

**Duwamish/Diagonal Sediment Remediation Project**  
**2006/2007 Monitoring Report**

**Elliott Bay/Duwamish Restoration Program Panel**

**Prepared for:**  
**King County Department of Natural Resources and Parks**  
**Elliott Bay/Duwamish Restoration Program**

**Prepared by:**  
**King County Department of Natural Resources and Parks**  
**Anchor Environmental, L.L.C.**

**Panel Publication 41**

**December 2008**

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**December 2008**

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The Panel of Managers holds regularly scheduled meetings that are open to the public. Technical Working Group and committee meetings are scheduled on an as-needed basis, and are also open to the public. Meetings are generally held at the National Oceanic and Atmospheric Administration, National Marine Fisheries Service – Regional Directorate Conference Room, Building 1, 7600 Sand Point Way NE, Seattle. The Panel recommends that you contact the Administrative Director at the above phone number to confirm meeting schedules and locations. The panel also holds periodic special evening and weekend public information meetings and workshops.

General Schedule for Panel and Committee Meeting Dates

Panel: quarterly, first Thursday of January, April, July, October, 9:30 A.M. – 12:30 P.M.  
Habitat Development Technical Working Group: third Thursday of every month, 9:30 A.M. – 12:30 P.M.  
Sediment Remediation Technical Working Group: scheduled as needed.  
Public Participation Committee: scheduled as needed.  
Budget Committee: scheduled as needed.

Environmental Review of Specific Products

Formal hearings and comment periods on appropriate environmental documents for proposed sediment remediation and habitat development projects will be observed. Please contact the Administrative Director for more information.

This information is available in accessible formats on request at  
(206) 296-0600 (voice) and 1-800-833-6388 (TTY/TDD users only).

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# 1.0. INTRODUCTION

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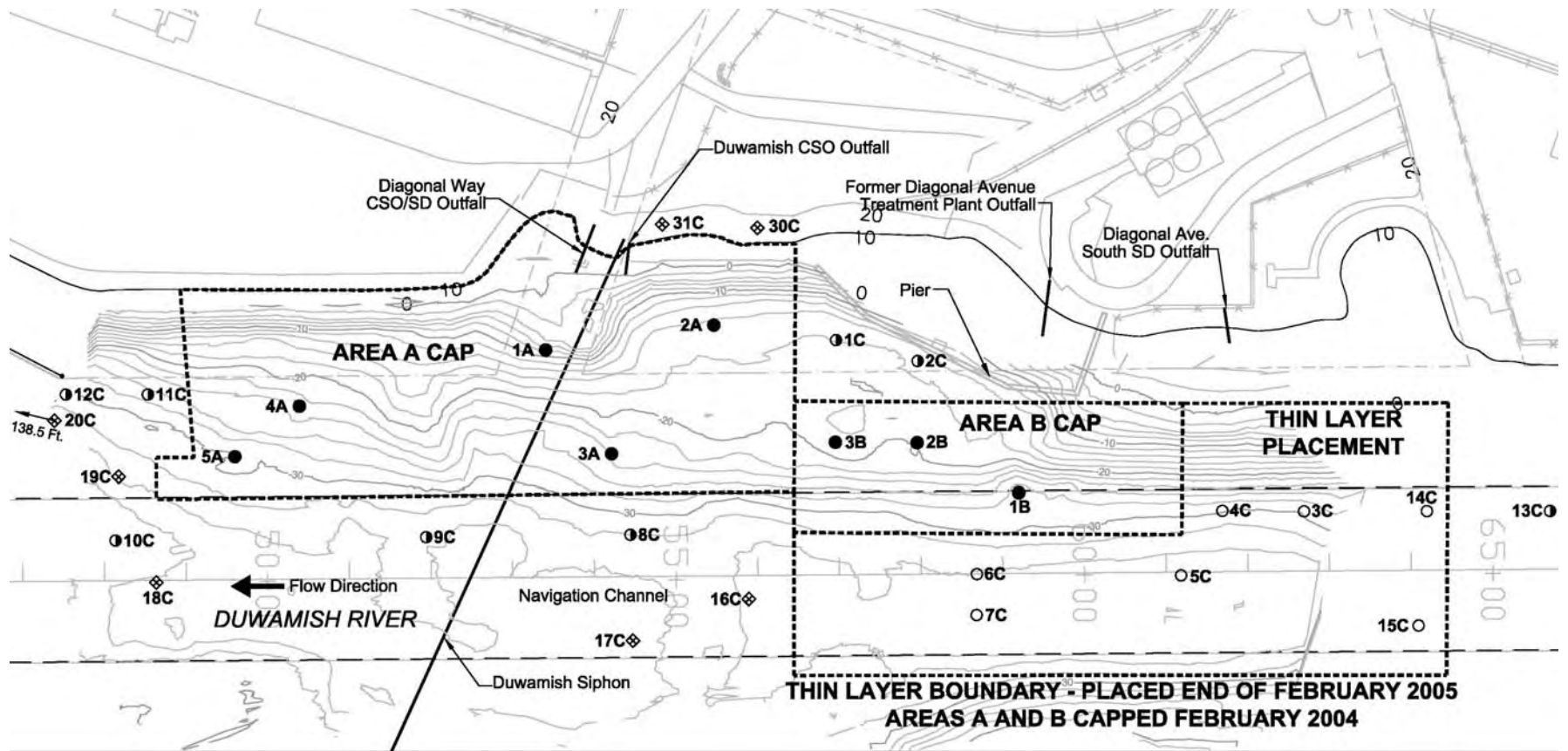
This report presents results of the 2006 and 2007 annual monitoring events for the Duwamish/Diagonal Combined Sewer Overflow (CSO)/Storm Drain (SD) sediment remediation project. The report includes a project background, descriptions of sampling and analytical methodologies, and results of sediment chemistry analyses. Appendices to the report include complete sediment chemistry results, quality assurance reviews of the chemistry data, and a memo on diver sample collection techniques. This work was performed in accordance with regulatory requirements outlined in the monitoring plan and detailed in the project Duwamish/Diagonal Sediment Remediation Dredging and Capping Operations Sediment Monitoring Sampling and Analysis Plan (SAP) (King County 2003).

This section provides project background and the station sampling history of the project. Section 2.0 includes summaries of the sample collection and analytical methods, laboratory quality assurance and quality control (QA/QC) review, and deviations from the Sampling and Analysis Plan (SAP). The results of the 2006 and 2007 monitoring activities are presented in Section 3.0 and Section 4.0 provides a report summary.

## 1.1 Project Background

Between November 2003 and March 2004, the Elliott Bay/Duwamish Restoration Program (EBDRP) implemented the Duwamish/Diagonal Sediment Remediation Project in the vicinity of the Duwamish/Diagonal CSO/SD (Figure 1). The Closure Report (EBDRP 2005) describes dredging, transport, disposal, and capping methods employed for the 2003/2004 project, the objective of which was to remediate contaminated sediment within a 7-acre area immediately adjacent to the Duwamish/Diagonal CSO/SD and the old Duwamish Treatment Plant outfall (denoted in EBDRP 2005 as Areas A and B, respectively). The 2003/2004 project included removal of three to five feet of contaminated sediments from Areas A and B from November 2003 to January 2004 and placement of an effective capping layer during January-February 2004, to isolate remaining chemicals from the environment and return the site to approximately the bottom elevations that existed prior to dredging. Baseline, post-construction sediment chemistry samples were collected from eight stations on the cap in Areas A and B in June 2004. These stations are shown on Figure 1 as 1A-5A and 1B-3B.

Sediment dredging residuals are defined as contaminated sediments found at the post-dredging surface of the sediment profile, either within or around the dredging footprint (Bridges et al. 2008). Some form of dredging residuals could be expected to occur at most sediment cleanup sites; however, the magnitude of release varies widely between projects based on a range of site-specific and operational factors (Desrosiers et al. 2005, EPA 2005, NRC 2007). Both the Washington State Department of Ecology (Ecology) and the United States Environmental Protection Agency (EPA) required King County to monitor for movement of dredging residuals beyond the site boundary by measuring the pre-construction and post-construction sediment chemistry at 12 perimeter stations outside the 2003/2004 dredging/capping project boundary, that had first been sampled in October 2003 prior to dredging (EBDRP 2005). These stations are shown in Figure 1 as 1C-12C.



**Legend**

- 1A ●** Cap Monitoring Stations
- 14C ○** ENR Monitoring Stations
- 1C ○** Perimeter Monitoring Stations
- 16C ◇** Additional Characterization Stations

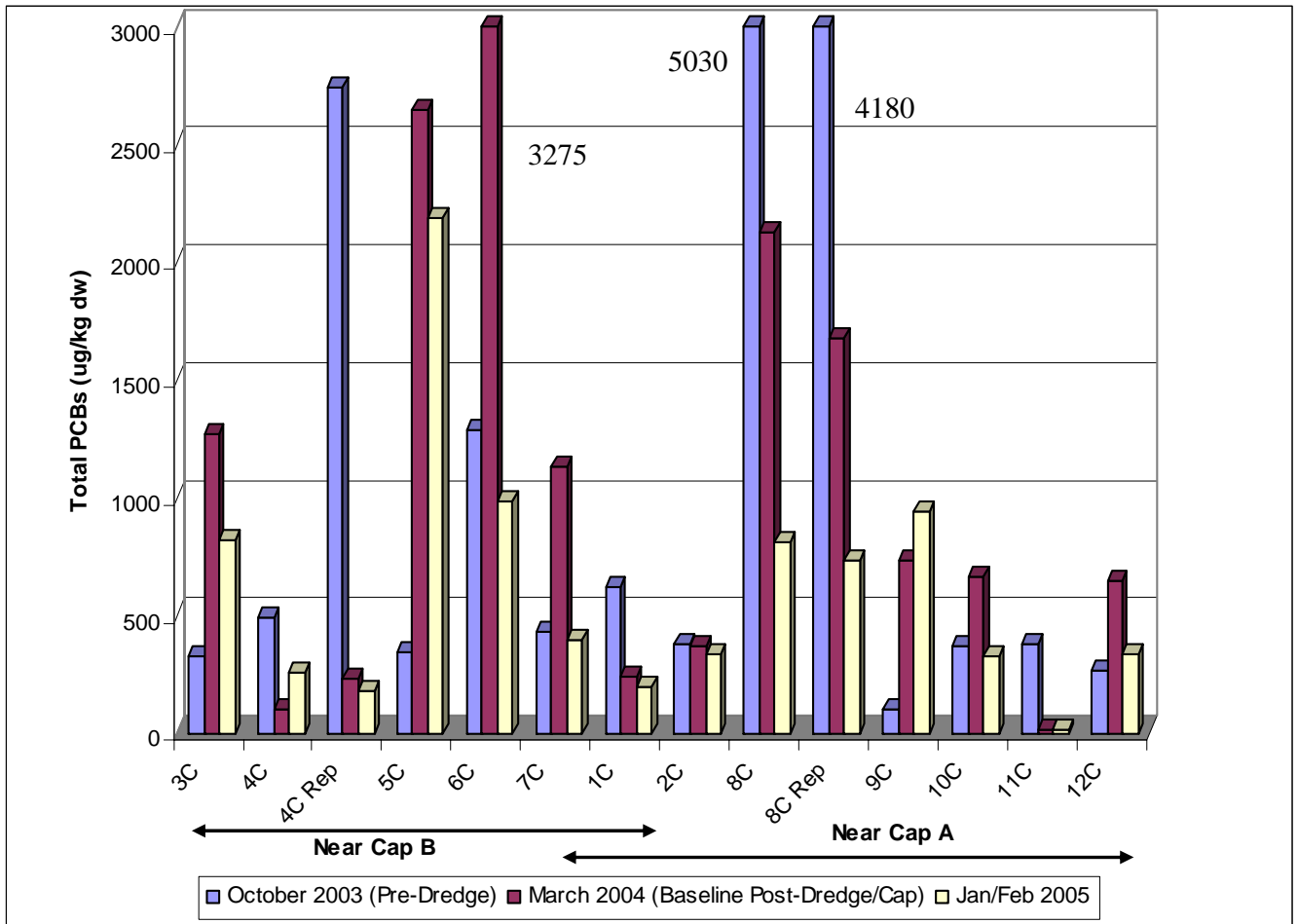
**Notes:**

1. Stations 3C-7C were perimeter stations prior to thin layer placement.
2. 30C and 31C are bank soil stations.



**Figure 1. Duwamish Diagonal Site and Monitoring Stations**

Analysis of the March 2004 sampling data from the perimeter stations revealed that 2003/2004 project dredging activities had increased surface sediment concentrations of polychlorinated biphenyls (PCBs) around the margin of Area B to a higher degree than dredging residuals adjacent to Area A (Figure 2). The occurrence of a greater amount of dredging residuals near Area B was consistent with the contractor's initial operations in this area that did not consistently apply required best management practices (BMPs) to minimize spread of dredging residuals. As a result, King County examined six prospective remedial actions to reduce elevated PCB levels caused by the dredging residuals. After consultation with Ecology and EPA, King County selected the thin layer placement remedy, also known as Enhanced Natural Recovery (ENR), as the best way to reduce the elevated PCB levels within the 4-acre dredge residual area around Area B in the most expedient manner possible.



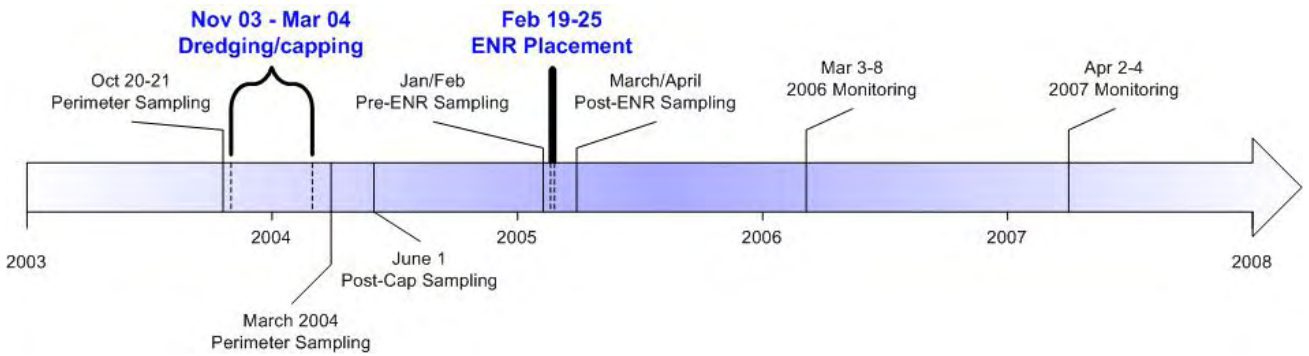
**Figure 2. Changes in PCB Concentrations at Duwamish Diagonal Perimeter Stations (2003-2005)**

The thin layer placement remedy involved the placement of clean sand material to a minimum thickness of six inches over a 4-acre area (Figure 1) of dredging residuals to immediately reduce exposure to elevated PCB levels and accelerate the natural recovery timeframe in this area. To ensure the minimum thickness of six inches, the design called for placing 7,100 tons of sand, which would yield an average thickness of nine inches, to help



ensure that the entire 4-acre ENR area would receive at least six inches of cover material. Over time, the natural process of bioturbation is expected to mix clean sediment into underlying sediment containing PCBs. Monitoring would continue to be performed to document the effectiveness of the thin-layer placement and bioturbation process and to compare it to natural recovery rates in the area surrounding Area A, which had significantly lower dredge residuals.

Placement of the ENR sand occurred between February 19 and 25, 2005. Samples were collected for Year 2005 monitoring in January, prior to placement including Perimeter stations 1C-12C. Additional stations were added to this sampling to improve the general characterization of the area post remediation at EPA’s request (13C-20C and bank stations 30C-31C – see Figure 1). Baseline sediment chemistry samples were then collected from seven stations within the ENR area in March 2005, five of which were the pre-existing stations 3C-7C and two of which were new stations added for spatial coverage (14C-15C). The major project events are presented on a timeline in Figure 3.



**Figure 3. Duwamish Diagonal Project Timeline**

Sediment monitoring requirements for the Duwamish/Diagonal Sediment Remediation Project are described in the initial SAP (King County 2003) as well as the SAP addendum prepared to cover monitoring activities for the ENR area (King County 2004). The baseline post-capping data was presented in the Duwamish/Diagonal CSO/SD Sediment Remediation Project Closure Report (EBDRP 2005), the 2005 Monitoring Report (EBDRP 2007) and the 4-Acre Residuals Interim Action Closure Report (King County 2007)

## 1.2 Stations Sampled During the 2006 and 2007 Monitoring Events

Sediment samples were collected in both 2006 and 2007 from a total of 23 stations in four monitoring areas at the Duwamish/Diagonal site: Sediment Cap Area A, Sediment Cap Area B, the Enhanced Natural Recovery (ENR) area, and from perimeter stations outside the areas of remediation and ENR. Figure 1 presents the locations of the 23 monitoring stations described in the following sections.

### 1.2.1 Sediment Cap Area A

Samples were collected from five stations in Sediment Cap Area A in both 2006 and 2007, which represented years two and three of post-construction monitoring, respectively. Table 1 provides the stations and history of sample collection dates.

**Table 1. Sample Dates for Sediment Cap Area A Stations**

Station	2004 - Baseline	2005 – Year One	2006 – Year Two	2007 – Year Three
DUD_1A	06/01/2004	04/27/2005	03/07/2006	04/03/2007
DUD_2A	06/01/2004	04/27/2005	03/07/2006	04/03/2007
DUD_3A	--	04/27/2005	03/07/2006	04/03/2007
DUD_4A	06/01/2004	04/27/2005	03/07/2006	04/03/2007
DUD_5A	06/01/2004	04/27/2005	03/07/2006	04/03/2007

A baseline sediment sample was not collected from Station DUD\_3A in 2004 because only coarse gravel was found during repeated attempts to sample this location; thus, precluding the ability to run sediment chemistry analyses.

### 1.2.2 Sediment Cap Area B

Samples were collected from three stations in Sediment Cap Area B in both 2006 and 2007, which also represented years two and three of post-construction monitoring, respectively. Table 2 provides the stations and history of sample collection dates.

**Table 2. Sample Dates for Sediment Cap Area B Stations**

Station	2004 - Baseline	2005 – Year One	2006 – Year Two	2007 – Year Three
DUD_1B	06/01/2004	04/27/2005	03/07/2006	04/03/2007
DUD_2B	06/01/2004	08/17/2005	03/07/2006	04/03/2007
DUD_3B	06/01/2004	--	03/07/2006	04/03/2007

Note: Coarse gravel at 2B required repeated sampling in Year One with success in August 2005

A year one sediment sample was not collected from Station DUD\_3B in 2005 because only coarse gravel was found during repeated attempts to sample this location; thus, precluding the ability to run sediment chemistry analyses.

### 1.2.3 Enhanced Natural Recovery (ENR) Area

Samples were collected from seven stations in the ENR area in both 2006 and 2007, which represented years one and two of post-construction monitoring for the thin-layer placement, respectively. Table 3 provides the stations and history of sample collection dates.

**Table 3. Sample Dates for ENR Stations**

Station	2005 – Baseline	2006 – Year One	2007 – Year Two
DUD_3C	03/16/2005	03/10/2006	04/03/2007
DUD_4C	03/16/2005	03/10/2006	04/03/2007
DUD_5C	03/24/2005	03/10/2006	04/03/2007
DUD_6C	03/24/2005	03/10/2006	04/03/2007
DUD_7C	03/24/2005	03/10/2006	04/04/2007
DUD_14C	03/16/2005	03/10/2006	04/04/2007
DUD_15C	03/16/2005	03/10/2006	04/04/2007

#### 1.2.4 Perimeter Stations

Samples were collected from eight perimeter stations in both 2006 and 2007, which represents years two and three post-construction monitoring for the cap at seven of eight stations, all located outside of the remedial areas. Unlike the Cap and ENR monitoring stations, monitoring dates beginning prior to the remedial action are included in this table. Station DUD\_13C was added to the monitoring program in 2005 to represent conditions upstream of the ENR area. Table 4 provides the stations and history of sample collection dates.

**Table 4. Sample Dates for Perimeter Stations**

Station	2003 – Pre-Construction	2004 - Baseline	2005 – Year One	2006 – Year Two	2007 – Year Three
DUD_1C	10/20/2003	03/29/2004	02/01/2005	03/08/2006	04/02/2007
DUD_2C	10/20/2003	03/29/2004	01/31/2005	03/08/2006	04/02/2007
DUD_8C	10/21/2003	03/30/2004	02/01/2005	03/08/2006	04/02/2007
DUD_9C	10/21/2003	03/30/2004	01/31/2005	03/08/2006	04/02/2007
DUD_10C	10/21/2003	03/30/2004	02/01/2005	03/08/2006	04/02/2007
DUD_11C	10/21/2003	03/30/2004	02/01/2005	03/09/2006	04/02/2007
DUD_12C	10/21/2003	03/30/2004	02/02/2005	03/09/2006	04/02/2007
DUD_13C	--	--	02/02/2005	03/09/2006	04/04/2007

## 2.0. SAMPLE COLLECTION AND ANALYSIS

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This section describes the methods employed to collect representative sediment samples from the Duwamish/Diagonal sediment remediation site and analyze them for sediment chemistry parameters. A discussion of laboratory QA/QC review and deviations from the SAP are also presented.

### 2.1 Sample Collection

In both 2006 and 2007, 26 samples (including field replicates) were collected from 23 stations located in Sediment Cap Areas A and B, the ENR area, and from perimeter stations. One field replicate sample was collected from each of the three monitoring areas. All sample collection followed protocols outlined in the Puget Sound Estuary Program's (PSEP) Puget Sound Protocols (PSEP 1997a, 1998). This section summarizes the sample collection and handling methods and details can be found in the project Sampling and Analysis Plan (King County 2003). Most samples were collected according to the SAP methods outlined in Section 2.1.1 and 2.1.2. However, within the ENR area, divers collected samples in 2006 as outlined in Section 2.1.3.

#### 2.1.1 Station Positioning

Sediment grab samples were collected from King County's research vessel *Liberty*, which is equipped with a differential global positioning system (DGPS). Field coordinates were recorded using DGPS for each sediment grab as the sampler contacted the sediment bed. When divers collected samples, a buoy was dropped to mark the station located by the boat DGPS and the divers sampled at the buoy. Coordinates for each grab deployment are shown in Appendix A and are compared to the prescribed study coordinates.

#### 2.1.2 Sample Collection and Handling

Sediment was obtained using two modified, stainless steel, 0.1 m<sup>2</sup> Van Veen grab samplers deployed in tandem from King County's research vessel *Liberty*. A single deployment of the tandem Van Veen grab samplers was considered "two grabs" when both of the grabs returned an acceptable sample. The number of grabs varied depending on the area sampled but followed the original SAP requirements. A summary of the number of grabs obtained at each station is provided in Appendix A. The details of sample collection are described below.

Sediment chemistry samples were prescribed to be collected from the top 10 cm of sediment and required a minimum grab penetration depth of 11 cm to ensure that sediment was extracted from the most undisturbed center portion of each grab without collecting sediment that had touched the sides of the grab. This was not always possible given the substrate in the sediment cap and ENR areas. When penetration depth was less than 10 cm, sediment was sampled to a depth of 1 cm from the bottom of the grab. Penetration depth was determined by measuring the depth of sediment within each grab by sliding a ruler vertically along the

inside of the sampler's side wall after each successful cast. Penetration depth, recorded as "Sample Depth" (see Appendix A), indicated that the minimum required depth was not recovered for all samples to return a 0- to 10-cm depth stratum sample.

Undisturbed sediments in the grab were collected with a stainless steel spoon and then placed in a stainless steel bowl for homogenization. Prior to homogenization, collected sediment was stored covered with aluminum foil in coolers between grab deployments. After thorough homogenization, sediment aliquots were transferred to appropriate laboratory containers.

Head space was left in all sediment chemistry sample containers to allow further mixing at the laboratory and for expansion should the containers be stored frozen. All sample containers were stored in insulated, ice-filled coolers while in the field.

The grab samplers were decontaminated between sampling stations by scrubbing with a brush and Detergent 8 (a phosphate-free soap) followed by a thorough *in situ* rinsing. A separate pre-cleaned stainless steel bowl and spoon were dedicated to each sampling station, precluding the need for decontamination of this equipment in the field.

While in the field, all samples were under direct possession and control of King County field staff. For chain of custody (COC) purposes, the research vessel was considered a "controlled area." Each day, all sample information was recorded on a COC form. This form was completed in the field and accompanied all samples during transport and delivery to the laboratory each day. Upon arrival at the King County Environmental Laboratory (KCEL), the sample delivery person relinquished all samples to the sample login person. The date and time of sample delivery was recorded and both parties then signed off in the appropriate sections on the COC form. Once completed, original COC forms were archived in the project file. Copies of all completed COC forms are included in Appendix A.

### 2.1.3 Diver-Collected Samples

Sediment samples were collected using SCUBA divers during the 2005 and 2006 monitoring event at the seven stations in the ENR area – 3C, 4C, 5C, 6C, 7C, 14C, and 15C<sup>1</sup>. This deviation from the SAP was made because divers during the thin layer placement noted depressions in the sand left by spuds and to avoid these during monitoring sample collection, divers were deployed in 2005 to guide the sampler. During the 2006 sampling event, divers noted that only one slight depression from a spud hole was still visible (Appendix B). Thus, subsequent sampling in 2007 adhered to the original SAP method of Van Veen sampler and divers were discontinued. In 2006, samples were collected by divers deployed from the Research Support Services vessel on March 10. The samples were collected using a 6-inch diameter, 10-centimeter deep stainless steel sampler. Only one grab was used per sample to limit the descent frequency and ensure diver safety. There were no other deviations from sampling protocol.

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<sup>1</sup> Note that monitoring stations are formally designated DUD\_1A, DUD\_1C, etc., and are listed as such in the tables in Appendix A and any laboratory reports. Throughout the text in this document they are simplified to 1A, 1C etc.

Samples were processed on the sampling vessel. Decontaminated stainless steel bowls and spoons were used. Sample material, once homogenized, was placed into jars provided by the lab and held on ice in a cooler. The samples consisted primarily of the recently placed cap material with a trace of up to 3 cm of olive colored silt material on the surface. Generally, the stations inshore had 1 to 3 cm of silt while the two stations closer to the center of the channel, 7C and 15C, had only a trace or no silt on the surface. The samples generally had no odor and no sheen, however, the sample collected at 3C showed a very slight sheen in the homogenization bowl. Samples were delivered to the KCEL the same day as sample collection.

## 2.2 Laboratory Analyses

Sediment chemistry analyses were selected to allow comparison of sediment data to the SMS sediment chemical criteria found in Tables 1 and 3 of Chapter 173-204 WAC (Ecology 1995). Other chemicals of interest (chlorinated pesticides and additional metals), total organic carbon and sediment grain size were analyzed as well. A complete list of all parameters analyzed along with their respective detection limits is included in Appendix A. All laboratory analyses were performed by the KCEL. The following subsections summarize the analyses performed as well as QA/QC analyses.

### 2.2.1 Conventionals

Conventional analyses included percent solids, total organic carbon (TOC), and particle size distribution (PSD). Percent solids and TOC analyses were performed to provide data necessary to normalize sediment data to dry weight and organic carbon, respectively. Percent solids analysis was performed according to Standard Method (SM)2540-G (APHA 1998), which is a gravimetric determination. TOC analysis was performed following EPA Method 9060 (EPA 1995), high-temperature combustion with infrared spectroscopy. PSD analysis was performed according to ASTM Method D422 (ASTM 2002), which is a combination of sieve and hydrometer analyses.

### 2.2.2 Metals

Metal analytes included aluminum, antimony, arsenic, beryllium, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, and zinc. With the exception of mercury, all metal analyses were performed following EPA Method 3050A(B)/6010B (EPA 1995); strong-acid digestion with inductively coupled plasma optical emission spectroscopy (ICP-OES). Mercury was analyzed according to EPA Method 7471A (EPA 1995), cold vapor atomic absorption spectroscopy (CVAA).

### 2.2.3 Trace Organics

Trace organic analytes included base/neutral/acid extractable semivolatile compounds (BNAs), chlorinated pesticides, and polychlorinated biphenyls (PCBs) as Aroclors. BNA analysis was performed following EPA Method 3550B/8270C (EPA 1995), gas chromatography with mass spectroscopy (GC/MS). Chlorinated pesticides and PCBs were

analyzed by EPA Method 8081A/8082 (EPA 1995), gas chromatography with electron capture detection (GC/ECD).

## 2.2.4 Laboratory Quality Assurance/Quality Control (QA/QC)

All analyses were performed following guidance recommended in the Puget Sound Protocols (PSEP 1986, 1997b, 1997c) including associated QA/QC practices. QC samples included method blanks, laboratory duplicates, standard reference materials, matrix spikes and matrix spike duplicates. Chemistry data were reviewed following QA1 guidelines (Ecology 1989) and flagged with data qualifiers where appropriate. Data flags applied to sediment data are presented in Table 5.

**Table 5. Data Qualifier Flags**

<b>Condition to Qualify</b>	<b>Flag</b>
Very low matrix spike recovery	X
Low matrix spike recovery	G
High matrix spike recovery	L
Low SRM/LCS recovery	G
High SRM/LCS recovery	L
High duplicate RPD	E
High triplicate RSD	E
Less than the reporting detection limit	<RDL
Less than the method detection limit	<MDL
Contamination in method blank	B
Very biased data, low surrogate recoveries	X
Biased data, low surrogate recoveries	G
Biased data, high surrogate recoveries	L

The individual surrogate recovery is used for all organic analyses with the following exception – for BNA analysis, one surrogate recovery per fraction is allowed to be outside acceptance limits without causing the associated sample data to be flagged.

LCS – lab control spike

SRM – standard reference material

MDL - method detection limit

RDL – reporting detection limit

## 2.3 Quality Assurance/Quality Control Review

Laboratory QA/QC practices produced chemistry data sufficient to pass QA1 review. QA1 review narratives are presented as Appendix A. There were very few qualifiers added to the data. The main QA issues, associated with PCB analysis and blank contamination, are highlighted below.

The main QA issue that appears for the 2006 and 2007 PCB results is related to the overlap of Aroclor components (congeners) produced from the GC/ECD analysis. This is a consistent and common issue in the analysis of Aroclors. Aroclors 1248, 1254 and 1260 share some congeners with Aroclors 1016, 1232 and 1242 (the lower chlorinated Aroclors). When the more prominent Aroclors 1248, 1254, and 1260 are present, identification of some or all of Aroclors 1016, 1232, and 1242 is not possible for all samples because of the

overlapping congeners. To account for this and to acknowledge the uncertainty in the potential presence of these lower chlorinated Aroclors, detection limits (both the method detection limit [MDL] and reporting detection limit [RDL]) values are elevated. In the “Organic Chemistry” section of each QA review in Appendix A, the Aroclors for each sample that are impacted are presented. The quantitation of the Aroclors 1248, 1254 and 1260 is not affected by the peaks that overlap the three lower chlorinated Aroclors. Thus, the total PCB sum is not affected.

The other main QA issue is method blank contamination for BEHP and other phthalates. Phthalates are a common laboratory contaminant due to the abundance of plasticware and plastic piping in laboratories, as well as laboratory hood ventilation systems. All method blanks had detected concentrations of BEHP associated with the Cap A and B sample runs in 2006 and associated with every sample run in 2007. Other phthalates were also found in some method blanks. Thus, all sample results for specific phthalate compounds found in associated method blanks were flagged “B”. KCEL QA/QC review adds “B” flags whenever a contaminant is detected in the method blank.<sup>2</sup> There is no QA evaluation that occurs examining the magnitude of the blank detection compared to the associated sample result value. This is significant only when the sample concentration is less than ten-times the method blank value for common lab contaminants<sup>3</sup>; thus, indicating a likely false positive identification of the analyte (“the 10X rule”) (Ecology 2008, EPA 1999). However, if the sample result is greater than ten-times (for common lab contaminants) the method blank concentration, the bias is not considered significant to the sample concentration. No blank correction has been conducted on the data presented in this report. However, a preliminary scan of B-qualified results was conducted. Table 6 shows the stations where results would change from detect to nondetect at the sample concentration, after application of the 10X rule. In 2007, only one analyte at one station, BEHP at 5A, would be impacted by the 10X rule. All other stations in Table 5 are for 2006 results. This would affect one exceedance in 2006: BBP at station 4A. The SMS exceedances in 2007 would be unaffected.

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<sup>2</sup> This method of blank flagging occurs for all analytes found in method blanks but because this occurs more consistently for phthalates, only they are discussed here.

<sup>3</sup> SVOC common lab contaminants include bis(2-ethylhexyl)phthalate (BEHP), benzyl butyl phthalate (BBP), and di-N-butyl phthalate (DNBP).



**Table 6. Sample Results That Would Become Nondetects After Blank Contamination Evaluation**

<b>Area</b>	<b>BBP</b>	<b>BEHP</b>	<b>DNBP</b>
<b>Cap A</b>	3A - 5A	5A*	2A - 5A
<b>Cap B</b>	1B - 3B	NC	1B - 3B
<b>ENR</b>	NC	NC	3C-7C, 14C, 15C
<b>Perimeter</b>	NC	NC	8C, 9C, 11C -13C

Stations in table apply to 2006 only except for BEHP at 5A in 2007.

\*Applies to 2007 as well

NC – No Change

BBP – Benzylbutylphthalate

BEHP – Bis(2-ethylhexyl)phthalate

DNBP – Di-N-Butylphthalate

## 2.4 Deviations from Sampling Plan

The only deviations from the sampling plan and addendum were related to changing the sampling method employed at ENR stations in 2006. As described in Section 2.1.3, samples were collected with the assistance of divers in 2006 in order to avoid spud hole remnants observed on the thin-layer placement. Due to this method change, the number of grabs was limited to one instead of the minimum three grabs per composite stated in the SAP.

## 3.0. DUWAMISH DIAGONAL MONITORING RESULTS FOR 2006 AND 2007

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This section summarizes the results of the chemistry analyses for 2006 and 2007 monitoring samples for sediment cap Areas A and B (Years 2 and 3 post-cap), the perimeter area (Years 2 and 3 after residuals) and the ENR (Years 1 and 2 post placement). The complete analytical results can be found in Appendix C. Results are first summarized for all analytes by area and compared to SMS standards. Field duplicates were averaged before comparison to SMS. Sediment Management Standards (SMS) (Ecology 1995) rules were followed in the calculation of sums and handling of undetected results.

### 3.1 Sediment Cap Area A

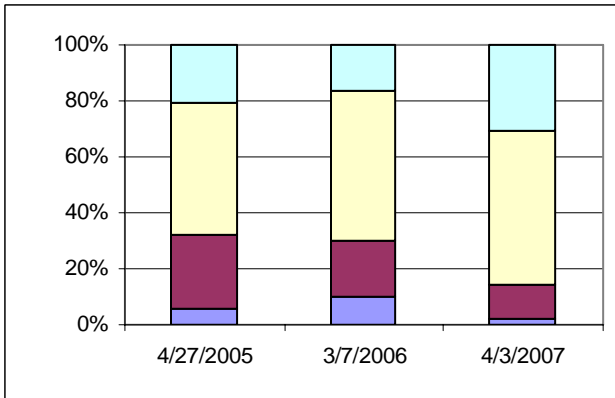
The analytical chemistry results, including TOC, for the five stations in Cap Area A sampled in 2006 and 2007 can be found in Tables 7 and 8 located at the end of this section. The results are normalized to dry weight (dw) or organic carbon (OC) as appropriate for comparison to SMS. Concentrations of four chemicals exceeded SMS in one or more samples as discussed below. The TOC content measured at station 5A was lower than 0.5% in 2006 and 2007. Thus, chemistry results at these stations were compared to the lowest apparent effects threshold (LAET) (Mickelson and Bragdon-Cook 1993) and the second lowest apparent effects threshold (2LAET) normalized to dry weight only, not to organic carbon.

In 2006, butylbenzylphthalate (BBP) and bis(2-ethylhexyl)phthalate (BEHP) concentrations exceeded the Sediment Quality Standard (SQS) in samples at stations 1A, 2A, and 3A. In addition, bis(2-ethylhexyl)phthalate (BEHP) concentrations exceeded the Cleanup Screening Level (CSL) at stations 1A and 4A. It should be noted that BBP and BEHP were also found in the method blanks associated with these samples (see Table 5). The concentrations of both BBP and BEHP were lower in 2007 at these stations. In 2007, BBP concentrations did not exceed SMS except at 1A where the sample measurement was 5.0 mg/kg OC compared to the SQS of 4.9 mg/kg OC. BEHP concentrations were also lower in 2007 although still exceeded SQS at 1A, 2A and 4A. The highest BEHP concentration was measured at 1A (87 mg/kg OC) which exceeded the CSL of 78 mg/kg OC.

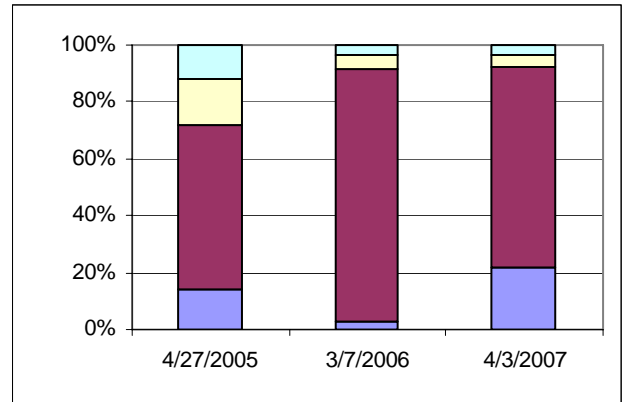
Total PCB concentrations exceeded the SQS at two stations, 1A and 4A, in 2006. At station 4A, PCB concentrations were 12.1 mg/kg OC compared to the SQS of 12 mg/kg OC. PCB concentrations were lower in 2007 with no results exceeding the SMS in Cap Area A. The only other exceedance of SMS on Cap A in 2006 occurred at 1A for benzoic acid. The SQS and CSL for benzoic acid are the same at 650 ug/kg dw. Benzoic acid measured at 1A in 2006 was 790 ug/kg dw. However, all samples measured in 2007 in Cap Area A contained benzoic acid at concentrations below the SMS.

TOC ranged from <0.5% to 2.9% in 2006 and 2007. From 2006 to 2007, TOC increased the most stations 1A, 4A and 5A. Relatively little change between years was observed stations 2A and 3A (Tables 7 and 8). Percent composition of fine-grained sediment (i.e. silt and clay) has increased at 2A and 4A from 2005 to 2007; however, fines composition at stations 1A, 3A and 5A has shown little change between 2006 and 2007 (Figure 4). Fine-grained sediment did increase at Station 3A between 2005 and 2006 while that at Station 1A has decreased.

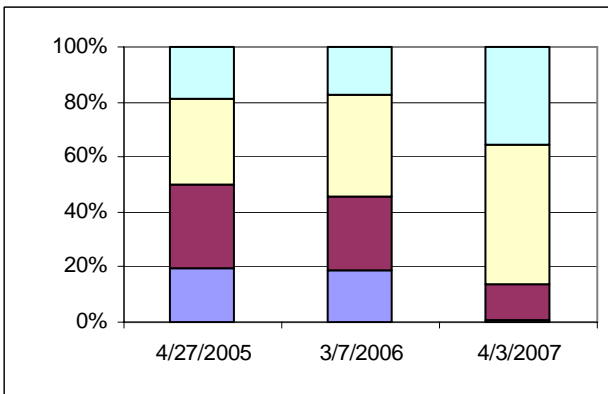
1A



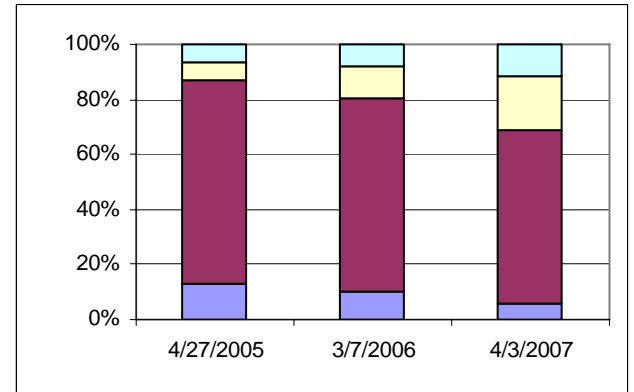
2A



3A



4A



5A

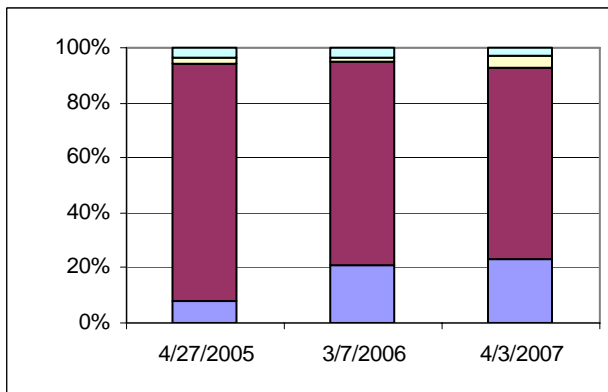
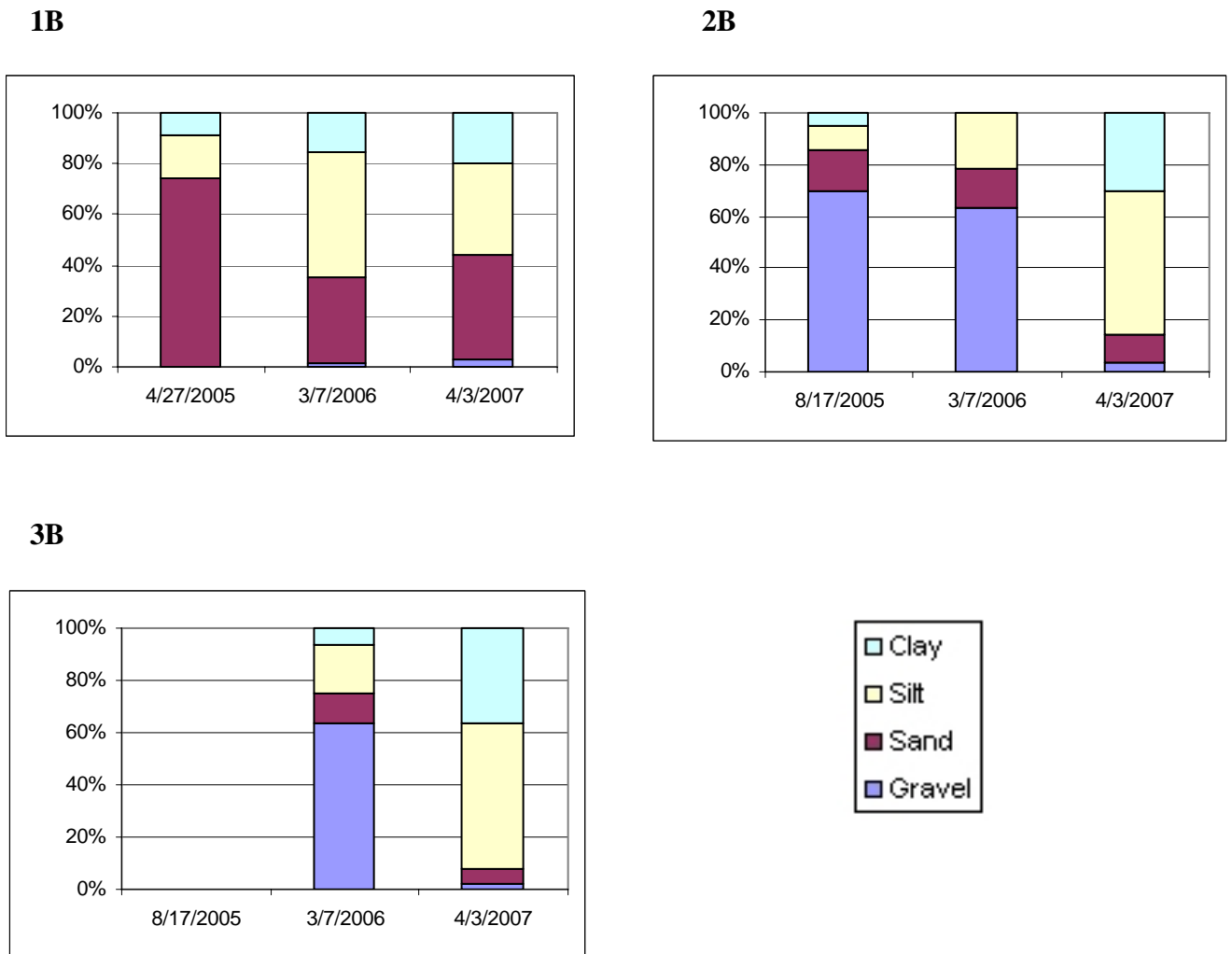


Figure 4. Changes in Grain Size on Cap A

## 3.2 Sediment Cap Area B

The analytical chemistry results, including TOC, for the three stations in Cap Area B sampled in 2006 and 2007 can be found in Tables 7 and 8. The results are normalized to dry weight (dw) or organic carbon (OC) as appropriate for comparison to SMS. TOC measurements in all samples fell between 0.5 and 3.0% and no comparison to AETs was necessary. No analytical results exceeded the SMS in either 2006 or 2007.

TOC measurements in all Cap B samples ranged from 1.4 to 2%. TOC increased slightly from 2006 to 2007 at stations 2B and 3B and decreased slightly at 1B. Grain size remained similar at station 1B; however, at 2B and 3B the percent fines increased substantially between 2006 and 2007 (Figure 5). Fine-grained sediments have become dominant over coarse-grained sediments at all Cap B stations.



**Note: No sample could be collected at either 2B or 3B in April 2005 and at 3B during the second attempt in August 2005**

**Figure 5. Changes in Grain Size on Cap B**

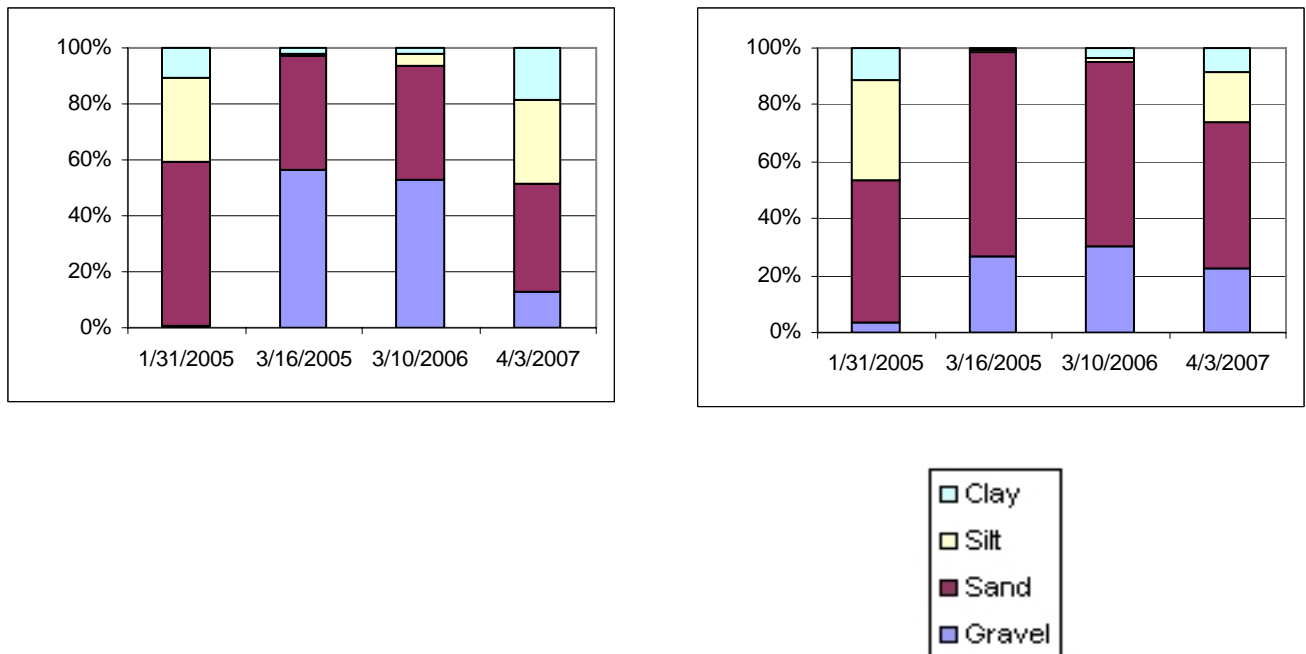
### 3.3 Enhanced Natural Recovery Area Monitoring Results for 2006 and 2007

The analytical chemistry results, including TOC, for the seven stations in the Enhanced Natural Recovery Area sampled in 2006 and 2007 can be found in Tables 7 and 8. The TOC content measured in 2006 at all stations, except 5C, was lower than 0.5%. Thus, the dry-weight normalized concentrations at these stations were compared to the LAET and 2LAET. All 2007 sample results were measured with TOC between 0.5 and 3.0%, therefore, were compared to the SQS and CSL. However, no chemical results exceeded SMS or AET in 2006 or 2007.

TOC measurements in ENR area samples ranged from 0.18% to 0.59% in 2006 and from 0.7% to 1.5% in 2007, showing increases at all stations. Percent fines also increased at every ENR station a small amount in 2006 and much larger increases occurred between 2006 and 2007 (Figure 6). Stations 4C, 5C, 6C and 14C are still dominated by coarse-grained sediments.

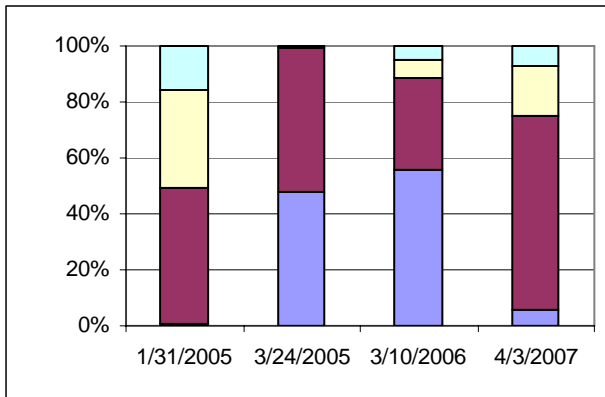
**3C**

**4C**

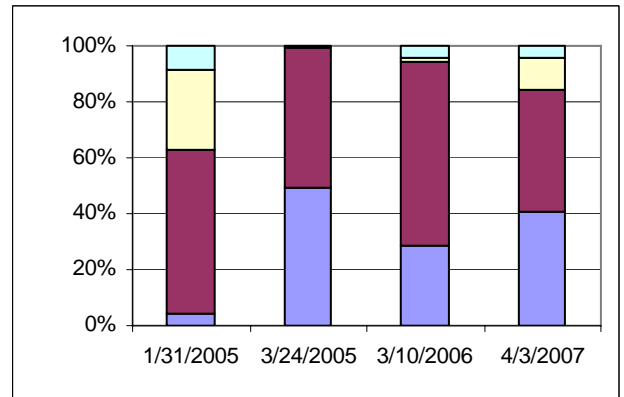


**Figure 6. Changes in Grain Size at ENR Stations (Pre and Post [March 2005] Thin Layer Placement)**

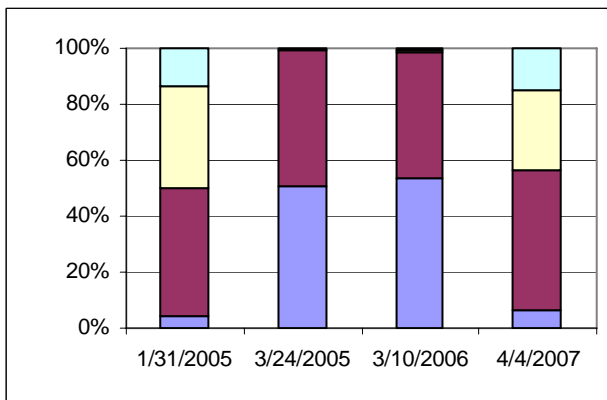
5C



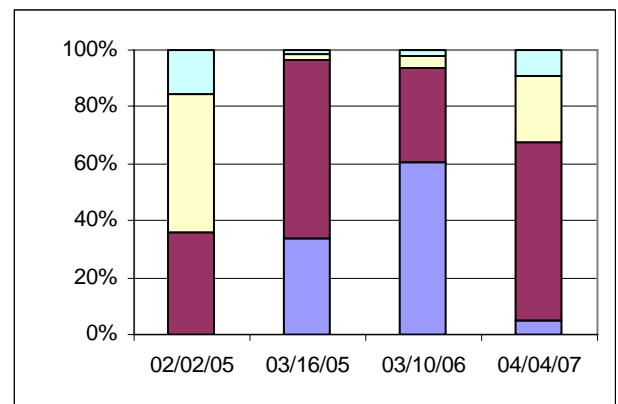
6C



7C



14C



15C

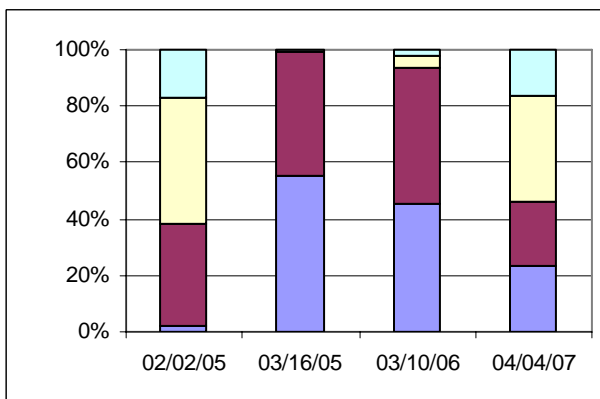


Figure 6 (continued). Changes in Grain Size at ENR Stations (Pre and Post [March 2005] Thin Layer Placement)

### 3.4 Perimeter Area Monitoring Results for 2006 and 2007

The analytical chemistry results for the eight stations in the Perimeter Area sampled in 2006 and 2007 can be found in Tables 7 and 8. The results are normalized to dry weight (dw) or organic carbon (OC) for comparison to SMS. The concentrations of eight chemicals in 2006 and three chemicals in 2007 exceeded the SMS or AET as discussed below. The TOC content measured at station 9C was lower than 0.5%, thus, chemical results were compared to the LAET and 2LAET.

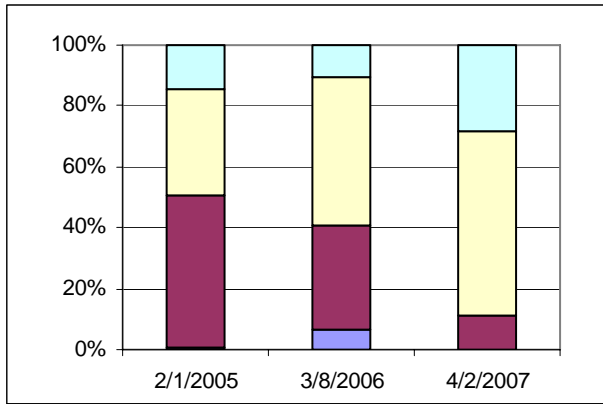
Concentrations of mercury, acenaphthene, fluoranthene, benzoic acid and phenol exceeded SMS or AET in 2006 but not in 2007. Mercury exceeded the SQS at station 10C in 2006. Similarly, acenaphthene and fluoranthene concentrations were above the SQS and below the CSL at station 2C. Phenol concentrations at this station were above the CSL. Benzoic acid was measured above the CSL at station 1C.

BBP, BEHP, and total PCB concentrations exceeded the SQS or both SQS and CSL in 2006 and 2007 at some perimeter stations. BBP concentrations exceeded the SQS but not the CSL at stations 1C, 2C, 8C, 11C, and 12C in 2006. Concentrations of BBP declined in 2007 samples such that only samples at 2C and 11C still exceeded the SQS. Similar declines were observed for BEHP which exceeded the SQS in 2006 at all stations except 9C and 13C. BEHP concentrations also exceeded the CSL at these same stations except for 8C and 10C. However, in 2007 only BEHP concentrations at 1C and 12C still exceeded the SQS and none exceeded the CSL. Total PCB concentrations measured in 2006 exceeded the SQS or LAET at all stations except at 9C and 11C. Total PCB concentrations exceeded the SQS at 8C, 9C, 12C and 13C in 2007. Exceedance of the PCB CSL did not occur at any perimeter station either year.

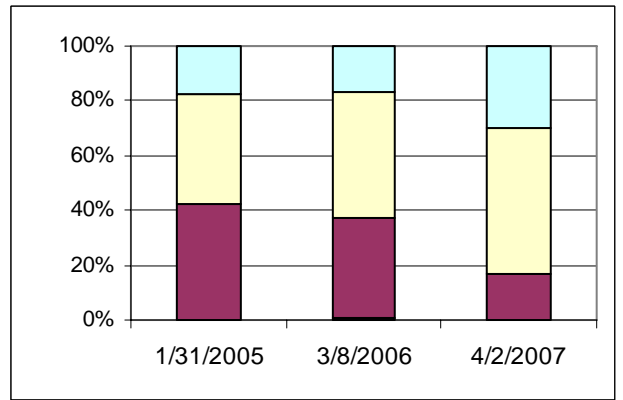
TOC at the most upstream station, 13C, declined slightly each year from 2005 through 2007 while the percent fines declined slightly in 2006 but remained constant in 2007 (Figure 7). TOC at nearshore stations, 1C and 2C, climbed substantially in 2006 and continued to increase in 2007. The change in fine sediments was also consistent at these nearshore stations increasing both years. TOC and grain size changes at channel stations 8C and 9C were very similar to each other; TOC decreased substantially in 2006 and increased again in 2007, with percent fines following the same pattern. Although 10C is in the shipping channel and 12C is a bench station, the TOC and grain size changes at these two stations were similar from 2005 through 2007. TOC increased slightly at 10C and decreased slightly at 12C in 2006 but by 2007, TOC at both stations was increasing to concentrations similar to 2004. Fine-grained sediments decreased slightly in 2006 and increased in 2007 at both stations. Finally, TOC at station 11C has doubled since 2006 and percent fines have also substantially increased.



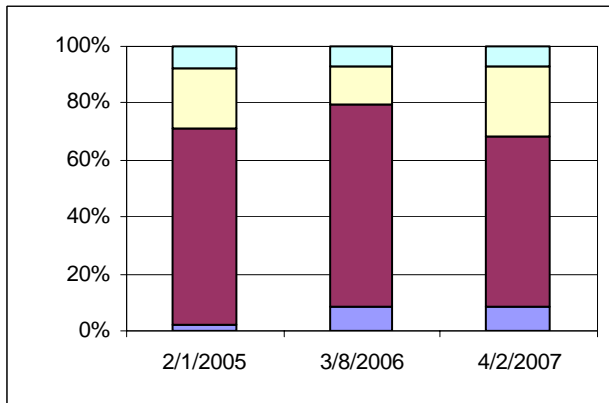
1C



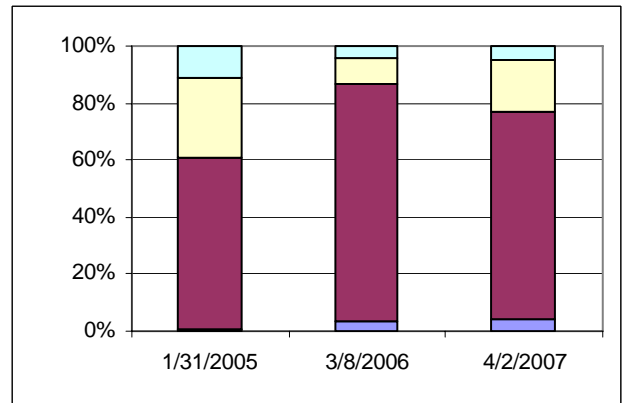
2C



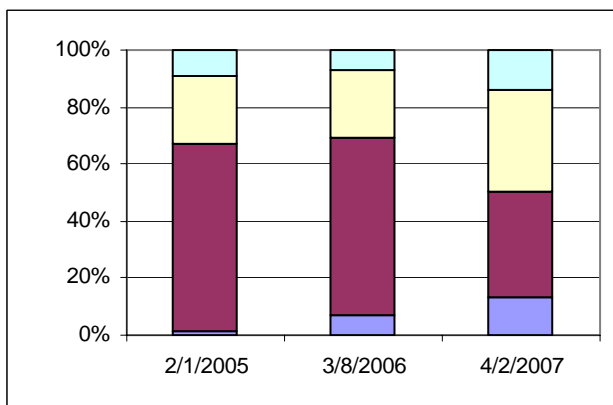
8C



9C



10C



11C

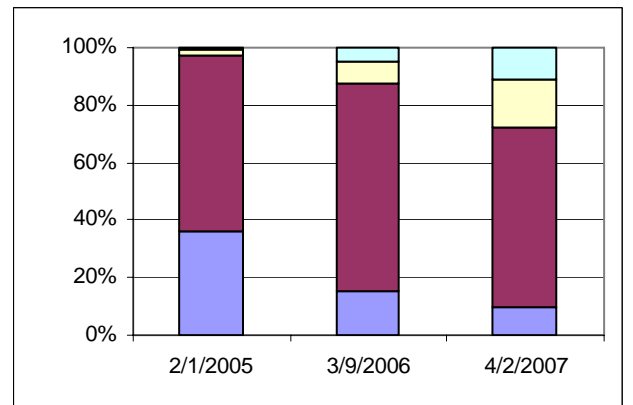
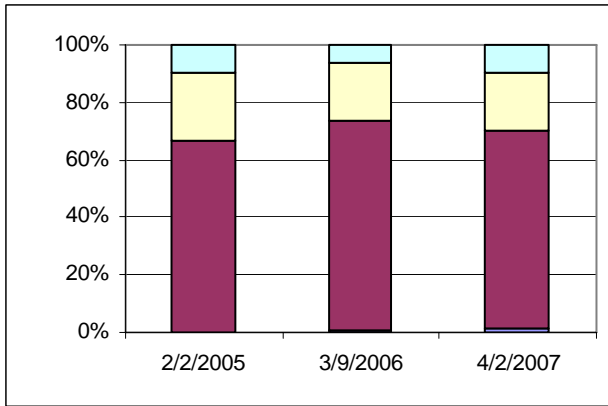
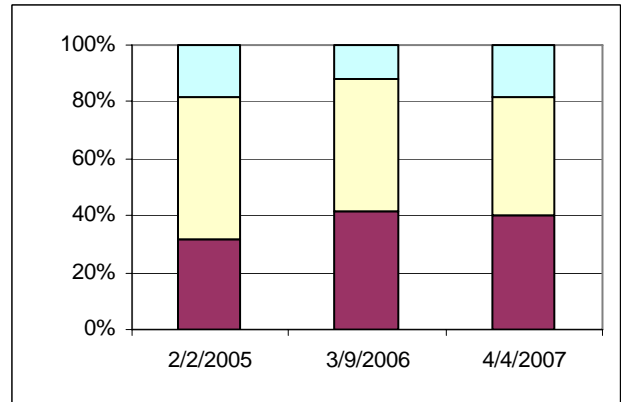


Figure 7. Changes in Grain Size Perimeter Only Stations (continued) (1C, 2C, 8C-13C)

**12C**



**13C**



**Note: Station 13C was not added until 2005**



**Figure 7 (continued). Changes in Grain Size Perimeter Only Stations (continued) (1C, 2C, 8C-13C)**

Table 7. 2006 Sediment Chemistry Results at Duwamish Diagonal - Comparison to SMS

	SMS		Cap Area A					Cap Area B		
	SQS	CSL	DUD_1A	DUD_2A	DUD_3A	DUD_4A	DUD_5A Avg	DUD_1B	DUD_2B	DUD_3B
<b>Conventionals (%)</b>										
Total Solids	--	--	62.3	43.1	50.9	72.6	82.1	46.6	70.5	66.7
Total Organic Carbon	--	--	2.28	2.99	1.87	0.767	0.0524	1.76	1.53	1.86
<b>Metals (mg/kg dw)</b>										
Arsenic	57	93	5.5 J	15 J	14 J	5.2 J	3.0 U	12 J	7.2 J	7.3 J
Cadmium	5.1	6.7	0.899 J	0.742 J	0.472 J	0.28 J	0.176 U	0.322 J	0.27 J	0.24 J
Chromium	260	270	42.4	40.8	33	28.4	15.3	28.8	21.8	25.6
Copper	390	390	64.5	103	85.3	55.8	47.2	60.5	55	48.4
Lead	450	530	46.9	65	47	23.8	2.2	29.2	26	20.2
Mercury	0.41	0.59	0.0867 J	0.302 J	0.275 J	0.0923 J	0.0238 U	0.2 J	0.199 J	0.165 J
Silver	6.1	6.1	0.48 J	0.858 J	0.668 J	0.468 J	0.335	0.665 J	0.454 J	0.51 J
Zinc	410	960	246	209	145	76.9	29.9	101	83.4	79.9
<b>PCBs (mg/kg-OC)</b>										
Total PCBs	12	65	18.5 *	10.2	10.2	12.1 *	7.55	6.7	4.55	2.65
<b>LPAH (mg/kg-OC)</b>										
2-Methylnaphthalene	38	64	2.5 J	1.0 U	0.39 J	0.48 U	6.3 U	0.33 U	0.3 J	0.22 U
Acenaphthylene	66	66	1.9 U	1.0 U	0.62	0.56 J	6.3 U	0.33 U	0.25 U	0.32 J
Acenaphthene	16	57	1.9 U	1.5 J	0.632	0.77 J	6.3 U	0.792	0.51	0.37 J
Anthracene	220	1200	9.58	4.83	5.25	5.31	6.3 U	4.3	2.91	3.48
Fluorene	23	79	4.94	2.0 J	1.5	1.36	6.3 U	1.39	1.1	0.763
Naphthalene	99	170	1.9 J	1.0 U	0.51 J	0.5 J	6.3 U	0.33 U	0.28 J	0.22 J
Phenanthrene	100	480	34.2	11.6	7.9	12.7	7.8	9.43	6.99	5.13
Total LPAH	370	780	50.6	19.9	16.4	21.2	7.8	15.9	11.8	10.3
<b>HPAH (mg/kg-OC)</b>										
Benzo(a)anthracene	110	270	29.9	10.2	9.9	13.6	9.4	9.85	12.2	4.61
Benzo(a)pyrene	99	210	29.2	10.6	11.4	14	17	10.6	8.76	4.67
Benzo(g,h,i)perylene	31	78	17.3	7.34	7.09	10.3	11	6.69	4.0	3.08
Chrysene	110	460	35.1	15.7	15.4	20.1	15.6	15.2	11.7	7.54
Dibenzo(a,h)anthracene	12	33	3.5 J	2.0 J	2.23	2.53	6.4 U	1.91	1.69	0.952
Fluoranthene	160	1200	74.6	30.9	23.2	35.4	35.6	24	15.1	10.9
Indeno(1,2,3-Cd)Pyrene	34	88	15.2	6.07	6.43	8.87	9.0 J	5.93	4.25	2.68
Pyrene	1000	1400	67.1	25.7	21	29.1	17.1	20.4	12.8	8.79
Total Benzofluoranthenes	230	450	53.9	22.8	25.6	31	33.6	24	16.9	10.9
Total HPAH	960	5300	380	154	148	196	164	143	104	64.9
<b>Chlorobenzenes (mg/kg-OC)</b>										
1,2-Dichlorobenzene	2.3	2.3	0.19 U	0.1 U	0.0283 U	0.0485 U	0.631 U	0.033 U	0.025 U	0.0218 U
1,2,4-Trichlorobenzene	0.81	1.8	0.19 U	0.1 U	0.0283 U	0.0485 U	0.631 U	0.033 U	0.025 U	0.0218 U
1,4-Dichlorobenzene	3.1	9	1.65	0.1 U	0.0283 U	0.0485 U	0.631 U	0.033 U	0.025 U	0.0218 U
Hexachlorobenzene	0.38	2.3	0.37 U	0.21 U	0.0556 U	0.0952 U	1.24 U	0.0648 U	0.362	0.0427 U
<b>Phthalates (mg/kg-OC)</b>										
Bis(2-Ethylhexyl)Phthalate	47	78	161 B**	73.8 B*	44.5 B	92.5 B**	58.6 B	32.3 B	32.5 B	24.8 B
Butylbenzylphthalate	4.9	64	25.6 B*	6.87 B*	4.01 B	5.13 B*	19.7 B	3.77 B	2.5 B	1.9 B
Diethylphthalate	61	110	3.7 U	2.1 U	0.56 U	0.95 U	12 U	0.65 U	0.49 U	0.43 U
Dimethylphthalate	53	53	5.5 J	2.1 U	0.56 U	0.95 U	13 U	0.65 U	0.49 U	0.43 U
Di-N-Butylphthalate	220	1700	3.7 UB	4.0 JB	2.23 B	3.3 B	17.7 B	2.3 B	2.7 B	0.984 B
Di-N-Octylphthalate	58	4500	3.7 U	2.1 U	0.56 U	0.95 U	13 U	0.65 U	0.49 U	2.24
<b>Ionic Organics (ug/kg dw)</b>										
2-Methylphenol	63	63	85 U	63 U	10 U	7.3 U	6.5 U	11 U	7.5 U	7.9 U
4-Methylphenol	670	670	85 U	63 U	10 U	7.3 U	6.4 U	11 U	7.5 U	7.9 U
2,4-Dimethylphenol	29	29	43 UX	30 UX	5.3 UX	3.7 UX	3.3 UX	5.8 UX	3.8 UX	4.0 UX
Benzyl Alcohol	57	73	85 U	63 U	10 U	7.3 U	6.4 U	11 U	7.5 U	7.9 U
Benzoic Acid	650	650	790 *	160 U	128	95.2	58.1	149	101	110
Pentachlorophenol	360	690	209 U	160 U	26 U	18 U	16 U	28 U	18 U	19 U
Phenol	420	1200	85 U	63 U	10 U	7.3 U	6.4 U	11 U	7.5 U	27.6
<b>Miscellaneous (mg/kg-OC)</b>										
Dibenzofuran	15	58	2.7 J	1.0 U	0.773	0.83 J	6.3 U	0.699	0.51	0.4 J
Hexachlorobutadiene	3.9	6.2	0.92 U	0.52 U	0.14 U	0.23 U	3.0 U	0.16 U	0.12 U	0.1 U
n-Nitroso-di-phenylamine	11	11	3.7 U	2.1 U	0.56 U	0.95 U	13 U	0.65 U	0.49 U	0.43 U

**Notes:**

Heavy shading: Detected value exceeds one or both criterion

Light shading: TOC <0.5% or >3%, thus OC-normalized chemicals compared to LAET and 2LAET

Bold: Detected.

6.3 U: Special font denotes that TOC requires comparison to LAET and 2LAET

\* Exceeds SMS SQS or SQS-AET criteria.

\*\* Exceeds SMS CSL or CSL-AET criteria.

dw: dry weight normalized

-OC: organic carbon normalized

SMS: Sediment Management Standards (Chapter 173-204 WAC)

SQS: Sediment Quality Standard (Table I, Chapter 173-204 WAC)

CSL: Cleanup Screening Level (Table III, Chapter 173-204 WAC)

LPAHs: Low Molecular Weight Polynuclear Aromatic Hydrocarbons

HPAHs: High Molecular Weight Polynuclear Aromatic Hydrocarbons

PCBs: Polychlorinated Biphenyls

LAET: Lowest Adverse Effects Threshold

2LAET: Second Lowest Adverse Effects Threshold

Qualifiers:

U: <MDL

J: <RDL

B: detected in method blank

X: very low biased data

E: estimated

Table 7. 2006 Sediment Chemistry Results at Duwamish Diagonal - Comparison to SMS (cont.)

	SMS		Enhanced Natural Recovery Area						
	SQS	CSL	DUD_3C	DUD_4C Avg	DUD_5C	DUD_6C	DUD_7C	DUD_14C	DUD_15C
<b>Conventionals (%)</b>									
Total Solids	--	--	86.8	81.6	86.1	79.3	85.8	86.9	86.2
Total Organic Carbon	--	--	0.315	0.178	0.59	0.224	0.124	0.371	0.244
<b>Metals (mg/kg dw)</b>									
Arsenic	57	93	2.9 J	2.9 U	3.5 J	3.3 J	2.8 U	3.5 J	3.0 J
Cadmium	5.1	6.7	0.173 U	0.178 U	0.174 U	0.189 U	0.163 U	0.173 U	0.174 U
Chromium	260	270	12.2	13.7	14.3	14.5	15	13.9	14.2
Copper	390	390	27.9	29.2	29.5	32	30.2	29	29
Lead	450	530	6.7 J	4.2 J	7.1 J	4.8 J	2.4 J	7.9 J	4.1 J
Mercury	0.41	0.59	0.0346 J	0.0319 J	0.336	0.0517 J	0.0233 U	0.0483 J	0.0232 J
Silver	6.1	6.1	0.242 JE	0.241 UE	0.244 JE	0.277 JE	0.291 JE	0.253 JE	0.267 JE
Zinc	410	960	31	30.4	36	30.9	27.6	34.8	31.4
<b>PCBs (mg/kg-OC)</b>									
Total PCBs	12	65	9.15	13.3	4.36	15.6	5.2	7.06	4.96
<b>LPAH (mg/kg-OC)</b>									
2-Methylnaphthalene	38	64	0.99 U	1.9 U	0.53 U	1.5 U	2.5 U	0.84 U	1.3 U
Acenaphthylene	66	66	0.99 U	1.9 U	0.53 U	1.5 U	2.5 U	0.84 U	1.3 U
Acenaphthene	16	57	0.99 U	1.9 U	0.53 U	1.5 U	2.5 U	0.84 U	1.3 U
Anthracene	220	1200	5.57	4.56	2.01	4.94	2.5 U	2.87	1.7 J
Fluorene	23	79	1.5 J	2	0.65 J	1.5 U	2.5 U	0.84 U	1.3 U
Naphthalene	99	170	0.99 U	1.9 U	0.53 U	1.5 U	2.5 U	0.84 U	1.3 U
Phenanthrene	100	480	8.9	12	4.49	10.4	3.6 J	5.68	3.84
Total LPAH	370	780	15.9	17.4	7.15	15.3	3.6	8.56	5.56
<b>HPAH (mg/kg-OC)</b>									
Benzo(a)anthracene	110	270	12	16.5	5.35	16.7	5.8	8.73	6.33
Benzo(a)pyrene	99	210	12.5	18	5.49	17.2	8.72	9.6	7.38
Benzo(g,h,i)perylene	31	78	7.62	10.7	3.27	9.49	5.26	5.12	4.2
Chrysene	110	460	19	22.5	8.6	19.2	9.17	14.6	9.0
Dibenzo(a,h)anthracene	12	33	2.46	3.54	1.0 J	2.8 J	2.5 U	1.6 J	1.5 J
Fluoranthene	160	1200	24	33.7	11	30	12	15	11.5
Indeno(1,2,3-Cd)Pyrene	34	88	7.07	9.51	3.0	9.04	4.7 J	4.6	3.9
Pyrene	1000	1400	20.1	30	8.98	25	11.1	14	10.2
Total Benzofluoranthenes	230	450	27.2	39.7	11.9	37.5	18.4	19.2	15.4
Total HPAH	960	5300	159	224	70.4	204	93.9	112	84.8
<b>Chlorobenzenes (mg/kg-OC)</b>									
1,2-Dichlorobenzene	2.3	2.3	0.0989 U	0.188 U	0.0531 U	0.152 U	0.255 U	0.0839 U	0.129 U
1,2,4-Trichlorobenzene	0.81	1.8	0.0989 U	0.188 U	0.0531 U	0.152 U	0.255 U	0.0839 U	0.129 U
1,4-Dichlorobenzene	3.1	9	0.0989 U	0.188 U	0.0531 U	0.152 U	0.255 U	0.0839 U	0.129 U
Hexachlorobenzene	0.38	2.3	0.194 U	0.514	0.104 U	0.298 U	0.5 U	0.165 U	0.252 U
<b>Phthalates (mg/kg-OC)</b>									
Bis(2-Ethylhexyl)Phthalate	47	78	26	35.7	18	41.6	23.1	22	21.4
Butylbenzylphthalate	4.9	64	6.01	7.8	3.01	6.69	8.3 J	4.78	4.6 J
Diethylphthalate	61	110	1.9 U	3.7 U	1.0 U	3.0 U	5.0 U	1.6 U	2.5 U
Dimethylphthalate	53	53	1.9 U	3.6 U	1.0 U	3.0 U	5.0 U	1.6 U	2.5 U
Di-N-Butylphthalate	220	1700	5.2 B	7.64 B	2.8 B	12.8 B	15 B	2.5 JB	11.1 B
Di-N-Octylphthalate	58	4500	1.9 U	3.6 U	1.0 U	3.0 U	5.0 U	1.6 U	2.5 U
<b>Ionic Organics (ug/kg dw)</b>									
2-Methylphenol	63	63	6.1 U	6.5 U	6.2 U	6.7 U	6.2 U	6.1 U	6.1 U
4-Methylphenol	670	670	6.1 U	6.5 U	6.2 U	6.7 U	6.2 U	6.1 U	6.1 U
2,4-Dimethylphenol	29	29	3.1 U	3.3 U	3.1 U	3.4 U	3.1 U	3.1 U	3.1 U
Benzyl Alcohol	57	73	6.1 U	6.5 U	6.2 U	6.7 U	6.2 U	6.1 U	6.1 U
Benzoic Acid	650	650	73.5	61.3	71.5	68.5	15 U	66.2	59.4
Pentachlorophenol	360	690	15 U	16 U	15 U	16 U	15 U	15 U	15 U
Phenol	420	1200	6.1 U	6.5 U	6.2 U	6.7 U	6.2 U	6.1 U	6.1 U
<b>Miscellaneous (mg/kg-OC)</b>									
Dibenzofuran	15	58	0.99 U	1.9 U	0.53 U	1.5 U	2.5 U	0.84 U	1.3 U
Hexachlorobutadiene	3.9	6.2	0.48 U	0.90 U	0.26 U	0.73 U	1.2 U	0.4 U	0.62 U
n-Nitroso-di-phenylamine	11	11	1.9 U	3.7 U	1.0 U	3.0 U	5.0 U	1.6 U	2.5 U

**Notes:**

Heavy shading: Detected value exceeds one or both criterion

Light shading: TOC <0.5% or >3%, thus OC-normalized chemicals compared to LAET and 2LAET

Bold: Detected.

6.3 U: Special font denotes that TOC requires comparison to LAET and 2LAET

\* Exceeds SMS SQS or SQS-AET criteria.

\*\* Exceeds SMS CSL or CSL-AET criteria.

dw: dry weight normalized

-OC: organic carbon normalized

SMS: Sediment Management Standards (Chapter 173-204 WAC)

SQS: Sediment Quality Standard (Table I, Chapter 173-204 WAC)

CSL: Cleanup Screening Level (Table III, Chapter 173-204 WAC)

LPAHs: Low Molecular Weight Polynuclear Aromatic Hydrocarbons

HPAHs: High Molecular Weight Polynuclear Aromatic Hydrocarbons

PCBs: Polychlorinated Biphenyls

LAET: Lowest Adverse Effects Threshold

2LAET: Second Lowest Adverse Effects Threshold

Qualifiers:

U: <MDL

J: <RDL

B: detected in method blank

X: very low biased data

E: estimated

Table 7. 2006 Sediment Chemistry Results at Duwamish Diagonal - Comparison to SMS (cont.)

	SMS		Perimeter Area							
	SQS	CSL	DUD_1C	DUD_2C	DUD_8C Avg	DUD_9C	DUD_10C	DUD_11C	DUD_12C	DUD_13C
<b>Conventionals (%)</b>										
Total Solids	--	--	55.4	54.6	74	76.1	66.6	78	70.7	55.6
Total Organic Carbon	--	--	2.0	1.96	0.612	0.439	0.944	0.588	0.662	1.64
<b>Metals (mg/kg dw)</b>										
Arsenic	57	93	11 J	13 J	5.2 J	5.1 J	9.9 J	4.4 J	6.9 J	12 J
Cadmium	5.1	6.7	1.1 J	0.696 J	0.518 J	0.368 J	0.526 J	0.192 J	0.523 J	0.72 J
Chromium	260	270	38.8	34.6	23.7	21.8	27.8	21.4	26.7	34
Copper	390	390	89.9	98	57	47	58.9	45.3	60.3	78.6
Lead	450	530	72.7	55.7	23	28.1	58.7	21.4	45	56.1
Mercury	0.41	0.59	0.307 J	0.293 J	0.121 J	0.102 J	0.489 *	0.101 J	0.14 J	0.324 J
Silver	6.1	6.1	1.16 JE	0.971 JE	1.29 E	0.578 JE	0.796 JE	0.38 JE	0.71 JE	0.989 JE
Zinc	410	960	174	155	64.6	65.6	108	60.9	92.5	130
<b>PCBs (mg/kg-OC)</b>										
Total PCBs	12	65	30.2 *	14 *	49.0 *	61.5	33.7 *	6.82	57.8 *	21.7 *
<b>LPAH (mg/kg-OC)</b>										
2-Methylnaphthalene	38	64	2.4 U	6.32	0.65	0.93 J	0.43 U	0.59 U	0.71 J	0.3 U
Acenaphthylene	66	66	2.4 U	2.5 U	0.62 U	0.81 U	1.01	1.39	0.58 J	1.19
Acenaphthene	16	57	2.4 U	19.1 *	0.93 J	1.72	1.08	1.41	1.0 J	0.877
Anthracene	220	1200	3.0 J	20.4	7.7	9.97	6.8	8.52	7.74	7.26
Fluorene	23	79	2.4 U	18.2	1.6	1.99	1.89	2.42	1.63	1.74
Naphthalene	99	170	2.4 U	2.5 U	0.8	1.2 J	0.43 U	1.1 J	0.92 J	0.687
Phenanthrene	100	480	12.7	78	11.3	13.6	11.7	15.2	12.7	9.49
Total LPAH	370	780	15.7	136	21.7	28.4	22.5	30	24.6	21.2
<b>HPAH (mg/kg-OC)</b>										
Benzo(a)anthracene	110	270	12.3	48.7	16	16.9	14.7	14.2	19.6	14
Benzo(a)pyrene	99	210	16	28	15.6	22.7	21	17.4	18.1	14.7
Benzo(g,h,i)perylene	31	78	11.3	14.1	9.24	12.2	10.8	10.9	13.4	8.52
Chrysene	110	460	16.8	49.9	20.7	28.9	24.8	26.8	23.5	22.2
Dibenzo(a,h)anthracene	12	33	3.3 J	4.99	2.46	2.39	2.1	2.4	3.68	2.3
Fluoranthene	160	1200	26.8	173 *	34.5	41	31.8	39.2	32.9	26.2
Indeno(1,2,3-Cd)Pyrene	34	88	9.28	12.6	8.59	11.4	10.1	9.98	12	7.93
Pyrene	1000	1400	37.9	121	32.5	44.9	36.9	32.9	42.3	26
Total Benzofluoranthenes	230	450	34.5	66	35.5	42.3	41.5	34.3	47	33.4
Total HPAH	960	5300	203	584	210	265	235	222	260	189
<b>Chlorobenzenes (mg/kg-OC)</b>										
1,2-Dichlorobenzene	2.3	2.3	0.24 U	0.25 U	0.0622 U	0.0808 U	0.0429 U	0.0588 U	0.0577 U	0.0297 U
1,2,4-Trichlorobenzene	0.81	1.8	0.24 U	0.25 U	0.0622 U	0.0808 U	0.0429 U	0.0588 U	0.0577 U	0.0297 U
1,4-Dichlorobenzene	3.1	9	0.24 U	0.25 U	0.0622 U	0.0808 U	0.0429 U	0.0588 U	0.0577 U	0.0297 U
Hexachlorobenzene	0.38	2.3	0.48 U	0.5 U	0.122 U	0.159 U	0.0843 U	0.115 U	0.113 U	0.0582 U
<b>Phthalates (mg/kg-OC)</b>										
Bis(2-Ethylhexyl)Phthalate	47	78	118 **	90.3 **	65.2 *	79.3	47.7 *	128 **	101 **	36.2
Butylbenzylphthalate	4.9	64	11.1 *	13.4 *	5.04 *	5.03	4.39	8.47 *	9.7 *	4.13
Diethylphthalate	61	110	4.8 U	5.0 U	1.24 U	1.6 U	0.84 U	1.2 U	1.1 U	0.58 U
Dimethylphthalate	53	53	4.8 U	5.0 U	1.24 U	1.6 U	0.84 U	1.2 U	1.1 U	0.58 U
Di-N-Butylphthalate	220	1700	4.8 UB	5.0 U	2.6 B	3.26 B	16.9 B	6.47 B	9.21 B	2.58 B
Di-N-Octylphthalate	58	4500	4.8 U	5.0 U	1.24 U	1.6 U	0.84 U	1.2 U	1.1 U	0.58 U
<b>Ionic Organics (ug/kg dw)</b>										
2-Methylphenol	63	63	96 U	97 U	7.2 U	7.0 U	8.0 U	6.8 U	7.5 U	9.5 U
4-Methylphenol	670	670	96 U	97 U	7.2 U	7.0 U	8.0 U	6.8 U	7.5 U	9.5 U
2,4-Dimethylphenol	29	29	49 U	49 U	3.6 U	3.5 U	4.1 U	3.5 U	3.8 U	4.9 U
Benzyl Alcohol	57	73	96 U	97 U	7.2 U	7.0 U	8.0 U	6.8 U	7.5 U	9.5 U
Benzoic Acid	650	650	700 **	238 U	101	64.1	127	95	91.8	136
Pentachlorophenol	360	690	235 U	238 U	18 U	17 U	20 U	17 U	18 U	23 U
Phenol	420	1200	90 J	1510 **	7.2 U	7.0 U	8.0 U	6.8 U	7.5 U	9.5 U
<b>Miscellaneous (mg/kg-OC)</b>										
Dibenzofuran	15	58	2.4 U	11.7	0.82 J	1.2 J	0.916	0.59 U	0.98 J	0.908
Hexachlorobutadiene	3.9	6.2	1.2 U	1.2 U	0.30 U	0.39 U	0.21 U	0.28 U	0.28 U	0.14 U
n-Nitroso-di-phenylamine	11	11	4.8 U	5.0 U	1.1 U	1.6 U	0.84 U	1.2 U	1.1 U	0.58 U

**Notes:**

Heavy shading: Detected value exceeds one or both criterion

Light shading: TOC <0.5% or >3%, thus OC-normalized chemicals compared to LAET and 2LAET

Bold: Detected.

6.3 U: Special font denotes that TOC requires comparison to LAET and 2LAET

\* Exceeds SMS SQS or SQS-AET criteria.

\*\* Exceeds SMS CSL or CSL-AET criteria.

dw: dry weight normalized

-OC: organic carbon normalized

SMS: Sediment Management Standards (Chapter 173-204 WAC)

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LPAHs: Low Molecular Weight Polynuclear Aromatic Hydrocarbons

HPAHs: High Molecular Weight Polynuclear Aromatic Hydrocarbons

PCBs: Polychlorinated Biphenyls

LAET: Lowest Adverse Effects Threshold

2LAET: Second Lowest Adverse Effects Threshold

Qualifiers:

U: <MDL

J: <RDL

B: detected in method blank

X: very low biased data

E: estimated

Table 8. 2007 Sediment Chemistry Results at Duwamish Diagonal - Comparison to SMS

	SMS		Cap Area A					Cap Area B		
	SQS	CSL	DUD_1A	DUD_2A	DUD_3A	DUD_4A	DUD_5A Avg	DUD_1B	DUD_2B	DUD_3B
<b>Conventionals (%)</b>										
Total Solids	--	--	74.7	43	44.1	63.1	81.5	54.5	41.7	42
Total Organic Carbon	--	--	1.39	2.91	2.05	1.32	0.278	1.42	2.0	2.03
<b>Metals (mg/kg)</b>										
Arsenic	57	93	4.8 J	14 J	12 J	6.0 J	5.2	9.0 J	13 J	13 J
Cadmium	5.1	6.7	0.656 J	0.558 J	0.317 J	0.365 J	0.12	0.275 J	0.312 J	0.31 J
Chromium	260	270	107	33	27.7	24.7	17.1	24	28.1	26
Copper	390	390	68.9	87	64.4	62.8	55.9	56.7	64.3	58.8
Lead	450	530	107	42.1	27.9	50.4	8.5	27	28.5	24.3
Mercury	0.41	0.59	0.079	0.203	0.188	0.1	0.0215	0.166	0.166	0.165
Silver	6.1	6.1	0.27 U	0.47 U	0.45 U	0.32 U	0.24 U	0.37 U	0.48 U	0.48 U
Zinc	410	960	181	182	117	112	51.4	90.8	119	110
<b>PCBs (mg/kg-OC)</b>										
Total PCBs	12	65	10.6	4.93	3.98	3.88	6	6.95	3.35	3.05
<b>LPAH (mg/kg-OC)</b>										
2-Methylnaphthalene	38	64	0.32 J	0.323	0.22 U	0.31 J	0.88 U	0.26 U	0.24 U	0.27 J
Acenaphthylene	66	66	0.34 J	0.374	0.35 J	0.38 J	0.88 U	0.26 U	0.37 J	0.35 J
Acenaphthene	16	57	1.12	0.476	0.22 U	0.39 J	0.88 U	0.4 J	0.43 J	0.34 J
Anthracene	220	1200	3.18	1.93	1.54	2.38	1.51	2.05	2.14	3.49
Fluorene	23	79	1.37	0.787	0.51	0.792	0.88 U	0.666	0.759	0.827
Naphthalene	99	170	0.499	0.334	0.23 J	0.31 J	0.88 U	0.26 U	0.26 J	0.23 U
Phenanthrene	100	480	10.5	5.77	3.06	5.45	5.89	4.63	4.85	4.37
Total LPAH	370	780	17	9.67	5.7	9.72	7.41	7.74	8.82	9.37
<b>HPAH (mg/kg-OC)</b>										
Benzo(a)anthracene	110	270	10.1	6.57	3.83	5.99	6.08	6.55	4.96	4.13
Benzo(a)pyrene	99	210	12.1	6.78	3.89	8.53	7.81	6.4	5.09	4.2
Benzo(g,h,i)perylene	31	78	8.7	4.67	2.72	6.21	4.9	3.97	3.54	3.1
Chrysene	110	460	19.2	11	5.8	12.4	8.57	9.99	8.32	6.87
Dibenzo(a,h)anthracene	12	33	2.96	1.4	0.659	1.51	1.37	1.18	0.914	0.86
Fluoranthene	160	1200	32.7	17	9.06	16	14.8	15.1	12.7	10.3
Indeno(1,2,3-Cd)Pyrene	34	88	7.59	4.35	2.8	6.03	5.83	3.9	3.39	3.1
Pyrene	1000	1400	27.4	15	7.9	14.2	11.9	12	10	8.38
Total Benzofluoranthenes	230	450	24.2	14.9	9.92	19.9	16	15.3	12.8	10.2
Total HPAH	960	5300	169	96.5	56.5	111	93.3	89.8	74.5	61.3
<b>Chlorobenzenes (mg/kg-OC)</b>										
1,2-Dichlorobenzene	2.3	2.3	0.019 U	0.016 U	0.022 U	0.024 U	0.088 U	0.026 U	0.024 U	0.023 U
1,2,4-Trichlorobenzene	0.81	1.8	0.0096 U	0.008 U	0.011 U	0.012 U	0.044 U	0.013 U	0.012 U	0.012 U
1,4-Dichlorobenzene	3.1	9	1.1	0.108	0.0692	0.398	0.109 U	0.026 U	0.024 U	0.023 U
Hexachlorobenzene	0.38	2.3	0.0096 U	0.008 U	0.011 U	0.012 U	0.044 U	0.013 U	0.012 U	0.012 U
<b>Phthalates (mg/kg-OC)</b>										
Bis(2-Ethylhexyl)Phthalate	47	78	87.1 B**	68.3 B*	20.8 B	64.2 B*	25.1 Ø	16.1 B	21.8 B	24.8 B
Butylbenzylphthalate	4.9	64	5.02 *	3.7	2.02	0.12 U	4.8	1.9	2.02	1.62
Diethylphthalate	61	110	0.38 U	0.32 U	0.44 U	0.48 U	1.8 U	0.52 U	0.48 U	0.47 U
Dimethylphthalate	53	53	6.7	0.32 U	0.44 U	0.48 U	1.7 U	0.52 U	0.48 U	0.47 U
Di-N-Butylphthalate	220	1700	1.43	1.21	0.7 J	0.48 U	1.7 U	0.62 J	0.77 J	0.5 J
Di-N-Octylphthalate	58	4500	0.38 U	0.32 U	0.44 U	0.48 U	1.7 U	0.52 U	0.48 U	0.47 U
<b>Ionic Organics (ug/kg dw)</b>										
2-Methylphenol	63	63	2.7 U	4.7 U	4.5 U	3.2 U	2.5 U	3.7 U	4.8 U	4.8 U
4-Methylphenol	670	670	5.4 U	9.3 U	9.1 U	6.3 U	4.9 U	7.3 U	9.6 U	9.5 U
2,4-Dimethylphenol	29	29	1.3 U	2.3 U	2.3 U	1.6 U	1.2 U	1.8 U	2.4 U	2.4 U
Benzyl Alcohol	57	73	2.7 U	4.7 U	4.5 U	3.2 U	2.4 U	3.7 U	4.8 U	4.8 U
Benzoic Acid	650	650	84.7	138	116	98.4	58	90	120	124
Pentachlorophenol	360	690	13 U	23 U	23 U	16 U	12 U	18 U	24 U	24 U
Phenol	420	1200	5.4 U	32.8	12 J	6.3 U	8.2	7.3 U	11 J	9.5 U
<b>Miscellaneous (mg/kg-OC)</b>										
Dibenzofuran	15	58	0.7	0.446	0.25 J	0.39 J	0.88 U	0.31 J	0.37 J	0.43 J
Hexachlorobutadiene	3.9	6.2	0.048 U	0.04 U	0.055 U	0.06 U	0.22	0.064 U	0.06 U	0.059 U
n-Nitroso-di-phenylamine	11	11	0.38 U	0.32 U	0.44 U	0.48 U	1.8 U	0.52 U	0.48 U	0.47 U

Notes:

Heavy shading: Detected value exceeds one or both criterion

Light shading: TOC <0.5% or >3%, thus OC-normalized chemicals compared to LAET and 2LAET

Bold: Detected.

6.3 U: Special font denotes that TOC requires comparison to AET and 2LAET

\* Exceeds SMS SQS or SQS-AET criteria.

\*\* Exceeds SMS CSL or CSL-AET criteria.

dw: dry weight normalized

-OC: organic carbon normalized

SMS: Sediment Management Standards (Chapter 173-204 WAC)

SQS: Sediment Quality Standard (Table I, Chapter 173-204 WAC)

CSL: Cleanup Screening Level (Table III, Chapter 173-204 WAC)

LPAHs: Low Molecular Weight Polynuclear Aromatic Hydrocarbons

HPAHs: High Molecular Weight Polynuclear Aromatic Hydrocarbons

PCBs: Polychlorinated Biphenyls

LAET: Lowest Adverse Effects Threshold

2LAET: Second Lowest Adverse Effects Threshold

Qualifiers:

U: <MDL

J: <RDL

B: detected in method blank

X: very low biased data

E: estimated

Table 8. 2007 Sediment Chemistry Results at Duwamish Diagonal - Comparison to SMS (cont.)

Location ID	SMS		Enhanced Natural Recovery Area							
	SQS	CSL	DUD_3C	DUD_4C Avg	DUD_5C	DUD_6C	DUD_7C	DUD_14C	DUD_15C	
<b>Conventionals (%)</b>										
Total Solids	--	--	54.1	68.6	67.3	78.8	55.7	65.6	55.1	
Total Organic Carbon	--	--	1.24	0.835	0.747	0.698	1.36	1.02	1.53	
<b>Metals (mg/kg)</b>										
Arsenic	57	93	9.4 J	6.0 J	5.5 J	5.1 J	10 J	7.3 J	9.6 J	
Cadmium	5.1	6.7	0.18 J	0.16	0.15 U	0.13 U	0.215 J	0.259 J	0.2 J	
Chromium	260	270	26	19.8	19.5	16.8	25.3	23.6	23.4	
Copper	390	390	50.6	39.1	36.1	31.6	51.5	52.1	45.2	
Lead	450	530	18.7	12	11.8	10.4	18.7	24.2	18	
Mercury	0.41	0.59	0.106	0.0781	0.0505 J	0.0482 J	0.118	0.139	0.117	
Silver	6.1	6.1	0.37 U	0.29 U	0.3 U	0.25 U	0.36 U	0.473 J	0.36 U	
Zinc	410	960	82.4	57.8	56.9	52.4	86	79	78.9	
<b>PCBs (mg/kg-OC)</b>										
Total PCBs	12	65	6.44	4.89	5.22	4.69	5.7	11.9	2.78	
<b>LPAH (mg/kg-OC)</b>										
2-Methylnaphthalene	38	64	0.3 U	0.35	0.4 U	0.36 U	0.26 U	0.3 U	0.24 U	
Acenaphthylene	66	66	0.3 U	0.38	0.4 U	0.36 U	0.26 U	0.622	0.24 U	
Acenaphthene	16	57	0.36 J	0.37	0.54 J	0.45 J	0.29 J	0.4 J	0.25 J	
Anthracene	220	1200	1.88	1.42	2.07	1.48	1.87	3.99	1.28	
Fluorene	23	79	0.783	0.42 J	0.885	0.6 J	0.55	1.02	0.43 J	
Naphthalene	99	170	0.3 U	0.36 U	0.4 U	0.36 U	0.26 U	0.33 J	0.24 U	
Phenanthrene	100	480	6.93	3.12	4.29	3.73	4.05	6.09	3.18	
Total LPAH	370	780	9.95	5.33	7.78	6.26	6.76	12.4	5.13	
<b>HPAH (mg/kg-OC)</b>										
Benzo(a)anthracene	110	270	6.13	4.76	6.4	5.04	5.46	10.9	3.19	
Benzo(a)pyrene	99	210	5.85	4.9	6.32	5.25	5.21	9.13	3.61	
Benzo(g,h,i)perylene	31	78	3.3	3.26	3.6	3.25	3.52	5.55	2.45	
Chrysene	110	460	9.45	6.74	7.93	7.55	8.88	17.8	5.44	
Dibenzo(a,h)anthracene	12	33	0.871	0.994	1.04	0.865	0.917	1.54	0.66	
Fluoranthene	160	1200	18.2	10.9	13.2	10.8	11.3	19.1	8.54	
Indeno(1,2,3-Cd)Pyrene	34	88	4.09	3.43	3.94	3.71	3.63	5.45	2.55	
Pyrene	1000	1400	12.1	7.81	10.8	9.53	9.16	15.8	7.18	
Total Benzofluoranthenes	230	450	13.7	11.8	14	12	12	23	7.96	
Total HPAH	960	5300	87.3	66.3	81.1	69.3	72.2	131	49.5	
<b>Chlorobenzenes (mg/kg-OC)</b>										
1,2-Dichlorobenzene	2.3	2.3	0.03 U	0.036 U	0.04 U	0.036 U	0.026 U	0.03 U	0.024 U	
1,2,4-Trichlorobenzene	0.81	1.8	0.015 U	0.017 U	0.02 U	0.018 U	0.013 U	0.015 U	0.012 U	
1,4-Dichlorobenzene	3.1	9	0.03 U	0.035 U	0.04 U	0.036 U	0.026 U	0.03 U	0.024 U	
Hexachlorobenzene	0.38	2.3	0.015 U	0.018 U	0.02 U	0.018 U	0.013 U	0.015 U	0.012 U	
<b>Phthalates (mg/kg-OC)</b>										
Bis(2-Ethylhexyl)Phthalate	47	78	16.1 B	11.2 B	11 B	10.6 B	11.4 B	16.1 B	9.19 B	
Butylbenzylphthalate	4.9	64	3.54	2.06	2.17	2.6	1.91	2.07	1.46	
Diethylphthalate	61	110	0.6 U	0.71 U	0.8 U	0.73 U	0.53 U	0.6 U	0.47 U	
Dimethylphthalate	53	53	0.6 U	0.70 U	0.8 U	0.73 U	0.53 U	0.6 U	0.47 U	
Di-N-Butylphthalate	220	1700	1.5	0.81 J	0.8 U	0.76 J	0.61 J	0.61 J	0.57 J	
Di-N-Octylphthalate	58	4500	0.6 U	0.70 U	0.8 U	0.73 U	0.53 U	0.6 U	0.47 U	
<b>Ionic Organics (ug/kg dw)</b>										
2-Methylphenol	63	63	3.7 U	2.9 U	3.0 U	2.5 U	3.6 U	3.0 U	3.6 U	
4-Methylphenol	670	670	7.4 U	5.9 U	5.9 U	5.1 U	7.2 U	6.1 U	7.3 U	
2,4-Dimethylphenol	29	29	1.8 U	1.4 U	1.5 U	1.3 U	1.8 U	1.5 U	1.8 U	
Benzyl Alcohol	57	73	3.7 U	2.9 U	3.0 U	2.5 U	3.6 U	3.0 U	3.6 U	
Benzoic Acid	650	650	170	70	67	62.1	97.8	75.5	83	
Pentachlorophenol	360	690	18 U	15 U	15 U	13 U	18 U	15 U	18 U	
Phenol	420	1200	9.6 J	5.8 U	6.5 J	5.1 U	7.2 U	6.1 U	7.3 U	
<b>Miscellaneous (mg/kg-OC)</b>										
Dibenzofuran	15	58	0.4 J	0.35	0.4 U	0.44 J	0.34 J	0.45 J	0.26 J	
Hexachlorobutadiene	3.9	6.2	0.074 U	0.088 U	0.099 U	0.091 U	0.066 U	0.075 U	0.059 U	
n-Nitroso-di-phenylamine	11	11	0.6 U	0.70 U	0.8 U	0.73 U	0.53 U	0.6 U	0.47 U	

Notes:

Heavy shading: Detected value exceeds one or both criterion

Light shading: TOC <0.5% or >3%, thus OC-normalized chemicals compared to LAET and 2LAET

Bold: Detected.

6.3 U: Special font denotes that TOC requires comparison to AET and 2LAET

\* Exceeds SMS SQS or SQS-AET criteria.

\*\* Exceeds SMS CSL or CSL-AET criteria.

dw: dry weight normalized

-OC: organic carbon normalized

SMS: Sediment Management Standards (Chapter 173-204 WAC)

SQS: Sediment Quality Standard (Table I, Chapter 173-204 WAC)

CSL: Cleanup Screening Level (Table III, Chapter 173-204 WAC)

LPAHs: Low Molecular Weight Polynuclear Aromatic Hydrocarbons

HPAHs: High Molecular Weight Polynuclear Aromatic Hydrocarbons

PCBs: Polychlorinated Biphenyls

LAET: Lowest Adverse Effects Threshold

2LAET: Second Lowest Adverse Effects Threshold

Qualifiers:

U: <MDL

J: <RDL

B: detected in method blank

X: very low biased data

E: estimated

**Table 8. 2007 Sediment Chemistry Results at Duwamish Diagonal - Comparison to SMS (cont.)**

Location ID	SMS		Perimeter Area							
	SQS	CSL	DUD_1C	DUD_2C	DUD_8C AVG	DUD_9C	DUD_10C	DUD_11C	DUD_12C	DUD_13C
<b>Conventionals (%)</b>										
Total Solids	--	--	42.7	44.1	64.1	69.4	57.4	67.7	69.5	55.3
Total Organic Carbon	--	--	2.34	2.14	1.09	0.793	1.17	1.21	0.822	1.52
<b>Metals (mg/kg)</b>										
Arsenic	57	93	14 J	13 J	7.2 J	6.9 J	10 J	8.7 J	7.2 J	11 J
Cadmium	5.1	6.7	0.492 J	0.408 J	0.436 J	0.403 J	0.261 J	0.236 J	0.43 J	0.579 J
Chromium	260	270	34.9	32.2	27.4	23.6	26.7	27.6	32.1	35.1
Copper	390	390	74.2	73.2	56	45	49	58.1	59.1	77.9
Lead	450	530	38.6	34.5	27.6	30.7	26.3	25	47.1	49
Mercury	0.41	0.59	0.307	0.165	0.12	0.119	0.113	0.0982	0.141	0.248
Silver	6.1	6.1	0.47 U	0.45 U	0.76 J	0.403 J	0.35 U	0.3 U	0.446 J	0.615 J
Zinc	410	960	152	140	83.9	76	91.3	95.9	101	128
<b>PCBs (mg/kg-OC)</b>										
Total PCBs	12	65	6.27	7.38	40.4 *	39.2 *	11.4	9.13	37.6 *	24.4 *
<b>LPAH (mg/kg-OC)</b>										
2-Methylnaphthalene	38	64	0.38 J	1.61	0.38 J	0.36 U	0.46 J	0.37 J	0.58 J	0.35 J
Acenaphthylene	66	66	0.2 U	0.41 J	0.28 U	0.36 U	0.889	0.47 J	0.67 J	0.529
Acenaphthene	16	57	0.533	6.61	0.52	0.38 J	0.635	0.701	0.886	0.518
Anthracene	220	1200	2.65	4.45	1.89	1.49	2.57	2.81	3.7	4.49
Fluorene	23	79	0.862	4.97	0.841	0.6 J	1.5	1.14	1.23	1.21
Naphthalene	99	170	0.39 J	0.68	0.41 J	0.36 U	0.958	0.58	0.65 J	0.33 J
Phenanthrene	100	480	6.02	24.8	5.42	3.75	12.8	9.12	11	8.31
Total LPAH	370	780	10.5	42	9.05	6.22	19.4	14.8	17.6	15.4
<b>HPAH (mg/kg-OC)</b>										
Benzo(a)anthracene	110	270	11	20.1	7.31	7.02	10.9	6.65	13.3	13.9
Benzo(a)pyrene	99	210	5.61	18.4	5.81	5.85	9.9	10	14.5	13.1
Benzo(g,h,i)perylene	31	78	5.18	5.27	3.73	3.96	6.1	6.41	9.47	7.76
Chrysene	110	460	10.3	13.4	7.34	6.85	13	14.8	17.9	18.2
Dibenzo(a,h)anthracene	12	33	1.31	1.4	1.17	1.25	1.57	1.89	2.4	2.79
Fluoranthene	160	1200	19.7	56.7	13.9	10.2	31.5	23.7	26.4	22
Indeno(1,2,3-Cd)Pyrene	34	88	4.74	5.33	3.83	3.91	6.22	6.0	9.07	7.87
Pyrene	1000	1400	17.3	37	12.5	13	24.6	20.7	30.6	22.5
Total Benzofluoranthenes	230	450	17.8	23.5	14.8	14.3	24.3	22.1	34.2	35.2
Total HPAH	960	5300	111	205	84.9	80.6	153	134	192	179
<b>Chlorobenzenes (mg/kg-OC)</b>										
1,2-Dichlorobenzene	2.3	2.3	0.02 U	0.021 U	0.033 U	0.036 U	0.03 U	0.025 U	0.035 U	0.024 U
1,2,4-Trichlorobenzene	0.81	1.8	0.01 U	0.011 U	0.014 U	0.018 U	0.015 U	0.012 U	0.018 U	0.012 U
1,4-Dichlorobenzene	3.1	9	0.02 U	0.0793	0.157	0.138	0.03 U	0.51	0.42	0.0911
Hexachlorobenzene	0.38	2.3	0.01 U	0.011 U	0.015 U	0.018 U	0.015 U	0.012 U	0.018 U	0.012 U
<b>Phthalates (mg/kg-OC)</b>										
Bis(2-Ethylhexyl)Phthalate	47	78	61.5 B*	37.7 B	23.6 B	19.6 B	21.2 B	42.9 B	56.9 B*	22.5 B
Butylbenzylphthalate	4.9	64	2.64	4.95 *	2.18	2.78	2.26	7.13 *	4.66	2.07
Diethylphthalate	61	110	0.4 U	0.42 U	0.58 U	0.73 U	0.59 U	0.49 U	0.7 U	0.48 U
Dimethylphthalate	53	53	0.4 U	0.58 J	0.57 U	0.73 U	0.59 U	0.49 U	0.7 U	0.48 U
Di-N-Butylphthalate	220	1700	1.12	0.42 U	0.80 U	0.73 U	2.42	3.05	3.73	1.0
Di-N-Octylphthalate	58	4500	1.58	0.42 U	0.57 U	0.73 U	0.59 U	0.49 U	0.7 U	0.48 U
<b>Ionic Organics (ug/kg dw)</b>										
2-Methylphenol	63	63	4.7 U	4.5 U	3.1 U	2.9 U	3.5 U	3.0 U	2.9 U	3.6 U
4-Methylphenol	670	670	9.4 U	9.1 U	6.2 U	5.8 U	7.0 U	5.9 U	5.8 U	7.2 U
2,4-Dimethylphenol	29	29	2.3 U	2.3 U	1.5 U	1.4 U	1.7 U	1.5 U	1.4 U	1.8 U
Benzyl Alcohol	57	73	4.7 U	4.5 U	3.1 U	2.9 U	3.5 U	3.0 U	2.9 U	3.6 U
Benzoic Acid	650	650	123	131	74.7	65.4	78.9	86.1	94.4	92.9
Pentachlorophenol	360	690	23 U	23 U	16 U	14 U	17 U	15 U	14 U	18 U
Phenol	420	1200	9.4 U	9.1 U	6.3 U	5.8 U	7.0 U	5.9 U	5.8 U	7.2 U
<b>Miscellaneous (mg/kg-OC)</b>										
Dibenzofuran	15	58	0.522	3.8	0.47 J	0.36 U	0.766	0.593	0.729	0.511
Hexachlorobutadiene	3.9	6.2	0.05 U	0.053 U	0.072 U	0.091 U	0.074 U	0.061 U	0.088 U	0.06 U
n-Nitroso-di-phenylamine	11	11	0.4 U	0.42 U	0.57 U	0.73 U	0.59 U	0.49 U	0.7 U	0.48 U

**Notes:**

Heavy shading: Detected value exceeds one or both criterion

Light shading: TOC <0.5% or >3%, thus OC-normalized chemicals compared to LAET and 2LAET

Bold: Detected.

6.3 U: Special font denotes that TOC requires comparison to AET and 2LAET

\* Exceeds SMS SQS or SQS-AET criteria.

\*\* Exceeds SMS CSL or CSL-AET criteria.

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SMS: Sediment Management Standards (Chapter 173-204 WAC)

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LPAHs: Low Molecular Weight Polynuclear Aromatic Hydrocarbons

HPAHs: High Molecular Weight Polynuclear Aromatic Hydrocarbons

PCBs: Polychlorinated Biphenyls

LAET: Lowest Adverse Effects Threshold

2LAET: Second Lowest Adverse Effects Threshold

Qualifiers:

U: <MDL

J: <RDL

B: detected in method blank

X: very low biased data

E: estimated



## 4.0. SUMMARY

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Samples were collected in 2006 and 2007 from stations in Cap Areas A and B, the ENR Area and the Perimeter Area as planned according to the SAP (King County 2003; King County 2004). Each year, a total of eight composite samples were collected from the cap areas, seven from the ENR area, and eight from the perimeter area. No results were rejected following QA review of the data. A summary of the overall findings are presented below.

In Cap Area A, concentrations of four chemicals exceeded SMS/AET in 2006 and two chemicals exceeded SMS/AET in 2007. BBP, BEHP, total PCBs, and benzoic acid concentrations exceeded the SQS at three Cap Area A stations in 2006 and BEHP concentrations exceeded CSL and/or SQS at three stations. The concentrations of both BBP and BEHP were lower in 2007 at these stations. BBP concentrations exceeded SMS/AET in 2007 at only one station (1A). While BEHP concentrations were lower in 2007, although still exceeded SMS at the same three stations. Total PCB concentrations exceeded the SQS at two stations, 1A and 4A, in 2006. PCB concentrations appear to have declined in 2007 with no results exceeding the SMS/AET in Cap Area A. Within Cap Area A, station 1A samples were measured with the highest total PCB and BEHP OC-normalized concentrations in both 2006 and 2007.

Chemistry results indicate that no SMS/AET were exceeded for any chemical in 2006 or 2007 samples from either Cap Area B or ENR Area stations. Concentrations of eight chemicals in 2006 and of three chemicals in 2007 exceeded the SMS/AET at Perimeter Area stations. Concentrations of mercury, acenaphthene, fluoranthene, benzoic acid and phenol exceeded SMS/AET in 2006 but not in 2007. BBP, BEHP, and total PCBs exceeded either the SQS or CSL in both 2006 and 2007 at some perimeter stations.

On the cap, TOC increased at cap B stations 2B and 3B and downstream cap A stations 4A and 5A. Generally, percent fines also increased at these stations except at 1A and 5A, where very little change was observed. Fine-grained sediments have become dominant over coarse-grained sediments at all Cap B stations. TOC and grain size data indicate that both organic carbon content and percent fines are increasing on the ENR since thin layer placement. ENR stations 4C, 5C, 6C and 14C are still dominated by coarse-grained sediments. Changes were more spatially variable across the perimeter stations. TOC generally increased at perimeter stations over 2006 and 2007 except at 13C, the upstream station, where it declined slightly. Grain size data indicate that percent fines increased at 1C, 2C, 10C and 11C, generally stayed the same at 8C and 12C, and generally decreased at 9C and 13C. In 2007, the majority of sediments were fine-grained at stations 1C, 2C and 13C, while coarse-grained sediments dominated at stations 8C, 9C, 11C and 12C.

Overall, the number of chemicals with SMS/AET exceedances declined from 2006 to 2007. Only the Cap Area A and Perimeter Area stations continue to have SMS exceedances. Examination of changes in PCBs and BEHP from 2006 to 2007 illustrate that some dry weight concentrations increased in 2007. The associated OC-normalized concentrations show declines in both PCBs and BEHP. PCBs have declined in Cap Area A to below SMS/AET and those in the Perimeter Area stations have declined but remain between the SQS and CSL at four of eight stations. Although BEHP concentrations have been variable

between years, OC-normalized values at stations with SMS exceedance history were the lowest in 2007 of any previously measured on site. These results indicate improvement in both total PCB and BEHP concentrations.

## 5.0. REFERENCES

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# Appendix A – QA1 Quality Assurance Review Package

**Appendix A1 – Sediment Cap 2006**

**Appendix A2 – Sediment Cap 2007**

**Appendix A3 – ENR 2006**

**Appendix A4 – ENR 2007**

**Appendix A5 – Perimeter Station 2006**

**Appendix A6 – Perimeter Station 2007**

**Contents electronically available upon request.**

Appendix B -  
Memorandum on  
Diver-Collected  
Sediment Samples,  
2006



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

## Memorandum

---

**To:** Fritz Grothkopp

**From:** David Gillingham

**CC:** Dan Hennessy  
Clay Patmont

**Date:** March 13, 2006

**Re:** Diver Collected Sediment Samples, Duwamish/Diagonal Sediment Remediation Area

---

This memo is to document the diver collected surface grab samples from the Duwamish/Diagonal sediment remediation site in the Duwamish River. Samples were collected from the Research Support Services vessel on March 10, 2006.

The samples were collected using a 6-inch diameter, 10-centimeter deep stainless steel diver-operated sampler. Sediment samples were collected at stations DUD3C, DUD4C, DUD5C, DUD6C, DUD7C, DUD14C, and DUD15C. An addition field replicate sample was collected at DUD4C. Target coordinates were the same coordinates from the previous survey in 2005.

Samples were collected without problems. Samples, once collected, were processed on the sampling vessel. Decontaminated stainless steel bowls and spoons were used. Sample material, once homogenized, was placed into jars provided by the lab and held on ice in a cooler. The samples consisted primarily of the recently placed cap material with a trace to up to 3 cm of olive colored silt material on the surface. Generally, the stations inshore had 1 to 3 cm of silt while the two stations closer to the center of the channel, DUD7C and DUD15C, had only a trace or no silt on the surface. The samples generally had no odor and no sheen, however, the sample collected at DUD3C showed a very slight sheen in the homogenization bowl. Samples were delivered to the King County Environmental Laboratory the same day as sample collection. Copies of field sampling data sheets are attached to this memo in PDF format.



In addition to collecting sediment samples, the diver used his tether line to swim a 20-ft diameter circle around the sample position to observe for the presence of spud holes. Only one spud hole was observed during the collection. One spud hole was observed approximately 15 ft inshore of the sample location for DUD14C. The spud hole was described by the diver as approximately 2 ft in diameter and 2 ft deep.

At the request of King County, the diver performed a brief visual survey through Area B to observe the slope cap in that area. The diver entered the water near the offshore corner of the pier and swam offshore to the toe of the slope. The diver swam downstream along the toe of the slope for approximately 50 ft and returned up the slope. The diver reported that the slope material consisted of crushed gravel and quarry spall material with some rip-rap and appeared stable. The material offshore of the slope toe consisted of silt material.

# Appendix C - Complete Sediment Chemistry Analytical Results

**Appendix C1 – Sediment Cap 2006**

**Appendix C2 – Sediment Cap 2007**

**Appendix C3 – ENR 2006**

**Appendix C4 – ENR 2007**

**Appendix C5 – Perimeter Station 2006**

**Appendix C6 – Perimeter Station 2007**

# King County Environmental Lab Analytical Report

**Appendix C1 - 2006  
Sediment Cap Areas A and B**

Locator: DUD\_1A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-1  
 Matrix: SALTWTRSED  
 % Solids: 62.3

Locator: DUD\_2A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-2  
 Matrix: SALTWTRSED  
 % Solids: 43.1

Locator: DUD\_3A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-3  
 Matrix: SALTWTRSED  
 % Solids: 50.9

Locator: DUD\_4A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-4  
 Matrix: SALTWTRSED  
 % Solids: 72.6

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
<b>COMBINED LABS</b>																				
<b>M=CV ASTM D422(03-02-005-001)</b>																				
Fines *	8.3		0.5	1	%	65.9		0.5	1	%	53.3		0.5	1	%	20.2		0.5	1	%
Clay *	3.3	E	0.5	1	%	15.3	E	0.5	1	%	17.1	E	0.5	1	%	8.1	E	0.5	1	%
Silt *	5		0.5	1	%	50.6		0.5	1	%	36.2		0.5	1	%	12.1		0.5	1	%
Sand *	84.9		0.1	1	%	18.2		0.1	1	%	26.3		0.1	1	%	72.2		0.1	1	%
Gravel *	2.6		0.1	1	%	9.7		0.1	1	%	18.3		0.1	1	%	10.4		0.1	1	%
p+0.00 *	3.1		0.1	1	%	2		0.1	1	%	2.4		0.1	1	%	7.5		0.1	1	%
p+1.00 *	12		0.1	1	%	2.2		0.1	1	%	2.1		0.1	1	%	11		0.1	1	%
p+10.0(equal/more than) *	2.5		0.5	1	%	11.8		0.5	1	%	11.4		0.5	1	%	6.7		0.5	1	%
p+2.00 *	48.6		0.1	1	%	2.5		0.1	1	%	4.9		0.1	1	%	23.9		0.1	1	%
p+3.00 *	18		0.1	1	%	4		0.1	1	%	9.3		0.1	1	%	22.8		0.1	1	%
p+4.00 *	3.3		0.1	1	%	7.5		0.1	1	%	7.6		0.1	1	%	7		0.1	1	%
p+5.00 *	1.7		0.5	1	%	15.3		0.5	1	%	10.5		0.5	1	%	4.7		0.5	1	%
p+6.00 *	0.8	<RDL	0.5	1	%	14.1		0.5	1	%	9.5		0.5	1	%	2		0.5	1	%
p+7.00 *	1.7		0.5	1	%	15.3		0.5	1	%	11.4		0.5	1	%	4		0.5	1	%
p+8.00 *	0.8	<RDL	0.5	1	%	5.9		0.5	1	%	4.8		0.5	1	%	1.4		0.5	1	%
p+9.00 *	0.8	<RDL	0.5	1	%	3.5		0.5	1	%	5.7		0.5	1	%	1.4		0.5	1	%
p-1.00 *	1.6		0.1	1	%	2.9		0.1	1	%	3.6		0.1	1	%	7.1		0.1	1	%
p-2.00 *	0.3	<RDL	0.1	1	%	1.1		0.1	1	%	1.5		0.1	1	%	0.5	<RDL	0.1	1	%
p-2.00(less than) *	0.7	<RDL	0.1	1	%	5.7		0.1	1	%	13.2		0.1	1	%	2.8		0.1	1	%
<b>M=CV EPA9060-PSEP96 (03-04-002-003)</b>																				
Total Organic Carbon	22800		1900	3930	mg/Kg	29900		1900	3900	mg/Kg	18700		1800	3560	mg/Kg	7670		1000	2090	mg/Kg
<b>M=CV SM2540-G (03-01-007-002)</b>																				
Total Solids *	62.3		0.005	0.01	%	43.1		0.005	0.01	%	50.9		0.005	0.01	%	72.6		0.005	0.01	%
<b>M=ES NONE</b>																				
Field Personnel	JB, JD, JDD, PR				none	JB, JD, JDD, PR				none	JB, JD, JDD, PR				none	JB, JD, JDD, PR				none
Sampcoordx1 *	1267041				ft	1267134				ft	1266952				ft	1266889				ft
Sampcoordx2 *	1267045				ft	1267139				ft	1266951				ft	1266886				ft
Sampcoordx3 *																				
Sampcoordx4 *																				
Sampcoordx5 *																				
Sampcoordy1 *	209087				ft	208902				ft	208981				ft	209354				ft
Sampcoordy2 *	209083				ft	208898				ft	208987				ft	209354				ft
Sampcoordy3 *																				
Sampcoordy4 *																				
Sampcoordy5 *																				
Sample Depth *	5				m	7				m	8				m	7				m
Sample Function																				
Sample Start Time *	1315				hr	1340				hr	1403				hr	1430				hr
Sampling Method *	20042				none	20042				none	20042				none	20042				none
Sediment Sampling Depth *	9				cm	10				cm	8				cm	10				cm
Sediment Sampling Range *	0-8 cm				cm	0-9 cm				cm	0-7 cm				cm	0-9 cm				cm
Sediment Type	23P12				none	21P11				none	21N31				none	32N30				none
Tidal Condition	E				none	E				none	E				none	E				none
Tide Height *	3.5				ft	3				ft	2.5				ft	2				ft

# King County Environmental Lab Analytical Report

**Appendix C1 - 2006  
Sediment Cap Areas A and B**

Locator: DUD\_1A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-1  
 Matrix: SALTWTRSED  
 % Solids: 62.3

Locator: DUD\_2A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-2  
 Matrix: SALTWTRSED  
 % Solids: 43.1

Locator: DUD\_3A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-3  
 Matrix: SALTWTRSED  
 % Solids: 50.9

Locator: DUD\_4A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-4  
 Matrix: SALTWTRSED  
 % Solids: 72.6

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
<b>COMBINED LABS</b>																				
<b>M=MT EPA 7471A (06-01-004-003)</b>																				
Mercury, Total, CVAA	0.087	<RDL	0.032	0.319	mg/Kg	0.3	<RDL	0.044	0.443	mg/Kg	0.28	<RDL	0.037	0.379	mg/Kg	0.092	<RDL	0.028	0.27	mg/Kg
<b>M=MT EPA3050A/6010B (06-02-004-002)</b>																				
Aluminum, Total, ICP	9090		8	40.1	mg/Kg	19300		12	60.3	mg/Kg	17200		10	50.9	mg/Kg	12100		6.6	33.3	mg/Kg
Antimony, Total, ICP		<MDL,G	2.4	12	mg/Kg		<MDL,G	3.7	18.1	mg/Kg		<MDL,G	3.1	15.3	mg/Kg		<MDL,G	2.1	10	mg/Kg
Arsenic, Total, ICP	5.5	<RDL	4	20.1	mg/Kg	15	<RDL	6	30.2	mg/Kg	14	<RDL	5.1	25.5	mg/Kg	5.2	<RDL	3.3	16.7	mg/Kg
Beryllium, Total, ICP	0.12	<RDL	0.08	0.401	mg/Kg	0.32	<RDL	0.12	0.603	mg/Kg	0.28	<RDL	0.1	0.509	mg/Kg	0.13	<RDL	0.066	0.333	mg/Kg
Cadmium, Total, ICP	0.9	<RDL	0.24	1.2	mg/Kg	0.74	<RDL	0.37	1.81	mg/Kg	0.47	<RDL	0.31	1.53	mg/Kg	0.28	<RDL	0.21	1	mg/Kg
Chromium, Total, ICP	42.4		0.4	2.01	mg/Kg	40.8		0.6	3.02	mg/Kg	33.4		0.51	2.55	mg/Kg	28.4		0.33	1.67	mg/Kg
Copper, Total, ICP	64.5		0.32	1.6	mg/Kg	103		0.49	2.41	mg/Kg	85.3		0.41	2.04	mg/Kg	55.8		0.26	1.33	mg/Kg
Iron, Total, ICP	16700		32	160	mg/Kg	32700		49	241	mg/Kg	29500		41	204	mg/Kg	21300		26	133	mg/Kg
Lead, Total, ICP	46.9		2.4	12	mg/Kg	65		3.7	18.1	mg/Kg	47		3.1	15.3	mg/Kg	23.8		2.1	10	mg/Kg
Manganese, Total, ICP	194		0.16	0.803	mg/Kg	374		0.23	1.21	mg/Kg	354		0.2	1.02	mg/Kg	285		0.13	0.667	mg/Kg
Nickel, Total, ICP	32.1		1.6	8.03	mg/Kg	29		2.3	12.1	mg/Kg	25		2	10.2	mg/Kg	19.7		1.3	6.67	mg/Kg
Selenium, Total, ICP		<MDL	4	20.1	mg/Kg		<MDL	6	30.2	mg/Kg		<MDL	5.1	25.5	mg/Kg		<MDL	3.3	16.7	mg/Kg
Silver, Total, ICP	0.48	<RDL	0.32	1.6	mg/Kg	0.86	<RDL	0.49	2.41	mg/Kg	0.67	<RDL	0.41	2.04	mg/Kg	0.47	<RDL	0.26	1.33	mg/Kg
Thallium, Total, ICP		<MDL	16	80.3	mg/Kg		<MDL	23	121	mg/Kg		<MDL	20	102	mg/Kg		<MDL	13	66.7	mg/Kg
Zinc, Total, ICP	246		0.4	2.01	mg/Kg	209		0.6	3.02	mg/Kg	145		0.51	2.55	mg/Kg	76.9		0.33	1.67	mg/Kg
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>																				
1,2,4-Trichlorobenzene		<MDL	4.3	8.56	ug/Kg		<MDL	3	6.19	ug/Kg		<MDL	0.53	1.05	ug/Kg		<MDL	0.37	0.734	ug/Kg
1,2-Dichlorobenzene		<MDL	4.3	8.56	ug/Kg		<MDL	3	6.19	ug/Kg		<MDL	0.53	1.05	ug/Kg		<MDL	0.37	0.734	ug/Kg
1,3-Dichlorobenzene		<MDL	4.3	8.56	ug/Kg		<MDL	3	6.19	ug/Kg		<MDL	0.53	1.05	ug/Kg		<MDL	0.37	0.734	ug/Kg
1,4-Dichlorobenzene	37.7		4.3	8.56	ug/Kg		<MDL	3	6.19	ug/Kg		<MDL	0.53	1.05	ug/Kg		<MDL	0.37	0.734	ug/Kg
2,4-Dimethylphenol		<MDL,X	43	85.6	ug/Kg		<MDL,X	30	61.9	ug/Kg		<MDL,X	5.3	10.5	ug/Kg		<MDL,X	3.7	7.34	ug/Kg
2-Methylnaphthalene	56	<RDL	43	85.6	ug/Kg		<MDL	30	61.9	ug/Kg	7.3	<RDL	5.3	10.5	ug/Kg		<MDL	3.7	7.34	ug/Kg
2-Methylphenol		<MDL	85	172	ug/Kg		<MDL	63	124	ug/Kg		<MDL	10	21	ug/Kg		<MDL	7.3	14.7	ug/Kg
4-Methylphenol		<MDL	85	172	ug/Kg		<MDL	63	124	ug/Kg		<MDL	10	21	ug/Kg		<MDL	7.3	14.7	ug/Kg
Acenaphthene		<MDL	43	85.6	ug/Kg	44	<RDL	30	61.9	ug/Kg	11.8		5.3	10.5	ug/Kg	5.9	<RDL	3.7	7.34	ug/Kg
Acenaphthylene		<MDL	43	85.6	ug/Kg		<MDL	30	61.9	ug/Kg	11.6		5.3	10.5	ug/Kg	4.3	<RDL	3.7	7.34	ug/Kg
Anthracene	218		43	85.6	ug/Kg	145		30	61.9	ug/Kg	98.4		5.3	10.5	ug/Kg	40.8		3.7	7.34	ug/Kg
Benzo(a)anthracene	682		43	85.6	ug/Kg	304		30	61.9	ug/Kg	185		5.3	10.5	ug/Kg	105		3.7	7.34	ug/Kg
Benzo(a)pyrene	665		43	85.6	ug/Kg	318		30	61.9	ug/Kg	214		5.3	10.5	ug/Kg	108		3.7	7.34	ug/Kg
Benzo(b)fluoranthene	576		43	85.6	ug/Kg	306		30	61.9	ug/Kg	228		5.3	10.5	ug/Kg	121		3.7	7.34	ug/Kg
Benzo(g,h,i)perylene	395		43	85.6	ug/Kg	220		30	61.9	ug/Kg	133		5.3	10.5	ug/Kg	78.9		3.7	7.34	ug/Kg
Benzo(k)fluoranthene	653		43	85.6	ug/Kg	376		30	61.9	ug/Kg	251		5.3	10.5	ug/Kg	117		3.7	7.34	ug/Kg
Benzoic Acid	790		210	429	ug/Kg		<MDL	160	309	ug/Kg	128		26	52.5	ug/Kg	95.2		18	36.8	ug/Kg
Benzyl Alcohol		<MDL	85	172	ug/Kg		<MDL	63	124	ug/Kg		<MDL	10	21	ug/Kg		<MDL	7.3	14.7	ug/Kg
Benzyl Butyl Phthalate	584	B	85	172	ug/Kg	206	B	63	124	ug/Kg	75.2	B	10	21	ug/Kg	39.4	B	7.3	14.7	ug/Kg
Bis(2-Ethylhexyl)Phthalate	3660	B	85	172	ug/Kg	2210	B	63	124	ug/Kg	835	B	10	21	ug/Kg	709	B	7.3	14.7	ug/Kg
Caffeine		<MDL	85	172	ug/Kg		<MDL	63	124	ug/Kg		<MDL	10	21	ug/Kg		<MDL	7.3	14.7	ug/Kg
Carbazole	124		43	85.6	ug/Kg	60	<RDL	30	61.9	ug/Kg	30.3		5.3	10.5	ug/Kg	19.4		3.7	7.34	ug/Kg
Chrysene	801		43	85.6	ug/Kg	469		30	61.9	ug/Kg	289		5.3	10.5	ug/Kg	154		3.7	7.34	ug/Kg
Coprostanol		<MDL	850	1720	ug/Kg		<MDL	630	1240	ug/Kg		<MDL	100	210	ug/Kg		<MDL	73	147	ug/Kg
Dibenzo(a,h)anthracene	80	<RDL	43	85.6	ug/Kg	60	<RDL	30	61.9	ug/Kg	41.8		5.3	10.5	ug/Kg	19.4		3.7	7.34	ug/Kg
Dibenzofuran	63	<RDL	43	85.6	ug/Kg		<MDL	30	61.9	ug/Kg	14.5		5.3	10.5	ug/Kg	6.3	<RDL	3.7	7.34	ug/Kg

# King County Environmental Lab Analytical Report

**Appendix C1 - 2006  
Sediment Cap Areas A and B**

Locator: DUD\_1A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-1  
 Matrix: SALTWTRSED  
 % Solids: 62.3

Locator: DUD\_2A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-2  
 Matrix: SALTWTRSED  
 % Solids: 43.1

Locator: DUD\_3A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-3  
 Matrix: SALTWTRSED  
 % Solids: 50.9

Locator: DUD\_4A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-4  
 Matrix: SALTWTRSED  
 % Solids: 72.6

Parameters	Value					Value					Value					Value					
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					
<b>COMBINED LABS</b>																					
Diethyl Phthalate	<MDL		85	172	ug/Kg	<MDL		63	124	ug/Kg	<MDL		10	21	ug/Kg	<MDL		7.3	14.7	ug/Kg	
Dimethyl Phthalate	130	<RDL	85	172	ug/Kg	<MDL		63	124	ug/Kg	<MDL		10	21	ug/Kg	<MDL		7.3	14.7	ug/Kg	
Di-N-Butyl Phthalate	<MDL	B	85	172	ug/Kg	120	<RDL	B	63	124	ug/Kg	41.8	B	10	21	ug/Kg	25.3	B	7.3	14.7	ug/Kg
Di-N-Octyl Phthalate	<MDL		85	172	ug/Kg	<MDL		63	124	ug/Kg	<MDL		10	21	ug/Kg	<MDL		7.3	14.7	ug/Kg	
Fluoranthene	1700		43	85.6	ug/Kg	926		30	61.9	ug/Kg	434		5.3	10.5	ug/Kg	271		3.7	7.34	ug/Kg	
Fluorene	113		43	85.6	ug/Kg	60	<RDL		30	61.9	ug/Kg	28.1		5.3	10.5	ug/Kg	10.4		3.7	7.34	ug/Kg
Hexachlorobenzene	<MDL		8.5	17.2	ug/Kg	<MDL		6.3	12.4	ug/Kg	<MDL		1	2.1	ug/Kg	<MDL		0.73	1.47	ug/Kg	
Hexachlorobutadiene	<MDL		21	42.9	ug/Kg	<MDL		16	30.9	ug/Kg	<MDL		2.6	5.25	ug/Kg	<MDL		1.8	3.68	ug/Kg	
Indeno(1,2,3-Cd)Pyrene	347		43	85.6	ug/Kg	182		30	61.9	ug/Kg	120		5.3	10.5	ug/Kg	68		3.7	7.34	ug/Kg	
Naphthalene	43	<RDL	43	85.6	ug/Kg	<MDL		30	61.9	ug/Kg	9.6	<RDL		5.3	10.5	ug/Kg	3.9	<RDL	3.7	7.34	ug/Kg
N-Nitrosodiphenylamine	<MDL		85	172	ug/Kg	<MDL		63	124	ug/Kg	<MDL		10	21	ug/Kg	<MDL		7.3	14.7	ug/Kg	
Pentachlorophenol	<MDL		210	429	ug/Kg	<MDL		160	309	ug/Kg	<MDL		26	52.5	ug/Kg	<MDL		18	36.8	ug/Kg	
Phenanthrene	778		43	85.6	ug/Kg	346		30	61.9	ug/Kg	148		5.3	10.5	ug/Kg	97.7		3.7	7.34	ug/Kg	
Phenol	<MDL		85	172	ug/Kg	<MDL		63	124	ug/Kg	<MDL		10	21	ug/Kg	<MDL		7.3	14.7	ug/Kg	
Pyrene	1530		43	85.6	ug/Kg	768		30	61.9	ug/Kg	393		5.3	10.5	ug/Kg	223		3.7	7.34	ug/Kg	
Total HPAHS	7430		43	85.6	ug/Kg	3920		30	61.9	ug/Kg	2300		5.3	10.5	ug/Kg	1270		3.7	7.34	ug/Kg	
Total LPAHs	1220		43	85.6	ug/Kg	594		30	61.9	ug/Kg	314		5.3	10.5	ug/Kg	163		3.7	7.34	ug/Kg	
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>																					
4,4'-DDD	<MDL		1.6	3.21	ug/Kg	<MDL		2.3	4.64	ug/Kg	<MDL		2	3.93	ug/Kg	<MDL		1.4	2.75	ug/Kg	
4,4'-DDE	<MDL		1.6	3.21	ug/Kg	<MDL		2.3	4.64	ug/Kg	<MDL		2	3.93	ug/Kg	<MDL		1.4	2.75	ug/Kg	
4,4'-DDT	<MDL	L	1.6	3.21	ug/Kg	<MDL	L,E	2.3	4.64	ug/Kg	<MDL	L,E	2	3.93	ug/Kg	<MDL	L,E	1.4	2.75	ug/Kg	
Aldrin	<MDL		1.6	3.21	ug/Kg	<MDL		2.3	4.64	ug/Kg	<MDL		2	3.93	ug/Kg	<MDL		1.4	2.75	ug/Kg	
Alpha-BHC	<MDL		0.8	1.61	ug/Kg	<MDL		1.2	2.32	ug/Kg	<MDL		0.98	1.96	ug/Kg	<MDL		0.69	1.38	ug/Kg	
Alpha-Chlordane	<MDL		0.8	1.61	ug/Kg	<MDL		1.2	2.32	ug/Kg	<MDL		0.98	1.96	ug/Kg	<MDL		0.69	1.38	ug/Kg	
Aroclor 1016	<MDL	TA	58	114	ug/Kg	<MDL	TA	46	94.2	ug/Kg	<MDL	TA	45	90.4	ug/Kg	<MDL	TA	11	22.5	ug/Kg	
Aroclor 1221	<MDL		4	8.03	ug/Kg	<MDL		5.8	11.6	ug/Kg	<MDL		4.9	9.82	ug/Kg	<MDL		3.4	6.89	ug/Kg	
Aroclor 1232	<MDL		4	8.03	ug/Kg	<MDL		5.8	11.6	ug/Kg	<MDL	TA	61	123	ug/Kg	<MDL	TA	33	64.9	ug/Kg	
Aroclor 1242	<MDL		2.1	4.01	ug/Kg	<MDL		3	5.8	ug/Kg	<MDL		2.6	4.91	ug/Kg	<MDL	TA	21	42.3	ug/Kg	
Aroclor 1248	89.1		2.1	4.01	ug/Kg	97.7		3	5.8	ug/Kg	50.5		2.6	4.91	ug/Kg	21.9		1.8	3.44	ug/Kg	
Aroclor 1254	201		2.1	4.01	ug/Kg	126		3	5.8	ug/Kg	90		2.6	4.91	ug/Kg	46.6		1.8	3.44	ug/Kg	
Aroclor 1260	132	L	2.1	4.01	ug/Kg	82.1	L	3	5.8	ug/Kg	50.7	L	2.6	4.91	ug/Kg	24.2	L	1.8	3.44	ug/Kg	
Beta-BHC	<MDL		0.8	1.61	ug/Kg	<MDL		1.2	2.32	ug/Kg	<MDL		0.98	1.96	ug/Kg	<MDL		0.69	1.38	ug/Kg	
Delta-BHC	<MDL		0.8	1.61	ug/Kg	<MDL		1.2	2.32	ug/Kg	<MDL		0.98	1.96	ug/Kg	<MDL		0.69	1.38	ug/Kg	
Dieldrin	<MDL		1.6	3.21	ug/Kg	<MDL		2.3	4.64	ug/Kg	<MDL		2	3.93	ug/Kg	<MDL		1.4	2.75	ug/Kg	
Endosulfan I	<MDL		1.6	3.21	ug/Kg	<MDL		2.3	4.64	ug/Kg	<MDL		2	3.93	ug/Kg	<MDL		1.4	2.75	ug/Kg	
Endosulfan II	<MDL		1.6	3.21	ug/Kg	<MDL		2.3	4.64	ug/Kg	<MDL		2	3.93	ug/Kg	<MDL		1.4	2.75	ug/Kg	
Endosulfan Sulfate	<MDL		1.6	3.21	ug/Kg	<MDL		2.3	4.64	ug/Kg	<MDL		2	3.93	ug/Kg	<MDL		1.4	2.75	ug/Kg	
Endrin	<MDL		1.6	3.21	ug/Kg	<MDL		2.3	4.64	ug/Kg	<MDL		2	3.93	ug/Kg	<MDL		1.4	2.75	ug/Kg	
Endrin Aldehyde	<MDL		3.2	6.42	ug/Kg	<MDL		4.6	9.28	ug/Kg	<MDL		3.9	7.86	ug/Kg	<MDL		2.8	5.51	ug/Kg	
Gamma-BHC (Lindane)	<MDL		0.8	1.61	ug/Kg	<MDL		1.2	2.32	ug/Kg	<MDL		0.98	1.96	ug/Kg	<MDL		0.69	1.38	ug/Kg	
Gamma-Chlordane	<MDL		0.8	1.61	ug/Kg	<MDL		1.2	2.32	ug/Kg	6.6		0.98	1.96	ug/Kg	2.18		0.69	1.38	ug/Kg	
Heptachlor	<MDL		0.8	1.61	ug/Kg	<MDL		1.2	2.32	ug/Kg	<MDL		0.98	1.96	ug/Kg	<MDL		0.69	1.38	ug/Kg	
Heptachlor Epoxide	<MDL		0.8	1.61	ug/Kg	<MDL		1.2	2.32	ug/Kg	<MDL		0.98	1.96	ug/Kg	<MDL		0.69	1.38	ug/Kg	
Methoxychlor	<MDL		8	16.1	ug/Kg	<MDL	E	12	23.2	ug/Kg	<MDL	E	9.8	19.6	ug/Kg	<MDL	E	6.9	13.8	ug/Kg	
Toxaphene	<MDL		16	32.1	ug/Kg	<MDL		23	46.4	ug/Kg	<MDL		20	39.3	ug/Kg	<MDL		14	27.5	ug/Kg	

# King County Environmental Lab Analytical Report

**Appendix C1 - 2006  
Sediment Cap Areas A and B**

Locator: DUD\_1A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-1  
 Matrix: SALTWTRSED  
 % Solids: 62.3

Locator: DUD\_2A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-2  
 Matrix: SALTWTRSED  
 % Solids: 43.1

Locator: DUD\_3A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-3  
 Matrix: SALTWTRSED  
 % Solids: 50.9

Locator: DUD\_4A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-4  
 Matrix: SALTWTRSED  
 % Solids: 72.6

Parameters

	Value	Qual	MDL	RDL	Units		Value	Qual	MDL	RDL	Units		Value	Qual	MDL	RDL	Units		Value	Qual	MDL	RDL	Units	

**COMBINED LABS**

\* Not converted to dry weight basis for this parameter

# King County Environmental Lab Analytical Report

**Appendix C1 - 2006  
Sediment Cap Areas A and B**

 Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-5  
 Matrix: SALTWTRSED  
 % Solids: 82.2

 Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-6  
 Matrix: SALTWTRSED  
 % Solids: 82

 Locator: DUD\_1B  
 Descrip: Sediment Cap Area B  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-7  
 Matrix: SALTWTRSED  
 % Solids: 46.6

 Locator: DUD\_2B  
 Descrip: Sediment Cap Area B  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-8  
 Matrix: SALTWTRSED  
 % Solids: 70.5

Parameters	Value					Value					Value					Value														
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units										
	- Dry Weight Basis										- Dry Weight Basis										- Dry Weight Basis									
<b>COMBINED LABS</b>																														
<b>M=CV ASTM D422(03-02-005-001)</b>																														
Fines *	4.1		0.5	1	%	5.7		0.5	1	%	63.2		0.5	1	%	27.6		0.5	1	%										
Clay *	3.5	E	0.5	1	%	4	E	0.5	1	%	15.3	E	0.5	1	%	7.6	E	0.5	1	%										
Silt *	0.6	<RDL	0.5	1	%	1.7		0.5	1	%	47.9		0.5	1	%	20		0.5	1	%										
Sand *	74.6		0.1	1	%	76.8		0.1	1	%	33.4		0.1	1	%	14.1		0.1	1	%										
Gravel *	22.6		0.1	1	%	19.5		0.1	1	%	1.1		0.1	1	%	58.8		0.1	1	%										
p+0.00 *	12.4		0.1	1	%	12.2		0.1	1	%	0.3	<RDL	0.1	1	%	4.5		0.1	1	%										
p+1.00 *	17.1		0.1	1	%	17.1		0.1	1	%	0.7	<RDL	0.1	1	%	2.1		0.1	1	%										
p+10.0(equal/more than) *	2.3		0.5	1	%	3.4		0.5	1	%	10.2		0.5	1	%	6.9		0.5	1	%										
p+2.00 *	27.8		0.1	1	%	28.3		0.1	1	%	7.2		0.1	1	%	2.1		0.1	1	%										
p+3.00 *	15.2		0.1	1	%	16.7		0.1	1	%	16.3		0.1	1	%	2.7		0.1	1	%										
p+4.00 *	2.2		0.1	1	%	2.5		0.1	1	%	8.9		0.1	1	%	2.8		0.1	1	%										
p+5.00 *	0.6	<RDL	0.5	1	%	0.6	<RDL	0.5	1	%	17.3		0.5	1	%	6.9		0.5	1	%										
p+6.00 *		<MDL	0.5	1	%	0.6	<RDL	0.5	1	%	11.2		0.5	1	%	4.1		0.5	1	%										
p+7.00 *		<MDL	0.5	1	%		<MDL	0.5	1	%	13.3		0.5	1	%	6.2		0.5	1	%										
p+8.00 *		<MDL	0.5	1	%	0.6	<RDL	0.5	1	%	6.1		0.5	1	%	2.8		0.5	1	%										
p+9.00 *	1.2		0.5	1	%	0.6	<RDL	0.5	1	%	5.1		0.5	1	%	0.7	<RDL	0.5	1	%										
p-1.00 *	12.3		0.1	1	%	11.5		0.1	1	%	0.6	<RDL	0.1	1	%	10.8		0.1	1	%										
p-2.00 *	3.3		0.1	1	%	2.6		0.1	1	%		<MDL	0.1	1	%	7.2		0.1	1	%										
p-2.00(less than) *	6.9		0.1	1	%	5.4		0.1	1	%	0.5	<RDL	0.1	1	%	40.7		0.1	1	%										
<b>M=CV EPA9060-PSEP96 (03-04-002-003)</b>																														
Total Organic Carbon		<MDL	490	962	mg/Kg	560	<RDL	510	1010	mg/Kg	17600		1700	3370	mg/Kg	15300		1700	3460	mg/Kg										
<b>M=CV SM2540-G (03-01-007-002)</b>																														
Total Solids *	82.2		0.005	0.01	%	82		0.005	0.01	%	46.6		0.005	0.01	%	70.5		0.005	0.01	%										
<b>M=ES NONE</b>																														
Field Personnel	JB, JD, JDD, PR				none	JB, JD, JDD, PR				none	JB, JD, JDD, PR				none	JB, JD, JDD, PR				none										
Sampcoordx1 *	1266800				ft	1266804				ft	1267068				ft	1267080				ft										
Sampcoordx2 *	1266804				ft	1266799				ft	1267064				ft	1267083				ft										
Sampcoordx3 *																1267084				ft										
Sampcoordx4 *																1267082				ft										
Sampcoordx5 *																1267076				ft										
Sampcoordy1 *	209413				ft	209420				ft	208479				ft	208618				ft										
Sampcoordy2 *	209420				ft	209413				ft	208482				ft	208617				ft										
Sampcoordy3 *																208623				ft										
Sampcoordy4 *																208624				ft										
Sampcoordy5 *																208621				ft										
Sample Depth *	9				m	9				m	11				m	8				m										
Sample Function	FREP @ L38325-5									none																				
Sample Start Time *	1448				hr	1448				hr	1028				hr	1105				hr										
Sampling Method *	20042				none	20042				none	20042				none	20042				none										
Sediment Sampling Depth *	7				cm	6				cm	8				cm	4				cm										
Sediment Sampling Range *	0-6 cm				cm	0-5 cm				cm	0-7 cm				cm	0-4 cm				cm										
Sediment Type	30N20				none	30N20				none	23N20				none	54N20				none										
Tidal Condition	E				none	E				none	E				none	E				none										
Tide Height *	1.8				ft	1.8				ft	6.5				ft	6				ft										

# King County Environmental Lab Analytical Report

**Appendix C1 - 2006  
Sediment Cap Areas A and B**

Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-5  
 Matrix: SALTWTRSED  
 % Solids: 82.2

Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-6  
 Matrix: SALTWTRSED  
 % Solids: 82

Locator: DUD\_1B  
 Descrip: Sediment Cap Area B  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-7  
 Matrix: SALTWTRSED  
 % Solids: 46.6

Locator: DUD\_2B  
 Descrip: Sediment Cap Area B  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-8  
 Matrix: SALTWTRSED  
 % Solids: 70.5

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
			- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis			
<b>COMBINED LABS</b>																					
<b>M=MT EPA 7471A (06-01-004-003)</b>																					
Mercury, Total, CVAA	<MDL		0.024	0.238	mg/Kg	<MDL		0.023	0.235	mg/Kg	0.2	<RDL	0.043	0.425	mg/Kg	0.2	<RDL	0.028	0.281	mg/Kg	
<b>M=MT EPA3050A/6010B (06-02-004-002)</b>																					
Aluminum, Total, ICP	9790		5.8	29.1	mg/Kg	10600		6.2	31	mg/Kg	17100		10	51.1	mg/Kg	11600		7.2	36.2	mg/Kg	
Antimony, Total, ICP	<MDL,G		1.7	8.71	mg/Kg	<MDL,G		1.8	9.28	mg/Kg	<MDL,G		3	15.3	mg/Kg	<MDL,G		2.1	10.9	mg/Kg	
Arsenic, Total, ICP	<MDL		2.9	14.5	mg/Kg	<MDL		3	15.5	mg/Kg	12	<RDL	5.2	25.5	mg/Kg	7.2	<RDL	3.7	18.2	mg/Kg	
Beryllium, Total, ICP	0.082	<RDL	0.058	0.291	mg/Kg	0.09	<RDL	0.062	0.31	mg/Kg	0.3	<RDL	0.1	0.511	mg/Kg	0.17	<RDL	0.072	0.362	mg/Kg	
Cadmium, Total, ICP	<MDL		0.17	0.871	mg/Kg	<MDL		0.18	0.928	mg/Kg	0.32	<RDL	0.3	1.53	mg/Kg	0.27	<RDL	0.21	1.09	mg/Kg	
Chromium, Total, ICP	14.5		0.29	1.45	mg/Kg	16.2		0.3	1.55	mg/Kg	28.8		0.52	2.55	mg/Kg	21.8		0.37	1.82	mg/Kg	
Copper, Total, ICP	47.9		0.23	1.16	mg/Kg	46.5		0.24	1.23	mg/Kg	60.5		0.41	2.05	mg/Kg	55		0.28	1.45	mg/Kg	
Iron, Total, ICP	16900		23	116	mg/Kg	18800		24	123	mg/Kg	28300		41	205	mg/Kg	20300		28	145	mg/Kg	
Lead, Total, ICP	1.9	<RDL	1.7	8.71	mg/Kg	2.4	<RDL	1.8	9.28	mg/Kg	29.2		3	15.3	mg/Kg	26		2.1	10.9	mg/Kg	
Manganese, Total, ICP	283		0.12	0.58	mg/Kg	338		0.12	0.618	mg/Kg	348		0.2	1.02	mg/Kg	257		0.14	0.723	mg/Kg	
Nickel, Total, ICP	15.5		1.2	5.8	mg/Kg	17		1.2	6.18	mg/Kg	23.4		2	10.2	mg/Kg	15.9		1.4	7.23	mg/Kg	
Selenium, Total, ICP	<MDL		2.9	14.5	mg/Kg	<MDL		3	15.5	mg/Kg	<MDL		5.2	25.5	mg/Kg	<MDL		3.7	18.2	mg/Kg	
Silver, Total, ICP	0.34	<RDL	0.23	1.16	mg/Kg	0.33	<RDL	0.24	1.23	mg/Kg	0.67	<RDL	0.41	2.05	mg/Kg	0.45	<RDL	0.28	1.45	mg/Kg	
Thallium, Total, ICP	<MDL		12	58	mg/Kg	<MDL		12	61.8	mg/Kg	<MDL		20	102	mg/Kg	<MDL		14	72.3	mg/Kg	
Zinc, Total, ICP	27.6		0.29	1.45	mg/Kg	32.2		0.3	1.55	mg/Kg	101		0.52	2.55	mg/Kg	83.4		0.37	1.82	mg/Kg	
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>																					
1,2,4-Trichlorobenzene	<MDL		0.33	0.648	ug/Kg	<MDL		0.33	0.65	ug/Kg	<MDL		0.58	1.14	ug/Kg	<MDL		0.38	0.756	ug/Kg	
1,2-Dichlorobenzene	<MDL		0.33	0.648	ug/Kg	<MDL		0.33	0.65	ug/Kg	<MDL		0.58	1.14	ug/Kg	<MDL		0.38	0.756	ug/Kg	
1,3-Dichlorobenzene	<MDL		0.33	0.648	ug/Kg	<MDL		0.33	0.65	ug/Kg	<MDL		0.58	1.14	ug/Kg	<MDL		0.38	0.756	ug/Kg	
1,4-Dichlorobenzene	<MDL		0.33	0.648	ug/Kg	<MDL		0.33	0.65	ug/Kg	<MDL		0.58	1.14	ug/Kg	<MDL		0.38	0.756	ug/Kg	
2,4-Dimethylphenol	<MDL,X		3.3	6.48	ug/Kg	<MDL,X		3.3	6.5	ug/Kg	<MDL,X		5.8	11.4	ug/Kg	<MDL,X		3.8	7.56	ug/Kg	
2-Methylnaphthalene	<MDL		3.3	6.48	ug/Kg	<MDL		3.3	6.5	ug/Kg	<MDL		5.8	11.4	ug/Kg	4.5	<RDL	3.8	7.56	ug/Kg	
2-Methylphenol	<MDL		6.4	13	ug/Kg	<MDL		6.5	13	ug/Kg	<MDL		11	23	ug/Kg	<MDL		7.5	15.2	ug/Kg	
4-Methylphenol	<MDL		6.4	13	ug/Kg	<MDL		6.5	13	ug/Kg	<MDL		11	23	ug/Kg	<MDL		7.5	15.2	ug/Kg	
Acenaphthene	<MDL		3.3	6.48	ug/Kg	<MDL		3.3	6.5	ug/Kg	13.9		5.8	11.4	ug/Kg	7.8		3.8	7.56	ug/Kg	
Acenaphthylene	<MDL		3.3	6.48	ug/Kg	<MDL		3.3	6.5	ug/Kg	<MDL		5.8	11.4	ug/Kg	<MDL		3.8	7.56	ug/Kg	
Anthracene	<MDL		3.3	6.48	ug/Kg	<MDL		3.3	6.5	ug/Kg	75.1		5.8	11.4	ug/Kg	44.5		3.8	7.56	ug/Kg	
Benzo(a)anthracene	3.5	<RDL	3.3	6.48	ug/Kg	6.57		3.3	6.5	ug/Kg	173		5.8	11.4	ug/Kg	187		3.8	7.56	ug/Kg	
Benzo(a)pyrene	6.98		3.3	6.48	ug/Kg	10.7		3.3	6.5	ug/Kg	185		5.8	11.4	ug/Kg	134		3.8	7.56	ug/Kg	
Benzo(b)fluoranthene	7.19		3.3	6.48	ug/Kg	11.9		3.3	6.5	ug/Kg	194		5.8	11.4	ug/Kg	140		3.8	7.56	ug/Kg	
Benzo(g,h,i)perylene	4.9	<RDL	3.3	6.48	ug/Kg	6.8		3.3	6.5	ug/Kg	117		5.8	11.4	ug/Kg	61		3.8	7.56	ug/Kg	
Benzo(k)fluoranthene	6.3	<RDL	3.3	6.48	ug/Kg	10.3		3.3	6.5	ug/Kg	227		5.8	11.4	ug/Kg	119		3.8	7.56	ug/Kg	
Benzoic Acid	60.6		16	32.5	ug/Kg	55.7		16	32.6	ug/Kg	149		28	57.3	ug/Kg	101		18	37.9	ug/Kg	
Benzyl Alcohol	<MDL		6.4	13	ug/Kg	<MDL		6.5	13	ug/Kg	<MDL		11	23	ug/Kg	<MDL		7.5	15.2	ug/Kg	
Benzyl Butyl Phthalate	9.6	<RDL,B	6.4	13	ug/Kg	10	<RDL,B	6.5	13	ug/Kg	66.1	B	11	23	ug/Kg	38.3	B	7.5	15.2	ug/Kg	
Bis(2-Ethylhexyl)Phthalate	17.5	B	6.4	13	ug/Kg	45.5	B	6.5	13	ug/Kg	567	B	11	23	ug/Kg	498	B	7.5	15.2	ug/Kg	
Caffeine	<MDL		6.4	13	ug/Kg	<MDL		6.5	13	ug/Kg	<MDL		11	23	ug/Kg	<MDL		7.5	15.2	ug/Kg	
Carbazole	<MDL		3.3	6.48	ug/Kg	<MDL		3.3	6.5	ug/Kg	24.2		5.8	11.4	ug/Kg	<MDL		3.8	7.56	ug/Kg	
Chrysene	6.2	<RDL	3.3	6.48	ug/Kg	10.2		3.3	6.5	ug/Kg	266		5.8	11.4	ug/Kg	179		3.8	7.56	ug/Kg	
Coprostanol	<MDL		64	130	ug/Kg	<MDL		65	130	ug/Kg	<MDL		110	230	ug/Kg	<MDL		75	152	ug/Kg	
Dibenzo(a,h)anthracene	<MDL		3.3	6.48	ug/Kg	<MDL		3.3	6.5	ug/Kg	33.5		5.8	11.4	ug/Kg	26		3.8	7.56	ug/Kg	
Dibenzofuran	<MDL		3.3	6.48	ug/Kg	<MDL		3.3	6.5	ug/Kg	12.3		5.8	11.4	ug/Kg	7.8		3.8	7.56	ug/Kg	



# King County Environmental Lab Analytical Report

**Appendix C1 - 2006  
Sediment Cap Areas A and B**

Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-5  
 Matrix: SALTWTRSED  
 % Solids: 82.2

Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-6  
 Matrix: SALTWTRSED  
 % Solids: 82

Locator: DUD\_1B  
 Descrip: Sediment Cap Area B  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-7  
 Matrix: SALTWTRSED  
 % Solids: 46.6

Locator: DUD\_2B  
 Descrip: Sediment Cap Area B  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-8  
 Matrix: SALTWTRSED  
 % Solids: 70.5

Parameters	Value					Value					Value					Value					
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					
<b>COMBINED LABS</b>																					
Diethyl Phthalate	<MDL		6.4	13	ug/Kg	<MDL		6.5	13	ug/Kg	<MDL		11	23	ug/Kg	<MDL		7.5	15.2	ug/Kg	
Dimethyl Phthalate	<MDL		6.4	13	ug/Kg	<MDL		6.5	13	ug/Kg	<MDL		11	23	ug/Kg	<MDL		7.5	15.2	ug/Kg	
Di-N-Butyl Phthalate	7.2	<RDL,B	6.4	13	ug/Kg	11	<RDL,B	6.5	13	ug/Kg	40.3	B	11	23	ug/Kg	41.1	B	7.5	15.2	ug/Kg	
Di-N-Octyl Phthalate	<MDL		6.4	13	ug/Kg	<MDL		6.5	13	ug/Kg	<MDL		11	23	ug/Kg	<MDL		7.5	15.2	ug/Kg	
Fluoranthene	6.63		3.3	6.48	ug/Kg	12.2		3.3	6.5	ug/Kg	421		5.8	11.4	ug/Kg	231		3.8	7.56	ug/Kg	
Fluorene	<MDL		3.3	6.48	ug/Kg	<MDL		3.3	6.5	ug/Kg	24.5		5.8	11.4	ug/Kg	17		3.8	7.56	ug/Kg	
Hexachlorobenzene	<MDL		0.64	1.3	ug/Kg	<MDL		0.65	1.3	ug/Kg	<MDL		1.1	2.3	ug/Kg	5.55		0.75	1.52	ug/Kg	
Hexachlorobutadiene	<MDL		1.6	3.25	ug/Kg	<MDL		1.6	3.26	ug/Kg	<MDL		2.8	5.73	ug/Kg	<MDL		1.8	3.79	ug/Kg	
Indeno(1,2,3-Cd)Pyrene	3.9	<RDL	3.3	6.48	ug/Kg	5.9	<RDL	3.3	6.5	ug/Kg	104		5.8	11.4	ug/Kg	65.1		3.8	7.56	ug/Kg	
Naphthalene	<MDL		3.3	6.48	ug/Kg	<MDL		3.3	6.5	ug/Kg	<MDL		5.8	11.4	ug/Kg	4.3	<RDL	3.8	7.56	ug/Kg	
N-Nitrosodiphenylamine	<MDL		6.4	13	ug/Kg	<MDL		6.5	13	ug/Kg	<MDL		11	23	ug/Kg	<MDL		7.5	15.2	ug/Kg	
Pentachlorophenol	<MDL		16	32.5	ug/Kg	<MDL		16	32.6	ug/Kg	<MDL		28	57.3	ug/Kg	<MDL		18	37.9	ug/Kg	
Phenanthrene	<MDL		3.3	6.48	ug/Kg	4.9	<RDL	3.3	6.5	ug/Kg	165		5.8	11.4	ug/Kg	107		3.8	7.56	ug/Kg	
Phenol	<MDL		6.4	13	ug/Kg	<MDL		6.5	13	ug/Kg	<MDL		11	23	ug/Kg	<MDL		7.5	15.2	ug/Kg	
Pyrene	6.1	<RDL	3.3	6.48	ug/Kg	12.4		3.3	6.5	ug/Kg	358		5.8	11.4	ug/Kg	196		3.8	7.56	ug/Kg	
Total HPAHS	53.5		3.3	6.48	ug/Kg	89.4		3.3	6.5	ug/Kg	2080		5.8	11.4	ug/Kg	1340		3.8	7.56	ug/Kg	
Total LPAHs	3.9	<RDL	3.3	6.48	ug/Kg	6.5	<RDL	3.3	6.5	ug/Kg	283		5.8	11.4	ug/Kg	186		3.8	7.56	ug/Kg	
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>																					
4,4'-DDD	<MDL		1.2	2.43	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		2.1	4.29	ug/Kg	<MDL		1.4	2.84	ug/Kg	
4,4'-DDE	<MDL		1.2	2.43	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		2.1	4.29	ug/Kg	<MDL		1.4	2.84	ug/Kg	
4,4'-DDT	<MDL,L,E		1.2	2.43	ug/Kg	<MDL,L,E		1.2	2.44	ug/Kg	<MDL,L,E		2.1	4.29	ug/Kg	<MDL,L,E		1.4	2.84	ug/Kg	
Aldrin	<MDL		1.2	2.43	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		2.1	4.29	ug/Kg	<MDL		1.4	2.84	ug/Kg	
Alpha-BHC	<MDL		0.61	1.22	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		1.1	2.15	ug/Kg	<MDL		0.71	1.42	ug/Kg	
Alpha-Chlordane	<MDL		0.61	1.22	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		1.1	2.15	ug/Kg	<MDL		0.71	1.42	ug/Kg	
Aroclor 1016	<MDL		1.6	3.04	ug/Kg	<MDL		1.6	3.05	ug/Kg	<MDL,TA		14	28.8	ug/Kg	<MDL,TA		8.7	17.2	ug/Kg	
Aroclor 1221	<MDL		3	6.08	ug/Kg	<MDL		3	6.1	ug/Kg	<MDL		5.4	10.7	ug/Kg	<MDL		3.5	7.09	ug/Kg	
Aroclor 1232	<MDL		3	6.08	ug/Kg	<MDL		3	6.1	ug/Kg	<MDL,TA		24	48.1	ug/Kg	<MDL,TA		14	28.8	ug/Kg	
Aroclor 1242	<MDL		1.6	3.04	ug/Kg	<MDL		1.6	3.05	ug/Kg	<MDL,TA		28	56.7	ug/Kg	<MDL,TA		17	34	ug/Kg	
Aroclor 1248	<MDL		1.6	3.04	ug/Kg	<MDL		1.6	3.05	ug/Kg	29		2.8	5.36	ug/Kg	16.3		1.8	3.55	ug/Kg	
Aroclor 1254	<MDL		1.6	3.04	ug/Kg	2.4	<RDL	1.6	3.05	ug/Kg	52.6		2.8	5.36	ug/Kg	30.1		1.8	3.55	ug/Kg	
Aroclor 1260	<MDL,L		1.6	3.04	ug/Kg	2.6	<RDL,L	1.6	3.05	ug/Kg	36.1	L	2.8	5.36	ug/Kg	23.3	L	1.8	3.55	ug/Kg	
Beta-BHC	<MDL		0.61	1.22	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		1.1	2.15	ug/Kg	<MDL		0.71	1.42	ug/Kg	
Delta-BHC	<MDL		0.61	1.22	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		1.1	2.15	ug/Kg	<MDL		0.71	1.42	ug/Kg	
Dieldrin	<MDL		1.2	2.43	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		2.1	4.29	ug/Kg	<MDL		1.4	2.84	ug/Kg	
Endosulfan I	<MDL		1.2	2.43	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		2.1	4.29	ug/Kg	<MDL		1.4	2.84	ug/Kg	
Endosulfan II	<MDL		1.2	2.43	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		2.1	4.29	ug/Kg	<MDL		1.4	2.84	ug/Kg	
Endosulfan Sulfate	<MDL		1.2	2.43	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		2.1	4.29	ug/Kg	<MDL		1.4	2.84	ug/Kg	
Endrin	<MDL		1.2	2.43	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		2.1	4.29	ug/Kg	<MDL		1.4	2.84	ug/Kg	
Endrin Aldehyde	<MDL		2.4	4.87	ug/Kg	<MDL		2.4	4.88	ug/Kg	<MDL		4.3	8.58	ug/Kg	<MDL		2.8	5.67	ug/Kg	
Gamma-BHC (Lindane)	<MDL		0.61	1.22	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		1.1	2.15	ug/Kg	<MDL		0.71	1.42	ug/Kg	
Gamma-Chlordane	<MDL		0.61	1.22	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		1.1	2.15	ug/Kg	<MDL		0.71	1.42	ug/Kg	
Heptachlor	<MDL		0.61	1.22	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		1.1	2.15	ug/Kg	<MDL		0.71	1.42	ug/Kg	
Heptachlor Epoxide	<MDL		0.61	1.22	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		1.1	2.15	ug/Kg	<MDL		0.71	1.42	ug/Kg	
Methoxychlor	<MDL,E		6.1	12.2	ug/Kg	<MDL,E		6.1	12.2	ug/Kg	<MDL,E		11	21.5	ug/Kg	<MDL,E		7.1	14.2	ug/Kg	
Toxaphene	<MDL		12	24.3	ug/Kg	<MDL		12	24.4	ug/Kg	<MDL		21	42.9	ug/Kg	<MDL		14	28.4	ug/Kg	

# King County Environmental Lab Analytical Report

**Appendix C1 - 2006  
Sediment Cap Areas A and B**

Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-5  
 Matrix: SALTWTRSED  
 % Solids: 82.2

Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-6  
 Matrix: SALTWTRSED  
 % Solids: 82

Locator: DUD\_1B  
 Descrip: Sediment Cap Area B  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-7  
 Matrix: SALTWTRSED  
 % Solids: 46.6

Locator: DUD\_2B  
 Descrip: Sediment Cap Area B  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-8  
 Matrix: SALTWTRSED  
 % Solids: 70.5

Parameters

**COMBINED LABS**

\* Not converted to dry weight basis for this parameter

Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	

- Dry Weight Basis

- Dry Weight Basis

- Dry Weight Basis

- Dry Weight Basis

# King County Environmental Lab Analytical Report

**Appendix C1 - 2006  
Sediment Cap Areas A and B**

Locator: DUD\_3B  
 Descrip: Sediment Cap Area B  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-9  
 Matrix: SALTWTRSED  
 % Solids: 66.7

Parameters	Value	Qual	MDL	RDL	Units
- Dry Weight Basis					
<b>COMBINED LABS</b>					
<b>M=CV ASTM D422(03-02-005-001)</b>					
Fines *	26.3		0.5	1	%
Clay *	6.7	E	0.5	1	%
Silt *	19.5		0.5	1	%
Sand *	11.4		0.1	1	%
Gravel *	65.8		0.1	1	%
p+0.00 *	5		0.1	1	%
p+1.00 *	1.9		0.1	1	%
p+10.0(equal/more than) *	6.1		0.5	1	%
p+2.00 *	1	<RDL	0.1	1	%
p+3.00 *	1.7		0.1	1	%
p+4.00 *	2		0.1	1	%
p+5.00 *	6.1		0.5	1	%
p+6.00 *	6.1		0.5	1	%
p+7.00 *	4.7		0.5	1	%
p+8.00 *	2.7		0.5	1	%
p+9.00 *	0.7	<RDL	0.5	1	%
p-1.00 *	12.5		0.1	1	%
p-2.00 *	5.4		0.1	1	%
p-2.00(less than) *	48		0.1	1	%
<b>M=CV EPA9060-PSEP96 (03-04-002-003)</b>					
Total Organic Carbon	18600		1800	3580	mg/Kg
<b>M=CV SM2540-G (03-01-007-002)</b>					
Total Solids *	66.7		0.005	0.01	%
<b>M=ES NONE</b>					
Field Personnel	JB, JD, JDD, PR				none
Sampcoordx1 *	1267048				ft
Sampcoordx2 *	1267052				ft
Sampcoordx3 *	1267047				ft
Sampcoordx4 *					
Sampcoordx5 *					
Sampcoordy1 *	208719				ft
Sampcoordy2 *	208716				ft
Sampcoordy3 *	208725				ft
Sampcoordy4 *					
Sampcoordy5 *					
Sample Depth *	8				m
Sample Function					
Sample Start Time *	1238				hr
Sampling Method *	20042				none
Sediment Sampling Depth *	6				cm
Sediment Sampling Range *	0-5 cm				cm
Sediment Type	54N20				none
Tidal Condition	E				none
Tide Height *	4.5				ft

# King County Environmental Lab Analytical Report

**Appendix C1 - 2006  
Sediment Cap Areas A and B**

Locator: DUD\_3B  
 Descrip: Sediment Cap Area B  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-9  
 Matrix: SALTWTRSED  
 % Solids: 66.7

Parameters	Value	Qual	MDL	RDL	Units
			- Dry Weight Basis		
<b>COMBINED LABS</b>					
<b>M=MT EPA 7471A (06-01-004-003)</b>					
Mercury, Total, CVAA	0.16	<RDL	0.03	0.294	mg/Kg
<b>M=MT EPA3050A/6010B (06-02-004-002)</b>					
Aluminum, Total, ICP	13800		7.3	36.4	mg/Kg
Antimony, Total, ICP		<MDL,G	2.2	10.9	mg/Kg
Arsenic, Total, ICP	7.3	<RDL	3.6	18.1	mg/Kg
Beryllium, Total, ICP	0.18	<RDL	0.073	0.364	mg/Kg
Cadmium, Total, ICP	0.24	<RDL	0.22	1.09	mg/Kg
Chromium, Total, ICP	25.6		0.36	1.81	mg/Kg
Copper, Total, ICP	48.4		0.28	1.46	mg/Kg
Iron, Total, ICP	23200		28	146	mg/Kg
Lead, Total, ICP	20.2		2.2	10.9	mg/Kg
Manganese, Total, ICP	306		0.15	0.729	mg/Kg
Nickel, Total, ICP	20.8		1.5	7.29	mg/Kg
Selenium, Total, ICP		<MDL	3.6	18.1	mg/Kg
Silver, Total, ICP	0.51	<RDL	0.28	1.46	mg/Kg
Thallium, Total, ICP		<MDL	15	72.9	mg/Kg
Zinc, Total, ICP	79.9		0.36	1.81	mg/Kg
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>					
1,2,4-Trichlorobenzene		<MDL	0.4	0.799	ug/Kg
1,2-Dichlorobenzene		<MDL	0.4	0.799	ug/Kg
1,3-Dichlorobenzene		<MDL	0.4	0.799	ug/Kg
1,4-Dichlorobenzene		<MDL	0.4	0.799	ug/Kg
2,4-Dimethylphenol		<MDL,X	4	7.99	ug/Kg
2-Methylnaphthalene		<MDL	4	7.99	ug/Kg
2-Methylphenol		<MDL	7.9	16	ug/Kg
4-Methylphenol		<MDL	7.9	16	ug/Kg
Acenaphthene	6.9	<RDL	4	7.99	ug/Kg
Acenaphthylene	6	<RDL	4	7.99	ug/Kg
Anthracene	64.6		4	7.99	ug/Kg
Benzo(a)anthracene	85.8		4	7.99	ug/Kg
Benzo(a)pyrene	86.8		4	7.99	ug/Kg
Benzo(b)fluoranthene	107		4	7.99	ug/Kg
Benzo(g,h,i)perylene	57.3		4	7.99	ug/Kg
Benzo(k)fluoranthene	94.9		4	7.99	ug/Kg
Benzoic Acid	111		19	40	ug/Kg
Benzyl Alcohol		<MDL	7.9	16	ug/Kg
Benzyl Butyl Phthalate	35.2	B	7.9	16	ug/Kg
Bis(2-Ethylhexyl)Phthalate	460	B	7.9	16	ug/Kg
Caffeine		<MDL	7.9	16	ug/Kg
Carbazole	18.1		4	7.99	ug/Kg
Chrysene	140		4	7.99	ug/Kg
Coprostanol		<MDL	79	160	ug/Kg
Dibenzo(a,h)anthracene	17.7		4	7.99	ug/Kg
Dibenzofuran	7.5	<RDL	4	7.99	ug/Kg

# King County Environmental Lab Analytical Report

**Appendix C1 - 2006  
Sediment Cap Areas A and B**

Locator: DUD\_3B  
 Descrip: Sediment Cap Area B  
 Sampled: Mar 07, 2006  
 Lab ID: L38325-9  
 Matrix: SALTWTRSED  
 % Solids: 66.7

Parameters	Value	Qual	MDL	RDL	Units
			- Dry Weight Basis		
<b>COMBINED LABS</b>					
Diethyl Phthalate		<MDL	7.9	16	ug/Kg
Dimethyl Phthalate		<MDL	7.9	16	ug/Kg
Di-N-Butyl Phthalate	18.3	B	7.9	16	ug/Kg
Di-N-Octyl Phthalate	41.7		7.9	16	ug/Kg
Fluoranthene	202		4	7.99	ug/Kg
Fluorene	14.2		4	7.99	ug/Kg
Hexachlorobenzene		<MDL	0.79	1.6	ug/Kg
Hexachlorobutadiene		<MDL	1.9	4	ug/Kg
Indeno(1,2,3-Cd)Pyrene	49.8		4	7.99	ug/Kg
Naphthalene	4	<RDL	4	7.99	ug/Kg
N-Nitrosodiphenylamine		<MDL	7.9	16	ug/Kg
Pentachlorophenol		<MDL	19	40	ug/Kg
Phenanthrene	95.4		4	7.99	ug/Kg
Phenol	27.6		7.9	16	ug/Kg
Pyrene	163		4	7.99	ug/Kg
Total HPAHS	1000		4	7.99	ug/Kg
Total LPAHS	190		4	7.99	ug/Kg
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>					
4,4'-DDD		<MDL,H	1.5	3	ug/Kg
4,4'-DDE		<MDL,H	1.5	3	ug/Kg
4,4'-DDT		<MDL,L,H,E	1.5	3	ug/Kg
Aldrin		<MDL,H	1.5	3	ug/Kg
Alpha-BHC		<MDL,H	0.75	1.5	ug/Kg
Alpha-Chlordane		<MDL,H	0.75	1.5	ug/Kg
Aroclor 1016		<MDL,TA,H	6.4	12.7	ug/Kg
Aroclor 1221		<MDL,H	3.7	7.5	ug/Kg
Aroclor 1232		<MDL,TA,H	13	25.6	ug/Kg
Aroclor 1242		<MDL,TA,H	12	24.9	ug/Kg
Aroclor 1248	12.2	H	1.9	3.75	ug/Kg
Aroclor 1254	20.5	H	1.9	3.75	ug/Kg
Aroclor 1260	16.5	L,H	1.9	3.75	ug/Kg
Beta-BHC		<MDL,H	0.75	1.5	ug/Kg
Delta-BHC		<MDL,H	0.75	1.5	ug/Kg
Dieldrin		<MDL,H	1.5	3	ug/Kg
Endosulfan I		<MDL,H	1.5	3	ug/Kg
Endosulfan II		<MDL,H	1.5	3	ug/Kg
Endosulfan Sulfate		<MDL,H	1.5	3	ug/Kg
Endrin		<MDL,H	1.5	3	ug/Kg
Endrin Aldehyde		<MDL,H	3	6	ug/Kg
Gamma-BHC (Lindane)		<MDL,H	0.75	1.5	ug/Kg
Gamma-Chlordane		<MDL,H	0.75	1.5	ug/Kg
Heptachlor		<MDL,H	0.75	1.5	ug/Kg
Heptachlor Epoxide		<MDL,H	0.75	1.5	ug/Kg
Methoxychlor		<MDL,H,E	7.5	15	ug/Kg
Toxaphene		<MDL,H	15	30	ug/Kg

# King County Environmental Lab Analytical Report

Appendix C1 - 2006  
Sediment Cap Areas A and B

Locator: DUD\_3B  
Descrip: Sediment Cap Area B  
Sampled: Mar 07, 2006  
Lab ID: L38325-9  
Matrix: SALTWTRSED  
% Solids: 66.7

Parameters

Value	Qual	MDL	RDL	Units
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- Dry Weight Basis

## COMBINED LABS

\* Not converted to dry weight basis for this parameter

# King County Environmental Lab Analytical Report

**Appendix C2 - 2007  
Sediment Cap Areas A and B**

Locator: DUD\_1A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-1  
 Matrix: SALTWTRSED  
 % Solids: 74.7

Locator: DUD\_2A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-2  
 Matrix: SALTWTRSED  
 % Solids: 43

Locator: DUD\_3A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-3  
 Matrix: SALTWTRSED  
 % Solids: 44.1

Locator: DUD\_4A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-4  
 Matrix: SALTWTRSED  
 % Solids: 63.1

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					
<b>COMBINED LABS</b>																					
<b>M=CV ASTM D422(03-02-005-001)</b>																					
Clay *	3.2		0.5	1	%	29.5		0.5	1	%	33.7		0.5	1	%	11.7		0.5	1	%	
Fines *	7.6		0.5	1	%	82.5		0.5	1	%	80.9		0.5	1	%	30.8		0.5	1	%	
Gravel *	21.8		0.1	1	%	2.4		0.1	1	%	1		0.1	1	%	6		0.1	1	%	
p+0.00 *	19.8		0.1	1	%	0.9	<RDL	0.1	1	%	0.3	<RDL	0.1	1	%	4.1		0.1	1	%	
p+1.00 *	38.4		0.1	1	%	1.1		0.1	1	%	0.3	<RDL	0.1	1	%	8.3		0.1	1	%	
p+10.0(equal/more than) *	2.5		0.5	1	%	17.7		0.5	1	%	19.1		0.5	1	%	8.1		0.5	1	%	
p+2.00 *	7.5		0.1	1	%	1.7		0.1	1	%	2.3		0.1	1	%	23.5		0.1	1	%	
p+3.00 *	2.8		0.1	1	%	4		0.1	1	%	5.2		0.1	1	%	20.7		0.1	1	%	
p+4.00 *	0.8	<RDL	0.1	1	%	3.9		0.1	1	%	4.1		0.1	1	%	5.2		0.1	1	%	
p+5.00 *	1.9		0.5	1	%	11.8		0.5	1	%	9		0.5	1	%	4.4		0.5	1	%	
p+6.00 *	0.6	<RDL	0.5	1	%	11.8		0.5	1	%	11.2		0.5	1	%	3.7		0.5	1	%	
p+7.00 *	1.3		0.5	1	%	18.9		0.5	1	%	13.5		0.5	1	%	5.1		0.5	1	%	
p+8.00 *	0.6	<RDL	0.5	1	%	10.6		0.5	1	%	13.5		0.5	1	%	5.9		0.5	1	%	
p+9.00 *	0.6	<RDL	0.5	1	%	11.8		0.5	1	%	14.6		0.5	1	%	3.7		0.5	1	%	
p-1.00 *	10.4		0.1	1	%	1.3		0.1	1	%	0.2	<RDL	0.1	1	%	2.8		0.1	1	%	
p-2.00 *	2.2		0.1	1	%	0.2	<RDL	0.1	1	%		<MDL	0.1	1	%	2.1		0.1	1	%	
p-2.00(less than) *	9.2		0.1	1	%	1	<RDL	0.1	1	%	0.8	<RDL	0.1	1	%	1.1		0.1	1	%	
Sand *	69.3		0.1	1	%	11.6		0.1	1	%	12.2		0.1	1	%	61.8		0.1	1	%	
Silt *	4.4		0.5	1	%	53.1		0.5	1	%	47.2		0.5	1	%	19.1		0.5	1	%	
<b>M=CV EPA 9060-PSEP96(03-04-002-003)</b>																					
Total Organic Carbon	13900		1900	3680	mg/Kg	29100		2100	4210	mg/Kg	20500		2300	4690	mg/Kg	13200		2200	4450	mg/Kg	
<b>M=CV SM2540-G (03-01-007-002)</b>																					
Total Solids *	74.7		0.005	0.01	%	43		0.005	0.01	%	44.1		0.005	0.01	%	63.1		0.005	0.01	%	
<b>M=ES NONE</b>																					
Field Personnel	JB,SH,JO,JDD				none	JB,SH,JO,JDD				none	JB,SH,JO,JDD				none	JB,SH,JO,JDD				none	
Sampcoordx1 *	1267050				ft	1267146				ft	1266950				ft	1266885				ft	
Sampcoordx2 *	1267048				ft	1267142				ft	1266952				ft	1266885				ft	
Sampcoordx3 *	1267038				ft																
Sampcoordy1 *	209089				ft	208903				ft	208974				ft	209353				ft	
Sampcoordy2 *	209091				ft	208899				ft	208975				ft	209355				ft	
Sampcoordy3 *	209085				ft																
Sample Depth *	5				m	5				m	9				m	6				m	
Sample Function																					
Sampling Method *	20042				none	20042				none	20042				none	20042				none	
Sediment Sampling Depth *	7				cm	12				cm	10				cm	8				cm	
Sediment Sampling Range *	0-6 cm				cm	0-10 cm				cm	0-9 cm				cm	0-7 cm				cm	
Sediment Type	34N17				none	12P37				none	12N40				none	13N20				none	
Tidal Condition	E				none	E				none	E				none	E				none	
Tide Height *	6.5				ft	5.5				ft	5				ft	4				ft	
<b>M=MT EPA 7471A (06-01-004-003)</b>																					
Mercury, Total, CVAA	0.079		0.0068	0.0677	mg/Kg	0.203		0.011	0.112	mg/Kg	0.188		0.011	0.111	mg/Kg	0.1		0.0078	0.078	mg/Kg	
<b>M=MT EPA3050B/6010B MOD(6-2-04-02)</b>																					
Aluminum, Total, ICP	8490	L	6.7	33.3	mg/Kg	27000	L	12	58.1	mg/Kg	27400	L	11	56.7	mg/Kg	16600	L	7.9	39.5	mg/Kg	
Antimony, Total, ICP		<MDL,G	1	5.01	mg/Kg		<MDL,G	1.7	8.72	mg/Kg		<MDL,G	1.7	8.5	mg/Kg		<MDL,G	1.2	5.93	mg/Kg	
Arsenic, Total, ICP	4.8	<RDL	1.6	8.34	mg/Kg	14	<RDL	3	14.5	mg/Kg	12	<RDL	2.9	14.2	mg/Kg	6	<RDL	1.9	9.87	mg/Kg	
Beryllium, Total, ICP	0.16	<RDL	0.067	0.333	mg/Kg	0.607		0.12	0.581	mg/Kg	0.615		0.11	0.567	mg/Kg	0.3	<RDL	0.079	0.395	mg/Kg	

# King County Environmental Lab Analytical Report

**Appendix C2 - 2007  
Sediment Cap Areas A and B**

 Locator: DUD\_1A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-1  
 Matrix: SALTWTRSED  
 % Solids: 74.7

 Locator: DUD\_2A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-2  
 Matrix: SALTWTRSED  
 % Solids: 43

 Locator: DUD\_3A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-3  
 Matrix: SALTWTRSED  
 % Solids: 44.1

 Locator: DUD\_4A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-4  
 Matrix: SALTWTRSED  
 % Solids: 63.1

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
- Dry Weight Basis																				
<b>COMBINED LABS</b>																				
Cadmium, Total, ICP	0.66	<RDL	0.13	0.668	mg/Kg	0.56	<RDL	0.23	1.16	mg/Kg	0.32	<RDL	0.23	1.13	mg/Kg	0.36	<RDL	0.16	0.789	mg/Kg
Chromium, Total, ICP	107		0.2	1	mg/Kg	33		0.35	1.74	mg/Kg	27.7		0.34	1.7	mg/Kg	24.7		0.24	1.18	mg/Kg
Copper, Total, ICP	68.9		0.27	1.33	mg/Kg	87		0.47	2.33	mg/Kg	64.4		0.45	2.27	mg/Kg	62.8		0.32	1.58	mg/Kg
Iron, Total, ICP	17400		3.3	16.7	mg/Kg	36500		5.8	29.1	mg/Kg	35600		5.7	28.3	mg/Kg	25000		4	19.8	mg/Kg
Lead, Total, ICP	107		1.3	6.68	mg/Kg	42.1		2.3	11.6	mg/Kg	27.9		2.3	11.3	mg/Kg	50.4		1.6	7.89	mg/Kg
Manganese, Total, ICP	241		0.13	0.668	mg/Kg	391		0.23	1.16	mg/Kg	417		0.23	1.13	mg/Kg	295		0.16	0.789	mg/Kg
Nickel, Total, ICP	44.8		0.33	1.67	mg/Kg	25.3		0.58	2.91	mg/Kg	21.9		0.57	2.83	mg/Kg	21.7		0.4	1.98	mg/Kg
Selenium, Total, ICP		<MDL	1.6	8.34	mg/Kg		<MDL	3	14.5	mg/Kg		<MDL	2.9	14.2	mg/Kg		<MDL	1.9	9.87	mg/Kg
Silver, Total, ICP		<MDL	0.27	1.33	mg/Kg		<MDL	0.47	2.33	mg/Kg		<MDL	0.45	2.27	mg/Kg		<MDL	0.32	1.58	mg/Kg
Thallium, Total, ICP		<MDL	2.7	13.3	mg/Kg		<MDL	4.7	23.3	mg/Kg		<MDL	4.5	22.7	mg/Kg		<MDL	3.2	15.8	mg/Kg
Zinc, Total, ICP	181		0.33	1.67	mg/Kg	182		0.58	2.91	mg/Kg	117		0.57	2.83	mg/Kg	112		0.4	1.98	mg/Kg
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>																				
1,2,4-Trichlorobenzene		<MDL	0.13	0.268	ug/Kg		<MDL	0.23	0.465	ug/Kg		<MDL	0.23	0.454	ug/Kg		<MDL	0.16	0.317	ug/Kg
1,2-Dichlorobenzene		<MDL	0.27	0.535	ug/Kg		<MDL	0.47	0.93	ug/Kg		<MDL	0.45	0.907	ug/Kg		<MDL	0.32	0.634	ug/Kg
1,3-Dichlorobenzene		<MDL	0.27	0.535	ug/Kg		<MDL	0.47	0.93	ug/Kg		<MDL	0.45	0.907	ug/Kg		<MDL	0.32	0.634	ug/Kg
1,4-Dichlorobenzene	14.7		0.27	0.535	ug/Kg	3.14		0.47	0.93	ug/Kg	1.42		0.45	0.907	ug/Kg	5.28		0.32	0.634	ug/Kg
2,4-Dimethylphenol		<MDL	1.3	2.68	ug/Kg		<MDL	2.3	4.65	ug/Kg		<MDL	2.3	4.54	ug/Kg		<MDL	1.6	3.17	ug/Kg
2-Methylnaphthalene	4.4	<RDL	2.7	5.35	ug/Kg	9.4		4.7	9.3	ug/Kg		<MDL	4.5	9.07	ug/Kg	4.1	<RDL	3.2	6.34	ug/Kg
2-Methylphenol		<MDL	2.7	5.35	ug/Kg		<MDL	4.7	9.3	ug/Kg		<MDL	4.5	9.07	ug/Kg		<MDL	3.2	6.34	ug/Kg
4-Methylphenol		<MDL	5.4	10.7	ug/Kg		<MDL	9.3	18.6	ug/Kg		<MDL	9.1	18.1	ug/Kg		<MDL	6.3	12.7	ug/Kg
Acenaphthene	15.7		2.7	5.35	ug/Kg	13.8		4.7	9.3	ug/Kg		<MDL	4.5	9.07	ug/Kg	5.2	<RDL	3.2	6.34	ug/Kg
Acenaphthylene	4.7	<RDL	2.7	5.35	ug/Kg	10.9		4.7	9.3	ug/Kg	7.3	<RDL	4.5	9.07	ug/Kg	5.1	<RDL	3.2	6.34	ug/Kg
Anthracene	44.3		2.7	5.35	ug/Kg	56		4.7	9.3	ug/Kg	31.5		4.5	9.07	ug/Kg	31.5		3.2	6.34	ug/Kg
Benzo(a)anthracene	141		2.7	5.35	ug/Kg	191		4.7	9.3	ug/Kg	78.5		4.5	9.07	ug/Kg	79.4		3.2	6.34	ug/Kg
Benzo(a)pyrene	169		2.7	5.35	ug/Kg	197		4.7	9.3	ug/Kg	79.8		4.5	9.07	ug/Kg	113		3.2	6.34	ug/Kg
Benzo(b)fluoranthene	190		2.7	5.35	ug/Kg	230		4.7	9.3	ug/Kg	144		4.5	9.07	ug/Kg	121		3.2	6.34	ug/Kg
Benzo(g,h,i)perylene	121		2.7	5.35	ug/Kg	136		4.7	9.3	ug/Kg	55.8		4.5	9.07	ug/Kg	82.3		3.2	6.34	ug/Kg
Benzo(k)fluoranthene	147		2.7	5.35	ug/Kg	203		4.7	9.3	ug/Kg	59.9		4.5	9.07	ug/Kg	143		3.2	6.34	ug/Kg
Benzoic Acid	84.7		13	26.8	ug/Kg	138		23	46.5	ug/Kg	116		23	45.4	ug/Kg	98.4		16	31.7	ug/Kg
Benzyl Alcohol		<MDL	2.7	5.35	ug/Kg		<MDL	4.7	9.3	ug/Kg		<MDL	4.5	9.07	ug/Kg		<MDL	3.2	6.34	ug/Kg
Benzyl Butyl Phthalate	69.9		1.3	2.68	ug/Kg	107		2.3	4.65	ug/Kg	41.5		2.3	4.54	ug/Kg		<MDL	1.6	3.17	ug/Kg
Bis(2-Ethylhexyl)Phthalate	1210		5.4	10.7	ug/Kg	1990		9.3	18.6	ug/Kg	426		9.1	18.1	ug/Kg	851	B	6.3	12.7	ug/Kg
Carbazole	36.8		2.7	5.35	ug/Kg	42.3		4.7	9.3	ug/Kg	19.4		4.5	9.07	ug/Kg	19.5		3.2	6.34	ug/Kg
Chrysene	268		2.7	5.35	ug/Kg	319		4.7	9.3	ug/Kg	118		4.5	9.07	ug/Kg	165		3.2	6.34	ug/Kg
Coprostanol	659		54	107	ug/Kg	858		93	186	ug/Kg	485		91	181	ug/Kg	452		63	127	ug/Kg
Dibenzo(a,h)anthracene	41.2		2.7	5.35	ug/Kg	41.9		4.7	9.3	ug/Kg	13.5		4.5	9.07	ug/Kg	20		3.2	6.34	ug/Kg
Dibenzofuran	9.77		2.7	5.35	ug/Kg	13		4.7	9.3	ug/Kg	5.2	<RDL	4.5	9.07	ug/Kg	5.2	<RDL	3.2	6.34	ug/Kg
Diethyl Phthalate		<MDL	5.4	10.7	ug/Kg		<MDL	9.3	18.6	ug/Kg		<MDL	9.1	18.1	ug/Kg		<MDL	6.3	12.7	ug/Kg
Dimethyl Phthalate	93.3		5.4	10.7	ug/Kg		<MDL	9.3	18.6	ug/Kg		<MDL	9.1	18.1	ug/Kg		<MDL	6.3	12.7	ug/Kg
Di-N-Butyl Phthalate	19.9		5.4	10.7	ug/Kg	35.1		9.3	18.6	ug/Kg	14	<RDL	9.1	18.1	ug/Kg		<MDL	6.3	12.7	ug/Kg
Di-N-Octyl Phthalate		<MDL	5.4	10.7	ug/Kg		<MDL	9.3	18.6	ug/Kg		<MDL	9.1	18.1	ug/Kg		<MDL	6.3	12.7	ug/Kg
Fluoranthene	455		2.7	5.35	ug/Kg	493		4.7	9.3	ug/Kg	186		4.5	9.07	ug/Kg	212		3.2	6.34	ug/Kg
Fluorene	19		2.7	5.35	ug/Kg	22.9		4.7	9.3	ug/Kg	10.5		4.5	9.07	ug/Kg	10.5		3.2	6.34	ug/Kg
Hexachlorobenzene		<MDL	0.13	0.268	ug/Kg		<MDL	0.23	0.465	ug/Kg		<MDL	0.23	0.454	ug/Kg		<MDL	0.16	0.317	ug/Kg
Hexachlorobutadiene		<MDL	0.67	1.34	ug/Kg		<MDL	1.2	2.33	ug/Kg		<MDL	1.1	2.27	ug/Kg		<MDL	0.79	1.58	ug/Kg
Hexachloroethane		<MDL	1.3	2.68	ug/Kg		<MDL	2.3	4.65	ug/Kg		<MDL	2.3	4.54	ug/Kg		<MDL	1.6	3.17	ug/Kg
Indeno(1,2,3-Cd)Pyrene	106		2.7	5.35	ug/Kg	127		4.7	9.3	ug/Kg	57.4		4.5	9.07	ug/Kg	79.9		3.2	6.34	ug/Kg



# King County Environmental Lab Analytical Report

**Appendix C2 - 2007  
Sediment Cap Areas A and B**

 Locator: DUD\_1A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-1  
 Matrix: SALTWTRSED  
 % Solids: 74.7

 Locator: DUD\_2A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-2  
 Matrix: SALTWTRSED  
 % Solids: 43

 Locator: DUD\_3A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-3  
 Matrix: SALTWTRSED  
 % Solids: 44.1

 Locator: DUD\_4A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-4  
 Matrix: SALTWTRSED  
 % Solids: 63.1

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
- Dry Weight Basis																				
<b>COMBINED LABS</b>																				
Naphthalene	6.95		2.7	5.35	ug/Kg	9.7		4.7	9.3	ug/Kg	4.8	<RDL	4.5	9.07	ug/Kg	4.1	<RDL	3.2	6.34	ug/Kg
N-Nitrosodiphenylamine		<MDL	5.4	10.7	ug/Kg		<MDL	9.3	18.6	ug/Kg		<MDL	9.1	18.1	ug/Kg		<MDL	6.3	12.7	ug/Kg
Pentachlorophenol		<MDL	13	26.8	ug/Kg		<MDL	23	46.5	ug/Kg		<MDL	23	45.4	ug/Kg		<MDL	16	31.7	ug/Kg
Phenanthrene	146		2.7	5.35	ug/Kg	168		4.7	9.3	ug/Kg	62.8		4.5	9.07	ug/Kg	72.3		3.2	6.34	ug/Kg
Phenol		<MDL	5.4	10.7	ug/Kg	32.8		9.3	18.6	ug/Kg	12	<RDL	9.1	18.1	ug/Kg		<MDL	6.3	12.7	ug/Kg
Pyrene	382		2.7	5.35	ug/Kg	437		4.7	9.3	ug/Kg	162		4.5	9.07	ug/Kg	189		3.2	6.34	ug/Kg
Total HPAHS	2020		2.7	5.35	ug/Kg	2370		4.7	9.3	ug/Kg	955		4.5	9.07	ug/Kg	1200		3.2	6.34	ug/Kg
Total LPAHs	241		2.7	5.35	ug/Kg	291		4.7	9.3	ug/Kg	126		4.5	9.07	ug/Kg	133		3.2	6.34	ug/Kg
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>																				
4,4'-DDD		<MDL	0.9	1.78	ug/Kg		<MDL,H	1.6	3.09	ug/Kg		<MDL	1.5	3.02	ug/Kg		<MDL,H	1.1	2.11	ug/Kg
4,4'-DDE		<MDL	0.9	1.78	ug/Kg		<MDL,H	1.6	3.09	ug/Kg		<MDL	1.5	3.02	ug/Kg		<MDL,H	1.1	2.11	ug/Kg
4,4'-DDT		<MDL,E	0.9	1.78	ug/Kg		<MDL,E,H	1.6	3.09	ug/Kg		<MDL,E	1.5	3.02	ug/Kg		<MDL,H	1.1	2.11	ug/Kg
Aldrin		<MDL	0.9	1.78	ug/Kg		<MDL,H	1.6	3.09	ug/Kg		<MDL	1.5	3.02	ug/Kg		<MDL,H	1.1	2.11	ug/Kg
Alpha-BHC		<MDL	0.44	0.893	ug/Kg		<MDL,H	0.77	1.55	ug/Kg		<MDL	0.75	1.51	ug/Kg		<MDL,H	0.52	1.06	ug/Kg
Alpha-Chlordane		<MDL	0.44	0.893	ug/Kg		<MDL,H	0.77	1.55	ug/Kg		<MDL	0.75	1.51	ug/Kg		<MDL,H	0.52	1.06	ug/Kg
Aroclor 1016		<MDL,TA	12	23.7	ug/Kg		<MDL,H,TA	11	22.5	ug/Kg		<MDL,TA	12	24.5	ug/Kg		<MDL,H,TA	8.7	17.3	ug/Kg
Aroclor 1221		<MDL	2.3	4.46	ug/Kg		<MDL,H	4	7.74	ug/Kg		<MDL	3.9	7.55	ug/Kg		<MDL,H	2.7	5.28	ug/Kg
Aroclor 1232		<MDL	2.3	4.46	ug/Kg		<MDL,H	4	7.74	ug/Kg		<MDL	3.9	7.55	ug/Kg		<MDL,H,TA	19	37.6	ug/Kg
Aroclor 1242		<MDL,TA	33	67.9	ug/Kg		<MDL,H,TA	42	85.8	ug/Kg		<MDL,TA	27	52.2	ug/Kg		<MDL,H,TA	15	30.1	ug/Kg
Aroclor 1248	25.2		1.1	2.24	ug/Kg	33	H	1.9	3.88	ug/Kg	16.8		1.9	3.79	ug/Kg	12.9	H	1.3	2.65	ug/Kg
Aroclor 1254	74.6		1.1	2.24	ug/Kg	67.9	H	1.9	3.88	ug/Kg	34		1.9	3.79	ug/Kg	22.5	H	1.3	2.65	ug/Kg
Aroclor 1260	47.7	L,E	1.1	2.24	ug/Kg	42.3	H,L,E	1.9	3.88	ug/Kg	30.8	L,E	1.9	3.79	ug/Kg	16	H	1.3	2.65	ug/Kg
Beta-BHC		<MDL	0.44	0.893	ug/Kg		<MDL,H	0.77	1.55	ug/Kg		<MDL	0.75	1.51	ug/Kg		<MDL,H	0.52	1.06	ug/Kg
Delta-BHC		<MDL	0.44	0.893	ug/Kg		<MDL,H	0.77	1.55	ug/Kg		<MDL	0.75	1.51	ug/Kg		<MDL,H	0.52	1.06	ug/Kg
Dieldrin		<MDL	0.9	1.78	ug/Kg		<MDL,H	1.6	3.09	ug/Kg		<MDL	1.5	3.02	ug/Kg		<MDL,H	1.1	2.11	ug/Kg
Endosulfan I		<MDL	0.9	1.78	ug/Kg		<MDL,H	1.6	3.09	ug/Kg		<MDL	1.5	3.02	ug/Kg		<MDL,H	1.1	2.11	ug/Kg
Endosulfan II		<MDL	0.9	1.78	ug/Kg		<MDL,H	1.6	3.09	ug/Kg		<MDL	1.5	3.02	ug/Kg		<MDL,H	1.1	2.11	ug/Kg
Endosulfan Sulfate		<MDL	0.9	1.78	ug/Kg		<MDL,H	1.6	3.09	ug/Kg		<MDL	1.5	3.02	ug/Kg		<MDL,H	1.1	2.11	ug/Kg
Endrin		<MDL	0.9	1.78	ug/Kg		<MDL,H	1.6	3.09	ug/Kg		<MDL	1.5	3.02	ug/Kg		<MDL,H	1.1	2.11	ug/Kg
Endrin Aldehyde		<MDL	0.9	1.78	ug/Kg		<MDL,H	1.6	3.09	ug/Kg		<MDL	1.5	3.02	ug/Kg		<MDL,H	1.1	2.11	ug/Kg
Gamma-BHC (Lindane)		<MDL	0.44	0.893	ug/Kg		<MDL,H	0.77	1.55	ug/Kg		<MDL	0.75	1.51	ug/Kg		<MDL,H	0.52	1.06	ug/Kg
Gamma-Chlordane		<MDL	0.44	0.893	ug/Kg		<MDL,H	0.77	1.55	ug/Kg		<MDL	0.75	1.51	ug/Kg		<MDL,H	0.52	1.06	ug/Kg
Heptachlor		<MDL	0.44	0.893	ug/Kg		<MDL,H	0.77	1.55	ug/Kg		<MDL	0.75	1.51	ug/Kg		<MDL,H	0.52	1.06	ug/Kg
Heptachlor Epoxide		<MDL	0.44	0.893	ug/Kg		<MDL,H	0.77	1.55	ug/Kg	1.1	<RDL	0.75	1.51	ug/Kg	1.12	H	0.52	1.06	ug/Kg
Methoxychlor		<MDL,E	4.4	8.93	ug/Kg		<MDL,E,H	7.7	15.5	ug/Kg		<MDL,E	7.5	15.1	ug/Kg		<MDL,H	5.2	10.6	ug/Kg
Toxaphene		<MDL	9	17.8	ug/Kg		<MDL,H	16	30.9	ug/Kg		<MDL	15	30.2	ug/Kg		<MDL,H	11	21.1	ug/Kg

\* Not converted to dry weight basis for this parameter

# King County Environmental Lab Analytical Report

**Appendix C2 - 2007  
Sediment Cap Areas A and B**

Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-5  
 Matrix: SALTWTRSED  
 % Solids: 80.6

Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-6  
 Matrix: SALTWTRSED  
 % Solids: 82.4

Locator: DUD\_1B  
 Descrip: Sediment Cap Area B  
 Sampled: 4/3/2007  
 Lab ID: L42276-7  
 Matrix: SALTWTRSED  
 % Solids: 54.5

Locator: DUD\_2B  
 Descrip: Sediment Cap Area B  
 Sampled: 4/3/2007  
 Lab ID: L42276-8  
 Matrix: SALTWTRSED  
 % Solids: 41.7

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
			- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis			
<b>COMBINED LABS</b>																					
<b>M=CV ASTM D422(03-02-005-001)</b>																					
Clay *	2.6		0.5	1	%	2.9		0.5	1	%	19.4		0.5	1	%	29.7		0.5	1	%	
Fines *	7.2		0.5	1	%	7		0.5	1	%	55.3		0.5	1	%	83.2		0.5	1	%	
Gravel *	14.2		0.1	1	%	31.8		0.1	1	%	2.9		0.1	1	%	3.2		0.1	1	%	
p+0.00 *	9.4		0.1	1	%	14.9		0.1	1	%	0.9	<RDL	0.1	1	%	0.4	<RDL	0.1	1	%	
p+1.00 *	17.1		0.1	1	%	16		0.1	1	%	1.8		0.1	1	%	0.4	<RDL	0.1	1	%	
p+10.0(equal/more than) *	2		0.5	1	%	1.7		0.5	1	%	12		0.5	1	%	17.8		0.5	1	%	
p+2.00 *	34.5		0.1	1	%	20.6		0.1	1	%	11.5		0.1	1	%	1.6		0.1	1	%	
p+3.00 *	15		0.1	1	%	9.2		0.1	1	%	19.1		0.1	1	%	3.7		0.1	1	%	
p+4.00 *	2.2		0.1	1	%	1.6		0.1	1	%	7.5		0.1	1	%	4.9		0.1	1	%	
p+5.00 *	1		0.5	1	%	2.3		0.5	1	%	9.2		0.5	1	%	11.9		0.5	1	%	
p+6.00 *		<MDL	0.5	1	%	1.2		0.5	1	%	12.9		0.5	1	%	7.1		0.5	1	%	
p+7.00 *	2		0.5	1	%	0.6	<RDL	0.5	1	%	6.5		0.5	1	%	20.2		0.5	1	%	
p+8.00 *	1.5		0.5	1	%		<MDL	0.5	1	%	7.4		0.5	1	%	14.3		0.5	1	%	
p+9.00 *	0.5	<RDL	0.5	1	%	1.2		0.5	1	%	7.4		0.5	1	%	11.9		0.5	1	%	
p-1.00 *	6.6		0.1	1	%	17.5		0.1	1	%	0.5	<RDL	0.1	1	%	0.8	<RDL	0.1	1	%	
p-2.00 *	3.1		0.1	1	%	5.6		0.1	1	%	0.2	<RDL	0.1	1	%	0.7	<RDL	0.1	1	%	
p-2.00(less than) *	4.6		0.1	1	%	8.7		0.1	1	%	2.3		0.1	1	%	1.7		0.1	1	%	
Sand *	78.1		0.1	1	%	62.3		0.1	1	%	40.7		0.1	1	%	11		0.1	1	%	
Silt *	4.6		0.5	1	%	4.1		0.5	1	%	36		0.5	1	%	53.5		0.5	1	%	
<b>M=CV EPA 9060-PSEP96(03-04-002-003)</b>																					
Total Organic Carbon	2740		500	985	mg/Kg	2820		510	1010	mg/Kg	14200		2000	4110	mg/Kg	20000		2000	4000	mg/Kg	
<b>M=CV SM2540-G (03-01-007-002)</b>																					
Total Solids *	80.6		0.005	0.01	%	82.4		0.005	0.01	%	54.5		0.005	0.01	%	41.7		0.005	0.01	%	
<b>M=ES NONE</b>																					
Field Personnel	JB,SH,JO,JDD				none	JB,SH,JO,JDD				none	JB,SH,JO,JDD				none	JB,SH,JO,JDD				none	
Sampcoordx1 *	1266805				ft	1266803				ft	1267056				ft	1267076				ft	
Sampcoordx2 *	1266803				ft	1266808				ft	1267059				ft	1267081				ft	
Sampcoordx3 *						1266802				ft											
Sampcoordy1 *	209412				ft	209407				ft	208478				ft	208618				ft	
Sampcoordy2 *	209407				ft	209407				ft	208482				ft	208620				ft	
Sampcoordy3 *						209412				ft											
Sample Depth *	8				m	8				m	7				m	6				m	
Sample Function						FREP @ L42276-5				none											
Sampling Method *	20042				none	20042				none	20042				none	20042				none	
Sediment Sampling Depth *	5				cm	5				cm	15				cm	8				cm	
Sediment Sampling Range *	0-4 cm				cm	0-4 cm				cm	0-10 cm				cm	0-7 cm				cm	
Sediment Type	34N21				none	34N21				none	13N40				none	12N30				none	
Tidal Condition	E				none	E				none	E				none	S				none	
Tide Height *	3.5				ft	3.5				ft	2.5				ft	0.8				ft	
<b>M=MT EPA 7471A (06-01-004-003)</b>																					
Mercury, Total, CVAA	0.024	<RDL	0.0061	0.0602	mg/Kg	0.019	<RDL	0.0059	0.0597	mg/Kg	0.166		0.0092	0.0917	mg/Kg	0.166		0.012	0.12	mg/Kg	
<b>M=MT EPA3050B/6010B MOD(6-2-04-02)</b>																					
Aluminum, Total, ICP	11100	L	6.2	31	mg/Kg	13600	L	6.1	30.3	mg/Kg	19300	L	9.2	45.9	mg/Kg	26100	L	12	60	mg/Kg	
Antimony, Total, ICP	1.6	<RDL,G	0.93	4.65	mg/Kg		<MDL,G	0.91	4.55	mg/Kg		<MDL,G	1.4	6.88	mg/Kg		<MDL,G	1.8	8.99	mg/Kg	
Arsenic, Total, ICP	8.25		1.5	7.75	mg/Kg	2.2	<RDL	1.5	7.57	mg/Kg	9	<RDL	2.4	11.5	mg/Kg	13	<RDL	2.9	15	mg/Kg	
Beryllium, Total, ICP	0.16	<RDL	0.062	0.31	mg/Kg	0.15	<RDL	0.061	0.303	mg/Kg	0.4	<RDL	0.092	0.459	mg/Kg	0.58	<RDL	0.12	0.6	mg/Kg	

# King County Environmental Lab Analytical Report

**Appendix C2 - 2007  
Sediment Cap Areas A and B**

Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-5  
 Matrix: SALTWTRSED  
 % Solids: 80.6

Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-6  
 Matrix: SALTWTRSED  
 % Solids: 82.4

Locator: DUD\_1B  
 Descrip: Sediment Cap Area B  
 Sampled: 4/3/2007  
 Lab ID: L42276-7  
 Matrix: SALTWTRSED  
 % Solids: 54.5

Locator: DUD\_2B  
 Descrip: Sediment Cap Area B  
 Sampled: 4/3/2007  
 Lab ID: L42276-8  
 Matrix: SALTWTRSED  
 % Solids: 41.7

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
- Dry Weight Basis																				
<b>COMBINED LABS</b>																				
Cadmium, Total, ICP		<MDL	0.12	0.62	mg/Kg	0.12	<RDL	0.12	0.606	mg/Kg	0.28	<RDL	0.18	0.917	mg/Kg	0.31	<RDL	0.24	1.2	mg/Kg
Chromium, Total, ICP	16.6		0.19	0.931	mg/Kg	17.6		0.18	0.909	mg/Kg	24		0.28	1.38	mg/Kg	28.1		0.36	1.8	mg/Kg
Copper, Total, ICP	44.4		0.25	1.24	mg/Kg	67.4		0.24	1.21	mg/Kg	56.7		0.37	1.83	mg/Kg	64.3		0.48	2.4	mg/Kg
Iron, Total, ICP	18900		3.1	15.5	mg/Kg	23400		3	15.2	mg/Kg	27300		4.6	22.9	mg/Kg	34500		6	30	mg/Kg
Lead, Total, ICP	11.4		1.2	6.2	mg/Kg	5.6	<RDL	1.2	6.06	mg/Kg	27		1.8	9.17	mg/Kg	28.5		2.4	12	mg/Kg
Manganese, Total, ICP	297		0.12	0.62	mg/Kg	367		0.12	0.606	mg/Kg	314		0.18	0.917	mg/Kg	424		0.24	1.2	mg/Kg
Nickel, Total, ICP	16.7		0.31	1.55	mg/Kg	17.6		0.3	1.52	mg/Kg	19.3		0.46	2.29	mg/Kg	22.2		0.6	3	mg/Kg
Selenium, Total, ICP		<MDL	1.5	7.75	mg/Kg		<MDL	1.5	7.57	mg/Kg		<MDL	2.4	11.5	mg/Kg		<MDL	2.9	15	mg/Kg
Silver, Total, ICP		<MDL	0.25	1.24	mg/Kg		<MDL	0.24	1.21	mg/Kg		<MDL	0.37	1.83	mg/Kg		<MDL	0.48	2.4	mg/Kg
Thallium, Total, ICP		<MDL	2.5	12.4	mg/Kg		<MDL	2.4	12.1	mg/Kg		<MDL	3.7	18.3	mg/Kg		<MDL	4.8	24	mg/Kg
Zinc, Total, ICP	55.8		0.31	1.55	mg/Kg	46.8		0.3	1.52	mg/Kg	90.8		0.46	2.29	mg/Kg	119		0.6	3	mg/Kg
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>																				
1,2,4-Trichlorobenzene		<MDL	0.12	0.248	ug/Kg		<MDL	0.12	0.243	ug/Kg		<MDL	0.18	0.367	ug/Kg		<MDL	0.24	0.48	ug/Kg
1,2-Dichlorobenzene		<MDL	0.25	0.496	ug/Kg		<MDL	0.24	0.485	ug/Kg		<MDL	0.37	0.734	ug/Kg		<MDL	0.48	0.959	ug/Kg
1,3-Dichlorobenzene		<MDL	0.25	0.496	ug/Kg		<MDL	0.24	0.485	ug/Kg		<MDL	0.37	0.734	ug/Kg		<MDL	0.48	0.959	ug/Kg
1,4-Dichlorobenzene	0.36	<RDL	0.25	0.496	ug/Kg		<MDL	0.24	0.485	ug/Kg		<MDL	0.37	0.734	ug/Kg		<MDL	0.48	0.959	ug/Kg
2,4-Dimethylphenol		<MDL	1.2	2.48	ug/Kg		<MDL	1.2	2.43	ug/Kg		<MDL	1.8	3.67	ug/Kg		<MDL	2.4	4.8	ug/Kg
2-Methylnaphthalene		<MDL	2.5	4.96	ug/Kg		<MDL	2.4	4.85	ug/Kg		<MDL	3.7	7.34	ug/Kg		<MDL	4.8	9.59	ug/Kg
2-Methylphenol		<MDL	2.5	4.96	ug/Kg		<MDL	2.4	4.85	ug/Kg		<MDL	3.7	7.34	ug/Kg		<MDL	4.8	9.59	ug/Kg
4-Methylphenol		<MDL	5	9.93	ug/Kg		<MDL	4.9	9.71	ug/Kg		<MDL	7.3	14.7	ug/Kg		<MDL	9.6	19.2	ug/Kg
Acenaphthene		<MDL	2.5	4.96	ug/Kg		<MDL	2.4	4.85	ug/Kg	5.7	<RDL	3.7	7.34	ug/Kg	8.6	<RDL	4.8	9.59	ug/Kg
Acenaphthylene		<MDL	2.5	4.96	ug/Kg		<MDL	2.4	4.85	ug/Kg		<MDL	3.7	7.34	ug/Kg	7.4	<RDL	4.8	9.59	ug/Kg
Anthracene	5.02		2.5	4.96	ug/Kg	3.4	<RDL	2.4	4.85	ug/Kg	29.2		3.7	7.34	ug/Kg	42.9		4.8	9.59	ug/Kg
Benzo(a)anthracene	22.2		2.5	4.96	ug/Kg	11.4		2.4	4.85	ug/Kg	93.2		3.7	7.34	ug/Kg	99.3		4.8	9.59	ug/Kg
Benzo(a)pyrene	25.7		2.5	4.96	ug/Kg	17.6		2.4	4.85	ug/Kg	91.2		3.7	7.34	ug/Kg	102		4.8	9.59	ug/Kg
Benzo(b)fluoranthene	36.4		2.5	4.96	ug/Kg	20.3		2.4	4.85	ug/Kg	129		3.7	7.34	ug/Kg	106		4.8	9.59	ug/Kg
Benzo(g,h,i)perylene	15.9		2.5	4.96	ug/Kg	11.3		2.4	4.85	ug/Kg	56.5		3.7	7.34	ug/Kg	71		4.8	9.59	ug/Kg
Benzo(k)fluoranthene	19.7		2.5	4.96	ug/Kg	12		2.4	4.85	ug/Kg	89.9		3.7	7.34	ug/Kg	150		4.8	9.59	ug/Kg
Benzoic Acid	54.1		12	24.8	ug/Kg	61.9		12	24.3	ug/Kg	89.9		18	36.7	ug/Kg	122		24	48	ug/Kg
Benzyl Alcohol		<MDL	2.5	4.96	ug/Kg		<MDL	2.4	4.85	ug/Kg		<MDL	3.7	7.34	ug/Kg		<MDL	4.8	9.59	ug/Kg
Benzyl Butyl Phthalate	12.8		1.2	2.48	ug/Kg	14.1		1.2	2.43	ug/Kg	27.5		1.8	3.67	ug/Kg	40.5		2.4	4.8	ug/Kg
Bis(2-Ethylhexyl)Phthalate	74.3	B	5	9.93	ug/Kg	65	B	4.9	9.71	ug/Kg	229	B	7.3	14.7	ug/Kg	436	B	9.6	19.2	ug/Kg
Carbazole	4.6	<RDL	2.5	4.96	ug/Kg		<MDL	2.4	4.85	ug/Kg	18.2		3.7	7.34	ug/Kg	20.3		4.8	9.59	ug/Kg
Chrysene	28.9		2.5	4.96	ug/Kg	18.7		2.4	4.85	ug/Kg	142		3.7	7.34	ug/Kg	167		4.8	9.59	ug/Kg
Coprostanol	208		50	99.3	ug/Kg	187		49	97.1	ug/Kg	299		73	147	ug/Kg	499		96	192	ug/Kg
Dibenzo(a,h)anthracene	4.6	<RDL	2.5	4.96	ug/Kg	2.9	<RDL	2.4	4.85	ug/Kg	16.8		3.7	7.34	ug/Kg	18.3		4.8	9.59	ug/Kg
Dibenzofuran		<MDL	2.5	4.96	ug/Kg		<MDL	2.4	4.85	ug/Kg	4.4	<RDL	3.7	7.34	ug/Kg	7.4	<RDL	4.8	9.59	ug/Kg
Diethyl Phthalate		<MDL	5	9.93	ug/Kg		<MDL	4.9	9.71	ug/Kg		<MDL	7.3	14.7	ug/Kg		<MDL	9.6	19.2	ug/Kg
Dimethyl Phthalate		<MDL	5	9.93	ug/Kg		<MDL	4.9	9.71	ug/Kg		<MDL	7.3	14.7	ug/Kg		<MDL	9.6	19.2	ug/Kg
Di-N-Butyl Phthalate		<MDL	5	9.93	ug/Kg		<MDL	4.9	9.71	ug/Kg	8.8	<RDL	7.3	14.7	ug/Kg	15	<RDL	9.6	19.2	ug/Kg
Di-N-Octyl Phthalate		<MDL	5	9.93	ug/Kg		<MDL	4.9	9.71	ug/Kg		<MDL	7.3	14.7	ug/Kg		<MDL	9.6	19.2	ug/Kg
Fluoranthene	54.8		2.5	4.96	ug/Kg	27.2		2.4	4.85	ug/Kg	215		3.7	7.34	ug/Kg	254		4.8	9.59	ug/Kg
Fluorene		<MDL	2.5	4.96	ug/Kg		<MDL	2.4	4.85	ug/Kg	9.49		3.7	7.34	ug/Kg	15.2		4.8	9.59	ug/Kg
Hexachlorobenzene		<MDL	0.12	0.248	ug/Kg		<MDL	0.12	0.243	ug/Kg		<MDL	0.18	0.367	ug/Kg		<MDL	0.24	0.48	ug/Kg
Hexachlorobutadiene		<MDL	0.62	1.24	ug/Kg		<MDL	0.61	1.21	ug/Kg		<MDL	0.92	1.83	ug/Kg		<MDL	1.2	2.4	ug/Kg
Hexachloroethane		<MDL	1.2	2.48	ug/Kg		<MDL	1.2	2.43	ug/Kg		<MDL	1.8	3.67	ug/Kg		<MDL	2.4	4.8	ug/Kg
Indeno(1,2,3-Cd)Pyrene	18.5		2.5	4.96	ug/Kg	13.8		2.4	4.85	ug/Kg	55.6		3.7	7.34	ug/Kg	67.9		4.8	9.59	ug/Kg

# King County Environmental Lab Analytical Report

**Appendix C2 - 2007  
Sediment Cap Areas A and B**

Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-5  
 Matrix: SALTWTRSED  
 % Solids: 80.6

Locator: DUD\_5A  
 Descrip: Sediment Cap Area A  
 Sampled: 4/3/2007  
 Lab ID: L42276-6  
 Matrix: SALTWTRSED  
 % Solids: 82.4

Locator: DUD\_1B  
 Descrip: Sediment Cap Area B  
 Sampled: 4/3/2007  
 Lab ID: L42276-7  
 Matrix: SALTWTRSED  
 % Solids: 54.5

Locator: DUD\_2B  
 Descrip: Sediment Cap Area B  
 Sampled: 4/3/2007  
 Lab ID: L42276-8  
 Matrix: SALTWTRSED  
 % Solids: 41.7

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
- Dry Weight Basis																				
<b>COMBINED LABS</b>																				
Naphthalene	<MDL		2.5	4.96	ug/Kg	<MDL		2.4	4.85	ug/Kg	<MDL		3.7	7.34	ug/Kg	5.3	<RDL	4.8	9.59	ug/Kg
N-Nitrosodiphenylamine	<MDL		5	9.93	ug/Kg	<MDL		4.9	9.71	ug/Kg	<MDL		7.3	14.7	ug/Kg	<MDL		9.6	19.2	ug/Kg
Pentachlorophenol	<MDL		12	24.8	ug/Kg	<MDL		12	24.3	ug/Kg	<MDL		18	36.7	ug/Kg	<MDL		24	48	ug/Kg
Phenanthrene	21.8		2.5	4.96	ug/Kg	10.7		2.4	4.85	ug/Kg	65.9		3.7	7.34	ug/Kg	97.1		4.8	9.59	ug/Kg
Phenol	10.2		5	9.93	ug/Kg	6.3	<RDL	4.9	9.71	ug/Kg	<MDL		7.3	14.7	ug/Kg	11	<RDL	9.6	19.2	ug/Kg
Pyrene	43.2		2.5	4.96	ug/Kg	22.7		2.4	4.85	ug/Kg	171		3.7	7.34	ug/Kg	201		4.8	9.59	ug/Kg
Total HPAHS	269		2.5	4.96	ug/Kg	158		2.4	4.85	ug/Kg	1060		3.7	7.34	ug/Kg	1240		4.8	9.59	ug/Kg
Total LPAHs	26.8		2.5	4.96	ug/Kg	17.4		2.4	4.85	ug/Kg	116		3.7	7.34	ug/Kg	181		4.8	9.59	ug/Kg
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>																				
4,4'-DDD	<MDL,H		0.83	1.65	ug/Kg	<MDL,H		0.81	1.61	ug/Kg	<MDL,H		1.2	2.44	ug/Kg	<MDL,H		1.6	3.19	ug/Kg
4,4'-DDE	<MDL,H		0.83	1.65	ug/Kg	<MDL,H		0.81	1.61	ug/Kg	<MDL,H		1.2	2.44	ug/Kg	<MDL,H		1.6	3.19	ug/Kg
4,4'-DDT	<MDL,H		0.83	1.65	ug/Kg	<MDL,H		0.81	1.61	ug/Kg	<MDL,H		1.2	2.44	ug/Kg	<MDL,H		1.6	3.19	ug/Kg
Aldrin	<MDL,H		0.83	1.65	ug/Kg	<MDL,H		0.81	1.61	ug/Kg	<MDL,H		1.2	2.44	ug/Kg	<MDL,H		1.6	3.19	ug/Kg
Alpha-BHC	<MDL,H		0.41	0.828	ug/Kg	<MDL,H		0.4	0.809	ug/Kg	<MDL,H		0.61	1.22	ug/Kg	<MDL,H		0.79	1.6	ug/Kg
Alpha-Chlordane	<MDL,H		0.41	0.828	ug/Kg	<MDL,H		0.4	0.809	ug/Kg	<MDL,H		0.61	1.22	ug/Kg	<MDL,H		0.79	1.6	ug/Kg
Aroclor 1016	<MDL,H,TA		1.7	3.56	ug/Kg	<MDL,H,TA		1.7	3.31	ug/Kg	<MDL,H,TA		13	26.8	ug/Kg	<MDL,H,TA		8.6	17.1	ug/Kg
Aroclor 1221	<MDL,H		2.1	4.13	ug/Kg	<MDL,H		2.1	4.04	ug/Kg	<MDL,H		3.1	6.11	ug/Kg	<MDL,H		4.1	7.99	ug/Kg
Aroclor 1232	<MDL,H		2.1	4.13	ug/Kg	<MDL,H		2.1	4.04	ug/Kg	<MDL,H,TA		22	44.8	ug/Kg	<MDL,H,TA		13	26.1	ug/Kg
Aroclor 1242	<MDL,H,TA		3.7	7.53	ug/Kg	<MDL,H,TA		6.8	13.7	ug/Kg	<MDL,H,TA		28	54.3	ug/Kg	<MDL,H,TA		15	30.9	ug/Kg
Aroclor 1248	4.03	H	1	2.07	ug/Kg	2.58	H	1	2.03	ug/Kg	27	H	1.5	3.06	ug/Kg	17.3	H	2	4	ug/Kg
Aroclor 1254	6.82	H	1	2.07	ug/Kg	4.6	H	1	2.03	ug/Kg	45	H	1.5	3.06	ug/Kg	29.7	H	2	4	ug/Kg
Aroclor 1260	12.2	H	1	2.07	ug/Kg	2.96	H	1	2.03	ug/Kg	27	H	1.5	3.06	ug/Kg	20	H	2	4	ug/Kg
Beta-BHC	<MDL,H		0.41	0.828	ug/Kg	<MDL,H		0.4	0.809	ug/Kg	<MDL,H		0.61	1.22	ug/Kg	<MDL,H		0.79	1.6	ug/Kg
Delta-BHC	<MDL,H		0.41	0.828	ug/Kg	<MDL,H		0.4	0.809	ug/Kg	<MDL,H		0.61	1.22	ug/Kg	<MDL,H		0.79	1.6	ug/Kg
Dieldrin	<MDL,H		0.83	1.65	ug/Kg	<MDL,H		0.81	1.61	ug/Kg	<MDL,H		1.2	2.44	ug/Kg	<MDL,H		1.6	3.19	ug/Kg
Endosulfan I	<MDL,H		0.83	1.65	ug/Kg	<MDL,H		0.81	1.61	ug/Kg	<MDL,H		1.2	2.44	ug/Kg	<MDL,H		1.6	3.19	ug/Kg
Endosulfan II	<MDL,H		0.83	1.65	ug/Kg	<MDL,H		0.81	1.61	ug/Kg	<MDL,H		1.2	2.44	ug/Kg	<MDL,H		1.6	3.19	ug/Kg
Endosulfan Sulfate	<MDL,H		0.83	1.65	ug/Kg	<MDL,H		0.81	1.61	ug/Kg	<MDL,H		1.2	2.44	ug/Kg	<MDL,H		1.6	3.19	ug/Kg
Endrin	<MDL,H		0.83	1.65	ug/Kg	<MDL,H		0.81	1.61	ug/Kg	<MDL,H		1.2	2.44	ug/Kg	<MDL,H		1.6	3.19	ug/Kg
Endrin Aldehyde	<MDL,H		0.83	1.65	ug/Kg	<MDL,H		0.81	1.61	ug/Kg	<MDL,H		1.2	2.44	ug/Kg	<MDL,H		1.6	3.19	ug/Kg
Gamma-BHC (Lindane)	<MDL,H		0.41	0.828	ug/Kg	<MDL,H		0.4	0.809	ug/Kg	<MDL,H		0.61	1.22	ug/Kg	<MDL,H		0.79	1.6	ug/Kg
Gamma-Chlordane	<MDL,H		0.41	0.828	ug/Kg	<MDL,H		0.4	0.809	ug/Kg	<MDL,H		0.61	1.22	ug/Kg	<MDL,H		0.79	1.6	ug/Kg
Heptachlor	<MDL,H		0.41	0.828	ug/Kg	<MDL,H		0.4	0.809	ug/Kg	<MDL,H		0.61	1.22	ug/Kg	<MDL,H		0.79	1.6	ug/Kg
Heptachlor Epoxide	<MDL,H		0.41	0.828	ug/Kg	<MDL,H		0.4	0.809	ug/Kg	<MDL,H		0.61	1.22	ug/Kg	1.83	H	0.79	1.6	ug/Kg
Methoxychlor	<MDL,H		4.1	8.28	ug/Kg	<MDL,H		4	8.09	ug/Kg	<MDL,H		6.1	12.2	ug/Kg	<MDL,H		7.9	16	ug/Kg
Toxaphene	<MDL,H		8.3	16.5	ug/Kg	<MDL,H		8.1	16.1	ug/Kg	<MDL,H		12	24.4	ug/Kg	<MDL,H		16	31.9	ug/Kg

\* Not converted to dry weight basis for this parameter

# King County Environmental Lab Analytical Report

**Appendix C2 - 2007  
Sediment Cap Areas A and B**

Locator: DUD\_3B  
 Descrip: Sediment Cap Area B  
 Sampled: 4/3/2007  
 Lab ID: L42276-9  
 Matrix: SALTWTRSED  
 % Solids: 42

Parameters	Value	Qual	MDL	RDL	Units
- Dry Weight Basis					
<b>COMBINED LABS</b>					
<b>M=CV ASTM D422(03-02-005-001)</b>					
Clay *	35		0.5	1	%
Fines *	88.6		0.5	1	%
Gravel *	2.3		0.1	1	%
p+0.00 *	0.1	<RDL	0.1	1	%
p+1.00 *	0.3	<RDL	0.1	1	%
p+10.0(equal/more than) *	21.6		0.5	1	%
p+2.00 *	0.4	<RDL	0.1	1	%
p+3.00 *	1.2		0.1	1	%
p+4.00 *	3.1		0.1	1	%
p+5.00 *	10.3		0.5	1	%
p+6.00 *	11.3		0.5	1	%
p+7.00 *	17.5		0.5	1	%
p+8.00 *	14.4		0.5	1	%
p+9.00 *	13.4		0.5	1	%
p-1.00 *	0.2	<RDL	0.1	1	%
p-2.00 *		<MDL	0.1	1	%
p-2.00(less than) *	2.1		0.1	1	%
Sand *	5		0.1	1	%
Silt *	53.6		0.5	1	%
<b>M=CV EPA 9060-PSEP96(03-04-002-003)</b>					
Total Organic Carbon	20300		2100	4210	mg/Kg
<b>M=CV SM2540-G (03-01-007-002)</b>					
Total Solids *	42		0.005	0.01	%
<b>M=ES NONE</b>					
Field Personnel	JB,SH,JO,JDD				none
Sampcoordx1 *	1267048				ft
Sampcoordx2 *	1267053				ft
Sampcoordx3 *					
Sampcoordy1 *	208716				ft
Sampcoordy2 *	208713				ft
Sampcoordy3 *					
Sample Depth *	6				m
Sample Function					
Sampling Method *	20042				none
Sediment Sampling Depth *	11				cm
Sediment Sampling Range *	0-10 cm				cm
Sediment Type	14N30				none
Tidal Condition	F				none
Tide Height *	1.5				ft
<b>M=MT EPA 7471A (06-01-004-003)</b>					
Mercury, Total, CVAA	0.165		0.012	0.123	mg/Kg
<b>M=MT EPA3050B/6010B MOD(6-2-04-02)</b>					
Aluminum, Total, ICP	28300	L	12	59.3	mg/Kg
Antimony, Total, ICP		<MDL,G	1.8	8.9	mg/Kg
Arsenic, Total, ICP	13	<RDL	2.9	14.8	mg/Kg
Beryllium, Total, ICP	0.638		0.12	0.593	mg/Kg

# King County Environmental Lab Analytical Report

**Appendix C2 - 2007  
Sediment Cap Areas A and B**

Locator: DUD\_3B  
 Descrip: Sediment Cap Area B  
 Sampled: 4/3/2007  
 Lab ID: L42276-9  
 Matrix: SALTWTRSED  
 % Solids: 42

Parameters	Value	Qual	MDL	RDL	Units
- Dry Weight Basis					
<b>COMBINED LABS</b>					
Cadmium, Total, ICP	0.31	<RDL	0.24	1.19	mg/Kg
Chromium, Total, ICP	26.2		0.36	1.78	mg/Kg
Copper, Total, ICP	58.8		0.48	2.37	mg/Kg
Iron, Total, ICP	36000		6	29.8	mg/Kg
Lead, Total, ICP	24.3		2.4	11.9	mg/Kg
Manganese, Total, ICP	405		0.24	1.19	mg/Kg
Nickel, Total, ICP	21		0.6	2.98	mg/Kg
Selenium, Total, ICP		<MDL	2.9	14.8	mg/Kg
Silver, Total, ICP		<MDL	0.48	2.37	mg/Kg
Thallium, Total, ICP		<MDL	4.8	23.7	mg/Kg
Zinc, Total, ICP	110		0.6	2.98	mg/Kg
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>					
1,2,4-Trichlorobenzene		<MDL	0.24	0.476	ug/Kg
1,2-Dichlorobenzene		<MDL	0.48	0.952	ug/Kg
1,3-Dichlorobenzene		<MDL	0.48	0.952	ug/Kg
1,4-Dichlorobenzene		<MDL	0.48	0.952	ug/Kg
2,4-Dimethylphenol		<MDL	2.4	4.76	ug/Kg
2-Methylnaphthalene	5.5	<RDL	4.8	9.52	ug/Kg
2-Methylphenol		<MDL	4.8	9.52	ug/Kg
4-Methylphenol		<MDL	9.5	19	ug/Kg
Acenaphthene	6.9	<RDL	4.8	9.52	ug/Kg
Acenaphthylene	7.1	<RDL	4.8	9.52	ug/Kg
Anthracene	70.7		4.8	9.52	ug/Kg
Benzo(a)anthracene	83.8		4.8	9.52	ug/Kg
Benzo(a)pyrene	85.2		4.8	9.52	ug/Kg
Benzo(b)fluoranthene	131		4.8	9.52	ug/Kg
Benzo(g,h,i)perylene	62.9		4.8	9.52	ug/Kg
Benzo(k)fluoranthene	76		4.8	9.52	ug/Kg
Benzoic Acid	124		24	47.6	ug/Kg
Benzyl Alcohol		<MDL	4.8	9.52	ug/Kg
Benzyl Butyl Phthalate	32.9		2.4	4.76	ug/Kg
Bis(2-Ethylhexyl)Phthalate	502	B	9.5	19	ug/Kg
Carbazole	40.5		4.8	9.52	ug/Kg
Chrysene	139		4.8	9.52	ug/Kg
Coprostanol	519		95	190	ug/Kg
Dibenzo(a,h)anthracene	17.5		4.8	9.52	ug/Kg
Dibenzofuran	8.8	<RDL	4.8	9.52	ug/Kg
Diethyl Phthalate		<MDL	9.5	19	ug/Kg
Dimethyl Phthalate		<MDL	9.5	19	ug/Kg
Di-N-Butyl Phthalate	10	<RDL	9.5	19	ug/Kg
Di-N-Octyl Phthalate		<MDL	9.5	19	ug/Kg
Fluoranthene	209		4.8	9.52	ug/Kg
Fluorene	16.8		4.8	9.52	ug/Kg
Hexachlorobenzene		<MDL	0.24	0.476	ug/Kg
Hexachlorobutadiene		<MDL	1.2	2.38	ug/Kg
Hexachloroethane		<MDL	2.4	4.76	ug/Kg
Indeno(1,2,3-Cd)Pyrene	61.9		4.8	9.52	ug/Kg

# King County Environmental Lab Analytical Report

**Appendix C2 - 2007  
Sediment Cap Areas A and B**

Locator: DUD\_3B  
 Descrip: Sediment Cap Area B  
 Sampled: 4/3/2007  
 Lab ID: L42276-9  
 Matrix: SALTWTRSED  
 % Solids: 42

Parameters	Value	Qual	MDL	RDL	Units
- Dry Weight Basis					
<b>COMBINED LABS</b>					
Naphthalene		<MDL	4.8	9.52	ug/Kg
N-Nitrosodiphenylamine		<MDL	9.5	19	ug/Kg
Pentachlorophenol		<MDL	24	47.6	ug/Kg
Phenanthrene	88.6		4.8	9.52	ug/Kg
Phenol		<MDL	9.5	19	ug/Kg
Pyrene	170		4.8	9.52	ug/Kg
Total HPAHS	1040		4.8	9.52	ug/Kg
Total LPAHs	200		4.8	9.52	ug/Kg
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>					
4,4'-DDD		<MDL,H	1.6	3.17	ug/Kg
4,4'-DDE		<MDL,H	1.6	3.17	ug/Kg
4,4'-DDT		<MDL,H	1.6	3.17	ug/Kg
Aldrin		<MDL,H	1.6	3.17	ug/Kg
Alpha-BHC		<MDL,H	0.79	1.59	ug/Kg
Alpha-Chlordane		<MDL,H	0.79	1.59	ug/Kg
Aroclor 1016		<MDL,H,TA	8.8	17.8	ug/Kg
Aroclor 1221		<MDL,H	4	7.93	ug/Kg
Aroclor 1232		<MDL,H,TA	22	43.3	ug/Kg
Aroclor 1242		<MDL,H,TA	18	36.9	ug/Kg
Aroclor 1248	17.7	H	2	3.98	ug/Kg
Aroclor 1254	26.4	H	2	3.98	ug/Kg
Aroclor 1260	17.7	H	2	3.98	ug/Kg
Beta-BHC		<MDL,H	0.79	1.59	ug/Kg
Delta-BHC		<MDL,H	0.79	1.59	ug/Kg
Dieldrin		<MDL,H	1.6	3.17	ug/Kg
Endosulfan I		<MDL,H	1.6	3.17	ug/Kg
Endosulfan II		<MDL,H	1.6	3.17	ug/Kg
Endosulfan Sulfate		<MDL,H	1.6	3.17	ug/Kg
Endrin		<MDL,H	1.6	3.17	ug/Kg
Endrin Aldehyde		<MDL,H	1.6	3.17	ug/Kg
Gamma-BHC (Lindane)		<MDL,H	0.79	1.59	ug/Kg
Gamma-Chlordane		<MDL,H	0.79	1.59	ug/Kg
Heptachlor		<MDL,H	0.79	1.59	ug/Kg
Heptachlor Epoxide	1.2	<RDL,H	0.79	1.59	ug/Kg
Methoxychlor		<MDL,H	7.9	15.9	ug/Kg
Toxaphene		<MDL,H	16	31.7	ug/Kg
* Not converted to dry weight basis for this parameter					

# King County Environmental Lab Analytical Report

**Appendix C3 - 2006  
ENR Area**

Locator: DUD\_3C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-1  
 Matrix: SALTWTRSED  
 % Solids: 86.8

Locator: DUD\_4C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-2  
 Matrix: SALTWTRSED  
 % Solids: 82

Locator: DUD\_4C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-3  
 Matrix: SALTWTRSED  
 % Solids: 81.1

Locator: DUD\_5C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-4  
 Matrix: SALTWTRSED  
 % Solids: 86.1

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
<b>COMBINED LABS</b>																				
<b>M=CV ASTM D422(03-02-005-001)</b>																				
Fines *	6.3		0.5	1	%	4		0.5	1	%	4.7		0.5	1	%	11.7		0.5	1	%
Clay *	2.5	E	0.5	1	%	2.3	E	0.5	1	%	4.7	E	0.5	1	%	5.2	E	0.5	1	%
Silt *	3.8		0.5	1	%	1.7		0.5	1	%	<MDL		0.5	1	%	6.5		0.5	1	%
Sand *	41.9		0.1	1	%	62.8		0.1	1	%	66		0.1	1	%	32.8		0.1	1	%
Gravel *	54.1		0.1	1	%	31.1		0.1	1	%	28.6		0.1	1	%	56.3		0.1	1	%
p+0.00 *	4.4		0.1	1	%	4.5		0.1	1	%	4.2		0.1	1	%	3.7		0.1	1	%
p+1.00 *	6.2		0.1	1	%	7.8		0.1	1	%	7.6		0.1	1	%	4.9		0.1	1	%
p+10.0(equal/more than) *	1.3		0.5	1	%	1.2		0.5	1	%	1.8		0.5	1	%	2.6		0.5	1	%
p+2.00 *	18.3		0.1	1	%	28.8		0.1	1	%	31.3		0.1	1	%	13.2		0.1	1	%
p+3.00 *	11		0.1	1	%	19.1		0.1	1	%	20.2		0.1	1	%	8.8		0.1	1	%
p+4.00 *	1.9		0.1	1	%	2.7		0.1	1	%	2.7		0.1	1	%	2.3		0.1	1	%
p+5.00 *	1.9		0.5	1	%	0.6	<RDL	0.5	1	%	<MDL		0.5	1	%	4.6		0.5	1	%
p+6.00 *	0.6	<RDL	0.5	1	%	0.6	<RDL	0.5	1	%	<MDL		0.5	1	%	1.3		0.5	1	%
p+7.00 *	1.3		0.5	1	%	0.6	<RDL	0.5	1	%	<MDL		0.5	1	%	0.7	<RDL	0.5	1	%
p+8.00 *		<MDL	0.5	1	%		<MDL	0.5	1	%	<MDL		0.5	1	%		<MDL	0.5	1	%
p+9.00 *	1.3		0.5	1	%	1.2		0.5	1	%	2.9		0.5	1	%	2.6		0.5	1	%
p-1.00 *	23.1		0.1	1	%	13.1		0.1	1	%	14.1		0.1	1	%	17.4		0.1	1	%
p-2.00 *	17.3		0.1	1	%	8.8		0.1	1	%	8		0.1	1	%	14.2		0.1	1	%
p-2.00(less than) *	13.7		0.1	1	%	9.2		0.1	1	%	6.4		0.1	1	%	24.7		0.1	1	%
<b>M=CV EPA9060-PSEP96 (03-04-002-003)</b>																				
Total Organic Carbon	3150		670	1320	mg/Kg	1940		500	989	mg/Kg	1620		510	1000	mg/Kg	5900		780	1560	mg/Kg
<b>M=CV SM2540-G (03-01-007-002)</b>																				
Total Solids *	86.8		0.005	0.01	%	82		0.005	0.01	%	81.1		0.005	0.01	%	86.1		0.005	0.01	%
<b>M=ES NONE</b>																				
Field Personnel	Eric Parker, Anchor				none	Eric Parker, Anchor				none	Eric Parker, Anchor				none	Eric Parker, Anchor				none
Sample Function											FREP@L38327-2				none					
Sample Start Time *	930				hr	1020				hr	1020				hr	1120				hr
Sampling Method *	30010				none	30010				none	30010				none	30010				none
Sediment Sampling Depth *	10				cm	10				cm	10				cm	10				cm
Sediment Sampling Range *	0 - 10				cm	0 - 10				cm	0 - 10				cm	0 - 10				cm
Sediment Type	23N40				none	23N40				none	23N40				none	23N40				none
<b>M=MT EPA 7471A (06-01-004-003)</b>																				
Mercury, Total, CVAA	0.035	<RDL	0.023	0.234	mg/Kg	0.035	<RDL	0.024	0.239	mg/Kg	0.028	<RDL	0.025	0.242	mg/Kg	0.336		0.022	0.224	mg/Kg
<b>M=MT EPA3050A/6010B (06-02-004-002)</b>																				
Aluminum, Total, ICP	7780		5.8	28.6	mg/Kg	9440		5.9	29.4	mg/Kg	7470		6	30.2	mg/Kg	8840		5.7	28.6	mg/Kg
Antimony, Total, ICP		<MDL,G	1.7	8.57	mg/Kg		<MDL,G	1.7	8.82	mg/Kg		<MDL,G	1.8	9.05	mg/Kg		<MDL,G	1.7	8.56	mg/Kg
Arsenic, Total, ICP	2.9	<RDL	2.9	14.3	mg/Kg		<MDL	2.9	14.8	mg/Kg		<MDL	3	15	mg/Kg	3.5	<RDL	2.9	14.3	mg/Kg
Beryllium, Total, ICP	0.098	<RDL	0.058	0.286	mg/Kg	0.12	<RDL	0.059	0.294	mg/Kg	0.08	<RDL	0.06	0.302	mg/Kg	0.11	<RDL	0.057	0.286	mg/Kg
Cadmium, Total, ICP		<MDL	0.17	0.857	mg/Kg		<MDL	0.17	0.882	mg/Kg		<MDL	0.18	0.905	mg/Kg		<MDL	0.17	0.856	mg/Kg
Chromium, Total, ICP	12.2		0.29	1.43	mg/Kg	14.3		0.29	1.48	mg/Kg	13.1		0.3	1.5	mg/Kg	14.3		0.29	1.43	mg/Kg
Copper, Total, ICP	27.9		0.23	1.14	mg/Kg	31.1		0.23	1.18	mg/Kg	27.3		0.25	1.21	mg/Kg	29.5		0.23	1.14	mg/Kg
Iron, Total, ICP	13600		2.9	14.3	mg/Kg	16600		2.9	14.8	mg/Kg	13600		3	15	mg/Kg	15600		2.9	14.3	mg/Kg



# King County Environmental Lab Analytical Report

**Appendix C3 - 2006  
ENR Area**

Locator: DUD\_3C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-1  
 Matrix: SALTWTRSED  
 % Solids: 86.8

Locator: DUD\_4C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-2  
 Matrix: SALTWTRSED  
 % Solids: 82

Locator: DUD\_4C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-3  
 Matrix: SALTWTRSED  
 % Solids: 81.1

Locator: DUD\_5C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-4  
 Matrix: SALTWTRSED  
 % Solids: 86.1

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					
<b>COMBINED LABS</b>																					
Lead, Total, ICP	6.7	<RDL	1.7	8.57	mg/Kg	4.5	<RDL	1.7	8.82	mg/Kg	3.8	<RDL	1.8	9.05	mg/Kg	7.1	<RDL	1.7	8.56	mg/Kg	
Manganese, Total, ICP	177		0.11	0.571	mg/Kg	255		0.12	0.588	mg/Kg	178		0.12	0.603	mg/Kg	210		0.11	0.57	mg/Kg	
Nickel, Total, ICP	10.6		1.1	5.71	mg/Kg	12.3		1.2	5.88	mg/Kg	12.2		1.2	6.03	mg/Kg	12.9		1.1	5.7	mg/Kg	
Selenium, Total, ICP		<MDL	2.9	14.3	mg/Kg		<MDL	2.9	14.8	mg/Kg		<MDL	3	15	mg/Kg		<MDL	2.9	14.3	mg/Kg	
Silver, Total, ICP	0.24	<RDL,E	0.23	1.14	mg/Kg		<MDL,E	0.23	1.18	mg/Kg		<MDL,E	0.25	1.21	mg/Kg	0.24	<RDL,E	0.23	1.14	mg/Kg	
Thallium, Total, ICP		<MDL	11	57.1	mg/Kg		<MDL	12	58.8	mg/Kg		<MDL	12	60.3	mg/Kg		<MDL	11	57	mg/Kg	
Zinc, Total, ICP	31.1		0.29	1.43	mg/Kg	34.6		0.29	1.48	mg/Kg	26.1		0.3	1.5	mg/Kg	36		0.29	1.43	mg/Kg	
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>																					
1,2,4-Trichlorobenzene		<MDL	0.31	0.614	ug/Kg		<MDL	0.33	0.65	ug/Kg		<MDL	0.33	0.657	ug/Kg		<MDL	0.31	0.619	ug/Kg	
1,2-Dichlorobenzene		<MDL	0.31	0.614	ug/Kg		<MDL	0.33	0.65	ug/Kg		<MDL	0.33	0.657	ug/Kg		<MDL	0.31	0.619	ug/Kg	
1,3-Dichlorobenzene		<MDL	0.31	0.614	ug/Kg		<MDL	0.33	0.65	ug/Kg		<MDL	0.33	0.657	ug/Kg		<MDL	0.31	0.619	ug/Kg	
1,4-Dichlorobenzene		<MDL	0.31	0.614	ug/Kg		<MDL	0.33	0.65	ug/Kg		<MDL	0.33	0.657	ug/Kg		<MDL	0.31	0.619	ug/Kg	
2,4-Dimethylphenol		<MDL	3.1	6.14	ug/Kg		<MDL	3.3	6.5	ug/Kg		<MDL	3.3	6.57	ug/Kg		<MDL	3.1	6.19	ug/Kg	
2-Methylnaphthalene		<MDL	3.1	6.14	ug/Kg		<MDL	3.3	6.5	ug/Kg		<MDL	3.3	6.57	ug/Kg		<MDL	3.1	6.19	ug/Kg	
2-Methylphenol		<MDL	6.1	12.3	ug/Kg		<MDL	6.5	13	ug/Kg		<MDL	6.5	13.2	ug/Kg		<MDL	6.2	12.4	ug/Kg	
4-Methylphenol		<MDL	6.1	12.3	ug/Kg		<MDL	6.5	13	ug/Kg		<MDL	6.5	13.2	ug/Kg		<MDL	6.2	12.4	ug/Kg	
Acenaphthene		<MDL	3.1	6.14	ug/Kg		<MDL	3.3	6.5	ug/Kg		<MDL	3.3	6.57	ug/Kg		<MDL	3.1	6.19	ug/Kg	
Acenaphthylene		<MDL	3.1	6.14	ug/Kg		<MDL	3.3	6.5	ug/Kg		<MDL	3.3	6.57	ug/Kg		<MDL	3.1	6.19	ug/Kg	
Anthracene	17.5		3.1	6.14	ug/Kg	9.71		3.3	6.5	ug/Kg	6.65		3.3	6.57	ug/Kg	11.8		3.1	6.19	ug/Kg	
Benzo(a)anthracene	38		3.1	6.14	ug/Kg	32.8		3.3	6.5	ug/Kg	26		3.3	6.57	ug/Kg	31.6		3.1	6.19	ug/Kg	
Benzo(a)pyrene	39.4		3.1	6.14	ug/Kg	34		3.3	6.5	ug/Kg	29.8		3.3	6.57	ug/Kg	32.4		3.1	6.19	ug/Kg	
Benzo(b)fluoranthene	43.2		3.1	6.14	ug/Kg	37.7		3.3	6.5	ug/Kg	34.2		3.3	6.57	ug/Kg	37.2		3.1	6.19	ug/Kg	
Benzo(g,h,i)perylene	24		3.1	6.14	ug/Kg	20.2		3.3	6.5	ug/Kg	17.3		3.3	6.57	ug/Kg	19.3		3.1	6.19	ug/Kg	
Benzo(k)fluoranthene	42.3		3.1	6.14	ug/Kg	36.6		3.3	6.5	ug/Kg	32.3		3.3	6.57	ug/Kg	33		3.1	6.19	ug/Kg	
Benzoic Acid	73.5		15	30.8	ug/Kg	66.5		16	32.6	ug/Kg	56		16	32.9	ug/Kg	71.5		15	31	ug/Kg	
Benzyl Alcohol		<MDL	6.1	12.3	ug/Kg		<MDL	6.5	13	ug/Kg		<MDL	6.5	13.2	ug/Kg		<MDL	6.2	12.4	ug/Kg	
Benzyl Butyl Phthalate	18.9		6.1	12.3	ug/Kg	13.4		6.5	13	ug/Kg	14.1		6.5	13.2	ug/Kg	17.8		6.2	12.4	ug/Kg	
Bis(2-Ethylhexyl)Phthalate	81.8		6.1	12.3	ug/Kg	70.6		6.5	13	ug/Kg	56.7		6.5	13.2	ug/Kg	105		6.2	12.4	ug/Kg	
Caffeine		<MDL	6.1	12.3	ug/Kg		<MDL	6.5	13	ug/Kg		<MDL	6.5	13.2	ug/Kg		<MDL	6.2	12.4	ug/Kg	
Carbazole		<MDL	3.1	6.14	ug/Kg	4.4	<RDL	3.3	6.5	ug/Kg	3.8	<RDL	3.3	6.57	ug/Kg		<MDL	3.1	6.19	ug/Kg	
Chrysene	59.8		3.1	6.14	ug/Kg	44.5		3.3	6.5	ug/Kg	35.8		3.3	6.57	ug/Kg	50.8		3.1	6.19	ug/Kg	
Coprostanol		<MDL	61	123	ug/Kg		<MDL	65	130	ug/Kg		<MDL	65	132	ug/Kg		<MDL	62	124	ug/Kg	
Dibenzo(a,h)anthracene	7.74		3.1	6.14	ug/Kg	6.56		3.3	6.5	ug/Kg	6	<RDL	3.3	6.57	ug/Kg	6	<RDL	3.1	6.19	ug/Kg	
Dibenzofuran		<MDL	3.1	6.14	ug/Kg		<MDL	3.3	6.5	ug/Kg		<MDL	3.3	6.57	ug/Kg		<MDL	3.1	6.19	ug/Kg	
Diethyl Phthalate		<MDL	6.1	12.3	ug/Kg		<MDL	6.5	13	ug/Kg		<MDL	6.5	13.2	ug/Kg		<MDL	6.2	12.4	ug/Kg	
Dimethyl Phthalate		<MDL	6.1	12.3	ug/Kg		<MDL	6.5	13	ug/Kg		<MDL	6.5	13.2	ug/Kg		<MDL	6.2	12.4	ug/Kg	
Di-N-Butyl Phthalate	16.4		6.1	12.3	ug/Kg	15.5	B	6.5	13	ug/Kg	12	<RDL,B	6.5	13.2	ug/Kg	16.5	B	6.2	12.4	ug/Kg	
Di-N-Octyl Phthalate		<MDL	6.1	12.3	ug/Kg		<MDL	6.5	13	ug/Kg		<MDL	6.5	13.2	ug/Kg		<MDL	6.2	12.4	ug/Kg	
Fluoranthene	76		3.1	6.14	ug/Kg	67.2		3.3	6.5	ug/Kg	52.9		3.3	6.57	ug/Kg	64.8		3.1	6.19	ug/Kg	
Fluorene	4.6	<RDL	3.1	6.14	ug/Kg	3.7	<RDL	3.3	6.5	ug/Kg		<MDL	3.3	6.57	ug/Kg	3.8	<RDL	3.1	6.19	ug/Kg	
Hexachlorobenzene		<MDL	0.61	1.23	ug/Kg	1.2	<RDL	0.65	1.3	ug/Kg		<MDL	0.65	1.32	ug/Kg		<MDL	0.62	1.24	ug/Kg	
Hexachlorobutadiene		<MDL	1.5	3.08	ug/Kg		<MDL	1.6	3.26	ug/Kg		<MDL	1.6	3.29	ug/Kg		<MDL	1.5	3.1	ug/Kg	
Hexachloroethane		<MDL	1.5	3.08	ug/Kg		<MDL	1.6	3.26	ug/Kg		<MDL	1.6	3.29	ug/Kg		<MDL	1.5	3.1	ug/Kg	

# King County Environmental Lab Analytical Report

**Appendix C3 - 2006  
ENR Area**

Locator: DUD\_3C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-1  
 Matrix: SALTWTRSED  
 % Solids: 86.8

Locator: DUD\_4C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-2  
 Matrix: SALTWTRSED  
 % Solids: 82

Locator: DUD\_4C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-3  
 Matrix: SALTWTRSED  
 % Solids: 81.1

Locator: DUD\_5C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-4  
 Matrix: SALTWTRSED  
 % Solids: 86.1

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					
<b>COMBINED LABS</b>																					
Indeno(1,2,3-Cd)Pyrene	22.2		3.1	6.14	ug/Kg	17.9		3.3	6.5	ug/Kg	15.8		3.3	6.57	ug/Kg	17.4		3.1	6.19	ug/Kg	
Naphthalene	<MDL		3.1	6.14	ug/Kg	<MDL		3.3	6.5	ug/Kg	<MDL		3.3	6.57	ug/Kg	<MDL		3.1	6.19	ug/Kg	
N-Nitrosodiphenylamine	<MDL		6.1	12.3	ug/Kg	<MDL		6.5	13	ug/Kg	<MDL		6.5	13.2	ug/Kg	<MDL		6.2	12.4	ug/Kg	
Pentachlorophenol	<MDL		15	30.8	ug/Kg	<MDL		16	32.6	ug/Kg	<MDL		16	32.9	ug/Kg	<MDL		15	31	ug/Kg	
Phenanthrene	28		3.1	6.14	ug/Kg	27		3.3	6.5	ug/Kg	16.2		3.3	6.57	ug/Kg	26.5		3.1	6.19	ug/Kg	
Phenol	<MDL		6.1	12.3	ug/Kg	<MDL		6.5	13	ug/Kg	<MDL		6.5	13.2	ug/Kg	<MDL		6.2	12.4	ug/Kg	
Pyrene	63.1		3.1	6.14	ug/Kg	60.1		3.3	6.5	ug/Kg	46.9		3.3	6.57	ug/Kg	53		3.1	6.19	ug/Kg	
Total HPAHS	416		3.1	6.14	ug/Kg	357		3.3	6.5	ug/Kg	297		3.3	6.57	ug/Kg	345		3.1	6.19	ug/Kg	
Total LPAHs	52.4		3.1	6.14	ug/Kg	46.2		3.3	6.5	ug/Kg	28.6		3.3	6.57	ug/Kg	46.1		3.1	6.19	ug/Kg	
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>																					
4,4'-DDD	<MDL		1.2	2.3	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		1.2	2.47	ug/Kg	<MDL		1.2	2.32	ug/Kg	
4,4'-DDE	<MDL		1.2	2.3	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		1.2	2.47	ug/Kg	<MDL		1.2	2.32	ug/Kg	
4,4'-DDT	<MDL,L		1.2	2.3	ug/Kg	<MDL,L		1.2	2.44	ug/Kg	<MDL,L		1.2	2.47	ug/Kg	<MDL,L		1.2	2.32	ug/Kg	
Aldrin	<MDL		1.2	2.3	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		1.2	2.47	ug/Kg	<MDL		1.2	2.32	ug/Kg	
Alpha-BHC	<MDL		0.58	1.15	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		0.62	1.23	ug/Kg	<MDL		0.58	1.16	ug/Kg	
Alpha-Chlordane	<MDL		0.58	1.15	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		0.62	1.23	ug/Kg	<MDL		0.58	1.16	ug/Kg	
Aroclor 1016	<MDL,TA		4.7	9.45	ug/Kg	<MDL,TA		2.9	5.85	ug/Kg	<MDL,TA		4.1	8.14	ug/Kg	<MDL,TA		3.4	6.74	ug/Kg	
Aroclor 1221	<MDL		2.9	5.76	ug/Kg	<MDL		3	6.1	ug/Kg	<MDL		3.1	6.17	ug/Kg	<MDL		2.9	5.81	ug/Kg	
Aroclor 1232	<MDL,TA		9.6	19	ug/Kg	<MDL		3	6.1	ug/Kg	<MDL,TA		12	23.6	ug/Kg	<MDL,TA		7.9	15.8	ug/Kg	
Aroclor 1242	<MDL,TA		13	24.7	ug/Kg	<MDL,TA		11	22.4	ug/Kg	<MDL,TA		10	20.3	ug/Kg	<MDL,TA		7	13.8	ug/Kg	
Aroclor 1248	7.98		1.5	2.88	ug/Kg	6.01		1.6	3.05	ug/Kg	7.42		1.6	3.08	ug/Kg	7.21		1.5	2.9	ug/Kg	
Aroclor 1254	11.9		1.5	2.88	ug/Kg	8.93		1.6	3.05	ug/Kg	10.4		1.6	3.08	ug/Kg	11.5		1.5	2.9	ug/Kg	
Aroclor 1260	8.92		1.5	2.88	ug/Kg	6.45		1.6	3.05	ug/Kg	7.4		1.6	3.08	ug/Kg	7.02		1.5	2.9	ug/Kg	
Beta-BHC	<MDL		0.58	1.15	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		0.62	1.23	ug/Kg	<MDL		0.58	1.16	ug/Kg	
Delta-BHC	<MDL		0.58	1.15	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		0.62	1.23	ug/Kg	<MDL		0.58	1.16	ug/Kg	
Dieldrin	<MDL		1.2	2.3	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		1.2	2.47	ug/Kg	<MDL		1.2	2.32	ug/Kg	
Endosulfan I	<MDL		1.2	2.3	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		1.2	2.47	ug/Kg	<MDL		1.2	2.32	ug/Kg	
Endosulfan II	<MDL		1.2	2.3	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		1.2	2.47	ug/Kg	<MDL		1.2	2.32	ug/Kg	
Endosulfan Sulfate	<MDL		1.2	2.3	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		1.2	2.47	ug/Kg	<MDL		1.2	2.32	ug/Kg	
Endrin	<MDL		1.2	2.3	ug/Kg	<MDL		1.2	2.44	ug/Kg	<MDL		1.2	2.47	ug/Kg	<MDL		1.2	2.32	ug/Kg	
Endrin Aldehyde	<MDL		2.3	4.61	ug/Kg	<MDL		2.4	4.88	ug/Kg	<MDL		2.5	4.93	ug/Kg	<MDL		2.3	4.65	ug/Kg	
Gamma-BHC (Lindane)	<MDL		0.58	1.15	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		0.62	1.23	ug/Kg	<MDL		0.58	1.16	ug/Kg	
Gamma-Chlordane	<MDL		0.58	1.15	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		0.62	1.23	ug/Kg	<MDL		0.58	1.16	ug/Kg	
Heptachlor	<MDL		0.58	1.15	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		0.62	1.23	ug/Kg	<MDL		0.58	1.16	ug/Kg	
Heptachlor Epoxide	<MDL		0.58	1.15	ug/Kg	<MDL		0.61	1.22	ug/Kg	<MDL		0.62	1.23	ug/Kg	<MDL		0.58	1.16	ug/Kg	
Methoxychlor	<MDL		5.8	11.5	ug/Kg	<MDL		6.1	12.2	ug/Kg	<MDL		6.2	12.3	ug/Kg	<MDL		5.8	11.6	ug/Kg	
Toxaphene	<MDL		12	23	ug/Kg	<MDL		12	24.4	ug/Kg	<MDL		12	24.7	ug/Kg	<MDL		12	23.2	ug/Kg	

\* Not converted to dry weight basis for this parameter

# King County Environmental Lab Analytical Report

**Appendix C3 - 2006  
ENR Area**

Locator: DUD\_6C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-5  
 Matrix: SALTWTRSED  
 % Solids: 79.3

Locator: DUD\_7C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-6  
 Matrix: SALTWTRSED  
 % Solids: 85.8

Locator: DUD\_14C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-7  
 Matrix: SALTWTRSED  
 % Solids: 86.9

Locator: DUD\_15C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-8  
 Matrix: SALTWTRSED  
 % Solids: 86.2

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
<b>COMBINED LABS</b>																				
<b>M=CV ASTM D422(03-02-005-001)</b>																				
Fines *	5.6		0.5	1	%	1.1		0.5	1	%	6.3		0.5	1	%	6.2		0.5	1	%
Clay *	4.5	E	0.5	1	%	<MDL	E	0.5	1	%	2.1	E	0.5	1	%	2.3	E	0.5	1	%
Silt *	1.1		0.5	1	%	1.1		0.5	1	%	4.2		0.5	1	%	3.9		0.5	1	%
Sand *	65.5		0.1	1	%	45.1		0.1	1	%	33.2		0.1	1	%	48.6		0.1	1	%
Gravel *	28.1		0.1	1	%	54.1		0.1	1	%	60.2		0.1	1	%	45.7		0.1	1	%
p+0.00 *	4.2		0.1	1	%	5		0.1	1	%	4.7		0.1	1	%	5.2		0.1	1	%
p+1.00 *	8.1		0.1	1	%	7.8		0.1	1	%	5.8		0.1	1	%	7.1		0.1	1	%
p+10.0(equal/more than) *	1.1		0.5	1	%	<MDL		0.5	1	%	1.6		0.5	1	%	1.1		0.5	1	%
p+2.00 *	30.2		0.1	1	%	20.1		0.1	1	%	13.2		0.1	1	%	19.4		0.1	1	%
p+3.00 *	20.3		0.1	1	%	11.2		0.1	1	%	8.1		0.1	1	%	14.5		0.1	1	%
p+4.00 *	2.8		0.1	1	%	1.1		0.1	1	%	1.6		0.1	1	%	2.5		0.1	1	%
p+5.00 *	1.1		0.5	1	%	0.5	<RDL	0.5	1	%	1.6		0.5	1	%	1.7		0.5	1	%
p+6.00 *		<MDL	0.5	1	%	0.5	<RDL	0.5	1	%	0.5	<RDL	0.5	1	%		<MDL	0.5	1	%
p+7.00 *		<MDL	0.5	1	%		<MDL	0.5	1	%		<MDL	0.5	1	%		<MDL	0.5	1	%
p+8.00 *		<MDL	0.5	1	%		<MDL	0.5	1	%	2.1		0.5	1	%	2.3		0.5	1	%
p+9.00 *	3.4		0.5	1	%		<MDL	0.5	1	%	0.5	<RDL	0.5	1	%	1.1		0.5	1	%
p-1.00 *	13.7		0.1	1	%	22.2		0.1	1	%	22.3		0.1	1	%	19.1		0.1	1	%
p-2.00 *	7.6		0.1	1	%	12.2		0.1	1	%	17.7		0.1	1	%	12.9		0.1	1	%
p-2.00(less than) *	6.9		0.1	1	%	19.7		0.1	1	%	20.1		0.1	1	%	13.8		0.1	1	%
<b>M=CV EPA9060-PSEP96 (03-04-002-003)</b>																				
Total Organic Carbon	2240		580	1160	mg/Kg	1240		500	991	mg/Kg	3710		490	995	mg/Kg	2440		500	988	mg/Kg
<b>M=CV SM2540-G (03-01-007-002)</b>																				
Total Solids *	79.3		0.005	0.01	%	85.8		0.005	0.01	%	86.9		0.005	0.01	%	86.2		0.005	0.01	%
<b>M=ES NONE</b>																				
Field Personnel	Eric Parker, Anchor				none	Eric Parker, Anchor				none	Eric Parker, Anchor				none	Eric Parker, Anchor				none
Sample Function																				
Sample Start Time *	1230				hr	1300				hr	1320				hr	1355				hr
Sampling Method *	30010				none	30010				none	30010				none	30010				none
Sediment Sampling Depth *	10				cm	10				cm	10				cm	10				cm
Sediment Sampling Range *	0 - 10				cm	0 - 10				cm	0 - 10				cm	0 - 10				cm
Sediment Type	23N40				none	23N30				none	23N40				none	33N30				none
<b>M=MT EPA 7471A (06-01-004-003)</b>																				
Mercury, Total, CVAA	0.052	<RDL	0.024	0.241	mg/Kg		<MDL	0.023	0.228	mg/Kg	0.048	<RDL	0.023	0.235	mg/Kg	0.023	<RDL	0.022	0.224	mg/Kg
<b>M=MT EPA3050A/6010B (06-02-004-002)</b>																				
Aluminum, Total, ICP	8550		6.3	31.8	mg/Kg	8960		5.6	28.1	mg/Kg	8400		5.5	27.8	mg/Kg	8910		5.8	29	mg/Kg
Antimony, Total, ICP		<MDL	1.9	9.53	mg/Kg		<MDL	1.6	8.44	mg/Kg		<MDL	1.7	8.34	mg/Kg		<MDL	1.7	8.69	mg/Kg
Arsenic, Total, ICP	3.3	<RDL	3.2	15.9	mg/Kg		<MDL	2.8	14.1	mg/Kg	3.5	<RDL	2.8	13.9	mg/Kg	3	<RDL	2.9	14.5	mg/Kg
Beryllium, Total, ICP	0.1	<RDL	0.063	0.318	mg/Kg	0.092	<RDL	0.056	0.281	mg/Kg	0.1	<RDL	0.055	0.278	mg/Kg	0.1	<RDL	0.058	0.29	mg/Kg
Cadmium, Total, ICP		<MDL	0.19	0.953	mg/Kg		<MDL	0.16	0.844	mg/Kg		<MDL	0.17	0.834	mg/Kg		<MDL	0.17	0.869	mg/Kg
Chromium, Total, ICP	14.5		0.32	1.59	mg/Kg	15.2		0.28	1.41	mg/Kg	13.9		0.28	1.39	mg/Kg	14.2		0.29	1.45	mg/Kg
Copper, Total, ICP	32		0.25	1.27	mg/Kg	30.2		0.22	1.13	mg/Kg	29		0.22	1.11	mg/Kg	29		0.23	1.16	mg/Kg
Iron, Total, ICP	15500		3.2	15.9	mg/Kg	16000		2.8	14.1	mg/Kg	14500		2.8	13.9	mg/Kg	15800		2.9	14.5	mg/Kg

# King County Environmental Lab Analytical Report

**Appendix C3 - 2006  
ENR Area**

Locator: DUD\_6C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-5  
 Matrix: SALTWTRSED  
 % Solids: 79.3

Locator: DUD\_7C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-6  
 Matrix: SALTWTRSED  
 % Solids: 85.8

Locator: DUD\_14C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-7  
 Matrix: SALTWTRSED  
 % Solids: 86.9

Locator: DUD\_15C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-8  
 Matrix: SALTWTRSED  
 % Solids: 86.2

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
<b>COMBINED LABS</b>																				
Lead, Total, ICP	4.8	<RDL	1.9	9.53	mg/Kg	2.4	<RDL	1.6	8.44	mg/Kg	7.9	<RDL	1.7	8.34	mg/Kg	4.1	<RDL	1.7	8.69	mg/Kg
Manganese, Total, ICP	230		0.13	0.636	mg/Kg	241		0.11	0.563	mg/Kg	174		0.11	0.557	mg/Kg	206		0.12	0.579	mg/Kg
Nickel, Total, ICP	13.1		1.3	6.36	mg/Kg	13.5		1.1	5.63	mg/Kg	13.8		1.1	5.57	mg/Kg	12.5		1.2	5.79	mg/Kg
Selenium, Total, ICP		<MDL	3.2	15.9	mg/Kg		<MDL	2.8	14.1	mg/Kg		<MDL	2.8	13.9	mg/Kg		<MDL	2.9	14.5	mg/Kg
Silver, Total, ICP	0.28	<RDL,E	0.25	1.27	mg/Kg	0.29	<RDL,E	0.22	1.13	mg/Kg	0.25	<RDL,E	0.22	1.11	mg/Kg	0.27	<RDL,E	0.23	1.16	mg/Kg
Thallium, Total, ICP		<MDL	13	63.6	mg/Kg		<MDL	11	56.3	mg/Kg		<MDL	11	55.7	mg/Kg		<MDL	12	57.9	mg/Kg
Zinc, Total, ICP	30.9		0.32	1.59	mg/Kg	27.6		0.28	1.41	mg/Kg	34.8		0.28	1.39	mg/Kg	31.4		0.29	1.45	mg/Kg
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>																				
1,2,4-Trichlorobenzene		<MDL	0.34	0.672	ug/Kg		<MDL	0.31	0.621	ug/Kg		<MDL	0.31	0.613	ug/Kg		<MDL	0.31	0.618	ug/Kg
1,2-Dichlorobenzene		<MDL	0.34	0.672	ug/Kg		<MDL	0.31	0.621	ug/Kg		<MDL	0.31	0.613	ug/Kg		<MDL	0.31	0.618	ug/Kg
1,3-Dichlorobenzene		<MDL	0.34	0.672	ug/Kg		<MDL	0.31	0.621	ug/Kg		<MDL	0.31	0.613	ug/Kg		<MDL	0.31	0.618	ug/Kg
1,4-Dichlorobenzene		<MDL	0.34	0.672	ug/Kg		<MDL	0.31	0.621	ug/Kg		<MDL	0.31	0.613	ug/Kg		<MDL	0.31	0.618	ug/Kg
2,4-Dimethylphenol		<MDL	3.4	6.72	ug/Kg		<MDL	3.1	6.21	ug/Kg		<MDL	3.1	6.13	ug/Kg		<MDL	3.1	6.18	ug/Kg
2-Methylnaphthalene		<MDL	3.4	6.72	ug/Kg		<MDL	3.1	6.21	ug/Kg		<MDL	3.1	6.13	ug/Kg		<MDL	3.1	6.18	ug/Kg
2-Methylphenol		<MDL	6.7	13.5	ug/Kg		<MDL	6.2	12.5	ug/Kg		<MDL	6.1	12.3	ug/Kg		<MDL	6.1	12.4	ug/Kg
4-Methylphenol		<MDL	6.7	13.5	ug/Kg		<MDL	6.2	12.5	ug/Kg		<MDL	6.1	12.3	ug/Kg		<MDL	6.1	12.4	ug/Kg
Acenaphthene		<MDL	3.4	6.72	ug/Kg		<MDL	3.1	6.21	ug/Kg		<MDL	3.1	6.13	ug/Kg		<MDL	3.1	6.18	ug/Kg
Acenaphthylene		<MDL	3.4	6.72	ug/Kg		<MDL	3.1	6.21	ug/Kg		<MDL	3.1	6.13	ug/Kg		<MDL	3.1	6.18	ug/Kg
Anthracene	11.1		3.4	6.72	ug/Kg		<MDL	3.1	6.21	ug/Kg	10.6		3.1	6.13	ug/Kg	4.2	<RDL	3.1	6.18	ug/Kg
Benzo(a)anthracene	37.5		3.4	6.72	ug/Kg	7.23		3.1	6.21	ug/Kg	32.3		3.1	6.13	ug/Kg	15.4		3.1	6.18	ug/Kg
Benzo(a)pyrene	38.7		3.4	6.72	ug/Kg	10.8		3.1	6.21	ug/Kg	35.6		3.1	6.13	ug/Kg	18		3.1	6.18	ug/Kg
Benzo(b)fluoranthene	41.4		3.4	6.72	ug/Kg	12		3.1	6.21	ug/Kg	33.4		3.1	6.13	ug/Kg	17.9		3.1	6.18	ug/Kg
Benzo(g,h,i)perylene	21.3		3.4	6.72	ug/Kg	6.5		3.1	6.21	ug/Kg	19		3.1	6.13	ug/Kg	10.2		3.1	6.18	ug/Kg
Benzo(k)fluoranthene	42.7		3.4	6.72	ug/Kg	10.7		3.1	6.21	ug/Kg	37.7		3.1	6.13	ug/Kg	19.7		3.1	6.18	ug/Kg
Benzoic Acid	68.5		16	33.7	ug/Kg		<MDL	15	31.1	ug/Kg	66.2		15	30.7	ug/Kg	59.4		15	31	ug/Kg
Benzyl Alcohol		<MDL	6.7	13.5	ug/Kg		<MDL	6.2	12.5	ug/Kg		<MDL	6.1	12.3	ug/Kg		<MDL	6.1	12.4	ug/Kg
Benzyl Butyl Phthalate	15		6.7	13.5	ug/Kg	10	<RDL	6.2	12.5	ug/Kg	17.7		6.1	12.3	ug/Kg	11	<RDL	6.1	12.4	ug/Kg
Bis(2-Ethylhexyl)Phthalate	93.4		6.7	13.5	ug/Kg	28.6		6.2	12.5	ug/Kg	81.6		6.1	12.3	ug/Kg	52.1		6.1	12.4	ug/Kg
Caffeine		<MDL	6.7	13.5	ug/Kg		<MDL	6.2	12.5	ug/Kg		<MDL	6.1	12.3	ug/Kg		<MDL	6.1	12.4	ug/Kg
Carbazole		<MDL	3.4	6.72	ug/Kg		<MDL	3.1	6.21	ug/Kg		<MDL	3.1	6.13	ug/Kg		<MDL	3.1	6.18	ug/Kg
Chrysene	43		3.4	6.72	ug/Kg	11.3		3.1	6.21	ug/Kg	54.2		3.1	6.13	ug/Kg	21.9		3.1	6.18	ug/Kg
Coprostanol		<MDL	67	135	ug/Kg		<MDL	62	125	ug/Kg		<MDL	61	123	ug/Kg		<MDL	61	124	ug/Kg
Dibenzo(a,h)anthracene	6.3	<RDL	3.4	6.72	ug/Kg		<MDL	3.1	6.21	ug/Kg	5.9	<RDL	3.1	6.13	ug/Kg	3.6	<RDL	3.1	6.18	ug/Kg
Dibenzofuran		<MDL	3.4	6.72	ug/Kg		<MDL	3.1	6.21	ug/Kg		<MDL	3.1	6.13	ug/Kg		<MDL	3.1	6.18	ug/Kg
Diethyl Phthalate		<MDL	6.7	13.5	ug/Kg		<MDL	6.2	12.5	ug/Kg		<MDL	6.1	12.3	ug/Kg		<MDL	6.1	12.4	ug/Kg
Dimethyl Phthalate		<MDL	6.7	13.5	ug/Kg		<MDL	6.2	12.5	ug/Kg		<MDL	6.1	12.3	ug/Kg		<MDL	6.1	12.4	ug/Kg
Di-N-Butyl Phthalate	28.6	B	6.7	13.5	ug/Kg	18.6	B	6.2	12.5	ug/Kg	9.2	<RDL,B	6.1	12.3	ug/Kg	27	B	6.1	12.4	ug/Kg
Di-N-Octyl Phthalate		<MDL	6.7	13.5	ug/Kg		<MDL	6.2	12.5	ug/Kg		<MDL	6.1	12.3	ug/Kg		<MDL	6.1	12.4	ug/Kg
Fluoranthene	66.8		3.4	6.72	ug/Kg	15.2		3.1	6.21	ug/Kg	56.4		3.1	6.13	ug/Kg	28		3.1	6.18	ug/Kg
Fluorene		<MDL	3.4	6.72	ug/Kg		<MDL	3.1	6.21	ug/Kg		<MDL	3.1	6.13	ug/Kg		<MDL	3.1	6.18	ug/Kg
Hexachlorobenzene		<MDL	0.67	1.35	ug/Kg		<MDL	0.62	1.25	ug/Kg		<MDL	0.61	1.23	ug/Kg		<MDL	0.61	1.24	ug/Kg
Hexachlorobutadiene		<MDL	1.6	3.37	ug/Kg		<MDL	1.5	3.11	ug/Kg		<MDL	1.5	3.07	ug/Kg		<MDL	1.5	3.1	ug/Kg
Hexachloroethane		<MDL	1.6	3.37	ug/Kg		<MDL	1.5	3.11	ug/Kg		<MDL	1.5	3.07	ug/Kg		<MDL	1.5	3.1	ug/Kg

# King County Environmental Lab Analytical Report

**Appendix C3 - 2006  
ENR Area**

Locator: DUD\_6C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-5  
 Matrix: SALTWTRSED  
 % Solids: 79.3

Locator: DUD\_7C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-6  
 Matrix: SALTWTRSED  
 % Solids: 85.8

Locator: DUD\_14C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-7  
 Matrix: SALTWTRSED  
 % Solids: 86.9

Locator: DUD\_15C  
 Descrip: ENR Area  
 Sampled: Mar 10, 2006  
 Lab ID: L38327-8  
 Matrix: SALTWTRSED  
 % Solids: 86.2

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
																					- Dry Weight Basis
<b>COMBINED LABS</b>																					
Indeno(1,2,3-Cd)Pyrene	20.3		3.4	6.72	ug/Kg	5.8	<RDL	3.1	6.21	ug/Kg	17		3.1	6.13	ug/Kg	9.51		3.1	6.18	ug/Kg	
Naphthalene		<MDL	3.4	6.72	ug/Kg		<MDL	3.1	6.21	ug/Kg		<MDL	3.1	6.13	ug/Kg		<MDL	3.1	6.18	ug/Kg	
N-Nitrosodiphenylamine		<MDL	6.7	13.5	ug/Kg		<MDL	6.2	12.5	ug/Kg		<MDL	6.1	12.3	ug/Kg		<MDL	6.1	12.4	ug/Kg	
Pentachlorophenol		<MDL	16	33.7	ug/Kg		<MDL	15	31.1	ug/Kg		<MDL	15	30.7	ug/Kg		<MDL	15	31	ug/Kg	
Phenanthrene	23.3		3.4	6.72	ug/Kg	4.4	<RDL	3.1	6.21	ug/Kg	21.1		3.1	6.13	ug/Kg	9.36		3.1	6.18	ug/Kg	
Phenol		<MDL	6.7	13.5	ug/Kg		<MDL	6.2	12.5	ug/Kg		<MDL	6.1	12.3	ug/Kg		<MDL	6.1	12.4	ug/Kg	
Pyrene	55.5		3.4	6.72	ug/Kg	13.8		3.1	6.21	ug/Kg	52.9		3.1	6.13	ug/Kg	24.8		3.1	6.18	ug/Kg	
Total HPAHS	373		3.4	6.72	ug/Kg	96.3		3.1	6.21	ug/Kg	344		3.1	6.13	ug/Kg	169		3.1	6.18	ug/Kg	
Total LPAHs	40.5		3.4	6.72	ug/Kg	4.4	<RDL	3.1	6.21	ug/Kg	37.4		3.1	6.13	ug/Kg	13.5		3.1	6.18	ug/Kg	
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>																					
4,4'-DDD		<MDL	1.3	2.52	ug/Kg		<MDL	1.2	2.33	ug/Kg		<MDL	1.2	2.3	ug/Kg		<MDL	1.2	2.32	ug/Kg	
4,4'-DDE		<MDL	1.3	2.52	ug/Kg		<MDL	1.2	2.33	ug/Kg		<MDL	1.2	2.3	ug/Kg		<MDL	1.2	2.32	ug/Kg	
4,4'-DDT		<MDL,L	1.3	2.52	ug/Kg		<MDL,L	1.2	2.33	ug/Kg		<MDL,L	1.2	2.3	ug/Kg	1.4	<RDL,L	1.2	2.32	ug/Kg	
Aldrin		<MDL	1.3	2.52	ug/Kg		<MDL	1.2	2.33	ug/Kg		<MDL	1.2	2.3	ug/Kg		<MDL	1.2	2.32	ug/Kg	
Alpha-BHC		<MDL	0.63	1.26	ug/Kg		<MDL	0.58	1.17	ug/Kg		<MDL	0.58	1.15	ug/Kg		<MDL	0.58	1.16	ug/Kg	
Alpha-Chlordane		<MDL	0.63	1.26	ug/Kg		<MDL	0.58	1.17	ug/Kg		<MDL	0.58	1.15	ug/Kg		<MDL	0.58	1.16	ug/Kg	
Aroclor 1016		<MDL,TA	4.3	8.45	ug/Kg		<MDL	1.5	2.91	ug/Kg		<MDL,TA	3.6	7.02	ug/Kg		<MDL	1.5	2.9	ug/Kg	
Aroclor 1221		<MDL	3.2	6.31	ug/Kg		<MDL	2.9	5.83	ug/Kg		<MDL	2.9	5.75	ug/Kg		<MDL	2.9	5.8	ug/Kg	
Aroclor 1232		<MDL,TA	7.3	14.5	ug/Kg		<MDL	2.9	5.83	ug/Kg		<MDL,TA	7.2	14.5	ug/Kg		<MDL	2.9	5.8	ug/Kg	
Aroclor 1242		<MDL,TA	9.2	18.4	ug/Kg		<MDL	1.5	2.91	ug/Kg		<MDL,TA	8.2	13.9	ug/Kg		<MDL,TA	4.3	8.47	ug/Kg	
Aroclor 1248	9.07		1.6	3.15	ug/Kg	2.1	<RDL	1.5	2.91	ug/Kg	7.22		1.5	2.88	ug/Kg	2.98		1.5	2.9	ug/Kg	
Aroclor 1254	13.4		1.6	3.15	ug/Kg	2.4	<RDL	1.5	2.91	ug/Kg	10.9		1.5	2.88	ug/Kg	5		1.5	2.9	ug/Kg	
Aroclor 1260	12.5		1.6	3.15	ug/Kg	1.9	<RDL	1.5	2.91	ug/Kg	8.09		1.5	2.88	ug/Kg	4.11		1.5	2.9	ug/Kg	
Beta-BHC		<MDL	0.63	1.26	ug/Kg		<MDL	0.58	1.17	ug/Kg		<MDL	0.58	1.15	ug/Kg		<MDL	0.58	1.16	ug/Kg	
Delta-BHC		<MDL	0.63	1.26	ug/Kg		<MDL	0.58	1.17	ug/Kg		<MDL	0.58	1.15	ug/Kg		<MDL	0.58	1.16	ug/Kg	
Dieldrin		<MDL	1.3	2.52	ug/Kg		<MDL	1.2	2.33	ug/Kg		<MDL	1.2	2.3	ug/Kg		<MDL	1.2	2.32	ug/Kg	
Endosulfan I		<MDL	1.3	2.52	ug/Kg		<MDL	1.2	2.33	ug/Kg		<MDL	1.2	2.3	ug/Kg		<MDL	1.2	2.32	ug/Kg	
Endosulfan II		<MDL	1.3	2.52	ug/Kg		<MDL	1.2	2.33	ug/Kg		<MDL	1.2	2.3	ug/Kg		<MDL	1.2	2.32	ug/Kg	
Endosulfan Sulfate		<MDL	1.3	2.52	ug/Kg		<MDL	1.2	2.33	ug/Kg		<MDL	1.2	2.3	ug/Kg		<MDL	1.2	2.32	ug/Kg	
Endrin		<MDL	1.3	2.52	ug/Kg		<MDL	1.2	2.33	ug/Kg		<MDL	1.2	2.3	ug/Kg		<MDL	1.2	2.32	ug/Kg	
Endrin Aldehyde		<MDL	2.5	5.04	ug/Kg		<MDL	2.3	4.66	ug/Kg		<MDL	2.3	4.6	ug/Kg		<MDL	2.3	4.64	ug/Kg	
Gamma-BHC (Lindane)		<MDL	0.63	1.26	ug/Kg		<MDL	0.58	1.17	ug/Kg		<MDL	0.58	1.15	ug/Kg		<MDL	0.58	1.16	ug/Kg	
Gamma-Chlordane		<MDL	0.63	1.26	ug/Kg		<MDL	0.58	1.17	ug/Kg		<MDL	0.58	1.15	ug/Kg		<MDL	0.58	1.16	ug/Kg	
Heptachlor		<MDL	0.63	1.26	ug/Kg		<MDL	0.58	1.17	ug/Kg		<MDL	0.58	1.15	ug/Kg		<MDL	0.58	1.16	ug/Kg	
Heptachlor Epoxide		<MDL	0.63	1.26	ug/Kg		<MDL	0.58	1.17	ug/Kg		<MDL	0.58	1.15	ug/Kg		<MDL	0.58	1.16	ug/Kg	
Methoxychlor		<MDL	6.3	12.6	ug/Kg		<MDL	5.8	11.7	ug/Kg		<MDL	5.8	11.5	ug/Kg		<MDL	5.8	11.6	ug/Kg	
Toxaphene		<MDL	13	25.2	ug/Kg		<MDL	12	23.3	ug/Kg		<MDL	12	23	ug/Kg		<MDL	12	23.2	ug/Kg	

\* Not converted to dry weight basis for this parameter

# King County Environmental Lab Analytical Report

**Appendix C4 - 2007  
ENR Area**

Locator: DUD\_3C  
 Descrip: ENR Area  
 Sampled: 4/3/2007  
 Lab ID: L42274-1  
 Matrix: SALTWTRSED  
 % Solids: 54.1

Locator: DUD\_4C  
 Descrip: ENR Area  
 Sampled: 4/3/2007  
 Lab ID: L42274-2  
 Matrix: SALTWTRSED  
 % Solids: 67.1

Locator: DUD\_4C  
 Descrip: ENR Area  
 Sampled: 4/3/2007  
 Lab ID: L42274-3  
 Matrix: SALTWTRSED  
 % Solids: 70.2

Locator: DUD\_5C  
 ENR Area CLEANUP AREA PERIM  
 Sampled: 4/3/2007  
 Lab ID: L42274-4  
 Matrix: SALTWTRSED  
 % Solids: 67.3

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units		
			- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
<b>COMBINED LABS</b>																						
<b>M=CV ASTM D422(03-02-005-001)</b>																						
Fines *	49.5		0.5	1	%	26.8		0.5	1	%	27		0.5	1	%	26.1		0.5	1	%		
Gravel *	13.5		0.1	1	%	28.2		0.1	1	%	17.3		0.1	1	%	6.1		0.1	1	%		
Sand *	39.4		0.1	1	%	44.8		0.1	1	%	59.7		0.1	1	%	71.5		0.1	1	%		
Silt *	30.7		0.5	1	%	17.9		0.5	1	%	18		0.5	1	%	18.9		0.5	1	%		
Clay *	18.8		0.5	1	%	8.9		0.5	1	%	9		0.5	1	%	7.3		0.5	1	%		
p+0.00 *	1.7		0.1	1	%	3.3		0.1	1	%	4.3		0.1	1	%	1.2		0.1	1	%		
p+1.00 *	3.7		0.1	1	%	5.8		0.1	1	%	9.8		0.1	1	%	4.8		0.1	1	%		
p+10.0(equal/more than) *	11.9		0.5	1	%	6		0.5	1	%	6		0.5	1	%	5.8		0.5	1	%		
p+2.00 *	16.4		0.1	1	%	19.7		0.1	1	%	29.9		0.1	1	%	33.6		0.1	1	%		
p+3.00 *	13.1		0.1	1	%	12.5		0.1	1	%	12.4		0.1	1	%	27.1		0.1	1	%		
p+4.00 *	4.5		0.1	1	%	3.6		0.1	1	%	3.3		0.1	1	%	4.7		0.1	1	%		
p+5.00 *	6.8		0.5	1	%	4.5		0.5	1	%	4.5		0.5	1	%	5.8		0.5	1	%		
p+6.00 *	6.8		0.5	1	%	3		0.5	1	%	3		0.5	1	%	4.4		0.5	1	%		
p+7.00 *	10.2		0.5	1	%	6		0.5	1	%	6		0.5	1	%	4.4		0.5	1	%		
p+8.00 *	6.8		0.5	1	%	4.5		0.5	1	%	4.5		0.5	1	%	4.4		0.5	1	%		
p+9.00 *	6.8		0.5	1	%	3		0.5	1	%	3		0.5	1	%	1.5		0.5	1	%		
p-1.00 *	4.8		0.1	1	%	11		0.1	1	%	8.5		0.1	1	%	2.4		0.1	1	%		
p-2.00 *	3.2		0.1	1	%	9.9		0.1	1	%	4.7		0.1	1	%	1.9		0.1	1	%		
p-2.00(less than) *	5.4		0.1	1	%	7.2		0.1	1	%	4.1		0.1	1	%	1.8		0.1	1	%		
<b>M=CV EPA 9060-PSEP96(03-04-002-003)</b>																						
Total Organic Carbon	12400		1200	2440	mg/Kg	9390		1500	2950	mg/Kg	7310		1200	2360	mg/Kg	7470		1100	2290	mg/Kg		
<b>M=CV SM2540-G (03-01-007-002)</b>																						
Total Solids *	54.1		0.005	0.01	%	67.1		0.005	0.01	%	70.2		0.005	0.01	%	67.3		0.005	0.01	%		
<b>M=ES NONE</b>																						
Field Personnel	JB,SH,JO,JDD				none	JB,SH,JO,JDD				none	JB,SH,JO,JDD				none	JB,SH,JO,JDD				none		
Sampcoordx1 *	1267150				ft	1267120				ft	1267120				ft	1267031				ft		
Sampcoordy1 *	208145				ft	208242				ft	208242				ft	208263				ft		
Sample Depth *	9				m	8				m	8				m	11				m		
Sample Function											FREP @ 42274-2				none							
Sampling Method *	20042				none	20042				none	20042				none	20042				none		
Sediment Sampling Depth *	17				cm	10				cm	12				cm	8				cm		
Sediment Sampling Range *	0-10 cm				cm	0-9 cm				cm	1-10 cm				cm	0-7 cm				cm		
Sediment Type	32N20				none	32N20				none	32N20				none	32N20				none		
Tidal Condition	F				none	F				none	F				none	F				none		
Tide Height *	2				ft	2.5				ft	2.5				ft	2				ft		
<b>M=MT EPA 7471A (06-01-004-003)</b>																						
Mercury, Total, CVAA	0.106		0.0096	0.0957	mg/Kg	0.0949		0.0075	0.075	mg/Kg	0.061	<RDL	0.0068	0.0687	mg/Kg	0.051	<RDL	0.0074	0.074	mg/Kg		
<b>M=MT EPA3050B/6010B MOD(6-2-04-02)</b>																						
Aluminum, Total, ICP	21800	L	9.2	46.2	mg/Kg	16200	L	7.5	37.3	mg/Kg	15800	L	7.1	35.6	mg/Kg	14900	L	7.4	37	mg/Kg		
Antimony, Total, ICP	<MDL,G		1.4	6.91	mg/Kg	<MDL,G		1.1	5.57	mg/Kg	<MDL,G		1.1	5.34	mg/Kg	<MDL,G		1.1	5.56	mg/Kg		
Arsenic, Total, ICP	9.4	<RDL	2.2	11.5	mg/Kg	6.3	<RDL	1.8	9.3	mg/Kg	5.7	<RDL	1.7	8.9	mg/Kg	5.5	<RDL	1.8	9.27	mg/Kg		
Beryllium, Total, ICP	0.44	<RDL	0.092	0.462	mg/Kg	0.31	<RDL	0.075	0.373	mg/Kg	0.28	<RDL	0.071	0.356	mg/Kg	0.27	<RDL	0.074	0.37	mg/Kg		
Cadmium, Total, ICP	0.18	<RDL	0.18	0.922	mg/Kg	0.18	<RDL	0.15	0.744	mg/Kg		<MDL	0.14	0.712	mg/Kg		<MDL	0.15	0.741	mg/Kg		
Chromium, Total, ICP	25.9		0.28	1.38	mg/Kg	19.4		0.22	1.12	mg/Kg	20.7		0.21	1.07	mg/Kg	19.5		0.22	1.11	mg/Kg		
Copper, Total, ICP	50.6		0.37	1.84	mg/Kg	39.2		0.3	1.49	mg/Kg	38.9		0.28	1.42	mg/Kg	36.1		0.3	1.48	mg/Kg		
Iron, Total, ICP	29900		4.6	23.1	mg/Kg	23000		3.7	18.6	mg/Kg	22900		3.6	17.8	mg/Kg	22100		3.7	18.6	mg/Kg		

# King County Environmental Lab Analytical Report

**Appendix C4 - 2007  
ENR Area**

Locator: DUD\_3C  
 Descrip: ENR Area  
 Sampled: 4/3/2007  
 Lab ID: L42274-1  
 Matrix: SALTWTRSED  
 % Solids: 54.1

Locator: DUD\_4C  
 Descrip: ENR Area  
 Sampled: 4/3/2007  
 Lab ID: L42274-2  
 Matrix: SALTWTRSED  
 % Solids: 67.1

Locator: DUD\_4C  
 Descrip: ENR Area  
 Sampled: 4/3/2007  
 Lab ID: L42274-3  
 Matrix: SALTWTRSED  
 % Solids: 70.2

Locator: DUD\_5C  
 ENR Area CLEANUP AREA PERIM  
 Sampled: 4/3/2007  
 Lab ID: L42274-4  
 Matrix: SALTWTRSED  
 % Solids: 67.3

Parameters	Value				MDL	RDL	Units	Value				MDL	RDL	Units	Value				MDL	RDL	Units
	- Dry Weight Basis							- Dry Weight Basis							- Dry Weight Basis						
<b>COMBINED LABS</b>																					
Lead, Total, ICP	18.7		1.8	9.22	mg/Kg	13.1		1.5	7.44	mg/Kg	10.9		1.4	7.12	mg/Kg	11.8		1.5	7.41	mg/Kg	
Manganese, Total, ICP	338		0.18	0.922	mg/Kg	280		0.15	0.744	mg/Kg	292		0.14	0.712	mg/Kg	284		0.15	0.741	mg/Kg	
Nickel, Total, ICP	19.6		0.46	2.31	mg/Kg	15.4		0.37	1.86	mg/Kg	16.2		0.36	1.78	mg/Kg	16.2		0.37	1.86	mg/Kg	
Selenium, Total, ICP	<MDL		2.2	11.5	mg/Kg	<MDL		1.8	9.3	mg/Kg	<MDL		1.7	8.9	mg/Kg	<MDL		1.8	9.27	mg/Kg	
Silver, Total, ICP	<MDL		0.37	1.84	mg/Kg	<MDL		0.3	1.49	mg/Kg	<MDL		0.28	1.42	mg/Kg	<MDL		0.3	1.48	mg/Kg	
Thallium, Total, ICP	<MDL		3.7	18.4	mg/Kg	<MDL		3	14.9	mg/Kg	<MDL		2.8	14.2	mg/Kg	<MDL		3	14.8	mg/Kg	
Zinc, Total, ICP	82.4		0.46	2.31	mg/Kg	60.5		0.37	1.86	mg/Kg	55.1		0.36	1.78	mg/Kg	56.9		0.37	1.86	mg/Kg	
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>																					
1,2,4-Trichlorobenzene	<MDL		0.18	0.37	ug/Kg	<MDL		0.15	0.298	ug/Kg	<MDL		0.14	0.285	ug/Kg	<MDL		0.15	0.297	ug/Kg	
1,2-Dichlorobenzene	<MDL		0.37	0.739	ug/Kg	<MDL		0.3	0.596	ug/Kg	<MDL		0.28	0.57	ug/Kg	<MDL		0.3	0.594	ug/Kg	
1,3-Dichlorobenzene	<MDL		0.37	0.739	ug/Kg	<MDL		0.3	0.596	ug/Kg	<MDL		0.28	0.57	ug/Kg	<MDL		0.3	0.594	ug/Kg	
1,4-Dichlorobenzene	<MDL		0.37	0.739	ug/Kg	<MDL		0.3	0.596	ug/Kg	<MDL		0.28	0.57	ug/Kg	<MDL		0.3	0.594	ug/Kg	
2,4-Dimethylphenol	<MDL		1.8	3.7	ug/Kg	<MDL		1.5	2.98	ug/Kg	<MDL		1.4	2.85	ug/Kg	<MDL		1.5	2.97	ug/Kg	
2-Methylnaphthalene	<MDL		3.7	7.39	ug/Kg	<MDL		3	5.96	ug/Kg	<MDL		2.8	5.7	ug/Kg	<MDL		3	5.94	ug/Kg	
2-Methylphenol	<MDL		3.7	7.39	ug/Kg	<MDL		3	5.96	ug/Kg	<MDL		2.8	5.7	ug/Kg	<MDL		3	5.94	ug/Kg	
4-Methylphenol	<MDL		7.4	14.8	ug/Kg	<MDL		6	11.9	ug/Kg	<MDL		5.7	11.4	ug/Kg	<MDL		5.9	11.9	ug/Kg	
Acenaphthene	4.4	<RDL	3.7	7.39	ug/Kg	3.3	<RDL	3	5.96	ug/Kg	<MDL		2.8	5.7	ug/Kg	4	<RDL	3	5.94	ug/Kg	
Acenaphthylene	<MDL		3.7	7.39	ug/Kg	3.4	<RDL	3	5.96	ug/Kg	<MDL		2.8	5.7	ug/Kg	<MDL		3	5.94	ug/Kg	
Anthracene	23.3		3.7	7.39	ug/Kg	13.3		3	5.96	ug/Kg	10.4		2.8	5.7	ug/Kg	15.5		3	5.94	ug/Kg	
Benzo(a)anthracene	76.2		3.7	7.39	ug/Kg	36.1		3	5.96	ug/Kg	41.6		2.8	5.7	ug/Kg	47.5		3	5.94	ug/Kg	
Benzo(a)pyrene	72.6		3.7	7.39	ug/Kg	35.9		3	5.96	ug/Kg	43.7		2.8	5.7	ug/Kg	47.3		3	5.94	ug/Kg	
Benzo(b)fluoranthene	116		3.7	7.39	ug/Kg	61		3	5.96	ug/Kg	68.4		2.8	5.7	ug/Kg	69.4		3	5.94	ug/Kg	
Benzo(g,h,i)perylene	41		3.7	7.39	ug/Kg	24.7		3	5.96	ug/Kg	27.6		2.8	5.7	ug/Kg	26.9		3	5.94	ug/Kg	
Benzo(k)fluoranthene	53.8		3.7	7.39	ug/Kg	28.2		3	5.96	ug/Kg	34.6		2.8	5.7	ug/Kg	35.1		3	5.94	ug/Kg	
Benzoic Acid	172		18	37	ug/Kg	68.4		15	29.8	ug/Kg	71.5		14	28.5	ug/Kg	67		15	29.7	ug/Kg	
Benzyl Alcohol	<MDL		3.7	7.39	ug/Kg	<MDL		3	5.96	ug/Kg	<MDL		2.8	5.7	ug/Kg	<MDL		3	5.94	ug/Kg	
Benzyl Butyl Phthalate	44		1.8	3.7	ug/Kg	16.4		1.5	2.98	ug/Kg	17.7		1.4	2.85	ug/Kg	16.2		1.5	2.97	ug/Kg	
Bis(2-Ethylhexyl)Phthalate	200		7.4	14.8	ug/Kg	96.3	B	6	11.9	ug/Kg	85.5	B	5.7	11.4	ug/Kg	83.2	B	5.9	11.9	ug/Kg	
Carbazole	14.1		3.7	7.39	ug/Kg	8.79		3	5.96	ug/Kg	5.95		2.8	5.7	ug/Kg	6.26		3	5.94	ug/Kg	
Chrysene	117		3.7	7.39	ug/Kg	52		3	5.96	ug/Kg	58		2.8	5.7	ug/Kg	59.3		3	5.94	ug/Kg	
Coprostanol	677		74	148	ug/Kg	297		60	119	ug/Kg	301		57	114	ug/Kg	290		59	119	ug/Kg	
Dibenzo(a,h)anthracene	10.8		3.7	7.39	ug/Kg	7.21		3	5.96	ug/Kg	8.95		2.8	5.7	ug/Kg	7.8		3	5.94	ug/Kg	
Dibenzofuran	5	<RDL	3.7	7.39	ug/Kg	3	<RDL	3	5.96	ug/Kg	<MDL		2.8	5.7	ug/Kg	<MDL		3	5.94	ug/Kg	
Diethyl Phthalate	<MDL		7.4	14.8	ug/Kg	<MDL		6	11.9	ug/Kg	<MDL		5.7	11.4	ug/Kg	<MDL		5.9	11.9	ug/Kg	
Dimethyl Phthalate	<MDL		7.4	14.8	ug/Kg	<MDL		6	11.9	ug/Kg	<MDL		5.7	11.4	ug/Kg	<MDL		5.9	11.9	ug/Kg	
Di-N-Butyl Phthalate	18.1		7.4	14.8	ug/Kg	6.9	<RDL	6	11.9	ug/Kg	6.6	<RDL	5.7	11.4	ug/Kg	<MDL		5.9	11.9	ug/Kg	
Di-N-Octyl Phthalate	<MDL		7.4	14.8	ug/Kg	<MDL		6	11.9	ug/Kg	<MDL		5.7	11.4	ug/Kg	<MDL		5.9	11.9	ug/Kg	
Fluoranthene	226		3.7	7.39	ug/Kg	87		3	5.96	ug/Kg	91.3		2.8	5.7	ug/Kg	98.4		3	5.94	ug/Kg	
Fluorene	9.72		3.7	7.39	ug/Kg	4.2	<RDL	3	5.96	ug/Kg	3	<RDL	2.8	5.7	ug/Kg	6.61		3	5.94	ug/Kg	
Hexachlorobenzene	<MDL		0.18	0.37	ug/Kg	<MDL		0.15	0.298	ug/Kg	<MDL		0.14	0.285	ug/Kg	<MDL		0.15	0.297	ug/Kg	
Hexachlorobutadiene	<MDL		0.92	1.85	ug/Kg	<MDL		0.75	1.49	ug/Kg	<MDL		0.71	1.42	ug/Kg	<MDL		0.74	1.49	ug/Kg	
Hexachloroethane	<MDL		1.8	3.7	ug/Kg	<MDL		1.5	2.98	ug/Kg	<MDL		1.4	2.85	ug/Kg	<MDL		1.5	2.97	ug/Kg	
Indeno(1,2,3-Cd)Pyrene	50.8		3.7	7.39	ug/Kg	26.7		3	5.96	ug/Kg	29.3		2.8	5.7	ug/Kg	29.4		3	5.94	ug/Kg	
Naphthalene	<MDL		3.7	7.39	ug/Kg	<MDL		3	5.96	ug/Kg	<MDL		2.8	5.7	ug/Kg	<MDL		3	5.94	ug/Kg	
N-Nitrosodiphenylamine	<MDL		7.4	14.8	ug/Kg	<MDL		6	11.9	ug/Kg	<MDL		5.7	11.4	ug/Kg	<MDL		5.9	11.9	ug/Kg	
Pentachlorophenol	<MDL		18	37	ug/Kg	<MDL		15	29.8	ug/Kg	<MDL		14	28.5	ug/Kg	<MDL		15	29.7	ug/Kg	
Phenanthrene	86.1		3.7	7.39	ug/Kg	29.2		3	5.96	ug/Kg	22.9		2.8	5.7	ug/Kg	32.1		3	5.94	ug/Kg	

# King County Environmental Lab Analytical Report

**Appendix C4 - 2007  
ENR Area**

Locator: DUD\_3C  
 Descrip: ENR Area  
 Sampled: 4/3/2007  
 Lab ID: L42274-1  
 Matrix: SALTWTRSED  
 % Solids: 54.1

Locator: DUD\_4C  
 Descrip: ENR Area  
 Sampled: 4/3/2007  
 Lab ID: L42274-2  
 Matrix: SALTWTRSED  
 % Solids: 67.1

Locator: DUD\_4C  
 Descrip: ENR Area  
 Sampled: 4/3/2007  
 Lab ID: L42274-3  
 Matrix: SALTWTRSED  
 % Solids: 70.2

Locator: DUD\_5C  
 ENR Area CLEANUP AREA PERIM  
 Sampled: 4/3/2007  
 Lab ID: L42274-4  
 Matrix: SALTWTRSED  
 % Solids: 67.3

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis																			
<b>COMBINED LABS</b>																				
Phenol	9.6	<RDL	7.4	14.8	ug/Kg	<MDL	6	11.9	ug/Kg	<MDL	5.7	11.4	ug/Kg	6.5	<RDL	5.9	11.9	ug/Kg		
Pyrene	150		3.7	7.39	ug/Kg	67.1		3	5.96	ug/Kg	62.3		2.8	5.7	ug/Kg	80.7		3	5.94	ug/Kg
Total HPAHS	915		3.7	7.39	ug/Kg	426		3	5.96	ug/Kg	466		2.8	5.7	ug/Kg	502		3	5.94	ug/Kg
Total LPAHs	130		3.7	7.39	ug/Kg	48.6		3	5.96	ug/Kg	40.9		2.8	5.7	ug/Kg	62.1		3	5.94	ug/Kg
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>																				
4,4'-DDD	<MDL,H		1.2	2.46	ug/Kg	<MDL,H,L	1	1.98	ug/Kg	<MDL,H	0.95	1.89	ug/Kg	<MDL	1	1.98	ug/Kg			
4,4'-DDE	<MDL,H		1.2	2.46	ug/Kg	<MDL,H,L	1	1.98	ug/Kg	<MDL,H	0.95	1.89	ug/Kg	<MDL	1	1.98	ug/Kg			
4,4'-DDT	<MDL,H		1.2	2.46	ug/Kg	<MDL,H,L	1	1.98	ug/Kg	<MDL,H	0.95	1.89	ug/Kg	<MDL	1	1.98	ug/Kg			
Aldrin	<MDL,H		1.2	2.46	ug/Kg	<MDL,H,L	1	1.98	ug/Kg	<MDL,H	0.95	1.89	ug/Kg	<MDL	1	1.98	ug/Kg			
Alpha-BHC	<MDL,H		0.61	1.23	ug/Kg	<MDL,H,L	0.49	0.994	ug/Kg	<MDL,H	0.47	0.95	ug/Kg	<MDL	0.49	0.991	ug/Kg			
Alpha-Chlordane	<MDL,H		0.61	1.23	ug/Kg	<MDL,H,L	0.49	0.994	ug/Kg	<MDL,H	0.47	0.95	ug/Kg	<MDL	0.49	0.991	ug/Kg			
Aroclor 1016	<MDL,H,TA		8.5	17	ug/Kg	<MDL,H,L	9.7	29.2	ug/Kg	<MDL,H,TA	5	10.1	ug/Kg	<MDL,TA	5.9	11.8	ug/Kg			
Aroclor 1221	<MDL,H		3.1	6.16	ug/Kg	<MDL,H,L	2.5	4.96	ug/Kg	<MDL,H	2.4	4.74	ug/Kg	<MDL	2.5	4.95	ug/Kg			
Aroclor 1232	<MDL,H		3.1	6.16	ug/Kg	<MDL,H,L	2.5	4.96	ug/Kg	<MDL,H	2.4	4.74	ug/Kg	<MDL,TA	9.1	18.3	ug/Kg			
Aroclor 1242	<MDL,H,TA		24	49	ug/Kg	<MDL,H,L	19	39.5	ug/Kg	<MDL,H,TA	10	20.1	ug/Kg	<MDL,TA	12	24.2	ug/Kg			
Aroclor 1248	17	H	1.5	3.09	ug/Kg	13	H,L	1.2	2.49	ug/Kg	8.76	H	1.2	2.38	ug/Kg	10.7		1.2	2.48	ug/Kg
Aroclor 1254	37	H	1.5	3.09	ug/Kg	21.5	H,L	1.2	2.49	ug/Kg	15.2	H	1.2	2.38	ug/Kg	17.4		1.2	2.48	ug/Kg
Aroclor 1260	26.1	H,L,E	1.5	3.09	ug/Kg	13.2	H,L,E	1.2	2.49	ug/Kg	10.3	H,L,E	1.2	2.38	ug/Kg	10.9	L,E	1.2	2.48	ug/Kg
Beta-BHC	<MDL,H		0.61	1.23	ug/Kg	<MDL,H,L	0.49	0.994	ug/Kg	<MDL,H	0.47	0.95	ug/Kg	<MDL	0.49	0.991	ug/Kg			
Delta-BHC	<MDL,H		0.61	1.23	ug/Kg	<MDL,H,L	0.49	0.994	ug/Kg	<MDL,H	0.47	0.95	ug/Kg	<MDL	0.49	0.991	ug/Kg			
Dieldrin	<MDL,H		1.2	2.46	ug/Kg	<MDL,H,L	1	1.98	ug/Kg	<MDL,H	0.95	1.89	ug/Kg	<MDL	1	1.98	ug/Kg			
Endosulfan I	<MDL,H		1.2	2.46	ug/Kg	<MDL,H,L	1	1.98	ug/Kg	<MDL,H	0.95	1.89	ug/Kg	<MDL	1	1.98	ug/Kg			
Endosulfan II	<MDL,H		1.2	2.46	ug/Kg	<MDL,H,L	1	1.98	ug/Kg	<MDL,H	0.95	1.89	ug/Kg	<MDL	1	1.98	ug/Kg			
Endosulfan Sulfate	<MDL,H		1.2	2.46	ug/Kg	<MDL,H,L	1	1.98	ug/Kg	<MDL,H	0.95	1.89	ug/Kg	<MDL	1	1.98	ug/Kg			
Endrin	<MDL,H		1.2	2.46	ug/Kg	<MDL,H,L	1	1.98	ug/Kg	<MDL,H	0.95	1.89	ug/Kg	<MDL	1	1.98	ug/Kg			
Endrin Aldehyde	<MDL,H		1.2	2.46	ug/Kg	<MDL,H,L	1	1.98	ug/Kg	<MDL,H	0.95	1.89	ug/Kg	<MDL	1	1.98	ug/Kg			
Gamma-BHC (Lindane)	<MDL,H		0.61	1.23	ug/Kg	<MDL,H,L	0.49	0.994	ug/Kg	<MDL,H	0.47	0.95	ug/Kg	<MDL	0.49	0.991	ug/Kg			
Gamma-Chlordane	<MDL,H		0.61	1.23	ug/Kg	<MDL,H,L	0.49	0.994	ug/Kg	<MDL,H	0.47	0.95	ug/Kg	<MDL	0.49	0.991	ug/Kg			
Heptachlor	<MDL,H		0.61	1.23	ug/Kg	<MDL,H,L	0.49	0.994	ug/Kg	<MDL,H	0.47	0.95	ug/Kg	<MDL	0.49	0.991	ug/Kg			
Heptachlor Epoxide	<MDL,H		0.61	1.23	ug/Kg	<MDL,H,L	0.49	0.994	ug/Kg	<MDL,H	0.47	0.95	ug/Kg	<MDL	0.49	0.991	ug/Kg			
Methoxychlor	<MDL,H		6.1	12.3	ug/Kg	<MDL,H,L	4.9	9.94	ug/Kg	<MDL,H	4.7	9.5	ug/Kg	<MDL	4.9	9.91	ug/Kg			
Toxaphene	<MDL,H		12	24.6	ug/Kg	<MDL,H,L	10	19.8	ug/Kg	<MDL,H	9.5	18.9	ug/Kg	<MDL	10	19.8	ug/Kg			

\* Not converted to dry weight basis for this parameter



# King County Environmental Lab Analytical Report

**Appendix C4 - 2007  
ENR Area**

Locator: DUD\_6C  
 Descrip: ENR Area  
 Sampled: 4/3/2007  
 Lab ID: L42274-5  
 Matrix: SALTWTRSED  
 % Solids: 78.8

Locator: DUD\_7C  
 Descrip: ENR Area  
 Sampled: 4/4/2007  
 Lab ID: L42274-6  
 Matrix: SALTWTRSED  
 % Solids: 55.7

Locator: DUD\_14C  
 Descrip: ENR Area  
 Sampled: 4/4/2007  
 Lab ID: L42274-7  
 Matrix: SALTWTRSED  
 % Solids: 65.6

Locator: DUD\_15C  
 Descrip: ENR Area  
 Sampled: 4/4/2007  
 Lab ID: L42274-8  
 Matrix: SALTWTRSED  
 % Solids: 55.1

Parameters	Value					Value					Value					Value					
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
	- Dry Weight Basis																				
<b>COMBINED LABS</b>																					
<b>M=CV ASTM D422(03-02-005-001)</b>																					
Fines *	16.2	0.5		1	%	42.5	0.5		1	%	30.9	0.5		1	%	52.5	0.5		1	%	
Gravel *	41	0.1		1	%	6.1	0.1		1	%	5	0.1		1	%	22.7	0.1		1	%	
Sand *	43.4	0.1		1	%	48.8	0.1		1	%	59.2	0.1		1	%	22.6	0.1		1	%	
Silt *	12.1	0.5		1	%	27.8	0.5		1	%	21.9	0.5		1	%	36.6	0.5		1	%	
Clay *	4	0.5		1	%	14.7	0.5		1	%	9	0.5		1	%	15.9	0.5		1	%	
p+0.00 *	3.6	0.1		1	%	3.3	0.1		1	%	0.8	<RDL	0.1		1	%	1.5	0.1		1	%
p+1.00 *	4.8	0.1		1	%	8.9	0.1		1	%	3.5	0.1		1	%	2.1	0.1		1	%	
p+10.0(equal/more than) *	2.7	0.5		1	%	8.7	0.5		1	%	5.3	0.5		1	%	8.4	0.5		1	%	
p+2.00 *	19.2	0.1		1	%	15.3	0.1		1	%	26.7	0.1		1	%	6	0.1		1	%	
p+3.00 *	12.6	0.1		1	%	11.8	0.1		1	%	20.1	0.1		1	%	6.9	0.1		1	%	
p+4.00 *	3.2	0.1		1	%	9.5	0.1		1	%	8.1	0.1		1	%	6.1	0.1		1	%	
p+5.00 *	4	0.5		1	%	7.8	0.5		1	%	5.3	0.5		1	%	11.3	0.5		1	%	
p+6.00 *	2.7	0.5		1	%	3.5	0.5		1	%	6	0.5		1	%	5.6	0.5		1	%	
p+7.00 *	4	0.5		1	%	8.7	0.5		1	%	5.3	0.5		1	%	12.2	0.5		1	%	
p+8.00 *	1.4	0.5		1	%	7.8	0.5		1	%	5.3	0.5		1	%	7.5	0.5		1	%	
p+9.00 *	1.4	0.5		1	%	6.1	0.5		1	%	3.8	0.5		1	%	7.5	0.5		1	%	
p-1.00 *	15.3	0.1		1	%	2.1	0.1		1	%	2.6	0.1		1	%	6.9	0.1		1	%	
p-2.00 *	12.9	0.1		1	%	0.6	<RDL	0.1		1	%	1.2	0.1		1	%	6.8	0.1		1	%
p-2.00(less than) *	12.8	0.1		1	%	3.4	0.1		1	%	1.3	0.1		1	%	9	0.1		1	%	
<b>M=CV EPA 9060-PSEP96(03-04-002-003)</b>																					
Total Organic Carbon	6980		1100	2250	mg/Kg	13600		1200	2440	mg/Kg	10200		1300	2530	mg/Kg	15300		1300	2600	mg/Kg	
<b>M=CV SM2540-G (03-01-007-002)</b>																					
Total Solids *	78.8	0.005	0.01		%	55.7	0.005	0.01		%	65.6	0.005	0.01		%	55.1	0.005	0.01		%	
<b>M=ES NONE</b>																					
Field Personnel	JB,SH,JO,JDD				none	JB,BK,SH,DR				none	JB,BK,SH,DR				none	JB,BK,SH,DR				none	
Sampcoordx1 *	1266951				ft	1266906				ft	1267192				ft	1267059				ft	
Sampcoordy1 *	208503				ft	208489				ft	208009				ft	207968				ft	
Sample Depth *	11				m	11				m	10				m	12				m	
Sample Function																					
Sampling Method *	20042				none	20042				none	20042				none	20042				none	
Sediment Sampling Depth *	7				cm	10				cm	13				cm	10				cm	
Sediment Sampling Range *	0-6 cm				cm	0-9 cm				cm	0-10 cm				cm	0-9 cm				cm	
Sediment Type	32N20				none	23N21				none	23N21				none	24N21				none	
Tidal Condition	F				none	E				none	E				none	E				none	
Tide Height *	2.5				ft	5				ft	5.5				ft	6				ft	
<b>M=MT EPA 7471A (06-01-004-003)</b>																					
Mercury, Total, CVAA	0.048	<RDL	0.0061	0.0612	mg/Kg	0.118	0.0092	0.0912		mg/Kg	0.139	0.0075	0.0753		mg/Kg	0.117	0.0093	0.0931		mg/Kg	
<b>M=MT EPA3050B/6010B MOD(6-2-04-02)</b>																					
Aluminum, Total, ICP	12300	L	6.3	31.6	mg/Kg	21900	L	9	44.9	mg/Kg	15400	L	7.6	38	mg/Kg	20700	L	9.1	45.2	mg/Kg	
Antimony, Total, ICP		<MDL,G	0.95	4.75	mg/Kg		<MDL,G	1.3	6.73	mg/Kg		<MDL,G	1.1	5.7	mg/Kg		<MDL,G	1.4	6.79	mg/Kg	
Arsenic, Total, ICP	5.1	<RDL	1.5	7.91	mg/Kg	10	<RDL	2.2	11.2	mg/Kg	7.3	<RDL	1.8	9.5	mg/Kg	9.6	<RDL	2.2	11.3	mg/Kg	
Beryllium, Total, ICP	0.23	<RDL	0.063	0.316	mg/Kg	0.451	0.09	0.449		mg/Kg	0.29	<RDL	0.076	0.38	mg/Kg	0.42	<RDL	0.091	0.452	mg/Kg	
Cadmium, Total, ICP		<MDL	0.13	0.633	mg/Kg	0.22	<RDL	0.18	0.898	mg/Kg	0.26	<RDL	0.15	0.761	mg/Kg	0.2	<RDL	0.18	0.906	mg/Kg	
Chromium, Total, ICP	16.8		0.19	0.949	mg/Kg	25.3	0.27	1.35		mg/Kg	23.6	0.23	1.14		mg/Kg	23.4	0.27	1.36		mg/Kg	
Copper, Total, ICP	31.6		0.25	1.27	mg/Kg	51.5	0.36	1.8		mg/Kg	52.1	0.3	1.52		mg/Kg	45.2	0.36	1.81		mg/Kg	
Iron, Total, ICP	18800		3.2	15.9	mg/Kg	30200		4.5	22.4	mg/Kg	23600		3.8	19.1	mg/Kg	27400		4.5	22.7	mg/Kg	

# King County Environmental Lab Analytical Report

**Appendix C4 - 2007  
ENR Area**

Locator: DUD\_6C  
 Descrip: ENR Area  
 Sampled: 4/3/2007  
 Lab ID: L42274-5  
 Matrix: SALTWTRSED  
 % Solids: 78.8

Locator: DUD\_7C  
 Descrip: ENR Area  
 Sampled: 4/4/2007  
 Lab ID: L42274-6  
 Matrix: SALTWTRSED  
 % Solids: 55.7

Locator: DUD\_14C  
 Descrip: ENR Area  
 Sampled: 4/4/2007  
 Lab ID: L42274-7  
 Matrix: SALTWTRSED  
 % Solids: 65.6

Locator: DUD\_15C  
 Descrip: ENR Area  
 Sampled: 4/4/2007  
 Lab ID: L42274-8  
 Matrix: SALTWTRSED  
 % Solids: 55.1

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis																			
<b>COMBINED LABS</b>																				
Lead, Total, ICP	10.4		1.3	6.33	mg/Kg	18.7		1.8	8.98	mg/Kg	24.2		1.5	7.61	mg/Kg	17.6		1.8	9.06	mg/Kg
Manganese, Total, ICP	261		0.13	0.633	mg/Kg	361		0.18	0.898	mg/Kg	262		0.15	0.761	mg/Kg	330		0.18	0.906	mg/Kg
Nickel, Total, ICP	13.7		0.32	1.59	mg/Kg	20.1		0.45	2.24	mg/Kg	18		0.38	1.91	mg/Kg	17.9		0.45	2.27	mg/Kg
Selenium, Total, ICP	<MDL		1.5	7.91	mg/Kg	<MDL		2.2	11.2	mg/Kg	<MDL		1.8	9.5	mg/Kg	<MDL		2.2	11.3	mg/Kg
Silver, Total, ICP	<MDL		0.25	1.27	mg/Kg	<MDL		0.36	1.8	mg/Kg	0.47	<RDL	0.3	1.52	mg/Kg	<MDL		0.36	1.81	mg/Kg
Thallium, Total, ICP	<MDL		2.5	12.7	mg/Kg	<MDL		3.6	18	mg/Kg	<MDL		3	15.2	mg/Kg	<MDL		3.6	18.1	mg/Kg
Zinc, Total, ICP	52.4		0.32	1.59	mg/Kg	86		0.45	2.24	mg/Kg	79.3		0.38	1.91	mg/Kg	78.9		0.45	2.27	mg/Kg
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>																				
1,2,4-Trichlorobenzene	<MDL		0.13	0.254	ug/Kg	<MDL		0.18	0.359	ug/Kg	<MDL		0.15	0.305	ug/Kg	<MDL		0.18	0.363	ug/Kg
1,2-Dichlorobenzene	<MDL		0.25	0.508	ug/Kg	<MDL		0.36	0.718	ug/Kg	<MDL		0.3	0.61	ug/Kg	<MDL		0.36	0.726	ug/Kg
1,3-Dichlorobenzene	<MDL		0.25	0.508	ug/Kg	<MDL		0.36	0.718	ug/Kg	<MDL		0.3	0.61	ug/Kg	<MDL		0.36	0.726	ug/Kg
1,4-Dichlorobenzene	<MDL		0.25	0.508	ug/Kg	<MDL		0.36	0.718	ug/Kg	<MDL		0.3	0.61	ug/Kg	<MDL		0.36	0.726	ug/Kg
2,4-Dimethylphenol	<MDL		1.3	2.54	ug/Kg	<MDL		1.8	3.59	ug/Kg	<MDL		1.5	3.05	ug/Kg	<MDL		1.8	3.63	ug/Kg
2-Methylnaphthalene	<MDL		2.5	5.08	ug/Kg	<MDL		3.6	7.18	ug/Kg	<MDL		3	6.1	ug/Kg	<MDL		3.6	7.26	ug/Kg
2-Methylphenol	<MDL		2.5	5.08	ug/Kg	<MDL		3.6	7.18	ug/Kg	<MDL		3	6.1	ug/Kg	<MDL		3.6	7.26	ug/Kg
4-Methylphenol	<MDL		5.1	10.2	ug/Kg	<MDL		7.2	14.4	ug/Kg	<MDL		6.1	12.2	ug/Kg	<MDL		7.3	14.5	ug/Kg
Acenaphthene	3.2	<RDL	2.5	5.08	ug/Kg	3.9	<RDL	3.6	7.18	ug/Kg	4.1	<RDL	3	6.1	ug/Kg	3.8	<RDL	3.6	7.26	ug/Kg
Acenaphthylene	<MDL		2.5	5.08	ug/Kg	<MDL		3.6	7.18	ug/Kg	6.36		3	6.1	ug/Kg	<MDL		3.6	7.26	ug/Kg
Anthracene	10.3		2.5	5.08	ug/Kg	25.5		3.6	7.18	ug/Kg	40.7		3	6.1	ug/Kg	19.6		3.6	7.26	ug/Kg
Benzo(a)anthracene	35.2		2.5	5.08	ug/Kg	74.3		3.6	7.18	ug/Kg	112		3	6.1	ug/Kg	48.8		3.6	7.26	ug/Kg
Benzo(a)pyrene	36.7		2.5	5.08	ug/Kg	70.9		3.6	7.18	ug/Kg	93.3		3	6.1	ug/Kg	55.4		3.6	7.26	ug/Kg
Benzo(b)fluoranthene	57.1		2.5	5.08	ug/Kg	106		3.6	7.18	ug/Kg	136		3	6.1	ug/Kg	84		3.6	7.26	ug/Kg
Benzo(g,h,i)perylene	22.7		2.5	5.08	ug/Kg	47.9		3.6	7.18	ug/Kg	56.7		3	6.1	ug/Kg	37.6		3.6	7.26	ug/Kg
Benzo(k)fluoranthene	24.1		2.5	5.08	ug/Kg	57.5		3.6	7.18	ug/Kg	98.3		3	6.1	ug/Kg	37.9		3.6	7.26	ug/Kg
Benzoic Acid	62.1		13	25.4	ug/Kg	97.8		18	35.9	ug/Kg	75.5		15	30.5	ug/Kg	83.5		18	36.3	ug/Kg
Benzyl Alcohol	<MDL		2.5	5.08	ug/Kg	<MDL		3.6	7.18	ug/Kg	<MDL		3	6.1	ug/Kg	<MDL		3.6	7.26	ug/Kg
Benzyl Butyl Phthalate	18.1		1.3	2.54	ug/Kg	26		1.8	3.59	ug/Kg	21.2		1.5	3.05	ug/Kg	22.3		1.8	3.63	ug/Kg
Bis(2-Ethylhexyl)Phthalate	73.9	B	5.1	10.2	ug/Kg	155	B	7.2	14.4	ug/Kg	165	B	6.1	12.2	ug/Kg	141	B	7.3	14.5	ug/Kg
Carbazole	4.4	<RDL	2.5	5.08	ug/Kg	11.2		3.6	7.18	ug/Kg	13.5		3	6.1	ug/Kg	12.1		3.6	7.26	ug/Kg
Chrysene	52.7		2.5	5.08	ug/Kg	121		3.6	7.18	ug/Kg	181		3	6.1	ug/Kg	83.3		3.6	7.26	ug/Kg
Coprostanol	245		51	102	ug/Kg	397		72	144	ug/Kg	328		61	122	ug/Kg	336		73	145	ug/Kg
Dibenzo(a,h)anthracene	6.04		2.5	5.08	ug/Kg	12.5		3.6	7.18	ug/Kg	15.7		3	6.1	ug/Kg	10.1		3.6	7.26	ug/Kg
Dibenzofuran	3	<RDL	2.5	5.08	ug/Kg	4.7	<RDL	3.6	7.18	ug/Kg	4.6	<RDL	3	6.1	ug/Kg	4	<RDL	3.6	7.26	ug/Kg
Diethyl Phthalate	<MDL		5.1	10.2	ug/Kg	<MDL		7.2	14.4	ug/Kg	<MDL		6.1	12.2	ug/Kg	<MDL		7.3	14.5	ug/Kg
Dimethyl Phthalate	<MDL		5.1	10.2	ug/Kg	<MDL		7.2	14.4	ug/Kg	<MDL		6.1	12.2	ug/Kg	<MDL		7.3	14.5	ug/Kg
Di-N-Butyl Phthalate	5.3	<RDL	5.1	10.2	ug/Kg	8.3	<RDL	7.2	14.4	ug/Kg	6.3	<RDL	6.1	12.2	ug/Kg	8.7	<RDL	7.3	14.5	ug/Kg
Di-N-Octyl Phthalate	<MDL		5.1	10.2	ug/Kg	<MDL		7.2	14.4	ug/Kg	<MDL		6.1	12.2	ug/Kg	<MDL		7.3	14.5	ug/Kg
Fluoranthene	75.6		2.5	5.08	ug/Kg	154		3.6	7.18	ug/Kg	195		3	6.1	ug/Kg	131		3.6	7.26	ug/Kg
Fluorene	4.2	<RDL	2.5	5.08	ug/Kg	7.49		3.6	7.18	ug/Kg	10.4		3	6.1	ug/Kg	6.5	<RDL	3.6	7.26	ug/Kg
Hexachlorobenzene	<MDL		0.13	0.254	ug/Kg	<MDL		0.18	0.359	ug/Kg	<MDL		0.15	0.305	ug/Kg	<MDL		0.18	0.363	ug/Kg
Hexachlorobutadiene	<MDL		0.63	1.27	ug/Kg	<MDL		0.9	1.8	ug/Kg	<MDL		0.76	1.52	ug/Kg	<MDL		0.91	1.81	ug/Kg
Hexachloroethane	<MDL		1.3	2.54	ug/Kg	<MDL		1.8	3.59	ug/Kg	<MDL		1.5	3.05	ug/Kg	<MDL		1.8	3.63	ug/Kg
Indeno(1,2,3-Cd)Pyrene	25.9		2.5	5.08	ug/Kg	49.4		3.6	7.18	ug/Kg	55.6		3	6.1	ug/Kg	39		3.6	7.26	ug/Kg
Naphthalene	<MDL		2.5	5.08	ug/Kg	<MDL		3.6	7.18	ug/Kg	3.4	<RDL	3	6.1	ug/Kg	<MDL		3.6	7.26	ug/Kg
N-Nitrosodiphenylamine	<MDL		5.1	10.2	ug/Kg	<MDL		7.2	14.4	ug/Kg	<MDL		6.1	12.2	ug/Kg	<MDL		7.3	14.5	ug/Kg
Pentachlorophenol	<MDL		13	25.4	ug/Kg	<MDL		18	35.9	ug/Kg	<MDL		15	30.5	ug/Kg	<MDL		18	36.3	ug/Kg
Phenanthrene	26		2.5	5.08	ug/Kg	55.1		3.6	7.18	ug/Kg	62.2		3	6.1	ug/Kg	48.6		3.6	7.26	ug/Kg

# King County Environmental Lab Analytical Report

**Appendix C4 - 2007  
ENR Area**

Locator: DUD\_6C  
 Descrip: ENR Area  
 Sampled: 4/3/2007  
 Lab ID: L42274-5  
 Matrix: SALTWTRSED  
 % Solids: 78.8

Locator: DUD\_7C  
 Descrip: ENR Area  
 Sampled: 4/4/2007  
 Lab ID: L42274-6  
 Matrix: SALTWTRSED  
 % Solids: 55.7

Locator: DUD\_14C  
 Descrip: ENR Area  
 Sampled: 4/4/2007  
 Lab ID: L42274-7  
 Matrix: SALTWTRSED  
 % Solids: 65.6

Locator: DUD\_15C  
 Descrip: ENR Area  
 Sampled: 4/4/2007  
 Lab ID: L42274-8  
 Matrix: SALTWTRSED  
 % Solids: 55.1

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis																			
<b>COMBINED LABS</b>																				
Phenol	<MDL		5.1	10.2	ug/Kg	<MDL		7.2	14.4	ug/Kg	<MDL		6.1	12.2	ug/Kg	<MDL		7.3	14.5	ug/Kg
Pyrene	66.5		2.5	5.08	ug/Kg	125		3.6	7.18	ug/Kg	162		3	6.1	ug/Kg	110		3.6	7.26	ug/Kg
Total HPAHS	402		2.5	5.08	ug/Kg	819		3.6	7.18	ug/Kg	1110		3	6.1	ug/Kg	637		3.6	7.26	ug/Kg
Total LPAHs	47.2		2.5	5.08	ug/Kg	98.2		3.6	7.18	ug/Kg	130		3	6.1	ug/Kg	84.4		3.6	7.26	ug/Kg
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>																				
4,4'-DDD	<MDL		0.85	1.69	ug/Kg	<MDL,H		1.2	2.39	ug/Kg	<MDL,H		1	2.03	ug/Kg	<MDL,H		1.2	2.41	ug/Kg
4,4'-DDE	<MDL		0.85	1.69	ug/Kg	<MDL,H		1.2	2.39	ug/Kg	<MDL,H		1	2.03	ug/Kg	<MDL,H		1.2	2.41	ug/Kg
4,4'-DDT	<MDL		0.85	1.69	ug/Kg	<MDL,H		1.2	2.39	ug/Kg	<MDL,H		1	2.03	ug/Kg	<MDL,H		1.2	2.41	ug/Kg
Aldrin	<MDL		0.85	1.69	ug/Kg	<MDL,H		1.2	2.39	ug/Kg	<MDL,H		1	2.03	ug/Kg	<MDL,H		1.2	2.41	ug/Kg
Alpha-BHC	<MDL		0.42	0.846	ug/Kg	<MDL,H		0.59	1.2	ug/Kg	<MDL,H		0.5	1.02	ug/Kg	<MDL,H		0.6	1.21	ug/Kg
Alpha-Chlordane	<MDL		0.42	0.846	ug/Kg	<MDL,H		0.59	1.2	ug/Kg	<MDL,H		0.5	1.02	ug/Kg	<MDL,H		0.6	1.21	ug/Kg
Aroclor 1016	<MDL,TA		4.7	9.39	ug/Kg	<MDL,H,TA		8.8	17.5	ug/Kg	<MDL,H,TA		13	26.7	ug/Kg	<MDL,H,TA		4.5	9.2	ug/Kg
Aroclor 1221	<MDL		2.2	4.23	ug/Kg	<MDL,H		3.1	5.98	ug/Kg	<MDL,H		2.6	5.08	ug/Kg	<MDL,H		3.1	6.04	ug/Kg
Aroclor 1232	<MDL,TA		7.7	15.6	ug/Kg	<MDL,H		3.1	5.98	ug/Kg	<MDL,H,TA		27	55.8	ug/Kg	<MDL,H		3.1	6.04	ug/Kg
Aroclor 1242	<MDL,TA		15	30.8	ug/Kg	<MDL,H,TA		23	45.1	ug/Kg	<MDL,H,TA		32	64.8	ug/Kg	<MDL,H,TA		18	35.2	ug/Kg
Aroclor 1248	8.88		1.1	2.12	ug/Kg	19.6	H	1.5	3	ug/Kg	24.7	H	1.3	2.55	ug/Kg	11.3	H	1.5	3.03	ug/Kg
Aroclor 1254	14.3		1.1	2.12	ug/Kg	38.1	H	1.5	3	ug/Kg	48.2	H	1.3	2.55	ug/Kg	18.1	H	1.5	3.03	ug/Kg
Aroclor 1260	9.49	L	1.1	2.12	ug/Kg	19.9	H,L,E	1.5	3	ug/Kg	48.5	H,L,E	1.3	2.55	ug/Kg	13.1	H,L,E	1.5	3.03	ug/Kg
Beta-BHC	<MDL		0.42	0.846	ug/Kg	<MDL,H		0.59	1.2	ug/Kg	<MDL,H		0.5	1.02	ug/Kg	<MDL,H		0.6	1.21	ug/Kg
Delta-BHC	<MDL		0.42	0.846	ug/Kg	<MDL,H		0.59	1.2	ug/Kg	<MDL,H		0.5	1.02	ug/Kg	<MDL,H		0.6	1.21	ug/Kg
Dieldrin	<MDL		0.85	1.69	ug/Kg	<MDL,H		1.2	2.39	ug/Kg	<MDL,H		1	2.03	ug/Kg	<MDL,H		1.2	2.41	ug/Kg
Endosulfan I	<MDL		0.85	1.69	ug/Kg	<MDL,H		1.2	2.39	ug/Kg	<MDL,H		1	2.03	ug/Kg	<MDL,H		1.2	2.41	ug/Kg
Endosulfan II	<MDL		0.85	1.69	ug/Kg	<MDL,H		1.2	2.39	ug/Kg	<MDL,H		1	2.03	ug/Kg	<MDL,H		1.2	2.41	ug/Kg
Endosulfan Sulfate	<MDL		0.85	1.69	ug/Kg	<MDL,H		1.2	2.39	ug/Kg	<MDL,H		1	2.03	ug/Kg	<MDL,H		1.2	2.41	ug/Kg
Endrin	<MDL		0.85	1.69	ug/Kg	<MDL,H		1.2	2.39	ug/Kg	<MDL,H		1	2.03	ug/Kg	<MDL,H		1.2	2.41	ug/Kg
Endrin Aldehyde	<MDL		0.85	1.69	ug/Kg	<MDL,H		1.2	2.39	ug/Kg	<MDL,H		1	2.03	ug/Kg	<MDL,H		1.2	2.41	ug/Kg
Gamma-BHC (Lindane)	<MDL		0.42	0.846	ug/Kg	<MDL,H		0.59	1.2	ug/Kg	<MDL,H		0.5	1.02	ug/Kg	<MDL,H		0.6	1.21	ug/Kg
Gamma-Chlordane	<MDL		0.42	0.846	ug/Kg	<MDL,H		0.59	1.2	ug/Kg	<MDL,H		0.5	1.02	ug/Kg	<MDL,H		0.6	1.21	ug/Kg
Heptachlor	<MDL		0.42	0.846	ug/Kg	<MDL,H		0.59	1.2	ug/Kg	<MDL,H		0.5	1.02	ug/Kg	<MDL,H		0.6	1.21	ug/Kg
Heptachlor Epoxide	<MDL		0.42	0.846	ug/Kg	1.28	H	0.59	1.2	ug/Kg	<MDL,H		0.5	1.02	ug/Kg	0.64	<RDL,H	0.6	1.21	ug/Kg
Methoxychlor	<MDL		4.2	8.46	ug/Kg	<MDL,H		5.9	12	ug/Kg	<MDL,H		5	10.2	ug/Kg	<MDL,H		6	12.1	ug/Kg
Toxaphene	<MDL		8.5	16.9	ug/Kg	<MDL,H		12	23.9	ug/Kg	<MDL,H		10	20.3	ug/Kg	<MDL,H		12	24.1	ug/Kg

\* Not converted to dry weight basis for this parameter

# King County Environmental Lab Analytical Report

**Appendix C5 - 2006**
**Perimeter Stations**

 Locator: DUD\_1C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-1  
 Matrix: SALTWTRSED  
 % Solids: 55.4

 Locator: DUD\_2C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-2  
 Matrix: SALTWTRSED  
 % Solids: 54.6

 Locator: DUD\_8C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-9  
 Matrix: SALTWTRSED  
 % Solids: 75

 Locator: DUD\_8C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-10  
 Matrix: SALTWTRSED  
 % Solids: 72.9

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
<b>COMBINED LABS</b>																				
<b>M=CV ASTM D422(03-02-005-001)</b>																				
Fines *	55.2		0.5	1	%	60		0.5	1	%	19.9		0.5	1	%	21.8		0.5	1	%
Clay *	10.1	E	0.5	1	%	16.1	E	0.5	1	%	6	E	0.5	1	%	7.6	E	0.5	1	%
Silt *	45.1		0.5	1	%	43.9		0.5	1	%	13.9		0.5	1	%	14.2		0.5	1	%
Sand *	32.3		0.1	1	%	34.7		0.1	1	%	72		0.1	1	%	71.7		0.1	1	%
Gravel *	6		0.1	1	%	0.6	<RDL	0.1	1	%	10.4		0.1	1	%	7		0.1	1	%
p+0.00 *	0.8	<RDL	0.1	1	%	0.5	<RDL	0.1	1	%	3.6		0.1	1	%	3.4		0.1	1	%
p+1.00 *	1.7		0.1	1	%	0.7	<RDL	0.1	1	%	5.8		0.1	1	%	5.9		0.1	1	%
p+10.0(equal/more than) *	9.2		0.5	1	%	11.8		0.5	1	%	5		0.5	1	%	6		0.5	1	%
p+2.00 *	6.7		0.1	1	%	5.3		0.1	1	%	28.5		0.1	1	%	26.1		0.1	1	%
p+3.00 *	11.8		0.1	1	%	15.2		0.1	1	%	25.9		0.1	1	%	27.4		0.1	1	%
p+4.00 *	11.3		0.1	1	%	13.1		0.1	1	%	8.2		0.1	1	%	8.9		0.1	1	%
p+5.00 *	9.2		0.5	1	%	12.7		0.5	1	%	5		0.5	1	%	4.9		0.5	1	%
p+6.00 *	27.6		0.5	1	%	13.5		0.5	1	%	4.5		0.5	1	%	4.4		0.5	1	%
p+7.00 *	7.4		0.5	1	%	14.4		0.5	1	%	3		0.5	1	%	2.2		0.5	1	%
p+8.00 *	0.9	<RDL	0.5	1	%	3.4		0.5	1	%	1.5		0.5	1	%	2.7		0.5	1	%
p+9.00 *	0.9	<RDL	0.5	1	%	4.2		0.5	1	%	1	<RDL	0.5	1	%	1.6		0.5	1	%
p-1.00 *	0.3	<RDL	0.1	1	%	0.4	<RDL	0.1	1	%	3.7		0.1	1	%	3.6		0.1	1	%
p-2.00 *	0.3	<RDL	0.1	1	%	0.2	<RDL	0.1	1	%	1.6		0.1	1	%	0.8	<RDL	0.1	1	%
p-2.00(less than) *	5.4		0.1	1	%		<MDL	0.1	1	%	5.1		0.1	1	%	2.6		0.1	1	%
<b>M=CV EPA9060-PSEP96 (03-04-002-003)</b>																				
Total Organic Carbon	20000		1800	3680	mg/Kg	19600		1800	3750	mg/Kg	4830		720	1440	mg/Kg	7420		860	1740	mg/Kg
<b>M=CV SM2540-G (03-01-007-002)</b>																				
Total Solids *	55.4		0.005	0.01	%	54.6		0.005	0.01	%	75		0.005	0.01	%	72.9		0.005	0.01	%
<b>M=ES NONE</b>																				
Field Personnel	JO, BK, JDD, JB				none	JO, BK, JDD, JB				none	JO, BK, JDD, JB				none	JO, BK, JDD, JB				none
Sampcoordx1 *	1267162				ft	1267174				ft	1266876				ft	1266863				ft
Sampcoordx2 *	1267165				ft	1267177				ft	1266868				ft	1266877				ft
Sampcoordx3 *	1267168				ft	1267176				ft	1266869				ft	1266866				ft
Sampcoordx4 *	1267160				ft	1267169				ft	1266861				ft	1266864				ft
Sampcoordx5 *	1267167				ft	1267172				ft	1266861				ft	1266861				ft
Sampcoordx6 *					ft	1267166				ft					ft	1266864				ft
Sampcoordy1 *	208758				ft	208653				ft	208923				ft	208926				ft
Sampcoordy2 *	208754				ft	208655				ft	208919				ft	208914				ft
Sampcoordy3 *	208754				ft	208655				ft	208916				ft	208923				ft
Sampcoordy4 *	208759				ft	208650				ft	208926				ft	208915				ft
Sampcoordy5 *	208766				ft	208645				ft	208934				ft	208919				ft
Sampcoordy6 *					ft	208658				ft					ft	208919				ft
Sample Depth *	7				m	8				m	12				m	12				m
Sample Function																FREP @ L38326-9				none
Sample Start Time *	855				hr	950				hr	1044				hr	1130				hr
Sampling Method *	20042				none	20042				none	20042				none	20042				none
Sediment Sampling Depth *	16				cm	8				cm	5				cm	6				cm
Sediment Sampling Range *	0-10 cm				cm	0-7 cm				cm	0-4 cm				cm	0-5 cm				cm
Sediment Type	24S10				none	24S10				none	32N30				none	32N30				none
Tidal Condition	S				none	E				none	E				none	E				none
Tide Height *	7.5				ft	7.2				ft	7				ft	6				ft



# King County Environmental Lab Analytical Report

**Appendix C5 - 2006**
**Perimeter Stations**

 Locator: DUD\_1C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-1  
 Matrix: SALTWTRSED  
 % Solids: 55.4

 Locator: DUD\_2C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-2  
 Matrix: SALTWTRSED  
 % Solids: 54.6

 Locator: DUD\_8C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-9  
 Matrix: SALTWTRSED  
 % Solids: 75

 Locator: DUD\_8C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-10  
 Matrix: SALTWTRSED  
 % Solids: 72.9

Parameters	Value					Value					Value					Value					
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					
<b>COMBINED LABS</b>																					
Di-N-Butyl Phthalate	<MDL	B	96	193	ug/Kg	<MDL		97	196	ug/Kg	15.5	B	7.1	14.3	ug/Kg	15.1	<RDL	B	7.3	14.7	ug/Kg
Di-N-Octyl Phthalate	<MDL		96	193	ug/Kg	<MDL		97	196	ug/Kg	<MDL		7.1	14.3	ug/Kg	<MDL			7.3	14.7	ug/Kg
Fluoranthene	538		49	96.2	ug/Kg	3390		49	97.6	ug/Kg	232		3.6	7.11	ug/Kg	155			3.7	7.31	ug/Kg
Fluorene	<MDL		49	96.2	ug/Kg	357		49	97.6	ug/Kg	9.32		3.6	7.11	ug/Kg	9.31			3.7	7.31	ug/Kg
Hexachlorobenzene	<MDL		9.6	19.3	ug/Kg	<MDL		9.7	19.6	ug/Kg	<MDL		0.71	1.43	ug/Kg	<MDL			0.73	1.47	ug/Kg
Hexachlorobutadiene	<MDL		23	48.2	ug/Kg	<MDL		24	48.9	ug/Kg	<MDL		1.7	3.56	ug/Kg	<MDL			1.8	3.66	ug/Kg
Hexachloroethane	<MDL		23	48.2	ug/Kg	<MDL		24	48.9	ug/Kg	<MDL		1.7	3.56	ug/Kg	<MDL			1.8	3.66	ug/Kg
Indeno(1,2,3-Cd)Pyrene	186		49	96.2	ug/Kg	247		49	97.6	ug/Kg	51.6		3.6	7.11	ug/Kg	48.1			3.7	7.31	ug/Kg
Naphthalene	<MDL		49	96.2	ug/Kg	<MDL		49	97.6	ug/Kg	<MDL		3.6	7.11	ug/Kg	6.3	<RDL		3.7	7.31	ug/Kg
N-Nitrosodiphenylamine	<MDL		96	193	ug/Kg	<MDL		97	196	ug/Kg	<MDL		7.1	14.3	ug/Kg	<MDL			7.3	14.7	ug/Kg
Pentachlorophenol	<MDL		230	482	ug/Kg	<MDL		240	489	ug/Kg	<MDL		17	35.6	ug/Kg	<MDL			18	36.6	ug/Kg
Phenanthrene	255		49	96.2	ug/Kg	1530		49	97.6	ug/Kg	71.1		3.6	7.11	ug/Kg	57.1			3.7	7.31	ug/Kg
Phenol	90	<RDL	49	193	ug/Kg	1510		97	196	ug/Kg	<MDL		7.1	14.3	ug/Kg	<MDL			7.3	14.7	ug/Kg
Pyrene	760		49	96.2	ug/Kg	2360		49	97.6	ug/Kg	189		3.6	7.11	ug/Kg	192			3.7	7.31	ug/Kg
Total HPAHS	3380		49	96.2	ug/Kg	10100		49	97.6	ug/Kg	1080		3.6	7.11	ug/Kg	938			3.7	7.31	ug/Kg
Total LPAHS	390		49	96.2	ug/Kg	2880		49	97.6	ug/Kg	140		3.6	7.11	ug/Kg	115			3.7	7.31	ug/Kg
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>																					
4,4'-DDD	<MDL		1.8	3.61	ug/Kg	<MDL		1.8	3.66	ug/Kg	1.5	<RDL	1.3	2.67	ug/Kg	3.48			1.4	2.74	ug/Kg
4,4'-DDE	<MDL		1.8	3.61	ug/Kg	<MDL		1.8	3.66	ug/Kg	<MDL		1.3	2.67	ug/Kg	<MDL			1.4	2.74	ug/Kg
4,4'-DDT	<MDL	L,E	1.8	3.61	ug/Kg	<MDL	L,E	1.8	3.66	ug/Kg	<MDL	L,E	1.3	2.67	ug/Kg	<MDL	L,E		1.4	2.74	ug/Kg
Aldrin	<MDL		1.8	3.61	ug/Kg	<MDL		1.8	3.66	ug/Kg	<MDL		1.3	2.67	ug/Kg	<MDL			1.4	2.74	ug/Kg
Alpha-BHC	<MDL		0.9	1.81	ug/Kg	<MDL		0.92	1.83	ug/Kg	<MDL		0.67	1.33	ug/Kg	<MDL			0.69	1.37	ug/Kg
Alpha-Chlordane	<MDL		0.9	1.81	ug/Kg	<MDL		0.92	1.83	ug/Kg	<MDL		0.67	1.33	ug/Kg	<MDL			0.69	1.37	ug/Kg
Aroclor 1016	<MDL	TA	140	274	ug/Kg	<MDL	TA	49	97.8	ug/Kg	<MDL	TA	40	79.6	ug/Kg	<MDL	TA		130	267	ug/Kg
Aroclor 1221	<MDL		4.5	9.03	ug/Kg	<MDL		4.6	9.16	ug/Kg	<MDL		3.3	6.67	ug/Kg	<MDL			3.4	6.86	ug/Kg
Aroclor 1232	<MDL	TA	250	511	ug/Kg	<MDL	TA	88	175	ug/Kg	<MDL	TA	79	156	ug/Kg	<MDL	TA		250	491	ug/Kg
Aroclor 1242	<MDL	TA	230	453	ug/Kg	<MDL	TA	86	172	ug/Kg	<MDL	TA	85	169	ug/Kg	<MDL	TA		220	427	ug/Kg
Aroclor 1248	197		2.3	4.51	ug/Kg	76.9		2.4	4.58	ug/Kg	60.7		1.7	3.33	ug/Kg	184			1.8	3.43	ug/Kg
Aroclor 1254	247		2.3	4.51	ug/Kg	112		2.4	4.58	ug/Kg	79.2		1.7	3.33	ug/Kg	195			1.8	3.43	ug/Kg
Aroclor 1260	161		2.3	4.51	ug/Kg	85.5		2.4	4.58	ug/Kg	37.2		1.7	3.33	ug/Kg	77			1.8	3.43	ug/Kg
Beta-BHC	<MDL		0.9	1.81	ug/Kg	<MDL		0.92	1.83	ug/Kg	<MDL		0.67	1.33	ug/Kg	<MDL			0.69	1.37	ug/Kg
Delta-BHC	<MDL		0.9	1.81	ug/Kg	<MDL		0.92	1.83	ug/Kg	<MDL		0.67	1.33	ug/Kg	<MDL			0.69	1.37	ug/Kg
Dieldrin	<MDL		1.8	3.61	ug/Kg	<MDL		1.8	3.66	ug/Kg	<MDL		1.3	2.67	ug/Kg	<MDL			1.4	2.74	ug/Kg
Endosulfan I	<MDL		1.8	3.61	ug/Kg	<MDL		1.8	3.66	ug/Kg	<MDL		1.3	2.67	ug/Kg	<MDL			1.4	2.74	ug/Kg
Endosulfan II	<MDL		1.8	3.61	ug/Kg	<MDL		1.8	3.66	ug/Kg	<MDL		1.3	2.67	ug/Kg	<MDL			1.4	2.74	ug/Kg
Endosulfan Sulfate	<MDL		1.8	3.61	ug/Kg	<MDL		1.8	3.66	ug/Kg	<MDL		1.3	2.67	ug/Kg	<MDL			1.4	2.74	ug/Kg
Endrin	<MDL		1.8	3.61	ug/Kg	<MDL		1.8	3.66	ug/Kg	<MDL		1.3	2.67	ug/Kg	<MDL			1.4	2.74	ug/Kg
Endrin Aldehyde	<MDL		3.6	7.22	ug/Kg	<MDL		3.7	7.33	ug/Kg	<MDL		2.7	5.33	ug/Kg	<MDL			2.7	5.49	ug/Kg
Gamma-BHC (Lindane)	<MDL		0.9	1.81	ug/Kg	<MDL		0.92	1.83	ug/Kg	<MDL		0.67	1.33	ug/Kg	<MDL			0.69	1.37	ug/Kg
Gamma-Chlordane	<MDL		0.9	1.81	ug/Kg	<MDL		0.92	1.83	ug/Kg	<MDL		0.67	1.33	ug/Kg	<MDL			0.69	1.37	ug/Kg
Heptachlor	<MDL		0.9	1.81	ug/Kg	<MDL		0.92	1.83	ug/Kg	<MDL		0.67	1.33	ug/Kg	<MDL			0.69	1.37	ug/Kg
Heptachlor Epoxide	<MDL		0.9	1.81	ug/Kg	<MDL		0.92	1.83	ug/Kg	<MDL		0.67	1.33	ug/Kg	<MDL			0.69	1.37	ug/Kg
Methoxychlor	<MDL	E	9	18.1	ug/Kg	<MDL	E	9.2	18.3	ug/Kg	<MDL	E	6.7	13.3	ug/Kg	<MDL	E		6.9	13.7	ug/Kg
Toxaphene	<MDL		18	36.1	ug/Kg	<MDL		18	36.6	ug/Kg	<MDL		13	26.7	ug/Kg	<MDL			14	27.4	ug/Kg

\* Not converted to dry weight basis for this parameter

# King County Environmental Lab Analytical Report

**Appendix C5 - 2006  
Perimeter Stations**

 Locator: DUD\_9C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-11  
 Matrix: SALTWRSED  
 % Solids: 76.1

 Locator: DUD\_10C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-12  
 Matrix: SALTWRSED  
 % Solids: 66.6

 Locator: DUD\_11C  
 Descrip: Perimeter Station  
 Sampled: Mar 09, 2006  
 Lab ID: L38326-13  
 Matrix: SALTWRSED  
 % Solids: 78

 Locator: DUD\_12C  
 Descrip: Perimeter Station  
 Sampled: Mar 09, 2006  
 Lab ID: L38326-14  
 Matrix: SALTWRSED  
 % Solids: 70.7

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					
<b>COMBINED LABS</b>																					
<b>M=CV ASTM D422(03-02-005-001)</b>																					
Fines *	13.2		0.5	1	%	30.9		0.5	1	%	12.3		0.5	1	%	25.3		0.5	1	%	
Clay *	4.4	E	0.5	1	%	7.2	E	0.5	1	%	4.5	E	0.5	1	%	6.2	E	0.5	1	%	
Silt *	8.8		0.5	1	%	23.7		0.5	1	%	7.8		0.5	1	%	19.2		0.5	1	%	
Sand *	80.7		0.1	1	%	61.5		0.1	1	%	70.9		0.1	1	%	69.2		0.1	1	%	
Gravel *	3.5		0.1	1	%	7.3		0.1	1	%	15		0.1	1	%	0.9	<RDL	0.1	1	%	
p+0.00 *	3.1		0.1	1	%	2.1		0.1	1	%	6.8		0.1	1	%	1	<RDL	0.1	1	%	
p+1.00 *	7.6		0.1	1	%	7.7		0.1	1	%	10		0.1	1	%	2.2		0.1	1	%	
p+10.0(equal/more than) *	3.1		0.5	1	%	5		0.5	1	%	4.5		0.5	1	%	4.8		0.5	1	%	
p+2.00 *	32.1		0.1	1	%	20		0.1	1	%	23.8		0.1	1	%	13.7		0.1	1	%	
p+3.00 *	28.9		0.1	1	%	19.4		0.1	1	%	22.7		0.1	1	%	34.8		0.1	1	%	
p+4.00 *	9		0.1	1	%	12.4		0.1	1	%	7.7		0.1	1	%	17.5		0.1	1	%	
p+5.00 *	2.5		0.5	1	%	8.6		0.5	1	%	3.2		0.5	1	%	6.8		0.5	1	%	
p+6.00 *	1.9		0.5	1	%	2.9		0.5	1	%	1.9		0.5	1	%	5.5		0.5	1	%	
p+7.00 *	2.5		0.5	1	%	7.2		0.5	1	%	2.6		0.5	1	%	4.1		0.5	1	%	
p+8.00 *	1.9		0.5	1	%	5		0.5	1	%	<MDL		0.5	1	%	2.7		0.5	1	%	
p+9.00 *	1.3		0.5	1	%	2.2		0.5	1	%	<MDL		0.5	1	%	1.4		0.5	1	%	
p-1.00 *	2.3		0.1	1	%	1.4		0.1	1	%	7.4		0.1	1	%	0.6	<RDL	0.1	1	%	
p-2.00 *	0.1	<RDL	0.1	1	%	0.1	<RDL	0.1	1	%	3.4		0.1	1	%	<MDL		0.1	1	%	
p-2.00(less than) *	1.2		0.1	1	%	5.8		0.1	1	%	4.2		0.1	1	%	0.2	<RDL	0.1	1	%	
<b>M=CV EPA9060-PSEP96 (03-04-002-003)</b>																					
Total Organic Carbon	4390		780	1540	mg/Kg	9440		870	1760	mg/Kg	5880		670	1320	mg/Kg	6620		790	1580	mg/Kg	
<b>M=CV SM2540-G (03-01-007-002)</b>																					
Total Solids *	76.1		0.005	0.01	%	66.6		0.005	0.01	%	78		0.005	0.01	%	70.7		0.005	0.01	%	
<b>M=ES NONE</b>																					
Field Personnel	JO, BK, JDD, JB				none	JO, BK, JDD, JB				none	JB, SH, JP				none	JB, SH, JP				none	
Sampcoordx1 *	1266777				ft	1266667				ft	1266845				ft	1266813				ft	
Sampcoordx2 *	1266797				ft	1266651				ft	1266837				ft	1266803				ft	
Sampcoordx3 *	1266794				ft	1266650				ft	1266839				ft	1266804				ft	
Sampcoordx4 *	1266790				ft	1266667				ft	1266840				ft	1266804				ft	
Sampcoordx5 *	1266792				ft	1266665				ft	1266842				ft	1266813				ft	
Sampcoordx6 *																					
Sampcoordy1 *	209160				ft	209515				ft	209538				ft	209619				ft	
Sampcoordy2 *	209161				ft	209518				ft	209533				ft	209624				ft	
Sampcoordy3 *	209162				ft	209525				ft	209536				ft	209628				ft	
Sampcoordy4 *	209154				ft	209511				ft	209534				ft	209638				ft	
Sampcoordy5 *	209162				ft	209526				ft	209539				ft	209623				ft	
Sampcoordy6 *																					
Sample Depth *	12				m	13				m	11				m	12				m	
Sample Function																					
Sample Start Time *	1250				hr	1345				hr	1030				hr	1135				hr	
Sampling Method *	20042				none	20042				none	20042				none	20042				none	
Sediment Sampling Depth *	6				cm	7				cm	7				cm	9				cm	
Sediment Sampling Range *	0-5 cm					0-6 cm					0-6 cm					0-8 cm					
Sediment Type	32S21					23S20					23S21					21N32					
Tidal Condition	E					E					S					E					
Tide Height *	5				ft	4				ft	7				ft	6.8				ft	

# King County Environmental Lab Analytical Report

**Appendix C5 - 2006  
Perimeter Stations**

 Locator: DUD\_9C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-11  
 Matrix: SALTWRSED  
 % Solids: 76.1

 Locator: DUD\_10C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-12  
 Matrix: SALTWRSED  
 % Solids: 66.6

 Locator: DUD\_11C  
 Descrip: Perimeter Station  
 Sampled: Mar 09, 2006  
 Lab ID: L38326-13  
 Matrix: SALTWRSED  
 % Solids: 78

 Locator: DUD\_12C  
 Descrip: Perimeter Station  
 Sampled: Mar 09, 2006  
 Lab ID: L38326-14  
 Matrix: SALTWRSED  
 % Solids: 70.7

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
			- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis			
<b>COMBINED LABS</b>																					
<b>M=MT EPA 7471A (06-01-004-003)</b>																					
Mercury, Total, CVAA	0.1	<RDL	0.026	0.267	mg/Kg	0.489		0.03	0.302	mg/Kg	0.1	<RDL	0.026	0.259	mg/Kg	0.14	<RDL	0.027	0.276	mg/Kg	
<b>M=MT EPA3050A/6010B (06-02-004-002)</b>																					
Aluminum, Total, ICP	10800		6.4	32.1	mg/Kg	12200		7.7	38.6	mg/Kg	10700		6.4	32.3	mg/Kg	12300		7.1	35.2	mg/Kg	
Antimony, Total, ICP		<MDL,G	2	9.61	mg/Kg		<MDL,G	2.3	11.6	mg/Kg		<MDL,G	1.9	9.69	mg/Kg		<MDL,G	2.1	10.6	mg/Kg	
Arsenic, Total, ICP	5.1	<RDL	3.2	16	mg/Kg	9.9	<RDL	3.9	19.4	mg/Kg	4.4	<RDL	3.2	16.2	mg/Kg	6.9	<RDL	3.5	17.5	mg/Kg	
Beryllium, Total, ICP	0.12	<RDL	0.064	0.321	mg/Kg	0.18	<RDL	0.077	0.386	mg/Kg	0.11	<RDL	0.064	0.323	mg/Kg	0.14	<RDL	0.071	0.352	mg/Kg	
Cadmium, Total, ICP	0.37	<RDL	0.2	0.961	mg/Kg	0.53	<RDL	0.23	1.16	mg/Kg	0.19	<RDL	0.19	0.969	mg/Kg	0.52	<RDL	0.21	1.06	mg/Kg	
Chromium, Total, ICP	21.8		0.32	1.6	mg/Kg	27.8		0.39	1.94	mg/Kg	21.4		0.32	1.62	mg/Kg	26.7		0.35	1.75	mg/Kg	
Copper, Total, ICP	47.3		0.26	1.28	mg/Kg	58.9		0.32	1.55	mg/Kg	45.3		0.26	1.29	mg/Kg	60.3		0.28	1.41	mg/Kg	
Iron, Total, ICP	19200		3.2	16	mg/Kg	20900		3.9	19.4	mg/Kg	19100		3.2	16.2	mg/Kg	20900		3.5	17.5	mg/Kg	
Lead, Total, ICP	28.1		2	9.61	mg/Kg	58.7		2.3	11.6	mg/Kg	21.4		1.9	9.69	mg/Kg	45		2.1	10.6	mg/Kg	
Manganese, Total, ICP	226		0.13	0.641	mg/Kg	222		0.15	0.773	mg/Kg	245		0.13	0.646	mg/Kg	229		0.14	0.704	mg/Kg	
Nickel, Total, ICP	16.4		1.3	6.41	mg/Kg	18.8		1.5	7.73	mg/Kg	18.8		1.3	6.46	mg/Kg	21.8		1.4	7.04	mg/Kg	
Selenium, Total, ICP		<MDL	3.2	16	mg/Kg		<MDL	3.9	19.4	mg/Kg		<MDL	3.2	16.2	mg/Kg		<MDL	3.5	17.5	mg/Kg	
Silver, Total, ICP	0.58	<RDL,E	0.26	1.28	mg/Kg	0.8	<RDL,E	0.32	1.55	mg/Kg	0.38	<RDL,E	0.26	1.29	mg/Kg	0.71	<RDL,E	0.28	1.41	mg/Kg	
Thallium, Total, ICP		<MDL	13	64.1	mg/Kg		<MDL	15	77.3	mg/Kg		<MDL	13	64.6	mg/Kg		<MDL	14	70.4	mg/Kg	
Zinc, Total, ICP	65.6		0.32	1.6	mg/Kg	108		0.39	1.94	mg/Kg	60.9		0.32	1.62	mg/Kg	92.5		0.35	1.75	mg/Kg	
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>																					
1,2,4-Trichlorobenzene		<MDL	0.35	0.7	ug/Kg		<MDL	0.41	0.8	ug/Kg		<MDL	0.35	0.683	ug/Kg		<MDL	0.38	0.754	ug/Kg	
1,2-Dichlorobenzene		<MDL	0.35	0.7	ug/Kg		<MDL	0.41	0.8	ug/Kg		<MDL	0.35	0.683	ug/Kg		<MDL	0.38	0.754	ug/Kg	
1,3-Dichlorobenzene		<MDL	0.35	0.7	ug/Kg		<MDL	0.41	0.8	ug/Kg		<MDL	0.35	0.683	ug/Kg		<MDL	0.38	0.754	ug/Kg	
1,4-Dichlorobenzene		<MDL	0.35	0.7	ug/Kg		<MDL	0.41	0.8	ug/Kg		<MDL	0.35	0.683	ug/Kg		<MDL	0.38	0.754	ug/Kg	
2,4-Dimethylphenol		<MDL	3.5	7	ug/Kg		<MDL	4.1	8	ug/Kg		<MDL	3.5	6.83	ug/Kg		<MDL	3.8	7.54	ug/Kg	
2-Methylnaphthalene	4.1	<RDL	3.5	7	ug/Kg		<MDL	4.1	8	ug/Kg		<MDL	3.5	6.83	ug/Kg	4.7	<RDL	3.8	7.54	ug/Kg	
2-Methylphenol		<MDL	7	14.1	ug/Kg		<MDL	8	16.1	ug/Kg		<MDL	6.8	13.7	ug/Kg		<MDL	7.5	15.1	ug/Kg	
4-Methylphenol		<MDL	7	14.1	ug/Kg		<MDL	8	16.1	ug/Kg		<MDL	6.8	13.7	ug/Kg		<MDL	7.5	15.1	ug/Kg	
Acenaphthene	7.57		3.5	7	ug/Kg	10.2		4.1	8	ug/Kg	8.29		3.5	6.83	ug/Kg	6.6	<RDL	3.8	7.54	ug/Kg	
Acenaphthylene		<MDL	3.5	7	ug/Kg	9.55		4.1	8	ug/Kg	8.19		3.5	6.83	ug/Kg	3.8	<RDL	3.8	7.54	ug/Kg	
Anthracene	43.8		3.5	7	ug/Kg	64.6		4.1	8	ug/Kg	50.1		3.5	6.83	ug/Kg	51.2		3.8	7.54	ug/Kg	
Benzo(a)anthracene	74.1		3.5	7	ug/Kg	138		4.1	8	ug/Kg	83.5		3.5	6.83	ug/Kg	130		3.8	7.54	ug/Kg	
Benzo(a)pyrene	99.6		3.5	7	ug/Kg	198		4.1	8	ug/Kg	102		3.5	6.83	ug/Kg	120		3.8	7.54	ug/Kg	
Benzo(b)fluoranthene	85.3		3.5	7	ug/Kg	188		4.1	8	ug/Kg	91.5		3.5	6.83	ug/Kg	165		3.8	7.54	ug/Kg	
Benzo(g,h,i)perylene	53.6		3.5	7	ug/Kg	102		4.1	8	ug/Kg	64.2		3.5	6.83	ug/Kg	88.4		3.8	7.54	ug/Kg	
Benzo(k)fluoranthene	101		3.5	7	ug/Kg	204		4.1	8	ug/Kg	110		3.5	6.83	ug/Kg	146		3.8	7.54	ug/Kg	
Benzoic Acid	64.1		17	35.1	ug/Kg	127		20	40.1	ug/Kg	95		17	34.2	ug/Kg	91.8		18	37.8	ug/Kg	
Benzyl Alcohol		<MDL	7	14.1	ug/Kg		<MDL	8	16.1	ug/Kg		<MDL	6.8	13.7	ug/Kg		<MDL	7.5	15.1	ug/Kg	
Benzyl Butyl Phthalate	22.1		7	14.1	ug/Kg	41.4		8	16.1	ug/Kg	49.9		6.8	13.7	ug/Kg	64.2		7.5	15.1	ug/Kg	
Bis(2-Ethylhexyl)Phthalate	348		7	14.1	ug/Kg	450		8	16.1	ug/Kg	755		6.8	13.7	ug/Kg	668		7.5	15.1	ug/Kg	
Caffeine		<MDL	7	14.1	ug/Kg		<MDL	8	16.1	ug/Kg		<MDL	6.8	13.7	ug/Kg		<MDL	7.5	15.1	ug/Kg	
Carbazole	9.53		3.5	7	ug/Kg		<MDL	4.1	8	ug/Kg		<MDL	3.5	6.83	ug/Kg		<MDL	3.8	7.54	ug/Kg	
Chrysene	127		3.5	7	ug/Kg	234		4.1	8	ug/Kg	158		3.5	6.83	ug/Kg	156		3.8	7.54	ug/Kg	
Coprostanol		<MDL	70	141	ug/Kg		<MDL	80	161	ug/Kg		<MDL	68	137	ug/Kg		<MDL	75	151	ug/Kg	
Dibenzo(a,h)anthracene	10.5		3.5	7	ug/Kg	19.8		4.1	8	ug/Kg	14.1		3.5	6.83	ug/Kg	24.3		3.8	7.54	ug/Kg	
Dibenzofuran	5.4	<RDL	3.5	7	ug/Kg	8.65		4.1	8	ug/Kg		<MDL	3.5	6.83	ug/Kg	6.5	<RDL	3.8	7.54	ug/Kg	
Diethyl Phthalate		<MDL	7	14.1	ug/Kg		<MDL	8	16.1	ug/Kg		<MDL	6.8	13.7	ug/Kg		<MDL	7.5	15.1	ug/Kg	
Dimethyl Phthalate		<MDL	7	14.1	ug/Kg		<MDL	8	16.1	ug/Kg		<MDL	6.8	13.7	ug/Kg		<MDL	7.5	15.1	ug/Kg	



# King County Environmental Lab Analytical Report

**Appendix C5 - 2006**
**Perimeter Stations**

 Locator: DUD\_9C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-11  
 Matrix: SALTWTRSED  
 % Solids: 76.1

 Locator: DUD\_10C  
 Descrip: Perimeter Station  
 Sampled: Mar 08, 2006  
 Lab ID: L38326-12  
 Matrix: SALTWTRSED  
 % Solids: 66.6

 Locator: DUD\_11C  
 Descrip: Perimeter Station  
 Sampled: Mar 09, 2006  
 Lab ID: L38326-13  
 Matrix: SALTWTRSED  
 % Solids: 78

 Locator: DUD\_12C  
 Descrip: Perimeter Station  
 Sampled: Mar 09, 2006  
 Lab ID: L38326-14  
 Matrix: SALTWTRSED  
 % Solids: 70.7

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
<b>COMBINED LABS</b>																				
Di-N-Butyl Phthalate	14.3	B	7	14.1	ug/Kg	159	B	8	16.1	ug/Kg	38.1	B	6.8	13.7	ug/Kg	61	B	7.5	15.1	ug/Kg
Di-N-Octyl Phthalate	<MDL		7	14.1	ug/Kg	<MDL		8	16.1	ug/Kg	<MDL		6.8	13.7	ug/Kg	<MDL		7.5	15.1	ug/Kg
Fluoranthene	180		3.5	7	ug/Kg	300		4.1	8	ug/Kg	231		3.5	6.83	ug/Kg	218		3.8	7.54	ug/Kg
Fluorene	8.73		3.5	7	ug/Kg	17.9		4.1	8	ug/Kg	14.2		3.5	6.83	ug/Kg	10.8		3.8	7.54	ug/Kg
Hexachlorobenzene	<MDL		0.7	1.41	ug/Kg	<MDL		0.8	1.61	ug/Kg	<MDL		0.68	1.37	ug/Kg	<MDL		0.75	1.51	ug/Kg
Hexachlorobutadiene	<MDL		1.7	3.51	ug/Kg	<MDL		2	4.01	ug/Kg	<MDL		1.7	3.42	ug/Kg	<MDL		1.8	3.78	ug/Kg
Hexachloroethane	<MDL		1.7	3.51	ug/Kg	<MDL		2	4.01	ug/Kg	<MDL		1.7	3.42	ug/Kg	<MDL		1.8	3.78	ug/Kg
Indeno(1,2,3-Cd)Pyrene	50.1		3.5	7	ug/Kg	95.5		4.1	8	ug/Kg	58.7		3.5	6.83	ug/Kg	79.6		3.8	7.54	ug/Kg
Naphthalene	5.1	<RDL	3.5	7	ug/Kg	<MDL		4.1	8	ug/Kg	6.5	<RDL	3.5	6.83	ug/Kg	6.1	<RDL	3.8	7.54	ug/Kg
N-Nitrosodiphenylamine	<MDL		7	14.1	ug/Kg	<MDL		8	16.1	ug/Kg	<MDL		6.8	13.7	ug/Kg	<MDL		7.5	15.1	ug/Kg
Pentachlorophenol	<MDL		17	35.1	ug/Kg	<MDL		20	40.1	ug/Kg	<MDL		17	34.2	ug/Kg	<MDL		18	37.8	ug/Kg
Phenanthrene	59.5		3.5	7	ug/Kg	110		4.1	8	ug/Kg	89.4		3.5	6.83	ug/Kg	84.2		3.8	7.54	ug/Kg
Phenol	<MDL		7	14.1	ug/Kg	<MDL		8	16.1	ug/Kg	<MDL		6.8	13.7	ug/Kg	<MDL		7.5	15.1	ug/Kg
Pyrene	197		3.5	7	ug/Kg	348		4.1	8	ug/Kg	194		3.5	6.83	ug/Kg	280		3.8	7.54	ug/Kg
Total HPAHS	978		3.5	7	ug/Kg	1830		4.1	8	ug/Kg	1110		3.5	6.83	ug/Kg	1410		3.8	7.54	ug/Kg
Total LPAHS	129		3.5	7	ug/Kg	216		4.1	8	ug/Kg	177		3.5	6.83	ug/Kg	167		3.8	7.54	ug/Kg
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>																				
4,4'-DDD	2.4	<RDL	1.3	2.63	ug/Kg	2.6	<RDL	1.5	3	ug/Kg	<MDL		1.3	2.56	ug/Kg	3.2		1.4	2.83	ug/Kg
4,4'-DDE	<MDL		1.3	2.63	ug/Kg	<MDL		1.5	3	ug/Kg	<MDL		1.3	2.56	ug/Kg	<MDL		1.4	2.83	ug/Kg
4,4'-DDT	<MDL,L		1.3	2.63	ug/Kg	<MDL,L		1.5	3	ug/Kg	<MDL,L		1.3	2.56	ug/Kg	<MDL,L		1.4	2.83	ug/Kg
Aldrin	<MDL		1.3	2.63	ug/Kg	<MDL		1.5	3	ug/Kg	<MDL		1.3	2.56	ug/Kg	<MDL		1.4	2.83	ug/Kg
Alpha-BHC	<MDL		0.66	1.31	ug/Kg	<MDL		0.75	1.5	ug/Kg	<MDL		0.64	1.28	ug/Kg	<MDL		0.71	1.41	ug/Kg
Alpha-Chlordane	<MDL		0.66	1.31	ug/Kg	<MDL		0.75	1.5	ug/Kg	<MDL		0.64	1.28	ug/Kg	<MDL		0.71	1.41	ug/Kg
Aroclor 1016	<MDL,TA		70	139	ug/Kg	<MDL,TA		62	124	ug/Kg	<MDL,TA		7.7	15.3	ug/Kg	<MDL,TA		85	170	ug/Kg
Aroclor 1221	<MDL		3.3	6.57	ug/Kg	<MDL		3.8	7.51	ug/Kg	<MDL		3.2	6.41	ug/Kg	<MDL		3.5	7.07	ug/Kg
Aroclor 1232	<MDL,TA		120	251	ug/Kg	<MDL,TA		110	213	ug/Kg	<MDL,TA		10	20.6	ug/Kg	<MDL,TA		160	310	ug/Kg
Aroclor 1242	<MDL,TA		130	261	ug/Kg	<MDL,TA		130	269	ug/Kg	<MDL,TA		12	24.4	ug/Kg	<MDL,TA		170	328	ug/Kg
Aroclor 1248	99.3		1.7	3.29	ug/Kg	105		2	3.75	ug/Kg	11.5		1.7	3.21	ug/Kg	123		1.8	3.54	ug/Kg
Aroclor 1254	117		1.7	3.29	ug/Kg	142		2	3.75	ug/Kg	17.1		1.7	3.21	ug/Kg	149		1.8	3.54	ug/Kg
Aroclor 1260	53.1		1.7	3.29	ug/Kg	71.6		2	3.75	ug/Kg	11.6		1.7	3.21	ug/Kg	111		1.8	3.54	ug/Kg
Beta-BHC	<MDL		0.66	1.31	ug/Kg	<MDL		0.75	1.5	ug/Kg	<MDL		0.64	1.28	ug/Kg	<MDL		0.71	1.41	ug/Kg
Delta-BHC	<MDL		0.66	1.31	ug/Kg	<MDL		0.75	1.5	ug/Kg	<MDL		0.64	1.28	ug/Kg	<MDL		0.71	1.41	ug/Kg
Dieldrin	<MDL		1.3	2.63	ug/Kg	<MDL		1.5	3	ug/Kg	<MDL		1.3	2.56	ug/Kg	<MDL		1.4	2.83	ug/Kg
Endosulfan I	<MDL		1.3	2.63	ug/Kg	<MDL		1.5	3	ug/Kg	<MDL		1.3	2.56	ug/Kg	<MDL		1.4	2.83	ug/Kg
Endosulfan II	<MDL		1.3	2.63	ug/Kg	<MDL		1.5	3	ug/Kg	<MDL		1.3	2.56	ug/Kg	<MDL		1.4	2.83	ug/Kg
Endosulfan Sulfate	<MDL		1.3	2.63	ug/Kg	<MDL		1.5	3	ug/Kg	<MDL		1.3	2.56	ug/Kg	<MDL		1.4	2.83	ug/Kg
Endrin	<MDL		1.3	2.63	ug/Kg	<MDL		1.5	3	ug/Kg	<MDL		1.3	2.56	ug/Kg	<MDL		1.4	2.83	ug/Kg
Endrin Aldehyde	<MDL		2.6	5.26	ug/Kg	<MDL		3	6.01	ug/Kg	<MDL		2.6	5.13	ug/Kg	<MDL		2.8	5.66	ug/Kg
Gamma-BHC (Lindane)	<MDL		0.66	1.31	ug/Kg	<MDL		0.75	1.5	ug/Kg	<MDL		0.64	1.28	ug/Kg	<MDL		0.71	1.41	ug/Kg
Gamma-Chlordane	<MDL		0.66	1.31	ug/Kg	<MDL		0.75	1.5	ug/Kg	0.82	<RDL	0.64	1.28	ug/Kg	<MDL		0.71	1.41	ug/Kg
Heptachlor	<MDL		0.66	1.31	ug/Kg	<MDL		0.75	1.5	ug/Kg	<MDL		0.64	1.28	ug/Kg	<MDL		0.71	1.41	ug/Kg
Heptachlor Epoxide	<MDL		0.66	1.31	ug/Kg	<MDL		0.75	1.5	ug/Kg	<MDL		0.64	1.28	ug/Kg	<MDL		0.71	1.41	ug/Kg
Methoxychlor	<MDL		6.6	13.1	ug/Kg	<MDL		7.5	15	ug/Kg	<MDL		6.4	12.8	ug/Kg	<MDL		7.1	14.1	ug/Kg
Toxaphene	<MDL		13	26.3	ug/Kg	<MDL		15	30	ug/Kg	<MDL		13	25.6	ug/Kg	<MDL		14	28.3	ug/Kg

\* Not converted to dry weight basis for this parameter

# King County Environmental Lab Analytical Report

**Appendix C5 - 2006  
Perimeter Stations**

Locator: DUD\_13C  
 Descrip: Perimeter Station  
 Sampled: Mar 09, 2006  
 Lab ID: L38326-15  
 Matrix: SALTWRSED  
 % Solids: 55.6

Parameters	Value	Qual	MDL	RDL	Units
			- Dry Weight Basis		
<b>COMBINED LABS</b>					
<b>M=CV ASTM D422(03-02-005-001)</b>					
Fines *	56.5		0.5	1	%
Clay *	11.3	E	0.5	1	%
Silt *	45.2		0.5	1	%
Sand *	40.3		0.1	1	%
Gravel *	0.3	<RDL	0.1	1	%
p+0.00 *	0.2	<RDL	0.1	1	%
p+1.00 *	0.3	<RDL	0.1	1	%
p+10.0(equal/more than) *	7.8		0.5	1	%
p+2.00 *	4.1		0.1	1	%
p+3.00 *	21.3		0.1	1	%
p+4.00 *	14.5		0.1	1	%
p+5.00 *	15.6		0.5	1	%
p+6.00 *	8.7		0.5	1	%
p+7.00 *	8.7		0.5	1	%
p+8.00 *	12.2		0.5	1	%
p+9.00 *	3.5		0.5	1	%
p-1.00 *	0.1	<RDL	0.1	1	%
p-2.00 *		<MDL	0.1	1	%
p-2.00(less than) *	0.1	<RDL	0.1	1	%
<b>M=CV EPA9060-PSEP96 (03-04-002-003)</b>					
Total Organic Carbon	16400		1800	3780	mg/Kg
<b>M=CV SM2540-G (03-01-007-002)</b>					
Total Solids *	55.6		0.005	0.01	%
<b>M=ES NONE</b>					
Field Personnel	JB, SH, JP				none
Sampcoordx1 *	1267247				ft
Sampcoordx2 *	1267247				ft
Sampcoordx3 *	1267233				ft
Sampcoordx4 *	1267236				ft
Sampcoordx5 *	1267238				ft
Sampcoordx6 *					
Sampcoordy1 *	207860				ft
Sampcoordy2 *	207865				ft
Sampcoordy3 *	207860				ft
Sampcoordy4 *	207854				ft
Sampcoordy5 *	207857				ft
Sampcoordy6 *					
Sample Depth *	11				m
Sample Function					
Sample Start Time *	1220				hr
Sampling Method *	20042				none
Sediment Sampling Depth *	16				cm
Sediment Sampling Range *	0-10 cm				cm
Sediment Type	21N31				none
Tidal Condition	E				none
Tide Height *	6				ft

# King County Environmental Lab Analytical Report

**Appendix C5 - 2006  
Perimeter Stations**

Locator: DUD\_13C  
 Descrip: Perimeter Station  
 Sampled: Mar 09, 2006  
 Lab ID: L38326-15  
 Matrix: SALTWRSED  
 % Solids: 55.6

Parameters	Value	Qual	MDL	RDL	Units
- Dry Weight Basis					

**COMBINED LABS**

**M=MT EPA 7471A (06-01-004-003)**

Mercury, Total, CVAA	0.32	<RDL	0.036	0.36	mg/Kg
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**M=MT EPA3050A/6010B (06-02-004-002)**

Aluminum, Total, ICP	16000		9	44.8	mg/Kg
Antimony, Total, ICP		<MDL,G	2.7	13.4	mg/Kg
Arsenic, Total, ICP	12	<RDL	4.5	22.3	mg/Kg
Beryllium, Total, ICP	0.25	<RDL	0.09	0.448	mg/Kg
Cadmium, Total, ICP	0.72	<RDL	0.27	1.34	mg/Kg
Chromium, Total, ICP	34.2		0.45	2.23	mg/Kg
Copper, Total, ICP	78.6		0.36	1.79	mg/Kg
Iron, Total, ICP	27000		4.5	22.3	mg/Kg
Lead, Total, ICP	56.1		2.7	13.4	mg/Kg
Manganese, Total, ICP	272		0.18	0.894	mg/Kg
Nickel, Total, ICP	21.6		1.8	8.94	mg/Kg
Selenium, Total, ICP		<MDL	4.5	22.3	mg/Kg
Silver, Total, ICP	0.99	<RDL,E	0.36	1.79	mg/Kg
Thallium, Total, ICP		<MDL	18	89.4	mg/Kg
Zinc, Total, ICP	129		0.45	2.23	mg/Kg

**M=OR EPA 3550B/8270C (7-3-01-004)**

1,2,4-Trichlorobenzene		<MDL	0.49	0.959	ug/Kg
1,2-Dichlorobenzene		<MDL	0.49	0.959	ug/Kg
1,3-Dichlorobenzene		<MDL	0.49	0.959	ug/Kg
1,4-Dichlorobenzene		<MDL	0.49	0.959	ug/Kg
2,4-Dimethylphenol		<MDL	4.9	9.59	ug/Kg
2-Methylnaphthalene		<MDL	4.9	9.59	ug/Kg
2-Methylphenol		<MDL	9.5	19.2	ug/Kg
4-Methylphenol		<MDL	9.5	19.2	ug/Kg
Acenaphthene	14.4		4.9	9.59	ug/Kg
Acenaphthylene	19.4		4.9	9.59	ug/Kg
Anthracene	119		4.9	9.59	ug/Kg
Benzo(a)anthracene	228		4.9	9.59	ug/Kg
Benzo(a)pyrene	241		4.9	9.59	ug/Kg
Benzo(b)fluoranthene	252		4.9	9.59	ug/Kg
Benzo(g,h,i)perylene	139		4.9	9.59	ug/Kg
Benzo(k)fluoranthene	295		4.9	9.59	ug/Kg
Benzoic Acid	136		23	48	ug/Kg
Benzyl Alcohol		<MDL	9.5	19.2	ug/Kg
Benzyl Butyl Phthalate	67.6		9.5	19.2	ug/Kg
Bis(2-Ethylhexyl)Phthalate	592		9.5	19.2	ug/Kg
Caffeine		<MDL	9.5	19.2	ug/Kg
Carbazole		<MDL	4.9	9.59	ug/Kg
Chrysene	363		4.9	9.59	ug/Kg
Coprostanol		<MDL	95	192	ug/Kg
Dibenzo(a,h)anthracene	37.6		4.9	9.59	ug/Kg
Dibenzofuran	14.9		4.9	9.59	ug/Kg
Diethyl Phthalate		<MDL	9.5	19.2	ug/Kg
Dimethyl Phthalate		<MDL	9.5	19.2	ug/Kg

# King County Environmental Lab Analytical Report

**Appendix C5 - 2006  
Perimeter Stations**

Locator: DUD\_13C  
 Descrip: Perimeter Station  
 Sampled: Mar 09, 2006  
 Lab ID: L38326-15  
 Matrix: SALTWRSED  
 % Solids: 55.6

Parameters	Value	Qual	MDL	RDL	Units
- Dry Weight Basis					
<b>COMBINED LABS</b>					
Di-N-Butyl Phthalate	42.3	B	9.5	19.2	ug/Kg
Di-N-Octyl Phthalate	<MDL		9.5	19.2	ug/Kg
Fluoranthene	428		4.9	9.59	ug/Kg
Fluorene	28.4		4.9	9.59	ug/Kg
Hexachlorobenzene	<MDL		0.95	1.92	ug/Kg
Hexachlorobutadiene	<MDL		2.3	4.8	ug/Kg
Hexachloroethane	<MDL		2.3	4.8	ug/Kg
Indeno(1,2,3-Cd)Pyrene	130		4.9	9.59	ug/Kg
Naphthalene	11.2		4.9	9.59	ug/Kg
N-Nitrosodiphenylamine	<MDL		9.5	19.2	ug/Kg
Pentachlorophenol	<MDL		23	48	ug/Kg
Phenanthrene	155		4.9	9.59	ug/Kg
Phenol	<MDL		9.5	19.2	ug/Kg
Pyrene	426		4.9	9.59	ug/Kg
Total HPAHS	2540		4.9	9.59	ug/Kg
Total LPAHS	347		4.9	9.59	ug/Kg
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>					
4,4'-DDD	2.9	<RDL	1.8	3.6	ug/Kg
4,4'-DDE	<MDL		1.8	3.6	ug/Kg
4,4'-DDT	<MDL,L		1.8	3.6	ug/Kg
Aldrin	<MDL		1.8	3.6	ug/Kg
Alpha-BHC	<MDL		0.9	1.8	ug/Kg
Alpha-Chlordane	<MDL		0.9	1.8	ug/Kg
Aroclor 1016	<MDL,TA		72	145	ug/Kg
Aroclor 1221	<MDL		4.5	8.99	ug/Kg
Aroclor 1232	<MDL,TA		120	248	ug/Kg
Aroclor 1242	<MDL,TA		160	313	ug/Kg
Aroclor 1248	115		2.3	4.5	ug/Kg
Aroclor 1254	155		2.3	4.5	ug/Kg
Aroclor 1260	84.5		2.3	4.5	ug/Kg
Beta-BHC	<MDL		0.9	1.8	ug/Kg
Delta-BHC	<MDL		0.9	1.8	ug/Kg
Dieldrin	<MDL		1.8	3.6	ug/Kg
Endosulfan I	<MDL		1.8	3.6	ug/Kg
Endosulfan II	<MDL		1.8	3.6	ug/Kg
Endosulfan Sulfate	<MDL		1.8	3.6	ug/Kg
Endrin	<MDL		1.8	3.6	ug/Kg
Endrin Aldehyde	<MDL		3.6	7.19	ug/Kg
Gamma-BHC (Lindane)	<MDL		0.9	1.8	ug/Kg
Gamma-Chlordane	<MDL		0.9	1.8	ug/Kg
Heptachlor	<MDL		0.9	1.8	ug/Kg
Heptachlor Epoxide	<MDL		0.9	1.8	ug/Kg
Methoxychlor	<MDL		9	18	ug/Kg
Toxaphene	<MDL		18	36	ug/Kg

\* Not converted to dry weight basis for this parameter

# King County Environmental Lab Analytical Report

**Appendix C6 - 2007  
Perimeter Stations**

 Locator: DUD\_1C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-1  
 Matrix: SALTWTRSED  
 % Solids: 42.7

 Locator: DUD\_2C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-2  
 Matrix: SALTWTRSED  
 % Solids: 44.1

 Locator: DUD\_8C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-3  
 Matrix: SALTWTRSED  
 % Solids: 61.1

 Locator: DUD\_8C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-4  
 Matrix: SALTWTRSED  
 % Solids: 67

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
			- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis			
<b>COMBINED LABS</b>																					
<b>M=CV ASTM D422(03-02-005-001)</b>																					
Fines *	83.2		0.5	1	%	82.5		0.5	1	%	33.9		0.5	1	%	27.9		0.5	1	%	
Gravel *	0.2	<RDL	0.1	1	%	0.3	<RDL	0.1	1	%	5.9		0.1	1	%	11.3		0.1	1	%	
Sand *	10.6		0.1	1	%	16		0.1	1	%	58.6		0.1	1	%	59.9		0.1	1	%	
Silt *	56.3		0.5	1	%	53.2		0.5	1	%	25.5		0.5	1	%	22.1		0.5	1	%	
Clay *	26.9		0.5	1	%	29.3		0.5	1	%	8.5		0.5	1	%	5.9		0.5	1	%	
p+0.00 *	0.2	<RDL	0.1	1	%	0.2	<RDL	0.1	1	%	2.8		0.1	1	%	4.4		0.1	1	%	
p+1.00 *	0.2	<RDL	0.1	1	%	0.4	<RDL	0.1	1	%	6.2		0.1	1	%	7.1		0.1	1	%	
p+10.0(equal/more than) *	14.7		0.5	1	%	17.4		0.5	1	%	5.4		0.5	1	%	2.2		0.5	1	%	
p+2.00 *	1.3		0.1	1	%	2.3		0.1	1	%	23.6		0.1	1	%	25.5		0.1	1	%	
p+3.00 *	3.2		0.1	1	%	6.1		0.1	1	%	19		0.1	1	%	16.1		0.1	1	%	
p+4.00 *	5.7		0.1	1	%	7.1		0.1	1	%	7		0.1	1	%	6.8		0.1	1	%	
p+5.00 *	12.2		0.5	1	%	10.9		0.5	1	%	6.2		0.5	1	%	5.9		0.5	1	%	
p+6.00 *	13.5		0.5	1	%	13		0.5	1	%	6.2		0.5	1	%	5.9		0.5	1	%	
p+7.00 *	18.4		0.5	1	%	18.5		0.5	1	%	7.7		0.5	1	%	6.6		0.5	1	%	
p+8.00 *	12.2		0.5	1	%	10.9		0.5	1	%	5.4		0.5	1	%	3.7		0.5	1	%	
p+9.00 *	12.2		0.5	1	%	11.9		0.5	1	%	3.1		0.5	1	%	3.7		0.5	1	%	
p-1.00 *	0.2	<RDL	0.1	1	%	0.3	<RDL	0.1	1	%	2.6		0.1	1	%	4.8		0.1	1	%	
p-2.00 *		<MDL	0.1	1	%		<MDL	0.1	1	%	1.2		0.1	1	%	1.7		0.1	1	%	
p-2.00(less than) *		<MDL	0.1	1	%		<MDL	0.1	1	%	2		0.1	1	%	4.9		0.1	1	%	
<b>M=CV EPA 9060-PSEP96(03-04-002-003)</b>																					
Total Organic Carbon	23400		1500	3090	mg/Kg	21400		1900	3740	mg/Kg	11700		1800	3550	mg/Kg	10200		1300	2610	mg/Kg	
<b>M=CV SM2540-G (03-01-007-002)</b>																					
Total Solids *	42.7		0.005	0.01	%	44.1		0.005	0.01	%	61.1		0.005	0.01	%	67		0.005	0.01	%	
<b>M=ES NONE</b>																					
Field Personnel	JB,BK,CB,JDD				none	JB,BK,CB,JDD				none	JB,BK,CB,JDD				none	JB,BK,CB,JDD				none	
Sampcoordx1 *	1267167				ft	1267174				ft	1266867				ft	1266863				ft	
Sampcoordx2 *	1267162				ft	1267174				ft	1266864				ft	1266862				ft	
Sampcoordx3 *	1267165				ft	1267172				ft	1266866				ft	1266865				ft	
Sampcoordx4 *	1267172				ft	1267171				ft	1266865				ft	1266864				ft	
Sampcoordx5 *	1267167				ft	1267168				ft	1266869				ft	1266862				ft	
Sampcoordx6 *																1266864				ft	
Sampcoordy1 *	208754				ft	208655				ft	208925				ft	208920				ft	
Sampcoordy2 *	208754				ft	208650				ft	208920				ft	208925				ft	
Sampcoordy3 *	208752				ft	208652				ft	208918				ft	208918				ft	
Sampcoordy4 *	208752				ft	208653				ft	208918				ft	208923				ft	
Sampcoordy5 *	208754				ft	208652				ft	208921				ft	208918				ft	
Sampcoordy6 *																208932				ft	
Sample Depth *	5				m	5				m	10				m	10				m	
Sample Function																					FREP @ L42275-3
Sampling Method *	20042				none	20042				none	20042				none	20042					none
Sediment Sampling Depth *	16				cm	13				cm	5				cm	6				cm	
Sediment Sampling Range *	0-10 cm				cm	0-10 cm				cm	0-4 cm				cm	0-5 cm				cm	
Sediment Type	21N36				none	21N20				none	32N30				none	32N30				none	
Tidal Condition	E				none	E				none	S				none	S				none	
Tide Height *	3				ft	4				ft	1.7				ft	1.6				ft	
<b>M=MT EPA 7471A (06-01-004-003)</b>																					

# King County Environmental Lab Analytical Report

**Appendix C6 - 2007  
Perimeter Stations**

 Locator: DUD\_1C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-1  
 Matrix: SALTWTRSED  
 % Solids: 42.7

 Locator: DUD\_2C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-2  
 Matrix: SALTWTRSED  
 % Solids: 44.1

 Locator: DUD\_8C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-3  
 Matrix: SALTWTRSED  
 % Solids: 61.1

 Locator: DUD\_8C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-4  
 Matrix: SALTWTRSED  
 % Solids: 67

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis																			
<b>COMBINED LABS</b>																				
Mercury, Total, CVAA	0.307		0.011	0.112	mg/Kg	0.165		0.011	0.113	mg/Kg	0.124		0.0079	0.0791	mg/Kg	0.116		0.0072	0.0713	mg/Kg
<b>M=MT EPA3050B/6010B MOD(6-2-04-02)</b>																				
Aluminum, Total, ICP	30000	L	12	58.5	mg/Kg	29700	L	11	56.7	mg/Kg	17000	L	8.2	40.9	mg/Kg	16000	L	7.5	37.3	mg/Kg
Antimony, Total, ICP		<MDL,G	1.8	8.78	mg/Kg		<MDL,G	1.7	8.5	mg/Kg		<MDL,G	1.2	6.14	mg/Kg		<MDL,G	1.1	5.6	mg/Kg
Arsenic, Total, ICP	14	<RDL	2.8	14.6	mg/Kg	13	<RDL	2.7	14.2	mg/Kg	7.5	<RDL	2	10.2	mg/Kg	7	<RDL	1.8	9.33	mg/Kg
Beryllium, Total, ICP	0.625		0.12	0.585	mg/Kg	0.605		0.11	0.567	mg/Kg	0.31	<RDL	0.082	0.409	mg/Kg	0.27	<RDL	0.075	0.373	mg/Kg
Cadmium, Total, ICP	0.49	<RDL	0.23	1.17	mg/Kg	0.41	<RDL	0.23	1.13	mg/Kg	0.41	<RDL	0.16	0.817	mg/Kg	0.46	<RDL	0.15	0.746	mg/Kg
Chromium, Total, ICP	34.9		0.35	1.75	mg/Kg	32.2		0.34	1.7	mg/Kg	26.8		0.25	1.23	mg/Kg	28.4		0.22	1.12	mg/Kg
Copper, Total, ICP	74.2		0.47	2.34	mg/Kg	73.2		0.45	2.27	mg/Kg	53		0.33	1.64	mg/Kg	59		0.3	1.49	mg/Kg
Iron, Total, ICP	39600		5.9	29.3	mg/Kg	38800		5.7	28.3	mg/Kg	25500		4.1	20.5	mg/Kg	24900		3.7	18.7	mg/Kg
Lead, Total, ICP	38.6		2.3	11.7	mg/Kg	34.5		2.3	11.3	mg/Kg	24.9		1.6	8.17	mg/Kg	30.4		1.5	7.46	mg/Kg
Manganese, Total, ICP	438		0.23	1.17	mg/Kg	435		0.23	1.13	mg/Kg	337		0.16	0.817	mg/Kg	319		0.15	0.746	mg/Kg
Nickel, Total, ICP	26.7		0.59	2.93	mg/Kg	23.6		0.57	2.83	mg/Kg	20.6		0.41	2.05	mg/Kg	20		0.37	1.87	mg/Kg
Selenium, Total, ICP		<MDL	2.8	14.6	mg/Kg		<MDL	2.7	14.2	mg/Kg		<MDL	2	10.2	mg/Kg		<MDL	1.8	9.33	mg/Kg
Silver, Total, ICP		<MDL	0.47	2.34	mg/Kg		<MDL	0.45	2.27	mg/Kg	1.1	<RDL	0.33	1.64	mg/Kg	0.45	<RDL	0.3	1.49	mg/Kg
Thallium, Total, ICP		<MDL	4.7	23.4	mg/Kg		<MDL	4.5	22.7	mg/Kg		<MDL	3.3	16.4	mg/Kg		<MDL	3	14.9	mg/Kg
Zinc, Total, ICP	152		0.59	2.93	mg/Kg	140		0.57	2.83	mg/Kg	83.8		0.41	2.05	mg/Kg	84		0.37	1.87	mg/Kg
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>																				
1,2,4-Trichlorobenzene		<MDL	0.23	0.468	ug/Kg		<MDL	0.23	0.454	ug/Kg		<MDL	0.16	0.327	ug/Kg		<MDL	0.15	0.299	ug/Kg
1,2-Dichlorobenzene		<MDL	0.47	0.937	ug/Kg		<MDL	0.45	0.907	ug/Kg		<MDL	0.33	0.655	ug/Kg		<MDL	0.3	0.597	ug/Kg
1,3-Dichlorobenzene		<MDL	0.47	0.937	ug/Kg		<MDL	0.45	0.907	ug/Kg		<MDL	0.33	0.655	ug/Kg		<MDL	0.3	0.597	ug/Kg
1,4-Dichlorobenzene		<MDL	0.47	0.937	ug/Kg	1.69		0.45	0.907	ug/Kg	1.5		0.33	0.655	ug/Kg	1.9		0.3	0.597	ug/Kg
2,4-Dimethylphenol		<MDL	2.3	4.68	ug/Kg		<MDL	2.3	4.54	ug/Kg		<MDL	1.6	3.27	ug/Kg		<MDL	1.5	2.99	ug/Kg
2-Methylnaphthalene	8.9	<RDL	4.7	9.37	ug/Kg	34.5		4.5	9.07	ug/Kg	4.6	<RDL	3.3	6.55	ug/Kg	3.7	<RDL	3	5.97	ug/Kg
2-Methylphenol		<MDL	4.7	9.37	ug/Kg		<MDL	4.5	9.07	ug/Kg		<MDL	3.3	6.55	ug/Kg		<MDL	3	5.97	ug/Kg
4-Methylphenol		<MDL	9.4	18.7	ug/Kg		<MDL	9.1	18.1	ug/Kg		<MDL	6.5	13.1	ug/Kg		<MDL	6	11.9	ug/Kg
Acenaphthene	12.5		4.7	9.37	ug/Kg	141		4.5	9.07	ug/Kg	5.2	<RDL	3.3	6.55	ug/Kg	5.97	<RDL	3	5.97	ug/Kg
Acenaphthylene		<MDL	4.7	9.37	ug/Kg	8.8	<RDL	4.5	9.07	ug/Kg		<MDL	3.3	6.55	ug/Kg		<MDL	3	5.97	ug/Kg
Anthracene	62.1		4.7	9.37	ug/Kg	95		4.5	9.07	ug/Kg	20.5		3.3	6.55	ug/Kg	20.3		3	5.97	ug/Kg
Benzo(a)anthracene	258		4.7	9.37	ug/Kg	429		4.5	9.07	ug/Kg	75		3.3	6.55	ug/Kg	83.6		3	5.97	ug/Kg
Benzo(a)pyrene	131		4.7	9.37	ug/Kg	392		4.5	9.07	ug/Kg	67.1		3.3	6.55	ug/Kg	60.3		3	5.97	ug/Kg
Benzo(b)fluoranthene	216		4.7	9.37	ug/Kg	279		4.5	9.07	ug/Kg	88.4		3.3	6.55	ug/Kg	77		3	5.97	ug/Kg
Benzo(g,h,i)perylene	121		4.7	9.37	ug/Kg	112		4.5	9.07	ug/Kg	42.4		3.3	6.55	ug/Kg	39		3	5.97	ug/Kg
Benzo(k)fluoranthene	200		4.7	9.37	ug/Kg	224		4.5	9.07	ug/Kg	93.5		3.3	6.55	ug/Kg	64.8		3	5.97	ug/Kg
Benzoic Acid	123		23	46.8	ug/Kg	131		23	45.4	ug/Kg	76.9		16	32.7	ug/Kg	72.8		15	29.9	ug/Kg
Benzyl Alcohol		<MDL	4.7	9.37	ug/Kg		<MDL	4.5	9.07	ug/Kg		<MDL	3.3	6.55	ug/Kg		<MDL	3	5.97	ug/Kg
Benzyl Butyl Phthalate	61.8		2.3	4.68	ug/Kg	106		2.3	4.54	ug/Kg	27.2		1.6	3.27	ug/Kg	20.6		1.5	2.99	ug/Kg
Bis(2-Ethylhexyl)Phthalate	1440		9.4	18.7	ug/Kg	805		9.1	18.1	ug/Kg	231		6.5	13.1	ug/Kg	279		6	11.9	ug/Kg
Carbazole	34.7		4.7	9.37	ug/Kg	40.1		4.5	9.07	ug/Kg	9.39		3.3	6.55	ug/Kg	11.1		3	5.97	ug/Kg
Chrysene	241		4.7	9.37	ug/Kg	286		4.5	9.07	ug/Kg	95.6		3.3	6.55	ug/Kg	65.7		3	5.97	ug/Kg
Coprostanol	719		94	187	ug/Kg	506		91	181	ug/Kg	249		65	131	ug/Kg	257		60	119	ug/Kg
Dibenzo(a,h)anthracene	30.7		4.7	9.37	ug/Kg	29.5		4.5	9.07	ug/Kg	11.4		3.3	6.55	ug/Kg	13.8		3	5.97	ug/Kg
Dibenzofuran	12.2		4.7	9.37	ug/Kg	81.2		4.5	9.07	ug/Kg	4.9	<RDL	3.3	6.55	ug/Kg	5.4	<RDL	3	5.97	ug/Kg
Diethyl Phthalate		<MDL	9.4	18.7	ug/Kg		<MDL	9.1	18.1	ug/Kg		<MDL	6.5	13.1	ug/Kg		<MDL	6	11.9	ug/Kg
Dimethyl Phthalate		<MDL	9.4	18.7	ug/Kg	12	<RDL	9.1	18.1	ug/Kg		<MDL	6.5	13.1	ug/Kg		<MDL	6	11.9	ug/Kg
Di-N-Butyl Phthalate	26.2		9.4	18.7	ug/Kg		<MDL	9.1	18.1	ug/Kg	12	<RDL	6.5	13.1	ug/Kg		<MDL	6	11.9	ug/Kg
Di-N-Octyl Phthalate	37		9.4	18.7	ug/Kg		<MDL	9.1	18.1	ug/Kg		<MDL	6.5	13.1	ug/Kg		<MDL	6	11.9	ug/Kg

# King County Environmental Lab Analytical Report

**Appendix C6 - 2007  
Perimeter Stations**

Locator: DUD\_1C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-1  
 Matrix: SALTWTRSED  
 % Solids: 42.7

Locator: DUD\_2C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-2  
 Matrix: SALTWTRSED  
 % Solids: 44.1

Locator: DUD\_8C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-3  
 Matrix: SALTWTRSED  
 % Solids: 61.1

Locator: DUD\_8C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-4  
 Matrix: SALTWTRSED  
 % Solids: 67

Parameters	Value					Value					Value					Value				
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis																			
<b>COMBINED LABS</b>																				
Fluoranthene	461		4.7	9.37	ug/Kg	1210		4.5	9.07	ug/Kg	183		3.3	6.55	ug/Kg	119		3	5.97	ug/Kg
Fluorene	20.2		4.7	9.37	ug/Kg	106		4.5	9.07	ug/Kg	8.28		3.3	6.55	ug/Kg	9.88		3	5.97	ug/Kg
Hexachlorobenzene		<MDL	0.23	0.468	ug/Kg		<MDL	0.23	0.454	ug/Kg		<MDL	0.16	0.327	ug/Kg		<MDL	0.15	0.299	ug/Kg
Hexachlorobutadiene		<MDL	1.2	2.34	ug/Kg		<MDL	1.1	2.27	ug/Kg		<MDL	0.82	1.64	ug/Kg		<MDL	0.75	1.49	ug/Kg
Hexachloroethane		<MDL	2.3	4.68	ug/Kg		<MDL	2.3	4.54	ug/Kg		<MDL	1.6	3.27	ug/Kg		<MDL	1.5	2.99	ug/Kg
Indeno(1,2,3-Cd)Pyrene	111		4.7	9.37	ug/Kg	114		4.5	9.07	ug/Kg	43.4		3.3	6.55	ug/Kg	40.1		3	5.97	ug/Kg
Naphthalene	9.1	<RDL	4.7	9.37	ug/Kg	14.5		4.5	9.07	ug/Kg	3.9	<RDL	3.3	6.55	ug/Kg	4.8	<RDL	3	5.97	ug/Kg
N-Nitrosodiphenylamine		<MDL	9.4	18.7	ug/Kg		<MDL	9.1	18.1	ug/Kg		<MDL	6.5	13.1	ug/Kg		<MDL	6	11.9	ug/Kg
Pentachlorophenol		<MDL	23	46.8	ug/Kg		<MDL	23	45.4	ug/Kg		<MDL	16	32.7	ug/Kg		<MDL	15	29.9	ug/Kg
Phenanthrene	141		4.7	9.37	ug/Kg	531		4.5	9.07	ug/Kg	62.8		3.3	6.55	ug/Kg	55.5		3	5.97	ug/Kg
Phenol		<MDL	9.4	18.7	ug/Kg		<MDL	9.1	18.1	ug/Kg		<MDL	6.5	13.1	ug/Kg		<MDL	6	11.9	ug/Kg
Pyrene	405		4.7	9.37	ug/Kg	791		4.5	9.07	ug/Kg	144		3.3	6.55	ug/Kg	129		3	5.97	ug/Kg
Total HPAHS	2180		4.7	9.37	ug/Kg	3880		4.5	9.07	ug/Kg	845		3.3	6.55	ug/Kg	693		3	5.97	ug/Kg
Total LPAHS	253		4.7	9.37	ug/Kg	930		4.5	9.07	ug/Kg	105		3.3	6.55	ug/Kg	100		3	5.97	ug/Kg
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>																				
4,4'-DDD		<MDL,H	1.6	3.11	ug/Kg		<MDL,H	1.5	3.02	ug/Kg	2.98	H	1.1	2.18	ug/Kg	2.72	H	1	1.99	ug/Kg
4,4'-DDE		<MDL,H	1.6	3.11	ug/Kg		<MDL,H	1.5	3.02	ug/Kg	1.6	<RDL,H	1.1	2.18	ug/Kg		<MDL,H	1	1.99	ug/Kg
4,4'-DDT		<MDL,H	1.6	3.11	ug/Kg		<MDL,H	1.5	3.02	ug/Kg		<MDL,H	1.1	2.18	ug/Kg		<MDL,H	1	1.99	ug/Kg
Aldrin		<MDL,H	1.6	3.11	ug/Kg		<MDL,H	1.5	3.02	ug/Kg		<MDL,H	1.1	2.18	ug/Kg		<MDL,H	1	1.99	ug/Kg
Alpha-BHC		<MDL,H	0.77	1.56	ug/Kg		<MDL,H	0.75	1.51	ug/Kg		<MDL,H	0.54	1.09	ug/Kg		<MDL,H	0.49	0.996	ug/Kg
Alpha-Chlordane		<MDL,H	0.77	1.56	ug/Kg		<MDL,H	0.75	1.51	ug/Kg		<MDL,H	0.54	1.09	ug/Kg		<MDL,H	0.49	0.996	ug/Kg
Aroclor 1016		<MDL,H,TA	26	51.5	ug/Kg		<MDL,H,TA	16	32.7	ug/Kg		<MDL,H,TA	100	208	ug/Kg		<MDL,H,TA	140	273	ug/Kg
Aroclor 1221		<MDL,H	4	7.8	ug/Kg		<MDL,H	3.9	7.55	ug/Kg		<MDL,H,TA	20	39.1	ug/Kg		<MDL,H,TA	25	50.7	ug/Kg
Aroclor 1232		<MDL,H,TA	73	144	ug/Kg		<MDL,H	3.9	7.55	ug/Kg		<MDL,H,TA	210	417	ug/Kg		<MDL,H,TA	240	472	ug/Kg
Aroclor 1242		<MDL,H,TA	54	108	ug/Kg		<MDL,H,TA	36	71.7	ug/Kg		<MDL,H,TA	230	442	ug/Kg		<MDL,H,TA	300	584	ug/Kg
Aroclor 1248	40	H	1.9	3.91	ug/Kg	29.7	H	1.9	3.79	ug/Kg	139	H	2.8	5.45	ug/Kg	184	H	2.5	4.97	ug/Kg
Aroclor 1254	63.5	H	1.9	3.91	ug/Kg	49.2	H	1.9	3.79	ug/Kg	164	H	2.8	5.45	ug/Kg	230	H	2.5	4.97	ug/Kg
Aroclor 1260	43.3	H,L,E	1.9	3.91	ug/Kg	78.7	H,L,E	1.9	3.79	ug/Kg	73.3	H,L,E	2.8	5.45	ug/Kg	79.3	H,L,E	2.5	4.97	ug/Kg
Beta-BHC		<MDL,H	0.77	1.56	ug/Kg		<MDL,H	0.75	1.51	ug/Kg		<MDL,H	0.54	1.09	ug/Kg		<MDL,H	0.49	0.996	ug/Kg
Delta-BHC		<MDL,H	0.77	1.56	ug/Kg		<MDL,H	0.75	1.51	ug/Kg		<MDL,H	0.54	1.09	ug/Kg		<MDL,H	0.49	0.996	ug/Kg
Dieldrin		<MDL,H	1.6	3.11	ug/Kg		<MDL,H	1.5	3.02	ug/Kg		<MDL,H	1.1	2.18	ug/Kg		<MDL,H	1	1.99	ug/Kg
Endosulfan I		<MDL,H	1.6	3.11	ug/Kg		<MDL,H	1.5	3.02	ug/Kg		<MDL,H	1.1	2.18	ug/Kg		<MDL,H	1	1.99	ug/Kg
Endosulfan II		<MDL,H	1.6	3.11	ug/Kg		<MDL,H	1.5	3.02	ug/Kg		<MDL,H	1.1	2.18	ug/Kg		<MDL,H	1	1.99	ug/Kg
Endosulfan Sulfate		<MDL,H	1.6	3.11	ug/Kg		<MDL,H	1.5	3.02	ug/Kg		<MDL,H	1.1	2.18	ug/Kg		<MDL,H	1	1.99	ug/Kg
Endrin		<MDL,H	1.6	3.11	ug/Kg		<MDL,H	1.5	3.02	ug/Kg		<MDL,H	1.1	2.18	ug/Kg		<MDL,H	1	1.99	ug/Kg
Endrin Aldehyde		<MDL,H	1.6	3.11	ug/Kg		<MDL,H	1.5	3.02	ug/Kg		<MDL,H	1.1	2.18	ug/Kg		<MDL,H	1	1.99	ug/Kg
Gamma-BHC (Lindane)		<MDL,H	0.77	1.56	ug/Kg		<MDL,H	0.75	1.51	ug/Kg		<MDL,H	0.54	1.09	ug/Kg		<MDL,H	0.49	0.996	ug/Kg
Gamma-Chlordane		<MDL,H	0.77	1.56	ug/Kg		<MDL,H	0.75	1.51	ug/Kg		<MDL,H	0.54	1.09	ug/Kg		<MDL,H	0.49	0.996	ug/Kg
Heptachlor		<MDL,H	0.77	1.56	ug/Kg		<MDL,H	0.75	1.51	ug/Kg		<MDL,H	0.54	1.09	ug/Kg		<MDL,H	0.49	0.996	ug/Kg
Heptachlor Epoxide		<MDL,H	0.77	1.56	ug/Kg		<MDL,H	0.75	1.51	ug/Kg		<MDL,H	0.54	1.09	ug/Kg		<MDL,H	0.49	0.996	ug/Kg
Methoxychlor		<MDL,H	7.7	15.6	ug/Kg		<MDL,H	7.5	15.1	ug/Kg		<MDL,H	5.4	10.9	ug/Kg		<MDL,H	4.9	9.96	ug/Kg
Toxaphene		<MDL,H	16	31.1	ug/Kg		<MDL,H	15	30.2	ug/Kg		<MDL,H	11	21.8	ug/Kg		<MDL,H	10	19.9	ug/Kg

\* Not converted to dry weight basis for this parameter

# King County Environmental Lab Analytical Report

**Appendix C6 - 2007  
Perimeter Stations**

Locator: DUD\_9C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-5  
 Matrix: SALTWTRSED  
 % Solids: 69.4

Locator: DUD\_10C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-6  
 Matrix: SALTWTRSED  
 % Solids: 57.4

Locator: DUD\_11C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-7  
 Matrix: SALTWTRSED  
 % Solids: 67.7

Locator: DUD\_12C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-8  
 Matrix: SALTWTRSED  
 % Solids: 69.5

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	
	- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					
<b>COMBINED LABS</b>																					
<b>M=CV ASTM D422(03-02-005-001)</b>																					
Fines *	23.3		0.5	1	%	48.7		0.5	1	%	27.7		0.5	1	%	29.8		0.5	1	%	
Gravel *	4.1		0.1	1	%	12.9		0.1	1	%	9.6		0.1	1	%	1.2		0.1	1	%	
Sand *	72.1		0.1	1	%	36.6		0.1	1	%	63.1		0.1	1	%	68.1		0.1	1	%	
Silt *	18.2		0.5	1	%	34.8		0.5	1	%	16.8		0.5	1	%	20.1		0.5	1	%	
Clay *	5.1		0.5	1	%	13.9		0.5	1	%	10.9		0.5	1	%	9.7		0.5	1	%	
p+0.00 *	3.2		0.1	1	%	1		0.1	1	%	4.6		0.1	1	%	0.5	<RDL	0.1	1	%	
p+1.00 *	12.4		0.1	1	%	2.8		0.1	1	%	6.6		0.1	1	%	1.6		0.1	1	%	
p+10.0(equal/more than) *	2.2		0.5	1	%	7.8		0.5	1	%	7.3		0.5	1	%	6.9		0.5	1	%	
p+2.00 *	39.5		0.1	1	%	14.9		0.1	1	%	19.7		0.1	1	%	16		0.1	1	%	
p+3.00 *	14.6		0.1	1	%	11.4		0.1	1	%	22.6		0.1	1	%	35.2		0.1	1	%	
p+4.00 *	2.4		0.1	1	%	6.4		0.1	1	%	9.7		0.1	1	%	14.8		0.1	1	%	
p+5.00 *	7.3		0.5	1	%	8.7		0.5	1	%	4.4		0.5	1	%	6.9		0.5	1	%	
p+6.00 *	2.9		0.5	1	%	5.2		0.5	1	%	4.4		0.5	1	%	4.2		0.5	1	%	
p+7.00 *	5.8		0.5	1	%	11.3		0.5	1	%	4.4		0.5	1	%	4.9		0.5	1	%	
p+8.00 *	2.2		0.5	1	%	9.6		0.5	1	%	3.7		0.5	1	%	4.2		0.5	1	%	
p+9.00 *	2.9		0.5	1	%	6.1		0.5	1	%	3.7		0.5	1	%	2.8		0.5	1	%	
p-1.00 *	2.9		0.1	1	%	4.6		0.1	1	%	4.7		0.1	1	%	0.6	<RDL	0.1	1	%	
p-2.00 *	0.9	<RDL	0.1	1	%	2.6		0.1	1	%	4.9		0.1	1	%	<MDL		0.1	1	%	
p-2.00(less than) *	0.3	<RDL	0.1	1	%	5.7		0.1	1	%	<MDL		0.1	1	%	0.7	<RDL	0.1	1	%	
<b>M=CV EPA 9060-PSEP96(03-04-002-003)</b>																					
Total Organic Carbon	7930		1400	2720	mg/Kg	11700		1700	3290	mg/Kg	12100		1500	2970	mg/Kg	8220		1400	3020	mg/Kg	
<b>M=CV SM2540-G (03-01-007-002)</b>																					
Total Solids *	69.4		0.005	0.01	%	57.4		0.005	0.01	%	67.7		0.005	0.01	%	69.5		0.005	0.01	%	
<b>M=ES NONE</b>																					
Field Personnel	JB,BK,CB,JDD				none	JB,BK,CB,JDD				none	JB,BK,CB,JDD				none	JB,BK,CB,JDD				none	
Sampcoordx1 *	1266788				ft	1266658				ft	1266844				ft	1266813				ft	
Sampcoordx2 *	1266782				ft	1266657				ft	1266845				ft	1266812				ft	
Sampcoordx3 *	1266784				ft	1266661				ft	1266844				ft	1266815				ft	
Sampcoordx4 *	1266786				ft	1266663				ft	1266847				ft	1266809				ft	
Sampcoordx5 *	1266785				ft	1266662				ft	1266844				ft	1266813				ft	
Sampcoordx6 *																1266816				ft	
Sampcoordy1 *	209155				ft	209518				ft	209529				ft	209627				ft	
Sampcoordy2 *	209157				ft	209519				ft	209534				ft	209629				ft	
Sampcoordy3 *	209157				ft	209521				ft	209536				ft	209630				ft	
Sampcoordy4 *	209153				ft	209515				ft	209534				ft	209624				ft	
Sampcoordy5 *	209158				ft	209519				ft	209535				ft	209630				ft	
Sampcoordy6 *																209630				ft	
Sample Depth *	11				m	12				m	10				m	10				m	
Sample Function																					
Sampling Method *	20042				none	20042				none	20042				none	20042				none	
Sediment Sampling Depth *	6				cm	9				cm	9				cm	7				cm	
Sediment Sampling Range *	0-5 cm				cm	0-8 cm				cm	0-8 cm				cm	0-6 cm				cm	
Sediment Type	32N30				none	32N30				none	32N31				none	31N31				none	
Tidal Condition	F				none	F				none	F				none	F				none	
Tide Height *	3.5				ft	4				ft	5				ft	6				ft	
<b>M=MT EPA 7471A (06-01-004-003)</b>																					



# King County Environmental Lab Analytical Report

**Appendix C6 - 2007  
Perimeter Stations**

Locator: DUD\_9C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-5  
 Matrix: SALTWTRSED  
 % Solids: 69.4

Locator: DUD\_10C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-6  
 Matrix: SALTWTRSED  
 % Solids: 57.4

Locator: DUD\_11C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-7  
 Matrix: SALTWTRSED  
 % Solids: 67.7

Locator: DUD\_12C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-8  
 Matrix: SALTWTRSED  
 % Solids: 69.5

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units		
			- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
<b>COMBINED LABS</b>																						
Mercury, Total, CVAA	0.119		0.0072	0.0728	mg/Kg	0.113		0.0087	0.0868	mg/Kg	0.0982		0.0074	0.0739	mg/Kg	0.141		0.0075	0.0745	mg/Kg		
<b>M=MT EPA3050B/6010B MOD(6-2-04-02)</b>																						
Aluminum, Total, ICP	13200	L	7.2	35.9	mg/Kg	19700	L	8.7	43.6	mg/Kg	16400	L	7.4	36.9	mg/Kg	14500	L	7.2	36	mg/Kg		
Antimony, Total, ICP		<MDL,G	1.1	5.39	mg/Kg		<MDL,G	1.3	6.53	mg/Kg	1.1	<RDL,G	1.1	5.52	mg/Kg		<MDL,G	1.1	5.4	mg/Kg		
Arsenic, Total, ICP	6.9	<RDL	1.7	8.99	mg/Kg	10	<RDL	2.1	10.9	mg/Kg	8.7	<RDL	1.8	9.22	mg/Kg	7.2	<RDL	1.7	8.99	mg/Kg		
Beryllium, Total, ICP	0.24	<RDL	0.072	0.359	mg/Kg	0.38	<RDL	0.087	0.436	mg/Kg	0.27	<RDL	0.074	0.369	mg/Kg	0.26	<RDL	0.072	0.36	mg/Kg		
Cadmium, Total, ICP	0.4	<RDL	0.14	0.719	mg/Kg	0.26	<RDL	0.17	0.871	mg/Kg	0.24	<RDL	0.15	0.737	mg/Kg	0.43	<RDL	0.14	0.719	mg/Kg		
Chromium, Total, ICP	23.6		0.22	1.08	mg/Kg	26.7		0.26	1.31	mg/Kg	27.6		0.22	1.11	mg/Kg	32.1		0.22	1.08	mg/Kg		
Copper, Total, ICP	44.7		0.29	1.44	mg/Kg	48.8		0.35	1.74	mg/Kg	58.1		0.3	1.47	mg/Kg	59.1		0.29	1.44	mg/Kg		
Iron, Total, ICP	21200		3.6	18	mg/Kg	26700		4.4	21.8	mg/Kg	26100		3.7	18.5	mg/Kg	23200		3.6	18	mg/Kg		
Lead, Total, ICP	30.7		1.4	7.19	mg/Kg	26.3		1.7	8.71	mg/Kg	25.1		1.5	7.37	mg/Kg	47.1		1.4	7.19	mg/Kg		
Manganese, Total, ICP	300		0.14	0.719	mg/Kg	329		0.17	0.871	mg/Kg	298		0.15	0.737	mg/Kg	263		0.14	0.719	mg/Kg		
Nickel, Total, ICP	16.9		0.36	1.8	mg/Kg	20		0.44	2.18	mg/Kg	21.9		0.37	1.85	mg/Kg	22.4		0.36	1.8	mg/Kg		
Selenium, Total, ICP		<MDL	1.7	8.99	mg/Kg		<MDL	2.1	10.9	mg/Kg		<MDL	1.8	9.22	mg/Kg		<MDL	1.7	8.99	mg/Kg		
Silver, Total, ICP	0.4	<RDL	0.29	1.44	mg/Kg		<MDL	0.35	1.74	mg/Kg		<MDL	0.3	1.47	mg/Kg	0.45	<RDL	0.29	1.44	mg/Kg		
Thallium, Total, ICP		<MDL	2.9	14.4	mg/Kg		<MDL	3.5	17.4	mg/Kg		<MDL	3	14.7	mg/Kg		<MDL	2.9	14.4	mg/Kg		
Zinc, Total, ICP	76.4		0.36	1.8	mg/Kg	91.3		0.44	2.18	mg/Kg	95.9		0.37	1.85	mg/Kg	101		0.36	1.8	mg/Kg		
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>																						
1,2,4-Trichlorobenzene		<MDL	0.14	0.288	ug/Kg		<MDL	0.17	0.348	ug/Kg		<MDL	0.15	0.295	ug/Kg		<MDL	0.14	0.288	ug/Kg		
1,2-Dichlorobenzene		<MDL	0.29	0.576	ug/Kg		<MDL	0.35	0.697	ug/Kg		<MDL	0.3	0.591	ug/Kg		<MDL	0.29	0.576	ug/Kg		
1,3-Dichlorobenzene		<MDL	0.29	0.576	ug/Kg		<MDL	0.35	0.697	ug/Kg		<MDL	0.3	0.591	ug/Kg		<MDL	0.29	0.576	ug/Kg		
1,4-Dichlorobenzene	1.1		0.29	0.576	ug/Kg		<MDL	0.35	0.697	ug/Kg	6.14		0.3	0.591	ug/Kg	3.45		0.29	0.576	ug/Kg		
2,4-Dimethylphenol		<MDL	1.4	2.88	ug/Kg		<MDL	1.7	3.48	ug/Kg		<MDL	1.5	2.95	ug/Kg		<MDL	1.4	2.88	ug/Kg		
2-Methylnaphthalene		<MDL	2.9	5.76	ug/Kg	5.4	<RDL	3.5	6.97	ug/Kg	4.4	<RDL	3	5.91	ug/Kg	4.7	<RDL	2.9	5.76	ug/Kg		
2-Methylphenol		<MDL	2.9	5.76	ug/Kg		<MDL	3.5	6.97	ug/Kg		<MDL	3	5.91	ug/Kg		<MDL	2.9	5.76	ug/Kg		
4-Methylphenol		<MDL	5.8	11.5	ug/Kg		<MDL	7	13.9	ug/Kg		<MDL	5.9	11.8	ug/Kg		<MDL	5.8	11.5	ug/Kg		
Acenaphthene	3	<RDL	2.9	5.76	ug/Kg	7.46		3.5	6.97	ug/Kg	8.45		3	5.91	ug/Kg	7.28		2.9	5.76	ug/Kg		
Acenaphthylene		<MDL	2.9	5.76	ug/Kg	10.4		3.5	6.97	ug/Kg	5.6	<RDL	3	5.91	ug/Kg	5.5	<RDL	2.9	5.76	ug/Kg		
Anthracene	11.8		2.9	5.76	ug/Kg	30.1		3.5	6.97	ug/Kg	33.8		3	5.91	ug/Kg	30.4		2.9	5.76	ug/Kg		
Benzo(a)anthracene	55.6		2.9	5.76	ug/Kg	128		3.5	6.97	ug/Kg	80.2		3	5.91	ug/Kg	109		2.9	5.76	ug/Kg		
Benzo(a)pyrene	46.4		2.9	5.76	ug/Kg	117		3.5	6.97	ug/Kg	123		3	5.91	ug/Kg	119		2.9	5.76	ug/Kg		
Benzo(b)fluoranthene	61.1		2.9	5.76	ug/Kg	207		3.5	6.97	ug/Kg	157		3	5.91	ug/Kg	161		2.9	5.76	ug/Kg		
Benzo(g,h,i)perylene	31.4		2.9	5.76	ug/Kg	71.4		3.5	6.97	ug/Kg	77.3		3	5.91	ug/Kg	77.8		2.9	5.76	ug/Kg		
Benzo(k)fluoranthene	52		2.9	5.76	ug/Kg	77.9		3.5	6.97	ug/Kg	109		3	5.91	ug/Kg	120		2.9	5.76	ug/Kg		
Benzoic Acid	65.4		14	28.8	ug/Kg	78.9		17	34.8	ug/Kg	86.1		15	29.5	ug/Kg	94.4		14	28.8	ug/Kg		
Benzyl Alcohol		<MDL	2.9	5.76	ug/Kg		<MDL	3.5	6.97	ug/Kg		<MDL	3	5.91	ug/Kg		<MDL	2.9	5.76	ug/Kg		
Benzyl Butyl Phthalate	22		1.4	2.88	ug/Kg	26.5		1.7	3.48	ug/Kg	86		1.5	2.95	ug/Kg	38.3		1.4	2.88	ug/Kg		
Bis(2-Ethylhexyl)Phthalate	156		5.8	11.5	ug/Kg	249		7	13.9	ug/Kg	517		5.9	11.8	ug/Kg	468		5.8	11.5	ug/Kg		
Carbazole		<MDL	2.9	5.76	ug/Kg	32.6		3.5	6.97	ug/Kg	25		3	5.91	ug/Kg	20.4		2.9	5.76	ug/Kg		
Chrysene	54.3		2.9	5.76	ug/Kg	157		3.5	6.97	ug/Kg	179		3	5.91	ug/Kg	147		2.9	5.76	ug/Kg		
Coprostanol	226		58	115	ug/Kg	326		70	139	ug/Kg	456		59	118	ug/Kg	409		58	115	ug/Kg		
Dibenzo(a,h)anthracene	9.87		2.9	5.76	ug/Kg	18.5		3.5	6.97	ug/Kg	22.7		3	5.91	ug/Kg	19.7		2.9	5.76	ug/Kg		
Dibenzofuran		<MDL	2.9	5.76	ug/Kg	8.99		3.5	6.97	ug/Kg	7.15		3	5.91	ug/Kg	5.99		2.9	5.76	ug/Kg		
Diethyl Phthalate		<MDL	5.8	11.5	ug/Kg		<MDL	7	13.9	ug/Kg		<MDL	5.9	11.8	ug/Kg		<MDL	5.8	11.5	ug/Kg		
Dimethyl Phthalate		<MDL	5.8	11.5	ug/Kg		<MDL	7	13.9	ug/Kg		<MDL	5.9	11.8	ug/Kg		<MDL	5.8	11.5	ug/Kg		
Di-N-Butyl Phthalate		<MDL	5.8	11.5	ug/Kg	28.4		7	13.9	ug/Kg	36.8		5.9	11.8	ug/Kg	30.6		5.8	11.5	ug/Kg		
Di-N-Octyl Phthalate		<MDL	5.8	11.5	ug/Kg		<MDL	7	13.9	ug/Kg		<MDL	5.9	11.8	ug/Kg		<MDL	5.8	11.5	ug/Kg		

# King County Environmental Lab Analytical Report

**Appendix C6 - 2007  
Perimeter Stations**

Locator: DUD\_9C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-5  
 Matrix: SALTWTRSED  
 % Solids: 69.4

Locator: DUD\_10C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-6  
 Matrix: SALTWTRSED  
 % Solids: 57.4

Locator: DUD\_11C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-7  
 Matrix: SALTWTRSED  
 % Solids: 67.7

Locator: DUD\_12C  
 Descrip: Perimeter Station  
 Sampled: 4/2/2007  
 Lab ID: L42275-8  
 Matrix: SALTWTRSED  
 % Solids: 69.5

Parameters	Value					Value					Value					Value						
	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units		
- Dry Weight Basis																						
<b>COMBINED LABS</b>																						
Fluoranthene	80.8		2.9	5.76	ug/Kg	369		3.5	6.97	ug/Kg	285		3	5.91	ug/Kg	217		2.9	5.76	ug/Kg		
Fluorene	4.8	<RDL	2.9	5.76	ug/Kg	17.6		3.5	6.97	ug/Kg	13.8		3	5.91	ug/Kg	10.1		2.9	5.76	ug/Kg		
Hexachlorobenzene		<MDL	0.14	0.288	ug/Kg			<MDL	0.17	0.348	ug/Kg			<MDL	0.15	0.295	ug/Kg		<MDL	0.14	0.288	ug/Kg
Hexachlorobutadiene		<MDL	0.72	1.44	ug/Kg			<MDL	0.87	1.74	ug/Kg			<MDL	0.74	1.48	ug/Kg		<MDL	0.72	1.44	ug/Kg
Hexachloroethane		<MDL	1.4	2.88	ug/Kg			<MDL	1.7	3.48	ug/Kg			<MDL	1.5	2.95	ug/Kg		<MDL	1.4	2.88	ug/Kg
Indeno(1,2,3-Cd)Pyrene	31		2.9	5.76	ug/Kg	73		3.5	6.97	ug/Kg	72.4		3	5.91	ug/Kg	74.5		2.9	5.76	ug/Kg		
Naphthalene		<MDL	2.9	5.76	ug/Kg	11.3		3.5	6.97	ug/Kg	6.94		3	5.91	ug/Kg	5.3	<RDL	2.9	5.76	ug/Kg		
N-Nitrosodiphenylamine		<MDL	5.8	11.5	ug/Kg			<MDL	7	13.9	ug/Kg			<MDL	5.9	11.8	ug/Kg		<MDL	5.8	11.5	ug/Kg
Pentachlorophenol		<MDL	14	28.8	ug/Kg			<MDL	17	34.8	ug/Kg			<MDL	15	29.5	ug/Kg		<MDL	14	28.8	ug/Kg
Phenanthrene	29.7		2.9	5.76	ug/Kg	151		3.5	6.97	ug/Kg	110		3	5.91	ug/Kg	86.3		2.9	5.76	ug/Kg		
Phenol		<MDL	5.8	11.5	ug/Kg			<MDL	7	13.9	ug/Kg			<MDL	5.9	11.8	ug/Kg		<MDL	5.8	11.5	ug/Kg
Pyrene	103		2.9	5.76	ug/Kg	289		3.5	6.97	ug/Kg	250		3	5.91	ug/Kg	252		2.9	5.76	ug/Kg		
Total HPAHS	526		2.9	5.76	ug/Kg	1510		3.5	6.97	ug/Kg	1350		3	5.91	ug/Kg	1300		2.9	5.76	ug/Kg		
Total LPAHs	53.7		2.9	5.76	ug/Kg	233		3.5	6.97	ug/Kg	183		3	5.91	ug/Kg	150		2.9	5.76	ug/Kg		
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>																						
4,4'-DDD	1.7	<RDL,H	0.97	1.92	ug/Kg			<MDL,H	1.2	2.32	ug/Kg			<MDL,H	0.99	1.96	ug/Kg		<MDL,H	0.96	1.91	ug/Kg
4,4'-DDE		<MDL,H	0.97	1.92	ug/Kg			<MDL,H	1.2	2.32	ug/Kg			<MDL,H	0.99	1.96	ug/Kg		<MDL,H	0.96	1.91	ug/Kg
4,4'-DDT		<MDL,H	0.97	1.92	ug/Kg			<MDL,E,H	1.2	2.32	ug/Kg			<MDL,E,H	0.99	1.96	ug/Kg		<MDL,E,H	0.96	1.91	ug/Kg
Aldrin		<MDL,H	0.97	1.92	ug/Kg			<MDL,H	1.2	2.32	ug/Kg			<MDL,H	0.99	1.96	ug/Kg		<MDL,H	0.96	1.91	ug/Kg
Alpha-BHC		<MDL,H	0.48	0.961	ug/Kg			<MDL,H	0.57	1.16	ug/Kg			<MDL,H	0.49	0.985	ug/Kg		<MDL,H	0.47	0.96	ug/Kg
Alpha-Chlordane		<MDL,H	0.48	0.961	ug/Kg			<MDL,H	0.57	1.16	ug/Kg			<MDL,H	0.49	0.985	ug/Kg		<MDL,H	0.47	0.96	ug/Kg
Aroclor 1016		<MDL,H,TA	68	135	ug/Kg			<MDL,H,TA	17	35.2	ug/Kg			<MDL,H,TA	15	30.3	ug/Kg		<MDL,H,TA	62	124	ug/Kg
Aroclor 1221		<MDL,H,TA	33	65.1	ug/Kg			<MDL,H	3	5.8	ug/Kg			<MDL,H	2.5	4.92	ug/Kg		<MDL,H	4.7	9.6	ug/Kg
Aroclor 1232		<MDL,H,TA	140	275	ug/Kg			<MDL,H,TA	42	84.8	ug/Kg			<MDL,H	2.5	4.92	ug/Kg		<MDL,H,TA	130	250	ug/Kg
Aroclor 1242		<MDL,H,TA	140	284	ug/Kg			<MDL,H,TA	49	99.1	ug/Kg			<MDL,H	1.2	2.47	ug/Kg		<MDL,H,TA	160	328	ug/Kg
Aroclor 1248	104	H	2.4	4.8	ug/Kg	38.2	H	1.4	2.91	ug/Kg	25.1	H	1.2	2.47	ug/Kg	102	H	2.4	4.79	ug/Kg		
Aroclor 1254	129	H	2.4	4.8	ug/Kg	61.3	H	1.4	2.91	ug/Kg	52.6	H	1.2	2.47	ug/Kg	133	H	2.4	4.79	ug/Kg		
Aroclor 1260	78	H,L,E	2.4	4.8	ug/Kg	34	H,L,E	1.4	2.91	ug/Kg	32.3	H,L,E	1.2	2.47	ug/Kg	74.1	H,L,E	2.4	4.79	ug/Kg		
Beta-BHC		<MDL,H	0.48	0.961	ug/Kg			<MDL,H	0.57	1.16	ug/Kg			<MDL,H	0.49	0.985	ug/Kg		<MDL,H	0.47	0.96	ug/Kg
Delta-BHC		<MDL,H	0.48	0.961	ug/Kg			<MDL,H	0.57	1.16	ug/Kg			<MDL,H	0.49	0.985	ug/Kg		<MDL,H	0.47	0.96	ug/Kg
Dieldrin		<MDL,H	0.97	1.92	ug/Kg			<MDL,H	1.2	2.32	ug/Kg			<MDL,H	0.99	1.96	ug/Kg		<MDL,H	0.96	1.91	ug/Kg
Endosulfan I		<MDL,H	0.97	1.92	ug/Kg			<MDL,H	1.2	2.32	ug/Kg			<MDL,H	0.99	1.96	ug/Kg		<MDL,H	0.96	1.91	ug/Kg
Endosulfan II		<MDL,H	0.97	1.92	ug/Kg			<MDL,H	1.2	2.32	ug/Kg			<MDL,H	0.99	1.96	ug/Kg		<MDL,H	0.96	1.91	ug/Kg
Endosulfan Sulfate		<MDL,H	0.97	1.92	ug/Kg			<MDL,H	1.2	2.32	ug/Kg			<MDL,H	0.99	1.96	ug/Kg		<MDL,H	0.96	1.91	ug/Kg
Endrin		<MDL,H	0.97	1.92	ug/Kg			<MDL,H	1.2	2.32	ug/Kg			<MDL,H	0.99	1.96	ug/Kg		<MDL,H	0.96	1.91	ug/Kg
Endrin Aldehyde		<MDL,H	0.97	1.92	ug/Kg			<MDL,H	1.2	2.32	ug/Kg			<MDL,H	0.99	1.96	ug/Kg		<MDL,H	0.96	1.91	ug/Kg
Gamma-BHC (Lindane)		<MDL,H	0.48	0.961	ug/Kg			<MDL,H	0.57	1.16	ug/Kg			<MDL,H	0.49	0.985	ug/Kg		<MDL,H	0.47	0.96	ug/Kg
Gamma-Chlordane		<MDL,H	0.48	0.961	ug/Kg			<MDL,H	0.57	1.16	ug/Kg			<MDL,H	0.49	0.985	ug/Kg		<MDL,H	0.47	0.96	ug/Kg
Heptachlor		<MDL,H	0.48	0.961	ug/Kg			<MDL,H	0.57	1.16	ug/Kg			<MDL,H	0.49	0.985	ug/Kg		<MDL,H	0.47	0.96	ug/Kg
Heptachlor Epoxide		<MDL,H	0.48	0.961	ug/Kg	2.47	H	0.57	1.16	ug/Kg			<MDL,H	0.49	0.985	ug/Kg		<MDL,H	0.47	0.96	ug/Kg	
Methoxychlor		<MDL,H	4.8	9.61	ug/Kg			<MDL,E,H	5.7	11.6	ug/Kg			<MDL,E,H	4.9	9.85	ug/Kg		<MDL,E,H	4.7	9.6	ug/Kg
Toxaphene		<MDL,H	9.7	19.2	ug/Kg			<MDL,H	12	23.2	ug/Kg			<MDL,H	9.9	19.6	ug/Kg		<MDL,H	9.6	19.1	ug/Kg

\* Not converted to dry weight basis for this parameter

# King County Environmental Lab Analytical Report

**Appendix C6 - 2007  
Perimeter Stations**

Locator: DUD\_13C  
 Descrip: Perimeter Station  
 Sampled: 4/4/2007  
 Lab ID: L42275-9  
 Matrix: SALTWTRSED  
 % Solids: 55.3

Parameters	Value	Qual	MDL	RDL	Units
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- Dry Weight Basis

**COMBINED LABS**

**M=CV ASTM D422(03-02-005-001)**

Fines *	57.7		0.5	1	%
Gravel *	0.3	<RDL	0.1	1	%
Sand *	38.6		0.1	1	%
Silt *	39.7		0.5	1	%
Clay *	18		0.5	1	%
p+0.00 *		<MDL	0.1	1	%
p+1.00 *	0.4	<RDL	0.1	1	%
p+10.0(equal/more than) *	9.9		0.5	1	%
p+2.00 *	5		0.1	1	%
p+3.00 *	19		0.1	1	%
p+4.00 *	14.1		0.1	1	%
p+5.00 *	12.6		0.5	1	%
p+6.00 *	2.7		0.5	1	%
p+7.00 *	18		0.5	1	%
p+8.00 *	6.3		0.5	1	%
p+9.00 *	8.1		0.5	1	%
p-1.00 *	0.3	<RDL	0.1	1	%
p-2.00 *		<MDL	0.1	1	%
p-2.00(less than) *		<MDL	0.1	1	%

**M=CV EPA 9060-PSEP96(03-04-002-003)**

Total Organic Carbon	15200		1500	2980	mg/Kg
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**M=CV SM2540-G (03-01-007-002)**

Total Solids *	55.3		0.005	0.01	%
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**M=ES NONE**

Field Personnel	JB,BK,SH,DR				none
Sampcoordx1 *	1267238				ft
Sampcoordx2 *	1267235				ft
Sampcoordx3 *	1267236				ft
Sampcoordx4 *	1267237				ft
Sampcoordx5 *	1267244				ft
Sampcoordx6 *					
Sampcoordy1 *	207860				ft
Sampcoordy2 *	207866				ft
Sampcoordy3 *	207861				ft
Sampcoordy4 *	207859				ft
Sampcoordy5 *	207859				ft
Sampcoordy6 *					
Sample Depth *	11				m
Sample Function					
Sampling Method *	20042				none
Sediment Sampling Depth *	12				cm
Sediment Sampling Range *	0-10 cm				cm
Sediment Type	23N22				none
Tidal Condition	E				none
Tide Height *	7.5				ft

**M=MT EPA 7471A (06-01-004-003)**

# King County Environmental Lab Analytical Report

**Appendix C6 - 2007  
Perimeter Stations**

Locator: DUD\_13C  
 Descrip: Perimeter Station  
 Sampled: 4/4/2007  
 Lab ID: L42275-9  
 Matrix: SALTWTRSED  
 % Solids: 55.3

Parameters	Value	Qual	MDL	RDL	Units
- Dry Weight Basis					
<b>COMBINED LABS</b>					
Mercury, Total, CVAA	0.248		0.0092	0.092	mg/Kg
<b>M=MT EPA3050B/6010B MOD(6-2-04-02)</b>					
Aluminum, Total, ICP	20800	L	9	45.2	mg/Kg
Antimony, Total, ICP		<MDL,G	1.4	6.78	mg/Kg
Arsenic, Total, ICP	11	<RDL	2.4	11.3	mg/Kg
Beryllium, Total, ICP	0.42	<RDL	0.09	0.452	mg/Kg
Cadmium, Total, ICP	0.58	<RDL	0.18	0.904	mg/Kg
Chromium, Total, ICP	35.1		0.27	1.36	mg/Kg
Copper, Total, ICP	77.9		0.36	1.81	mg/Kg
Iron, Total, ICP	30600		4.5	22.6	mg/Kg
Lead, Total, ICP	49		1.8	9.04	mg/Kg
Manganese, Total, ICP	320		0.18	0.904	mg/Kg
Nickel, Total, ICP	21.9		0.45	2.26	mg/Kg
Selenium, Total, ICP		<MDL	2.4	11.3	mg/Kg
Silver, Total, ICP	0.61	<RDL	0.36	1.81	mg/Kg
Thallium, Total, ICP		<MDL	3.6	18.1	mg/Kg
Zinc, Total, ICP	128		0.45	2.26	mg/Kg
<b>M=OR EPA 3550B/8270C (7-3-01-004)</b>					
1,2,4-Trichlorobenzene		<MDL	0.18	0.362	ug/Kg
1,2-Dichlorobenzene		<MDL	0.36	0.723	ug/Kg
1,3-Dichlorobenzene		<MDL	0.36	0.723	ug/Kg
1,4-Dichlorobenzene	1.38		0.36	0.723	ug/Kg
2,4-Dimethylphenol		<MDL	1.8	3.62	ug/Kg
2-Methylnaphthalene	5.2		3.6	7.23	ug/Kg
2-Methylphenol		<MDL	3.6	7.23	ug/Kg
4-Methylphenol		<MDL	7.2	14.5	ug/Kg
Acenaphthene	7.87		3.6	7.23	ug/Kg
Acenaphthylene	8.03		3.6	7.23	ug/Kg
Anthracene	68.2		3.6	7.23	ug/Kg
Benzo(a)anthracene	212		3.6	7.23	ug/Kg
Benzo(a)pyrene	199		3.6	7.23	ug/Kg
Benzo(b)fluoranthene	315		3.6	7.23	ug/Kg
Benzo(g,h,i)perylene	118		3.6	7.23	ug/Kg
Benzo(k)fluoranthene	221		3.6	7.23	ug/Kg
Benzoic Acid	92.9		18	36.2	ug/Kg
Benzyl Alcohol		<MDL	3.6	7.23	ug/Kg
Benzyl Butyl Phthalate	31.5		1.8	3.62	ug/Kg
Bis(2-Ethylhexyl)Phthalate	342		7.2	14.5	ug/Kg
Carbazole	30.2		3.6	7.23	ug/Kg
Chrysene	277		3.6	7.23	ug/Kg
Coprostanol	443		72	145	ug/Kg
Dibenzo(a,h)anthracene	42.3		3.6	7.23	ug/Kg
Dibenzofuran	7.76		3.6	7.23	ug/Kg
Diethyl Phthalate		<MDL	7.2	14.5	ug/Kg
Dimethyl Phthalate		<MDL	7.2	14.5	ug/Kg
Di-N-Butyl Phthalate	15.2		7.2	14.5	ug/Kg
Di-N-Octyl Phthalate		<MDL	7.2	14.5	ug/Kg

# King County Environmental Lab Analytical Report

**Appendix C6 - 2007  
Perimeter Stations**

Locator: DUD\_13C  
 Descrip: Perimeter Station  
 Sampled: 4/4/2007  
 Lab ID: L42275-9  
 Matrix: SALTWTRSED  
 % Solids: 55.3

Parameters	Value	Qual	MDL	RDL	Units
<b>COMBINED LABS</b>					
Fluoranthene	335		3.6	7.23	ug/Kg
Fluorene	18.4		3.6	7.23	ug/Kg
Hexachlorobenzene		<MDL	0.18	0.362	ug/Kg
Hexachlorobutadiene		<MDL	0.9	1.81	ug/Kg
Hexachloroethane		<MDL	1.8	3.62	ug/Kg
Indeno(1,2,3-Cd)Pyrene	120		3.6	7.23	ug/Kg
Naphthalene	5.1	<RDL	3.6	7.23	ug/Kg
N-Nitrosodiphenylamine		<MDL	7.2	14.5	ug/Kg
Pentachlorophenol		<MDL	18	36.2	ug/Kg
Phenanthrene	126		3.6	7.23	ug/Kg
Phenol		<MDL	7.2	14.5	ug/Kg
Pyrene	342		3.6	7.23	ug/Kg
Total HPAHS	2170		3.6	7.23	ug/Kg
Total LPAHs	239		3.6	7.23	ug/Kg
<b>M=OR EPA 8081A/8082 (7-3-03-002)</b>					
4,4'-DDD		<MDL,H	1.2	2.41	ug/Kg
4,4'-DDE		<MDL,H	1.2	2.41	ug/Kg
4,4'-DDT		<MDL,E,H	1.2	2.41	ug/Kg
Aldrin		<MDL,H	1.2	2.41	ug/Kg
Alpha-BHC		<MDL,H	0.6	1.21	ug/Kg
Alpha-Chlordane		<MDL,H	0.6	1.21	ug/Kg
Aroclor 1016		<MDL,H,TA	63	128	ug/Kg
Aroclor 1221		<MDL,H	3.1	6.02	ug/Kg
Aroclor 1232		<MDL,H,TA	120	241	ug/Kg
Aroclor 1242		<MDL,H,TA	180	365	ug/Kg
Aroclor 1248	99.5	H	1.5	3.02	ug/Kg
Aroclor 1254	152	H	1.5	3.02	ug/Kg
Aroclor 1260	119	H,L,E	1.5	3.02	ug/Kg
Beta-BHC		<MDL,H	0.6	1.21	ug/Kg
Delta-BHC		<MDL,H	0.6	1.21	ug/Kg
Dieldrin		<MDL,H	1.2	2.41	ug/Kg
Endosulfan I		<MDL,H	1.2	2.41	ug/Kg
Endosulfan II		<MDL,H	1.2	2.41	ug/Kg
Endosulfan Sulfate		<MDL,H	1.2	2.41	ug/Kg
Endrin		<MDL,H	1.2	2.41	ug/Kg
Endrin Aldehyde		<MDL,H	1.2	2.41	ug/Kg
Gamma-BHC (Lindane)		<MDL,H	0.6	1.21	ug/Kg
Gamma-Chlordane		<MDL,H	0.6	1.21	ug/Kg
Heptachlor		<MDL,H	0.6	1.21	ug/Kg
Heptachlor Epoxide		<MDL,H	0.6	1.21	ug/Kg
Methoxychlor		<MDL,E,H	6	12.1	ug/Kg
Toxaphene		<MDL,H	12	24.1	ug/Kg

\* Not converted to dry weight basis for this parameter