.041	(2" =	0.163	3"=	0.367	4"=	0.653	6" =	1.469	10"=	4.080	12" = G	5.875	
§ METHO	DDS: (A) Su	ıbmersi	ble Pump (B)	Peristaltic :	Pump (C) Di	isposable Bai	ler (D) PVC/T	eflon Bailer	(E) Dedicate	d Bailer (F) Dedicated F	ump (G) Oth	ner =				
GROUNDWATER SAMPLING DATA (if product is detected, d										ole)		Sample	e Depth	:		[√if used]	
Bottle	Туре	I	Date	Ti	me	Method [§]	Amount	& Volu	ıme mL	Pres	ervative	[circle]	Ice	Filter	рΗ	1	
VOA	Glass	91.	2910G	09	:45	B	(6)	(40	ml)		(HCI)		(YES)	(NO)		,	
Ambei	Glass	- 100	2910Co	09	:45	B	G H Ker	250/5	00)1L	(None	e)) (HCl) (H ₂ SO ₄)	YES)	(NO)		1	
White	White Poly / /		/		•		·	250, 5	00, 1L	And in consequent of the second	None		YES	NO	NA		
Yellow Poly / /		/		•			250, 500, 1L		H ₂ SO ₄		YES	NO					
Green	Green Poly / /		/	:				250, 500, 1L			NaOH		YES	NO			
Red Tot	Red Total Poly 9139104		29106	09	:45	B	(1)	250/5	250/500/1L		(HNO)		YES	NO)		1	
Red Dis	s. Poly	9.18	29106	09:45		8	(1)	250,(5	250,(500) 1L		(HNO ₃)		(YES)	(YES)		1	
		. /	1/	:				250, 5	250, 500, 1L				YES				
		To	otal Bottle	s (include	e duplicat	e count):	(4)						; =		***************************************		
	ВО	TTLE	ГҮРЕ				WED PER B	OTTLE T	YPE (Circle	applicab	le or write r	non-standa	rd analysi	is below)			
	VOA - GI			7		EX) (NWT)	Kapping and State of the State										
Analysis Allowed per Bottle Type	AMBER -			ALCOHOLD STREET	****	The second second second second	-Dx)) (TPH-		···			esticides)			-		
Allc T	WHITE -			· · · · · · · · · · · · · · · · · · ·	nductivity) FOC) (Tota		SS) (BOD) otal Keldahi N	```		ty) (HCO	3/CO3) (CI)	(SO ₄) (N	1O ₃) (NO	2) (F)			
lysis Bot	GREEN -			(Cyanide)	(100	1104) (10	nai Reidaili N	inogen) ((IVF13) (IVO	₃ /NO ₂)							
Ana per	RED TOT		ly		(Ba) (Be)	2) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Hg) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na)											
	RED DISS	SOLVED	- Poly	(As) (Sb)	(Ba) (Be) ((Ca) (Cd) (C	Co) (Cr) (Cu	(Fe) (Hg	(Pb) (Mg) (Mn) (N	li) (Ag) (Se) (TI) (V)	(Zn) (Hg)	(K) (Na)			
								~ ~ <i>~</i> /									
			Y DAT			Start Tir		1:00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		·	Pump/l	Bailer Ir	ılet Dept	h:		
Meas.	Metho	od ^s	Purge			H	E Conc	l (μS)	°F Ten	np (°C)	Other	Diss O ₂	(mg/l)	W	ater Qu	ality	
4	<u> </u>		<u></u>	6		.49	_5(08	17.	G4.	-87.6	-	18	Clea	r.cole	wless	
3	<u>L</u>	5 4.2 (0.49			5	09	<u> </u>	64	-86.6	PERSONAL.	19	clear	cola	uless			
. 2	<u>6</u>	6 2.8		6	48		77	17.	64	-798		16	clear	v colarless			
1	B			4		45	5	7	<u> 17.</u>	59	-65.0		1.00		lear colorless		
0			0.0						•			•			,		
[Casing]	[Select A	A-G]	[Cumulativ	ve Totals]					[Circle	units]				[Clarity, Color]			
			1								/						

SAMPLER:

PRINTED NAME)

litkemeier

(SIGNATURE)

^	X.	Δ	NIC	' L. 1	OD			6650 SW Redwood Lane, Suite 110									
V		יעש	RUNNE	III.	ノバ	•			Portland, OR 97224								
			O IN INI E	wial,	L.L.U.				Office: (503) 670-1108 Fax: (503) 670-1)-1128		
PROJ					h Shipy		с.			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ELL ID:	· · · · · · · · · · · · · · · · · · ·					
SITE	ADDI	RESS	: Sea	attle, W	ashing	ton			<u> </u>		IND ID		5-G6	J-0(0096	19	
					·						OUP ID:	with the same of t	·			NA	
	ND FF		- removes	NÊ	E	SE	S	SW	W	NW		GH'Ĵ	<u> </u>	NUI	HEAVY		
V	VEAT:	HER	: SUI	VNY	CLC	UDY	RA	IN		?] TEN	MPERA	TURE:		ට	°C	
HYD	ROLO	GY/	LEVEL	MEAS	UREMI	ENTS (N	Jearest 0.01	ft)		[Produc	t Thickness]	[Water	Column]	lCir	cle appropri Water C	iate units! olumn x Gal/ft]	
Da			Time		Bottom		roduct		Vater	DTI	P-DTW	DTB-	-DTW		Volu	ıme (gal)	
912	9106): <o< td=""><td>115</td><td>. 80</td><td></td><td>2 minute of the second</td><td>10</td><td>.60</td><td></td><td>· and the state of /td><td>5</td><td>.20</td><td>X 1</td><td>6</td><td>7.85</td></o<>	115	. 80		2 minute of the second	10	.60		· and the state of	5	.20	X 1	6	7.85	
/	/		•			market and the state of the sta	•		•	A manufacture and the second second second	•	4.5		Х3	7	.54	
Gal/ft =	(dia./2) ²	x 0.163	1"=	0.041	2"=	0.163	3"=	0.367	4" =	0.653	6" =	1.469	10"=	4.080	12" =	5.875	
§ METHO	DDS: (A) S	ubmersi	ible Pump (B)) Peristaltic	Pump (C) Di	sposable Bai	ler (D) PVC/T	eflon Bailer	(E) Dedicate	ed Bailer (F) Dedicated P	ump (G) Oth	er =				
GROU	JNDW	VATI	ER SAM	1PLIN	G DAT	A (if prod	luct is dete	ted, do N	JOT sam	ple)		Sample	e Depth:			[√if used]	
Bottle	Туре	I	Date	Ti	me	Method [§]	Amount	& Volu	me mL	Pres	servative	[circle]	Ice	Filter	рН	√.	
VOA	Glass	91	29106		:45	B	(6)	(40	ml)		/HCl	>	(YES)	(NO)		1	
Amber	Glass		29106	11	:45	B	(DX Ket	250,6	00)1L	None))(HCl) (H ₂ SO ₄)	(YES)	(NO)		1	
White	Poly	. /	/		:		1,5-51		000, 1L		None		YES	NO	NA		
Yellow	Poly	/	1		•			250, 5	00, 1L	H ₂ SO ₄			YES	NO		4.0	
Green Poly / /			:			250, 5			NaOH		YES	NO		-69			
Red Total Poly 9/29/06					:/15	B	(1)		00) 1L		(HNO ₃)		(YES)	(NO)		130	
Red Diss. Poly 9/29/06				77	: 45	<u> </u>	<u>(1)</u>	250/5	Name .		MNO3		YES	(YES)		1	
///					- 6-3		250, 5	and the same				YES		·			
		T.	otal Bottle	s (includ	e duplicat	e count):	an	200,0	00, 11				160	···			
	ВО	TTLE					WED PER B	OTTLE T	PE (Circle	applicab	le or write r	on-standa	rd analysis	s below)			
	VOA - G	lass			260B) (BTI								aray on	<i>Delove</i>)		The state of the s	
ved	AMBER	- Glass		(PAHs)	(TPH-HCID)	(NWTPH	- Dx) (TPH-4	118.1) (Oi	&Grease)	(8081A)	(PCBs)) (Pe	esticides)					
Allov e Ty	WHITE-				onductivity)		SS) (BOD)	(Turbidity)	(Alkalini	ty) (HCC	₃ /CO ₃) (Cl)	(SO ₄) (N	NO ₃) (NO ₂) (F)			
Analysis Allowed per Bottle Type	YELLOW			(COD) (TOC) (Total PO ₄) (Total Keldahl Nitrogen) (NH ₃) (NO ₃ /NO ₂)													
nal)	GREEN -	······	olv	(Cyanide)	_yanude) As / (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cu) (Fe) (Hg) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (II) (V) (Zni) (Hg) (K) (Na)												
۷ –	RED DIS			(As) (Sb)	As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Ci) (Cu) (Fe) (Hg) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na)												
											, , , , ,		0/	. , \			
WATE	R QU	ALI	ΓΥ DAT	A	Purge S	Start Ti	me: //	:5				Pump/l	Bailer In	let Dept	:h:		
Meas.	Meth	od §	Purge	d (gal)		H	E Cond		°F Ten	np (C)	Other	Diss O			ater Qu	ality	
4	B)	3	6	(0.	SI	///	9	15.	75	-1036		83	7.5	7	amber	
3	B	>	2.	7	G.	5	-111	8	15.	73	-1/1/1	Ŏ.	98	- I 1	11	£ "	
2	P	B 1.8		8	10.	(m)		9	1	75	-103.6	Ĭ.	04	1	1 ()	amber	
1	P					7/1	8	15	7/	-101.8	· · ·	/		dy ampe			
0	- hand	B 0.9 6.51 [[]			10.		et		10	Cloud	8 , 9	mber					
[Casing]	[Select	A-G]	[Cumulati						[Circle	16.0		•	[Clarity, Color]				
5	B	***************************************	4.	5	(0.	52	111	7	15	721	-108.8	0.	73	· · · · · · · · · · · · · · · · · · ·	THE COMMENSURA STANDARD STANDARD	ben	
	Acceptance September 10 (100) Agents Ann		***************************************				111	D		N. C.	- Cate & Cate				7-(13	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
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۸	Q	A A							6650 SW Redwood Lane, Suite 110								
1		4	NC	.H(ノK				Portland, OR 97224								
X	_7 E	NVIF	ONME	NTAL,	L.L.C				Office:	(50	03) 670-1	1108	Fax:	(5	03) 670	-1128	
PROJ	ECT N	AMI	E: Du	wamis	h Shipy	ard, Ind	-	•		W	ELL ID:	FIE	40 1	BLAN	JK		
SITE	ADDR	RESS:	: Sea	attle, W	ashing	ton				BL	IND ID:	: MW	1-Gi	JFB	-06	0929	
					Annual Control of the Parket				DUP ID:						NA		
WIND FROM: NEES SES									SW W NW			GHT')	MEL	DIUM	H	EAVY	
WEATHER: SUNNY CLOUDY RA									? TE				TURE:	?⊋. °C			
HYD	ROLO	GY/I	EVEL	MEAS	UREMI	ENTS (N	learest 0.01	ft)	[Product Thickness] [Water Column]						le appropriate units! [Water Column x Gal/ft]		
Da			ime		ottom		roduct		Vater	DTF	P-DTW	DTB-	DTW] [Volu	me (gal)	
/	/		: 1/			V	•				٠		•	X 1	A	.1/1	
/	/		: //		.)		•							X 3	//	M	
Gal/ft =	(dia./2) ² >	0.163	1" =	0.041	2"=	0.163	3"=	0.367	4"=	0.653	6" =	1.469	10" =	4.080	12" =	5.875	
§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =																	
GROU	JNDW	ATE	R SAM	IPLIN	G DAT	A (if prod	uct is dete	ted, do N	IOT samp	ole)		Sample	e Depth	:		[√if used]	
Bottle	Туре	Γ	Date	Ti	me	Method [§]	Amount	& Volu	me mL	Pres	servative	[circle]	Ice	Filter	рΗ	√	
VOA	Glass	96	29106	10	:30	B	(6)	(4 0	ml)		(HCl)		YES	(NO)			
Amber	Glass	96	29106	10	: <u>3</u> ()	B	(G)XKET	250,(5	00/1L	(None) (HCl) (H ₂ SO ₄)	YES	(NO)			
White	White Poly / /			•			250, 5	00, 1L	None			YES	NO	NA			
Yellow	Yellow Poly / /			•			250, 500, 1L			H ₂ SO ₄		YES	NO				
Green Poly / /				:			250, 50			NaOH		YES	NO				
Red Tot	al Poly	96	29106	10	:30	B	1	250(5	00,51L	(HNO ₃)			(YES)	(NO)		1/	
Red Dis	s. Poly	9.18	29106	-10	: 30	B	(1)	250,50		0)1L (H)		HNO YES		YES			
		/	/	,	:			250, 5	00, 1L				YES				
		To	otal Bottle	s (includ	e duplicat	e count):	(14)										
		TTLE T	TYPE		CONTROL 100		VED PER B	OTTLE T	YPE (Circle	applicab	le or write r	non-standa	rd analysi	s below)			
	VOA - G			The same of the sa	A STATE OF THE PARTY OF THE PAR	EX) (NWT)	A CANADA				· 	- The same of the					
Analysis Allowed per Bottle Type	WHITE -				(TPH-HCID)	(TDS) (T	-Dx) (TPH-		l &Grease) (Alkalinit	(8081A) (esticides)	NO ₃) (NO	₂) (F)			
s All	YELLOW		,				otal Keldahi N	`	· · · · · · · · · · · · · · · · · · ·	3/NO ₂)	/3/CO3) (CI)	(504) (1	103) (110)	2) (F)			
alysie r Bo	GREEN -	Poly		(Cyanide)					,		***************************************				· · · · · · · · · · · · · · · · · · ·		
Ang	RED TO	ral - Po	ly	(As) (Sb)	(Ba) (Be)	(Ca) (Cd) (Co) ((Cr)) (Cu) (Fe) (Hg	(Pb) (Mg) (Mn) (N	Vi) (Ag) (Se) (Tl) (V) ((Zn) (Hg)	(K) (Na)			
	RED DIS	SOLVED	- Poly	(As) (Sb)	(Ba) (Be)	(Ca) (Cd) (C	Co) (Cr) (Cu	(Fe) (Hg	(Pb) (Mg) (Mn) (N	Vi) (Ag) (Se) (TI) (V) ((Zn) (Hg)	(K) (Na)			
XA7 A 7878	D OTT	A W W/T	13 / T3 / T		D	O	W	- Ka - 17	· ·		<u> </u>	Γ					
			Y DAT			Start Tir H			<u> </u>	72				let Dept			
Meas.	Meth	od °	Purge	d (gal)	P	1	E Conc	l (μS)	°F Ten	np (°C	Other	Diss O	(mg/l)	W.	ater Qu	ality	
4								•						······································			
3				•				•			•						
2			•			•			•				•				
1	75	-			- Comment			Parket	· ·	(100	non i	16		1			
(Casing)	[Select	A-G1	0.([Cumulati			06	**************************************	>	[Circle units]				10.85 Clean Coloniess				
,	1201001	-1	· · · · · · · · · · · · · · · · · · ·	20.000			•		[Cittle	u.oj				į.	marity, Co	iorj	

SAMPLER: Lelle Titkemeier

Colon Hameler

Catch Basin Data 9/29/06

Client/Project Name

Duwamish Shipyard, Inc.

Project Number:

000111-01/ Task 8

Geologist/Engineer: John Renda

Boring #	Sample Time	CB dimensions (in)	CB depth	CB bottom material	CB pipe configuration	Water Depth (in)	Sediment Depth (in)	Sediment Notes	Observations
DSI 13	800	16X20	16	concrete	outlet 6" from bottom (feeds to DSI 14)	(feeds 6 1		loose sandy silt with leaves and wood fibers	sheen on water and sediment
DSI 14	830	24X33	40	concrete	18" culvert (east-west)	0	4	silty sand, grayish-brown, moist to wet	
DSI 15	900	26(circular)	>48 (20" to top of sediment)	unknown (could not penetrate thru full sediment depth)	invert on east side - mouth of invert 16" below top of CB	4	>28	silty sand, grayish-brown, fine gravel, organics, leaves and wood; wet, loose	pushed 28" into sediment w/out refusal
DSI 16	920	30X30	30	concrete	sump pump with outflow pipe to north	4 9 s		silty sand, grayish-brown, organic debris, sand blast grit	
DSI 17	940	16X19	36	concrete	east-west 16" pipe; 8" pipe from S-SE	0	1	silty sand, dark-grayish brown; moist to wet	
DSI 18	950	18X18	35 ^a	dirt	pipes on east, west, and south	, and 0 2		silty sand, grayish-brown, moist	steel plate on top
DSI 19	1015	26X18	40 ^a	dirt	pipes to north, south, and west	2	8ª	silty-sand, organic debris, cigarette butts	
DSI 20	1050	16X23	20	concrete	pipe on west side (to DSI 17)	1	9	sandy-silt, strong decomposing odor (muck)	Observed a 0.25"-thick oil, free product oil - clear amber, fresh. Approx. 10 gal. of water pumped out and sediment removed
DSI 21	1130	24X28	56	irregular surface - solid, not flat	pipe from north (DSI 19) and pipe running east-west	2	2	silty-sand, wet, grayish-brown	
DSI 22	1215	36X48	77	steel	inflow pipe from south, outflow on north	18	17	high organic sandy-silt, dark-gray to grayish-brown; twigs, wood chips, leaves	sheen on water and sediment
DSI 23	not sampled	24X17	77	wood or metal (not concrete)	pipes west to northeast	3	17	not sampled	not sampled - too deep with onsite equipment

Notes: a = Dirt bottom, contact at sediment/dirt interface not defined.

APPENDIX C CHAIN OF CUSTODY FORMS

06-17884 to 06-17900

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Page	: 1	of	2				Analytic	cal Resources, Incorporated cal Chemists and Consultants						
ARI Client Company:	0 1	LC.	Phone:	287 - °	130	Date:	1/0/0	lce Prese	ent? Y		7		4611 Sc	4611 South 134th Place, Suite 100 Tukwila, WA 98168	
Client Contact: Rebecca Desposie	•					No. of Cooler 5 4, 3, 3, Temps: 144, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,						206-695-6200 206-695-6201 (f			
Client Project Name:				`				an and a construction with the same		Requested				Notes/Comments	
Dowanish Shipu		Inc	<u> (DSI</u>	<u>:</u>)			α)	<u>-</u>	1		7 ,			TOOO O O THE	
Client Project #:	Samp		1			'A	Exos	/PCB>/	10	224	なってな				
000111-01	106H	<u>n Ker</u>	wa, Kellu	1 Titkem	eler	F	100	26	(1) ±	332	\(\frac{1}{2}\) \(\frac{1}{2}\)				
Sample ID	D	ate	Time	Matrix	No. Containers	Toc/	VOCS	Pest / Pats	STPH-G DWTPH-	Total Metals As, Cd, Cr, Cu, PS, Hg, Ag, Zn	Dissolved Metaly As,Cd,Cr,Cu, Pb,Hg,As,Zn				
DSIØ1-80-A	9/2	7/06	1130	Sil	9	X	X	×	² ×	X					
DSIØ1-50-B	,		1140	Sail	9	\times	X	X	X	X				·	
DSIØ1-GW			1210	Water	14		X	X	X	X	×				
DSI Ø2-SO-A			1020	Sul	9	×	X	/ ×	×	\times					
DSI-Ø2-SO-B			1030	Soil	9	×	X	X	/	X					
DSIØ2-GW			1115	Water	14		X	X	×	X	X				
DSI_Ø3-SO-A			0920	Soll	9	×.	×	X	X	X					
DSTØ3-50-B			0930	F48	9	×	X	\times	×	×				'a	
DSI 03-6W			0001	Wider	14		X	X	~	X	\times			·	
•					`										
Comments/Special Instructions	(Signat	'(\	080	2	Received by: (Signature)	och C	ongle	to	Relinquished (Signature)	l by:			Received by: (Signature)		
	Printed Name: Jahn J Renda Printed Name:			B Cè	WGLET	15N	Printed Nam	e:			Printed Name	э:			
	Company: Company:			NET.	-, -, -,		Company:		Company:			-			
	Date & Time: Date & Time: 9 28 06 0830 9 28			/	8	30	Date & Time		Date & T						

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or cosigned agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-	around	Requested:			Page	2	of ,	2				Analytic Analytic	cal Resources, Incorporated cal Chemists and Consultants	
ARI Client Company: Anchor Environmental	ĽĽ		Phone:	287 -91	30	Date: Ice Present? Y					4611 S Tukwila			South 134th Place, Suite 100 ila, WA 98168	
Client Contact: Resecce Desposiers	- 57			-		No. of Coolers	6	Coole Temp	or 8,8,0,4,3, s: 1.6,4,1				206-69	5-6200 206-695-6201 (fax)	
Client Project Name:		1-	_ >						Analysis	Requested	• • • • • • • • • • • • • • • • • • • •			Notes/Comments	
Dissamish Shipyand Client Project #:	NE.		<u>)ST)</u>				5	_	×	. ا	£ . s	. ^-			
•	Samp		ends, Kel	مالمة ١ - ١١		60	3	3	90	Metals 1,Cr,Cr 9, As, 2r	2 Wets	5			
000111-61	108F	10 V	CADA, DO	Ny IIINE	neier		2	[윤	[£ £	\$ 3 4	13 12 4g	2			
Sample ID	D	ate	Time .	Matrix	No. Containers	TOC/	VOC, 8260 B	Pest/PCBs/ PAH	NWTPH-C NWTPH-DX	Total Marals Asicalocalca Psitty, Asiza	Dissiv As,Cak Pe, He,	NET			
DSIØ4-50-A	9/2	7/66	1230	Sil	9	X	X	X	×	X					
DSIØ4-80-B			1240	58.1	9	X	X	X	×	×					
DSIØ4-GW			1310	Wita	14		×	X	X	X	×			·	
DSI Ø5-SO-A			1315	Sil	9	×	×	X	<u>></u>	X					
DST Ø5-50-B			1330	Soul	9	X	\times	*	×	X					
DSIØ5-GW			1345	WHEN	14		×	-><	- X	\times	×				
DSIØ6-SO-A			1405	Sil	9	×	×	X	X	×					
DSIØ6-50-B			1420	Sil	9	\searrow	×	\times	\times	X					
DSI Ø6-GW	7	1	1445	when	14		×	X	\times	X	×				
TB-060927	\	$\sqrt{}$		Wister	2		X					X			
Comments/Special Instructions	Relinqu (Signat	ure)	SEST	2	Received by:	26 C	ongle	<u> </u>	Relinquished (Signature)	by:		,	Received by: (Signature)		
	Printed Name: SHU J RENPA Printed Name: BOB			CONSC	ETBR)	Printed Name	e:			Printed Name	ө:			
	Company:			ART Company:				.,	Comp						
	H nchor Date & Time:			Date & Time:				Date & Time:			:				
	<u> </u>	11,	20106		11/00/0	שני	U 0 C		<u> </u>						

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or cosigned agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Cooler Receipt Form



ARI Client: ANCHOR	Project Name: DSI
	Delivered By: ARI COURIER
Tracking NO.:	Date: 9/28/06
ARI Job No.: 3455	Lims NO.: 06-17884-06 17908
Preliminary Examination Phase:	
Were intact, properly signed and dated custody se	als attached
To the outside of the cooler?	
2. Were custody papers included with the cooler	
3. Were custody papers properly filled out (ink, signed	l etc.)? YES NO
4. Complete custody forms and attach all shipping do	cuments OK NA
Cooler Accepted BY: Bulg Conglitus	Date: 9/28/04 Time: 830
Log-IN Phase:	
Was a temperature blank include in the cooler? Record Cooler Temperature	YES (NO)
·	
7. What kind of packing material was used?8. Was sufficient ice used (if appropriate)?	A CONTRACTOR OF THE PARTY OF TH
9. Were all bottles sealed in separate plastic bags?	
10. Did all bottles arrive in good condition (unbroken)?	
11. Were all bottle labels complete and legible?	
12. Did all bottle labels and tags agree with custody pag	
13. Were all bottles used correct for the requested analy	
14. Do any of the analyses (bottles) require preservative	
(If so, Preservation checklist must be attached)	
15. Were all VOA vials free of air bubbles?	
16. Was sufficient amount of sample sent in each bottle?	?YES NO C 2/
17. Notify Project Manager of any discrepancies or conc	ernsOK NA
Cooler Opened By:	Date: <u>9/28/06</u> Time <u>830</u>
Explain any discrepancies or negative responses:	
Soils logged for Herovalent Chr	omin per QAPP & 66 Hles received
	·
<u> </u>	
<u> </u>	
	·

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned, Number: Tyle Time to Company: Anchor Environmental, L. Client Contact: Resecca Desrosiers	Page: of 7 Date: Ice Present? No. of Cooler Coolers: Temps:							Analytical Resources, Incorporated Analytical Chemists and Consultants 4611 South 134th Place, Suite 100 Tukwila, WA 98168 206-695-6200 206-695-6201 (fax)						
Client Project Name: Downsk Shopped	7	1	SI)					I	Analysis	Requested	5			Notes/Comments
Client Project #:	Samp	lers:	<i></i>			٠,	[ଦୁଁ	35/	5 0	الم لي إ	n 6 g	旧		
000111-01	JOHN	<u> </u>	was, Kelli	y Titkem	-6164	12	758	2	± ±	43.4	3 6 ≥	J.		
Sample ID	Da	ate	Time	Matrix	No. Containers	100/	√0Cs_S2605	Pest/PCBs PAH;	NWTPH-	Total Metals As, Ca, Co, C PS, Ha, Ac, 7	As, Cd,	281 Ch		<i>:</i>
DSTØ7-56-A	9/28	3/06	0810	Sol	9	X	X	X	X	X		×		
DSI Ø 7- 50-3	Ì		0820	Soil	9	×	×	\times	×	\times		X		
DSI 67-GW			0900	Water	14		×	\times	×	\vee	×			۰
DSI 08-SO-A			0920	Soul	9	×	×	×	×	X		X		
DSIØ8-50-B			0936	Soul	9	×	×	X	X	4		4		
DSIØ8-GW			0950	Water	14		×~~	×	X	\searrow	×			
DSI \$9-SO-A			1010	Sid	q	×	*	×	X	X		+		
DSIØ9-50-B			1020	Sol	9	X	×	×	X	×		+		
DSIØ9-GW	7			Waster	14		×	×	×	X	×			
DSIST-GW.			0910	Wider	14		/	/	\times	×	×			
Comments/Special Instructions	Relinqui (Signatu	ished by:	000	<u>つ</u>	Received by:	2//	A / J	·	Relinquished	by:			Received by:	
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	Date & T	cher Time:			Date & Time:	RI			Date & Time:	•			Date & Time:	
	9/2	3/06	<u> 683(</u>	>		9/06	, Y	30 <u> </u>	- 310 0 7 1110				Date & Tille.	
I imits of I ishility: ARI will perform at	ll roquo	atad aa	ruioco in coco	ralamaa suitha a		. 41 1 - 1	f - 11	4 D1 O1 1						

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or cosigned agreement between ARI and the Client.

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Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested:						2	of ,	2				Analytical Resources, Incorporated Analytical Chemists and Consultants		
ARI Client Company: Anchor Environment	LL	ے کے	Phone: 206-2	87-913	0	Date:	28/06	Ice Prese	ent?		7		outh 134th Place, Suite 100 , WA 98168		
Client Contact: Rebecca Desvosier	· "					No. of Coolers		Coole Temp	er is:	1 2 1 A A				5-6200 206-695-6201 (fax)	
Client Project Name:	<u>, </u>		<i>(</i> , ,)			u - routy game - u tet - o.	**************************************	ente Australia de Robbis.	Analysis I	Requested				Notes/Comments	
Duwamis K. Shipyon	d,	Lvc	(DSI)				ති	<u> </u>	l x	2 3 6	建丁!	8	[5]		
Client Project #:	Samp	iers:	enda. K	ellyTak	emerer	Σ	396	8	5 4	12 C 8	\$ 0 "	1 (0)	£		
Sample ID	D	ate	Time	M atrix	No. Containers	TOC/1	10Cs 8260B	Pest/PCB PAHs	NUTER-DX	Total Meth As CA/Cy Ph. He A	Dissolve As, Ch,O	NWT-WN	Si Gray		
DET DET 10-SO-A	9/2	18/06	1100	Soil	9	X	X	X	\times	\times			X		
DSI 10-50-B			1110	Soil	9	X	X	X	X	×			X		
DSI 10-6W		.di	1125	Water	14		X	2	X	×	X				
DSI 11-50-A		, det ju	1145	5011	9	X	X	X	X	X			\times		
D\$I11-50-B			1150	Soul	9	×	X	×	X	X			X		
DSI11-GW			1210	Water	14	,	X	X	X	X	X		,		
DSI12-SO-A			1230	Sul	9	×	X	×	>	X			X		
DSI12-50-13			1240	Sul	9	\nearrow	X	X	X	X			X		
DSI 12-GW:	S		1300	Water	14		X	\ <u></u>	\times	X	×				
TB-060928	`	V		water	2		X					×	,		
Comments/Special Instructions	Relinqui (Signatu	ished by: ure	2	>	Received by: 5	6 (a Onels		Relinquished (Signature)	by:			Received by: (Signature)		
	Printed		RENDA	,	(Signature) / 2 Printed Name:	77 C	NGU	3 TON	Printed Nam	e:			Printed Name	e:	
	Compar	neh	•	.,,,,	Company:		, T		Company:				Company:		
	Date &	Time: 29/0		 30	Date & Time:	29/00		3-30	Date & Time:				Date & Time:		

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Cooler Receipt Form



Revision7(1/10/01)

ARI Client: Anchov	Project Name: Onwerish Shipy and
	Delivered By: Hand
Tracking NO.: NA	^ /s /
ARI Job No.: 5467	Lims NO .: 06-17968 to 06-17994
Preliminary Examination Phase:	
1. Were intact, properly signed and dated custody sea	als attached
To the outside of the cooler?	<u>(£</u> S) NO
2. Were custody papers included with the cooler	VES NO
3. Were custody papers properly filled out (ink, signed	etc.)? NO
4. Complete custody forms and attach all shipping do	
Cooler Accepted BY: 156 Conflix	Date: $9/29/06$ Time: 330
Log-IN Phase:	
5. Was a temperature blank include in the cooler?	YES NO
6. Record Cooler Temperature	5, 6, 3, 1.6, 3, 2 °c
7. What kind of packing material was used?	
8. Was sufficient ice used (if appropriate)?	
9. Were all bottles sealed in separate plastic bags?	YES NO
10. Did all bottles arrive in good condition (unbroken)? .	
11. Were all bottle labels complete and legible?	——————————————————————————————————————
12. Did all bottle labels and tags agree with custody pap	. 🔾
13. Were all bottles used correct for the requested analy	ses? (YES) NO
14. Do any of the analyses (bottles) require preservative	?
(If so, Preservation checklist must be attached)	(YES) NO
15. Were all VOA vials free of air bubbles?	(YES) NO
16. Was sufficient amount of sample sent in each bottle?	10 110-110
17. Notify Project Manager of any discrepancies or conc	ernsÓK NA
Cooler Opened By:	Date: 9/29/06 Time \$30
Explain any discrepancies or negative responses:	
<u>. 6 </u>	
24 4.1. 	

Cooler Receipt Form

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Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: ン (名)	Page:		of					Analytical Resources, Incorporated Analytical Chemists and Consultants						
ARI Client Company:			Phone:			Date:		Ice	Y		-	4/87		outh 134th Place, Suite 100
Anchor Environmental	<u> </u>	<u> </u>	205-2	87-913	0		906	Pres	e district agrigada					, WA 98168
Client Contact:	_					No. of Coolers: 2 Cooler Temps: 3.0, 4.0						206-695-6200 206-695-6201 (fax)		
Rebecca Desvosiers Client Project Name:						Coolers.	<u> </u>	Teitif			<u> </u>			
Duwamish Shipund.	-	1.	Nort)				<u> </u>	- G		Requested		F		Notes/Comments
Client Project #:	Samp		D27			¶₽,	80	ا گ	Å	50 K	344	j,		
000111-01	المد	\R.	wa Kali	ly Titken	0\0\	gages	PEST/PCBS/ PAHS	NWTPH-6x		مري الملا	2 7 7	F		
	707	371 CAP	NIA, ILE	1 Triber	Leven		G 3	77	NWTPH-	2 5 A	130	Ł		
Sample ID		Date	Time	Matrix	No. Containers	90	PAHS PAHS	်သ	15	I OI	र उँ य	ł		
	_				Tros contamore	<u> </u> 2	12 2	Ž	3	15th	1232	•		
AA. S.H. A	۵)	١.	inan		111		 	\ /			7 7 1			
MW4-CWFB-060929	112	9/06	1030	Water	14	X	×	Х	<u> </u>		X			
MW-4-GW-060929		Ì	0945	Water	14	X	_	×	 ×	\times	×			
•					1					 				
MW-5-6W-060929			1145	Winter	14	X	X	\times	X	X	X			
TB-060929			NA	Water	2	X		X						
	•													
									1					
						1								
Comments/Special Instructions	Relinqu	uished by:		$\overline{}$	Received by:	2	<u> </u>		Relinquished	by:			Received by:	
	(Signat	ture) 24	Z X	_	(Signature)		Engli)	Ten	(Signature)				(Signature)	
	Printed	Nante:			Printed Name:		0		Printed Nam	e:			Printed Name	ə:
	_ <	JOHN	J KEND	<u>A</u>	BUZ	CONG	LEON		ļ	··				
	Compa	À	1.		Company:	ART			Company:				Company:	•
	Date &		her		Date & Time:	,-(,			Date & Time	:			Date & Time:	
		29/0	6 14	130	/	106	143	30		-			Date & Title.	
	-77													

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Cooler Receipt Form



ARI Client: ANCHOR	Project Name:	DUWAMISH	SHIP	•
COC NO.:				
Tracking NO.:		the state of the s		
ARI Job No.: 5 (8)				
Preliminary Examination Phase:	•			
1. Were intact, properly signed and dated custody se	als attached	. •		
To the outside of the cooler?	·		YES	NO
2. Were custody papers included with the cooler	•	٧	YES	NO
3. Were custody papers properly filled out (ink, signed	l etc.)?		(YES)	NO
4. Complete custody forms and attach all shipping do	cuments	,	OK	NA
Cooler Accepted BY: 1306 Congleton	Date: <u></u>	129/06	Time:	1430
Log-IN Phase:	(
5. Was a temperature blank include in the cooler?			YES	AIO.
6. Record Cooler Temperature	,	•		۰۴
7. What kind of packing material was used?			10	E
8. Was sufficient ice used (if appropriate)?			(YES)	NO
9. Were all bottles sealed in separate plastic bags?		÷	YES	NO
10. Did all bottles arrive in good condition (unbroken)?			YES	NO
11. Were all bottle labels complete and legible?			YES	NO
12. Did all bottle labels and tags agree with custody pag			YES	NO
13. Were all bottles used correct for the requested analy		•	YES	NO
14. Do any of the analyses (bottles) require preservative	•			
(If so, Preservation checklist must be attached)			YES	NO
15. Were all VOA vials free of air bubbles?			YES	NO
16. Was sufficient amount of sample sent in each bottle	· · · · · · · · · · · · · · · · · · ·	***************************************	YES	NO
17. Notify Project Manager of any discrepancies or conc	erns	······ (OK)	NA
2	- ·		, .	_
Cooler Opened By:	Date: <u>4/2</u>	<i>9/0</i> € Ti	me_ <i>14</i> .	<u>30</u>
Cooler Opened By:		- (
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Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-	around	Requested:		•	Page:		of					
ARI Assigned Number:	lulli	arouria	riequesteu.			raye.	1	OI.	1				cal Resources, Incorporated
ARI Client Company:			Phone:			Date:		Ice	rantskihmen p				cal Chemists and Consultants outh 134th Place, Suite 100
Anchor Environmental L	2		206-28	7-9130		912	206	Prese	ent? 🌱		Tukwila, WA 98168		
Client Contact:						No. of	经正法	Coole	1				5-6200 206-695-6201 (fax)
Resecca Desrosiers Client Project Name:						Coolers:		lemp	s: 4,0,3,			****	
Client Project Name:	+								Analysis Rec	uested			Notes/Comments
Dewan sh Shipyard,	Samp	loro:				×			252				
000111-01	Jahr	s Re	SOA, Kelly	Titkene	ler 🖟	CL 3	ZT.	Ses	\$ 2 5 E				
Sample ID	D	ate	Time	Matrix	No. Containers	JPH-G NWTPH-	70C	PAHs, Pesticides PCBs	Total Metals As,cd,cr,cu Ps,Hq,Ag,Zn				
DSI13-CB-068929	9/29	7 06	0800	Sed	3	2							Archive
DSI14-CB-060929			6830	Sed	3								Archive
DSI15-13-060929			0900	Sed	3			-					Archive
DSI16-CB-060929			0920	Sed	3				:				Archive
DST17-03-6609 29			0940	Sed	3								Archive
DST18-03-666929			0950	Sed	3								Archive
DSI19-US-060929			1015	Sed	3								Archive
DSI20-CB-060929			1050	Sed	4								Archive
DST-21-CB-060929			1136	Sed	3								Archive
DSI 22-13-060929			1215	Sed	3	X	\times	×	$ \times $				
Comments/Special Instructions	Relinqu (Signati	ished by:	080		Received by:	2//	~ ,	_	Relinquished by:			Received by	:
	Printed	· c	3			5x6 (snyle	<u> </u>	(Signature) Printed Name:			(Signature) Printed Nam	Δ:
			MAN JR	Ξ 1/1/Λ A	Printed Name:	Carall	IETO	.)	too rame.			I INITEG NATI	
	Compa	ny:		C NV/A	Company:	•	VE ICH	4	Company:			Company:	
		\triangle	ndron		<u> </u>	ART							
	Date &	Time:	1	1430	Date & Time: 9/29	/n/.	14	 ろx	Date & Time:			Date & Time	:
		~~`			<u> </u>	UV	<u> </u>						

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Cooler Receipt Form



ARI Client: /WCHOR Project Name: Duwmics# SHIP. COC NO.:	
ARI Job No.: Lims NO.: Preliminary Examination Phase:	
Preliminary Examination Phase:	
Preliminary Examination Phase:	
1. Were intact, properly signed and dated custody seals attached	₹NO.
	NO
To the outside of the cooler?YES	\sim
2. Were custody papers included with the cooler	NO
3. Were custody papers properly filled out (ink, signed etc.)?	NO
4. Complete custody forms and attach all shipping documents OK	NA
Cooler Accepted BY: 306 Congleto Date: 9/29/06 Time:	1430
Log-IN Phase:	· ·
5. Was a temperature blank include in the cooler?	110)
6. Record Cooler Temperature 4.0 3.0	_°℃
7. What kind of packing material was used?	
8. Was sufficient ice used (if appropriate)?	NO
	(NO)
10. Did all bottles arrive in good condition (unbroken)?	NO
11. Were all bottle labels complete and legible?	NO
12. Did all bottle labels and tags agree with custody papers?	NO
13. Were all bottles used correct for the requested analyses?	NO
14. Do any of the analyses (bottles) require preservative?	
	(NO)
15. Were all VOA vials free of air bubbles?	₩9⊃.:
16. Was sufficient amount of sample sent in each bottle?	NO
17. Notify Project Manager of any discrepancies or concerns	NA
$\frac{3}{2}$ = $\frac{90900}{143}$	30
Cooler Opened By: 3 Date: $9/29/0$ Time 143	******
Explain any discrepancies or negative responses:	• .
·	·
7.	
	
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APPENDIX D DATA VALIDATION REVIEW REPORT



Anchor Environmental, L.L.C. 1423 3rd Avenue, Suite 300 Seattle, Washington 98101 Phone 206.287.9130 Fax 206.287.9131

Data Validation Review Report

Project: Duwamish Shipyard, Inc.

Project Number: 000111-01

Date: December 22, 2006

This report summarizes the review of analytical results for 24 soil samples, 14 groundwater samples, two trip blanks, and a field blank. The samples were collected on September 27 and 28, 2006 at the Duwamish Shipyard property in Seattle, Washington by Anchor Environmental, L.L.C. (Anchor). Anchor submitted the samples to Analytical Resources Inc. (ARI) in Tukwila, Washington. ARI analyzed the samples for polynuclear aromatic hydrocarbons (PAHs) by U.S. Environmental Protection Agency (USEPA) Method 8270C by selective ion monitoring (SIM); volatile organic compound (VOC) analysis by USEPA Method 8260B; polychlorinated biphenyls (PCBs) by USEPA Method 8082, organochlorine pesticides (Pesticides) by USEPA Method 8081A, total petroleum hydrocarbons as gasoline by Washington Department of Ecology (Ecology) Method NWTPH-Gx, total petroleum hydrocarbons as diesel and residual range organics by Ecology Method NWTPH-Dx, total and dissolved metals by USEPA Methods 6010B/200.8/7471A/7470A, total organic carbon (TOC) by Plumb 1981, hexavalent chromium by Standard Method 3500Cr-D, and total solids (TS) by USEPA Method 160.3m.

ARI project identification numbers (IDs) JY55, JY88, JZ00 and JY67 were reviewed. Table 1 presents the samples reviewed in this report.

Table 1
Sample Reference Table

Sample ID	Lab ID	Matrix	Analysis Requested					
DSI101-SO-A	JY55A	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS					
DSI101-SO-B	JY55B	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS					
DSI102-SO-A	JY55C	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS					

Table 1 Sample Reference Table

Sample ID	Lab ID	Matrix	Analysis Requested
DSI102-SO-B	JY55D	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI103-SO-A	JY55E	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI103-SO-B	JY55F	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI104-SO-A	JY55G	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI104-SO-B	JY55H	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI105-SO-A	JY55I	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI105-SO-B	JY55J	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI106-SO-A	JY55K	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI106-SO-B	JY55L	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI01-GW	JY55M	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
DSI02-GW	JY55N	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
DSI03-GW	JY55O	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
DSI04-GW	JY55P	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
DSI05-GW	JY55Q	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
DSI06-GW	JY55R	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
MW4-GW-FB- 060929	JY88	Water	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals

Table 1 Sample Reference Table

Sample ID	Lab ID	Matrix	Analysis Requested
MW-4-GW-060929	JY88	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
MW-5-GW-060929	JY88	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
TB-060929	JY88	Water	VOC, NWTPH-Gx,
DSI22-CB-060929	JZ00	Catch Basin Solids	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, TS
DSI07-SO-A	JY67A	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI07-SO-B	JY67B	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI07-GW	JY67M	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
DSI08-SO-A	JY67C	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI08-SO-B	JY67D	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI08-GW	JY67N	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
DSI09-SO-A	JY67E	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI09-SO-B	JY67F	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI09-GW	JY67O	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
DSI57-GW	JY67P	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
DSI10-SO-A	JY67G	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI10-SO-B	JY67H	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI10-GW	JY67Q	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals

Table 1
Sample Reference Table

Sample ID	Lab ID	Matrix	Analysis Requested
DSI11-SO-A	JY67I	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI11-SO-B	JY67J	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI11-GW	JY67R	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
DSI12-SO-A	JY67K	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI12-SO-B	JY67L	Soil	VOC, PAHs, PCBs, Pesticides, TOC, NWTPH-Gx, NWTPH-Dx, total metals, hexavalent chromium, TS
DSI12-GW	JY67S	Groundwater	VOC, PAHs, PCBs, Pesticides, NWTPH-Gx, NWTPH-Dx, total metals, dissolved metals
TB-060928	JY67T	Water	VOC, NWTPH-Gx

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/quality control (QA/QC) guidelines outlined in the data quality objectives section of the Quality Assurance Project Plan (QAPP) and the statement of work. Laboratory results were reviewed following USEPA guidelines (USEPA 1999; 2004). Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Laboratory Data Package and Field Documentation

Field documentation was checked for completeness and accuracy. The following were noted by ARI at the time of sample receipt: the samples were received in good condition and were consistent with the accompanying chain of custody as documented on the Sample Receipt Form.

Holding Times and Sample Preservation

Samples were appropriately preserved and analyses were conducted within holding times with the exceptions noted below. Samples were frozen once extractions or digestions had been completed by the laboratory except for the volatile organics.

The following exceptions were noted:

- Sample DSI11-SO-B RE for organochlorine pesticides was re-extracted outside the holding time. All associated non-detects have been qualified as "UJ" to indicate the results are estimated.
- Sample DSI22-CB-060929 RE for semivolatile organic compounds (SVOC) analysis was re-extracted outside the holding time. All associated non-detects have been qualified as "UJ" to indicate the results are estimated. All associated detects have been qualified as "J" to indicate the value reported is estimated.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. No analytes were detected in the laboratory method blanks except for the following:

- The method blanks (ARI-JY55) for the soil VOC analysis contained methylene chloride and acetone. An action limit of 10 times the blank contamination was established. Associated samples with detected amounts less than the action limit have the reporting limit elevated to the amount detected in the sample and qualified as "U" to show the new result is undetected at the new raised reporting limit. Samples that contain the analyte above the action limit were not qualified.
- The water method blank for the PAHs in ARI-JY55 contained 2-methylnaphthalene. An action limit of 10 times the blank contamination was established. Associated samples with detected amounts less than the action limit have the reporting limit elevated to the amount detected in the sample and qualified as "U" to show the new result is undetected at the new raised reporting limit. Samples that contain the analyte above the action limit were not qualified.
- The total method blank (JY55) contained zinc at 0.7 micrograms per kilogram (μg/kg). An action limit of five times the blank contamination was established.
 Associated samples all contained zinc greater than the action limit. None of the data were qualified based on this finding.
- The water method blank for the VOC in ARI-JY67 contained acetone at $8.5~\mu g/kg$. An action limit of 10 times the blank contamination was established. Associated samples with detected amounts less than the action limit have the reporting limit elevated to the amount detected in the sample and qualified as "U" to show the new

- result is undetected at the new raised reporting limit. Samples that contain the analyte above the action limit were not qualified.
- The PAH method blank (JY67) contained 0.01 micrograms per liter (µg/L) of 2-methylnaphthalene. An action limit of five times the blank contamination was established. Associated samples with detected amounts less than the action limit have the reporting limit elevated to the amount detected in the sample and qualified as "U" to show the new result is undetected at the new raised reporting limit. Samples that contain the analyte above the action limit were not qualified.
- The method blank for total metals contained zinc at 0.9 milligrams per kilogram (mg/kg) in JZ00. The associated samples contained greater than 10 times the blank contamination. None of the data were qualified based on this finding.
- The method blank for the SVOC original analysis (JZ00) contained phenol above the MDL and below the reporting limit at 15 μ g/kg. An action limit of 10 times the blank contamination was established. The associated sample contained the analyte above the action limit. None of the data were qualified based on this finding.
- The method blank for the SVOC re-extracted analysis (JZ00) contained bis (2-ethylhexyl) phthalate above the method detection limit (MDL) and below the reporting limit at 13 μ g/kg. An action limit of 10 times the blank contamination was established. The associated sample contained the analyte above the action limit. None of the data were qualified based on this finding.

Field Quality Control

Field Duplicates

One field duplicate was identified in the chain of custody: DSI07-GW and DSI57-GW. The duplicate relative percent differences (RPDs) were within laboratory criteria except for the total metals data. None of the data were qualified due to these results.

Field Blanks

The field blank was analyzed in conjunction with the data found in ARI-JY88. The following analytes were detected in the field blank:

• Methylene chloride was detected in the VOC analysis at 0.4 $\mu g/L$ and acetone at 4.7 $\mu g/L$.

- Naphthalene was detected in the SVOC analysis at 0.07μg/L.
- Motor oil was detected in the NWTPH-Dx analysis at 0.50 mg/L.
- Total zinc was detected at 6 μg/L.

Trip Blanks

Trip blanks were analyzed in conjunction with the VOC analyses. All trip blanks were free of analytes of interest except the following:

- The VOC trip blank for JY67 (TB-060928) contained acetone at 3.9 μ g/L and toluene at 0.3 μ g/L.
- The VOC trip blank for JY88 (TB-060929) contained acetone at 0.3 μg/L.

Surrogate Recoveries

Surrogate recoveries were within the laboratory-specified control limits for all samples except for the following:

- DSI09-SO-B for VOC analysis had the surrogate d4-1,2-Dichlorobenzene outside the control limits. Data was not qualified based on this finding.
- DSI09-SO-B for PAH analysis (JY67) had a low recovery (13%) for the surrogate d14-dibenzo(a,h) anthracene. The sample was re-analyzed at a dilution with acceptable surrogate recoveries. As the re-extracted data confirmed the original data, the original data was reported rather than the re-extracted. None of the data were qualified based on this finding.
- The original data for PAH analysis DSI03-SO-B and DSI05-SO-B (JY55) had low surrogate recoveries. The data were qualified using the flag "R" to indicate the data for these samples were rejected. The samples were re-extracted within holding times.
- DSI05-SO-A for VOC analysis had the surrogate d4-1,2-Dichlorobenzene outside the control limits. None of the data were qualified based on this finding.
- DSI12-SO-A and DSI12-SO-B were both analyzed using a five times dilution. The associated surrogates were diluted out. No qualification of data was made.
- The method blank for PCB analysis in JY88 had both surrogates outside the control limits. Samples were extracted using a reduced volume which may have contributed to the low surrogate recovery. None of the data were qualified based on this finding.

- Sample MW-5-GW-060929 (JY88) had one surrogate decachlorobiphenyl (DCBP) outside the control limit low. None of the data were qualified based on this result.
- Sample DSI22-CB-060929 was analyzed at a 20 times dilution, which diluted the surrogate recoveries out. None of the data were qualified based on this finding.
- Sample DSI22-CB-060929 had no recovery for the surrogate DCBP. The sample was analyzed at a 20 times dilution, which diluted the surrogate recovery out. None of the data were qualified based on this finding.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed at the required frequency for all analyses. All MS/MSD results were within criteria with the following exceptions:

- The MS for mercury in sample DSI07-SO-A was outside control limit criteria. Associated data were "J" flagged to indicate the results are estimated.
- The MS recovery for hexavalent chromium (JY55, JY67) was low and outside control limits. All associated data were "UJ" qualified to indicate the results were estimated.
- MS were not performed on the water PAH, NWTPH-Dx, organochlorine pesticide, and PCB analysis. Laboratory did not receive sufficient sample volume to perform the analysis. No qualification of data was made based on this finding.
- MS recovery for dissolved chromium on sample DSI01-GW (JY55) was outside laboratory control limits. The associated sample was qualified as "J" to indicate the results were estimated.
- MS recovery for total arsenic and copper on sample DSI01-SO-A (JY55) was outside laboratory control limits. The associated sample was qualified as "J" to indicate the results were estimated.
- MS recovery for DSI01-GW for total silver was outside laboratory control limits. The associated sample was qualified as "J" to indicate the results were estimated.
- MS recovery for PAH analysis on sample DSI02-SO-B was outside control limits due to elevated target analytes. Based on the sample requiring dilution, no qualification of the data was made based on this finding.
- MS for copper, lead, and zinc in sample DSI22-CB-060929 were outside control limits. Copper and zinc contained greater than four times the spike amount.

- Therefore, the data were not qualified. Lead recovery was low and the associated data was qualified with the "J" flag to indicate the value is estimated.
- MS for organochlorine pesticides (JZ00) had an RPD outside laboratory control limit criteria for 4,4′-DDT. Both percent recoveries were within the laboratory control limits. None of the data were qualified based on this finding.
- MS and MSD for the PCB analysis in JZ00 analyzed on sample DSI22-CB-060929
 were outside control limits. The sample was analyzed at a 20 times dilution, which
 diluted the MS and MSD out. None of the data were qualified based on this finding.

Laboratory Duplicates

Laboratory duplicates were within laboratory RPD limits with the following exceptions:

- Arsenic, copper, lead, and mercury in the laboratory duplicate for total metals for sample DSI07-SO-A were outside the laboratory control limits criteria for RPD. The associated metals were "J" flagged to indicate the results are estimated.
- Copper and lead in the laboratory duplicate for total metals for sample DSI01-SO-A
 (JY55) were outside the laboratory control limits criteria for RPD. The associated
 metals were "J" flagged to indicate the results are estimated.
- Lead in DSI22-CB-060929 had an RPD of 85.7 percent and was outside the control limits. Arsenic RPD in the lab duplicate was 35.2 percent and was outside the control limits. Associated sample data were estimated using the "J" flag.

Laboratory Control Sample (LCS) and LCS Duplicate (LCSD)

Laboratory control samples (LCSs) for the organics compounds were analyzed at the required frequencies. All sample replicates and LCS and LCS Duplicates (LCSD) in which the percent recoveries were within laboratory control limits, with the exception of the LCS batch KWG0600489, had the following analytes with percent recoveries slightly below the acceptable control limit as listed: fluorene (50 percent), phenanthrene (49 percent), anthracene (52 percent), fluoranthene (50 percent), benzo(a)anthracene (54 percent), chrysene (54 percent) and benzo(k)fluoranthene (55 percent). As the LCSD percent recovery and the RPD recovery were within criteria, the data were not qualified based on this finding.

Method Reporting Limits

Sample results were reported using the laboratory method reporting limits. The reporting limits were acceptable. The following actions were taken for samples requiring dilution:

- DSI05-SO-A for VOC analysis (JY55) has the internal standard d4-1,4dichlorobenzene outside method criteria low. Associated analytes were all nondetect and qualified with the "UJ" flag to denote these results are undetected and estimated.
- DSI07-SO-A for VOCs (JY67A) 1,2,4-trimethylbenzene in the original run was above the linear range of the curve and required dilution. The analyte was "R" flagged in this data set to indicate the data were rejected. The sample was reanalyzed later in the same analytical run within the calibration range. Only 1,2,4-trimethylbenzene was reported from this analysis, the remaining analytes were "R" flagged to indicate the original data were used.
- The original VOC data for sample DSI09-SO-B were qualified based on two internal standards with low recovery. All detects were qualified as J- and all non-detects were qualified as UJ-. The sample was re-analyzed and confirmed the low internal standard recoveries were attributed to matrix effects.
- The original VOC analysis had the surrogate d4-1,2-dichlorobenzene outside control limits. The sample was re-analyzed within the holding time with acceptable surrogate recoveries. Data from the re-analysis should be reported.
- The original VOC analysis for sample DSI11-SO-A was not reported and the analytes
 were all "R" flagged to indicate it was not reported do to low internal standard
 recoveries. The re-analysis data was within the holding times and contained
 acceptable internal standard recoveries.
- The original analysis for sample DSI07-GW contained benzene, 1,2,4-trimethylbenzene, isopropylbenzene, and n-propylbenzene above the linear range of the curve. The values were "R" flagged to denote they were not useable. The reanalysis data have all but these four analytes "R" flagged to denote that the data were not used; the original run contained more technically valid data.
- The original analysis for sample DSI57-GW contained benzene, 1,2,4-trimethylbenzene, isopropylbenzene, and n-propylbenzene above the linear range of the curve. The values were "R" flagged to denote the values reported were not used.

- The re-analysis data for all but these four analytes were "R" flagged to denote that these data were not used; the original run contained more technically valid data.
- The original analysis for sample DSI12-SO-A (JY67) contained pyrene above the linear range of the curve. The value was "R" flagged to denote the value reported was not used. The re-analysis data for all but this analyte were "R" flagged to denote that these data were not used; the original run contained more technically valid data.
- The original analysis for sample DSI12-SO-B (JY67) contained pyrene, fluoranthene, chrysene, benzo(k)fluoranthene, and benzo(a)pyrene above the linear range of the curve. The values were "R" flagged to denote the values reported were not used. The re-analysis data for all but these five analytes were "R" flagged to denote that these data were not used; the original run contained more technically valid data.
- The original analysis for sample DSI07-GW (JY67) contained naphthalene and 2-methylnaphthalene above the linear range of the curve. The values were "R" flagged to denote the values reported were not used. The re-analysis data for all but these two analytes were "R" flagged to denote that these data were not used; the original run contained more technically valid data.
- The original analysis for sample DSI12-GW (JY67) contained phenanthrene, pyrene, and fluoranthene above the linear range of the curve. The values were "R" flagged to denote the values reported were not used. The re-analysis data for all but these two analytes were "R" flagged to denote that these data were not used; the original run contained more technically valid data.
- The original PCB analysis for sample DSI03-SO-A had aroclor 1260 above the linear range of the curve. The sample was re-analyzed at a dilution. Aroclor 1260 was "R" flagged in the original data to denote the value reported was not used. The reanalysis data for aroclor 1260 were acceptable. All other aroclors in the re-analysis were "R" flagged to denote that these data were not used; the original run contained more technically valid data.
- Sample DSI06-SO-A was analyzed at a dilution, which resulted in raised reporting limits.
- Sample MW-5-GW-060929 was analyzed at a three times dilution, which raised the reporting limit.

- Sample MW-4-GW-060929 had naphthalene, 2-methylnaphthalene, acenaphthene, and fluorene above the linear range of the curve. The sample was re-analyzed at a dilution. The four analytes were "R" flagged in the original data to denote the value reported was not used. The re-analysis data for the four analytes were acceptable. All other analytes in the re-analysis were "R" flagged to denote that these data were not used; the original run contained more technically valid data.
- Sample DSI22-CB-060929 had a failed closing calibration for several pesticides. The sample was re-analyzed at a 10 times dilution which raised the reporting limit. The sample can be reported from the original analysis with qualification.
- Sample DSI22-CB-060929 was originally analyzed undiluted and the internal standards failed. The sample was re-analyzed at a 20 times dilution with raised reporting limits.
- Sample DSI22-CB-060929 was originally analyzed undiluted on 10/20/06 and bis(2-ethylhexyl)phthalate was above the linear range of the curve. The sample was diluted and re-analyzed for the analyte. Data from the original analysis were reported from the original run and bis(2-ethylhexyl)phthalate was reported from the dilution run.
- Sample DSI22-CB-060929 was originally analyzed undiluted on 10/20/06 and reanalyzed at a 10 times dilution on 10/25/06. The associated MS/MSD failed. The
 sample was re-extracted using less sample outside the holding time. The reextracted sample has raised reporting limits. Data from this analysis were not
 reported.

Calibrations

All calibrations were performed within the method specified criteria with the following exceptions:

- The VOC continuing calibration (JY55) performed on 10/10/06 contained carbon disulfide at 23.2 percent different (%D), trans-1,2-dichloroethene at 26.4%D, and n-butylbenzene at 26.5%D. The method allows for up to two analytes to fail the ± 25%D as long as they are below 40%D. No qualification was made to the associated data based on this finding.
- The VOC continuing calibration (JY67) contained carbon disulfide at 20.7%D. No qualification was made to the associated data based on this finding.

- Closing continuing calibration for aroclor 1260 analysis (JY67, JY55) was outside criteria high. All associated samples were non-detect. Associated samples were qualified as "UJ" for aroclor 1260 to indicate the values reported are estimated.
- The closing continuing calibration for the organochlorine pesticide analysis in JZ00 was outside method criteria for aldrin, heptachlor epoxide, endosulfan I, dieldrin, 4,4'-DDE, endrin aldehyde, gamma chlorodane, and alpha chlorodane. The associated data were all non-detect for the analytes of interest. The data were qualified as "UJ" to indicate the results are non-detect and estimated. The sample was re-analyzed at 10 times dilution with acceptable closing calibrations.

Overall Assessment

The data are judged to be acceptable for their intended use as qualified in Table 2 below.

Precision, Accuracy, and Completeness

Precision: All precision goals were met. Accuracy: All accuracy goals were met.

Completeness: Completeness was 100 percent for all data.

Table 2
Data Qualifiers

Analyte	Sample ID	Original Result	Qualified Result	Reason
Methylene chloride	DSI01-SO-A	2.1 B	2.1 U	Method blank contamination
Methylene chloride	DSI01-SO-B	2.6 B	2.6 U	Method blank contamination
Acetone	DSI03-SO-B	41 B	41 U	Method blank contamination
Acetone	DSI04-SO-B	29 B	29 U	Method blank contamination
Methylene chloride	DSI04-SO-B	2.2	2.2 U	Method blank contamination
All analytes	DSI05-SO-A RE	-	R	Reanalysis confirmed original data – data were qualified as "R" to distinguish from the more technically valid original run
Acetone	DSI05-SO-A	51 B	51 U	Method blank contamination
Bromoform	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
1,1,2,2-tetrachloroethane	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
1,2-dichlorobenzene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
1,3-dichlorobenzene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
1,4-dichlorobenzene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
1,1,1,2-tetrachloroethane	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low

Table 2
Data Qualifiers

Analyte	Sample ID	Original Result	Qualified Result	Reason
1,2-dibromo-3-chloropropane	DSI05-SO-A	6.4 U	6.4 UJ	Internal standard low
1,2,3-trichloropropane	DSI05-SO-A	2.5 U	2.5 UJ	Internal standard low
1,3,5-trimethylbenzene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
1,2,4-trimethylbenzene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
Hexachlorobutadiene	DSI05-SO-A	6.4 U	6.4 UJ	Internal standard low
Isopropylbenzene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
n-propylbenzene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
Bromobenzene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
2-chlorotoluene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
4-chlorotoluene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
tert-butylbenzene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
sec-butylbenzene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
4-isopropyltoluene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
n-butylbenzene	DSI05-SO-A	1.3 U	1.3 UJ	Internal standard low
1,2,4-trichlorobenzene	DSI05-SO-A	6.4 U	6.4 UJ	Internal standard low
Naphthalene	DSI05-SO-A	6.4 U	6.4 UJ	Internal standard low
1,2,3-trichlorobenzene	DSI05-SO-A	6.4 U	6.4 UJ	Internal standard low
Methylene chloride	DSI06-SO-B	2.5 B	2.5 U	Method blank contamination
Phenanthrene	DSI02-SO-B	410	410 J	Matrix spike outside criteria
Chrysene	DSI02-SO-B	140	140 J	Matrix spike outside criteria
Benzo(k)fluoranthene	DSI02-SO-B	90	90 J	Matrix spike outside criteria
All analytes	DSI03-SO-B	-	R	Data were qualified as "R" to distinguish from the more technically valid re-extracted run with surrogates within control
All analytes	DSI05-SO-B	-	R	Data were qualified as "R" to distinguish from the more technically valid re-extracted run with surrogates within control
2-methylnaphthalene	DSI01-GW	0.01 B	0.01 U	Method blank contamination
2-methylnaphthalene	DSI02-GW	0.07 B	0.07 U	Method blank contamination
2-methylnaphthalene	DSI04-GW	0.02 B	0.02 U	Method blank contamination
2-methylnaphthalene	DSI06-GW	0.06 B	0.06 U	Method blank contamination
Aroclor 1260	DSI03-SO-A	260 E	260 R	Data were qualified as "R" to distinguish from the more technically valid re-extracted analysis

Analyte	Sample ID	Original Result	Qualified Result	Reason
Aroclor 1016, 1242, 1248, 1254, 1221, 1232	DSI03-SO-ARE	48 U	48 R	Data were qualified as "R" to distinguish from the more technically valid original analysis
Arsenic	DSI01-SO-A	48.1	48.1 J	Matrix spike recovery low
Copper	DSI01-SO-A	103	103 J	Matrix duplicate recovery high, matrix duplicate RPD out
Lead	DSI01-SO-A	36	36 J	Matrix duplicate RPD out
Chromium	DSI01-GW	0.2 U	0.2 UJ	Matrix spike recovery low
Silver	DSI01-GW	0.2	0.2 J	Matrix spike recovery low
Dissolved chromium	DSI01-GW	0.5 U	0.5 UJ	Matrix spike recovery low
Hexavalent chromium	DSI01-SO-A	0.125 U	0.125 UJ	Matrix spike recovery low
Naphthalene	MW-4-GW- 060929	3.3 E	3.3 R	Data were qualified as "R" to distinguish from the more technically valid re-extracted analysis
2-methylnaphthalene	MW-4-GW- 060929	1.5 E	1.5 R	Data were qualified as "R" to distinguish from the more technically valid re-extracted analysis
Acenaphthene	MW-4-GW- 060929	2.2 E	2.2 R	Data were qualified as "R" to distinguish from the more technically valid re-extracted analysis
Fluorene	MW-4-GW- 060929	1.5 E	1.5 R	Data were qualified as "R" to distinguish from the more technically valid re-extracted analysis
Acenaphthylene	MW-4-GW- 060929 RE	0.10	0.10 R	Data were qualified as "R" to distinguish from the more technically valid original analysis
Phenanthrene, Anthracene, fluoranthene, pyrene, chrysene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene, dibenzofuran	MW-4-GW- 060929 RE	-	R	Data were qualified as "R" to distinguish from the more technically valid original analysis
Aroclors 1016, 1242, 1248, 1254, 1260, 1221, 1232	MW-5-GW- 060929	0.020 U	0.020 UJ	Low surrogate recoveries
1,2,4-trimethylbenzene	DSI07-SO-A	240 E	240 R	Over linear range of curve

Analyte	Sample ID	Original Result	Qualified Result	Reason
All analytes except 1,2,4- trimethylbenzene	DSI07-SO-A RE	-	R	Data were qualified as "R" to distinguish from the more technically valid re-extracted analysis
1,2,4-trimethylbenzene	DSI09-SO-B	1.4	1.4 J-	Estimated low due to low internal standard recovery
Dibromochloromethane, bromoform, 2-hexanone, tetrachloroethene, 1,1,2,2-terachloroethane,ethylbenzene, styrene,m,p,o-xylene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4,-dichlorobenzene, 1,1,1,2-tetrachloroethane, 1,2-dibromo-3-chloropropane, 1,2,3-trichlorobenzene, hexachlorobutadiene, 1,3-dichlorobenzene, hexachlorobutadiene, 1,3-dichloropropane, isopropylbenzene, propylbenzene, bromobenzene, 2-chlorotoluene, 4-chlorotoluene, tert-butylbenzene, secbutylbenzene, 4-isopropyltoluene, n-butylbenzene, 1,2,4-trichlorobenzene,naphthalene, 1,2,3-trichlorobenzene	DSI09-SO-B	U	UJ-	Estimated low to due low internal standard recovery (3,4)
All VOC analytes	DSI09-SO-B RE		UJ-	Data not used as original run contained more technically valid data
All VOC analytes	DSI10-SO-B	-	R	Report data from the re- analysis with acceptable surrogate recoveries
All VOC analytes	DSI11-SO-A	-	R	Data not used as re-analysis run contained more technically valid data
All VOC analytes	DSI12-SO-B RE	-	R	The original analysis contained one surrogate at the recovery limit; sample was re-analyzed with two surrogates outside the control limit. Data were not reported.
Benzene	DSI07-GW	50 ES	50 R	Over linear range of curve
1,2,4-trimethylbenzene	DSI07-GW	22 E	22 R	Over linear range of curve
Isopropylbenzene	DSI07-GW	21 E	21 R	Over linear range of curve
n-Propylbenzene	DSI07-GW	29 ES	29 E	Over linear range of curve

Analyte	Sample ID	Original Result	Qualified Result	Reason
All VOC analytes except Benzene, 1,2,4- trimethylbenzene, Isopropylbenzene, n- Propylbenzene	DSI07-GW RE	-	R	Data not used as original analysis run contained more technically valid data
Benzene	DSI57-GW	53 ES	53 R	Over linear range of curve
1,2,4-trimethylbenzene	DSI57-GW	20 E	20 R	Over linear range of curve
Isopropylbenzene	DSI57-GW	21 E	21 R	Over linear range of curve
n-Propylbenzene	DSI57-GW	29 ES	29 R	Over linear range of curve
All VOC analytes except Benzene, 1,2,4- trimethylbenzene, Isopropylbenzene, n- Propylbenzene	DSI57-GW RE	-	R	Data not used as original analysis run contained more technically valid data
Acetone	DSI10-SO-B	35	35 U	Analyte detected in method blank
Acetone	DSI12-SO-B	43	43 U	Analyte detected in method blank
All PAH analytes	DSI09-SO-B RE	-	R	Data not used as original analysis run contained more technically valid data
Pyrene	DSI12-SO-A	3900 E	3900 R	Over linear range of curve
All PAH analytes except Pyrene	DSI12-SO-A RE	-	R	Data not used as original analysis run contained more technically valid data
Pyrene	DSI12-SO-B	7200 E	7200 R	Over linear range of curve
Fluoranthene	DSI12-SO-B	4600 E	4600 R	Over linear range of curve
Chrysene	DSI12-SO-B	5700 E	5700 R	Over linear range of curve
Benzo(k)fluoranthene	DSI12-SO-B	3900 E	3900 R	Over linear range of curve
Benzo(a)pyrene	DSI12-SO-B	5800 E	5800 R	Over linear range of curve
All PAH analytes except Pyrene, Fluoranthene, Chrysene, Benzo(k)fluoranthene, Benzo(a)pyrene	DSI12-SO-B RE	-	R	Data not used as original analysis run contained more technically valid data
Naphthalene	DSI07-GW	1.5 E	1.5 R	Over linear range of curve
2-methylnaphthalene	DSI07-GW	6.5 E	6.5 R	Over linear range of curve
All PAH analytes except naphthalene and 2- methylnaphthalene	DSI07-GW RE	-	R	Data not used as original analysis run contained more technically valid data
2-methylnaphthalene	DSI08-GW	0.06 B	0.06 U	Method blank contamination
2-methylnaphthalene	DSI09-GW	0.08 B	0.08 U	Method blank contamination
2-methylnaphthalene	DSI10-GW	0.06 B	0.06 U	Method blank contamination
2-methylnaphthalene	DSI11-GW	0.07 B	0.07 U	Method blank contamination
2-methylnaphthalene	DSI08-GW	0.06 B	0.06 U	Method blank contamination

Table 2
Data Qualifiers

Analyte	Sample ID	Original Result	Qualified Result	Reason
Naphthalene	DSI57-GW	1.6 E	1.6 R	Over linear range of curve
2-methylnaphthalene	DSI57-GW	7.8 E	7.8 R	Over linear range of curve
All PAH analytes except naphthalene and 2- methylnaphthalene	DSI57-GW RE	-	R	Data not used as original analysis run contained more technically valid data
Phenanthrene	DSI12-GW	5.1 E	5.1 R	Over linear range of curve
Pyrene	DSI12-GW	7.8 E	7.8 R	Over linear range of curve
Fluoranthene	DSI12-GW	10 E	10 R	Over linear range of curve
All PAH analytes except Phenanthrene, pyrene, fluoranthene	DSI12-GW RE	-	R	Data not used as original analysis run contained more technically valid data.
All pesticide data	DSI11-SO-B RE	-	J	Re-extract ran outside the holding time
Aroclor 1260	DSI07-GW	0.020 U	0.020 UJ	Closing continuing calibration (ccal) outside criteria
Aroclor 1260	DSI06-GW	0.020 U	0.020 UJ	Closing ccal outside criteria
Aroclor 1260	DSI09-GW	0.020 U	0.020 UJ	Closing ccal outside criteria
Aroclor 1260	DSI57-GW	0.020 U	0.020 UJ	Closing ccal outside criteria
Aroclor 1260	DSI10-GW	0.020 U	0.020 UJ	Closing ccal outside criteria
Aroclor 1260	DSI11-GW	0.020 U	0.020 UJ	Closing ccal outside criteria
Aroclor 1260	DSI12-GW	0.020 U	0.020 UJ	Closing ccal outside criteria
Arsenic	DSI07-SO-A	4.3	4.3 J	Lab duplicate RPD out
Copper	DSI07-SO-A	52.1	52.1 J	Lab duplicate RPD out
Lead	DSI07-SO-A	11	11 J	Lab duplicate RPD out
Mercury	DSI07-SO-A	0.72	0.72 J	Lab duplicate RPD out, low MS recovery
Hexavalent chromium	DSI07-SO-A	0.150 U	0.150 UJ	Low MS recovery
Hexavalent chromium	DSI07-SO-B	0.115 U	0.115 UJ	Low MS recovery
Hexavalent chromium	DSI08-SO-A	0.160 U	0.160 UJ	Low MS recovery
Hexavalent chromium	DSI08-SO-B	0.116 U	0.116 UJ	Low MS recovery
Hexavalent chromium	DSI09-SO-A	0.117 U	0.117 UJ	Low MS recovery
Hexavalent chromium	DSI09-SO-B	0.124 U	0.124 UJ	Low MS recovery
Hexavalent chromium	DSI10-SO-A	0.157 U	0.157 UJ	Low MS recovery
Hexavalent chromium	DSI10-SO-B	0.117 U	0.117 UJ	Low MS recovery
Hexavalent chromium	DSI11-SO-A	2.05 U	2.05 UJ	Low MS recovery
Hexavalent chromium	DSI11-SO-B	0.120 U	0.120 UJ	Low MS recovery
Hexavalent chromium	DSI12-SO-A	0.125 U	0.125 UJ	Low MS recovery
Hexavalent chromium	DSI12-SO-B	0.123 U	0.123 UJ	Low MS recovery
Hexavalent chromium	DSI01-SO-A	0.125 U	0.125 UJ	Low MS recovery
Hexavalent chromium	DSI01-SO-B	0.135 U	0.135 UJ	Low MS recovery
Hexavalent chromium	DSI02-SO-A	0.116 U	0.116 UJ	Low MS recovery

Table 2
Data Qualifiers

Analyte	Sample ID	Original Result	Qualified Result	Reason
Hexavalent chromium	DSI02-SO-B	0.140 U	0.140 UJ	Low MS recovery
Hexavalent chromium	DSI03-SO-A	0.111 U	0.111 UJ	Low MS recovery
Hexavalent chromium	DSI03-SO-B	0.126 U	0.126 UJ	Low MS recovery
Hexavalent chromium	DSI04-SO-A	0.151 U	0.151 UJ	Low MS recovery
Hexavalent chromium	DSI04-SO-B	0.127 U	0.127 UJ	Low MS recovery
Hexavalent chromium	DSI05-SO-A	0.142 U	0.142 UJ	Low MS recovery
Hexavalent chromium	DSI05-SO-B	0.127 U	0.127 UJ	Low MS recovery
Hexavalent chromium	DSI06-SO-A	0.143 U	0.143 UJ	Low MS recovery
Hexavalent chromium	DSI06-SO-B	0.120 U	0.120 UJ	Low MS recovery
Aroclor 1260	DSI01-SO-A	43	43 J	Closing ccal outside criteria
Aroclor 1260	DSI01-SO-B	10 J	10 J	Closing ccal outside criteria
Aroclor 1260	DSI02-SO-A	9.7	9.7 UJ	Closing ccal outside criteria
Aroclor 1260	DSI02-SO-B	9.7	9.7 UJ	Closing ccal outside criteria
Aroclor 1260	DSI03-SO-A	300	300 J	Closing ccal outside criteria
Aroclor 1260	DSI03-SO-B	94	94 J	Closing ccal outside criteria
Aroclor 1260	DSI04-SO-A	9.6	9.6 J	Closing ccal outside criteria
Aroclor 1260	DSI04-SO-B	9.5	9.5 J	Closing ccal outside criteria
Aroclor 1260	DSI05-SO-A	46	46 J	Closing ccal outside criteria
Aroclor 1260	DSI05-SO-B	9.6	9.6 J	Closing ccal outside criteria
Aroclor 1260	DSI06-SO-A	9.7	9.7 J	Closing ccal outside criteria
Aroclor 1260	DSI06-SO-B	9.7	9.7 J	Closing ccal outside criteria
Aroclor 1260	DSI01-GW	0.020 U	0.020 UJ	Closing ccal outside criteria
Aroclor 1260	DSI02-GW	0.020 U	0.020 UJ	Closing ccal outside criteria
Aroclor 1260	DSI03-GW	0.020 U	0.020 UJ	Closing ccal outside criteria
Aroclor 1260	DSI04-GW	0.020 U	0.020 UJ	Closing ccal outside criteria
Aroclor 1260	DSI05-GW	0.020 U	0.020 UJ	Closing ccal outside criteria
Aroclor 1260	DSI06-GW	0.020 U	0.020 UJ	Closing ccal outside criteria
All analytes	DSI03-SO-3	-	R	Original data had low surrogate recoveries
All analytes	DSI05-SO-3	-	R	Original data had low surrogate recoveries
Naphthalene	MW-4-GW- 060929	3.3 E	3.3 E	Over linear range of curve
2-methylnaphthalene	MW-4-GW- 060929	1.5 E	1.5 E	Over linear range of curve
Acenaphthene	MW-4-GW- 060929	2.2 E	2.2 R	Over linear range of curve
Fluorene	MW-4-GW- 060929	1.5 E	1.5 R	Over linear range of curve

Analyte	Sample ID	Original Result	Qualified Result	Reason
All analytes except Naphthalene, 2- methylnaphthalene, Acenaphthene, Fluorene	MW-4-GW- 060929 RE	-	R	Data not used as original analysis run contained more technically valid data
Lead	DSI22-CB- 060929	350	350 J	MS recovery was low, lab duplicate RPD high
Arsenic	DSI22-CB- 060929	29.7	29.7	Lab duplicate RPD out
Aldrin	DSI22-CB- 060929	2.0 U	2.0 UJ	Closing calibration outside method criteria
Heptachlor epoxide	DSI22-CB- 060929	2.0 U	2.0 UJ	Closing calibration outside method criteria
Endosulfan I	DSI22-CB- 060929	2.0 U	2.0 UJ	Closing calibration outside method criteria
Dieldrin	DSI22-CB- 060929	4.0 U	4.0 UJ	Closing calibration outside method criteria
4,4'-DDE	DSI22-CB- 060929	4.0 U	4.0 UJ	Closing calibration outside method criteria
Endrin aldehyde	DSI22-CB- 060929	4.0 U	4.0 UJ	Closing calibration outside method criteria
Gamma chlorodane	DSI22-CB- 060929	150 U	150 UJ	Closing calibration outside method criteria
Alpha chlorodane	DSI22-CB- 060929	2.0 U	2.0 UJ	Closing calibration outside method criteria
All SVOC analytes from 11/6/06 data	DSI22-CB- 060929	-	J	Analyzed outside the holding time
Phenol	DSI22-CB- 060929	140 B	140 J	Poor MS/MSD recovery
1,3-dichlorobenzene	DSI22-CB- 060929	59 U	59 UJ	Poor MS/MSD recovery
Acenaphthene	DSI22-CB- 060929	740	740 J	Poor MS/MSD recovery
n-nitrosodiphenylamine	DSI22-CB- 060929	130 U	130 UJ	Poor MS/MSD recovery
Pentachlorophenol	DSI22-CB- 060929	290 U	290 UJ	Poor MS/MSD recovery
Pyrene	DSI22-CB- 060929	2600	2600 J	Poor MS/MSD recovery
Bis(2-ethylhexyl)phthalate	DSI22-CB- 060929	13000 E	13000 R	Over the linear range of the curve
All SVOC analytes except Bis(2-ethylhexyl)phthalate	DSI22-CB- 060929	-	R	Data not used as original analysis run contained more technically valid data

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ATTACHMENT 1 ANALYTICAL DATA REPORTS