Appendix A: KCEL Lab QA 1 Reports

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KING COUNTY ENVIRONMENTAL LABORATORY
QUALITY ASSURANCE REVIEW

For

Denny Way CSO and Elliott West CSO
Storage and Treatment Facility
Post-Operation Sediment Monitoring
Year One - 2006

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INTRODUCTION

This quality assurance (QA) narrative is intended to document the QA review conducted on the chemistry analyses performed for the Denny Way CSO and Elliott West CSO Storage and Treatment Facility, Post-operation Sediment Monitoring, Year One - 2006. The QA narrative is organized into the five sections listed below.

- General Comments
- Sample Collection
- Conventional Analyses
- Metal Chemistry
- Organic Chemistry

An overview of the approach used for the QA review is detailed in the *General Comments* section. Additional information specific to each analysis is included in the appropriate analytical section.

This QA review and narrative (specifically defined as QA1) have been conducted in accordance with guidelines established through the Puget Sound Dredged Disposal Analysis (PSDDA) program, Sediment Management Standards (WAC 173-204-610) and the Sediment Sampling and Analysis Appendix (SAPA), WDOE 2003. Other approaches incorporated in the QA review have been established through collaboration between the King County Environmental Laboratory (KC Laboratory) and the Washington State Department of Ecology (Ecology) Sediment Management Unit.

GENERAL COMMENTS

Scope of Samples Submitted
This QA review is associated with marine sediment samples collected on April 17, 18 and 19, 2006 as part of the Denny Way CSO and Elliott West CSO Storage and Treatment Facility, Post-operation Sediment Monitoring, Year One - 2006.

Except where noted in the subcontracting sections of this QA review, all analyses have been conducted by the King County Environmental Laboratory (KCEL). Sediment analytical data are reported with associated data qualifiers and have undergone QA1 review, as summarized in this narrative report.

Completeness
Completeness has been evaluated for this data submission and QA review by considering the following criteria:

- Comparing reported data to the planned project analyses summarized in Table 1.
- Compliance with storage conditions and holding times.
- Frequency of analysis of the complete set of quality control (QC) samples outlined in Table 2.

Subcontracted Analyses
Analyses that have been subcontracted and the issues associated with these subcontracted analyses are noted in this narrative.

Methods
Analytical methods are noted in the applicable analytical sections of this QA review.

Target Lists
The reported target lists have been compared to the target analytes listed in *Table 1 - Marine Sediment Quality Standards Chemical Criteria* and *Table 3 - Puget Sound Marine Sediment Cleanup Screening Levels Chemical Criteria* contained in Chapter 173-204 WAC.

Detection Limits
As part of the QA1 review, the detection limits reported for each parameter have been reviewed against the detection limit requirements defined in the SAP. When sample results have been reported as less than the Method Detection Limit (<MDL) and the associated detection limits are higher than those defined in the SAP, the particular samples and parameters have been identified and the circumstances explained. These summaries are included with each analytical section of this QA review.

The KC Laboratory reports include both the reporting detection limit (RDL) and the method detection limit (MDL) for each sample and parameter, where applicable. The RDL is defined as *the minimum concentration of a chemical constituent that can be reliably quantified* while the MDL is defined as *the minimum concentration of a chemical constituent that can be detected*. Some subcontracted laboratory data are available with an MDL only, in accordance with the subcontracting laboratory policies. For some methods the detection limits reported may vary from sample to sample depending on the amount of sample analyzed and any additional dilutions required.

Storage Conditions and Holding Times
Storage conditions and holding times have been evaluated using guidelines defined in the project SAP. Preparation and analysis holding times for each method are summarized in each analytical section.

Method Blanks
Method blank results have been used to evaluate the possible laboratory contamination of samples. Method blank results have been reviewed for the presence of analytes detected at or greater than the MDL. For analytes where the method blank response was at or above the MDL all associated sample results have been qualified with a B flag.

Standard Reference Materials
Standard reference material (SRM) recoveries have been used to evaluate possible low or high analytical bias on a batch-specific basis. SRM analysis is included with metals and selected organic and conventional parameters (see Table 2). SRMs are purchased from outside agencies (NIST or NRCC) and must have a certified analyte value in order for a particular parameter to be evaluated. All associated sample results for the certified analytes are flagged if the SRM recoveries are unacceptable. Associated sample results are flagged with an L whenever recoveries are measured above the acceptance limits and are flagged with a G when recoveries are measured below the acceptance limits.

Matrix Spikes
Matrix spike recoveries have been used to evaluate possible low or high analytical bias on a matrix and batch-specific basis. Matrix spikes are analyzed with metals, organics and selected conventionals parameters (see Table 2). Associated sample results are flagged with an L whenever recoveries are measured above the acceptance limits and are flagged with a G when recoveries are measured below the acceptance limits (but at or above 10%). Associated results are flagged with an X whenever recoveries are less than 10%.

For Metals only, matrix spike recovery results are used to qualify sample data only when the sample levels in the spiked sample are less than 4 times the spiked concentration. High sample levels relative to the spiked concentration can compromise the measurement of accurate spike recoveries.

Laboratory Replicate Samples
Replicate analysis (laboratory duplicates or triplicates) is used as an indicator of method precision and is used to qualify data on an analyte and batch-specific basis. Not all replicate data are used, however, as an indicator for data qualification. Only sets of replicate results which include at least one result greater than the RDL are considered for data qualification. These guidelines have been used to account for the fact that precision obtained near the detection limit is not representative of precision obtained throughout the entire analytical range. Associated results are flagged with an E whenever the measured precision is unacceptable (greater than the acceptance limit).

Surrogates
Surrogate recoveries have been used to evaluate possible low or high analytical bias on a sample-specific basis. Surrogates are only analyzed for organic parameters. Individual sample results are flagged with an L whenever recoveries are measured above the acceptance limits and are flagged with a G when recoveries are measured below the acceptance limits (but at or above 10%). Associated results are flagged with an X whenever recoveries are less than 10%.

Data Qualifiers
The data qualification guidelines described above has been summarized in Table 3. This table conforms to the guidelines in the current SAPA and also shows the data qualifiers used for the Sedqual electronic data format.

Units and Significant Figures
Units and the reporting basis vary, depending on the parameter and are explained in the analytical sections below. Data generally have been reported to three significant figures if above the RDL and two significant figures if equal to or below the RDL.

SAMPLE COLLECTION

This section describes sampling activities associated with the collection of 16 saltwater/marine sediment samples on April 17, 18, 19, 2006. All sampling activities were conducted following guidance suggested in the Puget Sound Protocols (PSEP, 1996 and 1998).

Sampling Locations and Station Positioning

Sampling locations (stations) were selected and the prescribed coordinates determined prior to field activities. Stations were selected to match existing stations from the Pre-Construction monitoring program. The prescribed station coordinates are presented in the following table. Also presented in the table are the actual coordinates recorded during sampling activities. All station coordinates are recorded in state plane coordinate system North American Datum 1983 (NAD83).

Lab Number	Locator	Cast #	# Grabs Accepted	Prescribed Northing	Actual Northing	Prescribed Easting	Actual Easting
L38758-1	DWMP-01			228813		1264047	
		1	1		228807		1264055
		2	1		228823		1264053
		3	2		228820		1264042
		4	2		228815		1264054
L38758-2	DWMP-02			228770		1263919	
		1	2		228768		1263921
		2	2		228766		1263917
		3	2		228762		1263921
		4	1		228770		1263926
L38758-3	DWMP-03			228638		1263846	
		1	2		228643		1263845
		2	2		228639		1263849
		3	2		228640		1263848
L38758-4	DWMP-04			228546		1263631	
		1	2		228540		1263625
		2	1		228551		1263621
		3	2		228551		1263632
		4	1		228548		1263636
L38758-5	DWMP-05			229041		1263836	
		1	2		229035		1263835
		2	1		229051		1263841
		3	1		229031		1263833
		4	2		229040		1263824
		5	1		229032		1263822
L38758-6	DWMP-06			228839		1263542	
		1	2		228834		1263545
		2	2		228839		1263543
		3	2		228839		1263539
L38758-7	DWMP-07			228660		1263350	
		1	2		228663		1263354
		2	2		228658		1263358
		3	2		228663		1263352
L38758-8	DWMP-08			228907		1263341	
		1	2		228903		1263343
		2	2		228915		1263341
		3	2		228904		1263352

L38758-9	DWMP-09			228806		1263215	
		1	2		228805		1263214
		2	2		228807		1263217
		3	2		228803		1263217
L38758-10	DWMP-10			229326		1263565	
		1	2		229325		1263566
		2	1		229334		1263562
		3	2		229330		1263559
		4	2		229326		1263562
L38758-11	DWMP-11			229156		1263272	
		1	2		229146		1263261
		2	2		229154		1263272
		3	2		229155		1263274
L38758-12	DWMP-12			228963		1263055	
		1	2		228968		1263060
		2	2		228967		1263055
		3	2		228961		1263054
L38758-13	DWMP-13(offset to avoid rocks)			229640		1263317	
		1	2		229642		1263300
		2	1		229641		1263309
		3	1		229689		1263267
		4	1		229683		1263269
		5	1		229716		1263258
		6	2		229704		1263253
L38758-14	DWMP-14			229553		1263228	
		1	2		229554		1263236
		2	2		229558		1263236
		3	2		229555		1263237
L38758-15	DWMP-15			229444		1263053	
		1	2		229447		1263058
		2	2		229447		1263057
		3	2		229445		1263059
L38758-16	DWMP-16			229353		1262966	
		1	2		229353		1262967
		2	2		229353		1262976
		3	2		229355		1262968

Sediment grab samples were collected from the King County research vessel *Liberty*, which is equipped with a differential global positioning system (DGPS). Field coordinates were recorded using DGPS for each deployment of the sampler as it contacted the sediment. All field coordinates for individual grabs listed in the above table are within the +/- 6 meter accuracy limits, as defined in the SAP. Sample collection for location DWMP-13 was offset greater than the 6 meter limit due to the presence of large rocks in the prescribed coordinate location.

Sample Description Table

Lab Sample #	Locator	Sample Collection	Average Sediment Sampling Depth (cm)	Sample Usage
L39758-1	DWMP-01	Surface Grabs	14	Chemistry & Benthic Taxonomy
L39758-2	DWMP-02	Surface Grabs	9	Chemistry & Benthic Taxonomy
L39758-3	DWMP-03	Surface Grabs	17	Chemistry & Benthic Taxonomy
L39758-4	DWMP-04	Surface Grabs	15	Chemistry & Benthic Taxonomy
L39758-5	DWMP-05	Surface Grabs	6	Chemistry & Benthic Taxonomy
L39758-6	DWMP-06	Surface Grabs	17	Chemistry & Benthic Taxonomy
L39758-7	DWMP-07	Surface Grabs	16	Chemistry & Benthic Taxonomy
L39758-8	DWMP-08	Surface Grabs	17	Chemistry & Benthic Taxonomy
L39758-9	DWMP-09	Surface Grabs	17	Chemistry & Benthic Taxonomy
L39758-10	DWMP-10	Surface Grabs	8	Chemistry & Benthic Taxonomy
L39758-11	DWMP-11	Surface Grabs	14	Chemistry & Benthic Taxonomy
L39758-12	DWMP-12	Surface Grabs	17	Chemistry & Benthic Taxonomy
L39758-13	DWMP-13	Surface Grabs	6	Chemistry & Benthic Taxonomy
L39758-14	DWMP-14	Surface Grabs	14	Chemistry & Benthic Taxonomy
L39758-15	DWMP-15	Surface Grabs	13	Chemistry & Benthic Taxonomy
L39758-16	DWMP-16	Surface Grabs	13	Chemistry & Benthic Taxonomy

Sample Collection

Sediment was collected at each station using a stainless steel, modified, 0.1 m^2 Van Veen grab sampler deployed via hydrowire. For each acceptable deployment, between 6-17 cm of sediment was recovered, allowing subsampling from the top 2 cm. Multiple sampler deployments were needed to collect sufficient sample volume to perform all chemistry analyses. Benthic taxonomy samples were obtained using the entire contents of an individual Van Veen sampler. Triplicate samples for taxonomy were collected at each station.

Water depth at the 16 subtidal cap sample stations ranged between 4 and 33 meters (not corrected for tide).

Sample Handling

Approximately equal amounts of sediment were subsampled from the separate grabs used for chemistry testing. For chemistry testing, 2 cm aliquots, as measured from the sediment surface, were collected using a 200 cm2 "cookie cutter" and stainless steel spatula. Each of the aliquots

was placed into a separate stainless-steel bowl, covered with foil between grab deployments. After collecting all aliquots from various grabs, the sediment in each bowl was thoroughly homogenized and split out into pre-labeled containers. Sample containers were supplied by the King County Environmental Laboratory and were pre-cleaned according to analytical specifications.

Benthic taxonomy samples were screened with a 1.0-millimeter mesh. The sample left over after screening was transferred to a labeled plastic jar and preserved with a 10% buffered formalin solution. Samples were re-screened within three days into a final storage solution of 70% ethanol.

Decontamination

Individual sets of the subsampling and mixing equipment were dedicated to each station, precluding the need for decontamination of the field gear. The Van Veen grab sampler was decontaminated between stations by scrubbing with a brush and ambient seawater, followed by a thorough *in situ* rinsing.

Sample Storage and Preservation

Samples were stored in ice-filled coolers from the time of collection until delivery to the King County Environmental Laboratory. Samples were delivered under chain-of-custody and were maintained as such throughout the analytical process. Samples were stored frozen (-18°C) by the laboratory until analysis with the exception of samples for particle size distribution (PSD), VOA and Total Sulfide analysis. For these 3 methods, samples were stored refrigerated at approximately 4°C. A more complete description of sample handling and storage can be found in each analytical chemistry section of this narrative.

Copies of chain-of-custody forms and field notes are included as an appendix to this QA review narrative. The collect times for individual samples are defined as the time of contact of the sampling device with the sediment for each initial grab.

CONVENTIONAL ANALYSES

Completeness
Conventional data are reported for all samples and parameters summarized in Table 1. These samples were analyzed in association with the complete set of QC samples outlined in Table 2.

Subcontracted Analyses
All analyses were performed at the King County Environmental Lab.

Methods
Ammonia analysis was performed in accordance with Standard Method (SM)4500-NH3-G following a KCl extraction (Plumb, 1981). PSD analysis was performed in accordance with ASTM and Puget Sound Protocols methodologies (*Recommended Protocols for Measuring Conventional Sediment Variables in Puget Sound* - page 9 - PSEP, 1986). TOC analysis was performed in accordance with SM5310-B and EPA 9060. Total solids and total volatile solids analyses were performed in accordance with SM2540-G. Total sulfide analysis was performed in accordance with EPA 376.2 / SM4500S2-D and Plumb, 1981.

Detection Limits
The detection limits (MDLs) reported for Conventionals parameters are all within the requirements defined in the SAP, except for the following:

Parameter (mg/Kg)	Sample ID#	SAP MDL (dry wt.)	Reported MDL (dry wt.)	Reason for higher MDL Value
Total Sulfide	L38758-1,3,5,6,8,9 to 13, 16	1.0	(1)	Sample dilutions and totals solids values below 50%.
Total Organic Carbon	L38758-1 to 12, 14	1000	(1)	Reduced sample size analyzed and totals solids values below 50%..
Ammonia Nitrogen	L38758-1 to 16	0.2	(1)	Sample dilutions and totals solids values below 50%.

(1) See attached SAP MDL Comparison table
In all cases where the reported MDL was higher than the SAP MDL, a detectable level was measured, therefore project objectives were met.

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied. This may not apply to subcontracted data.

In the Comprehensive Report attached, Conventionals parameters are reported in mg/Kg, dry weight basis, for TOC, ammonia, Total Sulfide and Total Volatile Solids. Particle Size Distribution (PSD) and Total Solids are reported in percent, wet weight basis. For all parameters, the MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times

Sample storage conditions and holding times have been evaluated using guidelines established in the SAP. The dates and holding time criteria for the actual storage conditions used for conventional analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Prep Date	Date Analyzed	Sample Holding Time	Extract Holding Time
Ammonia	L38758-1,2,3,5,6, 8,9	17-Apr-2006	24-Apr-2006	25-Apr-2006	6 months at -18°C	14 days at -18°C
	L38758-10,11,13 to 16	18-Apr-2006	24-Apr-2006	25-Apr-2006		
	L38758-4,7,12	19-Apr-2006	24-Apr-2006	25-Apr-2006		
Particle Size Distribution	L38758-1	17-Apr-2006	05-Jun-2006	13-Jun-2006	6 months at 4°C	NA
	L38758-2,3,5,6,8,9	17-Apr-2006	05-Jun-2006	06-Jun-2006		
	L38758-10	18-Apr-2006	05-Jun-2006	06-Jun-2006		
	L38758-11,13,15,16	18-Apr-2006	06-Jun-2006	07-Jun-2006		
	L38758-14	18-Apr-2006	06-Jun-2006	13-Jun-2006		
	L38758-4	19-Apr-2006	05-Jun-2006	13-Jun-2006		
	L38758-7	19-Apr-2006	05-Jun-2006	06-Jun-2006		
	L38758-12	19-Apr-2006	06-Jun-2006	07-Jun-2006		
Total Organic Carbon	L38758-1,2,3,5,6	17-Apr-2006	15-May-2006	07-Jun-2006	6 months at -18°C	6 months at -18°C
	L38758-8	17-Apr-2006	15-May-2006	08-Jun-2006		
	L38758-9	17-Apr-2006	22-May-2006	08-Jun-2006		
	L38758-10,11	18-Apr-2006	22-May-2006	08-Jun-2006		
	L38758-13 to 16	18-Apr-2006	22-May-2006	09-Jun-2006		
	L38758-4	19-Apr-2006	15-May-2006	07-Jun-2006		
	L38758-7	19-Apr-2006	15-May-2006	08-Jun-2006		
	L38758-12	19-Apr-2006	22-May-2006	09-Jun-2006		
Total Solids	L38758-1,2,3,5,6,8	17-Apr-2006	15-May-2006	15-May-2006	6 months at -18°C	NA
	L38758-9	17-Apr-2006	22-May-2006	22-May-2006		
	L38758-10,11,13 to 16	18-Apr-2006	22-May-2006	22-May-2006		
	L38758-4,7	19-Apr-2006	15-May-2006	15-May-2006		
	L38758-12	19-Apr-2006	22-May-2006	22-May-2006		
Total Sulfide	L38758-1,2,3,5	17-Apr-2006	18-Apr-2006	18-Apr-2006	7 days at 4°C	NA
	L38758-6,8,9	17-Apr-2006	19-Apr-2006	19-Apr-2006		
	L38758-10	18-Apr-2006	19-Apr-2006	19-Apr-2006		
	L38758-11,13,14,15	18-Apr-2006	20-Apr-2006	20-Apr-2006		
	L38758-16	18-Apr-2006	21-Apr-2006	21-Apr-2006		
	L38758-4,7,12	19-Apr-2006	24-Apr-2006	24-Apr-2006		
Total Volatile Solids	L38758-1,2,3,5,6,8	17-Apr-2006	15-May-2006	15-May-2006	6 months at -18°C	NA
	L38758-9	17-Apr-2006	22-May-2006	22-May-2006		
	L38758-10,11,13 to 16	18-Apr-2006	22-May-2006	22-May-2006		
	L38758-4,7	19-Apr-2006	15-May-2006	15-May-2006		
	L38758-12	19-Apr-2006	22-May-2006	22-May-2006		

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks
Method blanks were analyzed in connection with ammonia nitrogen/solids/total sulfides/total organic carbon analyses. All method blanks results were less than the MDL.

Standard Reference Materials
An SRM (Buffalo River Sediment) was analyzed in connection with TOC analysis. The percent recovery for the SRM analysis was within the 80 to 120% QC limits.

Matrix Spikes
The matrix spike recovery for ammonia nitrogen and TOC were within the 75 to 125% acceptance limits. The matrix spike recovery for total sulfide was within the 65 to 135% acceptance limits. The acceptance limits are not applicable when the unspiked sample level is 4 times or greater than the spiked concentration.

Laboratory Replicate Samples
A set of laboratory triplicates was analyzed for each of the conventional parameters. The percent relative standard deviation (%RSD) for each triplicate set was less than or equal to the 20% acceptance limit, except for the following: the percent relative standard deviation (%RSD) results of the LT of L38758-3 for PSD in the gravel category.

Sample L38758-3 was analyzed in triplicate for PSD. The gravel category had a %RSD of 28%, outside the control limit of 20%. As a result, for samples L38758-1 to -16, the gravel category was 'E' qualified to indicate estimate values were reported. No further corrective action was taken for these samples since the gravel category represented less than 10% of the total PSD of L38758-3. In our opinion, the quality of the data is not affected since the gravel category represents a small fraction of the QC sample's PSD. Inherent variability in this method at low levels resulting in high %RSD values can be expected and does not necessarily indicate poor precision or poor method performance. However, the high %RSD does suggest that the gravel category represented too small a fraction of the sample's total PSD to be considered appropriate for evaluation against a 20% control limit.

METALS CHEMISTRY

Completeness
Metal chemistry data are reported for samples listed in Table 1 below. These samples were analyzed for mercury and other metals in association with the complete set of QC samples outlined in Table 2.

Subcontracted Analyses
All analyses were performed at the King County Environmental Lab.

Methods
Mercury analysis was performed in accordance with EPA Method 7471A. Analysis for other metals was performed in accordance with EPA method 3050/6010.

Target List
The reported target list includes all metals specified in *Table 1*. Additional metals have been reported as available.

Detection Limits
The detection limits (MDLs) reported for Metals parameters are all within the requirements defined in the SAP, except for the following:

Parameter (mg/Kg)	Sample ID#	SAP MDL (dry wt)	Reported MDL	Reason for higher MDL Value
Mercury	L38758-1,3,8,9,11,12,14	0.04	(1)	Total Solids less than 50%
Antimony	L38758-1,3,8,9,12,14	3.0	(1)	Total Solids less than 50%
Arsenic	L38758-1,3,8,9,12,14	5.0	(1)	Total Solids less than 50%
Cadmium	L38758-1,3,8,9,12,14	0.30	(1)	Total Solids less than 50%
Chromium	L38758-1,3,8,9,12,14	0.50	(1)	Total Solids less than 50%
Copper	L38758-1,3,8,9,12,14	0.40	(1)	Total Solids less than 50%
Lead	L38758-1,3,8,9,12,14	3.0	(1)	Total Solids less than 50%
Nickel	L38758-1,3,8,9,12,14	2.0	(1)	Total Solids less than 50%
Silver	L38758-1,3,8,9,12,14	0.4	(1)	Total Solids less than 50%
Zinc	L38758-1,3,8,9,12,14	0.5	(1)	Total Solids less than 50%

(1) See attached SAP MDL Comparison table

The elements in sample L38758-14 that appear to pass the SAP MDL limits due so because of rounding rules and the fact that the Total Solids is very close to 50% (49.4).

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for

results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied.

In the Comprehensive Report attached, Metals parameters are reported in mg/Kg, dry weight basis, for all elements. The MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times

Sample storage conditions and holding times have been evaluated using guidelines established in the SAPA (WDOE 2003). The dates and holding time criteria for the actual storage conditions used for metals analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Date Digested/Extracted	Date Analyzed	Sample Holding Time	Digestate/Extract Holding Time
Total Metals	L38758-1 to -16	17, 18, 19-Apr-06	02-May-06	03-May-06	2 Years at -18°C	6 months
Total Mercury	L38758-1 to -16	17, 18, 19-Apr-06	01-May-06	04-May-06	28 days at -18°C	NA

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks

Method blanks were analyzed for all metals parameters and all method blank results were less than the MDL.

Standard Reference Materials

The SRM analyzed in association with samples included in this data submission is PACS-2. This SRM is not certified for Silver, Aluminum, Beryllium, Iron or Thallium. Acceptance limits for the certified elements have been developed using historical lab data since the certified SRM values and limits were determined with different analysis techniques. SRM recoveries outside these lab-defined limits indicate the method has not performed as expected and the sample data have been flagged to indicate the expected bias.

All metals SRM recoveries were within the lab-defined limits indicated in the SAP.

Matrix Spikes

All matrix spike recoveries were within the 75 to 125% QC limits with the following exceptions: The acceptance limits are not applicable when the unspiked sample level is 4 times or greater than the spiked concentration.

The reported matrix spike recovery of 31% for antimony is less than the 75% QC limit. Antimony results for all samples in this data submission have been qualified with the *G* flag.

Laboratory Replicate Samples

A laboratory duplicate sample(s) was analyzed for each metals parameter. The relative percent differences (RPDs) for the laboratory duplicate for all metals at or above the RDL were less than or equal to the acceptance limit of 20%.

ORGANIC CHEMISTRY

Completeness
Organics data are reported for all samples and parameters summarized in Table 1. These samples were analyzed in association with the complete set of QC samples outlined in Table 2.

Methods
BNA analysis was performed in accordance with EPA method 8270. PCB and chlorinated pesticides analysis was performed in accordance with EPA methods 8082 and 8081A. Volatile Organic Analysis was performed in accordance with EPA Method 8260B.

Target List
The reported BNA target list includes all compounds specified in *Table 1 - Marine Sediment Quality Standards Chemical Criteria* and *Table 3 - Puget Sound Marine Sediment Cleanup Screening Levels Chemical Criteria* contained in Chapter 173-204 WAC with the exception of benzo(j)fluoranthene. The KC Laboratory has verified that analytical conditions are sufficient to calculate a total benzofluoranthene result using the reported *b* and *k* isomers.

Reported PCB data include Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.

Reported Volatile Organics include: 1,1,2-Trichloroethylene, Ethyl Benzene, Tetrachloroethylene and Total Xylenes.

Detection Limits, Units and Significant Figures
The detection limits (MDLs) reported for Organics parameters are all within the requirements defined in the SAP, except for the following:

BNA
The MDLs for all BNA parameters for Samples L38758-1 and -10 were greater than the wet weight SAP MDL levels due to dilutions required to minimize interferences from high levels of background hydrocarbons.

PCBs
The reported MDLs for Aroclors 1016, 1232 and 1242 in all samples were greater than the wet weight MDL values listed in the SAP. The reported MDLs for these Aroclors were elevated to compensate for overlap of PCB congeners from other Aroclors detected in the samples.

Chlorinated Pesticides
The reported MDLs for all Chlorinated Pesticides in all samples were greater than the wet weight MDL values listed in the SAP. The preparation method was modified for this set of samples such that 20 grams of material was extracted instead of the normal 30 and the final volume of extract was changed from 0.5 ml to 2.5 ml.

For Non-ionizable Organic parameters, MDL values were also converted to an Organic Carbon (OC) basis, using the TOC values determined for each sample. The attached SAP MDL Comparison tables list those samples where the reported MDL value did not meet the SAP requirements, when converted to an OC basis. These exceedances are summarized below:

BNAs
For nearly all the non-ionizable BNA parameters, the reported OC MDLs for Samples L38758-1 and -10 were greater than the OC MDL levels listed in the SAP. The reported OC MDLs for these two samples were elevated due to dilutions required, as stated above.

PCBs

The reported OC MDLs for Aroclors 1016, 1232 and 1242 in all samples were greater than the values listed in the SAP. As stated above, the MDLs were elevated to compensate for overlap of PCB congeners from other Aroclors detected in the samples.

Reporting Requirements (significant figures, units, basis and qualifiers)

For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied. This may not apply to subcontracted data.

In the Comprehensive Report attached, Organics parameters are reported in ug/Kg, dry weight basis. In this report format, non-ionizable organic parameters have not been converted to mg/Kg TOC. For all parameters, the MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times

Sample storage conditions and holding times have been evaluated using guidelines established in the SAPA (WDOE, 2003). The dates and holding time criteria for the actual storage conditions used for organics analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Date Extracted	Date Analyzed	Sample Holding Time	Extract Holding Time
BNAs	L38758-1 to 16	17, 18, 19-Apr-06	05-May-06	22, 30-May-06, 01-Jun-06	1 year at -18°C	40 days at 4°C
Chlorinated Pesticides	L38758-1 to 16	17, 18, 19-Apr-06	12-May-06	08, 09-Jun-06	1 year at -18°C	40 days at 4°C
PCBs	L38758-1 to 16	17, 18, 19-Apr-06	12-May-06	12,13-Jun-06	1 year at -18°C	40 days at 4°C
VOA	L38758-1, 6	17-Apr-06	NA	19-Apr-06	14 Days at 4°C	Same as sample
	L38758-3, 5, 8, 9	17-Apr-06	NA	18-Apr-06		
	L38758-2	17-Apr-06	NA	27-Apr-06		
	L38758-10, 11, 13 to 16	18-Apr-06	NA	19-Apr-06		
	L38758-4, 7, 12	19-Apr-06	NA	25-Apr-06		

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks

Method blanks were analyzed for all Organics parameters and all method blank results were less than the MDL, except as noted below:

1. BNAs

The method blank analyzed with BNAs for L38758 had a result above the MDL for Di-n-butyl phthalate (49.1 ug/Kg) and Bis(2-Ethylhexyl)Phthalate (6.2 ug/Kg). Sample results for Di-n-butyl phthalate and Bis(2-Ethylhexyl)Phthalate for that batch (L38758) have been qualified with the B

flag. All Di-n-butyl phthalate and Bis(2-Ethylhexyl)Phthalate results for these samples should be treated as estimated values.

Surrogate Recoveries

Surrogate recovery acceptance limits for sediment samples have been developed based on historical lab performance using the current analytical methods. The exceptions to this are the TPH methods (NWTPH-Dx, -Gx and -HCID) where method-defined surrogate acceptance limits must be applied. Recoveries measured above the acceptance limits are flagged with an L. Recoveries measured below the acceptance limits (but at or above 10%) are flagged with a G. Recoveries below 10% are flagged with an X. Surrogate recovery summaries for each method are shown below.

1. BNAs

For BNA sample data, surrogate recoveries are evaluated separately for the acid and base/neutral fractions. Within each fraction, 2 or more surrogates must be outside the acceptance limits in order to qualify the associated sample data. The following tables summarize the surrogate recoveries where multiple surrogates within a particular fraction are outside the QC limits and the appropriate flag applied. Only two samples, L38758-5 and L38758-10, had one failed surrogate each, 2,4,6-Tribromophenol. No flagging or corrective action was required.

2. PCBs

Sample data are qualified when individual surrogate recoveries are outside lab-specific acceptance limits. For each set of analyses, all surrogate recoveries were within the lab-specific acceptance limits for all samples in this data submission with the exception of Decachlorobiphenyl on sample L38758-1. Decachlorobiphenyl recovery was 346%, due to background interferences. All PCB results for sample L38758-1 have been flagged with an "L".

3. Chlorinated Pesticides

Sample data are qualified when individual surrogate recoveries are outside lab-specific acceptance limits. For each set of analyses, all surrogate recoveries were within the lab-specific acceptance limits for all samples in this data submission with the exception of Decachlorobiphenyl on sample L38758-1. Decachlorobiphenyl recovery was 676%, due to background interferences. All Chlorinated Pesticide results for sample L38758-1 have been flagged with an "L".

4. VOA

TPH sample data are qualified when individual surrogate recoveries are outside QC acceptance limits. For the VOA, at least one surrogate was within the lab-specific acceptance limits. All surrogates met the SAP specified limits.

Standard Reference Materials (SRMs)

The SRM results associated with these samples are summarized below, according to the analysis method. Acceptance limits for the certified parameters reported in this data set have been developed using historical lab data. SRM recoveries outside these lab-defined limits indicate the method has not performed as expected and the associated sample data have been flagged.

1. BNAs

The sediment SRM analyzed in association with the reported BNA results is 1944, certified by the National Institute of Standards and Technology (NIST). The certified organics parameters in SRM 1944 are only a partial list of all the BNA compounds reported in this analysis. All measured recoveries for this SRM were within acceptance limits for this data set.

2. PCBs and Chlorinated Pesticides

The sediment SRM analyzed in association with the reported Chlorinated Pesticides results is 1944, certified by the NIST. SRM 1944 contains certified levels of DDT and alpha Chlordane.

The sediment SRM analyzed in association with the reported PCB results is HS-2, certified by the National Research Council of Canada. SRM HS-2 contains Aroclor 1254. All measured recoveries for both SRMs were within acceptance limits.

A sediment SRM is not available for VOA.

Matrix Spikes

Matrix Spikes have been analyzed for each method. Recovery acceptance limits for each parameter in sediment have been developed based on historical lab performance using the current analytical methods. The acceptance limits are not applicable when the unspiked sample level was 4 times or greater than the spiked concentration. When applicable, matrix spike recoveries outside these lab-defined limits indicate the method has not performed as expected and the associated sample data have been flagged.

1. BNAs

Each of the reported BNA compounds was included in the matrix spike and measured recoveries for each were within their acceptance limits:

2. PCBs and Chlorinated Pesticides

Each of the reported Pesticide compounds was included in the Chlorinated Pesticide matrix spike. Aroclor 1260 and 1016 only are used as the spiking parameters for PCB matrix spike. The measured recovery for each spiked parameter was within their acceptance limits, except for the parameters listed in the table below:

	L38758-1 to 16	
Compound	**% Recovery**	**Flag**
Endrin Aldehyde	127	L
Methoxychlor	165	L

3. VOA

Each of the reported Volatile Organic Compounds (VOA) was included in the matrix spike. The measured recovery for each spiked parameter was within their acceptance limits.

Laboratory Replicate Samples

A laboratory duplicate sample(s) was analyzed for each Organics parameter. The relative percent differences (RPDs) for laboratory duplicate for all parameters at or above the RDL were less than or equal to the acceptance limit of 35%, except for the following:

1. BNAs

The RPD for Phenol for the duplicate analysis of Sample L38758-6 was 90%. All results for this parameter have been flagged with an "E" for Samples L38758-1 through –16.

2. Chlorinated Pesticides and PCBs

The RPD for Alpha-Chlordane for the duplicate analysis of Sample L38758-3 was 49%. All results for this parameter have been flagged with an "E" for Samples L38758-1 through –16.

Additional QA Issues:

PCB Analysis:

PCB data reported for this set of samples include numeric values for only those Aroclors that could be positively identified in each sample and were measured above the detection limit. Identification of Aroclors 1016, 1232 and 1242 was not possible for all samples (L38758-1 through –16) due to the overlap of the congeners from Aroclors 1248, 1254 and 1260. For those Aroclors where this overlap has occurred, the result is reported as <MDL with elevated MDL and

RDL values. The elevated MDL represents the maximum amount that would have been reported for that Aroclor had it been positively identified. The RDL value has also been elevated by the same proportion.

The table below lists the samples and affected Aroclors.

Lab Sample Number	PCB 1016	PCB 1232	PCB 1242
L38758-1	x	x	x
L38758-2	x		x
L38758-3	x	x	x
L38758-4	x	x	x
L38758-5	x	x	x
L38758-6	x	x	x
L38758-7	x	x	x
L38758-8	x	x	x
L38326-9	x	x	x
L38326-10	x	x	x
L38326-11	x	x	x
L38326-12	x	x	x
L38326-13	x	x	x
L38326-14	x	x	x
L38326-15	x	x	x
L38326-16	x	x	x

TABLE 1
SEDIMENT SAMPLE INVENTORY

Sample	Locator / Description (see SAP)	Sulfides	PSD	Nutrients[1]	Solids	TOC	Metals[2]	BNAs[3]	Pest/ PCBs	VOA	Comments
L39758-1	DWMP-01	X	X	X	X	X	X	X	X	X	
L39758-2	DWMP-02	X	X	X	X	X	X	X	X	X	
L39758-3	DWMP-03	X	X	X	X	X	X	X	X	X	
L39758-4	DWMP-04	X	X	X	X	X	X	X	X	X	
L39758-5	DWMP-05	X	X	X	X	X	X	X	X	X	
L39758-6	DWMP-06	X	X	X	X	X	X	X	X	X	
L39758-7	DWMP-07	X	X	X	X	X	X	X	X	X	
L39758-8	DWMP-08	X	X	X	X	X	X	X	X	X	
L39758-9	DWMP-09	X	X	X	X	X	X	X	X	X	
L39758-10	DWMP-10	X	X	X	X	X	X	X	X	X	
L39758-11	DWMP-11	X	X	X	X	X	X	X	X	X	
L39758-12	DWMP-12	X	X	X	X	X	X	X	X	X	
L39758-13	DWMP-13	X	X	X	X	X	X	X	X	X	
L39758-14	DWMP-14	X	X	X	X	X	X	X	X	X	
L39758-15	DWMP-15	X	X	X	X	X	X	X	X	X	
L39758-16	DWMP-16	X	X	X	X	X	X	X	X	X	

1 Nutrients = Ammonia
2 Metals = Hg, Sb, As, Cd, Cr, Cu, Pb, Ni, Ag, Zn
3 BNAs = includes Chlorobenzenes

TABLE 2
QC SAMPLE FREQUENCY FOR SEDIMENT CHEMICAL AND PHYSICAL PARAMETERS

Parameter	Method Blank	Duplicate	Triplicate	Matrix Spike	SRM	Surrogates
Ammonia Nitrogen	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	As Available	No
PSD	No	See Triplicate	5% minimum, 1 per QC batch	No	No	No
Total Solids & Volatile Solids	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	No	No	No
TOC	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	1 per QC batch	No
Sulfides	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	No	No
Metals	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	No
BNAs	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	Yes
PCBs/Chlorinated Pesticides	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	Yes
VOA	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	No	Yes

TABLE 3 - SUMMARY OF SEDIMENT DATA QUALIFIERS

Condition to Qualify	King County Data Qualifier	Sedqual Data Qualifier	Organic QC Limits	Metal QC Limits	Conventional QC Limits	Comment
very low matrix spike recovery	X	X	< 10 %	< 10 %	< 10 %	
low matrix spike recovery	G	G	Compound specific	< 75%	< 75% *	
high matrix spike recovery	L	L	Compound specific	>125%	>125% *	
low standard reference material recovery	G	G	Compound and SRM specific	Element and SRM specific	< 80%	
high standard reference material recovery	L	L	Compound and SRM specific	Element and SRM specific	>120%	
high duplicate relative percent difference	E	E	>35 %	>20%	NA	for organics and metals
high triplicate relative standard deviation	E	E	NA	NA	> 20%	for conventionals
less than the reporting detection limit	<RDL**	T	NA	NA	NA	
less than the method detection limit	<MDL	U	NA	NA	NA	
contamination detected in method blank	B	B	>/=MDL	>/=MDL	>/=MDL	
biased data based on very low surrogate recoveries	X	X	any surrogate <10%	NA	NA	
biased data based on low surrogate recoveries	G	G	Surrogate specific	NA	NA	At least 2 surrogates < limit for BNAs
biased data based on high surrogate recoveries	L	L	Surrogate specific	NA	NA	At least 2 surrogates > limit for BNAs
rejected - unusable for all purposes	R	J or Q	NA	NA	NA	
a sample handling criteria has not been met	H	H	NA	NA	NA	container, hold time, preservation
		-				

* 65% to 135% for Total Sulfides.

** For Sedqual files, <MDL uses a "U" flag, <RDL is not flagged since the RDL value is not included in the Sedqual templates generated by King County.

Sample Results Tables

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	Apr 17, 2006	Apr 17, 2006	Apr 17, 2006	Apr 19, 2006
Lab ID:	L38758-1	L38758-2	L38758-3	L38758-4
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	43.7	52.7	44.9	55.6

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		
COMBINED LABS																				
M=CV ASTM D422(03-02-005-001)																				
Clay *	13.4		0.5	1	%	7.1		0.5	1	%	9.9		0.5	1	%	16.3		0.5	1	%
Fines *	53.7		0.5	1	%	30.1		0.5	1	%	44.1		0.5	1	%	52.5		0.5	1	%
Gravel *	7.4	E	0.1	1	%	8.3	E	0.1	1	%	4.6	E	0.1	1	%	10.8	E	0.1	1	%
p+0.00 *	2.1		0.1	1	%	3.2		0.1	1	%	1.3		0.1	1	%	3.4		0.1	1	%
p+1.00 *	1.7		0.1	1	%	5.6		0.1	1	%	3.1		0.1	1	%	4.4		0.1	1	%
p+10.0(equal/more than) *	10.1		0.5	1	%	5.3		0.5	1	%	6.6		0.5	1	%	10		0.5	1	%
p+2.00 *	2.7		0.1	1	%	13.8		0.1	1	%	11.2		0.1	1	%	11.9		0.1	1	%
p+3.00 *	8.1		0.1	1	%	14.5		0.1	1	%	12		0.1	1	%	12.8		0.1	1	%
p+4.00 *	18.3		0.1	1	%	14.1		0.1	1	%	16.8		0.1	1	%	9.8		0.1	1	%
p+5.00 *	20.2		0.5	1	%	9.7		0.5	1	%	14.3		0.5	1	%	16.3		0.5	1	%
p+6.00 *	6.7		0.5	1	%	4.4		0.5	1	%	6.6		0.5	1	%	6.3		0.5	1	%
p+7.00 *	6.7		0.5	1	%	3.5		0.5	1	%	7.7		0.5	1	%	8.2		0.5	1	%
p+8.00 *	6.7		0.5	1	%	5.3		0.5	1	%	5.5		0.5	1	%	5.4		0.5	1	%
p+9.00 *	3.4		0.5	1	%	1.8		0.5	1	%	3.3		0.5	1	%	6.3		0.5	1	%
p-1.00 *	2.5		0.1	1	%	3.5		0.1	1	%	1.6		0.1	1	%	5.1		0.1	1	%
p-2.00 *	0.4	<RDL	0.1	1	%	1.6		0.1	1	%	1.2		0.1	1	%	1.3		0.1	1	%
p-2.00(less than) *	4.6		0.1	1	%	3.2		0.1	1	%	1.8		0.1	1	%	4.4		0.1	1	%
Sand *	32.9		0.1	1	%	51.1		0.1	1	%	44.4		0.1	1	%	42.2		0.1	1	%
Silt *	40.3		0.5	1	%	23		0.5	1	%	34.2		0.5	1	%	36.2		0.5	1	%
M=CV EPA 9030B (03-03-015-000)																				
Total Sulfide	49.9		2.3	9.15	mg/Kg		<MDL	0.95	3.8	mg/Kg	2.9	<RDL	1.1	4.45	mg/Kg	6.33		0.9	3.6	mg/Kg
M=CV EPA 9060-PSEP96 (03-04-002-003																				
Total Organic Carbon	35000		3000	5810	mg/Kg	11300		1600	3110	mg/Kg	14700		1600	3270	mg/Kg	8920		1300	2590	mg/Kg
M=CV SM2540-G (03-01-007-002)																				
Total Solids *	43.7		0.005	0.01	%	52.7		0.005	0.01	%	44.9		0.005	0.01	%	55.6		0.005	0.01	%
Total Volatile Solids	14.9		0.0114	0.0229	%	4.97		0.00949	0.019	%	6.55		0.0111	0.0223	%	4.66		0.00899	0.018	%
M=CV SM4500-NH3-G(03-03-014-001)KCL																				
Ammonia Nitrogen	6		1.1	2.29	mg/Kg	2.35		0.95	1.9	mg/Kg	2.52		1.1	2.23	mg/Kg	1.94		0.9	1.8	mg/Kg
M=ES NONE																				
Field Personnel	JP,JDD,JB,AF				none	JP,JDD,JB,AF				none	JP,JDD,JB,AF				none	BK,JP,SH,JB,AF				none
Sampcoordx1 *	1264055				ft	1263921				ft	1263845				ft	1263625				ft
Sampcoordx2 *	1264053				ft	1263917				ft	1263849				ft	1263621				ft
Sampcoordx3 *	1264042				ft	1263921				ft	1263848				ft	1263632				ft
Sampcoordx4 *	1264054				ft	1263926				ft						1263636				ft
Sampcoordx5 *																				
Sampcoordy1 *	228807				ft	228768				ft	228643				ft	228540				ft
Sampcoordy2 *	228823				ft	228766				ft	228639				ft	228551				ft
Sampcoordy3 *	228820				ft	228762				ft	228640				ft	228551				ft
Sampcoordy4 *	228815				ft	228770				ft						228548				ft
Sampcoordy5 *																				
Sample Depth *	9				m	12				m	15				m	25				m
Sample Start Time *	940				hr	1118				hr	1225				hr	848				hr

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	DWMP-01	DWMP-02	DWMP-03	DWMP-04
Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	Apr 17, 2006	Apr 17, 2006	Apr 17, 2006	Apr 19, 2006
Lab ID:	L38758-1	L38758-2	L38758-3	L38758-4
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	43.7	52.7	44.9	55.6

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		
COMBINED LABS																				
Sampling Method *	20042				none	20042				none	20042				none	20042				none
Sediment Sampling Depth *	14				cm	9				cm	17				cm	15				cm
Sediment Sampling Range *	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm
Sediment Type	23P21				none	23T21				none	20S21				none	20N20				none
Tidal Condition	E				none	E				none	S				none	E				none
Tide Height *	3				ft	0				ft	-1				ft	5				ft
M=MT EPA 7471A (06-01-004-003)																				
Mercury, Total, CVAA	0.602		0.048	0.471	mg/Kg	0.32	<RDL	0.038	0.374	mg/Kg	0.922		0.042	0.43	mg/Kg	0.32	<RDL	0.036	0.367	mg/Kg
M=MT EPA3050A/6010B (06-02-004-002)																				
Antimony, Total, ICP		<MDL,G	3.4	17.1	mg/Kg		<MDL,G	2.8	14.2	mg/Kg		<MDL,G	3.3	16.7	mg/Kg		<MDL,G	2.7	13.5	mg/Kg
Arsenic, Total, ICP	11	<RDL	5.7	28.6	mg/Kg	7.4	<RDL	4.7	23.7	mg/Kg	7.8	<RDL	5.6	27.8	mg/Kg	7.2	<RDL	4.5	22.5	mg/Kg
Cadmium, Total, ICP	1.2	<RDL	0.34	1.71	mg/Kg		<MDL	0.28	1.42	mg/Kg	0.47	<RDL	0.33	1.67	mg/Kg		<MDL	0.27	1.35	mg/Kg
Chromium, Total, ICP	46.9		0.57	2.86	mg/Kg	35.9		0.47	2.37	mg/Kg	37.6		0.56	2.78	mg/Kg	43.3		0.45	2.25	mg/Kg
Copper, Total, ICP	76.9		0.46	2.29	mg/Kg	43.3		0.38	1.89	mg/Kg	53.9		0.45	2.23	mg/Kg	42.8		0.36	1.8	mg/Kg
Lead, Total, ICP	119		3.4	17.1	mg/Kg	58.3		2.8	14.2	mg/Kg	70.2		3.3	16.7	mg/Kg	43.5		2.7	13.5	mg/Kg
Nickel, Total, ICP	38.9		2.3	11.4	mg/Kg	35.1		1.9	9.47	mg/Kg	35.6		2.2	11.1	mg/Kg	44.2		1.8	8.99	mg/Kg
Silver, Total, ICP	4.51		0.46	2.29	mg/Kg	0.7	<RDL	0.38	1.89	mg/Kg	1.6	<RDL	0.45	2.23	mg/Kg		<MDL	0.36	1.8	mg/Kg
Zinc, Total, ICP	141		0.57	2.86	mg/Kg	88		0.47	2.37	mg/Kg	106		0.56	2.78	mg/Kg	89.2		0.45	2.25	mg/Kg
M=OR EPA 3550B/8270C (7-3-01-004)																				
1,2,4-Trichlorobenzene		<MDL	6.2	12.2	ug/Kg		<MDL	0.51	1.01	ug/Kg		<MDL	0.6	1.19	ug/Kg		<MDL	0.49	0.959	ug/Kg
1,2-Dichlorobenzene		<MDL	6.2	12.2	ug/Kg		<MDL	0.51	1.01	ug/Kg		<MDL	0.6	1.19	ug/Kg		<MDL	0.49	0.959	ug/Kg
1,3-Dichlorobenzene		<MDL	6.2	12.2	ug/Kg		<MDL	0.51	1.01	ug/Kg		<MDL	0.6	1.19	ug/Kg		<MDL	0.49	0.959	ug/Kg
1,4-Dichlorobenzene		<MDL	6.2	12.2	ug/Kg		<MDL	0.51	1.01	ug/Kg		<MDL	0.6	1.19	ug/Kg		<MDL	0.49	0.959	ug/Kg
2,4-Dimethylphenol		<MDL	62	122	ug/Kg		<MDL	5.1	10.1	ug/Kg		<MDL	6	11.9	ug/Kg		<MDL	4.9	9.59	ug/Kg
2-Methylnaphthalene		<MDL	62	122	ug/Kg	12.4		5.1	10.1	ug/Kg	11	<RDL	6	11.9	ug/Kg	24.5		4.9	9.59	ug/Kg
2-Methylphenol		<MDL	120	245	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	12	23.8	ug/Kg		<MDL	9.5	19.2	ug/Kg
4-Methylphenol		<MDL	120	245	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	12	23.8	ug/Kg		<MDL	9.5	19.2	ug/Kg
Acenaphthene	100	<RDL	62	122	ug/Kg	41.9		5.1	10.1	ug/Kg	27.8		6	11.9	ug/Kg	148		4.9	9.59	ug/Kg
Acenaphthylene	85	<RDL	62	122	ug/Kg	41		5.1	10.1	ug/Kg	34.5		6	11.9	ug/Kg	41.2		4.9	9.59	ug/Kg
Anthracene	1370		62	122	ug/Kg	179		5.1	10.1	ug/Kg	188		6	11.9	ug/Kg	408		4.9	9.59	ug/Kg
Benzo(a)anthracene	3460		62	122	ug/Kg	412		5.1	10.1	ug/Kg	443		6	11.9	ug/Kg	538		4.9	9.59	ug/Kg
Benzo(a)pyrene	4460		62	122	ug/Kg	476		5.1	10.1	ug/Kg	461		6	11.9	ug/Kg	540		4.9	9.59	ug/Kg
Benzo(b)fluoranthene	4260		62	122	ug/Kg	448		5.1	10.1	ug/Kg	492		6	11.9	ug/Kg	410		4.9	9.59	ug/Kg
Benzo(g,h,i)perylene	1900		62	122	ug/Kg	281		5.1	10.1	ug/Kg	267		6	11.9	ug/Kg	288		4.9	9.59	ug/Kg
Benzo(k)fluoranthene	4690		62	122	ug/Kg	565		5.1	10.1	ug/Kg	490		6	11.9	ug/Kg	545		4.9	9.59	ug/Kg
Benzoic Acid		<MDL	300	611	ug/Kg	128		25	50.7	ug/Kg	145		29	59.5	ug/Kg	109		23	48	ug/Kg
Benzyl Alcohol		<MDL	120	245	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	12	23.8	ug/Kg		<MDL	9.5	19.2	ug/Kg
Benzyl Butyl Phthalate	281		120	245	ug/Kg	60.5		10	20.3	ug/Kg	75.3		12	23.8	ug/Kg	59.5		9.5	19.2	ug/Kg
Bis(2-Ethylhexyl)Phthalate	1620	B	120	245	ug/Kg	349	B	10	20.3	ug/Kg	568	B	12	23.8	ug/Kg	315	B	9.5	19.2	ug/Kg
Caffeine		<MDL	120	245	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	12	23.8	ug/Kg		<MDL	9.5	19.2	ug/Kg
Carbazole	245		62	122	ug/Kg	61.7		5.1	10.1	ug/Kg	68.8		6	11.9	ug/Kg	78.4		4.9	9.59	ug/Kg
Chrysene	6610		62	122	ug/Kg	575		5.1	10.1	ug/Kg	626		6	11.9	ug/Kg	615		4.9	9.59	ug/Kg
Coprostanol		<MDL	1200	2450	ug/Kg		<MDL	100	203	ug/Kg		<MDL	120	238	ug/Kg		<MDL	95	192	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-01					DWMP-02					DWMP-03					DWMP-04				
Descrip:	DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI				
Sampled:	Apr 17, 2006					Apr 17, 2006					Apr 17, 2006					Apr 19, 2006				
Lab ID:	L38758-1					L38758-2					L38758-3					L38758-4				
Matrix:	SALTWTRSED					SALTWTRSED					SALTWTRSED					SALTWTRSED				
% Solids:	43.7					52.7					44.9					55.6				
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		
COMBINED LABS																				
Dibenzo(a,h)anthracene	652		62	122	ug/Kg	89.9		5.1	10.1	ug/Kg	84.4		6	11.9	ug/Kg	104		4.9	9.59	ug/Kg
Dibenzofuran	82	<RDL	62	122	ug/Kg	24.9		5.1	10.1	ug/Kg	20.5		6	11.9	ug/Kg	47.1		4.9	9.59	ug/Kg
Diethyl Phthalate		<MDL	120	245	ug/Kg	12	<RDL	10	20.3	ug/Kg		<MDL	12	23.8	ug/Kg		<MDL	9.5	19.2	ug/Kg
Dimethyl Phthalate		<MDL	120	245	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	12	23.8	ug/Kg		<MDL	9.5	19.2	ug/Kg
Di-N-Butyl Phthalate	249	B	120	245	ug/Kg	167	B	10	20.3	ug/Kg	214	B	12	23.8	ug/Kg	243	B	9.5	19.2	ug/Kg
Di-N-Octyl Phthalate		<MDL	120	245	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	12	23.8	ug/Kg		<MDL	9.5	19.2	ug/Kg
Fluoranthene	4550		62	122	ug/Kg	884		5.1	10.1	ug/Kg	824		6	11.9	ug/Kg	1070		4.9	9.59	ug/Kg
Fluorene	339		62	122	ug/Kg	65.5		5.1	10.1	ug/Kg	52.1		6	11.9	ug/Kg	163		4.9	9.59	ug/Kg
Hexachlorobenzene		<MDL	12	24.5	ug/Kg		<MDL	1	2.03	ug/Kg		<MDL	1.2	2.38	ug/Kg		<MDL	0.95	1.92	ug/Kg
Hexachlorobutadiene		<MDL	30	61.1	ug/Kg		<MDL	2.5	5.07	ug/Kg		<MDL	2.9	5.95	ug/Kg		<MDL	2.3	4.8	ug/Kg
Hexachloroethane		<MDL	30	61.1	ug/Kg		<MDL	2.5	5.07	ug/Kg		<MDL	2.9	5.95	ug/Kg		<MDL	2.3	4.8	ug/Kg
Indeno(1,2,3-Cd)Pyrene	1970		62	122	ug/Kg	262		5.1	10.1	ug/Kg	254		6	11.9	ug/Kg	275		4.9	9.59	ug/Kg
Naphthalene	66	<RDL	62	122	ug/Kg	15.4		5.1	10.1	ug/Kg	19.4		6	11.9	ug/Kg	25.2		4.9	9.59	ug/Kg
N-Nitrosodiphenylamine		<MDL	120	245	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	12	23.8	ug/Kg		<MDL	9.5	19.2	ug/Kg
Pentachlorophenol		<MDL	300	611	ug/Kg		<MDL	25	50.7	ug/Kg		<MDL	29	59.5	ug/Kg		<MDL	23	48	ug/Kg
Phenanthrene	2000		62	122	ug/Kg	565		5.1	10.1	ug/Kg	350		6	11.9	ug/Kg	1120		4.9	9.59	ug/Kg
Phenol		<MDL,E	120	245	ug/Kg		<MDL,E	10	20.3	ug/Kg	14	<RDL,E	12	23.8	ug/Kg	12	<RDL,E	9.5	19.2	ug/Kg
Pyrene	4050		62	122	ug/Kg	820		5.1	10.1	ug/Kg	762		6	11.9	ug/Kg	1190		4.9	9.59	ug/Kg
Total HPAHS	36600		62	122	ug/Kg	4820		5.1	10.1	ug/Kg	4700		6	11.9	ug/Kg	5580		4.9	9.59	ug/Kg
Total LPAHs	4000		62	122	ug/Kg	920		5.1	10.1	ug/Kg	682		6	11.9	ug/Kg	1920		4.9	9.59	ug/Kg
M=OR EPA 8081A/8082 (7-3-03-002)																				
4,4'-DDD	14.5	L	2.3	4.58	ug/Kg	3	<RDL	1.9	3.8	ug/Kg	11.1		2.2	4.45	ug/Kg	3.63		1.8	3.6	ug/Kg
4,4'-DDE		<MDL,L	2.3	4.58	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.2	4.45	ug/Kg		<MDL	1.8	3.6	ug/Kg
4,4'-DDT	27.2	L	2.3	4.58	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.2	4.45	ug/Kg		<MDL	1.8	3.6	ug/Kg
Aldrin		<MDL,L	2.3	4.58	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.2	4.45	ug/Kg		<MDL	1.8	3.6	ug/Kg
Alpha-BHC		<MDL,L	1.1	2.29	ug/Kg		<MDL	0.95	1.9	ug/Kg		<MDL	1.1	2.23	ug/Kg		<MDL	0.9	1.8	ug/Kg
Alpha-Chlordane	2.63	E,L	1.1	2.29	ug/Kg		<MDL,E	0.95	1.9	ug/Kg	2.27	E	1.1	2.23	ug/Kg		<MDL,E	0.9	1.8	ug/Kg
Aroclor 1016		<MDL,L,TA	59	119	ug/Kg		<MDL,TA	11	21.3	ug/Kg		<MDL,TA	21	42.5	ug/Kg		<MDL,TA	8.8	17.6	ug/Kg
Aroclor 1221		<MDL,L	5.7	11.4	ug/Kg		<MDL	4.7	9.49	ug/Kg		<MDL	5.6	11.1	ug/Kg		<MDL	4.5	8.99	ug/Kg
Aroclor 1232		<MDL,L,TA	110	231	ug/Kg		<MDL	4.7	9.49	ug/Kg		<MDL,TA	33	68.8	ug/Kg		<MDL,TA	22	41.4	ug/Kg
Aroclor 1242		<MDL,L,TA	190	387	ug/Kg		<MDL,TA	28	56.2	ug/Kg		<MDL,TA	60	118	ug/Kg		<MDL,TA	31	60.3	ug/Kg
Aroclor 1248	132	L	3	5.72	ug/Kg	19.5		2.5	4.74	ug/Kg	51		2.9	5.57	ug/Kg	19.8		2.3	4.5	ug/Kg
Aroclor 1254	240	L	3	5.72	ug/Kg	58.4		2.5	4.74	ug/Kg	138		2.9	5.57	ug/Kg	62.2		2.3	4.5	ug/Kg
Aroclor 1260	162	L	3	5.72	ug/Kg	56.9		2.5	4.74	ug/Kg	97.3		2.9	5.57	ug/Kg	57.4		2.3	4.5	ug/Kg
Beta-BHC		<MDL,L	1.1	2.29	ug/Kg		<MDL	0.95	1.9	ug/Kg		<MDL	1.1	2.23	ug/Kg		<MDL	0.9	1.8	ug/Kg
Delta-BHC		<MDL,L	1.1	2.29	ug/Kg		<MDL	0.95	1.9	ug/Kg		<MDL	1.1	2.23	ug/Kg		<MDL	0.9	1.8	ug/Kg
Dieldrin		<MDL,L	2.3	4.58	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.2	4.45	ug/Kg		<MDL	1.8	3.6	ug/Kg
Endosulfan I		<MDL,L	2.3	4.58	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.2	4.45	ug/Kg		<MDL	1.8	3.6	ug/Kg
Endosulfan II		<MDL,L	2.3	4.58	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.2	4.45	ug/Kg		<MDL	1.8	3.6	ug/Kg
Endosulfan Sulfate		<MDL,L	2.3	4.58	ug/Kg		<MDL,L	1.9	3.8	ug/Kg		<MDL,L	2.2	4.45	ug/Kg		<MDL,L	1.8	3.6	ug/Kg
Endrin		<MDL,L	2.3	4.58	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.2	4.45	ug/Kg		<MDL	1.8	3.6	ug/Kg
Endrin Aldehyde		<MDL,L	4.6	9.15	ug/Kg		<MDL	3.8	7.59	ug/Kg		<MDL	4.5	8.91	ug/Kg		<MDL	3.6	7.19	ug/Kg
Gamma-BHC (Lindane)		<MDL,L	1.1	2.29	ug/Kg		<MDL	0.95	1.9	ug/Kg		<MDL	1.1	2.23	ug/Kg		<MDL	0.9	1.8	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	Locator:	DWMP-01					Locator:	DWMP-02					Locator:	DWMP-03					Locator:	DWMP-04				
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
	Sampled:	Apr 17, 2006					Sampled:	Apr 17, 2006					Sampled:	Apr 17, 2006					Sampled:	Apr 19, 2006				
	Lab ID:	L38758-1					Lab ID:	L38758-2					Lab ID:	L38758-3					Lab ID:	L38758-4				
	Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED				
	% Solids:	43.7					% Solids:	52.7					% Solids:	44.9					% Solids:	55.6				
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		
COMBINED LABS																				
Gamma-Chlordane		<MDL,L	1.1	2.29	ug/Kg		<MDL	0.95	1.9	ug/Kg		<MDL	1.1	2.23	ug/Kg		<MDL	0.9	1.8	ug/Kg
Heptachlor		<MDL,L	1.1	2.29	ug/Kg		<MDL	0.95	1.9	ug/Kg		<MDL	1.1	2.23	ug/Kg		<MDL	0.9	1.8	ug/Kg
Heptachlor Epoxide		<MDL,L	1.1	2.29	ug/Kg		<MDL	0.95	1.9	ug/Kg		<MDL	1.1	2.23	ug/Kg		<MDL	0.9	1.8	ug/Kg
Methoxychlor		<MDL,L	11	22.9	ug/Kg		<MDL,L	9.5	19	ug/Kg		<MDL,L	11	22.3	ug/Kg		<MDL,L	9	18	ug/Kg
Toxaphene		<MDL,L	23	45.8	ug/Kg		<MDL	19	38	ug/Kg		<MDL	22	44.5	ug/Kg		<MDL	18	36	ug/Kg
M=OR EPA 8260B (7-3-02-002)																				
1,1,2-Trichloroethylene		<MDL	2.3	4.58	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.2	4.45	ug/Kg		<MDL	1.8	3.6	ug/Kg
Ethylbenzene		<MDL	2.3	4.58	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.2	4.45	ug/Kg		<MDL	1.8	3.6	ug/Kg
Tetrachloroethylene		<MDL	2.3	4.58	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.2	4.45	ug/Kg		<MDL	1.8	3.6	ug/Kg
Total Xylenes		<MDL	2.3	4.58	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.2	4.45	ug/Kg		<MDL	1.8	3.6	ug/Kg

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	DWMP-05	DWMP-06	DWMP-07	DWMP-08
Locator:	DWMP-05	DWMP-06	DWMP-07	DWMP-08
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	Apr 17, 2006	Apr 17, 2006	Apr 19, 2006	Apr 17, 2006
Lab ID:	L38758-5	L38758-6	L38758-7	L38758-8
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	75.4	51.8	52.6	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		
COMBINED LABS																				
M=CV ASTM D422(03-02-005-001)																				
Clay *	0.7	<RDL	0.5	1	%	6.6		0.5	1	%	7.1		0.5	1	%	8.4		0.5	1	%
Fines *	2.8		0.5	1	%	28.1		0.5	1	%	36.3		0.5	1	%	43.1		0.5	1	%
Gravel *	62.5	E	0.1	1	%	1.2	E	0.1	1	%	8.1	E	0.1	1	%	5.8	E	0.1	1	%
p+0.00 *	12.9		0.1	1	%	1.7		0.1	1	%	2.6		0.1	1	%	4.1		0.1	1	%
p+1.00 *	7		0.1	1	%	9.2		0.1	1	%	4.4		0.1	1	%	5.6		0.1	1	%
p+10.0(equal/more than) *		<MDL	0.5	1	%	3.7		0.5	1	%	5		0.5	1	%	4.8		0.5	1	%
p+2.00 *	6.6		0.1	1	%	35.1		0.1	1	%	13.3		0.1	1	%	13.6		0.1	1	%
p+3.00 *	4.4		0.1	1	%	15.2		0.1	1	%	15.9		0.1	1	%	11.7		0.1	1	%
p+4.00 *	2.5		0.1	1	%	6.1		0.1	1	%	12.3		0.1	1	%	10.4		0.1	1	%
p+5.00 *	1.4		0.5	1	%	9.4		0.5	1	%	14.1		0.5	1	%	16.8		0.5	1	%
p+6.00 *		<MDL	0.5	1	%	3.7		0.5	1	%	4		0.5	1	%	4.8		0.5	1	%
p+7.00 *		<MDL	0.5	1	%	4.7		0.5	1	%	7.1		0.5	1	%	8.4		0.5	1	%
p+8.00 *	0.7	<RDL	0.5	1	%	3.7		0.5	1	%	4		0.5	1	%	4.8		0.5	1	%
p+9.00 *	0.7	<RDL	0.5	1	%	2.8		0.5	1	%	2		0.5	1	%	3.6		0.5	1	%
p-1.00 *	24.2		0.1	1	%	0.9	<RDL	0.1	1	%	2.9		0.1	1	%	3.6		0.1	1	%
p-2.00 *	7.7		0.1	1	%		<MDL	0.1	1	%	1.4		0.1	1	%	0.1	<RDL	0.1	1	%
p-2.00(less than) *	30.6		0.1	1	%	0.3	<RDL	0.1	1	%	3.8		0.1	1	%	2.1		0.1	1	%
Sand *	33.3		0.1	1	%	67.2		0.1	1	%	48.6		0.1	1	%	45.4		0.1	1	%
Silt *	2.1		0.5	1	%	21.5		0.5	1	%	29.2		0.5	1	%	34.7		0.5	1	%
M=CV EPA 9030B (03-03-015-000)																				
Total Sulfide	43.9		3.3	13.3	mg/Kg	26.8		1.9	7.72	mg/Kg	13.5		0.95	3.8	mg/Kg	259		24	95.9	mg/Kg
M=CV EPA 9060-PSEP96 (03-04-002-003																				
Total Organic Carbon	8500		1300	2630	mg/Kg	13600		1600	3280	mg/Kg	9510		1400	2780	mg/Kg	21600		1700	3310	mg/Kg
M=CV SM2540-G (03-01-007-002)																				
Total Solids *	75.4		0.005	0.01	%	51.8		0.005	0.01	%	52.6		0.005	0.01	%	41.7		0.005	0.01	%
Total Volatile Solids	2.67		0.00663	0.0133	%	5.37		0.00965	0.0193	%	4.85		0.00951	0.019	%	10.3		0.012	0.024	%
M=CV SM4500-NH3-G(03-03-014-001)KCL																				
Ammonia Nitrogen	7.29		0.66	1.33	mg/Kg	3.61		0.97	1.93	mg/Kg	3.71		0.95	1.9	mg/Kg	5.64		1.2	2.4	mg/Kg
M=ES NONE																				
Field Personnel	JP,JDD,JB,AF				none	JP,JDD,JB,AF				none	BK,JP,SH,JB,AF				none	JP,JDD,JB,AF				none
Sampcoordx1 *	1263835				ft	1263545				ft	1263354				ft	1263343				ft
Sampcoordx2 *	1263841				ft	1263543				ft	1263358				ft	1263341				ft
Sampcoordx3 *	1263833				ft	1263539				ft	1263352				ft	1263352				ft
Sampcoordx4 *	1263824				ft															
Sampcoordx5 *	1263822				ft															
Sampcoordy1 *	229035				ft	228834				ft	228663				ft	228903				ft
Sampcoordy2 *	229051				ft	228839				ft	228658				ft	228915				ft
Sampcoordy3 *	229031				ft	228839				ft	228663				ft	228904				ft
Sampcoordy4 *	229040				ft															
Sampcoordy5 *	229032				ft															
Sample Depth *	4				m	18				m	33				m	20				m
Sample Start Time *	1020				hr	1305				hr	940				hr	1345				hr

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-05					DWMP-06					DWMP-07					DWMP-08				
Descrip:	DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI				
Sampled:	Apr 17, 2006					Apr 17, 2006					Apr 19, 2006					Apr 17, 2006				
Lab ID:	L38758-5					L38758-6					L38758-7					L38758-8				
Matrix:	SALTWTRSED					SALTWTRSED					SALTWTRSED					SALTWTRSED				
% Solids:	75.4					51.8					52.6					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		
COMBINED LABS																				
Sampling Method *	20042				none	20042				none	20042				none	20042				none
Sediment Sampling Depth *	6				cm	17				cm	16				cm	17				cm
Sediment Sampling Range *	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm
Sediment Type	43S21				none	23W21				none	20N20				none	23W21				none
Tidal Condition	E				none	S				none	E				none	S				none
Tide Height *	1				ft	-1.5				ft	4				ft	-1.4				ft
M=MT EPA 7471A (06-01-004-003)																				
Mercury, Total, CVAA	0.061	<RDL	0.027	0.269	mg/Kg	0.19	<RDL	0.039	0.394	mg/Kg	0.3	<RDL	0.038	0.376	mg/Kg	0.499		0.048	0.47	mg/Kg
M=MT EPA3050A/6010B (06-02-004-002)																				
Antimony, Total, ICP		<MDL,G	2	9.91	mg/Kg		<MDL,G	2.9	14.5	mg/Kg		<MDL,G	2.9	14.3	mg/Kg		<MDL,G	3.6	17.9	mg/Kg
Arsenic, Total, ICP	7.3	<RDL	3.3	16.6	mg/Kg	5.6	<RDL	4.8	24.1	mg/Kg	7	<RDL	4.8	23.8	mg/Kg	6.7	<RDL	6	30	mg/Kg
Cadmium, Total, ICP	0.58	<RDL	0.2	0.991	mg/Kg		<MDL	0.29	1.45	mg/Kg	0.38	<RDL	0.29	1.43	mg/Kg	0.5	<RDL	0.36	1.79	mg/Kg
Chromium, Total, ICP	21.2		0.33	1.66	mg/Kg	26.3		0.48	2.41	mg/Kg	34		0.48	2.38	mg/Kg	38.6		0.6	3	mg/Kg
Copper, Total, ICP	38.6		0.27	1.32	mg/Kg	34.6		0.39	1.93	mg/Kg	41.1		0.38	1.9	mg/Kg	75.5		0.48	2.39	mg/Kg
Lead, Total, ICP	46		2	9.91	mg/Kg	30.5		2.9	14.5	mg/Kg	45.1		2.9	14.3	mg/Kg	65.5		3.6	17.9	mg/Kg
Nickel, Total, ICP	25.1		1.3	6.6	mg/Kg	24.9		1.9	9.63	mg/Kg	31.2		1.9	9.51	mg/Kg	33.6		2.4	12	mg/Kg
Silver, Total, ICP		<MDL	0.27	1.32	mg/Kg		<MDL	0.39	1.93	mg/Kg	0.82	<RDL	0.38	1.9	mg/Kg	1.5	<RDL	0.48	2.39	mg/Kg
Zinc, Total, ICP	357		0.33	1.66	mg/Kg	74.9		0.48	2.41	mg/Kg	76.2		0.48	2.38	mg/Kg	102		0.6	3	mg/Kg
M=OR EPA 3550B/8270C (7-3-01-004)																				
1,2,4-Trichlorobenzene		<MDL	0.36	0.707	ug/Kg		<MDL	0.52	1.03	ug/Kg		<MDL	0.51	1.01	ug/Kg		<MDL	0.65	1.28	ug/Kg
1,2-Dichlorobenzene		<MDL	0.36	0.707	ug/Kg		<MDL	0.52	1.03	ug/Kg		<MDL	0.51	1.01	ug/Kg		<MDL	0.65	1.28	ug/Kg
1,3-Dichlorobenzene		<MDL	0.36	0.707	ug/Kg		<MDL	0.52	1.03	ug/Kg		<MDL	0.51	1.01	ug/Kg		<MDL	0.65	1.28	ug/Kg
1,4-Dichlorobenzene		<MDL	0.36	0.707	ug/Kg		<MDL	0.52	1.03	ug/Kg		<MDL	0.51	1.01	ug/Kg	19.7		0.65	1.28	ug/Kg
2,4-Dimethylphenol		<MDL	3.6	7.07	ug/Kg		<MDL	5.2	10.3	ug/Kg		<MDL	5.1	10.1	ug/Kg		<MDL	6.5	12.8	ug/Kg
2-Methylnaphthalene	11.2		3.6	7.07	ug/Kg	7.3	<RDL	5.2	10.3	ug/Kg	5.9	<RDL	5.1	10.1	ug/Kg	23.1		6.5	12.8	ug/Kg
2-Methylphenol		<MDL	7	14.2	ug/Kg		<MDL	10	20.7	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	13	25.7	ug/Kg
4-Methylphenol		<MDL	7	14.2	ug/Kg		<MDL	10	20.7	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	13	25.7	ug/Kg
Acenaphthene	20.2		3.6	7.07	ug/Kg	13.8		5.2	10.3	ug/Kg	16.1		5.1	10.1	ug/Kg	140		6.5	12.8	ug/Kg
Acenaphthylene	67.8		3.6	7.07	ug/Kg	19.3		5.2	10.3	ug/Kg	39.2		5.1	10.1	ug/Kg	44.4		6.5	12.8	ug/Kg
Anthracene	188		3.6	7.07	ug/Kg	126		5.2	10.3	ug/Kg	125		5.1	10.1	ug/Kg	434		6.5	12.8	ug/Kg
Benzo(a)anthracene	370		3.6	7.07	ug/Kg	228		5.2	10.3	ug/Kg	243		5.1	10.1	ug/Kg	739		6.5	12.8	ug/Kg
Benzo(a)pyrene	399		3.6	7.07	ug/Kg	270		5.2	10.3	ug/Kg	281		5.1	10.1	ug/Kg	741		6.5	12.8	ug/Kg
Benzo(b)fluoranthene	345		3.6	7.07	ug/Kg	305		5.2	10.3	ug/Kg	270		5.1	10.1	ug/Kg	604		6.5	12.8	ug/Kg
Benzo(g,h,i)perylene		<MDL	3.6	7.07	ug/Kg	168		5.2	10.3	ug/Kg	169		5.1	10.1	ug/Kg	403		6.5	12.8	ug/Kg
Benzo(k)fluoranthene	448		3.6	7.07	ug/Kg	241		5.2	10.3	ug/Kg	293		5.1	10.1	ug/Kg	659		6.5	12.8	ug/Kg
Benzoic Acid	475		17	35.4	ug/Kg	137		25	51.5	ug/Kg	117		25	50.8	ug/Kg	181		31	64	ug/Kg
Benzyl Alcohol	16.4		7	14.2	ug/Kg		<MDL	10	20.7	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	13	25.7	ug/Kg
Benzyl Butyl Phthalate	66		7	14.2	ug/Kg	52.1		10	20.7	ug/Kg	53.8		10	20.3	ug/Kg	109		13	25.7	ug/Kg
Bis(2-Ethylhexyl)Phthalate	837	B	7	14.2	ug/Kg	604	B	10	20.7	ug/Kg	409	B	10	20.3	ug/Kg	1240	B	13	25.7	ug/Kg
Caffeine		<MDL	7	14.2	ug/Kg		<MDL	10	20.7	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	13	25.7	ug/Kg
Carbazole	64.6		3.6	7.07	ug/Kg	39.2		5.2	10.3	ug/Kg	35.2		5.1	10.1	ug/Kg	149		6.5	12.8	ug/Kg
Chrysene	540		3.6	7.07	ug/Kg	305		5.2	10.3	ug/Kg	356		5.1	10.1	ug/Kg	890		6.5	12.8	ug/Kg
Coprostanol		<MDL	70	142	ug/Kg	710		100	207	ug/Kg		<MDL	100	203	ug/Kg		<MDL	130	257	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-05					DWMP-06					DWMP-07					DWMP-08				
Descrip:	DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI				
Sampled:	Apr 17, 2006					Apr 17, 2006					Apr 19, 2006					Apr 17, 2006				
Lab ID:	L38758-5					L38758-6					L38758-7					L38758-8				
Matrix:	SALTWTRSED					SALTWTRSED					SALTWTRSED					SALTWTRSED				
% Solids:	75.4					51.8					52.6					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		
COMBINED LABS																				
Dibenzo(a,h)anthracene	61.7		3.6	7.07	ug/Kg	47.7		5.2	10.3	ug/Kg	50.8		5.1	10.1	ug/Kg	153		6.5	12.8	ug/Kg
Dibenzofuran	12.4		3.6	7.07	ug/Kg	11.5		5.2	10.3	ug/Kg	11.5		5.1	10.1	ug/Kg	67.4		6.5	12.8	ug/Kg
Diethyl Phthalate		<MDL	7	14.2	ug/Kg		<MDL	10	20.7	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	13	25.7	ug/Kg
Dimethyl Phthalate		<MDL	7	14.2	ug/Kg		<MDL	10	20.7	ug/Kg		<MDL	10	20.3	ug/Kg	31.4		13	25.7	ug/Kg
Di-N-Butyl Phthalate	135	B	7	14.2	ug/Kg	158	-B	10	20.7	ug/Kg	169	B	10	20.3	ug/Kg	237	B	13	25.7	ug/Kg
Di-N-Octyl Phthalate		<MDL	7	14.2	ug/Kg		<MDL	10	20.7	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	13	25.7	ug/Kg
Fluoranthene	651		3.6	7.07	ug/Kg	407		5.2	10.3	ug/Kg	424		5.1	10.1	ug/Kg	1580		6.5	12.8	ug/Kg
Fluorene	41.2		3.6	7.07	ug/Kg	29.9		5.2	10.3	ug/Kg	33.3		5.1	10.1	ug/Kg	159		6.5	12.8	ug/Kg
Hexachlorobenzene		<MDL	0.7	1.42	ug/Kg		<MDL	1	2.07	ug/Kg		<MDL	1	2.03	ug/Kg		<MDL	1.3	2.57	ug/Kg
Hexachlorobutadiene		<MDL	1.7	3.54	ug/Kg		<MDL	2.5	5.15	ug/Kg		<MDL	2.5	5.08	ug/Kg		<MDL	3.1	6.4	ug/Kg
Hexachloroethane		<MDL	1.7	3.54	ug/Kg		<MDL	2.5	5.15	ug/Kg		<MDL	2.5	5.08	ug/Kg		<MDL	3.1	6.4	ug/Kg
Indeno(1,2,3-Cd)Pyrene	168		3.6	7.07	ug/Kg	156		5.2	10.3	ug/Kg	163		5.1	10.1	ug/Kg	386		6.5	12.8	ug/Kg
Naphthalene	7	<RDL	3.6	7.07	ug/Kg	9.7	<RDL	5.2	10.3	ug/Kg	7.8	<RDL	5.1	10.1	ug/Kg	25.4		6.5	12.8	ug/Kg
N-Nitrosodiphenylamine		<MDL	7	14.2	ug/Kg		<MDL	10	20.7	ug/Kg		<MDL	10	20.3	ug/Kg		<MDL	13	25.7	ug/Kg
Pentachlorophenol		<MDL	17	35.4	ug/Kg		<MDL	25	51.5	ug/Kg		<MDL	25	50.8	ug/Kg		<MDL	31	64	ug/Kg
Phenanthrene	219		3.6	7.07	ug/Kg	207		5.2	10.3	ug/Kg	234		5.1	10.1	ug/Kg	1160		6.5	12.8	ug/Kg
Phenol	8.8	<RDL,E	7	14.2	ug/Kg	14	<RDL,E	10	20.7	ug/Kg		<MDL,E	10	20.3	ug/Kg	20	<RDL,E	13	25.7	ug/Kg
Pyrene	749		3.6	7.07	ug/Kg	392		5.2	10.3	ug/Kg	407		5.1	10.1	ug/Kg	1530		6.5	12.8	ug/Kg
Total HPAHS	3730		3.6	7.07	ug/Kg	2530		5.2	10.3	ug/Kg	2660		5.1	10.1	ug/Kg	7700		6.5	12.8	ug/Kg
Total LPAHs	554		3.6	7.07	ug/Kg	413		5.2	10.3	ug/Kg	462		5.1	10.1	ug/Kg	1990		6.5	12.8	ug/Kg
M=OR EPA 8081A/8082 (7-3-03-002)																				
4,4'-DDD	1.9	<RDL	1.3	2.65	ug/Kg	1.9	<RDL	1.9	3.86	ug/Kg	4.33		1.9	3.8	ug/Kg	9.74		2.4	4.8	ug/Kg
4,4'-DDE		<MDL	1.3	2.65	ug/Kg		<MDL	1.9	3.86	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.4	4.8	ug/Kg
4,4'-DDT		<MDL	1.3	2.65	ug/Kg		<MDL	1.9	3.86	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.4	4.8	ug/Kg
Aldrin		<MDL	1.3	2.65	ug/Kg		<MDL	1.9	3.86	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.4	4.8	ug/Kg
Alpha-BHC		<MDL	0.66	1.33	ug/Kg		<MDL	0.97	1.93	ug/Kg		<MDL	0.95	1.9	ug/Kg		<MDL	1.2	2.4	ug/Kg
Alpha-Chlordane		<MDL,E	0.66	1.33	ug/Kg		<MDL,E	0.97	1.93	ug/Kg		<MDL,E	0.95	1.9	ug/Kg	1.4	<RDL,E	1.2	2.4	ug/Kg
Aroclor 1016		<MDL,TA	15	28.9	ug/Kg		<MDL,TA	13	26.6	ug/Kg		<MDL,TA	13	26.6	ug/Kg		<MDL,TA	29	58.3	ug/Kg
Aroclor 1221		<MDL	3.3	6.63	ug/Kg		<MDL	4.8	9.65	ug/Kg		<MDL	4.8	9.51	ug/Kg		<MDL	6	12	ug/Kg
Aroclor 1232		<MDL,TA	25	51.3	ug/Kg		<MDL,TA	31	61.6	ug/Kg		<MDL,TA	29	57.4	ug/Kg		<MDL,TA	65	128	ug/Kg
Aroclor 1242		<MDL,TA	23	45.8	ug/Kg		<MDL,TA	39	77.4	ug/Kg		<MDL,TA	42	83.7	ug/Kg		<MDL,TA	89	179	ug/Kg
Aroclor 1248	25.1		1.7	3.32	ug/Kg	27.8		2.5	4.83	ug/Kg	33.5		2.5	4.75	ug/Kg	75.8		3.1	6	ug/Kg
Aroclor 1254	39.7		1.7	3.32	ug/Kg	64.7		2.5	4.83	ug/Kg	86.1		2.5	4.75	ug/Kg	188		3.1	6	ug/Kg
Aroclor 1260	15.1		1.7	3.32	ug/Kg	48.3		2.5	4.83	ug/Kg	72.2		2.5	4.75	ug/Kg	117		3.1	6	ug/Kg
Beta-BHC		<MDL	0.66	1.33	ug/Kg		<MDL	0.97	1.93	ug/Kg		<MDL	0.95	1.9	ug/Kg		<MDL	1.2	2.4	ug/Kg
Delta-BHC		<MDL	0.66	1.33	ug/Kg		<MDL	0.97	1.93	ug/Kg		<MDL	0.95	1.9	ug/Kg		<MDL	1.2	2.4	ug/Kg
Dieldrin		<MDL	1.3	2.65	ug/Kg		<MDL	1.9	3.86	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.4	4.8	ug/Kg
Endosulfan I		<MDL	1.3	2.65	ug/Kg		<MDL	1.9	3.86	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.4	4.8	ug/Kg
Endosulfan II		<MDL	1.3	2.65	ug/Kg		<MDL	1.9	3.86	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.4	4.8	ug/Kg
Endosulfan Sulfate		<MDL,L	1.3	2.65	ug/Kg		<MDL,L	1.9	3.86	ug/Kg		<MDL,L	1.9	3.8	ug/Kg		<MDL,L	2.4	4.8	ug/Kg
Endrin		<MDL	1.3	2.65	ug/Kg		<MDL	1.9	3.86	ug/Kg		<MDL	1.9	3.8	ug/Kg		<MDL	2.4	4.8	ug/Kg
Endrin Aldehyde		<MDL	2.7	5.31	ug/Kg		<MDL	3.9	7.72	ug/Kg		<MDL	3.8	7.6	ug/Kg		<MDL	4.8	9.59	ug/Kg
Gamma-BHC (Lindane)		<MDL	0.66	1.33	ug/Kg		<MDL	0.97	1.93	ug/Kg		<MDL	0.95	1.9	ug/Kg		<MDL	1.2	2.4	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	DWMP-05	DWMP-06	DWMP-07	DWMP-08
Locator:	DWMP-05	DWMP-06	DWMP-07	DWMP-08
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	Apr 17, 2006	Apr 17, 2006	Apr 19, 2006	Apr 17, 2006
Lab ID:	L38758-5	L38758-6	L38758-7	L38758-8
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	75.4	51.8	52.6	41.7

Locator: DWMP-05

Parameters	Value	Qual	MDL - Dry Weight Basis	RDL	Units
COMBINED LABS					
Gamma-Chlordane		<MDL	0.66	1.33	ug/Kg
Heptachlor		<MDL	0.66	1.33	ug/Kg
Heptachlor Epoxide		<MDL	0.66	1.33	ug/Kg
Methoxychlor		<MDL,L	6.6	13.3	ug/Kg
Toxaphene		<MDL	13	26.5	ug/Kg
M=OR EPA 8260B (7-3-02-002)					
1,1,2-Trichloroethylene		<MDL	1.3	2.65	ug/Kg
Ethylbenzene		<MDL	1.3	2.65	ug/Kg
Tetrachloroethylene		<MDL	1.3	2.65	ug/Kg
Total Xylenes		<MDL	1.3	2.65	ug/Kg

Locator: DWMP-06

Parameters	Value	Qual	MDL - Dry Weight Basis	RDL	Units
COMBINED LABS					
Gamma-Chlordane		<MDL	0.97	1.93	ug/Kg
Heptachlor		<MDL	0.97	1.93	ug/Kg
Heptachlor Epoxide		<MDL	0.97	1.93	ug/Kg
Methoxychlor		<MDL,L	9.7	19.3	ug/Kg
Toxaphene		<MDL	19	38.6	ug/Kg
M=OR EPA 8260B (7-3-02-002)					
1,1,2-Trichloroethylene		<MDL	1.9	3.86	ug/Kg
Ethylbenzene		<MDL	1.9	3.86	ug/Kg
Tetrachloroethylene		<MDL	1.9	3.86	ug/Kg
Total Xylenes		<MDL	1.9	3.86	ug/Kg

Locator: DWMP-07

Parameters	Value	Qual	MDL - Dry Weight Basis	RDL	Units
COMBINED LABS					
Gamma-Chlordane		<MDL	0.95	1.9	ug/Kg
Heptachlor		<MDL	0.95	1.9	ug/Kg
Heptachlor Epoxide		<MDL	0.95	1.9	ug/Kg
Methoxychlor		<MDL,L	9.5	19	ug/Kg
Toxaphene		<MDL	19	38	ug/Kg
M=OR EPA 8260B (7-3-02-002)					
1,1,2-Trichloroethylene		<MDL	1.9	3.8	ug/Kg
Ethylbenzene		<MDL	1.9	3.8	ug/Kg
Tetrachloroethylene		<MDL	1.9	3.8	ug/Kg
Total Xylenes		<MDL	1.9	3.8	ug/Kg

Locator: DWMP-08

Parameters	Value	Qual	MDL - Dry Weight Basis	RDL	Units
COMBINED LABS					
Gamma-Chlordane		<MDL	1.2	2.4	ug/Kg
Heptachlor		<MDL	1.2	2.4	ug/Kg
Heptachlor Epoxide		<MDL	1.2	2.4	ug/Kg
Methoxychlor		<MDL,L	12	24	ug/Kg
Toxaphene		<MDL	24	48	ug/Kg
M=OR EPA 8260B (7-3-02-002)					
1,1,2-Trichloroethylene		<MDL	2.4	4.8	ug/Kg
Ethylbenzene		<MDL	2.4	4.8	ug/Kg
Tetrachloroethylene		<MDL	2.4	4.8	ug/Kg
Total Xylenes		<MDL	2.4	4.8	ug/Kg

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-09	DWMP-10	DWMP-11	DWMP-12
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	Apr 17, 2006	Apr 18, 2006	Apr 18, 2006	Apr 19, 2006
Lab ID:	L38758-9	L38758-10	L38758-11	L38758-12
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	36.6	71	50.2	35.2

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
			- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis		
COMBINED LABS																				
M=CV ASTM D422(03-02-005-001)																				
Clay *	10.5		0.5	1	%	3.6		0.5	1	%	8.5		0.5	1	%	12		0.5	1	%
Fines *	63.2		0.5	1	%	8.4		0.5	1	%	36.3		0.5	1	%	75.9		0.5	1	%
Gravel *	2.5	E	0.1	1	%	1.5	E	0.1	1	%	2	E	0.1	1	%	0.6	<RDL,E	0.1	1	%
p+0.00 *	1.1		0.1	1	%	2		0.1	1	%	1.5		0.1	1	%	0.2	<RDL	0.1	1	%
p+1.00 *	1.6		0.1	1	%	10.7		0.1	1	%	9.7		0.1	1	%	0.4	<RDL	0.1	1	%
p+10.0(equal/more than) *	9.2		0.5	1	%	1.8		0.5	1	%	6.4		0.5	1	%	9.3		0.5	1	%
p+2.00 *	3.6		0.1	1	%	38.4		0.1	1	%	29.5		0.1	1	%	1.5		0.1	1	%
p+3.00 *	7.4		0.1	1	%	30.4		0.1	1	%	12.6		0.1	1	%	6.4		0.1	1	%
p+4.00 *	13.9		0.1	1	%	9.5		0.1	1	%	7.6		0.1	1	%	12.3		0.1	1	%
p+5.00 *	26.3		0.5	1	%	2.4		0.5	1	%	11.7		0.5	1	%	28		0.5	1	%
p+6.00 *	5.3		0.5	1	%	1.2		0.5	1	%	5.3		0.5	1	%	10.7		0.5	1	%
p+7.00 *	13.2		0.5	1	%	1.2		0.5	1	%	5.3		0.5	1	%	14.6		0.5	1	%
p+8.00 *	7.9		0.5	1	%		<MDL	0.5	1	%	5.3		0.5	1	%	10.7		0.5	1	%
p+9.00 *	1.3		0.5	1	%	1.8		0.5	1	%	2.1		0.5	1	%	2.7		0.5	1	%
p-1.00 *	1.6		0.1	1	%	1.2		0.1	1	%	1	<RDL	0.1	1	%	0.2	<RDL	0.1	1	%
p-2.00 *	0.3	<RDL	0.1	1	%	0.1	<RDL	0.1	1	%	0.6	<RDL	0.1	1	%	0.1	<RDL	0.1	1	%
p-2.00(less than) *	0.6	<RDL	0.1	1	%	0.2	<RDL	0.1	1	%	0.5	<RDL	0.1	1	%	0.3	<RDL	0.1	1	%
Sand *	27.5		0.1	1	%	90.9		0.1	1	%	61		0.1	1	%	20.8		0.1	1	%
Silt *	52.6		0.5	1	%	4.8		0.5	1	%	27.7		0.5	1	%	63.9		0.5	1	%
M=CV EPA 9030B (03-03-015-000)																				
Total Sulfide	55.2		6.8	27.3	mg/Kg	77.2		7	28.2	mg/Kg	39.2		2	7.97	mg/Kg	33.5		1.4	5.68	mg/Kg
M=CV EPA 9060-PSEP96 (03-04-002-003																				
Total Organic Carbon	24700		1700	3360	mg/Kg	7860		1200	2350	mg/Kg	19400		1500	2970	mg/Kg	25500		1500	3070	mg/Kg
M=CV SM2540-G (03-01-007-002)																				
Total Solids *	36.6		0.005	0.01	%	71		0.005	0.01	%	50.2		0.005	0.01	%	35.2		0.005	0.01	%
Total Volatile Solids	9.23		0.0137	0.0273	%	3.13		0.00704	0.0141	%	7.65		0.00996	0.0199	%	9.94		0.0142	0.0284	%
M=CV SM4500-NH3-G(03-03-014-001)KCL																				
Ammonia Nitrogen	3.99		1.4	2.73	mg/Kg	4.69		0.7	1.41	mg/Kg	2.67		1	1.99	mg/Kg	3.92		1.4	2.84	mg/Kg
M=ES NONE																				
Field Personnel	JP,JDD,JB,AF				none	SH,JDD,JB,AF				none	SH,JDD,JB,AF				none	SH,JP,BK,JB,AF				none
Sampcoordx1 *	1263214				ft	1263566				ft	1263261				ft	1263060				ft
Sampcoordx2 *	1263217				ft	1263562				ft	1263272				ft	1263055				ft
Sampcoordx3 *	1263217				ft	1263559				ft	1263274				ft	1263054				ft
Sampcoordx4 *						1263562				ft										
Sampcoordx5 *																				
Sampcoordy1 *	228805				ft	229325				ft	229146				ft	228968				ft
Sampcoordy2 *	228807				ft	229334				ft	229154				ft	228967				ft
Sampcoordy3 *	228803				ft	229330				ft	229155				ft	228961				ft
Sampcoordy4 *						229326				ft										
Sampcoordy5 *																				
Sample Depth *	28				m	7				m	19				m	30				m
Sample Start Time *	1425				hr	840				hr	1323				hr	1035				hr

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	DWMP-09	DWMP-10	DWMP-11	DWMP-12
Locator:	DWMP-09	DWMP-10	DWMP-11	DWMP-12
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	Apr 17, 2006	Apr 18, 2006	Apr 18, 2006	Apr 19, 2006
Lab ID:	L38758-9	L38758-10	L38758-11	L38758-12
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	36.6	71	50.2	35.2

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
			- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis		
COMBINED LABS																				
Sampling Method *	20042				none	20042				none	20042				none	20042				none
Sediment Sampling Depth *	17				cm	8				cm	14				cm	17				cm
Sediment Sampling Range *	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm
Sediment Type	20W21				none	32P26				none	32S21				none	20N20				none
Tidal Condition	F				none	E				none	S				none	E				none
Tide Height *	0				ft	4.5				ft	-1.3				ft	2.5				ft
M=MT EPA 7471A (06-01-004-003)																				
Mercury, Total, CVAA	0.568		0.057	0.56	mg/Kg	0.744		0.028	0.28	mg/Kg	0.26	<RDL	0.042	0.412	mg/Kg	0.54	<RDL	0.057	0.571	mg/Kg
M=MT EPA3050A/6010B (06-02-004-002)																				
Antimony, Total, ICP		<MDL,G	4.1	20.5	mg/Kg		<MDL,G	2.1	10.6	mg/Kg		<MDL,G	3	14.9	mg/Kg		<MDL,G	4.3	21.2	mg/Kg
Arsenic, Total, ICP	9	<RDL	6.8	34.2	mg/Kg	5.5	<RDL	3.5	17.6	mg/Kg	5.6	<RDL	5	24.9	mg/Kg	1.1	<RDL	7.1	35.2	mg/Kg
Cadmium, Total, ICP	0.87	<RDL	0.41	2.05	mg/Kg	0.69	<RDL	0.21	1.06	mg/Kg	0.38	<RDL	0.3	1.49	mg/Kg	0.85	<RDL	0.43	2.12	mg/Kg
Chromium, Total, ICP	45.4		0.68	3.42	mg/Kg	30.1		0.35	1.76	mg/Kg	29.9		0.5	2.49	mg/Kg	50.6		0.71	3.52	mg/Kg
Copper, Total, ICP	58.2		0.55	2.73	mg/Kg	58.9		0.28	1.41	mg/Kg	39.2		0.4	1.99	mg/Kg	59.4		0.57	2.83	mg/Kg
Lead, Total, ICP	74.6		4.1	20.5	mg/Kg	69		2.1	10.6	mg/Kg	47		3	14.9	mg/Kg	78.7		4.3	21.2	mg/Kg
Nickel, Total, ICP	42.3		2.7	13.6	mg/Kg	22.4		1.4	7.04	mg/Kg	26.1		2	9.92	mg/Kg	48.3		2.8	14.1	mg/Kg
Silver, Total, ICP	1.8	<RDL	0.55	2.73	mg/Kg	0.59	<RDL	0.28	1.41	mg/Kg	0.8	<RDL	0.4	1.99	mg/Kg	2.3	<RDL	0.57	2.83	mg/Kg
Zinc, Total, ICP	108		0.68	3.42	mg/Kg	88.7		0.35	1.76	mg/Kg	81.3		0.5	2.49	mg/Kg	118		0.71	3.52	mg/Kg
M=OR EPA 3550B/8270C (7-3-01-004)																				
1,2,4-Trichlorobenzene		<MDL	0.74	1.46	ug/Kg		<MDL	3.8	7.51	ug/Kg		<MDL	0.54	1.06	ug/Kg		<MDL	0.77	1.51	ug/Kg
1,2-Dichlorobenzene		<MDL	0.74	1.46	ug/Kg		<MDL	3.8	7.51	ug/Kg		<MDL	0.54	1.06	ug/Kg		<MDL	0.77	1.51	ug/Kg
1,3-Dichlorobenzene		<MDL	0.74	1.46	ug/Kg		<MDL	3.8	7.51	ug/Kg		<MDL	0.54	1.06	ug/Kg		<MDL	0.77	1.51	ug/Kg
1,4-Dichlorobenzene		<MDL	0.74	1.46	ug/Kg	20.4		3.8	7.51	ug/Kg	2.39		0.54	1.06	ug/Kg	3.66		0.77	1.51	ug/Kg
2,4-Dimethylphenol		<MDL	7.4	14.6	ug/Kg		<MDL	38	75.1	ug/Kg		<MDL	5.4	10.6	ug/Kg		<MDL	7.7	15.1	ug/Kg
2-Methylnaphthalene	19.9		7.4	14.6	ug/Kg		<MDL	38	75.1	ug/Kg	20.3		5.4	10.6	ug/Kg	9.9	<RDL	7.7	15.1	ug/Kg
2-Methylphenol		<MDL	14	29.2	ug/Kg		<MDL	75	151	ug/Kg		<MDL	11	21.3	ug/Kg		<MDL	15	30.4	ug/Kg
4-Methylphenol		<MDL	14	29.2	ug/Kg		<MDL	75	151	ug/Kg		<MDL	11	21.3	ug/Kg		<MDL	15	30.4	ug/Kg
Acenaphthene	45.1		7.4	14.6	ug/Kg	52	<RDL	38	75.1	ug/Kg	32.9		5.4	10.6	ug/Kg	18		7.7	15.1	ug/Kg
Acenaphthylene	21.2		7.4	14.6	ug/Kg		<MDL	38	75.1	ug/Kg	31.1		5.4	10.6	ug/Kg	17.4		7.7	15.1	ug/Kg
Anthracene	267		7.4	14.6	ug/Kg	177		38	75.1	ug/Kg	207		5.4	10.6	ug/Kg	133		7.7	15.1	ug/Kg
Benzo(a)anthracene	391		7.4	14.6	ug/Kg	641		38	75.1	ug/Kg	333		5.4	10.6	ug/Kg	269		7.7	15.1	ug/Kg
Benzo(a)pyrene	664		7.4	14.6	ug/Kg	696		38	75.1	ug/Kg	396		5.4	10.6	ug/Kg	398		7.7	15.1	ug/Kg
Benzo(b)fluoranthene	396		7.4	14.6	ug/Kg	721		38	75.1	ug/Kg	321		5.4	10.6	ug/Kg	355		7.7	15.1	ug/Kg
Benzo(g,h,i)perylene	322		7.4	14.6	ug/Kg	401		38	75.1	ug/Kg	225		5.4	10.6	ug/Kg	226		7.7	15.1	ug/Kg
Benzo(k)fluoranthene	505		7.4	14.6	ug/Kg	656		38	75.1	ug/Kg	357		5.4	10.6	ug/Kg	335		7.7	15.1	ug/Kg
Benzoic Acid	178		36	73	ug/Kg		<MDL	180	376	ug/Kg	137		26	53.2	ug/Kg	169		37	75.9	ug/Kg
Benzyl Alcohol		<MDL	14	29.2	ug/Kg		<MDL	75	151	ug/Kg		<MDL	11	21.3	ug/Kg		<MDL	15	30.4	ug/Kg
Benzyl Butyl Phthalate	93.4		14	29.2	ug/Kg	459		75	151	ug/Kg	476		11	21.3	ug/Kg	98.6		15	30.4	ug/Kg
Bis(2-Ethylhexyl)Phthalate	817	B	14	29.2	ug/Kg	1300	B	75	151	ug/Kg	452	B	11	21.3	ug/Kg	1200	B	15	30.4	ug/Kg
Caffeine		<MDL	14	29.2	ug/Kg		<MDL	75	151	ug/Kg		<MDL	11	21.3	ug/Kg		<MDL	15	30.4	ug/Kg
Carbazole	72.1		7.4	14.6	ug/Kg	98.9		38	75.1	ug/Kg	55.6		5.4	10.6	ug/Kg	35.5		7.7	15.1	ug/Kg
Chrysene	820		7.4	14.6	ug/Kg	754		38	75.1	ug/Kg	450		5.4	10.6	ug/Kg	398		7.7	15.1	ug/Kg
Coprostanol		<MDL	140	292	ug/Kg		<MDL	750	1510	ug/Kg		<MDL	110	213	ug/Kg		<MDL	150	304	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-09					DWMP-10					DWMP-11					DWMP-12				
Descrip:	DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI				
Sampled:	Apr 17, 2006					Apr 18, 2006					Apr 18, 2006					Apr 19, 2006				
Lab ID:	L38758-9					L38758-10					L38758-11					L38758-12				
Matrix:	SALTWTRSED					SALTWTRSED					SALTWTRSED					SALTWTRSED				
% Solids:	36.6					71					50.2					35.2				
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
			- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis		
COMBINED LABS																				
Dibenzo(a,h)anthracene	82.8		7.4	14.6	ug/Kg	148		38	75.1	ug/Kg	60.8		5.4	10.6	ug/Kg	53.4		7.7	15.1	ug/Kg
Dibenzofuran	30.3		7.4	14.6	ug/Kg		<MDL	38	75.1	ug/Kg	34.7		5.4	10.6	ug/Kg	12	<RDL	7.7	15.1	ug/Kg
Diethyl Phthalate		<MDL	14	29.2	ug/Kg		<MDL	75	151	ug/Kg		<MDL	11	21.3	ug/Kg		<MDL	15	30.4	ug/Kg
Dimethyl Phthalate		<MDL	14	29.2	ug/Kg		<MDL	75	151	ug/Kg	16	<RDL	11	21.3	ug/Kg		<MDL	15	30.4	ug/Kg
Di-N-Butyl Phthalate	104	B	14	29.2	ug/Kg	140	<RDL,B	75	151	ug/Kg	31.7	B	11	21.3	ug/Kg	55.7	B	15	30.4	ug/Kg
Di-N-Octyl Phthalate		<MDL	14	29.2	ug/Kg		<MDL	75	151	ug/Kg		<MDL	11	21.3	ug/Kg		<MDL	15	30.4	ug/Kg
Fluoranthene	937		7.4	14.6	ug/Kg	1560		38	75.1	ug/Kg	625		5.4	10.6	ug/Kg	449		7.7	15.1	ug/Kg
Fluorene	67.2		7.4	14.6	ug/Kg	66	<RDL	38	75.1	ug/Kg	74.5		5.4	10.6	ug/Kg	29.8		7.7	15.1	ug/Kg
Hexachlorobenzene		<MDL	1.4	2.92	ug/Kg		<MDL	7.5	15.1	ug/Kg		<MDL	1.1	2.13	ug/Kg		<MDL	1.5	3.04	ug/Kg
Hexachlorobutadiene		<MDL	3.6	7.3	ug/Kg		<MDL	18	37.6	ug/Kg		<MDL	2.6	5.32	ug/Kg		<MDL	3.7	7.59	ug/Kg
Hexachloroethane		<MDL	3.6	7.3	ug/Kg		<MDL	18	37.6	ug/Kg		<MDL	2.6	5.32	ug/Kg		<MDL	3.7	7.59	ug/Kg
Indeno(1,2,3-Cd)Pyrene	290		7.4	14.6	ug/Kg	383		38	75.1	ug/Kg	198		5.4	10.6	ug/Kg	196		7.7	15.1	ug/Kg
Naphthalene	18.5		7.4	14.6	ug/Kg		<MDL	38	75.1	ug/Kg	27.5		5.4	10.6	ug/Kg	13	<RDL	7.7	15.1	ug/Kg
N-Nitrosodiphenylamine		<MDL	14	29.2	ug/Kg		<MDL	75	151	ug/Kg		<MDL	11	21.3	ug/Kg		<MDL	15	30.4	ug/Kg
Pentachlorophenol		<MDL	36	73	ug/Kg		<MDL	180	376	ug/Kg		<MDL	26	53.2	ug/Kg		<MDL	37	75.9	ug/Kg
Phenanthrene	667		7.4	14.6	ug/Kg	752		38	75.1	ug/Kg	490		5.4	10.6	ug/Kg	221		7.7	15.1	ug/Kg
Phenol		<MDL,E	14	29.2	ug/Kg		<MDL,E	75	151	ug/Kg		<MDL,E	11	21.3	ug/Kg		<MDL,E	15	30.4	ug/Kg
Pyrene	1020		7.4	14.6	ug/Kg	1830		38	75.1	ug/Kg	681		5.4	10.6	ug/Kg	509		7.7	15.1	ug/Kg
Total HPAHS	5440		7.4	14.6	ug/Kg	7800		38	75.1	ug/Kg	3650		5.4	10.6	ug/Kg	3180		7.7	15.1	ug/Kg
Total LPAHs	1110		7.4	14.6	ug/Kg	1050		38	75.1	ug/Kg	884		5.4	10.6	ug/Kg	443		7.7	15.1	ug/Kg
M=OR EPA 8081A/8082 (7-3-03-002)																				
4,4'-DDD	3	<RDL	2.7	5.46	ug/Kg	1.7	<RDL	1.4	2.82	ug/Kg	5.22		2	3.98	ug/Kg	7.67		2.8	5.68	ug/Kg
4,4'-DDE		<MDL	2.7	5.46	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	2	3.98	ug/Kg		<MDL	2.8	5.68	ug/Kg
4,4'-DDT		<MDL	2.7	5.46	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	2	3.98	ug/Kg		<MDL	2.8	5.68	ug/Kg
Aldrin		<MDL	2.7	5.46	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	2	3.98	ug/Kg		<MDL	2.8	5.68	ug/Kg
Alpha-BHC		<MDL	1.4	2.73	ug/Kg		<MDL	0.7	1.41	ug/Kg		<MDL	1	1.99	ug/Kg		<MDL	1.4	2.84	ug/Kg
Alpha-Chlordane	2	<RDL,E	1.4	2.73	ug/Kg		<MDL,E	0.7	1.41	ug/Kg		<MDL,E	1	1.99	ug/Kg		<MDL,E	1.4	2.84	ug/Kg
Aroclor 1016		<MDL,TA	30	58.5	ug/Kg		<MDL,TA	11	21.4	ug/Kg		<MDL,TA	22	45.6	ug/Kg		<MDL,TA	48	93.8	ug/Kg
Aroclor 1221		<MDL	6.8	13.7	ug/Kg		<MDL	3.5	7.04	ug/Kg		<MDL	5	9.96	ug/Kg		<MDL	7.1	14.2	ug/Kg
Aroclor 1232		<MDL,TA	74	145	ug/Kg		<MDL,TA	21	43.4	ug/Kg		<MDL,TA	40	80.1	ug/Kg		<MDL,TA	110	225	ug/Kg
Aroclor 1242		<MDL,TA	79	157	ug/Kg		<MDL,TA	23	45.6	ug/Kg		<MDL,TA	58	114	ug/Kg		<MDL,TA	120	245	ug/Kg
Aroclor 1248	78.4		3.6	6.83	ug/Kg	23.2		1.8	3.52	ug/Kg	45.4		2.6	4.98	ug/Kg	118		3.7	7.1	ug/Kg
Aroclor 1254	181		3.6	6.83	ug/Kg	37.6		1.8	3.52	ug/Kg	105		2.6	4.98	ug/Kg	230		3.7	7.1	ug/Kg
Aroclor 1260	118		3.6	6.83	ug/Kg	19.3		1.8	3.52	ug/Kg	74.1		2.6	4.98	ug/Kg	163		3.7	7.1	ug/Kg
Beta-BHC		<MDL	1.4	2.73	ug/Kg		<MDL	0.7	1.41	ug/Kg		<MDL	1	1.99	ug/Kg		<MDL	1.4	2.84	ug/Kg
Delta-BHC		<MDL	1.4	2.73	ug/Kg		<MDL	0.7	1.41	ug/Kg		<MDL	1	1.99	ug/Kg		<MDL	1.4	2.84	ug/Kg
Dieldrin		<MDL	2.7	5.46	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	2	3.98	ug/Kg		<MDL	2.8	5.68	ug/Kg
Endosulfan I		<MDL	2.7	5.46	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	2	3.98	ug/Kg		<MDL	2.8	5.68	ug/Kg
Endosulfan II		<MDL	2.7	5.46	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	2	3.98	ug/Kg		<MDL	2.8	5.68	ug/Kg
Endosulfan Sulfate		<MDL,L	2.7	5.46	ug/Kg		<MDL,L	1.4	2.82	ug/Kg		<MDL,L	2	3.98	ug/Kg		<MDL,L	2.8	5.68	ug/Kg
Endrin		<MDL	2.7	5.46	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	2	3.98	ug/Kg		<MDL	2.8	5.68	ug/Kg
Endrin Aldehyde		<MDL	5.5	10.9	ug/Kg		<MDL	2.8	5.63	ug/Kg		<MDL	4	7.97	ug/Kg		<MDL	5.7	11.4	ug/Kg
Gamma-BHC (Lindane)		<MDL	1.4	2.73	ug/Kg		<MDL	0.7	1.41	ug/Kg		<MDL	1	1.99	ug/Kg		<MDL	1.4	2.84	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	DWMP-09	DWMP-10	DWMP-11	DWMP-12
Locator:	DWMP-09	DWMP-10	DWMP-11	DWMP-12
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	Apr 17, 2006	Apr 18, 2006	Apr 18, 2006	Apr 19, 2006
Lab ID:	L38758-9	L38758-10	L38758-11	L38758-12
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	36.6	71	50.2	35.2

Locator DWMP-09 (- Dry Weight Basis)

Parameters	Value	Qual	MDL	RDL	Units
COMBINED LABS					
Gamma-Chlordane		<MDL	1.4	2.73	ug/Kg
Heptachlor		<MDL	1.4	2.73	ug/Kg
Heptachlor Epoxide		<MDL	1.4	2.73	ug/Kg
Methoxychlor		<MDL,L	14	27.3	ug/Kg
Toxaphene		<MDL	27	54.6	ug/Kg
M=OR EPA 8260B (7-3-02-002)					
1,1,2-Trichloroethylene		<MDL	2.7	5.46	ug/Kg
Ethylbenzene		<MDL	2.7	5.46	ug/Kg
Tetrachloroethylene		<MDL	2.7	5.46	ug/Kg
Total Xylenes		<MDL	2.7	5.46	ug/Kg

Locator DWMP-10 (- Dry Weight Basis)

Parameters	Value	Qual	MDL	RDL	Units
COMBINED LABS					
Gamma-Chlordane		<MDL	0.7	1.41	ug/Kg
Heptachlor		<MDL	0.7	1.41	ug/Kg
Heptachlor Epoxide		<MDL	0.7	1.41	ug/Kg
Methoxychlor		<MDL,L	7	14.1	ug/Kg
Toxaphene		<MDL	14	28.2	ug/Kg
M=OR EPA 8260B (7-3-02-002)					
1,1,2-Trichloroethylene		<MDL	1.4	2.82	ug/Kg
Ethylbenzene		<MDL	1.4	2.82	ug/Kg
Tetrachloroethylene		<MDL	1.4	2.82	ug/Kg
Total Xylenes		<MDL	1.4	2.82	ug/Kg

Locator DWMP-11 (- Dry Weight Basis)

Parameters	Value	Qual	MDL	RDL	Units
COMBINED LABS					
Gamma-Chlordane		<MDL	1	1.99	ug/Kg
Heptachlor		<MDL	1	1.99	ug/Kg
Heptachlor Epoxide		<MDL	1	1.99	ug/Kg
Methoxychlor		<MDL,L	10	19.9	ug/Kg
Toxaphene		<MDL	20	39.8	ug/Kg
M=OR EPA 8260B (7-3-02-002)					
1,1,2-Trichloroethylene		<MDL	2	3.98	ug/Kg
Ethylbenzene		<MDL	2	3.98	ug/Kg
Tetrachloroethylene		<MDL	2	3.98	ug/Kg
Total Xylenes		<MDL	2	3.98	ug/Kg

Locator DWMP-12 (- Dry Weight Basis)

Parameters	Value	Qual	MDL	RDL	Units
COMBINED LABS					
Gamma-Chlordane		<MDL	1.4	2.84	ug/Kg
Heptachlor		<MDL	1.4	2.84	ug/Kg
Heptachlor Epoxide		<MDL	1.4	2.84	ug/Kg
Methoxychlor		<MDL,L	14	28.4	ug/Kg
Toxaphene		<MDL	28	56.8	ug/Kg
M=OR EPA 8260B (7-3-02-002)					
1,1,2-Trichloroethylene		<MDL	2.8	5.68	ug/Kg
Ethylbenzene		<MDL	2.8	5.68	ug/Kg
Tetrachloroethylene		<MDL	2.8	5.68	ug/Kg
Total Xylenes		<MDL	2.8	5.68	ug/Kg

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-13					DWMP-14					DWMP-15					DWMP-16				
Descrip:	DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI				
Sampled:	Apr 18, 2006					Apr 18, 2006					Apr 18, 2006					Apr 18, 2006				
Lab ID:	L38758-13					L38758-14					L38758-15					L38758-16				
Matrix:	SALTWTRSED					SALTWTRSED					SALTWTRSED					SALTWTRSED				
% Solids:	82.5					49.4					52.3					52.5				
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		
COMBINED LABS																				
M=CV ASTM D422(03-02-005-001)																				
Clay *	1.1		0.5	1	%	14.6		0.5	1	%	15.4		0.5	1	%	15.3		0.5	1	%
Fines *	1.1		0.5	1	%	62.3		0.5	1	%	47.1		0.5	1	%	51.5		0.5	1	%
Gravel *	26.9	E	0.1	1	%	0.8	<RDL,E	0.1	1	%	13.1	E	0.1	1	%	19.9	E	0.1	1	%
p+0.00 *	7.8		0.1	1	%	0.3	<RDL	0.1	1	%	3		0.1	1	%	2.5		0.1	1	%
p+1.00 *	9.6		0.1	1	%	0.6	<RDL	0.1	1	%	3.3		0.1	1	%	2.4		0.1	1	%
p+10.0(equal/more than) *	1.1		0.5	1	%	10.4		0.5	1	%	8.7		0.5	1	%	9.5		0.5	1	%
p+2.00 *	26.4		0.1	1	%	1.4		0.1	1	%	6.2		0.1	1	%	4.3		0.1	1	%
p+3.00 *	19.7		0.1	1	%	7		0.1	1	%	7.7		0.1	1	%	5.9		0.1	1	%
p+4.00 *	4.2		0.1	1	%	23.3		0.1	1	%	10.1		0.1	1	%	9.5		0.1	1	%
p+5.00 *		<MDL	0.5	1	%	20.8		0.5	1	%	9.6		0.5	1	%	13.4		0.5	1	%
p+6.00 *		<MDL	0.5	1	%	11.4		0.5	1	%	9.6		0.5	1	%	4.8		0.5	1	%
p+7.00 *		<MDL	0.5	1	%	9.4		0.5	1	%	5.8		0.5	1	%	8.6		0.5	1	%
p+8.00 *		<MDL	0.5	1	%	6.2		0.5	1	%	6.7		0.5	1	%	9.5		0.5	1	%
p+9.00 *		<MDL	0.5	1	%	4.2		0.5	1	%	6.7		0.5	1	%	5.7		0.5	1	%
p-1.00 *	11		0.1	1	%	0.4	<RDL	0.1	1	%	5.1		0.1	1	%	3.2		0.1	1	%
p-2.00 *	4.8		0.1	1	%		<MDL	0.1	1	%	0.7	<RDL	0.1	1	%	1.7		0.1	1	%
p-2.00(less than) *	11.2		0.1	1	%	0.3	<RDL	0.1	1	%	7.2		0.1	1	%	15.1		0.1	1	%
Sand *	67.7		0.1	1	%	32.6		0.1	1	%	30.3		0.1	1	%	24.5		0.1	1	%
Silt *		<MDL	0.5	1	%	47.8		0.5	1	%	31.7		0.5	1	%	36.3		0.5	1	%
M=CV EPA 9030B (03-03-015-000)																				
Total Sulfide	33.3		3	12.1	mg/Kg	22.1		1	4.05	mg/Kg	1.5	<RDL	0.96	3.82	mg/Kg	32.8		1.9	7.62	mg/Kg
M=CV EPA 9060-PSEP96 (03-04-002-003																				
Total Organic Carbon	3950		800	1590	mg/Kg	19900		1600	3120	mg/Kg	10900		650	1310	mg/Kg	12700		880	1750	mg/Kg
M=CV SM2540-G (03-01-007-002)																				
Total Solids *	82.5		0.005	0.01	%	49.4		0.005	0.01	%	52.3		0.005	0.01	%	52.5		0.005	0.01	%
Total Volatile Solids	1.98		0.00606	0.0121	%	7		0.0101	0.0202	%	5.03		0.00956	0.0191	%	5.14		0.00952	0.019	%
M=CV SM4500-NH3-G(03-03-014-001)KCL																				
Ammonia Nitrogen	2.82		0.61	1.21	mg/Kg	2.25		1	2.02	mg/Kg	2.24		0.96	1.91	mg/Kg	1.6	<RDL	0.95	1.9	mg/Kg
M=ES NONE																				
Field Personnel	SH,JDD,JB,AF				none	SH,JDD,JB,AF				none	SH,JDD,JB,AF				none	SH,JDD,JB,AF				none
Sampcoordx1 *	1263300				ft	1263236				ft	1263058				ft	1262967				ft
Sampcoordx2 *	1263309				ft	1263236				ft	1263057				ft	1262976				ft
Sampcoordx3 *	1263267				ft	1263237				ft	1263059				ft	1262968				ft
Sampcoordx4 *	1263269				ft															
Sampcoordx5 *	1263258				ft															
Sampcoordy1 *	229642				ft	229554				ft	229447				ft	229353				ft
Sampcoordy2 *	229641				ft	229558				ft	229447				ft	229353				ft
Sampcoordy3 *	229689				ft	229555				ft	229445				ft	229355				ft
Sampcoordy4 *	229683				ft															
Sampcoordy5 *	229716				ft															
Sample Depth *	6				m	12				m	21				m	25				m
Sample Start Time *	1425				hr	1045				hr	1155				hr	1235				hr

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-13					DWMP-14					DWMP-15					DWMP-16				
Descrip:	DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI				
Sampled:	Apr 18, 2006					Apr 18, 2006					Apr 18, 2006					Apr 18, 2006				
Lab ID:	L38758-13					L38758-14					L38758-15					L38758-16				
Matrix:	SALTWTRSED					SALTWTRSED					SALTWTRSED					SALTWTRSED				
% Solids:	82.5					49.4					52.3					52.5				
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		
COMBINED LABS																				
Sampling Method *	20042				none	20042				none	20042				none	20042				none
Sediment Sampling Depth *	6				cm	14				cm	13				cm	13				cm
Sediment Sampling Range *	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm
Sediment Type	34S31				none	12W41				none	12T40				none	15N40				none
Tidal Condition	S				none	E				none	E				none	E				none
Tide Height *	-1				ft	1.5				ft	-0.5				ft	-1				ft
M=MT EPA 7471A (06-01-004-003)																				
Mercury, Total, CVAA	0.034	<RDL	0.023	0.233	mg/Kg	0.553		0.04	0.407	mg/Kg	0.39		0.038	0.375	mg/Kg	0.411		0.038	0.383	mg/Kg
M=MT EPA3050A/6010B (06-02-004-002)																				
Antimony, Total, ICP		<MDL,G	1.8	9.08	mg/Kg		<MDL,G	3	15.2	mg/Kg		<MDL,G	2.9	14.3	mg/Kg		<MDL,G	2.9	14.3	mg/Kg
Arsenic, Total, ICP		<MDL	3	15.2	mg/Kg	8.1	<RDL	5.1	25.3	mg/Kg	7.8	<RDL	4.8	23.9	mg/Kg	8	<RDL	4.8	23.8	mg/Kg
Cadmium, Total, ICP		<MDL	0.18	0.908	mg/Kg	1.1	<RDL	0.3	1.52	mg/Kg		<MDL	0.29	1.43	mg/Kg	0.57	<RDL	0.29	1.43	mg/Kg
Chromium, Total, ICP	14.1		0.3	1.52	mg/Kg	43.9		0.51	2.53	mg/Kg	50.3		0.48	2.39	mg/Kg	56.2		0.48	2.38	mg/Kg
Copper, Total, ICP	11.7		0.24	1.21	mg/Kg	61.7		0.4	2.02	mg/Kg	48		0.38	1.91	mg/Kg	58.1		0.38	1.9	mg/Kg
Lead, Total, ICP	10.5		1.8	9.08	mg/Kg	94.1		3	15.2	mg/Kg	45.3		2.9	14.3	mg/Kg	67		2.9	14.3	mg/Kg
Nickel, Total, ICP	19.2		1.2	6.06	mg/Kg	38.9		2	10.1	mg/Kg	53.7		1.9	9.56	mg/Kg	57.3		1.9	9.52	mg/Kg
Silver, Total, ICP		<MDL	0.24	1.21	mg/Kg	3.91		0.4	2.02	mg/Kg	1.1	<RDL	0.38	1.91	mg/Kg	1	<RDL	0.38	1.9	mg/Kg
Zinc, Total, ICP	37.1		0.3	1.52	mg/Kg	114		0.51	2.53	mg/Kg	95		0.48	2.39	mg/Kg	116		0.48	2.38	mg/Kg
M=OR EPA 3550B/8270C (7-3-01-004)																				
1,2,4-Trichlorobenzene		<MDL	0.33	0.646	ug/Kg		<MDL	0.55	1.08	ug/Kg		<MDL	0.52	1.02	ug/Kg		<MDL	0.51	1.02	ug/Kg
1,2-Dichlorobenzene		<MDL	0.33	0.646	ug/Kg		<MDL	0.55	1.08	ug/Kg		<MDL	0.52	1.02	ug/Kg		<MDL	0.51	1.02	ug/Kg
1,3-Dichlorobenzene		<MDL	0.33	0.646	ug/Kg		<MDL	0.55	1.08	ug/Kg		<MDL	0.52	1.02	ug/Kg		<MDL	0.51	1.02	ug/Kg
1,4-Dichlorobenzene		<MDL	0.33	0.646	ug/Kg	4.09		0.55	1.08	ug/Kg		<MDL	0.52	1.02	ug/Kg		<MDL	0.51	1.02	ug/Kg
2,4-Dimethylphenol		<MDL	3.3	6.46	ug/Kg		<MDL	5.5	10.8	ug/Kg		<MDL	5.2	10.2	ug/Kg		<MDL	5.1	10.2	ug/Kg
2-Methylnaphthalene	6.73		3.3	6.46	ug/Kg	12.1		5.5	10.8	ug/Kg	14.9		5.2	10.2	ug/Kg		<MDL	5.1	10.2	ug/Kg
2-Methylphenol		<MDL	6.4	13	ug/Kg		<MDL	11	21.7	ug/Kg		<MDL	10	20.5	ug/Kg		<MDL	10	20.4	ug/Kg
4-Methylphenol		<MDL	6.4	13	ug/Kg		<MDL	11	21.7	ug/Kg		<MDL	10	20.5	ug/Kg		<MDL	10	20.4	ug/Kg
Acenaphthene	7.22		3.3	6.46	ug/Kg	38.5		5.5	10.8	ug/Kg	16.1		5.2	10.2	ug/Kg	22.3		5.1	10.2	ug/Kg
Acenaphthylene	10.9		3.3	6.46	ug/Kg	70.9		5.5	10.8	ug/Kg	26.2		5.2	10.2	ug/Kg	25.1		5.1	10.2	ug/Kg
Anthracene	120		3.3	6.46	ug/Kg	277		5.5	10.8	ug/Kg	135		5.2	10.2	ug/Kg	127		5.1	10.2	ug/Kg
Benzo(a)anthracene	147		3.3	6.46	ug/Kg	553		5.5	10.8	ug/Kg	228		5.2	10.2	ug/Kg	221		5.1	10.2	ug/Kg
Benzo(a)pyrene	178		3.3	6.46	ug/Kg	678		5.5	10.8	ug/Kg	300		5.2	10.2	ug/Kg	290		5.1	10.2	ug/Kg
Benzo(b)fluoranthene	143		3.3	6.46	ug/Kg	632		5.5	10.8	ug/Kg	250		5.2	10.2	ug/Kg	234		5.1	10.2	ug/Kg
Benzo(g,h,i)perylene	85.1		3.3	6.46	ug/Kg	417		5.5	10.8	ug/Kg	175		5.2	10.2	ug/Kg	171		5.1	10.2	ug/Kg
Benzo(k)fluoranthene	175		3.3	6.46	ug/Kg	694		5.5	10.8	ug/Kg	310		5.2	10.2	ug/Kg	242		5.1	10.2	ug/Kg
Benzoic Acid	116		16	32.4	ug/Kg	146		26	54	ug/Kg	111		25	51.1	ug/Kg	115		25	50.9	ug/Kg
Benzyl Alcohol		<MDL	6.4	13	ug/Kg		<MDL	11	21.7	ug/Kg		<MDL	10	20.5	ug/Kg		<MDL	10	20.4	ug/Kg
Benzyl Butyl Phthalate		<MDL	6.4	13	ug/Kg	267		11	21.7	ug/Kg	70.2		10	20.5	ug/Kg	43.4		10	20.4	ug/Kg
Bis(2-Ethylhexyl)Phthalate	236	B	6.4	13	ug/Kg	1400	B	11	21.7	ug/Kg	746	B	10	20.5	ug/Kg	646	B	10	20.4	ug/Kg
Caffeine		<MDL	6.4	13	ug/Kg		<MDL	11	21.7	ug/Kg		<MDL	10	20.5	ug/Kg		<MDL	10	20.4	ug/Kg
Carbazole	32.2		3.3	6.46	ug/Kg	82		5.5	10.8	ug/Kg	32.9		5.2	10.2	ug/Kg	31.8		5.1	10.2	ug/Kg
Chrysene	268		3.3	6.46	ug/Kg	721		5.5	10.8	ug/Kg	352		5.2	10.2	ug/Kg	301		5.1	10.2	ug/Kg
Coprostanol		<MDL	64	130	ug/Kg		<MDL	110	217	ug/Kg		<MDL	100	205	ug/Kg		<MDL	100	204	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-13					DWMP-14					DWMP-15					DWMP-16				
Descrip:	DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI				
Sampled:	Apr 18, 2006					Apr 18, 2006					Apr 18, 2006					Apr 18, 2006				
Lab ID:	L38758-13					L38758-14					L38758-15					L38758-16				
Matrix:	SALTWTRSED					SALTWTRSED					SALTWTRSED					SALTWTRSED				
% Solids:	82.5					49.4					52.3					52.5				
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		
COMBINED LABS																				
Dibenzo(a,h)anthracene	23.4		3.3	6.46	ug/Kg	138		5.5	10.8	ug/Kg	52.8		5.2	10.2	ug/Kg	45.1		5.1	10.2	ug/Kg
Dibenzofuran	11.2		3.3	6.46	ug/Kg	24.3		5.5	10.8	ug/Kg	11.7		5.2	10.2	ug/Kg	12.8		5.1	10.2	ug/Kg
Diethyl Phthalate		<MDL	6.4	13	ug/Kg		<MDL	11	21.7	ug/Kg		<MDL	10	20.5	ug/Kg		<MDL	10	20.4	ug/Kg
Dimethyl Phthalate		<MDL	6.4	13	ug/Kg		<MDL	11	21.7	ug/Kg		<MDL	10	20.5	ug/Kg		<MDL	10	20.4	ug/Kg
Di-N-Butyl Phthalate	85.5	B	6.4	13	ug/Kg	54	B	11	21.7	ug/Kg	38.8	B	10	20.5	ug/Kg	31.6	B	10	20.4	ug/Kg
Di-N-Octyl Phthalate		<MDL	6.4	13	ug/Kg		<MDL	11	21.7	ug/Kg		<MDL	10	20.5	ug/Kg		<MDL	10	20.4	ug/Kg
Fluoranthene	259		3.3	6.46	ug/Kg	1070		5.5	10.8	ug/Kg	449		5.2	10.2	ug/Kg	417		5.1	10.2	ug/Kg
Fluorene	24.6		3.3	6.46	ug/Kg	61.5		5.5	10.8	ug/Kg	31.9		5.2	10.2	ug/Kg	32.2		5.1	10.2	ug/Kg
Hexachlorobenzene		<MDL	0.64	1.3	ug/Kg		<MDL	1.1	2.17	ug/Kg		<MDL	1	2.05	ug/Kg		<MDL	1	2.04	ug/Kg
Hexachlorobutadiene		<MDL	1.6	3.24	ug/Kg		<MDL	2.6	5.4	ug/Kg		<MDL	2.5	5.11	ug/Kg		<MDL	2.5	5.09	ug/Kg
Hexachloroethane		<MDL	1.6	3.24	ug/Kg		<MDL	2.6	5.4	ug/Kg		<MDL	2.5	5.11	ug/Kg		<MDL	2.5	5.09	ug/Kg
Indeno(1,2,3-Cd)Pyrene	72		3.3	6.46	ug/Kg	385		5.5	10.8	ug/Kg	162		5.2	10.2	ug/Kg	156		5.1	10.2	ug/Kg
Naphthalene	5.3	<RDL	3.3	6.46	ug/Kg	16.7		5.5	10.8	ug/Kg	9.9	<RDL	5.2	10.2	ug/Kg	9	<RDL	5.1	10.2	ug/Kg
N-Nitrosodiphenylamine		<MDL	6.4	13	ug/Kg		<MDL	11	21.7	ug/Kg		<MDL	10	20.5	ug/Kg		<MDL	10	20.4	ug/Kg
Pentachlorophenol		<MDL	16	32.4	ug/Kg		<MDL	26	54	ug/Kg		<MDL	25	51.1	ug/Kg		<MDL	25	50.9	ug/Kg
Phenanthrene	126		3.3	6.46	ug/Kg	474		5.5	10.8	ug/Kg	199		5.2	10.2	ug/Kg	238		5.1	10.2	ug/Kg
Phenol	7.9	<RDL,E	6.4	13	ug/Kg		<MDL,E	11	21.7	ug/Kg		<MDL,E	10	20.5	ug/Kg		<MDL,E	10	20.4	ug/Kg
Pyrene	292		3.3	6.46	ug/Kg	1130		5.5	10.8	ug/Kg	436		5.2	10.2	ug/Kg	457		5.1	10.2	ug/Kg
Total HPAHS	1640		3.3	6.46	ug/Kg	6420		5.5	10.8	ug/Kg	2720		5.2	10.2	ug/Kg	2530		5.1	10.2	ug/Kg
Total LPAHs	301		3.3	6.46	ug/Kg	949		5.5	10.8	ug/Kg	432		5.2	10.2	ug/Kg	459		5.1	10.2	ug/Kg
M=OR EPA 8081A/8082 (7-3-03-002)																				
4,4'-DDD		<MDL	1.2	2.42	ug/Kg	14		2	4.05	ug/Kg	4.09		1.9	3.82	ug/Kg	3.8	<RDL	1.9	3.81	ug/Kg
4,4'-DDE		<MDL	1.2	2.42	ug/Kg		<MDL	2	4.05	ug/Kg		<MDL	1.9	3.82	ug/Kg		<MDL	1.9	3.81	ug/Kg
4,4'-DDT	3.36		1.2	2.42	ug/Kg		<MDL	2	4.05	ug/Kg		<MDL	1.9	3.82	ug/Kg		<MDL	1.9	3.81	ug/Kg
Aldrin		<MDL	1.2	2.42	ug/Kg		<MDL	2	4.05	ug/Kg		<MDL	1.9	3.82	ug/Kg		<MDL	1.9	3.81	ug/Kg
Alpha-BHC		<MDL	0.61	1.21	ug/Kg		<MDL	1	2.02	ug/Kg		<MDL	0.96	1.91	ug/Kg		<MDL	0.95	1.9	ug/Kg
Alpha-Chlordane		<MDL,E	0.61	1.21	ug/Kg	1.9	<RDL,E	1	2.02	ug/Kg		<MDL,E	0.96	1.91	ug/Kg		<MDL,E	0.95	1.9	ug/Kg
Aroclor 1016		<MDL,TA	7	14.1	ug/Kg		<MDL,TA	57	114	ug/Kg		<MDL,TA	18	36.1	ug/Kg		<MDL,TA	19	37.5	ug/Kg
Aroclor 1221		<MDL	3	6.06	ug/Kg		<MDL	5.1	10.1	ug/Kg		<MDL	4.8	9.56	ug/Kg		<MDL	4.8	9.52	ug/Kg
Aroclor 1232		<MDL,TA	11	21.9	ug/Kg		<MDL,TA	110	217	ug/Kg		<MDL,TA	31	62.7	ug/Kg		<MDL,TA	40	79.4	ug/Kg
Aroclor 1242		<MDL,TA	11	21.7	ug/Kg		<MDL,TA	160	322	ug/Kg		<MDL,TA	50	100	ug/Kg		<MDL,TA	57	114	ug/Kg
Aroclor 1248	15.5		1.6	3.03	ug/Kg	135		2.6	5.06	ug/Kg	39		2.5	4.78	ug/Kg	48.8		2.5	4.76	ug/Kg
Aroclor 1254	28.2		1.6	3.03	ug/Kg	306		2.6	5.06	ug/Kg	91.6		2.5	4.78	ug/Kg	105		2.5	4.76	ug/Kg
Aroclor 1260	7.39		1.6	3.03	ug/Kg	151		2.6	5.06	ug/Kg	69.6		2.5	4.78	ug/Kg	71.4		2.5	4.76	ug/Kg
Beta-BHC		<MDL	0.61	1.21	ug/Kg		<MDL	1	2.02	ug/Kg		<MDL	0.96	1.91	ug/Kg		<MDL	0.95	1.9	ug/Kg
Delta-BHC		<MDL	0.61	1.21	ug/Kg		<MDL	1	2.02	ug/Kg		<MDL	0.96	1.91	ug/Kg		<MDL	0.95	1.9	ug/Kg
Dieldrin		<MDL	1.2	2.42	ug/Kg		<MDL	2	4.05	ug/Kg		<MDL	1.9	3.82	ug/Kg		<MDL	1.9	3.81	ug/Kg
Endosulfan I		<MDL	1.2	2.42	ug/Kg		<MDL	2	4.05	ug/Kg		<MDL	1.9	3.82	ug/Kg		<MDL	1.9	3.81	ug/Kg
Endosulfan II		<MDL	1.2	2.42	ug/Kg		<MDL	2	4.05	ug/Kg		<MDL	1.9	3.82	ug/Kg		<MDL	1.9	3.81	ug/Kg
Endosulfan Sulfate		<MDL,L	1.2	2.42	ug/Kg		<MDL,L	2	4.05	ug/Kg		<MDL,L	1.9	3.82	ug/Kg		<MDL,L	1.9	3.81	ug/Kg
Endrin		<MDL	1.2	2.42	ug/Kg		<MDL	2	4.05	ug/Kg		<MDL	1.9	3.82	ug/Kg		<MDL	1.9	3.81	ug/Kg
Endrin Aldehyde		<MDL	2.4	4.85	ug/Kg		<MDL	4	8.1	ug/Kg		<MDL	3.8	7.65	ug/Kg		<MDL	3.8	7.62	ug/Kg
Gamma-BHC (Lindane)		<MDL	0.61	1.21	ug/Kg		<MDL	1	2.02	ug/Kg		<MDL	0.96	1.91	ug/Kg		<MDL	0.95	1.9	ug/Kg

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PROJECT: 423368-80

	Locator:	DWMP-13					Locator:	DWMP-14					Locator:	DWMP-15					Locator:	DWMP-16				
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
	Sampled:	Apr 18, 2006					Sampled:	Apr 18, 2006					Sampled:	Apr 18, 2006					Sampled:	Apr 18, 2006				
	Lab ID:	L38758-13					Lab ID:	L38758-14					Lab ID:	L38758-15					Lab ID:	L38758-16				
	Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED				
	% Solids:	82.5					% Solids:	49.4					% Solids:	52.3					% Solids:	52.5				
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		
COMBINED LABS																				
Gamma-Chlordane		<MDL	0.61	1.21	ug/Kg		<MDL	1	2.02	ug/Kg		<MDL	0.96	1.91	ug/Kg		<MDL	0.95	1.9	ug/Kg
Heptachlor		<MDL	0.61	1.21	ug/Kg		<MDL	1	2.02	ug/Kg		<MDL	0.96	1.91	ug/Kg		<MDL	0.95	1.9	ug/Kg
Heptachlor Epoxide		<MDL	0.61	1.21	ug/Kg		<MDL	1	2.02	ug/Kg		<MDL	0.96	1.91	ug/Kg		<MDL	0.95	1.9	ug/Kg
Methoxychlor		<MDL,L	6.1	12.1	ug/Kg		<MDL,L	10	20.2	ug/Kg		<MDL,L	9.6	19.1	ug/Kg		<MDL,L	9.5	19	ug/Kg
Toxaphene		<MDL	12	24.2	ug/Kg		<MDL	20	40.5	ug/Kg		<MDL	19	38.2	ug/Kg		<MDL	19	38.1	ug/Kg
M=OR EPA 8260B (7-3-02-002)																				
1,1,2-Trichloroethylene		<MDL	1.2	2.42	ug/Kg		<MDL	2	4.05	ug/Kg		<MDL	1.9	3.82	ug/Kg		<MDL	1.9	3.81	ug/Kg
Ethylbenzene		<MDL	1.2	2.42	ug/Kg		<MDL	2	4.05	ug/Kg		<MDL	1.9	3.82	ug/Kg		<MDL	1.9	3.81	ug/Kg
Tetrachloroethylene		<MDL	1.2	2.42	ug/Kg		<MDL	2	4.05	ug/Kg		<MDL	1.9	3.82	ug/Kg		<MDL	1.9	3.81	ug/Kg
Total Xylenes		<MDL	1.2	2.42	ug/Kg		<MDL	2	4.05	ug/Kg		<MDL	1.9	3.82	ug/Kg		<MDL	1.9	3.81	ug/Kg

* Not converted to dry weight basis for this parameter

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King County Environmental Lab Matrix Report

COMBINED LABS-Solid

Locator	Sample Depth	Lab ID	Ammonia Nitrogen mg/Kg	Clay * %	Fines * %	Gravel * %	p+0.00 * %	p+1.00 * %	p+10.0(equal/more than) * %	p+2.00 * %	p+3.00 * %	p+4.00 * %	p+5.00 * %	p+6.00 * %	p+7.00 * %	p+8.00 * %	p+9.00 * %	p-1.00 * %	p-2.00 * %	p-2.00(less than) * %	Sand * %	Silt * %	Total Organic Carbon mg/Kg	Total Solids * %	Total Sulfide mg/Kg	Total Volatile Solids %	Arsenic, Total, ICP mg/Kg
DWMP-01	9	L38758-1	6	13.4	53.7	7.4	2.1	1.7	10.1	2.7	8.1	18.3	20.2	6.7	6.7	6.7	3.4	2.5	0.4	4.6	32.9	40.3	35000	43.7	49.9	14.9	11
DWMP-02	12	L38758-2	2.35	7.1	30.1	8.3	3.2	5.6	5.3	13.8	14.5	14.1	9.7	4.4	3.5	5.3	1.8	3.5	1.6	3.2	51.1	23	11300	52.7		4.97	7.4
DWMP-03	15	L38758-3	2.52	9.9	44.1	4.6	1.3	3.1	6.6	11.2	12	16.8	14.3	6.6	7.7	5.5	3.3	1.6	1.2	1.8	44.4	34.2	14700	44.9	2.9	6.55	7.8
DWMP-04	25	L38758-4	1.94	16.3	52.5	10.8	3.4	4.4	10	11.9	12.8	9.8	16.3	6.3	8.2	5.4	6.3	5.1	1.3	4.4	42.2	36.2	8920	55.6	6.33	4.66	7.2
DWMP-05	4	L38758-5	7.29	0.7	2.8	62.5	12.9	7		6.6	4.4	2.5	1.4			0.7	0.7	24.2	7.7	30.6	33.3	2.1	8500	75.4	43.9	2.67	7.3
DWMP-06	18	L38758-6	3.61	6.6	28.1	1.2	1.7	9.2	3.7	35.1	15.2	6.1	9.4	3.7	4.7	3.7	2.8	0.9		0.3	67.2	21.5	13600	51.8	26.8	5.37	5.6
DWMP-07	33	L38758-7	3.71	7.1	36.3	8.1	2.6	4.4	5	13.3	15.9	12.3	14.1	4	7.1	4	2	2.9	1.4	3.8	48.6	29.2	9510	52.6	13.5	4.85	7
DWMP-08	20	L38758-8	5.64	8.4	43.1	5.8	4.1	5.6	4.8	13.6	11.7	10.4	16.8	4.8	8.4	4.8	3.6	3.6	0.1	2.1	45.4	34.7	21600	41.7	259	10.3	6.7
DWMP-09	28	L38758-9	3.99	10.5	63.2	2.5	1.1	1.6	9.2	3.6	7.4	13.9	26.3	5.3	13.2	7.9	1.3	1.6	0.3	0.6	27.5	52.6	24700	36.6	55.2	9.23	9
DWMP-10	7	L38758-10	4.69	3.6	8.4	1.5	2	10.7	1.8	38.4	30.4	9.5	2.4	1.2	1.2		1.8	1.2	0.1	0.2	90.9	4.8	7860	71	77.2	3.13	5.5
DWMP-11	19	L38758-11	2.67	8.5	36.3	2	1.5	9.7	6.4	29.5	12.6	7.6	11.7	5.3	5.3	5.3	2.1	1	0.6	0.5	61	27.7	19400	50.2	39.2	7.65	5.6
DWMP-12	30	L38758-12	3.92	12	75.9	0.6	0.2	0.4	9.3	1.5	6.4	12.3	28	10.7	14.6	10.7	2.7	0.2	0.1	0.3	20.8	63.9	25500	35.2	33.5	9.94	11
DWMP-13	6	L38758-13	2.82	1.1	1.1	26.9	7.8	9.6	1.1	26.4	19.7	4.2						11	4.8	11.2	67.7		3950	82.5	33.3	1.98	
DWMP-14	12	L38758-14	2.25	14.6	62.3	0.8	0.3	0.6	10.4	1.4	7	23.3	20.8	11.4	9.4	6.2	4.2	0.4		0.3	32.6	47.8	19900	49.4	22.1	7	8.1
DWMP-15	21	L38758-15	2.24	15.4	47.1	13.1	3	3.3	8.7	6.2	7.7	10.1	9.6	9.6	5.8	6.7	6.7	5.1	0.7	7.2	30.3	31.7	10900	52.3	1.5	5.03	7.8
DWMP-16	25	L38758-16	1.6	15.3	51.5	19.9	2.5	2.4	9.5	4.3	5.9	9.5	13.4	4.8	8.6	9.5	5.7	3.2	1.7	15.1	24.5	36.3	12700	52.5	32.8	5.14	8

PROJECT: 423368-80

King County Environmental Lab Matrix Report

COMBINED LABS-Solid

Locator	Sample Depth	Lab ID	Cadmium, Total, ICP mg/Kg	Chromium, Total, ICP mg/Kg	Copper, Total, ICP mg/Kg	Lead, Total, ICP mg/Kg	Mercury, Total, CVAA mg/Kg	Nickel, Total, ICP mg/Kg	Silver, Total, ICP mg/Kg	Zinc, Total, ICP mg/Kg	1,4-Dichlorobenzene ug/Kg	2-Methylnaphthalene ug/Kg	4,4'-DDD ug/Kg	4,4'-DDT ug/Kg	Acenaphthene ug/Kg	Acenaphthylene ug/Kg	Alpha-Chlordane ug/Kg	Anthracene ug/Kg	Aroclor 1248 ug/Kg	Aroclor 1254 ug/Kg	Aroclor 1260 ug/Kg	Benzo(a)anthracene ug/Kg	Benzo(a)pyrene ug/Kg	Benzo(b)fluoranthene ug/Kg
DWMP-01	9	L38758-1	1.2	46.9	76.9	119	0.602	38.9	4.51	141			14.5	27.2	100	85	2.63	1370	132	240	162	3460	4460	4260
DWMP-02	12	L38758-2		35.9	43.3	58.3	0.32	35.1	0.7	88		12.4	3		41.9	41		179	19.5	58.4	56.9	412	476	448
DWMP-03	15	L38758-3	0.47	37.6	53.9	70.2	0.922	35.6	1.6	106		11	11.1		27.8	34.5	2.27	188	51	138	97.3	443	461	492
DWMP-04	25	L38758-4		43.3	42.8	43.5	0.32	44.2		89.2		24.5	3.63		148	41.2		408	19.8	62.2	57.4	538	540	410
DWMP-05	4	L38758-5	0.58	21.2	38.6	46	0.061	25.1		357		11.2	1.9		20.2	67.8		188	25.1	39.7	15.1	370	399	345
DWMP-06	18	L38758-6		26.3	34.6	30.5	0.19	24.9		74.9		7.3	1.9		13.8	19.3		126	27.8	64.7	48.3	228	270	305
DWMP-07	33	L38758-7	0.38	34	41.1	45.1	0.3	31.2	0.82	76.2		5.9	4.33		16.1	39.2		125	33.5	86.1	72.2	243	281	270
DWMP-08	20	L38758-8	0.5	38.6	75.5	65.5	0.499	33.6	1.5	102	19.7	23.1	9.74		140	44.4	1.4	434	75.8	188	117	739	741	604
DWMP-09	28	L38758-9	0.87	45.4	58.2	74.6	0.568	42.3	1.8	108		19.9	3		45.1	21.2	2	267	78.4	181	118	391	664	396
DWMP-10	7	L38758-10	0.69	30.1	58.9	69	0.744	22.4	0.59	88.7	20.4		1.7		52			177	23.2	37.6	19.3	641	696	721
DWMP-11	19	L38758-11	0.38	29.9	39.2	47	0.26	26.1	0.8	81.3	2.39	20.3	5.22		32.9	31.1		207	45.4	105	74.1	333	396	321
DWMP-12	30	L38758-12	0.85	50.6	59.4	78.7	0.54	48.3	2.3	118	3.66	9.9	7.67		18	17.4		133	118	230	163	269	398	355
DWMP-13	6	L38758-13		14.1	11.7	10.5	0.034	19.2		37.1		6.73		3.36	7.22	10.9		120	15.5	28.2	7.39	147	178	143
DWMP-14	12	L38758-14	1.1	43.9	61.7	94.1	0.553	38.9	3.91	114	4.09	12.1	14		38.5	70.9	1.9	277	135	306	151	553	678	632
DWMP-15	21	L38758-15		50.3	48	45.3	0.39	53.7	1.1	95		14.9	4.09		16.1	26.2		135	39	91.6	69.6	228	300	250
DWMP-16	25	L38758-16	0.57	56.2	58.1	67	0.411	57.3	1	116			3.8		22.3	25.1		127	48.8	105	71.4	221	290	234

PROJECT: 423368-80

King County Environmental Lab Matrix Report

COMBINED LABS-Solid

Locator	Sample Depth	Lab ID	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl Alcohol	Benzyl Butyl Phthalate	Bis(2-Ethylhexyl)Phthalate	Carbazole	Chrysene	Coprostanol	Di-N-Butyl Phthalate	Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl Phthalate	Dimethyl Phthalate	Fluoranthene	Fluorene	Indeno(1,2,3-Cd)Pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene	Total HPAHS
			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
DWMP-01	9	L38758-1	1900	4690			281	1620	245	6610		249	652	82			4550	339	1970	66	2000		4050	36600
DWMP-02	12	L38758-2	281	565	128		60.5	349	61.7	575		167	89.9	24.9	12		884	65.5	262	15.4	565		820	4820
DWMP-03	15	L38758-3	267	490	145		75.3	568	68.8	626		214	84.4	20.5			824	52.1	254	19.4	350	14	762	4700
DWMP-04	25	L38758-4	288	545	109		59.5	315	78.4	615		243	104	47.1			1070	163	275	25.2	1120	12	1190	5580
DWMP-05	4	L38758-5		448	475	16.4	66	837	64.6	540		135	61.7	12.4			651	41.2	168	7	219	8.8	749	3730
DWMP-06	18	L38758-6	168	241	137		52.1	604	39.2	305	710	158	47.7	11.5			407	29.9	156	9.7	207	14	392	2530
DWMP-07	33	L38758-7	169	293	117		53.8	409	35.2	356		169	50.8	11.5			424	33.3	163	7.8	234		407	2660
DWMP-08	20	L38758-8	403	659	181		109	1240	149	890		237	153	67.4		31.4	1580	159	386	25.4	1160	20	1530	7700
DWMP-09	28	L38758-9	322	505	178		93.4	817	72.1	820		104	82.8	30.3			937	67.2	290	18.5	667		1020	5440
DWMP-10	7	L38758-10	401	656			459	1300	98.9	754		140	148				1560	66	383		752		1830	7800
DWMP-11	19	L38758-11	225	357	137		476	452	55.6	450		31.7	60.8	34.7		16	625	74.5	198	27.5	490		681	3650
DWMP-12	30	L38758-12	226	335	169		98.6	1200	35.5	398		55.7	53.4	12			449	29.8	196	13	221		509	3180
DWMP-13	6	L38758-13	85.1	175	116			236	32.2	268		85.5	23.4	11.2			259	24.6	72	5.3	126	7.9	292	1640
DWMP-14	12	L38758-14	417	694	146		267	1400	82	721		54	138	24.3			1070	61.5	385	16.7	474		1130	6420
DWMP-15	21	L38758-15	175	310	111		70.2	746	32.9	352		38.8	52.8	11.7			449	31.9	162	9.9	199		436	2720
DWMP-16	25	L38758-16	171	242	115		43.4	646	31.8	301		31.6	45.1	12.8			417	32.2	156	9	238		457	2530

PROJECT: 423368-80

King County Environmental Lab Matrix Report

COMBINED LABS-Solid

Locator	Sample Depth	Lab ID	Total LPAHs ug/Kg	Sampcoordx1 * ft	Sampcoordx2 * ft	Sampcoordx3 * ft	Sampcoordx4 * ft	Sampcoordx5 * ft	Sampcoordy1 * ft	Sampcoordy2 * ft	Sampcoordy3 * ft	Sampcoordy4 * ft	Sampcoordy5 * ft	Sample Depth * m	Sample Start Time * hr	Sampling Method * none	Sediment Sampling Depth * cm	Tide Height * ft
DWMP-01	9	L38758-1	4000	1264055	1264053	1264042	1264054		228807	228823	228820	228815		9	940	20042	14	3
DWMP-02	12	L38758-2	920	1263921	1263917	1263921	1263926		228768	228766	228762	228770		12	1118	20042	9	0
DWMP-03	15	L38758-3	682	1263845	1263849	1263848			228643	228639	228640			15	1225	20042	17	-1
DWMP-04	25	L38758-4	1920	1263625	1263621	1263632	1263636		228540	228551	228551	228548		25	848	20042	15	5
DWMP-05	4	L38758-5	554	1263835	1263841	1263833	1263824	1263822	229035	229051	229031	229040	229032	4	1020	20042	6	1
DWMP-06	18	L38758-6	413	1263545	1263543	1263539			228834	228839	228839			18	1305	20042	17	-1.5
DWMP-07	33	L38758-7	462	1263354	1263358	1263352			228663	228658	228663			33	940	20042	16	4
DWMP-08	20	L38758-8	1990	1263343	1263341	1263352			228903	228915	228904			20	1345	20042	17	-1.4
DWMP-09	28	L38758-9	1110	1263214	1263217	1263217			228805	228807	228803			28	1425	20042	17	0
DWMP-10	7	L38758-10	1050	1263566	1263562	1263559	1263562		229325	229334	229330	229326		7	840	20042	8	4.5
DWMP-11	19	L38758-11	884	1263261	1263272	1263274			229146	229154	229155			19	1323	20042	14	-1.3
DWMP-12	30	L38758-12	443	1263060	1263055	1263054			228968	228967	228961			30	1035	20042	17	2.5
DWMP-13	6	L38758-13	301	1263300	1263309	1263267	1263269	1263258	229642	229641	229689	229683	229716	6	1425	20042	6	-1
DWMP-14	12	L38758-14	949	1263236	1263236	1263237			229554	229558	229555			12	1045	20042	14	1.5
DWMP-15	21	L38758-15	432	1263058	1263057	1263059			229447	229447	229445			21	1155	20042	13	-0.5
DWMP-16	25	L38758-16	459	1262967	1262976	1262968			229353	229353	229355			25	1235	20042	13	-1

KING COUNTY ENVIRONMENTAL LABORATORY

Analytical Text Value Report

AUG 23 2006, 08:16

PROJECT:423368-80

SAMPLENL	PARM NAME	TEXT VALUE
L38758-1	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-1	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-1	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-2	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-2	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-3	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-3	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-3	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-4	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-4	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-4	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-5	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-5	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-5	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-6	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-6	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-6	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-7	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-7	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-7	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-8	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-8	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-8	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-9	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-9	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-9	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-10	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-10	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-10	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-11	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-11	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-11	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-12	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners

L38758-12	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-12	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-13	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-13	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-13	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-14	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-14	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-14	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-15	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-15	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-15	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L38758-16	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L38758-16	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L38758-16	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners

SAP MDL Comparison Table

SAP MDL Comparison

PROJECT: 423368-80

Exceeds SAP MDL

	Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05	DWMP-06	DWMP-07	DWMP-08
	Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
	Sampled:	Apr 17, 2006	Apr 17, 2006	Apr 17, 2006	Apr 19, 2006	Apr 17, 2006	Apr 17, 2006	Apr 19, 2006	Apr 17, 2006
	Lab ID:	L38758-1	L38758-2	L38758-3	L38758-4	L38758-5	L38758-6	L38758-7	L38758-8
	Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
	% Solids:	43.7	52.7	44.9	55.6	75.4	51.8	52.6	41.7
Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS										
M=CV ASTM D422(03-02-005-001)										
Fines *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Gravel *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sand *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Silt *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Clay *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+0.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+1.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+10.0(equal/more than) *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+2.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+3.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+4.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+5.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+6.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+7.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+8.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+9.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p-1.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p-2.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p-2.00(less than) *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
M=CV EPA 9030B (03-03-015-000)										
Total Sulfide	mg/Kg	1.0	2.3	0.95	1.1	0.9	3.3	1.9	0.95	24
M=CV EPA 9060-PSEP96 (03-04-002-003										
Total Organic Carbon	mg/Kg	1000	3000	1600	1600	1300	1300	1600	1400	1700
M=CV SM2540-G (03-01-007-002)										
Total Solids *	%	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Total Volatile Solids	%	0.005	0.0114	0.00949	0.0111	0.00899	0.00663	0.00965	0.00951	0.012
M=CV SM4500-NH3-G(03-03-014-001)KCL										
Ammonia Nitrogen	mg/Kg	0.2	1.1	0.95	1.1	0.9	0.66	0.97	0.95	1.2
M=MT EPA 7471A (06-01-004-003)										
Mercury, Total, CVAA	mg/Kg	0.04	0.048	0.038	0.042	0.036	0.027	0.039	0.038	0.048
M=MT EPA3050A/6010B (06-02-004-002)										
Antimony, Total, ICP	mg/Kg	3.0	3.4	2.8	3.3	2.7	2	2.9	2.9	3.6
Arsenic, Total, ICP	mg/Kg	5.0	5.7	4.7	5.6	4.5	3.3	4.8	4.8	6
Cadmium, Total, ICP	mg/Kg	0.30	0.34	0.28	0.33	0.27	0.2	0.29	0.29	0.36
Chromium, Total, ICP	mg/Kg	0.50	0.57	0.47	0.56	0.45	0.33	0.48	0.48	0.6
Copper, Total, ICP	mg/Kg	0.40	0.46	0.38	0.45	0.36	0.27	0.39	0.38	0.48
Lead, Total, ICP	mg/Kg	3.0	3.4	2.8	3.3	2.7	2	2.9	2.9	3.6
Nickel, Total, ICP	mg/Kg	2.0	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4
Silver, Total, ICP	mg/Kg	0.40	0.46	0.38	0.45	0.36	0.27	0.39	0.38	0.48
Zinc, Total, ICP	mg/Kg	0.50	0.57	0.47	0.56	0.45	0.33	0.48	0.48	0.6
M=OR EPA 3550B/8270C (7-3-01-004)										
1,2,4-Trichlorobenzene	ug/Kg	0.54	6.2	0.51	0.6	0.49	0.36	0.52	0.51	0.65
1,2-Dichlorobenzene	ug/Kg	0.54	6.2	0.51	0.6	0.49	0.36	0.52	0.51	0.65
1,3-Dichlorobenzene	ug/Kg	0.54	6.2	0.51	0.6	0.49	0.36	0.52	0.51	0.65
1,4-Dichlorobenzene	ug/Kg	0.54	6.2	0.51	0.6	0.49	0.36	0.52	0.51	0.65
2,4-Dimethylphenol	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
2-Methylnaphthalene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
2-Methylphenol	ug/Kg	11	120	10	12	9.5	7	10	10	13
4-Methylphenol	ug/Kg	11	120	10	12	9.5	7	10	10	13
Acenaphthene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Acenaphthylene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Anthracene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Benzo(a)anthracene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Benzo(a)pyrene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5

SAP MDL Comparison

PROJECT: 423368-80

Exceeds SAP MDL

Locator:		DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05	DWMP-06	DWMP-07	DWMP-08
Descrip:		DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:		Apr 17, 2006	Apr 17, 2006	Apr 17, 2006	Apr 19, 2006	Apr 17, 2006	Apr 17, 2006	Apr 19, 2006	Apr 17, 2006
Lab ID:		L38758-1	L38758-2	L38758-3	L38758-4	L38758-5	L38758-6	L38758-7	L38758-8
Matrix:		SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:		43.7	52.7	44.9	55.6	75.4	51.8	52.6	41.7
Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS										
Benzo(b)fluoranthene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Benzo(g,h,i)perylene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Benzo(k)fluoranthene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Benzoic Acid	ug/Kg	26	300	25	29	23	17	25	25	31
Benzyl Alcohol	ug/Kg	11	120	10	12	9.5	7	10	10	13
Benzyl Butyl Phthalate	ug/Kg	11	120	10	12	9.5	7	10	10	13
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	120	10	12	9.5	7	10	10	13
Caffeine	ug/Kg	NA	120	10	12	9.5	7	10	10	13
Carbazole	ug/Kg	NA	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Chrysene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Coprostanol	ug/Kg	110	1200	100	120	95	70	100	100	130
Dibenzo(a,h)anthracene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Dibenzofuran	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Diethyl Phthalate	ug/Kg	11	120	10	12	9.5	7	10	10	13
Dimethyl Phthalate	ug/Kg	11	120	10	12	9.5	7	10	10	13
Di-N-Butyl Phthalate	ug/Kg	11	120	10	12	9.5	7	10	10	13
Di-N-Octyl Phthalate	ug/Kg	11	120	10	12	9.5	7	10	10	13
Fluoranthene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Fluorene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Hexachlorobenzene	ug/Kg	1.1	12	1	1.2	0.95	0.7	1	1	1.3
Hexachlorobutadiene	ug/Kg	2.6	30	2.5	2.9	2.3	1.7	2.5	2.5	3.1
Hexachloroethane	ug/Kg	5.4	30	2.5	2.9	2.3	1.7	2.5	2.5	3.1
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Naphthalene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
N-Nitrosodiphenylamine	ug/Kg	11	120	10	12	9.5	7	10	10	13
Pentachlorophenol	ug/Kg	26	300	25	29	23	17	25	25	31
Phenanthrene	ug/Kg	5.4	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Phenol	ug/Kg	11	120	10	12	9.5	7	10	10	13
Pyrene	ug/Kg	11	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Total HPAHS	ug/Kg	NA	62	5.1	6	4.9	3.6	5.2	5.1	6.5
Total LPAHs	ug/Kg	NA	62	5.1	6	4.9	3.6	5.2	5.1	6.5
M=OR EPA 8081A/8082 (7-3-03-002)										
4,4'-DDD	ug/Kg	0.68	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4
4,4'-DDE	ug/Kg	0.68	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4
4,4'-DDT	ug/Kg	0.68	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4
Aldrin	ug/Kg	0.68	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4
Alpha-BHC	ug/Kg	0.68	1.1	0.95	1.1	0.9	0.66	0.97	0.95	1.2
Alpha-Chlordane	ug/Kg	0.68	1.1	0.95	1.1	0.9	0.66	0.97	0.95	1.2
Aroclor 1016	ug/Kg	2.6	59	11	21	8.8	15	13	13	29
Aroclor 1221	ug/Kg	6.6	5.7	4.7	5.6	4.5	3.3	4.8	4.8	6
Aroclor 1232	ug/Kg	6.6	110	4.7	33	22	25	31	29	65
Aroclor 1242	ug/Kg	6.6	190	28	60	31	23	39	42	89
Aroclor 1248	ug/Kg	2.6	3	2.5	2.9	2.3	1.7	2.5	2.5	3.1
Aroclor 1254	ug/Kg	2.6	3	2.5	2.9	2.3	1.7	2.5	2.5	3.1
Aroclor 1260	ug/Kg	2.6	3	2.5	2.9	2.3	1.7	2.5	2.5	3.1
Beta-BHC	ug/Kg	0.68	1.1	0.95	1.1	0.9	0.66	0.97	0.95	1.2
Delta-BHC	ug/Kg	0.68	1.1	0.95	1.1	0.9	0.66	0.97	0.95	1.2
Dieldrin	ug/Kg	0.68	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4
Endosulfan I	ug/Kg	0.68	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4
Endosulfan II	ug/Kg	0.68	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4
Endosulfan Sulfate	ug/Kg	0.68	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4
Endrin	ug/Kg	0.68	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4
Endrin Aldehyde	ug/Kg	0.68	4.6	3.8	4.5	3.6	2.7	3.9	3.8	4.8
Gamma-BHC (Lindane)	ug/Kg	0.68	1.1	0.95	1.1	0.9	0.66	0.97	0.95	1.2
Gamma-Chlordane	ug/Kg	0.68	1.1	0.95	1.1	0.9	0.66	0.97	0.95	1.2

SAP MDL Comparison

PROJECT: 423368-80

Exceeds SAP MDL

	Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05	DWMP-06	DWMP-07	DWMP-08
	Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
	Sampled:	Apr 17, 2006	Apr 17, 2006	Apr 17, 2006	Apr 19, 2006	Apr 17, 2006	Apr 17, 2006	Apr 19, 2006	Apr 17, 2006
	Lab ID:	L38758-1	L38758-2	L38758-3	L38758-4	L38758-5	L38758-6	L38758-7	L38758-8
	Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
	% Solids:	43.7	52.7	44.9	55.6	75.4	51.8	52.6	41.7
Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS										
Heptachlor	ug/Kg	0.68	1.1	0.95	1.1	0.9	0.66	0.97	0.95	1.2
Heptachlor Epoxide	ug/Kg	0.68	1.1	0.95	1.1	0.9	0.66	0.97	0.95	1.2
Methoxychlor	ug/Kg	3.4	11	9.5	11	9	6.6	9.7	9.5	12
Toxaphene	ug/Kg	6.8	23	19	22	18	13	19	19	24
M=OR EPA 8260B (7-3-02-002)										
1,1,2-Trichloroethylene	ug/Kg	2.0	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4
Ethylbenzene	ug/Kg	2.0	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4
Tetrachloroethylene	ug/Kg	2.0	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4
Total Xylenes	ug/Kg	2.0	2.3	1.9	2.2	1.8	1.3	1.9	1.9	2.4

* Not converted to dry weight basis for this parameter

SAP MDL Comparison

PROJECT: 423368-80

Exceeds SAP MDL

	Locator:	DWMP-09	DWMP-10	DWMP-11	DWMP-12	DWMP-13	DWMP-14	DWMP-15	DWMP-16
	Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
	Sampled:	Apr 17, 2006	Apr 18, 2006	Apr 18, 2006	Apr 19, 2006	Apr 18, 2006	Apr 18, 2006	Apr 18, 2006	Apr 18, 2006
	Lab ID:	L38758-9	L38758-10	L38758-11	L38758-12	L38758-13	L38758-14	L38758-15	L38758-16
	Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
	% Solids:	36.6	71	50.2	35.2	82.5	49.4	52.3	52.5
Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS										
M=CV ASTM D422(03-02-005-001)										
Fines *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Gravel *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sand *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Silt *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Clay *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+0.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+1.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+10.0(equal/more than) *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+2.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+3.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+4.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+5.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+6.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+7.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+8.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+9.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p-1.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p-2.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p-2.00(less than) *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
M=CV EPA 9030B (03-03-015-000)										
Total Sulfide	mg/Kg	1.0	6.8	7	2	1.4	3	1	0.96	1.9
M=CV EPA 9060-PSEP96 (03-04-002-003										
Total Organic Carbon	mg/Kg	1000	1700	1200	1500	1500	800	1600	650	880
M=CV SM2540-G (03-01-007-002)										
Total Solids *	%	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Total Volatile Solids	%	0.005	0.0137	0.00704	0.00996	0.0142	0.00606	0.0101	0.00956	0.00952
M=CV SM4500-NH3-G(03-03-014-001)KCL										
Ammonia Nitrogen	mg/Kg	0.2	1.4	0.7	1	1.4	0.61	1	0.96	0.95
M=MT EPA 7471A (06-01-004-003)										
Mercury, Total, CVAA	mg/Kg	0.04	0.057	0.028	0.042	0.057	0.023	0.04	0.038	0.038
M=MT EPA3050A/6010B (06-02-004-002)										
Antimony, Total, ICP	mg/Kg	3.0	4.1	2.1	3	4.3	1.8	3	2.9	2.9
Arsenic, Total, ICP	mg/Kg	5.0	6.8	3.5	5	7.1	3	5.1	4.8	4.8
Cadmium, Total, ICP	mg/Kg	0.30	0.41	0.21	0.3	0.43	0.18	0.3	0.29	0.29
Chromium, Total, ICP	mg/Kg	0.50	0.68	0.35	0.5	0.71	0.3	0.51	0.48	0.48
Copper, Total, ICP	mg/Kg	0.40	0.55	0.28	0.4	0.57	0.24	0.4	0.38	0.38
Lead, Total, ICP	mg/Kg	3.0	4.1	2.1	3	4.3	1.8	3	2.9	2.9
Nickel, Total, ICP	mg/Kg	2.0	2.7	1.4	2	2.8	1.2	2	1.9	1.9
Silver, Total, ICP	mg/Kg	0.40	0.55	0.28	0.4	0.57	0.24	0.4	0.38	0.38
Zinc, Total, ICP	mg/Kg	0.50	0.68	0.35	0.5	0.71	0.3	0.51	0.48	0.48
M=OR EPA 3550B/8270C (7-3-01-004)										
1,2,4-Trichlorobenzene	ug/Kg	0.54	0.74	3.8	0.54	0.77	0.33	0.55	0.52	0.51
1,2-Dichlorobenzene	ug/Kg	0.54	0.74	3.8	0.54	0.77	0.33	0.55	0.52	0.51
1,3-Dichlorobenzene	ug/Kg	0.54	0.74	3.8	0.54	0.77	0.33	0.55	0.52	0.51
1,4-Dichlorobenzene	ug/Kg	0.54	0.74	3.8	0.54	0.77	0.33	0.55	0.52	0.51
2,4-Dimethylphenol	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
2-Methylnaphthalene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
2-Methylphenol	ug/Kg	11	14	75	11	15	6.4	11	10	10
4-Methylphenol	ug/Kg	11	14	75	11	15	6.4	11	10	10
Acenaphthene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Acenaphthylene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Anthracene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Benzo(a)anthracene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Benzo(a)pyrene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1

SAP MDL Comparison

PROJECT: 423368-80

Exceeds SAP MDL

Locator:		DWMP-09	DWMP-10	DWMP-11	DWMP-12	DWMP-13	DWMP-14	DWMP-15	DWMP-16
Descrip:		DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:		Apr 17, 2006	Apr 18, 2006	Apr 18, 2006	Apr 19, 2006	Apr 18, 2006	Apr 18, 2006	Apr 18, 2006	Apr 18, 2006
Lab ID:		L38758-9	L38758-10	L38758-11	L38758-12	L38758-13	L38758-14	L38758-15	L38758-16
Matrix:		SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:		36.6	71	50.2	35.2	82.5	49.4	52.3	52.5
Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS										
Benzo(b)fluoranthene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Benzo(g,h,i)perylene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Benzo(k)fluoranthene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Benzoic Acid	ug/Kg	26	36	180	26	37	16	26	25	25
Benzyl Alcohol	ug/Kg	11	14	75	11	15	6.4	11	10	10
Benzyl Butyl Phthalate	ug/Kg	11	14	75	11	15	6.4	11	10	10
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	14	75	11	15	6.4	11	10	10
Caffeine	ug/Kg	NA	14	75	11	15	6.4	11	10	10
Carbazole	ug/Kg	NA	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Chrysene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Coprostanol	ug/Kg	110	140	750	110	150	64	110	100	100
Dibenzo(a,h)anthracene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Dibenzofuran	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Diethyl Phthalate	ug/Kg	11	14	75	11	15	6.4	11	10	10
Dimethyl Phthalate	ug/Kg	11	14	75	11	15	6.4	11	10	10
Di-N-Butyl Phthalate	ug/Kg	11	14	75	11	15	6.4	11	10	10
Di-N-Octyl Phthalate	ug/Kg	11	14	75	11	15	6.4	11	10	10
Fluoranthene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Fluorene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Hexachlorobenzene	ug/Kg	1.1	1.4	7.5	1.1	1.5	0.64	1.1	1	1
Hexachlorobutadiene	ug/Kg	2.6	3.6	18	2.6	3.7	1.6	2.6	2.5	2.5
Hexachloroethane	ug/Kg	5.4	3.6	18	2.6	3.7	1.6	2.6	2.5	2.5
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Naphthalene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
N-Nitrosodiphenylamine	ug/Kg	11	14	75	11	15	6.4	11	10	10
Pentachlorophenol	ug/Kg	26	36	180	26	37	16	26	25	25
Phenanthrene	ug/Kg	5.4	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Phenol	ug/Kg	11	14	75	11	15	6.4	11	10	10
Pyrene	ug/Kg	11	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Total HPAHS	ug/Kg	NA	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
Total LPAHs	ug/Kg	NA	7.4	38	5.4	7.7	3.3	5.5	5.2	5.1
M=OR EPA 8081A/8082 (7-3-03-002)										
4,4'-DDD	ug/Kg	0.68	2.7	1.4	2	2.8	1.2	2	1.9	1.9
4,4'-DDE	ug/Kg	0.68	2.7	1.4	2	2.8	1.2	2	1.9	1.9
4,4'-DDT	ug/Kg	0.68	2.7	1.4	2	2.8	1.2	2	1.9	1.9
Aldrin	ug/Kg	0.68	2.7	1.4	2	2.8	1.2	2	1.9	1.9
Alpha-BHC	ug/Kg	0.68	1.4	0.7	1	1.4	0.61	1	0.96	0.95
Alpha-Chlordane	ug/Kg	0.68	1.4	0.7	1	1.4	0.61	1	0.96	0.95
Aroclor 1016	ug/Kg	2.6	30	11	22	48	7	57	18	19
Aroclor 1221	ug/Kg	6.6	6.8	3.5	5	7.1	3	5.1	4.8	4.8
Aroclor 1232	ug/Kg	6.6	74	21	40	110	11	110	31	40
Aroclor 1242	ug/Kg	6.6	79	23	58	120	11	160	50	57
Aroclor 1248	ug/Kg	2.6	3.6	1.8	2.6	3.7	1.6	2.6	2.5	2.5
Aroclor 1254	ug/Kg	2.6	3.6	1.8	2.6	3.7	1.6	2.6	2.5	2.5
Aroclor 1260	ug/Kg	2.6	3.6	1.8	2.6	3.7	1.6	2.6	2.5	2.5
Beta-BHC	ug/Kg	0.68	1.4	0.7	1	1.4	0.61	1	0.96	0.95
Delta-BHC	ug/Kg	0.68	1.4	0.7	1	1.4	0.61	1	0.96	0.95
Dieldrin	ug/Kg	0.68	2.7	1.4	2	2.8	1.2	2	1.9	1.9
Endosulfan I	ug/Kg	0.68	2.7	1.4	2	2.8	1.2	2	1.9	1.9
Endosulfan II	ug/Kg	0.68	2.7	1.4	2	2.8	1.2	2	1.9	1.9
Endosulfan Sulfate	ug/Kg	0.68	2.7	1.4	2	2.8	1.2	2	1.9	1.9
Endrin	ug/Kg	0.68	2.7	1.4	2	2.8	1.2	2	1.9	1.9
Endrin Aldehyde	ug/Kg	0.68	5.5	2.8	4	5.7	2.4	4	3.8	3.8
Gamma-BHC (Lindane)	ug/Kg	0.68	1.4	0.7	1	1.4	0.61	1	0.96	0.95
Gamma-Chlordane	ug/Kg	0.68	1.4	0.7	1	1.4	0.61	1	0.96	0.95

SAP MDL Comparison

PROJECT: 423368-80

Exceeds SAP MDL

	Locator:	DWMP-09	DWMP-10	DWMP-11	DWMP-12	DWMP-13	DWMP-14	DWMP-15	DWMP-16
	Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
	Sampled:	Apr 17, 2006	Apr 18, 2006	Apr 18, 2006	Apr 19, 2006	Apr 18, 2006	Apr 18, 2006	Apr 18, 2006	Apr 18, 2006
	Lab ID:	L38758-9	L38758-10	L38758-11	L38758-12	L38758-13	L38758-14	L38758-15	L38758-16
	Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
	% Solids:	36.6	71	50.2	35.2	82.5	49.4	52.3	52.5
Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS										
Heptachlor	ug/Kg	0.68	1.4	0.7	1	1.4	0.61	1	0.96	0.95
Heptachlor Epoxide	ug/Kg	0.68	1.4	0.7	1	1.4	0.61	1	0.96	0.95
Methoxychlor	ug/Kg	3.4	14	7	10	14	6.1	10	9.6	9.5
Toxaphene	ug/Kg	6.8	27	14	20	28	12	20	19	19
M=OR EPA 8260B (7-3-02-002)										
1,1,2-Trichloroethylene	ug/Kg	2.0	2.7	1.4	2	2.8	1.2	2	1.9	1.9
Ethylbenzene	ug/Kg	2.0	2.7	1.4	2	2.8	1.2	2	1.9	1.9
Tetrachloroethylene	ug/Kg	2.0	2.7	1.4	2	2.8	1.2	2	1.9	1.9
Total Xylenes	ug/Kg	2.0	2.7	1.4	2	2.8	1.2	2	1.9	1.9

* Not converted to dry weight basis for this parameter

SAP & SMS OC and Dry Weight Normalization MDL Check Tables

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	2.7	0.18	0.81	0.15	0.63
1,2-Dichlorobenzene	2.7	0.18	2.3	0.15	2.1
1,4-Dichlorobenzene	2.7	0.18	3.1	0.15	2.9
2-Methylnaphthalene	27	1.76	38	1.5	36
2,4-Dimethylphenol	27	61.78	29		-33
2-Methylphenol	53	121.28	63		-58
4-Methylphenol	53	121.28	670		549
Acenaphthene	27	1.76	16	1.5	14
Acenaphthylene	27	1.76	66	1.5	64
Anthracene	27	1.76	220	1.5	218
Benzo(a)anthracene	27	1.76	110	1.5	108
Benzo(a)pyrene	27	1.76	99	1.5	97
Benzo(b)fluoranthene	27	1.76	115	1.5	113
Benzo(g,h,i)perylene	27	1.76	31	1.5	29
Benzo(k)fluoranthene	27	1.76	115	1.5	113
Benzoic Acid	130	297.48	650		353
Benzyl Alcohol	53	121.28	57		-64
Benzyl Butyl Phthalate	53	3.46	4.9	3	1.4
Bis(2-Ethylhexyl)Phthalate	53	3.46	47	3	44
Chrysene	27	1.76	110	1.5	108
Dibenzo(a,h)anthracene	27	1.76	12	1.5	10
Dibenzofuran	27	1.76	15	1.5	13
Diethyl Phthalate	53	3.46	61	3	58
Dimethyl Phthalate	53	3.46	53	3	50
Di-N-Butyl Phthalate	53	3.46	220	3	217
Di-N-Octyl Phthalate	53	3.46	58	3	55
Fluorene	27	1.76	23	1.5	21
Fluoranthene	27	1.76	160	1.5	158
Hexachlorobenzene	5.3	0.35	0.38	0.3	0.03
Hexachlorobutadiene	13	0.85	3.9	0.74	3.1
Indeno(1,2,3-Cd)Pyrene	27	1.76	34	1.5	32
N-Nitrosodiphenylamine	53	3.46	11	3	8
Naphthalene	27	1.76	99	1.5	97
Pentachlorophenol	130	297.48	360		63
Phenanthrene	27	1.76	100	1.5	98
Phenol	53	121.28	420		299
Pyrene	27	1.76	1000	3	998
Aroclor 1016	26	1.70		0.74	
Aroclor 1221	2.5	0.16		1.9	
Aroclor 1232	50	3.27		1.9	
Aroclor 1242	85	5.56		0.74	
Aroclor 1248	1.3	0.08		0.74	
Aroclor 1254	1.3	0.08		0.74	
Aroclor 1260	1.3	0.08		0.74	
Total Organic Carbon (dry)	35011.44165				
Total Solids	43.7				
HPAH	270	17.65	960		942
LPAH	189	12.35	370		358
Total PCB	167.4	10.94	12	7.5	1.1

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.05	0.81	0.15	0.76
1,2-Dichlorobenzene	0.27	0.05	2.3	0.15	2.3
1,4-Dichlorobenzene	0.27	0.05	3.1	0.15	3.1
2-Methylnaphthalene	2.7	0.45	38	1.5	38
2,4-Dimethylphenol	2.7	5.12	29		24
2-Methylphenol	5.3	10.06	63		53
4-Methylphenol	5.3	10.06	670		660
Acenaphthene	2.7	0.45	16	1.5	16
Acenaphthylene	2.7	0.45	66	1.5	66
Anthracene	2.7	0.45	220	1.5	220
Benzo(a)anthracene	2.7	0.45	110	1.5	110
Benzo(a)pyrene	2.7	0.45	99	1.5	99
Benzo(b)fluoranthene	2.7	0.45	115	1.5	115
Benzo(g,h,i)perylene	2.7	0.45	31	1.5	31
Benzo(k)fluoranthene	2.7	0.45	115	1.5	115
Benzoic Acid	13	24.67	650		625
Benzyl Alcohol	5.3	10.06	57		47
Benzyl Butyl Phthalate	5.3	0.89	4.9	3	4.0
Bis(2-Ethylhexyl)Phthalate	5.3	0.89	47	3	46
Chrysene	2.7	0.45	110	1.5	110
Dibenzo(a,h)anthracene	2.7	0.45	12	1.5	12
Dibenzofuran	2.7	0.45	15	1.5	15
Diethyl Phthalate	5.3	0.89	61	3	60
Dimethyl Phthalate	5.3	0.89	53	3	52
Di-N-Butyl Phthalate	5.3	0.89	220	3	219
Di-N-Octyl Phthalate	5.3	0.89	58	3	57
Fluorene	2.7	0.45	23	1.5	23
Fluoranthene	2.7	0.45	160	1.5	160
Hexachlorobenzene	0.53	0.09	0.38	0.3	0.29
Hexachlorobutadiene	1.3	0.22	3.9	0.74	3.7
Indeno(1,2,3-Cd)Pyrene	2.7	0.45	34	1.5	34
N-Nitrosodiphenylamine	5.3	0.89	11	3	10
Naphthalene	2.7	0.45	99	1.5	99
Pentachlorophenol	13	24.67	360		335
Phenanthrene	2.7	0.45	100	1.5	100
Phenol	5.3	10.06	420		410
Pyrene	2.7	0.45	1000	3	1000
Aroclor 1016	5.6	0.94		0.74	
Aroclor 1221	2.5	0.42		1.9	
Aroclor 1232	2.5	0.42		1.9	
Aroclor 1242	15	2.51		0.74	
Aroclor 1248	1.3	0.22		0.74	
Aroclor 1254	1.3	0.22		0.74	
Aroclor 1260	1.3	0.22		0.74	
Total Organic Carbon (dry)	11347.24858				
Total Solids	52.7				
HPAH	27	4.52	960		955
LPAH	18.9	3.16	370		367
Total PCB	29.5	4.93	12	7.5	7.1

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.04	0.81	0.15	0.77
1,2-Dichlorobenzene	0.27	0.04	2.3	0.15	2.3
1,4-Dichlorobenzene	0.27	0.04	3.1	0.15	3.1
2-Methylnaphthalene	2.7	0.41	38	1.5	38
2,4-Dimethylphenol	2.7	6.01	29		23
2-Methylphenol	5.3	11.80	63		51
4-Methylphenol	5.3	11.80	670		658
Acenaphthene	2.7	0.41	16	1.5	16
Acenaphthylene	2.7	0.41	66	1.5	66
Anthracene	2.7	0.41	220	1.5	220
Benzo(a)anthracene	2.7	0.41	110	1.5	110
Benzo(a)pyrene	2.7	0.41	99	1.5	99
Benzo(b)fluoranthene	2.7	0.41	115	1.5	115
Benzo(g,h,i)perylene	2.7	0.41	31	1.5	31
Benzo(k)fluoranthene	2.7	0.41	115	1.5	115
Benzoic Acid	13	28.95	650		621
Benzyl Alcohol	5.3	11.80	57		45
Benzyl Butyl Phthalate	5.3	0.80	4.9	3	4.1
Bis(2-Ethylhexyl)Phthalate	5.3	0.80	47	3	46
Chrysene	2.7	0.41	110	1.5	110
Dibenzo(a,h)anthracene	2.7	0.41	12	1.5	12
Dibenzofuran	2.7	0.41	15	1.5	15
Diethyl Phthalate	5.3	0.80	61	3	60
Dimethyl Phthalate	5.3	0.80	53	3	52
Di-N-Butyl Phthalate	5.3	0.80	220	3	219
Di-N-Octyl Phthalate	5.3	0.80	58	3	57
Fluorene	2.7	0.41	23	1.5	23
Fluoranthene	2.7	0.41	160	1.5	160
Hexachlorobenzene	0.53	0.08	0.38	0.3	0.30
Hexachlorobutadiene	1.3	0.20	3.9	0.74	3.7
Indeno(1,2,3-Cd)Pyrene	2.7	0.41	34	1.5	34
N-Nitrosodiphenylamine	5.3	0.80	11	3	10
Naphthalene	2.7	0.41	99	1.5	99
Pentachlorophenol	13	28.95	360		331
Phenanthrene	2.7	0.41	100	1.5	100
Phenol	5.3	11.80	420		408
Pyrene	2.7	0.41	1000	3	1000
Aroclor 1016	9.6	1.46		0.74	
Aroclor 1221	2.5	0.38		1.9	
Aroclor 1232	15	2.28		1.9	
Aroclor 1242	27	4.10		0.74	
Aroclor 1248	1.3	0.20		0.74	
Aroclor 1254	1.3	0.20		0.74	
Aroclor 1260	1.3	0.20		0.74	
Total Organic Carbon (dry)	14677.06013				
Total Solids	44.9				
HPAH	27	4.10	960		956
LPAH	18.9	2.87	370		367
Total PCB	58	8.80	12	7.5	3.2

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.05	0.81	0.15	0.76
1,2-Dichlorobenzene	0.27	0.05	2.3	0.15	2.2
1,4-Dichlorobenzene	0.27	0.05	3.1	0.15	3.0
2-Methylnaphthalene	2.7	0.54	38	1.5	37
2,4-Dimethylphenol	2.7	4.86	29		24
2-Methylphenol	5.3	9.53	63		53
4-Methylphenol	5.3	9.53	670		660
Acenaphthene	2.7	0.54	16	1.5	15
Acenaphthylene	2.7	0.54	66	1.5	65
Anthracene	2.7	0.54	220	1.5	219
Benzo(a)anthracene	2.7	0.54	110	1.5	109
Benzo(a)pyrene	2.7	0.54	99	1.5	98
Benzo(b)fluoranthene	2.7	0.54	115	1.5	114
Benzo(g,h,i)perylene	2.7	0.54	31	1.5	30
Benzo(k)fluoranthene	2.7	0.54	115	1.5	114
Benzoic Acid	13	23.38	650		627
Benzyl Alcohol	5.3	9.53	57		47
Benzyl Butyl Phthalate	5.3	1.07	4.9	3	3.8
Bis(2-Ethylhexyl)Phthalate	5.3	1.07	47	3	46
Chrysene	2.7	0.54	110	1.5	109
Dibenzo(a,h)anthracene	2.7	0.54	12	1.5	11
Dibenzofuran	2.7	0.54	15	1.5	14
Diethyl Phthalate	5.3	1.07	61	3	60
Dimethyl Phthalate	5.3	1.07	53	3	52
Di-N-Butyl Phthalate	5.3	1.07	220	3	219
Di-N-Octyl Phthalate	5.3	1.07	58	3	57
Fluorene	2.7	0.54	23	1.5	22
Fluoranthene	2.7	0.54	160	1.5	159
Hexachlorobenzene	0.53	0.11	0.38	0.3	0.27
Hexachlorobutadiene	1.3	0.26	3.9	0.74	3.6
Indeno(1,2,3-Cd)Pyrene	2.7	0.54	34	1.5	33
N-Nitrosodiphenylamine	5.3	1.07	11	3	10
Naphthalene	2.7	0.54	99	1.5	98
Pentachlorophenol	13	23.38	360		337
Phenanthrene	2.7	0.54	100	1.5	99
Phenol	5.3	9.53	420		410
Pyrene	2.7	0.54	1000	3	999
Aroclor 1016	4.9	0.99		0.74	
Aroclor 1221	2.5	0.50		1.9	
Aroclor 1232	12	2.42		1.9	
Aroclor 1242	17	3.43		0.74	
Aroclor 1248	1.3	0.26		0.74	
Aroclor 1254	1.3	0.26		0.74	
Aroclor 1260	1.3	0.26		0.74	
Total Organic Carbon (dry)	8920.863309				
Total Solids	55.6				
HPAH	27	5.44	960		955
LPAH	18.9	3.81	370		366
Total PCB	40.3	8.13	12	7.5	3.9

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.04	0.81	0.15	0.77
1,2-Dichlorobenzene	0.27	0.04	2.3	0.15	2.3
1,4-Dichlorobenzene	0.27	0.04	3.1	0.15	3.1
2-Methylnaphthalene	2.7	0.42	38	1.5	38
2,4-Dimethylphenol	2.7	3.58	29		25
2-Methylphenol	5.3	7.03	63		56
4-Methylphenol	5.3	7.03	670		663
Acenaphthene	2.7	0.42	16	1.5	16
Acenaphthylene	2.7	0.42	66	1.5	66
Anthracene	2.7	0.42	220	1.5	220
Benzo(a)anthracene	2.7	0.42	110	1.5	110
Benzo(a)pyrene	2.7	0.42	99	1.5	99
Benzo(b)fluoranthene	2.7	0.42	115	1.5	115
Benzo(g,h,i)perylene	2.7	0.42	31	1.5	31
Benzo(k)fluoranthene	2.7	0.42	115	1.5	115
Benzoic Acid	13	17.24	650		633
Benzyl Alcohol	5.3	7.03	57		50
Benzyl Butyl Phthalate	5.3	0.83	4.9	3	4.1
Bis(2-Ethylhexyl)Phthalate	5.3	0.83	47	3	46
Chrysene	2.7	0.42	110	1.5	110
Dibenzo(a,h)anthracene	2.7	0.42	12	1.5	12
Dibenzofuran	2.7	0.42	15	1.5	15
Diethyl Phthalate	5.3	0.83	61	3	60
Dimethyl Phthalate	5.3	0.83	53	3	52
Di-N-Butyl Phthalate	5.3	0.83	220	3	219
Di-N-Octyl Phthalate	5.3	0.83	58	3	57
Fluorene	2.7	0.42	23	1.5	23
Fluoranthene	2.7	0.42	160	1.5	160
Hexachlorobenzene	0.53	0.08	0.38	0.3	0.30
Hexachlorobutadiene	1.3	0.20	3.9	0.74	3.7
Indeno(1,2,3-Cd)Pyrene	2.7	0.42	34	1.5	34
N-Nitrosodiphenylamine	5.3	0.83	11	3	10
Naphthalene	2.7	0.42	99	1.5	99
Pentachlorophenol	13	17.24	360		343
Phenanthrene	2.7	0.42	100	1.5	100
Phenol	5.3	7.03	420		413
Pyrene	2.7	0.42	1000	3	1000
Aroclor 1016	11	1.72		0.74	
Aroclor 1221	2.5	0.39		1.9	
Aroclor 1232	19	2.96		1.9	
Aroclor 1242	17	2.65		0.74	
Aroclor 1248	1.3	0.20		0.74	
Aroclor 1254	1.3	0.20		0.74	
Aroclor 1260	1.3	0.20		0.74	
Total Organic Carbon (dry)	8501.32626				
Total Solids	75.4				
HPAH	27	4.21	960		956
LPAH	18.9	2.95	370		367
Total PCB	53.4	8.33	12	7.5	3.7

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.04	0.81	0.15	0.77
1,2-Dichlorobenzene	0.27	0.04	2.3	0.15	2.3
1,4-Dichlorobenzene	0.27	0.04	3.1	0.15	3.1
2-Methylnaphthalene	2.7	0.38	38	1.5	38
2,4-Dimethylphenol	2.7	5.21	29		24
2-Methylphenol	5.3	10.23	63		53
4-Methylphenol	5.3	10.23	670		660
Acenaphthene	2.7	0.38	16	1.5	16
Acenaphthylene	2.7	0.38	66	1.5	66
Anthracene	2.7	0.38	220	1.5	220
Benzo(a)anthracene	2.7	0.38	110	1.5	110
Benzo(a)pyrene	2.7	0.38	99	1.5	99
Benzo(b)fluoranthene	2.7	0.38	115	1.5	115
Benzo(g,h,i)perylene	2.7	0.38	31	1.5	31
Benzo(k)fluoranthene	2.7	0.38	115	1.5	115
Benzoic Acid	13	25.10	650		625
Benzyl Alcohol	5.3	10.23	57		47
Benzyl Butyl Phthalate	5.3	0.75	4.9	3	4.2
Bis(2-Ethylhexyl)Phthalate	5.3	0.75	47	3	46
Chrysene	2.7	0.38	110	1.5	110
Dibenzo(a,h)anthracene	2.7	0.38	12	1.5	12
Dibenzofuran	2.7	0.38	15	1.5	15
Diethyl Phthalate	5.3	0.75	61	3	60
Dimethyl Phthalate	5.3	0.75	53	3	52
Di-N-Butyl Phthalate	5.3	0.75	220	3	219
Di-N-Octyl Phthalate	5.3	0.75	58	3	57
Fluorene	2.7	0.38	23	1.5	23
Fluoranthene	2.7	0.38	160	1.5	160
Hexachlorobenzene	0.53	0.07	0.38	0.3	0.31
Hexachlorobutadiene	1.3	0.18	3.9	0.74	3.7
Indeno(1,2,3-Cd)Pyrene	2.7	0.38	34	1.5	34
N-Nitrosodiphenylamine	5.3	0.75	11	3	10
Naphthalene	2.7	0.38	99	1.5	99
Pentachlorophenol	13	25.10	360		335
Phenanthrene	2.7	0.38	100	1.5	100
Phenol	5.3	10.23	420		410
Pyrene	2.7	0.38	1000	3	1000
Aroclor 1016	6.9	0.98		0.74	
Aroclor 1221	2.5	0.35		1.9	
Aroclor 1232	16	2.26		1.9	
Aroclor 1242	20	2.83		0.74	
Aroclor 1248	1.3	0.18		0.74	
Aroclor 1254	1.3	0.18		0.74	
Aroclor 1260	1.3	0.18		0.74	
Total Organic Carbon (dry)	13648.64865				
Total Solids	51.8				
HPAH	27	3.82	960		956
LPAH	18.9	2.67	370		367
Total PCB	49.3	6.97	12	7.5	5.0

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.05	0.81	0.15	0.76
1,2-Dichlorobenzene	0.27	0.05	2.3	0.15	2.2
1,4-Dichlorobenzene	0.27	0.05	3.1	0.15	3.0
2-Methylnaphthalene	2.7	0.54	38	1.5	37
2,4-Dimethylphenol	2.7	5.13	29		24
2-Methylphenol	5.3	10.08	63		53
4-Methylphenol	5.3	10.08	670		660
Acenaphthene	2.7	0.54	16	1.5	15
Acenaphthylene	2.7	0.54	66	1.5	65
Anthracene	2.7	0.54	220	1.5	219
Benzo(a)anthracene	2.7	0.54	110	1.5	109
Benzo(a)pyrene	2.7	0.54	99	1.5	98
Benzo(b)fluoranthene	2.7	0.54	115	1.5	114
Benzo(g,h,i)perylene	2.7	0.54	31	1.5	30
Benzo(k)fluoranthene	2.7	0.54	115	1.5	114
Benzoic Acid	13	24.71	650		625
Benzyl Alcohol	5.3	10.08	57		47
Benzyl Butyl Phthalate	5.3	1.06	4.9	3	3.8
Bis(2-Ethylhexyl)Phthalate	5.3	1.06	47	3	46
Chrysene	2.7	0.54	110	1.5	109
Dibenzo(a,h)anthracene	2.7	0.54	12	1.5	11
Dibenzofuran	2.7	0.54	15	1.5	14
Diethyl Phthalate	5.3	1.06	61	3	60
Dimethyl Phthalate	5.3	1.06	53	3	52
Di-N-Butyl Phthalate	5.3	1.06	220	3	219
Di-N-Octyl Phthalate	5.3	1.06	58	3	57
Fluorene	2.7	0.54	23	1.5	22
Fluoranthene	2.7	0.54	160	1.5	159
Hexachlorobenzene	0.53	0.11	0.38	0.3	0.27
Hexachlorobutadiene	1.3	0.26	3.9	0.74	3.6
Indeno(1,2,3-Cd)Pyrene	2.7	0.54	34	1.5	33
N-Nitrosodiphenylamine	5.3	1.06	11	3	10
Naphthalene	2.7	0.54	99	1.5	98
Pentachlorophenol	13	24.71	360		335
Phenanthrene	2.7	0.54	100	1.5	99
Phenol	5.3	10.08	420		410
Pyrene	2.7	0.54	1000	3	999
Aroclor 1016	7	1.40		0.74	
Aroclor 1221	2.5	0.50		1.9	
Aroclor 1232	15	3.00		1.9	
Aroclor 1242	22	4.40		0.74	
Aroclor 1248	1.3	0.26		0.74	
Aroclor 1254	1.3	0.26		0.74	
Aroclor 1260	1.3	0.26		0.74	
Total Organic Carbon (dry)	9505.703422				
Total Solids	52.6				
HPAH	27	5.40	960		955
LPAH	18.9	3.78	370		366
Total PCB	50.4	10.08	12	7.5	1.9

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.03	0.81	0.15	0.78
1,2-Dichlorobenzene	0.27	0.03	2.3	0.15	2.3
1,4-Dichlorobenzene	0.27	0.03	3.1	0.15	3.1
2-Methylnaphthalene	2.7	0.30	38	1.5	38
2,4-Dimethylphenol	2.7	6.47	29		23
2-Methylphenol	5.3	12.71	63		50
4-Methylphenol	5.3	12.71	670		657
Acenaphthene	2.7	0.30	16	1.5	16
Acenaphthylene	2.7	0.30	66	1.5	66
Anthracene	2.7	0.30	220	1.5	220
Benzo(a)anthracene	2.7	0.30	110	1.5	110
Benzo(a)pyrene	2.7	0.30	99	1.5	99
Benzo(b)fluoranthene	2.7	0.30	115	1.5	115
Benzo(g,h,i)perylene	2.7	0.30	31	1.5	31
Benzo(k)fluoranthene	2.7	0.30	115	1.5	115
Benzoic Acid	13	31.18	650		619
Benzyl Alcohol	5.3	12.71	57		44
Benzyl Butyl Phthalate	5.3	0.59	4.9	3	4.3
Bis(2-Ethylhexyl)Phthalate	5.3	0.59	47	3	46
Chrysene	2.7	0.30	110	1.5	110
Dibenzo(a,h)anthracene	2.7	0.30	12	1.5	12
Dibenzofuran	2.7	0.30	15	1.5	15
Diethyl Phthalate	5.3	0.59	61	3	60
Dimethyl Phthalate	5.3	0.59	53	3	52
Di-N-Butyl Phthalate	5.3	0.59	220	3	219
Di-N-Octyl Phthalate	5.3	0.59	58	3	57
Fluorene	2.7	0.30	23	1.5	23
Fluoranthene	2.7	0.30	160	1.5	160
Hexachlorobenzene	0.53	0.06	0.38	0.3	0.32
Hexachlorobutadiene	1.3	0.14	3.9	0.74	3.8
Indeno(1,2,3-Cd)Pyrene	2.7	0.30	34	1.5	34
N-Nitrosodiphenylamine	5.3	0.59	11	3	10
Naphthalene	2.7	0.30	99	1.5	99
Pentachlorophenol	13	31.18	360		329
Phenanthrene	2.7	0.30	100	1.5	100
Phenol	5.3	12.71	420		407
Pyrene	2.7	0.30	1000	3	1000
Aroclor 1016	12	1.33		0.74	
Aroclor 1221	2.5	0.28		1.9	
Aroclor 1232	27	3.00		1.9	
Aroclor 1242	37	4.11		0.74	
Aroclor 1248	1.3	0.14		0.74	
Aroclor 1254	1.3	0.14		0.74	
Aroclor 1260	1.3	0.14		0.74	
Total Organic Carbon (dry)	21582.73381				
Total Solids	41.7				
HPAH	27	3.00	960		957
LPAH	18.9	2.10	370		368
Total PCB	82.4	9.16	12	7.5	2.8

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.03	0.81	0.15	0.78
1,2-Dichlorobenzene	0.27	0.03	2.3	0.15	2.3
1,4-Dichlorobenzene	0.27	0.03	3.1	0.15	3.1
2-Methylnaphthalene	2.7	0.30	38	1.5	38
2,4-Dimethylphenol	2.7	7.38	29		22
2-Methylphenol	5.3	14.48	63		49
4-Methylphenol	5.3	14.48	670		656
Acenaphthene	2.7	0.30	16	1.5	16
Acenaphthylene	2.7	0.30	66	1.5	66
Anthracene	2.7	0.30	220	1.5	220
Benzo(a)anthracene	2.7	0.30	110	1.5	110
Benzo(a)pyrene	2.7	0.30	99	1.5	99
Benzo(b)fluoranthene	2.7	0.30	115	1.5	115
Benzo(g,h,i)perylene	2.7	0.30	31	1.5	31
Benzo(k)fluoranthene	2.7	0.30	115	1.5	115
Benzoic Acid	13	35.52	650		614
Benzyl Alcohol	5.3	14.48	57		43
Benzyl Butyl Phthalate	5.3	0.59	4.9	3	4.3
Bis(2-Ethylhexyl)Phthalate	5.3	0.59	47	3	46
Chrysene	2.7	0.30	110	1.5	110
Dibenzo(a,h)anthracene	2.7	0.30	12	1.5	12
Dibenzofuran	2.7	0.30	15	1.5	15
Diethyl Phthalate	5.3	0.59	61	3	60
Dimethyl Phthalate	5.3	0.59	53	3	52
Di-N-Butyl Phthalate	5.3	0.59	220	3	219
Di-N-Octyl Phthalate	5.3	0.59	58	3	57
Fluorene	2.7	0.30	23	1.5	23
Fluoranthene	2.7	0.30	160	1.5	160
Hexachlorobenzene	0.53	0.06	0.38	0.3	0.32
Hexachlorobutadiene	1.3	0.14	3.9	0.74	3.8
Indeno(1,2,3-Cd)Pyrene	2.7	0.30	34	1.5	34
N-Nitrosodiphenylamine	5.3	0.59	11	3	10
Naphthalene	2.7	0.30	99	1.5	99
Pentachlorophenol	13	35.52	360		324
Phenanthrene	2.7	0.30	100	1.5	100
Phenol	5.3	14.48	420		406
Pyrene	2.7	0.30	1000	3	1000
Aroclor 1016	11	1.22		0.74	
Aroclor 1221	2.5	0.28		1.9	
Aroclor 1232	27	2.99		1.9	
Aroclor 1242	29	3.21		0.74	
Aroclor 1248	1.3	0.14		0.74	
Aroclor 1254	1.3	0.14		0.74	
Aroclor 1260	1.3	0.14		0.74	
Total Organic Carbon (dry)	24699.45355				
Total Solids	36.6				
HPAH	27	2.99	960		957
LPAH	18.9	2.09	370		368
Total PCB	73.4	8.12	12	7.5	3.9

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	2.7	0.48	0.81	0.15	0.33
1,2-Dichlorobenzene	2.7	0.48	2.3	0.15	1.8
1,4-Dichlorobenzene	2.7	0.48	3.1	0.15	2.6
2-Methylnaphthalene	27	4.84	38	1.5	33
2,4-Dimethylphenol	27	38.03	29		-9
2-Methylphenol	53	74.65	63		-12
4-Methylphenol	53	74.65	670		595
Acenaphthene	27	4.84	16	1.5	11
Acenaphthylene	27	4.84	66	1.5	61
Anthracene	27	4.84	220	1.5	215
Benzo(a)anthracene	27	4.84	110	1.5	105
Benzo(a)pyrene	27	4.84	99	1.5	94
Benzo(b)fluoranthene	27	4.84	115	1.5	110
Benzo(g,h,i)perylene	27	4.84	31	1.5	26
Benzo(k)fluoranthene	27	4.84	115	1.5	110
Benzoic Acid	130	183.10	650		467
Benzyl Alcohol	53	74.65	57		-18
Benzyl Butyl Phthalate	53	9.50	4.9	3	-4.6
Bis(2-Ethylhexyl)Phthalate	53	9.50	47	3	38
Chrysene	27	4.84	110	1.5	105
Dibenzo(a,h)anthracene	27	4.84	12	1.5	7
Dibenzofuran	27	4.84	15	1.5	10
Diethyl Phthalate	53	9.50	61	3	52
Dimethyl Phthalate	53	9.50	53	3	44
Di-N-Butyl Phthalate	53	9.50	220	3	211
Di-N-Octyl Phthalate	53	9.50	58	3	49
Fluorene	27	4.84	23	1.5	18
Fluoranthene	27	4.84	160	1.5	155
Hexachlorobenzene	5.3	0.95	0.38	0.3	-0.57
Hexachlorobutadiene	13	2.33	3.9	0.74	1.6
Indeno(1,2,3-Cd)Pyrene	27	4.84	34	1.5	29
N-Nitrosodiphenylamine	53	9.50	11	3	2
Naphthalene	27	4.84	99	1.5	94
Pentachlorophenol	130	183.10	360		177
Phenanthrene	27	4.84	100	1.5	95
Phenol	53	74.65	420		345
Pyrene	27	4.84	1000	3	995
Aroclor 1016	7.6	1.36		0.74	
Aroclor 1221	2.5	0.45		1.9	
Aroclor 1232	15	2.69		1.9	
Aroclor 1242	16	2.87		0.74	
Aroclor 1248	1.3	0.23		0.74	
Aroclor 1254	1.3	0.23		0.74	
Aroclor 1260	1.3	0.23		0.74	
Total Organic Carbon (dry)	7859.15493				
Total Solids	71				
HPAH	270	48.39	960		912
LPAH	189	33.87	370		336
Total PCB	45	8.06	12	7.5	3.9

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.03	0.81	0.15	0.78
1,2-Dichlorobenzene	0.27	0.03	2.3	0.15	2.3
1,4-Dichlorobenzene	0.27	0.03	3.1	0.15	3.1
2-Methylnaphthalene	2.7	0.28	38	1.5	38
2,4-Dimethylphenol	2.7	5.38	29		24
2-Methylphenol	5.3	10.56	63		52
4-Methylphenol	5.3	10.56	670		659
Acenaphthene	2.7	0.28	16	1.5	16
Acenaphthylene	2.7	0.28	66	1.5	66
Anthracene	2.7	0.28	220	1.5	220
Benzo(a)anthracene	2.7	0.28	110	1.5	110
Benzo(a)pyrene	2.7	0.28	99	1.5	99
Benzo(b)fluoranthene	2.7	0.28	115	1.5	115
Benzo(g,h,i)perylene	2.7	0.28	31	1.5	31
Benzo(k)fluoranthene	2.7	0.28	115	1.5	115
Benzoic Acid	13	25.90	650		624
Benzyl Alcohol	5.3	10.56	57		46
Benzyl Butyl Phthalate	5.3	0.54	4.9	3	4.4
Bis(2-Ethylhexyl)Phthalate	5.3	0.54	47	3	46
Chrysene	2.7	0.28	110	1.5	110
Dibenzo(a,h)anthracene	2.7	0.28	12	1.5	12
Dibenzofuran	2.7	0.28	15	1.5	15
Diethyl Phthalate	5.3	0.54	61	3	60
Dimethyl Phthalate	5.3	0.54	53	3	52
Di-N-Butyl Phthalate	5.3	0.54	220	3	219
Di-N-Octyl Phthalate	5.3	0.54	58	3	57
Fluorene	2.7	0.28	23	1.5	23
Fluoranthene	2.7	0.28	160	1.5	160
Hexachlorobenzene	0.53	0.05	0.38	0.3	0.33
Hexachlorobutadiene	1.3	0.13	3.9	0.74	3.8
Indeno(1,2,3-Cd)Pyrene	2.7	0.28	34	1.5	34
N-Nitrosodiphenylamine	5.3	0.54	11	3	10
Naphthalene	2.7	0.28	99	1.5	99
Pentachlorophenol	13	25.90	360		334
Phenanthrene	2.7	0.28	100	1.5	100
Phenol	5.3	10.56	420		409
Pyrene	2.7	0.28	1000	3	1000
Aroclor 1016	11	1.13		0.74	
Aroclor 1221	2.5	0.26		1.9	
Aroclor 1232	20	2.05		1.9	
Aroclor 1242	29	2.97		0.74	
Aroclor 1248	1.3	0.13		0.74	
Aroclor 1254	1.3	0.13		0.74	
Aroclor 1260	1.3	0.13		0.74	
Total Organic Carbon (dry)	19442.23108				
Total Solids	50.2				
HPAH	27	2.77	960		957
LPAH	18.9	1.94	370		368
Total PCB	66.4	6.80	12	7.5	5.2

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.03	0.81	0.15	0.78
1,2-Dichlorobenzene	0.27	0.03	2.3	0.15	2.3
1,4-Dichlorobenzene	0.27	0.03	3.1	0.15	3.1
2-Methylnaphthalene	2.7	0.30	38	1.5	38
2,4-Dimethylphenol	2.7	7.67	29		21
2-Methylphenol	5.3	15.06	63		48
4-Methylphenol	5.3	15.06	670		655
Acenaphthene	2.7	0.30	16	1.5	16
Acenaphthylene	2.7	0.30	66	1.5	66
Anthracene	2.7	0.30	220	1.5	220
Benzo(a)anthracene	2.7	0.30	110	1.5	110
Benzo(a)pyrene	2.7	0.30	99	1.5	99
Benzo(b)fluoranthene	2.7	0.30	115	1.5	115
Benzo(g,h,i)perylene	2.7	0.30	31	1.5	31
Benzo(k)fluoranthene	2.7	0.30	115	1.5	115
Benzoic Acid	13	36.93	650		613
Benzyl Alcohol	5.3	15.06	57		42
Benzyl Butyl Phthalate	5.3	0.59	4.9	3	4.3
Bis(2-Ethylhexyl)Phthalate	5.3	0.59	47	3	46
Chrysene	2.7	0.30	110	1.5	110
Dibenzo(a,h)anthracene	2.7	0.30	12	1.5	12
Dibenzofuran	2.7	0.30	15	1.5	15
Diethyl Phthalate	5.3	0.59	61	3	60
Dimethyl Phthalate	5.3	0.59	53	3	52
Di-N-Butyl Phthalate	5.3	0.59	220	3	219
Di-N-Octyl Phthalate	5.3	0.59	58	3	57
Fluorene	2.7	0.30	23	1.5	23
Fluoranthene	2.7	0.30	160	1.5	160
Hexachlorobenzene	0.53	0.06	0.38	0.3	0.32
Hexachlorobutadiene	1.3	0.14	3.9	0.74	3.8
Indeno(1,2,3-Cd)Pyrene	2.7	0.30	34	1.5	34
N-Nitrosodiphenylamine	5.3	0.59	11	3	10
Naphthalene	2.7	0.30	99	1.5	99
Pentachlorophenol	13	36.93	360		323
Phenanthrene	2.7	0.30	100	1.5	100
Phenol	5.3	15.06	420		405
Pyrene	2.7	0.30	1000	3	1000
Aroclor 1016	17	1.89		0.74	
Aroclor 1221	2.5	0.28		1.9	
Aroclor 1232	40	4.45		1.9	
Aroclor 1242	43	4.78		0.74	
Aroclor 1248	1.3	0.14		0.74	
Aroclor 1254	1.3	0.14		0.74	
Aroclor 1260	1.3	0.14		0.74	
Total Organic Carbon (dry)	25539.77273				
Total Solids	35.2				
HPAH	27	3.00	960		957
LPAH	18.9	2.10	370		368
Total PCB	106.4	11.84	12	7.5	0.2

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.08	0.81	0.15	0.73
1,2-Dichlorobenzene	0.27	0.08	2.3	0.15	2.2
1,4-Dichlorobenzene	0.27	0.08	3.1	0.15	3.0
2-Methylnaphthalene	2.7	0.83	38	1.5	37
2,4-Dimethylphenol	2.7	3.27	29		26
2-Methylphenol	5.3	6.42	63		57
4-Methylphenol	5.3	6.42	670		664
Acenaphthene	2.7	0.83	16	1.5	15
Acenaphthylene	2.7	0.83	66	1.5	65
Anthracene	2.7	0.83	220	1.5	219
Benzo(a)anthracene	2.7	0.83	110	1.5	109
Benzo(a)pyrene	2.7	0.83	99	1.5	98
Benzo(b)fluoranthene	2.7	0.83	115	1.5	114
Benzo(g,h,i)perylene	2.7	0.83	31	1.5	30
Benzo(k)fluoranthene	2.7	0.83	115	1.5	114
Benzoic Acid	13	15.76	650		634
Benzyl Alcohol	5.3	6.42	57		51
Benzyl Butyl Phthalate	5.3	1.63	4.9	3	3.3
Bis(2-Ethylhexyl)Phthalate	5.3	1.63	47	3	45
Chrysene	2.7	0.83	110	1.5	109
Dibenzo(a,h)anthracene	2.7	0.83	12	1.5	11
Dibenzofuran	2.7	0.83	15	1.5	14
Diethyl Phthalate	5.3	1.63	61	3	59
Dimethyl Phthalate	5.3	1.63	53	3	51
Di-N-Butyl Phthalate	5.3	1.63	220	3	218
Di-N-Octyl Phthalate	5.3	1.63	58	3	56
Fluorene	2.7	0.83	23	1.5	22
Fluoranthene	2.7	0.83	160	1.5	159
Hexachlorobenzene	0.53	0.16	0.38	0.3	0.22
Hexachlorobutadiene	1.3	0.40	3.9	0.74	3.5
Indeno(1,2,3-Cd)Pyrene	2.7	0.83	34	1.5	33
N-Nitrosodiphenylamine	5.3	1.63	11	3	9
Naphthalene	2.7	0.83	99	1.5	98
Pentachlorophenol	13	15.76	360		344
Phenanthrene	2.7	0.83	100	1.5	99
Phenol	5.3	6.42	420		414
Pyrene	2.7	0.83	1000	3	999
Aroclor 1016	5.8	1.78		0.74	
Aroclor 1221	2.5	0.77		1.9	
Aroclor 1232	9.1	2.79		1.9	
Aroclor 1242	9	2.76		0.74	
Aroclor 1248	1.3	0.40		0.74	
Aroclor 1254	1.3	0.40		0.74	
Aroclor 1260	1.3	0.40		0.74	
Total Organic Carbon (dry)	3951.515152				
Total Solids	82.5				
HPAH	27	8.28	960		952
LPAH	18.9	5.80	370		364
Total PCB	30.3	9.29	12	7.5	2.7

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.03	0.81	0.15	0.78
1,2-Dichlorobenzene	0.27	0.03	2.3	0.15	2.3
1,4-Dichlorobenzene	0.27	0.03	3.1	0.15	3.1
2-Methylnaphthalene	2.7	0.27	38	1.5	38
2,4-Dimethylphenol	2.7	5.47	29		24
2-Methylphenol	5.3	10.73	63		52
4-Methylphenol	5.3	10.73	670		659
Acenaphthene	2.7	0.27	16	1.5	16
Acenaphthylene	2.7	0.27	66	1.5	66
Anthracene	2.7	0.27	220	1.5	220
Benzo(a)anthracene	2.7	0.27	110	1.5	110
Benzo(a)pyrene	2.7	0.27	99	1.5	99
Benzo(b)fluoranthene	2.7	0.27	115	1.5	115
Benzo(g,h,i)perylene	2.7	0.27	31	1.5	31
Benzo(k)fluoranthene	2.7	0.27	115	1.5	115
Benzoic Acid	13	26.32	650		624
Benzyl Alcohol	5.3	10.73	57		46
Benzyl Butyl Phthalate	5.3	0.54	4.9	3	4.4
Bis(2-Ethylhexyl)Phthalate	5.3	0.54	47	3	46
Chrysene	2.7	0.27	110	1.5	110
Dibenzo(a,h)anthracene	2.7	0.27	12	1.5	12
Dibenzofuran	2.7	0.27	15	1.5	15
Diethyl Phthalate	5.3	0.54	61	3	60
Dimethyl Phthalate	5.3	0.54	53	3	52
Di-N-Butyl Phthalate	5.3	0.54	220	3	219
Di-N-Octyl Phthalate	5.3	0.54	58	3	57
Fluorene	2.7	0.27	23	1.5	23
Fluoranthene	2.7	0.27	160	1.5	160
Hexachlorobenzene	0.53	0.05	0.38	0.3	0.33
Hexachlorobutadiene	1.3	0.13	3.9	0.74	3.8
Indeno(1,2,3-Cd)Pyrene	2.7	0.27	34	1.5	34
N-Nitrosodiphenylamine	5.3	0.54	11	3	10
Naphthalene	2.7	0.27	99	1.5	99
Pentachlorophenol	13	26.32	360		334
Phenanthrene	2.7	0.27	100	1.5	100
Phenol	5.3	10.73	420		409
Pyrene	2.7	0.27	1000	3	1000
Aroclor 1016	28	2.85		0.74	
Aroclor 1221	2.5	0.25		1.9	
Aroclor 1232	54	5.50		1.9	
Aroclor 1242	79	8.04		0.74	
Aroclor 1248	1.3	0.13		0.74	
Aroclor 1254	1.3	0.13		0.74	
Aroclor 1260	1.3	0.13		0.74	
Total Organic Carbon (dry)	19878.54251				
Total Solids	49.4				
HPAH	27	2.75	960		957
LPAH	18.9	1.92	370		368
Total PCB	167.4	17.05	12	7.5	-5.0

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.05	0.81	0.15	0.76
1,2-Dichlorobenzene	0.27	0.05	2.3	0.15	2.3
1,4-Dichlorobenzene	0.27	0.05	3.1	0.15	3.1
2-Methylnaphthalene	2.7	0.47	38	1.5	38
2,4-Dimethylphenol	2.7	5.16	29		24
2-Methylphenol	5.3	10.13	63		53
4-Methylphenol	5.3	10.13	670		660
Acenaphthene	2.7	0.47	16	1.5	16
Acenaphthylene	2.7	0.47	66	1.5	66
Anthracene	2.7	0.47	220	1.5	220
Benzo(a)anthracene	2.7	0.47	110	1.5	110
Benzo(a)pyrene	2.7	0.47	99	1.5	99
Benzo(b)fluoranthene	2.7	0.47	115	1.5	115
Benzo(g,h,i)perylene	2.7	0.47	31	1.5	31
Benzo(k)fluoranthene	2.7	0.47	115	1.5	115
Benzoic Acid	13	24.86	650		625
Benzyl Alcohol	5.3	10.13	57		47
Benzyl Butyl Phthalate	5.3	0.93	4.9	3	4.0
Bis(2-Ethylhexyl)Phthalate	5.3	0.93	47	3	46
Chrysene	2.7	0.47	110	1.5	110
Dibenzo(a,h)anthracene	2.7	0.47	12	1.5	12
Dibenzofuran	2.7	0.47	15	1.5	15
Diethyl Phthalate	5.3	0.93	61	3	60
Dimethyl Phthalate	5.3	0.93	53	3	52
Di-N-Butyl Phthalate	5.3	0.93	220	3	219
Di-N-Octyl Phthalate	5.3	0.93	58	3	57
Fluorene	2.7	0.47	23	1.5	23
Fluoranthene	2.7	0.47	160	1.5	160
Hexachlorobenzene	0.53	0.09	0.38	0.3	0.29
Hexachlorobutadiene	1.3	0.23	3.9	0.74	3.7
Indeno(1,2,3-Cd)Pyrene	2.7	0.47	34	1.5	34
N-Nitrosodiphenylamine	5.3	0.93	11	3	10
Naphthalene	2.7	0.47	99	1.5	99
Pentachlorophenol	13	24.86	360		335
Phenanthrene	2.7	0.47	100	1.5	100
Phenol	5.3	10.13	420		410
Pyrene	2.7	0.47	1000	3	1000
Aroclor 1016	9.5	1.67		0.74	
Aroclor 1221	2.5	0.44		1.9	
Aroclor 1232	16	2.81		1.9	
Aroclor 1242	26	4.57		0.74	
Aroclor 1248	1.3	0.23		0.74	
Aroclor 1254	1.3	0.23		0.74	
Aroclor 1260	1.3	0.23		0.74	
Total Organic Carbon (dry)	10879.54111				
Total Solids	52.3				
HPAH	27	4.75	960		955
LPAH	18.9	3.32	370		367
Total PCB	57.9	10.18	12	7.5	1.8

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	SAP OC Limit (mg/Kg OC)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.27	0.04	0.81	0.15	0.77
1,2-Dichlorobenzene	0.27	0.04	2.3	0.15	2.3
1,4-Dichlorobenzene	0.27	0.04	3.1	0.15	3.1
2-Methylnaphthalene	2.7	0.41	38	1.5	38
2,4-Dimethylphenol	2.7	5.14	29		24
2-Methylphenol	5.3	10.10	63		53
4-Methylphenol	5.3	10.10	670		660
Acenaphthene	2.7	0.41	16	1.5	16
Acenaphthylene	2.7	0.41	66	1.5	66
Anthracene	2.7	0.41	220	1.5	220
Benzo(a)anthracene	2.7	0.41	110	1.5	110
Benzo(a)pyrene	2.7	0.41	99	1.5	99
Benzo(b)fluoranthene	2.7	0.41	115	1.5	115
Benzo(g,h,i)perylene	2.7	0.41	31	1.5	31
Benzo(k)fluoranthene	2.7	0.41	115	1.5	115
Benzoic Acid	13	24.76	650		625
Benzyl Alcohol	5.3	10.10	57		47
Benzyl Butyl Phthalate	5.3	0.80	4.9	3	4.1
Bis(2-Ethylhexyl)Phthalate	5.3	0.80	47	3	46
Chrysene	2.7	0.41	110	1.5	110
Dibenzo(a,h)anthracene	2.7	0.41	12	1.5	12
Dibenzofuran	2.7	0.41	15	1.5	15
Diethyl Phthalate	5.3	0.80	61	3	60
Dimethyl Phthalate	5.3	0.80	53	3	52
Di-N-Butyl Phthalate	5.3	0.80	220	3	219
Di-N-Octyl Phthalate	5.3	0.80	58	3	57
Fluorene	2.7	0.41	23	1.5	23
Fluoranthene	2.7	0.41	160	1.5	160
Hexachlorobenzene	0.53	0.08	0.38	0.3	0.30
Hexachlorobutadiene	1.3	0.20	3.9	0.74	3.7
Indeno(1,2,3-Cd)Pyrene	2.7	0.41	34	1.5	34
N-Nitrosodiphenylamine	5.3	0.80	11	3	10
Naphthalene	2.7	0.41	99	1.5	99
Pentachlorophenol	13	24.76	360		335
Phenanthrene	2.7	0.41	100	1.5	100
Phenol	5.3	10.10	420		410
Pyrene	2.7	0.41	1000	3	1000
Aroclor 1016	9.9	1.49		0.74	
Aroclor 1221	2.5	0.38		1.9	
Aroclor 1232	21	3.15		1.9	
Aroclor 1242	30	4.50		0.74	
Aroclor 1248	1.3	0.20		0.74	
Aroclor 1254	1.3	0.20		0.74	
Aroclor 1260	1.3	0.20		0.74	
Total Organic Carbon (dry)	12685.71429				
Total Solids	52.5				
HPAH	27	4.05	960		956
LPAH	18.9	2.84	370		367
Total PCB	67.3	10.11	12	7.5	1.9

CONVENTIONAL ANALYSES QC DATA

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Sep 05 2006, 08:40 am

Work Group: WG86126 (PSD/423368-80 Denny Way Seds) for Department: 3 - Conventionals

Created: 08-JUN-06 PrepDate: Due: Operator: DN

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-1	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
L38758-10	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-11	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-12	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	19-APR-06	18-JUL-06
L38758-13	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-14	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-15	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-16	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-2	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
L38758-3	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
L38758-4	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	19-APR-06	18-JUL-06
L38758-5	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
L38758-6	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
L38758-7	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	19-APR-06	18-JUL-06
L38758-8	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
L38758-9	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
WG86126-1	LD		SED	S	PSD	SALTWTRSED	DONE	U	08-JUN-06	
WG86126-2	LT		SED	S	PSD	SALTWTRSED	DONE	U	08-JUN-06	

Comments:

L38758-1	0-2 cm, 3 grap COMP
L38758-10	0-2 cm, 3 grab COMP
L38758-11	0-2 cm, 3 grab COMP
L38758-12	0-2 cm, 3 grab COMP
L38758-13	0-2 cm, 3 grab COMP
L38758-14	0-2 cm, 3 grab COMP
L38758-15	0-2 cm, 3 grab COMP
L38758-16	0-2 cm, 3 grab COMP
L38758-2	0-2 cm, 3 grap COMP
L38758-3	0-2 cm, 3 grap COMP
L38758-4	0-2 cm, 3 grap COMP
L38758-5	0-2 cm, 3 grap COMP
L38758-6	0-2 cm, 3 grap COMP
L38758-7	0-2 cm, 3 grap COMP
L38758-8	0-2 cm, 3 grab COMP
L38758-9	0-2 cm, 3 grab COMP
WG86126-1	L38758-3
WG86126-2	WG86126-1 L38758-3

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 09/05/06 08:40
Run ID: R114151 Workgroup: WG86126 (PSD/423368-80 Denny Way Seds)

LT:WG86126-2 LD:WG86126-1 L38758-3 Matrix: SALTWTRSED Listtype: CVPSD Method: ASTM D422(03-02-005-001) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Gravel	.1	1	%	4.6	2.6	3.4	28	E	20
Sand	.1	1	%	44.4	45	42.1	3		20
Silt	.5	1	%	34.2	36.4	35.1	3		20
Clay	.5	1	%	9.9	8.2	9.4	9		20

Conventionals Data Anomaly Form

Date(s) Occurred: *06/06/06*

WG #(s): *WG86126*

☐ **All samples in WKGP(s) or Sample #(s):** *L38758-2*

Project #(s): *423368-80*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis

☐ Nutrients:
☐ Demands:
☐ Cyanides:
☐ Physicals:
☐ Solids:
☐ Anions:
☐ Chlorophylls:
☒ Others: *Particle Size Distribution*
☐ Subcontracted:

II. Instrument

Ion Chromatography: ☐ Dionex 120
Spectrophotometer: ☐ Hitachi U3000 UV/VIS ☐ Hach DR 890
Fluorometer: ☐ Turner 10-AU
TOC Analyzer: ☐ OI 1020A ☐ OI TOC Analyzer
Autotitrator: ☐ Metrohm 736GP Titrator ☐ Metrohm 712 Conductometer
Turbidimeter: ☐ Hach 2100AN
Autoanalyzers: ☐ Astoria2+2 (freshwater system) ☐ Astoria2+2 (saltwater system)
☐ Astoria2 (total nutrients system) ☐ Astoria2 (cyanide system)
Dissolved Oxygen: ☐ YSI 5100 ☐ CAT Contriburette
Salinometer: ☐ Portosal 8410A
pH: ☐ Metrohm 736GP ☐ Accument XL60
Others: *AT200 and PG503 Analytical Balances*

III. Type of Sample/Analytical Anomaly

☐ Values Outside of Control Limits:
1 ☐ Initial Calibration
2 ☐ Continuing Calibration Checks
3 ☐ SB Spike Recoveries
4 ☐ MB Anomaly
5 ☐ LCS/SRM Recoveries
6 ☐ Sample/LD/LT RSD
7 ☐ MS RPD
8 ☐ Sample/LD RPD
9 ☐ MS Spike Recoveries

10 ☐ Holding time exceeded by:
11 ☐ Insufficient sample amount.
12 ☐ Inappropriate storage, container or preservation.

☒ Other

Anomaly Description: *The re-weight of the sieve analysis portion of PSD for sample L38758-2 was recorded only in electronic format. Originally the weight was recorded in both PSD analysis logbook and electronic format. However, the sum of all phi sizes for sample L38758-2 was <90%. As a result, all sieves associated with sample L38758-2 were re-weighed as a corrective procedure, and the results was acceptable at 90%. Due to analysts oversight, only electronic format for the weight was recorded and not in the PSD analysis logbook.*

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

☐ Sample(s) re-analyzed
☐ Sample(s) re-prepared and re-analyzed
☒ Sample(s) reported "AS IS"
☐ Data qualified with the following flags:
☐ Other

Corrective Action Description: *PSD results for sample L38758-2 was reported to LIMS without any qualification since the sum of all phi sizes was acceptable at 90%, and no other data was affected with this anomaly. Sample L38758-2 was disposed after reweighing the sieve, so no further corrective action was taken.*

VI. Potential Effects on Data Quality

Based upon the expected performance of this method:

☐ It is likely the observed anomaly influenced the reported value(s).
☒ It is unlikely the observed anomaly influenced the reported value(s).
☐ The observed anomaly may have influenced the reported value(s).
☐ It is unknown whether or not the observed anomaly affected the reported value(s).

Explanation: *Sieve analysis log book for PSD was not available for sample L38758-2 due to analysts error. However, electronic data was available and acceptable for PSD data. In addition, both type of data are usually recorded simultaniously during analysis, so lack of one type data should not have any effect on the final result.*

	Signatures	Signature Dates
Reported By: *Duc Nguyen*		7/17/06
Reviewer: *Despina Strong*		7/18/06
Supervisor: *Despina Strong*		7/17/06
QA Officer: *Colin Elliott* (For QA1 only)		
cc: LPM:		

Conventionals Data Anomaly Form

Date(s) Occurred: *6/6/06*

WG #(s): *WG86126*

☒ **All samples in WKGP(s) or Sample #(s):**

Project #(s): *423368-80*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis

☐ Nutrients:
☐ Demands:
☐ Cyanides:
☐ Physicals:
☐ Solids:
☐ Anions:
☐ Chlorophylls:
☒ Others: *Particle Size Distribution*
☐ Subcontracted:

II. Instrument

Ion Chromatography: ☐ Dionex 120
Spectrophotometer: ☐ Hitachi U3000 UV/VIS ☐ Hach DR 890
Fluorometer: ☐ Turner 10-AU
TOC Analyzer: ☐ OI 1020A ☐ OI TOC Analyzer
Autotitrator: ☐ Metrohm 736GP Titrator ☐ Metrohm 712 Conductometer
Turbidimeter: ☐ Hach 2100AN
Autoanalyzers: ☐ Astoria2+2 (freshwater system) ☐ Astoria2+2 (saltwater system)
☐ Astoria2 (total nutrients system) ☐ Astoria2 (cyanide system)
Dissolved Oxygen: ☐ YSI 5100 ☐ CAT Contriburette
Salinometer: ☐ Portosal 8410A
pH: ☐ Metrohm 736GP ☐ Accument XL60
Others: *AT200 and PG503 Analytical Balances*

III. Type of Sample/Analytical Anomaly

☐ Values Outside of Control Limits:

[1] ☐ Initial Calibration
[2] ☐ Continuing Calibration Checks
[3] ☐ SB Spike Recoveries
[4] ☐ MB Anomaly
[5] ☐ LCS/SRM Recoveries
[6] ☒ Sample/LD/LT RSD
[7] ☐ MS RPD
[8] ☐ Sample/LD RPD
[9] ☐ MS Spike Recoveries

[10] ☐ Holding time exceeded by:
[11] ☐ Insufficient sample amount.
[12] ☐ Inappropriate storage, container or preservation.

☐ Other

Anomaly Description: *The laboratory triplicate analysis for particle size distribution (PSD) for sample L38758-3 had a percent relative standard deviation (%RSD) of 28% for the gravel category. This exceeded the established acceptance limit of 20% for the category. The gravel category represented a small fraction of the overall sample mass associated with sample L38758-3. Variability due to the low contribution to this category is the probable cause.*

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

☐ Sample(s) re-analyzed
☐ Sample(s) re-prepared and re-analyzed
☐ Sample(s) reported "AS IS"
☒ Data qualified with the following flags: *"E"*
☐ Other

Corrective Action Description: *No reanalysis was required due to the gravel category representing less than 10% of the overall sample mass. The data were reported to LIMS and the gravel category for all samples in the workgroup qualified with the E qualifier to indicate that an estimate value was reported for this category. No further corrective action was taken.*

VI. Potential Effects on Data Quality

Based upon the expected performance of this method:

☐ It is likely the observed anomaly influenced the reported value(s).
☒ It is unlikely the observed anomaly influenced the reported value(s).
☐ The observed anomaly may have influenced the reported value(s).
☐ It is unknown whether or not the observed anomaly affected the reported value(s).

Explanation: *This does not affect the quality of the data. Inherent variability at low levels can be expected in the method. In these instances, a high %RSD does not necessarily indicate poor precision or poor method performance. In the case of these samples, the QC data suggest that the gravel category represents too small a fraction of the overall sample constituency to be considered appropriate for evaluation against a 20% control window.*

	Signatures	Signature Dates
Reported By: *Duc Nguyen*	Duc Nguyen	6/20/06
Reviewer: *Despina Strong*		7/3/06
Supervisor: *Despina Strong*		7/3/06
QA Officer: *Colin Elliott* **(For QA1 only)**		
cc: LPM:		

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Apr 25 2006, 02:30 pm

Work Group: WG85347 (Seds) for Department: 3 - Conventionals

Created: 24-APR-06 PrepDate: Due: Operator: Casey

Sample	Project Number	Project Description	Prey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-1	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-10	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	18-APR-06	18-JUL-06
L38758-11	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	18-APR-06	18-JUL-06
L38758-12	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	19-APR-06	18-JUL-06
L38758-13	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	18-APR-06	18-JUL-06
L38758-14	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	18-APR-06	18-JUL-06
L38758-15	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	18-APR-06	18-JUL-06
L38758-16	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	18-APR-06	18-JUL-06
L38758-2	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-3	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-4	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	19-APR-06	18-JUL-06
L38758-5	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-6	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-7	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	19-APR-06	18-JUL-06
L38758-8	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-9	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
WG85347-1	MB			S	NH3-KCL	OTHR SOLID	ANAL	U	25-APR-06	
WG85347-2	MB			S	NH3-KCL	OTHR SOLID	ANAL	U	25-APR-06	
WG85347-3	MB			S	NH3-KCL	OTHR SOLID	ANAL	U	25-APR-06	
WG85347-4	LCS			S	NH3-KCL	OTHR SOLID	ANAL	U	25-APR-06	
WG85347-5	SB			S	NH3-KCL	OTHR SOLID	ANAL	U	25-APR-06	
WG85347-6	LD		SED	S	NH3-KCL	SALTWTRSED	ANAL	U	25-APR-06	
WG85347-7	LT		SED	S	NH3-KCL	SALTWTRSED	ANAL	U	25-APR-06	
WG85347-8	MS		SED	S	NH3-KCL	SALTWTRSED	ANAL	U	25-APR-06	

Comments:

L38758-1	0-2 cm, 3 grap COMP
L38758-10	0-2 cm, 3 grab COMP
L38758-11	0-2 cm, 3 grab COMP
L38758-12	0-2 cm, 3 grab COMP
L38758-13	0-2 cm, 3 grab COMP
L38758-14	0-2 cm, 3 grab COMP
L38758-15	0-2 cm, 3 grab COMP
L38758-16	0-2 cm, 3 grab COMP
L38758-2	0-2 cm, 3 grap COMP
L38758-3	0-2 cm, 3 grap COMP
L38758-4	0-2 cm, 3 grap COMP
L38758-5	0-2 cm, 3 grap COMP
L38758-6	0-2 cm, 3 grap COMP
L38758-7	0-2 cm, 3 grap COMP
L38758-8	0-2 cm, 3 grab COMP
L38758-9	0-2 cm, 3 grab COMP
WG85347-1	MB1 060424
WG85347-2	MB2 060424
WG85347-3	MB3 060424
WG85347-4	LEVEL1
WG85347-5	WG85347-1
WG85347-6	L38758-4
WG85347-7	WG85347-6 L38758-4
WG85347-8	L38758-4

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 09/05/06 08:24
Run ID: R113165 Workgroup: WG85347 (Seds)

MB:WG85347-1 Matrix: Listtype: CVNH3-KCL Method: SM4500-NH3-G(03-03-014-001)KCL Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Ammonia Nitrogen	.1	.2	mg/Kg	<MDL	

MB:WG85347-2 Matrix: Listtype: CVNH3-KCL Method: SM4500-NH3-G(03-03-014-001)KCL Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Ammonia Nitrogen	.1	.2	mg/Kg	<MDL	

MB:WG85347-3 Matrix: Listtype: CVNH3-KCL Method: SM4500-NH3-G(03-03-014-001)KCL Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Ammonia Nitrogen	.1	.2	mg/Kg	<MDL	

LCS:WG85347-4 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G(03-03-014-001)KCL Project: Pkey: SED
(Lab Control Sample)

Parameter	Mdl	Rdl	Units	Truevalue	LCS Value	% Rec.	Qual	LabLimit
Ammonia Nitrogen	.1	.2	mg/Kg	1.25	1.47	118		80-120

SB:WG85347-5 MB:WG85347-1 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G(03-03-014-001)KCL Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Ammonia Nitrogen	.5	1	mg/Kg	<MDL	50	56.5	113		80-120

LT:WG85347-7 LD:WG85347-6 L38758-4 Matrix: SALTWTRSED Listtype: CVNH3-KCL Method: SM4500-NH3-G(03-03-014-001)KCL Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Ammonia Nitrogen	.5	1	mg/Kg	11.2	12.1	11.7	4		20

MS:WG85347-8 L38758-4 Matrix: SALTWTRSED Listtype: CVNH3-KCL Method: SM4500-NH3-G(03-03-014-001)KCL Project: 423368-80 Pkey: SED
(Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit
Ammonia Nitrogen	.5	1	mg/Kg	11.2	49.5	51.7	82		75-125

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

May 16 2006, 04:00 pm

Work Group: WG85721 (TOTS - TVS - Denny Way - May 2006) for Department: 3 - Conventionals

Created: 16-MAY-06 PrepDate: Due: Operator: CB

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-1	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-1	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-2	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-2	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-3	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-3	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-4	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	19-APR-06	18-JUL-06
L38758-4	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	19-APR-06	18-JUL-06
L38758-5	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-5	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-6	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-6	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-7	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	19-APR-06	18-JUL-06
L38758-7	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	19-APR-06	18-JUL-06
L38758-8	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-8	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
WG85721-1	MB			S	TOTS	OTHR SOLID	ANAL	U	16-MAY-06	
WG85721-1	MB			S	TVS	OTHR SOLID	ANAL	U	16-MAY-06	
WG85721-2	LD		SED	S	TOTS	SALTWTRSED	ANAL	U	16-MAY-06	
WG85721-2	LD		SED	S	TVS	SALTWTRSED	ANAL	U	16-MAY-06	
WG85721-3	LT		SED	S	TOTS	SALTWTRSED	ANAL	U	16-MAY-06	
WG85721-3	LT		SED	S	TVS	SALTWTRSED	ANAL	U	16-MAY-06	

Comments:

L38758-1	0-2 cm, 3 grap COMP
L38758-2	0-2 cm, 3 grap COMP
L38758-3	0-2 cm, 3 grap COMP
L38758-4	0-2 cm, 3 grap COMP
L38758-5	0-2 cm, 3 grap COMP
L38758-6	0-2 cm, 3 grap COMP
L38758-7	0-2 cm, 3 grap COMP
L38758-8	0-2 cm, 3 grab COMP
WG85721-1	MB1 051506
WG85721-2	L38758-4
WG85721-3	WG85721-2 L38758-4

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 09/05/06 09:41
Run ID: R113525 Workgroup: WG85721 (TOTS - TVS - Denny Way - May 2006)

MB:WG85721-1 Matrix: Listtype: CVTOTS Method: SM2540-G (03-01-007-002) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Solids	.005	.01	%	<MDL	

MB:WG85721-1 Matrix: Listtype: CVTVS Method: SM2540-G (03-01-007-002) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Volatile Solids	.005	.01	%	<MDL	

LT:WG85721-3 LD:WG85721-2 L38758-4 Matrix: SALTWTRSED Listtype: CVTOTS Method: SM2540-G (03-01-007-002) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Solids	.005	.01	%	55.6	55.4	55.7	0		20

LT:WG85721-3 LD:WG85721-2 L38758-4 Matrix: SALTWTRSED Listtype: CVTVS Method: SM2540-G (03-01-007-002) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Volatile Solids	.005	.01	%	2.59	2.7	2.68	2		20

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Sep 05 2006, 09:42 am

Work Group: WG85866 (TOTS/TVS - Denny Way- May 2006) for Department: 3 - Conventionals

Created: 24-MAY-06 PrepDate: Due: Operator: CB

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-10	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-10	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-11	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-11	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-12	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	DONE	I	19-APR-06	18-JUL-06
L38758-12	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	DONE	I	19-APR-06	18-JUL-06
L38758-13	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-13	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-14	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-14	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-15	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-15	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-16	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-16	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-9	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
L38758-9	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
WG85866-1	MB			S	TOTS	OTHR SOLID	DONE	U	24-MAY-06	
WG85866-1	MB			S	TVS	OTHR SOLID	DONE	U	24-MAY-06	
WG85866-2	LD		SED	S	TOTS	SALTWTRSED	DONE	U	24-MAY-06	
WG85866-2	LD		SED	S	TVS	SALTWTRSED	DONE	U	24-MAY-06	
WG85866-3	LT		SED	S	TOTS	SALTWTRSED	DONE	U	24-MAY-06	
WG85866-3	LT		SED	S	TVS	SALTWTRSED	DONE	U	24-MAY-06	

Comments:

L38758-10	0-2 cm, 3 grab COMP
L38758-11	0-2 cm, 3 grab COMP
L38758-12	0-2 cm, 3 grab COMP
L38758-13	0-2 cm, 3 grab COMP
L38758-14	0-2 cm, 3 grab COMP
L38758-15	0-2 cm, 3 grab COMP
L38758-16	0-2 cm, 3 grab COMP
L38758-9	0-2 cm, 3 grab COMP
WG85866-1	MB1 052206
WG85866-2	L38758-16
WG85866-3	WG85866-2 L38758-16

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 09/05/06 09:43
Run ID: R113664 Workgroup: WG85866 (TOTS/TVS - Denny Way- May 2006)

MB:WG85866-1 Matrix: OTHR SOLID Listtype: CVTOTS Method: SM2540-G (03-01-007-002) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Solids	.005	.01	%	<MDL	

MB:WG85866-1 Matrix: OTHR SOLID Listtype: CVTVS Method: SM2540-G (03-01-007-002) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Volatile Solids	.005	.01	%	<MDL	

LT:WG85866-3 LD:WG85866-2 L38758-16 Matrix: SALTWTRSED Listtype: CVTOTS Method: SM2540-G (03-01-007-002) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Solids	.005	.01	%	52.5	52.7	53	1		20

LT:WG85866-3 LD:WG85866-2 L38758-16 Matrix: SALTWTRSED Listtype: CVTVS Method: SM2540-G (03-01-007-002) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Volatile Solids	.005	.01	%	2.7	2.8	2.67	2		20

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Sep 05 2006, 09:48 am

Work Group: WG85823 (TOC Solids - Denny Way- May 2006) for Department: 3 - Conventionals

Created: 22-MAY-06 PrepDate: Due: Operator: CB

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-1	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
L38758-10	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-11	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-12	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	19-APR-06	18-JUL-06
L38758-13	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-14	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-15	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-16	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	18-APR-06	18-JUL-06
L38758-2	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
L38758-3	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
L38758-4	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	19-APR-06	18-JUL-06
L38758-5	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
L38758-6	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
L38758-7	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	19-APR-06	18-JUL-06
L38758-8	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
L38758-9	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	DONE	I	17-APR-06	18-JUL-06
WG85823-1	MB			S	TOC	OTHR SOLID	DONE	U	12-JUN-06	
WG85823-10	SRM		SED	S	TOC	SALTWTRSED	DONE	U	12-JUN-06	
WG85823-2	SRM		SED	S	TOC	SALTWTRSED	DONE	U	12-JUN-06	
WG85823-3	SB			S	TOC	OTHR SOLID	DONE	U	12-JUN-06	
WG85823-4	LD		SED	S	TOC	SALTWTRSED	DONE	U	12-JUN-06	
WG85823-5	LT		SED	S	TOC	SALTWTRSED	DONE	U	12-JUN-06	
WG85823-6	MS		SED	S	TOC	SALTWTRSED	DONE	U	12-JUN-06	
WG85823-7	MB			S	TOC	OTHR SOLID	DONE	U	12-JUN-06	
WG85823-8	SRM		SED	S	TOC	SALTWTRSED	DONE	U	12-JUN-06	
WG85823-9	MB			S	TOC	OTHR SOLID	DONE	U	12-JUN-06	

Comments:

L38758-1	0-2 cm, 3 grap COMP
L38758-10	0-2 cm, 3 grab COMP
L38758-11	0-2 cm, 3 grab COMP
L38758-12	0-2 cm, 3 grab COMP
L38758-13	0-2 cm, 3 grab COMP
L38758-14	0-2 cm, 3 grab COMP
L38758-15	0-2 cm, 3 grab COMP
L38758-16	0-2 cm, 3 grab COMP
L38758-2	0-2 cm, 3 grap COMP
L38758-3	0-2 cm, 3 grap COMP
L38758-4	0-2 cm, 3 grap COMP
L38758-5	0-2 cm, 3 grap COMP
L38758-6	0-2 cm, 3 grap COMP
L38758-7	0-2 cm, 3 grap COMP
L38758-8	0-2 cm, 3 grab COMP
L38758-9	0-2 cm, 3 grab COMP
WG85823-1	MB1 060706
WG85823-10	HICONC
WG85823-2	HICONC
WG85823-3	WG85823-1
WG85823-4	L38758-2
WG85823-5	WG85823-4 L38758-2
WG85823-6	L38758-2
WG85823-7	MB1 060806
WG85823-8	HICONC
WG85823-9	MB1 060906

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 09/05/06 09:48
Run ID: R113963 Workgroup: WG85823 (TOC Solids - Denny Way- May 2006)

MB:WG85823-1 Matrix: OTHR SOLID Listtype: CVTOC Method: EPA 9060-PSEP96 (03-04-002-003 Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

SRM:WG85823-2 Matrix: SALTWTRSED Listtype: CVTOC Method: EPA 9060-PSEP96 (03-04-002-003 Project: Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1600	3210	mg/Kg	21900	21100	96		80-120

SB:WG85823-3 MB:WG85823-1 Matrix: OTHR SOLID Listtype: CVTOC Method: EPA 9060-PSEP96 (03-04-002-003 Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	500	1000	mg/Kg	<MDL	2500	2590	104		80-120

LT:WG85823-5 LD:WG85823-4 L38758-2 Matrix: SALTWTRSED Listtype: CVTOC Method: EPA 9060-PSEP96 (03-04-002-003 Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Organic Carbon	720	1440	mg/Kg	5980	4770	4790	13		20

MS:WG85823-6 L38758-2 Matrix: SALTWTRSED Listtype: CVTOC Method: EPA 9060-PSEP96 (03-04-002-003 Project: 423368-80 Pkey: SED
(Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	770	1550	mg/Kg	5980	3867	9350	87		75-125

MB:WG85823-7 Matrix: OTHR SOLID Listtype: CVTOC Method: EPA 9060-PSEP96 (03-04-002-003 Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

SRM:WG85823-8 Matrix: SALTWTRSED Listtype: CVTOC Method: EPA 9060-PSEP96 (03-04-002-003 Project: Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1500	3100	mg/Kg	21900	20800	95		80-120

MB:WG85823-9 Matrix: OTHR SOLID Listtype: CVTOC Method: EPA 9060-PSEP96 (03-04-002-003 Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 09/05/06 09:48
Run ID: R113963 Workgroup: WG85823 (TOC Solids - Denny Way- May 2006)

SRM:WG85823-10 Matrix: SALTWTRSED Listtype: CVTOC Method: EPA 9060-PSEP96 (03-04-002-003 Project: Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1600	3220	mg/Kg	21900	20900	95		80-120

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Apr 24 2006, 02:43 pm

Work Group: WG85305 (TotSulfide DennyWaySeds) for Department: 3 - Conventionals

Created: 18-APR-06 PrepDate: Due: Operator: BP

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-1	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-10	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	18-APR-06	18-JUL-06
L38758-11	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	18-APR-06	18-JUL-06
L38758-12	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	19-APR-06	18-JUL-06
L38758-13	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	18-APR-06	18-JUL-06
L38758-14	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	18-APR-06	18-JUL-06
L38758-15	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	18-APR-06	18-JUL-06
L38758-16	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	18-APR-06	18-JUL-06
L38758-2	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-3	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-4	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	19-APR-06	18-JUL-06
L38758-5	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-6	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-7	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	19-APR-06	18-JUL-06
L38758-8	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
L38758-9	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	17-APR-06	18-JUL-06
WG85305-1	MB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	18-APR-06	
WG85305-10	LT		SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	21-APR-06	
WG85305-11	MS		SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	21-APR-06	
WG85305-12	MB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	24-APR-06	
WG85305-13	SB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	24-APR-06	
WG85305-2	SB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	18-APR-06	
WG85305-3	MB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	19-APR-06	
WG85305-4	SB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	19-APR-06	
WG85305-5	MB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	20-APR-06	
WG85305-6	SB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	20-APR-06	
WG85305-7	MB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	21-APR-06	
WG85305-8	SB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	21-APR-06	
WG85305-9	LD		SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	21-APR-06	

Comments:

L38758-1	0-2 cm, 3 grap COMP
L38758-10	0-2 cm, 3 grab COMP
L38758-11	0-2 cm, 3 grab COMP
L38758-12	0-2 cm, 3 grab COMP
L38758-13	0-2 cm, 3 grab COMP
L38758-14	0-2 cm, 3 grab COMP
L38758-15	0-2 cm, 3 grab COMP
L38758-16	0-2 cm, 3 grab COMP
L38758-2	0-2 cm, 3 grap COMP
L38758-3	0-2 cm, 3 grap COMP
L38758-4	0-2 cm, 3 grap COMP
L38758-5	0-2 cm, 3 grap COMP
L38758-6	0-2 cm, 3 grap COMP
L38758-7	0-2 cm, 3 grap COMP
L38758-8	0-2 cm, 3 grab COMP
L38758-9	0-2 cm, 3 grab COMP
WG85305-1	MB1 060418
WG85305-10	WG85305-9 L38758-16
WG85305-11	L38758-16
WG85305-12	MB1 060424
WG85305-13	WG85305-12
WG85305-2	WG85305-1
WG85305-3	MB1 060419
WG85305-4	WG85305-3
WG85305-5	MB1 060420
WG85305-6	WG85305-5
WG85305-7	MB1 060421
WG85305-8	WG85305-7
WG85305-9	L38758-16

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 09/05/06 09:58
Run ID: R113399 Workgroup: WG85305 (TotSulfide DennyWaySeds)

MB:WG85305-1 Matrix: Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Sulfide	.5	2	mg/Kg	<MDL	

SB:WG85305-2 MB:WG85305-1 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Total Sulfide	5	20	mg/Kg	<MDL	50	40.5	81		80-120

MB:WG85305-3 Matrix: Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Sulfide	.5	2	mg/Kg	<MDL	

SB:WG85305-4 MB:WG85305-3 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Total Sulfide	5	20	mg/Kg	<MDL	50	41	82		80-120

MB:WG85305-5 Matrix: Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Sulfide	.5	2	mg/Kg	<MDL	

SB:WG85305-6 MB:WG85305-5 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Total Sulfide	5	20	mg/Kg	<MDL	50	45	90		80-120

MB:WG85305-7 Matrix: Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Sulfide	.5	2	mg/Kg	<MDL	

SB:WG85305-8 MB:WG85305-7 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Total Sulfide	5	20	mg/Kg	<MDL	50	52.2	104		80-120

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 09/05/06 09:58
Run ID: R113399 Workgroup: WG85305 (TotSulfide DennyWaySeds)

LT:WG85305-10 LD:WG85305-9 L38758-16 Matrix: SALTWTRSED Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Sulfide	1	4	mg/Kg	17.2	16.5	13.2	14		20

MS:WG85305-11 L38758-16 Matrix: SALTWTRSED Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: 423368-80 Pkey: SED
(Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit
Total Sulfide	5	20	mg/Kg	17.2	50	51.4	68		65-135

MB:WG85305-12 Matrix: Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Sulfide	.5	2	mg/Kg	<MDL	

SB:WG85305-13 MB:WG85305-12 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Total Sulfide	5	20	mg/Kg	<MDL	50	41.4	83		80-120

METAL CHEMISTRY QC DATA

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

May 09 2006, 12:05 pm

Work Group: WG85454 (DENNY WAY SEDIMENT, POST CONSTRUCTION) for Department: 6 - Metals, Trace

Created: 01-MAY-06 PrepDate: 01-MAY-06 Due: Operator: DC

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-1	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	15-MAY-06	18-JUL-06
L38758-10	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	16-MAY-06	18-JUL-06
L38758-11	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	16-MAY-06	18-JUL-06
L38758-12	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	17-MAY-06	18-JUL-06
L38758-13	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	16-MAY-06	18-JUL-06
L38758-14	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	16-MAY-06	18-JUL-06
L38758-15	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	16-MAY-06	18-JUL-06
L38758-16	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	16-MAY-06	18-JUL-06
L38758-2	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	15-MAY-06	18-JUL-06
L38758-3	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	15-MAY-06	18-JUL-06
L38758-4	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	17-MAY-06	18-JUL-06
L38758-5	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	15-MAY-06	18-JUL-06
L38758-6	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	15-MAY-06	18-JUL-06
L38758-7	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	17-MAY-06	18-JUL-06
L38758-8	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	15-MAY-06	18-JUL-06
L38758-9	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	PREP	U	15-MAY-06	18-JUL-06
WG85454-1	SRM		SED	S	HG-CVAA	SALTWTRSED	PREP	U	01-MAY-06	
WG85454-2	MB			S	HG-CVAA	SOLIDBLANK	PREP	U	01-MAY-06	
WG85454-3	SB			S	HG-CVAA	SOLIDBLANK	PREP	U	01-MAY-06	
WG85454-4	MS		SED	S	HG-CVAA	SALTWTRSED	PREP	U	01-MAY-06	
WG85454-5	MSD		SED	S	HG-CVAA	SALTWTRSED	PREP	U	01-MAY-06	
WG85454-6	LD		SED	S	HG-CVAA	SALTWTRSED	PREP	U	01-MAY-06	

Comments:

L38758-1	0-2 cm, 3 grap COMP
L38758-10	0-2 cm, 3 grab COMP
L38758-11	0-2 cm, 3 grab COMP
L38758-12	0-2 cm, 3 grab COMP
L38758-13	0-2 cm, 3 grab COMP
L38758-14	0-2 cm, 3 grab COMP
L38758-15	0-2 cm, 3 grab COMP
L38758-16	0-2 cm, 3 grab COMP
L38758-2	0-2 cm, 3 grap COMP
L38758-3	0-2 cm, 3 grap COMP
L38758-4	0-2 cm, 3 grap COMP
L38758-5	0-2 cm, 3 grap COMP
L38758-6	0-2 cm, 3 grap COMP
L38758-7	0-2 cm, 3 grap COMP
L38758-8	0-2 cm, 3 grab COMP
L38758-9	0-2 cm, 3 grab COMP
WG85454-1	PACS2
WG85454-2	METHOD BLANK
WG85454-3	WG85454-2 HG-SOL
WG85454-4	L38758-7 HG-SOL
WG85454-5	WG85454-4 L38758-7 HG-SOL-MSD
WG85454-6	L38758-4 RPD-SOL

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 05/09/06 12:04
Run ID: R113372 Workgroup: WG85454 (DENNY WAY SEDIMENT, POST CONSTRUCTION)

SRM:WG85454-1 Matrix: SALTWTRSED Listtype: MTHG-SED Method: EPA 7471A (06-01-004-003) Project: Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	.1	1	mg/Kg	3.04	2.83	93		80-120

MB:WG85454-2 Matrix: SOLIDBLANK Listtype: MTHG-SED Method: EPA 7471A (06-01-004-003) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Mercury, Total, CVAA	.019	.19	mg/Kg	<MDL	

SB:WG85454-3 MB:WG85454-2 Matrix: SOLIDBLANK Listtype: MTHG-SED Method: EPA 7471A (06-01-004-003) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	.019	.19	mg/Kg	<MDL	0.476	.463	97		85-115

MSD:WG85454-5 MS:WG85454-4 L38758-7 Matrix: SALTWTRSED Listtype: MTHG-SED Method: EPA 7471A (06-01-004-003) Project: 423368-80 Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
Mercury, Total, CVAA	.02	.199	mg/Kg	.16	0.498	.642	96		75-125	0.501	.635	94		2		20

LD:WG85454-6 L38758-4 Matrix: SALTWTRSED Listtype: MTHG-SED Method: EPA 7471A (06-01-004-003) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
Mercury, Total, CVAA	.02	.205	mg/Kg	.18	.18			20

KING COUNTY ENVIRONMENTAL LABORATORY

Trace Metals Section HG-CVAA Preparation Log

Preparation Method: EPA 7471A
Project Number(s): 423368
Project Description(s): DENNY WAY SED., POST CONSTRUCTION
Preparation Date: 5/1/06
Temperature: 94.5°C

Work Group #: WG85454
Analyst: DC
Matrices: SALT WATER SEDIMENT
Preparation: (1st) 2nd 3rd
Storage conditions: room temp (4° C) -20° C

Analytical Samples

	Sample Number	Aliquot (g or mL)	Final Vol.(mL)	Comments	pH <2		Sample Number	Aliquot (g or mL)	Final Vol.(mL)	Comments	pH <2
1	L38758-1	0.970	126			11	L38758-11	0.967	126		
2	-2	1.017				12	-12	0.997			
3	-3	1.036				13	-13	1.040			
4	-4	0.981		LD		14	-14	0.996			
5	-5	0.985				15	-15	1.020			
6	-6	0.981				16	-16	0.997			
7	-7	1.011		BKG		17					
8	-8	1.022				18					
9	-9	0.975				19					
10	-10	1.005				20					

Batch Quality Control Samples

	QC Sample Number	QC Sample Description	Aliquot (g or mL)	Final Vol.(mL)	Solution ID #	Solution Conc.	Amount Used (uL)	pH <2
1	WG85454-1	SRM- NRCC PACS2	0.200	126	MI-11-30			
2	WG85454-2	METHOD BLANK	1.050					
3	WG85454-3	SPIKE BLANK	1.050		Hg-06-065	2ppm	250	
4	WG85454-4	L38758-7 MS	1.005					
5	WG85454-5	MSD	0.999					
6	WG85454-6	L38758-4 LD	0.977					
7								
8								
9								

Calibration and Instrument Check Standards

prep date 5/4/06

	Standard Conc. (ppb or ppt)	Cal Std	Inst Chk Std	Aliquot (g or mL)	Final Vol.(mL)	Solution ID #	Solution Conc.	Amount Used (uL)
1	0	✓	✓	100	126			
2	0.2 (MDL)		✓			Hg-06-005	2 ppm	10
3	1.0	✓						50
4	2.5	✓						125
5	5.0 (LLV)	✓	✓					250
6	10.0	✓						500
7	20.0	✓						1000
8	ICV (795)		✓			M-77-08	1.59 ppm	500
9								
10								
11								

* Standards, Samples and pre-digestion dilutions are based on a 100/25/20 mL final volume

Reagent Solution ID #'s

$KMnO_4$	Hg-06-063	$K_2S_2O_8$	N/A	NH_2OH-HCl	Hg-06-039	$SnCl_2$	Hg-06-070

Comments:

Sample ID	Time Stamp	Sample Type
Calibration Blank	5/4/2006 11:21	Standard
Standard #1	5/4/2006 11:23	Standard
Standard #2	5/4/2006 11:25	Standard
Standard #3	5/4/2006 11:26	Standard
Standard #4	5/4/2006 11:28	Standard
Standard #5	5/4/2006 11:30	Standard
IPC	5/4/2006 11:32	IPR
ICB	5/4/2006 11:34	ICB
ICV	5/4/2006 11:35	ICV
MDL	5/4/2006 11:37	CRDL Standard
WG85454-1	5/4/2006 11:39	Unknown
WG85454-2	5/4/2006 11:41	Unknown
WG85454-3	5/4/2006 11:43	Unknown
L38758-1	5/4/2006 11:44	Unknown
L38758-2	5/4/2006 11:46	Unknown
L38758-3	5/4/2006 11:48	Unknown
L38758-4	5/4/2006 11:50	Unknown
WG85454-6	5/4/2006 11:52	Unknown
L38758-5	5/4/2006 11:53	Unknown
L38758-6	5/4/2006 11:55	Unknown
CCV	5/4/2006 11:57	CCV
CCB	5/4/2006 11:59	CCB
L38758-7	5/4/2006 12:01	Unknown
WG85454-4	5/4/2006 12:02	Unknown
WG85454-5	5/4/2006 12:04	Unknown
L38758-8	5/4/2006 12:06	Unknown
L38758-9	5/4/2006 12:08	Unknown
L38758-10	5/4/2006 12:10	Unknown
L38758-11	5/4/2006 12:11	Unknown
L38758-12	5/4/2006 12:13	Unknown
L38758-13	5/4/2006 12:15	Unknown
L38758-14	5/4/2006 12:17	Unknown
CCV	5/4/2006 12:19	CCV
CCB	5/4/2006 12:20	CCB
L38758-15	5/4/2006 12:22	Unknown
L38758-16	5/4/2006 12:24	Unknown
MDL	5/4/2006 12:26	CRDL Standard
CCV	5/4/2006 12:28	CCV
CCB	5/4/2006 12:29	CCB

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

May 03 2006, 07:43 am

Work Group: WG85473 (ICP 5/2/06) for Department: 6 - Metals, Trace

Created: 02-MAY-06 PrepDate: 02-MAY-06 Due: Operator: BDM

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-1	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-1	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-10	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-10	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-11	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-11	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-12	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-12	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-13	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-13	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-14	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-14	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-15	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-15	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-16	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-16	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-2	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-2	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-3	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-3	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-4	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-4	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-5	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-5	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-6	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-6	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-7	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-7	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-8	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-8	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-9	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
L38758-9	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	18-JUL-06	18-JUL-06
WG85473-1	SB			S	NPDES ICP	SOLIDBLANK	WKGP	U	02-MAY-06	
WG85473-2	SRM		SED	S	NPDES ICP	SALTWTRSED	WKGP	U	02-MAY-06	
WG85473-3	MB			S	NPDES ICP	SOLIDBLANK	WKGP	U	02-MAY-06	
WG85473-4	LD		SED	S	NPDES ICP	SALTWTRSED	WKGP	U	02-MAY-06	
WG85473-5	MS		SED	S	NPDES ICP	SALTWTRSED	WKGP	U	02-MAY-06	

Comments:

L38758-1	0-2 cm, 3 grap COMP
L38758-10	0-2 cm, 3 grab COMP
L38758-11	0-2 cm, 3 grab COMP
L38758-12	0-2 cm, 3 grab COMP
L38758-13	0-2 cm, 3 grab COMP
L38758-14	0-2 cm, 3 grab COMP
L38758-15	0-2 cm, 3 grab COMP
L38758-16	0-2 cm, 3 grab COMP
L38758-2	0-2 cm, 3 grap COMP
L38758-3	0-2 cm, 3 grap COMP
L38758-4	0-2 cm, 3 grap COMP
L38758-5	0-2 cm, 3 grap COMP
L38758-6	0-2 cm, 3 grap COMP
L38758-7	0-2 cm, 3 grap COMP
L38758-8	0-2 cm, 3 grab COMP
L38758-9	0-2 cm, 3 grab COMP
WG85473-1	WG85473-3 ICPMARINE SPIKE BLANK
WG85473-2	PACS2
WG85473-3	DIGESTED METHOD BLANK
WG85473-4	L38758-4 RPD-SOL LAB DUPLICATE
WG85473-5	L38758-4 ICPMARINE MATRIX SPIKE

Trace Metals Data Anomaly Form

Date(s) Occurred: *5/4/06*

WG #(s): *WG85473*

☒ **All samples in WKGP(s) or Sample #(s):** *WG85473-5*

Project #(s): *423368*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Digestion

☒ Total ☐ TCLP ☐ Other:
☐ Dissolved ☐ SEM ☐ Subcontracted:

II. Instrument

☐ CVAA ☐ CVAF ICP (☒ B ☐ E) ICP-MS (☐PE ☐X7 ☐X II)

III. Type of Sample/Analytical Anomaly

☒ Values Outside of Control Limits:

[1] ☐ Blank Contamination
[2] ☐ SB Spike Recoveries
[3] ☐ ISTD Recoveries
[4] ☐ LCS/SRM Recoveries
[5] ☒ MS/MSD Spike Recoveries
[6] ☐ MS/MSD RPD
[7] ☐ Sample/LD RPD

☐ Certified values developed by a method other than that which was used for the analysis.

[8] ☐ Holding time exceeded by:
[9] ☐ Insufficient sample amount.
[10] ☐ Inappropriate storage, container, or preservation.
[11] ☐ Other

Anomaly Description: *The matrix spike recovery for anitmony WG85473-5 was 31%.*

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

☐ Sample(s) re-analyzed
☒ Sample(s) reported "AS IS"
☒ Data qualified with the following flags: *G*
☐ Other

☐ Sample(s) re-prepared and re-analyzed
☐ Exposure deleted

Corrective Action Description: *The background sample(L38758-4) was analyzed along with a Post Digestion Spike(PDS). The PDS recovery was within control limits of +/-25% (94%). The antimony values were qualified with a "G" flag to indicate that the reported values may be biased low, based on the matrix spike recovery.*

VI. Potential Effects on Data Quality

Based upon the expected performance of this method:

☒ It is likely the observed anomaly influenced the reported value(s).
☐ It is unlikely the observed anomaly influenced the reported value(s).
☐ The observed anomaly may have influenced the reported value(s).
☐ It is unknown whether or not the observed anomaly affected the reported value(s).

Explanation: *The PDS recoveries inidcate that there is not a matrix issue affecting the antimony recoveries in the the matrix spikes during analysis. The assumption could be made that because the matrix spike recovery is affected by the digestion process, the sample values in turn could also be affected. The low matrix spike recoveries are related to the 3050 digestion procedure. The spike blank recovery (103%) indicates that the matrix may be affecting antimony during digestion.*

	Signatures	Signature Dates
Reported By: *Brian Mazikowski*		
Reviewer: *Erica Prentice*		
Supervisor: *Diane McElhany*		
QA Officer: *Colin Elliott* (For QA1 only)		
cc: LPM:		

Trace Metals Data Anomaly Form

Date(s) Occurred: *5/4/06*

WG #(s): *WG85473*

☒ **All samples in WKGP(s) or Sample #(s):** *WG85473-5*

Project #(s): *423368*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Digestion

☒ Total ☐ TCLP ☐ Other:
☐ Dissolved ☐ SEM ☐ Subcontracted:

II. Instrument

☐ CVAA ☐ CVAF ICP (☒ B ☐ E) ICP-MS (☐PE ☐X7 ☐X II)

III. Type of Sample/Analytical Anomaly

☒ Values Outside of Control Limits:

1 ☐ Blank Contamination
2 ☐ SB Spike Recoveries
3 ☐ ISTD Recoveries
4 ☐ LCS/SRM Recoveries
5 ☒ MS/MSD Spike Recoveries
6 ☐ MS/MSD RPD
7 ☐ Sample/LD RPD

☐ Certified values developed by a method other than that which was used for the analysis.

8 ☐ Holding time exceeded by:
9 ☐ Insufficient sample amount.
10 ☐ Inappropriate storage, container, or preservation.
11 ☐ Other

Anomaly Description: *The matrix spike recovery for anitmony WG85473-5 was 31%.*

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

- [ ] Sample(s) re-analyzed
- [x] Sample(s) reported "AS IS"
- [x] Data qualified with the following flags: *G*
- [ ] Other
- [ ] Sample(s) re-prepared and re-analyzed
- [ ] Exposure deleted

Corrective Action Description: *The background sample(L38758-4) was analyzed along with a Post Digestion Spike(PDS). The PDS recovery was within control limits of +/-25% (94%). The antimony values were qualified with a "G" flag to indicate that the reported values may be biased low, based on the matrix spike recovery.*

VI. Potential Effects on Data Quality

Based upon the expected performance of this method:

- [ ] It is <u>likely</u> the observed anomaly influenced the reported value(s).
- [x] It is <u>unlikely</u> the observed anomaly influenced the reported value(s).
- [ ] The observed anomaly <u>may have</u> influenced the reported value(s).
- [ ] It is <u>unknown</u> whether or not the observed anomaly affected the reported value(s).

Explanation: *The PDS recoveries inidcate that there is not a matrix issue affecting the antimony recoveries in the the matrix spikes during analysis. The low matrix spike recoveries are related to the 3050 digestion procedure. The spike blank recovery (103%) indicates that the matrix may be affecting antimony during digestion. .*

	Signatures	Signature Dates
Reported By: *Brian Mazikowski*	Brian Mazikowski	5-9-06
Reviewer: *Erica Prentice*	E. A. P.	5/9/06
Supervisor: *Diane McElhany*		
QA Officer: *Colin Elliott* **(For QA1 only)**		
cc: LPM:		

KING COUNTY ENVIRONMENTAL LABORATORY

Trace Metals Section ICP Preparation Log

Preparation Method: EPA 3050
Project Number(s): 423368
Project Description(s): Denny Way Sed
Preparation Date: 5-2-06

Work Group #: WG 85473
Analyst: Brian Mazibowski
Matrices: Salt Water Sed
Preparation: (1st) 2nd 3rd
Storage conditions: room temp (4° C) -20° C

Analytical Samples

	Sample Number	Aliquot (g or mL)	Final Vol.(mL)	Comments	pH <2	Sample Number	Aliquot (g or mL)	Final Vol.(mL)	Comments	pH <2
1	L38758-1	1.0013	50			11 L38758-11	1.0034	50		
2	-2	1.0016				12 -12	1.0041			
3	-3	1.0000				13 -13	1.0010			
4	-4	1.0010		BKG		14 -14	1.0012			
5	-5	1.0038				15 -15	1.0001			
6	-6	1.0011				16 -16	1.0003			
7	-7	1.0003				17				
8	-8	1.0022				18				
9	-9	1.0015				19				
10	-10	1.0000				20				

Quality Control Samples

	QC Sample Number	QC Sample Description	Aliquot (g or mL)	Final Vol.(mL)	Comments	pH <2
1	WG85473-1	Spike Blank	1.0500	50	ICP MARINE	
2	-2	Standard Ref. Material	0.2492		PACS 2	
3	-3	Method Blank	1.0500			
4	-4	Lab Replicate	1.0013		L38758-4	
5	-5	Matrix Spike	1.0000		L38758-4	
6						
7						
8						
9						
10						

Spike Solution

	Solution Name	Solution ID #	Solution Conc.	Amount Used (uL)
1	Cal 1	M-05-040	100 mg/L	50
2	Cal 2	M-05-039	VARIES	
3	Cal 3	M-05-042	100 mg/L	
4	Cal 4	M-06-002	5,000 mg/L	250
5	K	M-06-001	10,000 mg/L	500
6	Mn	M-05-027	1,000 mg/L	200
7	Zn	M-05-004		

LCS Solution

	Solution Name	Solution ID #	Solution Conc.	Amount Used (mL)
1				
2				
3				
4				

Comments:

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 05/04/06 10:00
Run ID: R113311 Workgroup: WG85473 (ICP 5/2/06)

SB:WG85473-1 MB:WG85473-3 Matrix: SOLIDBLANK Listtype: MTICP-SED Method: EPA3050A/6010B (06-02-004-002) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Silver, Total, ICP	.19	.952	mg/Kg	<MDL	47.6	47.6	100		85-115
Arsenic, Total, ICP	2.4	11.9	mg/Kg	<MDL	47.6	48.7	102		85-115
Cadmium, Total, ICP	.14	.714	mg/Kg	<MDL	47.6	47.3	99		85-115
Chromium, Total, ICP	.24	1.19	mg/Kg	<MDL	47.6	48.1	101		85-115
Copper, Total, ICP	.19	.952	mg/Kg	<MDL	47.6	46.8	98		85-115
Nickel, Total, ICP	.95	4.76	mg/Kg	<MDL	47.6	47.8	100		85-115
Lead, Total, ICP	1.4	7.14	mg/Kg	<MDL	47.6	47.8	100		85-115
Antimony, Total, ICP	1.4	7.14	mg/Kg	<MDL	47.6	49.3	103		85-115
Zinc, Total, ICP	.24	1.19	mg/Kg	<MDL	238	238	100		85-115

SRM:WG85473-2 Matrix: SALTWTRSED Listtype: MTICP-SED Method: EPA3050A/6010B (06-02-004-002) Project: Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
Chromium, Total, ICP	1	5.02	mg/Kg	90.7	45.2	50		30-70
Copper, Total, ICP	.8	4.01	mg/Kg	310	289	93		78-118
Nickel, Total, ICP	4	20.1	mg/Kg	39.5	28.2	71		51-91
Lead, Total, ICP	6	30.1	mg/Kg	183	174	95		74-114
Zinc, Total, ICP	1	5.02	mg/Kg	364	347	95		73-113

MB:WG85473-3 Matrix: SOLIDBLANK Listtype: MTICP-SED Method: EPA3050A/6010B (06-02-004-002) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Silver, Total, ICP	.19	.952	mg/Kg	<MDL	
Arsenic, Total, ICP	2.4	11.9	mg/Kg	<MDL	
Cadmium, Total, ICP	.14	.714	mg/Kg	<MDL	
Chromium, Total, ICP	.24	1.19	mg/Kg	<MDL	
Copper, Total, ICP	.19	.952	mg/Kg	<MDL	
Nickel, Total, ICP	.95	4.76	mg/Kg	<MDL	
Lead, Total, ICP	1.4	7.14	mg/Kg	<MDL	
Antimony, Total, ICP	1.4	7.14	mg/Kg	<MDL	
Zinc, Total, ICP	.24	1.19	mg/Kg	<MDL	

LD:WG85473-4 L38758-4 Matrix: SALTWTRSED Listtype: MTICP-SED Method: EPA3050A/6010B (06-02-004-002) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
Silver, Total, ICP	.2	.999	mg/Kg	<MDL	<MDL			20
Arsenic, Total, ICP	2.5	12.5	mg/Kg	4	4			20
Cadmium, Total, ICP	.15	.749	mg/Kg	<MDL	<MDL			20
Chromium, Total, ICP	.25	1.25	mg/Kg	24.1	24.7	3		20
Copper, Total, ICP	.2	.999	mg/Kg	23.8	24.2	2		20
Nickel, Total, ICP	1	4.99	mg/Kg	24.6	25	2		20
Lead, Total, ICP	1.5	7.49	mg/Kg	24.2	24.8	2		20
Antimony, Total, ICP	1.5	7.49	mg/Kg	<MDL	<MDL			20
Zinc, Total, ICP	.25	1.25	mg/Kg	49.6	50.8	2		20

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 05/04/06 10:00
Run ID: R113311 Workgroup: WG85473 (ICP 5/2/06)

MS:WG85473-5 L38758-4 Matrix: SALTWTRSED Listtype: MTICP-SED Method: EPA3050A/6010B (06-02-004-002) Project: 423368-80 Pkey: SED
(Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit
Silver, Total, ICP	.2	1	mg/Kg	<MDL	50.0	49.5	99		75-125
Arsenic, Total, ICP	2.5	12.5	mg/Kg	4	50.0	55.1	102		75-125
Cadmium, Total, ICP	.15	.75	mg/Kg	<MDL	50.0	49.7	99		75-125
Chromium, Total, ICP	.25	1.25	mg/Kg	24.1	50.0	76.3	105		75-125
Copper, Total, ICP	.2	1	mg/Kg	23.8	50.0	72.8	98		75-125
Nickel, Total, ICP	1	5	mg/Kg	24.6	50.0	74.3	99		75-125
Lead, Total, ICP	1.5	7.5	mg/Kg	24.2	50.0	76.5	105		75-125
Antimony, Total, ICP	1.5	7.5	mg/Kg	<MDL	50.0	15.6	31	G	75-125
Zinc, Total, ICP	.25	1.25	mg/Kg	49.6	250.	298	99		75-125

Trace Metals ICP Run Log

Workgroup Number: WG85473
Analyst: Brian Mazikowski
Instrument: Bert11481
Method: Daily Method_Bert

#	Sample Name	Sample Comment	D.F.	Analyze Date & Time	
1	Blank	ICP-06-051	1	5/3/06 7:38:48 AM	
2	STD1	ICP-06-049	1	5/3/06 7:43:44 AM	
3	STD2	ICP-06-032	1	5/3/06 7:48:32 AM	
4	ICV	ICP-06-050	1	5/3/06 7:51:28 AM	
5	ICB	ICP-06-051	1	5/3/06 7:56:15 AM	
6	RDL	ICP-06-040	1	5/3/06 8:01:08 AM	
7	ICSA	ICP-06-045	1	5/3/06 8:06:01 AM	
8	ICSAB	ICP-06-046	1	5/3/06 8:10:52 AM	
9	CCV	ICP-06-048	1	5/3/06 8:15:36 AM	
10	CCB	ICP-06-051	1	5/3/06 8:20:22 AM	
11	WG85473-1	6 WG85473	1	5/3/06 8:25:16 AM	
12	WG85473-2	6 WG85473	1	5/3/06 8:30:01 AM	
13	WG85473-3	6 WG85473	1	5/3/06 8:34:48 AM	
14	L38758-1	6 WG85473	1	5/3/06 8:39:43 AM	
15	L38758-2	6 WG85473	1	5/3/06 8:44:29 AM	
16	L38758-3	6 WG85473	1	5/3/06 8:49:17 AM	
17	L38758-4	6 WG85473	1	5/3/06 8:54:04 AM	
18	WG85473-4	6 WG85473	1	5/3/06 8:58:52 AM	
19	WG85473-5	6 WG85473	1	5/3/06 9:03:38 AM	
20	L38758-5	6 WG85473	1	5/3/06 9:08:23 AM	
21	CCV		1	5/3/06 9:13:34 AM	
22	CCB		1	5/3/06 9:18:20 AM	
23	L38758-6	6 WG85473	1	5/3/06 9:23:15 AM	
24	L38758-7	6 WG85473	1	5/3/06 9:28:03 AM	
25	L38758-8	6 WG85473	1	5/3/06 9:32:51 AM	
26	L38758-9	6 WG85473	1	5/3/06 9:37:39 AM	
27	L38758-10	6 WG85473	1	5/3/06 9:42:26 AM	
28	L38758-11	6 WG85473	1	5/3/06 9:47:15 AM	
29	L38758-12	6 WG85473	1	5/3/06 9:52:03 AM	
30	L38758-13	6 WG85473	1	5/3/06 9:56:51 AM	
31	L38758-14	6 WG85473	1	5/3/06 10:01:40 AM	
32	L38758-15	6 WG85473	1	5/3/06 10:06:27 AM	
33	CCV		1	5/3/06 10:11:15 AM	
34	CCB		1	5/3/06 10:16:03 AM	
35	L38758-16	6 WG85473	1	5/3/06 10:20:58 AM	
36	RDL		1	5/3/06 10:25:46 AM	
37	ICSA		1	5/3/06 10:30:41 AM	
38	ICSAB		1	5/3/06 10:35:33 AM	
39	CCV		1	5/3/06 10:40:19 AM	
40	CCB		1	5/3/06 10:45:05 AM	

ORGANIC CHEMISTRY QC DATA

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

May 01 2006, 02:19 pm

Work Group: WG85301 (VSM353) for Department: 7 - Organics, Trace

Created: 18-APR-06 PrepDate: 18-APR-06 Due: Operator: gm

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-3	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
L38758-5	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
L38758-8	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
L38758-9	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
WG85301-1	MB			S	VOA-GC/MS-LOWSED	OTHR SOLID	WKGP	U	18-APR-06	
WG85301-2	SB			S	VOA-GC/MS-LOWSED	OTHR SOLID	WKGP	U	18-APR-06	
WG85301-3	MS		SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	18-APR-06	
WG85301-4	MSD		SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	18-APR-06	
WG85301-5	LD		SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	18-APR-06	

Comments:

L38758-3	0-2 cm, 3 grap COMP
L38758-5	0-2 cm, 3 grap COMP
L38758-8	0-2 cm, 3 grab COMP
L38758-9	0-2 cm, 3 grab COMP
WG85301-1	MB060418
WG85301-2	WG85301-1
WG85301-3	L38758-3
WG85301-4	WG85301-3 L38758-3
WG85301-5	L38758-3

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 05/01/06 02:32
Run ID: R113175 Workgroup: WG85301 (VSM353)

MB:WG85301-1 Matrix: OTHR SOLID Listtype: ORVOA-LOWSED Method: EPA 8260B (7-3-02-002) Project: 423368-80 Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	
Tetrachloroethylene	1	2	ug/Kg	<MDL	
Ethylbenzene	1	2	ug/Kg	<MDL	
Total Xylenes	1	2	ug/Kg	<MDL	

SB:WG85301-2 MB:WG85301-1 Matrix: OTHR SOLID Listtype: ORVOA-LOWSED Method: EPA 8260B (7-3-02-002) Project: 423368-80 Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	50.0	51.9	104		35-118
Tetrachloroethylene	1	2	ug/Kg	<MDL	50.0	51	102		70-130
Ethylbenzene	1	2	ug/Kg	<MDL	50.0	53.4	107		70-130
Total Xylenes	1	2	ug/Kg	<MDL	100	107	107		70-130

MSD:WG85301-4 MS:WG85301-3 L38758-3 Matrix: SALTWTRSED Listtype: ORVOA-LOWSED Method: EPA 8260B (7-3-02-002) Project: 423368-80 Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	25.0	27.7	111		35-118	25.0	29.4	118		6		35
Tetrachloroethylene	1	2	ug/Kg	<MDL	25.0	22	88		70-130	25.0	22	88		0		35
Ethylbenzene	1	2	ug/Kg	<MDL	25.0	22.6	90		70-130	25.0	23.6	94		4		35
Total Xylenes	1	2	ug/Kg	<MDL	50.0	44	88		70-130	50.0	46	92		4		35

LD:WG85301-5 L38758-3 Matrix: SALTWTRSED Listtype: ORVOA-LOWSED Method: EPA 8260B (7-3-02-002) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	<MDL			35
Tetrachloroethylene	1	2	ug/Kg	<MDL	<MDL			35
Ethylbenzene	1	2	ug/Kg	<MDL	<MDL			35
Total Xylenes	1	2	ug/Kg	<MDL	<MDL			35

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 05/01/06 02:32
Run ID: R113175 Workgroup: WG85301 (VSM353)

Sample # (Lab Limits)	d4-1,2-Dichloroethane 76-120	d8-Toluene 88-105	4-Bromofluorobenzene 91-107
L38758-3	101	93	95
L38758-5	113	94	96
L38758-8	109	94	94
L38758-9	105	94	97
WG85301-1	105	95	98
WG85301-2	102	102	106
WG85301-3	89	97	102
WG85301-4	97	99	99
WG85301-5	102	93	92

Derry Way Sediment. 423368-80 WG 85301

VOLATILE ORGANICS DILUTION LOG

King County Department of Natural R

Date/ Analyst	QA/QC Batch #	Sample Amount ~~ML~~ g	Final Volume (H_2O)	Dilution (H_2O)	Dilution Factor	Comments
4/18/2006	WG85301-3	5.031				
BM	WG85301-4	5.024				L38758-7 BM
VSM353	L38758-1	4.993				L38758-7 BM
	↓ -2	5.026				
	WG85301-5	4.992				
	L38758-3	5.036				LD of L38758-3 BM
	5	5.014				
	6	5.042				redos
	8	5.013				

VOLATILE ORGANICS MAINTENANCE LOG

Date/ Analyst		Maintenance
	L38758-9 4.998	

EXTRACTION:

5g of Sample + 4mL of H_2O + 1mL of Full Spike (the same conc as CCA)
Solatek 72 set to add 5mL of H_2O (Sample volume = 5) TOTAL = 15 m
(in 40mL vial for soil mode

Using 5g instead of 1g. → amount analyzed - 5
Dilution - 1

VOLATILE MEDIUM LEVEL EXTRACTIONS

Method: SW-846 8260 (Solids)

Date/ Analyst	QA/QC Batch #	Sample Number	Amount	Surrogate/ Spike	Final Volume (MeOH)	Dilution (H_2O)	Comments
INSTRUMENT CONC. FOR MS & MSD							
(5g of sample + 4mL H_2O + 1mL of spike) = TOTAL 10				1 mL of Full Spike - Working Std			200 ug/mL the same as Fix C
	200 ug/mL × .0625		= .250 ug/mL				
		50mL			= 0.025 ug/L		

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Apr 26 2006, 01:44 pm

Work Group: WG85320 (VSM353) for Department: 7 - Organics, Trace

Created: 19-APR-06 PrepDate: 19-APR-06 Due: Operator: gm

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-1	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
L38758-10	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	02-MAY-06	18-JUL-06
L38758-11	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	02-MAY-06	18-JUL-06
L38758-13	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	02-MAY-06	18-JUL-06
L38758-14	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	02-MAY-06	18-JUL-06
L38758-15	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	02-MAY-06	18-JUL-06
L38758-16	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	02-MAY-06	18-JUL-06
L38758-6	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
WG85320-1	MB			S	VOA-GC/MS-LOWSED	OTHR SOLID	WKGP	U	19-APR-06	
WG85320-2	SB			S	VOA-GC/MS-LOWSED	OTHR SOLID	WKGP	U	19-APR-06	

Comments:

L38758-1	0-2 cm, 3 grap COMP
L38758-10	0-2 cm, 3 grab COMP
L38758-11	0-2 cm, 3 grab COMP
L38758-13	0-2 cm, 3 grab COMP
L38758-14	0-2 cm, 3 grab COMP
L38758-15	0-2 cm, 3 grab COMP
L38758-16	0-2 cm, 3 grab COMP
L38758-6	0-2 cm, 3 grap COMP
WG85320-1	MB060419
WG85320-2	WG85320-1

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 04/26/06 02:01
Run ID: R113185 Workgroup: WG85320 (VSM353)

MB:WG85320-1 Matrix: OTHR SOLID Listtype: ORVOA-LOWSED Method: EPA 8260B (7-3-02-002) Project: 423368-80 Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
1,1,2-Trichloroethylene	5	10	ug/Kg	<MDL	
Tetrachloroethylene	5	10	ug/Kg	<MDL	
Ethylbenzene	5	10	ug/Kg	<MDL	
Total Xylenes	5	10	ug/Kg	<MDL	

SB:WG85320-2 MB:WG85320-1 Matrix: OTHR SOLID Listtype: ORVOA-LOWSED Method: EPA 8260B (7-3-02-002) Project: 423368-80 Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	50.0	49.5	99		35-118
Tetrachloroethylene	1	2	ug/Kg	<MDL	50.0	52	104		70-130
Ethylbenzene	1	2	ug/Kg	<MDL	50.0	54	108		70-130
Total Xylenes	1	2	ug/Kg	<MDL	100.	107	107		70-130

MSD:WG85301-4 MS:WG85301-3 Matrix: Listtype: ORVOA-LOWSED Method: EPA 8260B (7-3-02-002) Project: Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	Value	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
1,1,2-Trichloroethylene	1	2	ug/Kg		25.0	27.7	111		35-118	25.0	29.4	118		6		35
Tetrachloroethylene	1	2	ug/Kg		25.0	22	88		70-130	25.0	22	88		0		35
Ethylbenzene	1	2	ug/Kg		25.0	22.6	90		70-130	25.0	23.6	94		4		35
Total Xylenes	1	2	ug/Kg		50.0	44	88		70-130	50.0	46	92		4		35

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 04/26/06 02:01
Run ID: R113185 Workgroup: WG85320 (VSM353)

Sample # (Lab Limits)	d4-1,2-Dichloroethane 76-120	d8-Toluene 88-105	4-Bromofluorobenzene 91-107
L38758-1	109	95	98
L38758-6	106	96	94
L38758-10	106	94	97
L38758-11	106	94	96
L38758-13	114	95	95
L38758-14	110	95	95
L38758-15	116	94	95
L38758-16	105	93	99
WG85320-1	108	96	98
WG85320-2	101	100	101

Denny Way Sediment 423368-80 WG 85320

VOLATILE ORGANICS DILUTION LOG

King County Department of Natural Resources

Date/ Analyst	QA/QC Batch #	Sample Amount ~~ML~~ g	Final Volume (H_20)	Dilution (H_20)	Dilution Factor	Comments
4/19/2006	L38758-1	4.989				
MM	-2	4.986				
VSM 353	6	5.023				rerun.
	10	4.986				
	11	5.013				
	13	5.037				
	14	4.992				Rocks
	15	5.040				
	16	4.995				

VOLATILE ORGANICS MAINTENANCE LOG

PRODUCT: VOA-GC/MS-LOWSED

WG 85373

Date/ Analyst			Maintenance
4/25/2006	L38758-4	5.003	
MM	-7	5.037	
VSM 353	-12	5.033	

Using 5g of sample instead of 1g - amount analyzed - 5
Dilution ~~FACTOR~~ - 1

VOLATILE MEDIUM LEVEL EXTRACTIONS

Method: SW-846 8260 (Solids)

5g of sample + 5mL of H_2O into 40mL vial. Mix. Soxhlet. will add 5mL of H_2O

Date/ Analyst	QA/QC Batch #	Sample Number	Amount	Surrogate/ Spike	Final Volume (MeOH)	Dilution (H_2O)	Comments

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Apr 25 2006, 09:20 am

Work Group: WG85373 (VSM353) for Department: 7 - Organics, Trace

Created: 25-APR-06 PrepDate: 25-APR-06 Due: Operator: gm

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-12	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	03-MAY-06	18-JUL-06
L38758-4	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	03-MAY-06	18-JUL-06
L38758-7	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	03-MAY-06	18-JUL-06
WG85373-1	MB			S	VOA-GC/MS-LOWSED	OTHR SOLID	WKGP	U	25-APR-06	
WG85373-2	SB			S	VOA-GC/MS-LOWSED	OTHR SOLID	WKGP	U	25-APR-06	

Comments:

L38758-12	0-2 cm, 3 grab COMP
L38758-4	0-2 cm, 3 grap COMP
L38758-7	0-2 cm, 3 grap COMP
WG85373-1	MB060425
WG85373-2	WG85373-1

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 04/28/06 10:42
Run ID: R113228 Workgroup: WG85373 (VSM353)

MB:WG85373-1 Matrix: OTHR SOLID Listtype: ORVOA-LOWSED Method: EPA 8260B (7-3-02-002) Project: 423368-80 Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	
Tetrachloroethylene	1	2	ug/Kg	<MDL	
Ethylbenzene	1	2	ug/Kg	<MDL	
Total Xylenes	1	2	ug/Kg	<MDL	

SB:WG85373-2 MB:WG85373-1 Matrix: OTHR SOLID Listtype: ORVOA-LOWSED Method: EPA 8260B (7-3-02-002) Project: 423368-80 Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	50.0	54.2	108		35-118
Tetrachloroethylene	1	2	ug/Kg	<MDL	50.0	55.3	111		70-130
Ethylbenzene	1	2	ug/Kg	<MDL	50.0	57.3	115		70-130
Total Xylenes	1	2	ug/Kg	<MDL	100.	114	114		70-130

MSD:WG85301-4 MS:WG85301-3 Matrix: Listtype: ORVOA-LOWSED Method: EPA 8260B (7-3-02-002) Project: Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	Value	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
1,1,2-Trichloroethylene	1	2	ug/Kg		25.0	27.7	111		35-118	25.0	29.4	118		6		35
Tetrachloroethylene	1	2	ug/Kg		25.0	22	88		70-130	25.0	22	88		0		35
Ethylbenzene	1	2	ug/Kg		25.0	22.6	90		70-130	25.0	23.6	94		4		35
Total Xylenes	1	2	ug/Kg		50.0	44	88		70-130	50.0	46	92		4		35

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 04/28/06 10:42
Run ID: R113228 Workgroup: WG85373 (VSM353)

Sample #	d4-1,2-Dichloroet-hane	d8-Toluene	4-Bromofluorobenz-ene
(Lab Limits)	76-120	88-105	91-107
L38758-4	105	95	97
L38758-7	112	96	97
L38758-12	113	96	97
WG85373-1	118	96	98
WG85373-2	108	102	104

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

May 01 2006, 01:59 pm

Work Group: WG85414 (VSM353) for Department: 7 - Organics, Trace

Created: 27-APR-06 PrepDate: 27-APR-06 Due: Operator: gm

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-2	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
WG85414-1	MB			S	VOA-GC/MS-LOWSED	OTHR SOLID	WKGP	U	27-APR-06	
WG85414-2	SB			S	VOA-GC/MS-LOWSED	OTHR SOLID	WKGP	U	27-APR-06	

Comments:

L38758-2	0-2 cm, 3 grap COMP
WG85414-1	MB060427
WG85414-2	WG85414-1

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 05/01/06 09:09
Run ID: R113240 Workgroup: WG85414 (VSM353)

MB:WG85414-1 Matrix: OTHR SOLID Listtype: ORVOA-LOWSED Method: EPA 8260B (7-3-02-002) Project: 423368-80 Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	
Tetrachloroethylene	1	2	ug/Kg	<MDL	
Ethylbenzene	1	2	ug/Kg	<MDL	
Total Xylenes	1	2	ug/Kg	<MDL	

SB:WG85414-2 MB:WG85414-1 Matrix: OTHR SOLID Listtype: ORVOA-LOWSED Method: EPA 8260B (7-3-02-002) Project: 423368-80 Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	50.0	52.8	106		35-118
Tetrachloroethylene	1	2	ug/Kg	<MDL	50.0	51.1	102		70-130
Ethylbenzene	1	2	ug/Kg	<MDL	50.0	53.9	108		70-130
Total Xylenes	1	2	ug/Kg	<MDL	100	110	110		70-130

MSD:WG85301-4 MS:WG85301-3 Matrix: Listtype: ORVOA-LOWSED Method: EPA 8260B (7-3-02-002) Project: Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	Value	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
1,1,2-Trichloroethylene	1	2	ug/Kg		25.0	27.7	111		35-118	25.0	29.4	118		6		35
Tetrachloroethylene	1	2	ug/Kg		25.0	22	88		70-130	25.0	22	88		0		35
Ethylbenzene	1	2	ug/Kg		25.0	22.6	90		70-130	25.0	23.6	94		4		35
Total Xylenes	1	2	ug/Kg		50.0	44	88		70-130	50.0	46	92		4		35

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 05/01/06 09:09
Run ID: R113240 Workgroup: WG85414 (VSM353)

Sample #	d4-1,2-Dichloroet-hane	d8-Toluene	4-Bromofluorobenz-ene
(Lab Limits)	76-120	88-105	91-107
L38758-2	107	94	96
WG85414-1	112	93	98
WG85414-2	110	105	105

Denny Way Sediments, Reuse for L38758-2

VOLATILE ORGANICS DILUTION LOG

King County Department of Natural Reso

Date/ Analyst	QA/QC Batch #	Sample Amount ~~ML~~ g	Final Volume (H_20)	Dilution (H_20)	Dilution Factor	Comments
4/27/2006						
AM	L38758-2	5.035				
VSM 853	L38758R2	5.028				
	L38758A2	5.018				

VOLATILE ORGANICS MAINTENANCE LOG

Date/ Analyst	Maintenance

VOLATILE MEDIUM LEVEL EXTRACTIONS

Method: SW-846 8260 (Solids)

Date/ Analyst	QA/QC Batch #	Sample Number	Amount	Surrogate/	Final Volume	Dilution	Comments

A/M
7/6/06
pm

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Jun 09 2006, 08:04 am

Work Group: WG85539 (BS#217 BNASMS) for Department: 7 - Organics, Trace

Created: 04-MAY-06 PrepDate: 05-MAY-06 Due: Operator: JG

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-1	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
L38758-10	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	02-MAY-06	18-JUL-06
L38758-11	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	02-MAY-06	18-JUL-06
L38758-12	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	03-MAY-06	18-JUL-06
L38758-13	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	02-MAY-06	18-JUL-06
L38758-14	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	02-MAY-06	18-JUL-06
L38758-15	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	02-MAY-06	18-JUL-06
L38758-16	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	02-MAY-06	18-JUL-06
L38758-2	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
L38758-3	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
L38758-4	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	03-MAY-06	18-JUL-06
L38758-5	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
L38758-6	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
L38758-7	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
L38758-8	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
L38758-9	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
WG85539-1	MB			S	BNASMS	OTHR SOLID	PREP	U	04-MAY-06	
WG85539-5	SRM		SED	S	BNASMS	SALTWTRSED	PREP	U	04-MAY-06	
WG85539-6	LD		SED	S	BNASMS	SALTWTRSED	PREP	U	04-MAY-06	
WG85539-7	SB			S	BNASMS	OTHR SOLID	PREP	U	04-MAY-06	
WG85539-8	MS		SED	S	BNASMS	SALTWTRSED	PREP	U	04-MAY-06	
WG85539-9	MSD		SED	S	BNASMS	SALTWTRSED	PREP	U	04-MAY-06	

Comments:

L38758-1	0-2 cm, 3 grap COMP
L38758-10	0-2 cm, 3 grab COMP
L38758-11	0-2 cm, 3 grab COMP
L38758-12	0-2 cm, 3 grab COMP
L38758-13	0-2 cm, 3 grab COMP
L38758-14	0-2 cm, 3 grab COMP
L38758-15	0-2 cm, 3 grab COMP
L38758-16	0-2 cm, 3 grab COMP
L38758-2	0-2 cm, 3 grap COMP
L38758-3	0-2 cm, 3 grap COMP
L38758-4	0-2 cm, 3 grap COMP
L38758-5	0-2 cm, 3 grap COMP
L38758-6	0-2 cm, 3 grap COMP
L38758-7	0-2 cm, 3 grap COMP
L38758-8	0-2 cm, 3 grab COMP
L38758-9	0-2 cm, 3 grab COMP
WG85539-1	MB060505
WG85539-5	SRM1944
WG85539-6	L38758-6
WG85539-7	WG85539-1
WG85539-8	L38758-10
WG85539-9	WG85539-8 L38758-10

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR BNA ANALYSIS
TRACE ORGANICS LABORATORY

BNA Surr = 1164

QC BATCH NO.: BS #217 1:1 Acetone:MeCl2 WORKGROUP NO.: WG85539

EPA SW-846 EXTRACTION METHOD: BNASMS LL BNA SURROGATE SPIKE I.D.#: 1193 Coprostanol:

SONICATION EPA 3550 SOXHLET EPA 3540 LL BNA MATRIX SPIKE I.D.#: 1188A Caffeine:

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Init. Amt (g)	Spike Amount (uL)	Vf (mL)	Clean ups (GPC)	Conc. Anal.	Turn Over Date	Comments
JG/KM 05/05/06	WG85539-1	QC	MB		30.0	1193-100µl	0.5	Yes	JG	05/10/06	
	-2		SB			1188A-100µl					
	-3		MS (L38758-13)								
	-4		MSD (L38758-13)								
	-5		SRM 1944		3.0	1164-100µl	5.0				
	-6		LD (L38758-6)		30.0	1193-100µl	0.5				
	-7		SB2 High			1188A-300µl					
	-8		~~SB~~ MS2 High (L38758-10)								
	-9		MSD2 High (L38758-10)								
	L38758-1	423368-80	Denny Way Sediment, Post Construction			1193-100µl					
	-2	423368-80									
	-3										
	-4										*L38758-4 KD a bit low (~1ml - definitely not dry).
	-5										
	-6										
	-7										
	-8										
	-9										
	-10										
	-11										
	-12										
	-13										
	-14										
	-15										
	-16										

Sequence Name: C:\MSDChem\1\sequence\060522.S
Comment:
Operator:
Data Path: C:\MSDChem\1\data\060522\

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Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Top Post-Seq Cmd:
Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info		
1)	Tune	3	DFTPP-1	DFTPP	10 NG/UL DFTPP MIX
2)	Sample	4	CCALI-01	8270B1	SS#1263 D 6.00 PPM BNA STD
3)	Inst. Blk	2	BLANK-02	8270B1	MECL2
4)	Blank	5			
	Datafile		WG85539-1		
	Method		8270B1		
5)	SB	6			
	Datafile		WG85539-7		
	Method		8270B1		
6)	SRM	7			
	Datafile		WG85539-5		
	Method		8270B1		
7)	MS	8			
	Datafile		WG85539-8	— Rerun X/U	
	Method		8270B1		
8)	MSD	9			
	Datafile		WG85539-9	Rerun X/U	
	Method		8270B1		
9)	Sample	10			
	Datafile		L38758-10	Rerun X/U	
	Method		8270B1		
10)	LD	11			
	Datafile		WG85539-6		
	Method		8270B1		
11)	Sample	12	L38758-6	8270B1	L38758-6 DENNY WAY
12)	Sample	13	L38758-1	8270B1	L38758-1 DENNY WAY — Rerun X/U
13)	Sample	14	L38758-2	8270B1	L38758-2 DENNY WAY
14)	Sample	15	L38758-3	8270B1	L38758-3 DENNY WAY
15)	Sample	16	L38758-4	8270B1	L38758-4 DENNY WAY
16)	Sample	17	L38758-5	8270B1	L38758-5 DENNY WAY
17)	Sample	18	L38758-7	8270B1	L38758-7 DENNY WAY
18)	Sample	19	L38758-8	8270B1	L38758-8 DENNY WAY
19)	Tune	3	DFTPP-2	DFTPP	10 NG/UL DFTPP MIX
20)	Sample	4	CCALI-02	8270B1	SS#1263 D 6.00 PPM BNA STD

Batch: \\orgizmo\EE\chem\6890j.i\060522.b

#	Smp. #	Injection Time	Wkgp. #	QC #	Project #	Sample Description	Matrix	Amount	DilFac	IS#2-RT	IS#2-Area	Method	Init Cali	Analyst
1	DFTPP-1	22-MAY-2006 06:13	SDGa0971	SDGa09		10 NG/UL DFTPP MIX	NONE	0.000	1.0	13.392	134784	DFTPP.m		M.Doubrava
2	CCALI-01	22-MAY-2006 06:47	SDGa0282	SDGa02		SS#1263 D 6.00 PPM BNA STD	SOIL	0.000	1.0	8.556	451566	8270b1.m	11-APR-2006	M.Doubrava
3	BLANK-02	22-MAY-2006 07:28	SDGa0282	SDGa02		MECL2	SOIL	0.000	1.0	0.000	0	8270B1.m	11-APR-2006	M.Doubrava
4	WG85539-1	22-MAY-2006 08:08	WG85539	BS#217		WG85539-1 MB DENNY WAY	SOIL	18.750	0.5	8.556	351203	8270b1.m	11-APR-2006	M.Doubrava
5	WG85539-7	22-MAY-2006 08:48	WG85539	BS#217		WG85539-7 SB DENNY WAY	SOIL	18.750	0.5	8.556	465085	8270b1.m	11-APR-2006	M.Doubrava
6	WG85539-5	22-MAY-2006 09:29	WG85539	BS#217		WG85539-5 SRM 1944 DENNY WAY	SOIL	1.875	5.0	8.556	404520	8270b1.m	11-APR-2006	M.Doubrava
7	WG85539-8	22-MAY-2006 10:09	WG85539	BS#217		WG85539-8 MS L38758-10 DENNY	SOIL	18.750	0.5	8.556	339697	8270b1.m	11-APR-2006	M.Doubrava
8	WG85539-9	22-MAY-2006 10:49	WG85539	BS#217		WG85539-9 MSD L38758-10 DENN	SOIL	18.750	0.5	8.556	309752	8270b1.m	11-APR-2006	M.Doubrava
9	L38758-10	22-MAY-2006 11:29	WG85539	BS#217		L38758-10 DENNY WAY	SOIL	18.750	0.5	8.556	288351	8270b1.m	11-APR-2006	M.Doubrava
10	WG85539-6	22-MAY-2006 12:10	WG85539	BS#217		WG85539-6 LD L38758-6 DENNY	SOIL	18.750	0.5	8.565	319346	8270b1.m	11-APR-2006	M.Doubrava
11	L38758-6	22-MAY-2006 12:50	WG85539	BS#217		L38758-6 DENNY WAY	SOIL	18.750	0.5	8.556	268413	8270b1.m	11-APR-2006	M.Doubrava
12	L38758-1	22-MAY-2006 13:30	WG85539	BS#217		L38758-1 DENNY WAY	SOIL	18.750	0.5	8.565	352872	8270b1.m	11-APR-2006	M.Doubrava
13	L38758-2	22-MAY-2006 14:10	WG85539	BS#217		L38758-2 DENNY WAY	SOIL	18.750	0.5	8.565	370647	8270b1.m	11-APR-2006	M.Doubrava
14	L38758-3	22-MAY-2006 14:51	WG85539	BS#217		L38758-3 DENNY WAY	SOIL	18.750	0.5	8.565	368503	8270b1.m	11-APR-2006	M.Doubrava
15	L38758-4	22-MAY-2006 15:31	WG85539	BS#217		L38758-4 DENNY WAY	SOIL	18.750	0.5	8.565	298477	8270b1.m	11-APR-2006	M.Doubrava
16	L38758-5	22-MAY-2006 16:11	WG85539	BS#217		L38758-5 DENNY WAY	SOIL	18.750	0.5	8.565	317737	8270b1.m	11-APR-2006	M.Doubrava
17	L38758-7	22-MAY-2006 16:52	WG85539	BS#217		L38758-7 DENNY WAY	SOIL	18.750	0.5	8.565	332101	8270b1.m	11-APR-2006	M.Doubrava
18	L38758-8	22-MAY-2006 17:32	WG85539	BS#217		L38758-8 DENNY WAY	SOIL	18.750	0.5	8.565	380294	8270b1.m	11-APR-2006	M.Doubrava
19	DFTPP-2	22-MAY-2006 18:12	SDGa0971	SDGa09		10 NG/UL DFTPP MIX	NONE	0.000	1.0	13.397	56520	DFTPP.m		M.Doubrava
20	CCALI-02	22-MAY-2006 18:46	SDGa0282	SDGa02		SS#1263 D 6.00 PPM BNA STD	SOIL	0.000	1.0	8.565	226979	8270B1.m	11-APR-2006	M.Doubrava

Samples: 10 QC Samples + Misc.: 7 ContinuingCals: 1 Tunes: 2 Calibrations: 0

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Operator:
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Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Top Post-Seq Cmd:
Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info
1)	Tune	3	DFTPP-1 DFTPP 10 NG/UL DFTPP MIX
2)	Sample	4	CCALI-01 8270B1 SS#1263 D 6.00 PPM BNA STD
3)	Sample	5	CEDC-01 8270BEDC SS#1190 B 10.0 PPM EDC STD
4)	Inst. Blk	2	BLANK-02 8270B1 MECL2
5)	MS	6	
	Datafile		WG85539-8X
	Method		8270B1
6)	MSD	7	
	Datafile		WG85539-9X
	Method		8270B1
7)	Sample	8	
	Datafile		L38758-10X
	Method		8270B1
8)	Sample	9	
	Datafile		L38758-1X
	Method		8270B1
9)	Sample	10	L38758-9 8270B1 L38758-9 DENNY WAY
10)	Sample	11	
	Datafile		L38758-11
	Method		8270B1
11)	Sample	12	
	Datafile		L38758-12
	Method		8270B1
12)	Sample	13	
	Datafile		L38758-13 – 15TO Failure - Reanalyzed
	Method		8270B1
13)	Sample	14	
	Datafile		L38758-14
	Method		8270B1
14)	Sample	15	
	Datafile		L38758-15
	Method		8270B1
15)	Sample	16	
	Datafile		L38758-16
	Method		8270B1
16)	Tune	3	DFTPP-2 DFTPP 10 NG/UL DFTPP MIX
17)	Sample	4	CCALI-02 8270B1 SS#1263 D 6.00 PPM BNA STD

Batch: \\orgizmo\EE\chem\6890j.i\060530.b

#	Smp. #	Injection Time	Wkgp. #	QC #	Project #	Sample Description	Matrix	Amount	DilFac	IS#2-RT	IS#2-Area	Method	Init Cali	Analyst
1	DFTPP-1	30-MAY-2006 09:33	SDGa0971	SDGa09		10 NG/UL DFTPP MIX	NONE	0.000	1.0	13.251	177344	DFTPP.m		M.Doubrava
2	CCALI-01	30-MAY-2006 10:07	SDGa0282	SDGa02		SS#1263 D 6.00 PPM BNA STD	SOIL	0.000	1.0	8.456	593284	8270b1.m	11-APR-2006	M.Doubrava
3	CEDC-01	30-MAY-2006 10:48	SDGa0962	SDGa09		SS#1190 B 10.0 PPM EDC STD	WATER	0.000	1.0	8.441	774562	8270BEDC.m	15-DEC-2005	M.Doubrava
4	BLANK-02	30-MAY-2006 11:23	SDGa0282	SDGa02		MECL2	SOIL	0.000	1.0	0.000	0	8270B1.m	11-APR-2006	M.Doubrava
5	WG85539-8X	30-MAY-2006 12:05	WG85539	BS#217		WG85539-8 MS L38758-10 X 10	SOIL	18.750	5.0	8.456	457454	8270b1.m	11-APR-2006	M.Doubrava
6	WG85539-9X	30-MAY-2006 12:46	WG85539	BS#217		WG85539-9 MSD L38758-10 X 10	SOIL	18.750	5.0	8.456	569170	8270b1.m	11-APR-2006	M.Doubrava
7	L38758-10X	30-MAY-2006 13:29	WG85539	BS#217		L38758-10 X 10	SOIL	18.750	5.0	8.456	443104	8270b1.m	11-APR-2006	M.Doubrava
8	L38758-1X	30-MAY-2006 14:10	WG85539	BS#217		L38758-1 X 10	SOIL	18.750	5.0	8.465	635695	8270B1.m	11-APR-2006	M.Doubrava
9	L38758-9	30-MAY-2006 14:52	WG85539	BS#217		L38758-9 DENNY WAY	SOIL	18.750	0.5	8.465	489275	8270B1.m	11-APR-2006	M.Doubrava
10	L38758-11	30-MAY-2006 15:34	WG85539	BS#217		L38758-11 DENNY WAY	SOIL	18.750	0.5	8.465	360878	8270B1.m	11-APR-2006	M.Doubrava
11	L38758-12	30-MAY-2006 16:16	WG85539	BS#217		L38758-12 DENNY WAY	SOIL	18.750	0.5	8.465	424352	8270B1.m	11-APR-2006	M.Doubrava
12	L38758-13	30-MAY-2006 16:58	WG85539	BS#217		L38758-13 DENNY WAY	SOIL	18.750	0.5	8.465	199631	8270B1.m	11-APR-2006	M.Doubrava
13	L38758-14	30-MAY-2006 17:40	WG85539	BS#217		L38758-14 DENNY WAY	SOIL	18.750	0.5	8.465	267797	8270B1.m	11-APR-2006	M.Doubrava
14	L38758-15	30-MAY-2006 18:22	WG85539	BS#217		L38758-15 DENNY WAY	SOIL	18.750	0.5	8.475	271799	8270B1.m	11-APR-2006	M.Doubrava
15	L38758-16	30-MAY-2006 19:04	WG85539	BS#217		L38758-16 DENNY WAY	SOIL	18.750	0.5	8.475	238365	8270B1.m	11-APR-2006	M.Doubrava
16	DFTPP-2	30-MAY-2006 19:45	SDGa0971	SDGa09		10 NG/UL DFTPP MIX	NONE	0.000	1.0	13.261	114120	DFTPP.m		M.Doubrava
17	CCALI-02	30-MAY-2006 20:21	SDGa0282	SDGa02		SS#1263 D 6.00 PPM BNA STD	SOIL	0.000	1.0	8.465	294704	8270B1.m	11-APR-2006	M.Doubrava

Samples: 11 **QC Samples + Misc.: 3** **ContinuingCals: 1** **Tunes: 2** **Calibrations: 0**

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        Operator:
       Data Path: C:\MSDChem\1\data\060601\
Top                    Pre-Seq Cmd:
Instrument Control     Pre-Seq Cmd:
Data Analysis          Pre-Seq Cmd:

Top                   Post-Seq Cmd:
Instrument Control    Post-Seq Cmd:
Data Analysis         Post-Seq Cmd:

   Method Sections To Run      On A Barcode Mismatch
    (X) Full Method              (X) Inject Anyway
    ( ) Reprocessing Only        ( ) Don't Inject

   ----------------------------------------------------------------------
   Line                     Sample Name/Misc Info
 1)  Tune            3  DFTPP-1  DFTPP    10 NG/UL DFTPP MIX
 2)  Sample          4  CCALI-01 8270B1   SS#1263 D 6.00 PPM BNA STD
 3)  Sample          5  CEDC-01  8270BEDC SS#1190 B 10.0 PPM EDC STD
 4)  Inst. Blk       2  BLANK-02 8270B1   MECL2
 5) Sample           6
     Datafile          L38758-13
     Method            8270B1
 6) Sample           7
     Datafile          SAMPLE-01
     Method            8270BEDC
 7) Sample           8
     Datafile          SAMPLE-02
     Method            8270BEDC
 8) Sample           9
     Datafile          SAMPLE-03
     Method            8270BEDC
 9) Sample          10
     Datafile          SAMPLE-04
     Method            8270BEDC
10) Sample          11
     Datafile          SAMPLE-05
     Method            8270BEDC
11) Sample          12
     Datafile          SAMPLE-06
     Method            8270BEDC
```

Batch: \\orgizmo\EE\chem\6890j.i\060601.b

#	Smp. #	Injection Time	Wkgp. #	QC #	Project #	Sample Description	Matrix	Amount	DilFac	IS#2-RT	IS#2-Area	Method	Init Cali	Analyst
1	DFTPP-1	01-JUN-2006 06:50	SDGa0971	SDGa09		10 NG/UL DFTPP MIX	NONE	0.000	1.0	13.228	102408	DFTPP.m		M.Doubrava
2	CCALI-01	01-JUN-2006 07:23	SDGa0282	SDGa02		SS#1263 D 6.00 PPM BNA STD	SOIL	0.000	1.0	8.438	512104	8270b1.m	11-APR-2006	M.Doubrava
3	CEDC-01	01-JUN-2006 08:04	SDGa0962	SDGa09		SS#1190 B 10.0 PPM EDC STD	WATER	0.000	1.0	8.420	443406	8270bEDC.m	15-DEC-2005	M.Doubrava
4	BLANK-02	01-JUN-2006 08:39	SDGa0282	SDGa02		MECL2	SOIL	0.000	1.0	0.000	0	8270B1.m	11-APR-2006	M.Doubrava
5	L38758-13	01-JUN-2006 09:20	WG85539	BS#217		L38758-13 DENNY WAY	SOIL	18.750	0.5	8.438	405677	8270b1.m	11-APR-2006	M.Doubrava
6	SAMPLE-01	01-JUN-2006 10:01	SDGa0962	SDGa09		T 0 SAMPLE #1	SOIL	15.000	1.0	8.430	352205	8270bEDC.m	15-DEC-2005	M.Doubrava
7	SAMPLE-02	01-JUN-2006 10:37	SDGa0962	SDGa09		T 0 SAMPLE #2	SOIL	15.000	1.0	8.430	362440	8270bEDC.m	15-DEC-2005	M.Doubrava
8	SAMPLE-03	01-JUN-2006 11:13	SDGa0962	SDGa09		T 0 SAMPLE #3	SOIL	15.000	1.0	8.430	583535	8270bEDC.m	15-DEC-2005	M.Doubrava
9	SAMPLE-04	01-JUN-2006 11:49	SDGa0962	SDGa09		T 0 SAMPLE #4	SOIL	15.000	1.0	8.430	346122	8270bEDC.m	15-DEC-2005	M.Doubrava
10	SAMPLE-05	01-JUN-2006 12:25	SDGa0962	SDGa09		T 0 SAMPLE #5	SOIL	15.000	1.0	8.430	376953	8270bEDC.m	15-DEC-2005	M.Doubrava
11	SAMPLE-06	01-JUN-2006 13:00	SDGa0962	SDGa09		T 0 SAMPLE #6	SOIL	15.000	1.0	8.430	353688	8270bEDC.m	15-DEC-2005	M.Doubrava

Samples: 7 **QC Samples + Misc.:** 1 **ContinuingCals:** 2 **Tunes:** 1 **Calibrations:** 0

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/12/06 07:57
Run ID: R113937 Workgroup: WG85539 (BS#217 BNASMS)

A/M 7/6/06

MB:WG85539-1 Matrix: OTHR SOLID Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Phenol	5.3	10.7	ug/Kg	<MDL	
1,3-Dichlorobenzene	.27	.533	ug/Kg	<MDL	
1,4-Dichlorobenzene	.27	.533	ug/Kg	<MDL	
1,2-Dichlorobenzene	.27	.533	ug/Kg	<MDL	
Hexachloroethane	1.3	2.67	ug/Kg	<MDL	
2,4-Dimethylphenol	2.7	5.33	ug/Kg	<MDL	
1,2,4-Trichlorobenzene	.27	.533	ug/Kg	<MDL	
Naphthalene	2.7	5.33	ug/Kg	<MDL	
Hexachlorobutadiene	1.3	2.67	ug/Kg	<MDL	
Acenaphthylene	2.7	5.33	ug/Kg	<MDL	
Dimethyl Phthalate	5.3	10.7	ug/Kg	<MDL	
Acenaphthene	2.7	5.33	ug/Kg	<MDL	
Fluorene	2.7	5.33	ug/Kg	<MDL	
Diethyl Phthalate	5.3	10.7	ug/Kg	<MDL	
N-Nitrosodiphenylamine	5.3	10.7	ug/Kg	<MDL	
Hexachlorobenzene	.53	1.07	ug/Kg	<MDL	
Pentachlorophenol	13	26.7	ug/Kg	<MDL	
Phenanthrene	2.7	5.33	ug/Kg	<MDL	
Anthracene	2.7	5.33	ug/Kg	<MDL	
Di-N-Butyl Phthalate	5.3	10.7	ug/Kg	49.1	B
Fluoranthene	2.7	5.33	ug/Kg	<MDL	
Pyrene	2.7	5.33	ug/Kg	<MDL	
Benzyl Butyl Phthalate	5.3	10.7	ug/Kg	<MDL	
Benzo(a)anthracene	2.7	5.33	ug/Kg	<MDL	
Chrysene	2.7	5.33	ug/Kg	<MDL	
Bis(2-Ethylhexyl)Phthalate	5.3	10.7	ug/Kg	6.2	B
Di-N-Octyl Phthalate	5.3	10.7	ug/Kg	<MDL	
Benzo(b)fluoranthene	2.7	5.33	ug/Kg	<MDL	
Benzo(k)fluoranthene	2.7	5.33	ug/Kg	<MDL	
Benzo(a)pyrene	2.7	5.33	ug/Kg	<MDL	
Indeno(1,2,3-Cd)Pyrene	2.7	5.33	ug/Kg	<MDL	
Dibenzo(a,h)anthracene	2.7	5.33	ug/Kg	<MDL	
Benzo(g,h,i)perylene	2.7	5.33	ug/Kg	<MDL	
Benzyl Alcohol	5.3	10.7	ug/Kg	<MDL	
2-Methylphenol	5.3	10.7	ug/Kg	<MDL	
4-Methylphenol	5.3	10.7	ug/Kg	<MDL	
Benzoic Acid	13	26.7	ug/Kg	<MDL	
2-Methylnaphthalene	2.7	5.33	ug/Kg	<MDL	
Dibenzofuran	2.7	5.33	ug/Kg	<MDL	
Carbazole	2.7	5.33	ug/Kg	<MDL	
Coprostanol	53	107	ug/Kg	<MDL	
Caffeine	5.3	10.7	ug/Kg	<MDL	
Total LPAHs	2.7	5.33	ug/Kg	<MDL	
Total HPAHS	2.7	5.33	ug/Kg	<MDL	

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/12/06 07:57
Run ID: R113937 Workgroup: WG85539 (BS#217 BNASMS)

SRM:WG85539-5 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
Naphthalene	270	533	ug/Kg	1630	290	18		10-29
Phenanthrene	270	533	ug/Kg	5200	4260	82		51-106
Anthracene	270	533	ug/Kg	1750	807	46		28-98
Fluoranthene	270	533	ug/Kg	8800	8450	96		45-126
Pyrene	270	533	ug/Kg	9570	8450	88		36-135
Benzo(a)anthracene	270	533	ug/Kg	4660	4280	92		66-124
Chrysene	270	533	ug/Kg	4800	4930	103		77-136
Benzo(b)fluoranthene	270	533	ug/Kg	3820	3730	98		52-190
Benzo(k)fluoranthene	270	533	ug/Kg	2270	2730	120		60-146
Benzo(a)pyrene	270	533	ug/Kg	4240	3440	81		60-116
Indeno(1,2,3-Cd)Pyrene	270	533	ug/Kg	2740	2130	78		33-121
Dibenzo(a,h)anthracene	270	533	ug/Kg	419.	613	146		10-200
Benzo(g,h,i)perylene	270	533	ug/Kg	2800	2370	85		15-121

LD:WG85539-6 L38758-6 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
Phenol	5.3	10.7	ug/Kg	7.1	18.6	90	E	35
1,3-Dichlorobenzene	.27	.533	ug/Kg	<MDL	<MDL			35
1,4-Dichlorobenzene	.27	.533	ug/Kg	<MDL	<MDL			35
1,2-Dichlorobenzene	.27	.533	ug/Kg	<MDL	<MDL			35
Hexachloroethane	1.3	2.67	ug/Kg	<MDL	<MDL			35
2,4-Dimethylphenol	2.7	5.33	ug/Kg	<MDL	<MDL			35
1,2,4-Trichlorobenzene	.27	.533	ug/Kg	<MDL	<MDL			35
Naphthalene	2.7	5.33	ug/Kg	5	6.81	31		35
Hexachlorobutadiene	1.3	2.67	ug/Kg	<MDL	<MDL			35
Acenaphthylene	2.7	5.33	ug/Kg	9.98	10.2	2		35
Dimethyl Phthalate	5.3	10.7	ug/Kg	<MDL	<MDL			35
Acenaphthene	2.7	5.33	ug/Kg	7.16	7.44	4		35
Fluorene	2.7	5.33	ug/Kg	15.5	14.2	9		35
Diethyl Phthalate	5.3	10.7	ug/Kg	<MDL	<MDL			35
N-Nitrosodiphenylamine	5.3	10.7	ug/Kg	<MDL	<MDL			35
Hexachlorobenzene	.53	1.07	ug/Kg	<MDL	<MDL			35
Pentachlorophenol	13	26.7	ug/Kg	<MDL	<MDL			35
Phenanthrene	2.7	5.33	ug/Kg	107	99.6	8		35
Anthracene	2.7	5.33	ug/Kg	65.4	52.7	21		35
Di-N-Butyl Phthalate	5.3	10.7	ug/Kg	82.1	112	30		35
Fluoranthene	2.7	5.33	ug/Kg	211	197	7		35
Pyrene	2.7	5.33	ug/Kg	203	185	9		35
Benzyl Butyl Phthalate	5.3	10.7	ug/Kg	27	20.4	28		35
Benzo(a)anthracene	2.7	5.33	ug/Kg	118	109	8		35
Chrysene	2.7	5.33	ug/Kg	158	143	10		35
Bis(2-Ethylhexyl)Phthalate	5.3	10.7	ug/Kg	313	265	16		35
Di-N-Octyl Phthalate	5.3	10.7	ug/Kg	<MDL	<MDL			35
Benzo(b)fluoranthene	2.7	5.33	ug/Kg	158	135	16		35
Benzo(k)fluoranthene	2.7	5.33	ug/Kg	125	135	8		35
Benzo(a)pyrene	2.7	5.33	ug/Kg	140	133	5		35
Indeno(1,2,3-Cd)Pyrene	2.7	5.33	ug/Kg	81	72.9	11		35
Dibenzo(a,h)anthracene	2.7	5.33	ug/Kg	24.7	27.3	10		35

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/12/06 07:57
Run ID: R113937 Workgroup: WG85539 (BS#217 BNASMS)

LD:WG85539-6 L38758-6 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
Benzo(g,h,i)perylene	2.7	5.33	ug/Kg	87	79.5	9		35
Benzyl Alcohol	5.3	10.7	ug/Kg	<MDL	<MDL			35
2-Methylphenol	5.3	10.7	ug/Kg	<MDL	<MDL			35
4-Methylphenol	5.3	10.7	ug/Kg	<MDL	<MDL			35
Benzoic Acid	13	26.7	ug/Kg	71.1	92.1	26		35
2-Methylnaphthalene	2.7	5.33	ug/Kg	3.8	5.36	35		35
Dibenzofuran	2.7	5.33	ug/Kg	5.95	6.36	7		35
Carbazole	2.7	5.33	ug/Kg	20.3	16.2	22		35
Coprostanol	53	107	ug/Kg	368	364	1		35
Caffeine	5.3	10.7	ug/Kg	<MDL	<MDL			35

SB:WG85539-7 MB:WG85539-1 Matrix: OTHR SOLID Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Phenol	5.3	10.7	ug/Kg	<MDL	400.	254	64		10-107
1,3-Dichlorobenzene	.27	.533	ug/Kg	<MDL	400.	204	51		18-95
1,4-Dichlorobenzene	.27	.533	ug/Kg	<MDL	400.	209	52		21-99
1,2-Dichlorobenzene	.27	.533	ug/Kg	<MDL	400.	215	54		10-116
Hexachloroethane	1.3	2.67	ug/Kg	<MDL	400.	209	52		17-92
2,4-Dimethylphenol	2.7	5.33	ug/Kg	<MDL	400.	11.1	3	*	10-81
1,2,4-Trichlorobenzene	.27	.533	ug/Kg	<MDL	400.	234	59		13-110
Naphthalene	2.7	5.33	ug/Kg	<MDL	400.	226	57		17-94
Hexachlorobutadiene	1.3	2.67	ug/Kg	<MDL	400.	216	54		10-97
Acenaphthylene	2.7	5.33	ug/Kg	<MDL	400.	299	75		31-101
Dimethyl Phthalate	5.3	10.7	ug/Kg	<MDL	400.	348	87		38-114
Acenaphthene	2.7	5.33	ug/Kg	<MDL	400.	266	66		29-102
Fluorene	2.7	5.33	ug/Kg	<MDL	400.	326	82		39-106
Diethyl Phthalate	5.3	10.7	ug/Kg	<MDL	400.	354	89		51-118
N-Nitrosodiphenylamine	5.3	10.7	ug/Kg	<MDL	400.	279	70		11-148
Hexachlorobenzene	.53	1.07	ug/Kg	<MDL	400.	321	80		40-111
Pentachlorophenol	13	26.7	ug/Kg	<MDL	400.	216	54		38-124
Phenanthrene	2.7	5.33	ug/Kg	<MDL	400.	338	85		57-104
Anthracene	2.7	5.33	ug/Kg	<MDL	400.	320	80		45-114
Di-N-Butyl Phthalate	5.3	10.7	ug/Kg	49.1	400.	368	80		17-180
Fluoranthene	2.7	5.33	ug/Kg	<MDL	400.	376	94		55-132
Pyrene	2.7	5.33	ug/Kg	<MDL	400.	373	93		48-132
Benzyl Butyl Phthalate	5.3	10.7	ug/Kg	<MDL	400.	368	92		15-183
Benzo(a)anthracene	2.7	5.33	ug/Kg	<MDL	400.	380	95		69-117
Chrysene	2.7	5.33	ug/Kg	<MDL	400.	330	83		69-111
Bis(2-Ethylhexyl)Phthalate	5.3	10.7	ug/Kg	6.2	400.	377	93		10-182
Di-N-Octyl Phthalate	5.3	10.7	ug/Kg	<MDL	400.	372	93		10-200
Benzo(b)fluoranthene	2.7	5.33	ug/Kg	<MDL	400.	351	88		50-121
Benzo(k)fluoranthene	2.7	5.33	ug/Kg	<MDL	400.	344	86		58-128
Benzo(a)pyrene	2.7	5.33	ug/Kg	<MDL	400.	322	81		15-137
Indeno(1,2,3-Cd)Pyrene	2.7	5.33	ug/Kg	<MDL	400.	334	84		51-132
Dibenzo(a,h)anthracene	2.7	5.33	ug/Kg	<MDL	400.	334	84		53-129
Benzo(g,h,i)perylene	2.7	5.33	ug/Kg	<MDL	400.	306	76		46-126
Benzyl Alcohol	5.3	10.7	ug/Kg	<MDL	400.	234	58		10-119
2-Methylphenol	5.3	10.7	ug/Kg	<MDL	400.	132	33		16-91

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/12/06 07:57
Run ID: R113937 Workgroup: WG85539 (BS#217 BNASMS)

SB:WG85539-7 MB:WG85539-1 Matrix: OTHR SOLID Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec	Qual	LabLimit
4-Methylphenol	5.3	10.7	ug/Kg	<MDL	400.	147	37		10-125
Benzoic Acid	13	26.7	ug/Kg	<MDL	400.	85.1	21		10-170
2-Methylnaphthalene	2.7	5.33	ug/Kg	<MDL	400.	255	64		22-99
Dibenzofuran	2.7	5.33	ug/Kg	<MDL	400.	306	76		37-97
Carbazole	2.7	5.33	ug/Kg	<MDL	400.	332	83		44-179
Coprostanol	53	107	ug/Kg	<MDL	4000	2430	61		10-159
Caffeine	5.3	10.7	ug/Kg	<MDL	400.	386	96		45-159
Total LPAHs	2.7	5.33	ug/Kg	<MDL		2030			
Total HPAHS	2.7	5.33	ug/Kg	<MDL		3450			

MSD:WG85539-9 MS:WG85539-8 L38758-10 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
Phenol	53	107	ug/Kg	<MDL	400.	255	64		10-127	400.	292	73		13		35
1,3-Dichlorobenzene	2.7	5.33	ug/Kg	<MDL	400.	160	40		10-103	400.	194	49		20		35
1,4-Dichlorobenzene	2.7	5.33	ug/Kg	14.5	400.	171	39		10-104	400.	219	51		27		35
1,2-Dichlorobenzene	2.7	5.33	ug/Kg	<MDL	400.	166	41		10-105	400.	224	56		31		35
Hexachloroethane	13	26.7	ug/Kg	<MDL	400.	161	40		10-89	400.	194	48		18		35
2,4-Dimethylphenol	27	53.3	ug/Kg	<MDL	400.	258	65		10-150	400.	293	73		12		35
1,2,4-Trichlorobenzene	2.7	5.33	ug/Kg	<MDL	400.	212	53		10-115	400.	257	64		19		35
Naphthalene	27	53.3	ug/Kg	<MDL	400.	212	53		12-97	400.	275	69		26		35
Hexachlorobutadiene	13	26.7	ug/Kg	<MDL	400.	180	45		10-97	400.	231	58		25		35
Acenaphthylene	27	53.3	ug/Kg	<MDL	400.	332	83		27-132	400.	355	89		7		35
Dimethyl Phthalate	53	107	ug/Kg	<MDL	400.	383	96		13-162	400.	379	95		1		35
Acenaphthene	27	53.3	ug/Kg	37	400.	331	74		25-130	400.	349	78		5		35
Fluorene	27	53.3	ug/Kg	47	400.	446	100		22-147	400.	436	97		3		35
Diethyl Phthalate	53	107	ug/Kg	<MDL	400.	404	101		31-150	400.	366	92		9		35
N-Nitrosodiphenylamine	53	107	ug/Kg	<MDL	400.	377	94		10-169	400.	346	86		9		35
Hexachlorobenzene	5.3	10.7	ug/Kg	<MDL	400.	373	93		18-151	400.	311	78		18		35
Pentachlorophenol	130	267	ug/Kg	<MDL	400.	281	70		17-170	400.	296	74		6		35
Phenanthrene	27	53.3	ug/Kg	534	400.	902	92		10-200	400.	941	102		10		35
Anthracene	27	53.3	ug/Kg	126	400.	490	91		10-181	400.	653	132		37	*	35
Di-N-Butyl Phthalate	53	107	ug/Kg	97	400.	463	91		10-194	400.	407	78		15		35
Fluoranthene	27	53.3	ug/Kg	1110	400.	1530	105		12-188	400.	2360	313	*	100	*	35
Pyrene	27	53.3	ug/Kg	1300	400.	1750	111		20-174	400.	2520	304	*	93	*	35
Benzyl Butyl Phthalate	53	107	ug/Kg	326	400.	547	55		41-145	400.	554	57		4		35
Benzo(a)anthracene	27	53.3	ug/Kg	455	400.	868	103		32-168	400.	1530	268	*	89	*	35
Chrysene	27	53.3	ug/Kg	535	400.	885	87		14-184	400.	1860	330	*	117	*	35
Bis(2-Ethylhexyl)Phthalate	53	107	ug/Kg	926	400.	1640	179		10-189	400.	1440	130		32		35
Di-N-Octyl Phthalate	53	107	ug/Kg	<MDL	400.	523	131		52-151	400.	467	117		11		35
Benzo(b)fluoranthene	27	53.3	ug/Kg	512	400.	732	55		10-199	400.	1310	200	*	114	*	35
Benzo(k)fluoranthene	27	53.3	ug/Kg	466	400.	927	115		10-192	400.	1380	229	*	66	*	35
Benzo(a)pyrene	27	53.3	ug/Kg	494	400.	827	83		10-200	400.	1310	203	*	84	*	35
Indeno(1,2,3-Cd)Pyrene	27	53.3	ug/Kg	272	400.	615	86		10-177	400.	753	120		33		35
Dibenzo(a,h)anthracene	27	53.3	ug/Kg	105	400.	473	92		10-166	400.	540	109		17		35

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/12/06 07:57
Run ID: R113937 Workgroup: WG85539 (BS#217 BNASMS)

Matrix Spike Duplicate Report
MSD:WG85539-9 MS:WG85539-8 L38758-10 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
Benzo(g,h,i)perylene	27	53.3	ug/Kg	285	400.	598	78		10-173	400.	721	109		33		35
Benzyl Alcohol	53	107	ug/Kg	<MDL	400.	168	42		10-138	400.	227	57		30		35
2-Methylphenol	53	107	ug/Kg	<MDL	400.	254	63		10-142	400.	310	77		20		35
4-Methylphenol	53	107	ug/Kg	<MDL	400.	263	66		10-163	400.	308	77		15		35
Benzoic Acid	130	267	ug/Kg	<MDL	400.	491	123		10-158	400.	517	129		5		35
2-Methylnaphthalene	27	53.3	ug/Kg	<MDL	400.	255	64		22-112	400.	306	76		17		35
Dibenzofuran	27	53.3	ug/Kg	<MDL	400.	376	94		21-134	400.	380	95		1		35
Carbazole	27	53.3	ug/Kg	70.2	400.	448	95		16-200	400.	421	88		8		35
Coprostanol	530	1070	ug/Kg	<MDL	4000	2770	69		10-183	4000	2520	63		9		35
Caffeine	53	107	ug/Kg	<MDL	400.	455	114		17-195	400.	400	100		13		35
Total LPAHs	27	53.3	ug/Kg	744		2970					3310					
Total HPAHS	27	53.3	ug/Kg	5540		9210					14300					

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/12/06 07:57
Run ID: R113937 Workgroup: WG85539 (BS#217 BNASMS)

Sample #	2-Fluorophenol	d5-Phenol	d5-Nitrobenzene	d4-2-Chlorophenol	d4-1,2-Dichlorobe-nzene	2-Fluorobiphenyl	2,4,6-Tribromophe-nol	d14-Terphenyl
(Lab Limits)	10-112	10-106	28-94	11-105	24-91	31-101	29-112	51-130
L38758-1	59	74	76	73	49	84	110	109
L38758-2	43	54	50	52	33	69	105	110
L38758-3	38	50	51	49	32	73	110	123
L38758-4	45	54	56	55	37	81	109	129
L38758-5	51	58	66	64	41	90	115 L	128
L38758-6	36	51	45	47	31	64	102	111
L38758-7	34	36	47	40	32	64	108	114
L38758-8	38	46	52	48	34	74	111	129
L38758-9	28	48	40	44	27	70	108	122
L38758-10	41	53	58	54	33	66	114 L	112
L38758-11	35	40	41	39	30	65	104	113
L38758-12	42	46	53	47	40	79	106	112
L38758-13	56	62	70	69	51	100	103	116
L38758-14	44	44	49	46	38	73	111	123
L38758-15	45	43	52	46	45	74	102	122
L38758-16	36	34	44	38	35	74	106	127
WG85539-1	24	48	58	36	51	69	16 G	100
WG85539-5	84	94	92	100	75	112 L	94	117
WG85539-6	71	81	81	84	60	92	106	117
WG85539-7	54	65	61	60	54	66	56	95
WG85539-8	47	60	55	53	43	69	89	109
WG85539-9	66	78	70	71	55	77	80	96

Trace Organics Data Anomaly Form

Date(s) Occurred: *06/05/22, 06/05/30, 06/06/01*

WG #(s): *WG85539*

☐ **All samples in WKGP(s) or Sample #(s):** *Various samples*

Project #(s): *423368-80*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Extraction

☐ BNA ☐ BNALL ☐ EDC ☐ EDC-LVI
☐ CLPESTPCB ☐ PEST ☐ PCB ☐ OPPEST
☐ VOA-GCMS ☐ NWTPH-GX ☐ NWTPH-DX ☐ NWTPH-HCID
☐ BUTYL TIN ☐ AIRTOX ☐ AIR-SULFUR
☒ Other: *BNASMS*
☐ Subcontracted:

II. Instrument

GC/ICP/MS: ☐ P
GC/MS: ☐ D ☐ E ☒ J ☐ K ☐ L ☐ M ☐ N
GC: ☐ F ECD ☐ G ECD ☐ H FID ☐ H OI4450PID/FID
☐ I FID
Extraction/Cleanup: ☐ PFE ☐ GPC
☐ Other:

III. Type of Sample/Analytical Anomaly

☒ Values Outside of Control Limits:

1 ☒ Blank Contamination
2 ☐ SB/SBD Spike Recoveries
3 ☐ MS/MSD Spike Recoveries
4 ☐ LCS/SRM Recoveries
5 ☐ Initial Calibration
6 ☐ Performance Checks
7 ☒ ISTD % Differences
8 ☐ Surrogate Spike Recoveries
9 ☐ SB/SBD RPD
10 ☐ MS/MSD RPD
11 ☒ Sample/LD RPD
12 ☒ Continuing Calibration Checks
13 ☐ Tuning Criteria

14 ☐ Holding time exceeded by:
15 ☐ Insufficient sample amount.
16 ☐ Inappropriate storage, container or preservation.
17 ☒ Other

Anomaly Description:

1. The MB (WG85539-1) contained reportable levels of Di-N-Butyl Phthalate and Bis (2-ethylhexyl)phthalate. The levels are consistant with sediment extractions and are attributed to lab background. All sample are flagged "B".

7. On 06/05/30 L38758-13 failed for ISTD % differences compared to CCALI-01. L38758-13 was re-analyzed on 06/06/01 passed ISTD % difference.

11. L38758-6 was extracted in duplicate as WG85529-6. The RPD failed for phenol and was flagged "E" for all the samples in the workgroup.

12.CCALI-01 on 06/05/22 for benzoic acid and coprostanol exceeded 20 % (23.4 and 29.9%) compared to the calibration curve. Since the average %D was 8.25% analyses was continued. CCALI-01 on 06/05/30 for pentachlorophenol exceeded 25% (26.3%) compared to the calibration curve. Coprostanol exceeded 20% (35.2%) compared to the calibration curve. Since the average %D was 8.29% analyses was continued. CCALI-01 on 06/06/01 for pentachlorophenol exceeded 25 % (43.9%) compared to the calibration curve. Since L38758-13 was being re-analyzed due to %ISTD failures and no pentachlorophenol was found in the original analyses the analyses continued. Coprostanol exceeded 20% (31.2%) compared to the calibration curve. The average %D was 8.93% for CCALI-01, analyses continued.

17. Samples WG85539-8, -9 and L38758-1, -10 quantitated target compounds above the calibration curve. The samples were diluted X 10 and reanalyzed on 06/05/30.

IV. Type of Project Anomaly

- [x] SAP/Work Plan specified MDLs not met.
- [ ] SAP/Work Plan specified QC frequency or QC type not met.
- [ ] SAP/Work Plan specified methodology not used.
- [ ] Sample exceeds regulatory and/or hazardous waste limits.
- [ ] Sample data results are unusual or inconsistent with expected results.
- [ ] Other

Anomaly Description: *For the diluted samples WG85539-8, 9, and L38758-1, -10 the MDLs/RDLs are corrected for the dilution.*

V. Corrective Action Taken

- [x] Sample(s) re-analyzed
- [ ] Sample(s) re-prepared and re-analyzed
- [x] Sample(s) reported "AS IS"
- [ ] Data qualified with the following flags:
- [ ] Other

Corrective Action Description: *see anomaly description*

VI. Potential Effects on Data Quality

Based upon the expected performance of this method:

- [ ] It is <u>likely</u> the observed anomaly influenced the reported value(s).
- [x] It is <u>unlikely</u> the observed anomaly influenced the reported value(s).
- [ ] The observed anomaly <u>may have</u> influenced the reported value(s).
- [ ] It is <u>unknown</u> whether or not the observed anomaly affected the reported value(s).

Explanation:

	Signatures	Signature Dates
Reported By: *Doubrava*		6/13/06
Reviewer:		
Supervisor: *Dana Walker*	Dana M. Walker	6/26/06
QA Officer: *Colin Elliott* (For QA1 only)	Colin Elliott	6/16/06
cc: LPM: *F. Grothkopp*		

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Jun 06 2006, 02:30 pm

Work Group: WG85662 (PPLLS#54 PESTLL) for Department: 7 - Organics, Trace

Created: 12-MAY-06 PrepDate: 12-MAY-06 Due: Operator: JG/BW

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-1	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
L38758-10	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	02-MAY-06	18-JUL-06
L38758-11	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	02-MAY-06	18-JUL-06
L38758-12	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	03-MAY-06	18-JUL-06
L38758-13	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	02-MAY-06	18-JUL-06
L38758-14	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	02-MAY-06	18-JUL-06
L38758-15	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	02-MAY-06	18-JUL-06
L38758-16	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	02-MAY-06	18-JUL-06
L38758-2	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
L38758-3	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
L38758-4	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	03-MAY-06	18-JUL-06
L38758-5	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
L38758-6	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
L38758-7	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	03-MAY-06	18-JUL-06
L38758-8	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
L38758-9	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	WKGP	U	01-MAY-06	18-JUL-06
WG85662-1	MB			S	PESTLL	OTHR SOLID	WKGP	U	12-MAY-06	
WG85662-2	SB			S	PESTLL	OTHR SOLID	WKGP	U	12-MAY-06	
WG85662-3	MS		SED	S	PESTLL	SALTWTRSED	WKGP	U	12-MAY-06	
WG85662-4	MSD		SED	S	PESTLL	SALTWTRSED	WKGP	U	12-MAY-06	
WG85662-5	SRM		SED	S	PESTLL	SALTWTRSED	WKGP	U	12-MAY-06	
WG85662-6	LD		SED	S	PESTLL	SALTWTRSED	WKGP	U	12-MAY-06	

Comments:

L38758-1	0-2 cm, 3 grap COMP
L38758-10	0-2 cm, 3 grab COMP
L38758-11	0-2 cm, 3 grab COMP
L38758-12	0-2 cm, 3 grab COMP
L38758-13	0-2 cm, 3 grab COMP
L38758-14	0-2 cm, 3 grab COMP
L38758-15	0-2 cm, 3 grab COMP
L38758-16	0-2 cm, 3 grab COMP
L38758-2	0-2 cm, 3 grap COMP
L38758-3	0-2 cm, 3 grap COMP
L38758-4	0-2 cm, 3 grap COMP
L38758-5	0-2 cm, 3 grap COMP
L38758-6	0-2 cm, 3 grap COMP
L38758-7	0-2 cm, 3 grap COMP
L38758-8	0-2 cm, 3 grab COMP
L38758-9	0-2 cm, 3 grab COMP
WG85662-1	MB060512
WG85662-2	WG85662-1
WG85662-3	L38758-1
WG85662-4	WG85662-3 L38758-1
WG85662-5	SRM1944
WG85662-6	L38758-3

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR PESTICIDE-LL/PCB-LL ANALYSIS
TRACE ORGANICS LABORATORY

1:1 MeCL2:ACETONE

PESTLL/PCBLL

QC BATCH NO.: PPLLS # 54

EPA SW-846 EXTRACTON METHOD:
SONICATION EPA 3550 SOXHLET EPA 3540

2.0 ml PCB extract split from 2.5 ml total

PEST-LL WORKGROUP NO.: WG85662
PCB-LL WORKGROUP NO.: WG85663
LL PESTICIDE SURROGATE SPIKE I.D. # 1260 CLASSIC PEST LL
LL PESTICIDE MATRIX SPIKE I.D. # 1163.1 FULL PEST LL
LL PCB MATRIX SPIKE I.D. # 1203A PCB LL MS

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Initial Amt(g)	Effective Amt. (g) after split	Spike Amt. (uL)	Vf (ml)	CLEANUPS (GPC, AL,TBA)	CLEANUPS PCB H+	Pest-LL conc. anlyst	Pest-LL turn in Date	PCB-LL conc. anlyst	PCB-LL turn in Date	Comments
SS/BW 05/12/06	WG85662-1	QC	MB		20.0	Pest	(1260 - 100µl)	2.5	YES			6/6/06			
	WG85663-1					PCB		0.5		H+					
	WG85662-2		SB PESTLL		20.0	Pest	(1260 - 100µl 1163.1 - 100µl)	2.5				6/6/06			
						PCB		/		/					
	WG85663-2		SB PCBLL		16.0	Pest	(1260 - 100µl 1203A - 200µl)	/				6/6/06			
						PCB		0.5		H+					
	WG85662-3		PESTLL MS (L38758-1)		20.0	Pest	(1260 - 100µl 1163.1 - 100µl)	2.5				6/6/06			
						PCB		/		/					
	WG85662-4		PESTLL MSD (L38758-1)		20.0	Pest	(1260 - 100µl 1163.1 - 100µl)	2.5				6/6/06			
						PCB		/		/					
	WG85663-3		PCBLL MS (L38758-2)		16.0	Pest	(1260 - 100µl 1203A - 200µl)	/				—			
						PCB		0.5		H+					
	WG85663-4		PCBLL MSD (L38758-2)		16.0	Pest	(1260 - 100µl 1203A 200µl)	/				—			
						PCB		0.5		H+					
	WG85662-5		PESTLL SRM 1944		3.0	Pest	(1260 - 100µl)	2.0				6/6/06			
						PCB		/		/					
	WG85663-5		PCBLL SRM 1952		7.5	Pest		/				6/6/06			
						PCB		0.5		H+					
	WG85662-6		LD (L38758-3)		20.0	Pest		2.5							
	WG85663-6					PCB		0.5		H+					
	L38758-1	423368 -50	Denny Way Sediment Post Construction		20.0	Pest		2.5				6/6/06			
						PCB		0.5		H+					

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR PESTICIDE-LL/PCB-LL ANALYSIS
TRACE ORGANICS LABORATORY

1:1 MeCL2:ACETONE

PEST-LL WORKGROUP NO.: 0G83663
PCB-LL WORKGROUP NO.: 0G83663

QC BATCH NO.: PPLLS # 54 (continued)

LL PESTICIDE SURROGATE SPIKE I.D. # 1260
LL PESTICIDE MATRIX SPIKE I.D. # 1163.1
LL PCB MATRIX SPIKE I.D. # 1203A

EPA SW-846 EXTRACTON METHOD:
SONICATION EPA 3550 SOXHLET EPA 3540

2.0 ml PCB extract split from 2.5 ml total

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Initial Amt(g)	Effective Amt. (g) after split		Spike Amt. (uL)	Vf (ml)	CLEANUPS (GPC, AL,TBA)	PCB H+	Pest-LL conc. anlyst	Pest-LL turn in Date	PCB-LL conc. anlyst	PCB-LL turn in Date	Comments
SG/BW 05/12/06	L38758-2	423368-80	Denny Way Sediment Dock Construction		20.0		Pest	(1260-100µl)	2.5	YES		KW	6/6/06			* Sure likely doubled 250 µl. (SG) 05/12/0
							PCB		0.5		H+					
		-3					Pest		2.5			KW	6/6/06			
							PCB		0.5		H+					
		-4					Pest		2.5			KW	6/6/06			
							PCB		0.5		H+					
		-5					Pest		2.5			KW	6/6/06			
							PCB		0.5		H+					
		-6					Pest		2.5			KW	6/6/06			
							PCB		0.5		H+					
		-7					Pest		2.5			KW	6/6/06			
							PCB		0.5		H+					
		-8					Pest		2.5			KW	6/6/06			
							PCB		0.5		H+					
		-9					Pest		2.5			KW	6/6/06			
							PCB		0.5		H+					
		-10					Pest		2.5			KW	6/6/06			
							PCB		0.5		H+					
		-11					Pest		2.5			KW	6/6/06			
							PCB		0.5		H+					
		-12					Pest		2.5			KW	6/6/06			2.5 max
							PCB		0.5		H+					

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR PESTICIDE-LL/PCB-LL ANALYSIS
TRACE ORGANICS LABORATORY

1:1 MeCL2:ACETONE

PEST-LL WORKGROUP NO.: WG85662
PCB-LL WORKGROUP NO.: WG85663
LL PESTICIDE SURROGATE SPIKE I.D. # 1260
LL PESTICIDE MATRIX SPIKE I.D. # 1163.1
LL PCB MATRIX SPIKE I.D. # 1203A

QC BATCH NO.: PPLLS # 54 (continued)

EPA SW-846 EXTRACTON METHOD:
SONICATION EPA 3550 SOXHLET EPA 3540

2.0 ml PCB extract split from 2.5 ml total

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Initial Amt(g)	Effective Amt. (g) after split	Spike Amt. (uL)	Vf (ml)	CLEANUPS (GPC, AL,TBA)	PCB H+	Pest-LL conc. anlyst	Pest-LL turn in Date	PCB-LL conc. anlyst	PCB-LL turn in Date	Comments
JG/BW 05/12/06	L38758-13	423368 -80	Duwamish Waterway Sediment Post-Construction		20.0	Pest	(1260 100µl)	2.5	LES			6/6/06			
						PCB		0.5		H+					
	-14					Pest		2.5				6/6/06			
						PCB		0.5		H+					
	-15					Pest		2.5				6/6/06			
						PCB		0.5		H+					
	-16					Pest		2.5				6/6/06			
						PCB		0.5		H+					
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									

Data File Name	Sample Name	Date Acquired	Vial Numb	Sample Amount	Sample Multiplie	Isodrin (RT)	Isodrin (Height)	Leptophos (RT)	Leptophos (Height)	Isodrin #2 (RT)	Isodrin #2 (Height)	Leptoph (RT)	Leptophos #2 (Height)	Misc Info	Data File Path
COND-01.D	conditioner	08 Jun 2006 9:58 am	1	0	1										S:\MSDCHEM\2\DATA\060608\
BLANK-01.D	blank	08 Jun 2006 10:34 am	2	0	1										S:\MSDCHEM\2\DATA\060608\
PPES-01.D	1211 PPES 20 PPB (BREAKDOWN)	08 Jun 2006 11:11 am	3	0	1	14.365	72858087	22.585	144333291	13.050	232267744	19.505	331386958		S:\MSDCHEM\2\DATA\060608\
PEST-01.D	1225D PEST 50 PPB (DAILY CAL)	08 Jun 2006 11:48 am	4	0	1	14.364	65665941	22.584	124487356	13.050	222434200	19.505	312796873		S:\MSDCHEM\2\DATA\060608\
TOX-01.D	1212.1 TOXAPHENE 1000 PPB	08 Jun 2006 12:24 pm	5	0	1	14.364	75442428	22.583	145571696	13.050	236491143	19.505	347650264		S:\MSDCHEM\2\DATA\060608\
WG85662-1.D	MB	08 Jun 2006 1:01 pm	6	12.5	2.5	14.363	66532903	22.584	131606133	13.049	209010529	19.504	319628282	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
WG85662-2.D	SB	08 Jun 2006 1:38 pm	7	12.5	2.5	14.363	66035223	22.583	135246422	13.049	192832740	19.503	287491609	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
WG85662-3.D	MS L38758-1	08 Jun 2006 2:14 pm	8	12.5	2.5	14.369	47993766	22.601	106725413	13.056	129178777	19.536	244439697	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
WG85662-4.D	MSD L38758-1	08 Jun 2006 2:51 pm	9	12.5	2.5	14.369	56918584	22.599	123338651	13.054	162654465	19.530	315535989	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
WG85662-5.D	SRM 1944	08 Jun 2006 3:28 pm	10	1.875	2	14.373	50225213	22.599	115743359	13.059	153228007	19.535	289175497	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
WG85662-6.D	LD L38758-3	08 Jun 2006 4:04 pm	11	12.5	2.5	14.367	62548998	22.592	145260204	13.051	182512363	19.513	352123571	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-1.D	L38758-1	08 Jun 2006 4:41 pm	12	12.5	2.5	14.371	50328337	22.604	121680835	13.056	141156285	19.541	275805437	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-2.D	L38758-2	08 Jun 2006 5:18 pm	13	12.5	2.5	14.366	52886774	22.589	122485440	13.051	153434066	19.510	279354023	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-3.D	L38758-3	08 Jun 2006 5:55 pm	14	12.5	2.5	14.367	50628380	22.589	115225393	13.049	142675334	19.511	262457128	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
COND-02.D	conditioner	08 Jun 2006 6:31 pm	1	0	1										S:\MSDCHEM\2\DATA\060608\
PPES-02.D	1211 PPES 20 PPB (BREAKDOWN)	08 Jun 2006 7:08 pm	3	0	1	14.363	66402854	22.583	143113473	13.046	202836515	19.501	296884270		S:\MSDCHEM\2\DATA\060608\
PEST-02.D	1225D PEST 50 PPB (DAILY CAL)	08 Jun 2006 7:45 pm	4	0	1	14.363	65623826	22.582	132121082	13.047	198519533	19.501	284755583		S:\MSDCHEM\2\DATA\060608\
L38758-4.D	L38758-4	08 Jun 2006 8:21 pm	15	12.5	2.5	14.364	58581445	22.586	132196990	13.047	175977923	19.507	310853824	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-5.D	L38758-5	08 Jun 2006 8:58 pm	16	12.5	2.5	14.366	56599951	22.590	118046974	13.050	154902201	19.513	283074335	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-6.D	L38758-6	08 Jun 2006 9:35 pm	17	12.5	2.5	14.365	56176071	22.586	123587397	13.049	155180608	19.507	269561609	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-7.D	L38758-7	08 Jun 2006 10:11 pm	18	12.5	2.5	14.364	53463736	22.585	116698289	13.048	148687037	19.506	249894400	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-8.D	L38758-8	08 Jun 2006 10:48 pm	19	12.5	2.5	14.365	52784655	22.588	111635006	13.048	151954036	19.509	253173046	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-9.D	L38758-9	08 Jun 2006 11:25 pm	20	12.5	2.5	14.366	53192851	22.587	38013483	13.048	152859086	19.506	56108353	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-10.D	L38758-10	09 Jun 2006 12:01 am	21	12.5	2.5	14.365	59188073	22.588	109740692	13.047	167851032	19.508	235245636	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-11.D	L38758-11	09 Jun 2006 12:38 am	22	12.5	2.5	14.363	53803850	22.587	118995852	13.048	149689907	19.509	271652660	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-12.D	L38758-12	09 Jun 2006 1:15 am	23	12.5	2.5	14.365	51389344	22.588	115097929	13.049	138275858	19.512	260525342	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
COND-03.D	conditioner	09 Jun 2006 1:51 am	1	0	1										S:\MSDCHEM\2\DATA\060608\
PPES-03.D	1211 PPES 20 PPB (BREAKDOWN)	09 Jun 2006 2:28 am	3	0	1	14.363	62689502	22.583	128289228	13.047	198169209	19.501	285915786		S:\MSDCHEM\2\DATA\060608\
PEST-03.D	1225D PEST 50 PPB (DAILY CAL)	09 Jun 2006 3:05 am	4	0	1	14.365	63340948	22.581	136555474	13.046	196314734	19.500	281282789		S:\MSDCHEM\2\DATA\060608\
L38758-13.D	L38758-13	09 Jun 2006 3:41 am	24	12.5	2.5	14.363	53751168	22.586	110554376	13.048	143200842	19.508	247482035	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-14.D	L38758-14	09 Jun 2006 4:18 am	25	12.5	2.5	14.366	53573351	22.592	121804186	13.051	140202302	19.517	263959281	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-15.D	L38758-15	09 Jun 2006 4:55 am	26	12.5	2.5	14.364	52745380	22.586	118609497	13.049	144563982	19.510	259771182	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
L38758-16.D	L38758-16	09 Jun 2006 5:31 am	27	12.5	2.5	14.366	53955041	22.589	121653160	13.050	147455216	19.512	259911978	PPLLS54 PESTLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060608\
COND-04.D	conditioner	09 Jun 2006 6:08 am	1	0	1										S:\MSDCHEM\2\DATA\060608\
PPES-04.D	1211 PPES 20 PPB (BREAKDOWN)	09 Jun 2006 6:44 am	3	0	1	14.367	69013730	22.588	144119255	13.050	197595969	19.506	289050646		S:\MSDCHEM\2\DATA\060608\
PEST-04.D	1225D PEST 50 PPB (DAILY CAL)	09 Jun 2006 7:21 am	4	0	1	14.365	62405708	22.585	124361467	13.050	192638247	19.505	273245836		S:\MSDCHEM\2\DATA\060608\
					Ave.	14.365	58598262	22.588	122480516	13.050	171437093	19.511	275805610		
					Std. Dev.	0.002	7244200	0.006	19268430	0.003	30231573	0.011	50132551		
					%RSD		12%		16%		18%		18%		

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 07/18/06 02:50
Run ID: R114590 Workgroup: WG85662 (PPLLS#54 PESTLL)

MB:WG85662-1 Matrix: OTHR SOLID Listtype: ORPESTLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Alpha-BHC	.5	1	ug/Kg	<MDL	
Beta-BHC	.5	1	ug/Kg	<MDL	
Delta-BHC	.5	1	ug/Kg	<MDL	
Gamma-BHC (Lindane)	.5	1	ug/Kg	<MDL	
Heptachlor	.5	1	ug/Kg	<MDL	
Aldrin	1	2	ug/Kg	<MDL	
Heptachlor Epoxide	.5	1	ug/Kg	<MDL	
Endosulfan I	1	2	ug/Kg	<MDL	
Dieldrin	1	2	ug/Kg	<MDL	
4,4'-DDE	1	2	ug/Kg	<MDL	
Endrin	1	2	ug/Kg	<MDL	
Endosulfan II	1	2	ug/Kg	<MDL	
4,4'-DDD	1	2	ug/Kg	<MDL	
Endrin Aldehyde	2	4	ug/Kg	<MDL	
Endosulfan Sulfate	1	2	ug/Kg	<MDL	
4,4'-DDT	1	2	ug/Kg	<MDL	
Methoxychlor	5	10	ug/Kg	<MDL	
Gamma-Chlordane	.5	1	ug/Kg	<MDL	
Alpha-Chlordane	.5	1	ug/Kg	<MDL	
Toxaphene	10	20	ug/Kg	<MDL	

SB:WG85662-2 MB:WG85662-1 Matrix: OTHR SOLID Listtype: ORPESTLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec	Qual	LabLimit
Alpha-BHC	.5	1	ug/Kg	<MDL	10.0	6.04	60		20-99
Beta-BHC	.5	1	ug/Kg	<MDL	10.0	8.24	82		66-102
Delta-BHC	.5	1	ug/Kg	<MDL	10.0	8.33	83		63-108
Gamma-BHC (Lindane)	.5	1	ug/Kg	<MDL	10.0	6.9	69		27-130
Heptachlor	.5	1	ug/Kg	<MDL	10.0	6.08	61		20-137
Aldrin	1	2	ug/Kg	<MDL	10.0	6.14	61		28-113
Heptachlor Epoxide	.5	1	ug/Kg	<MDL	10.0	8.4	84		59-107
Endosulfan I	1	2	ug/Kg	<MDL	10.0	8.63	86		62-104
Dieldrin	1	2	ug/Kg	<MDL	10.0	9.15	91		58-139
4,4'-DDE	1	2	ug/Kg	<MDL	10.0	9.11	91		75-111
Endrin	1	2	ug/Kg	<MDL	10.0	9.64	96		60-160
Endosulfan II	1	2	ug/Kg	<MDL	10.0	8.76	88		72-109
4,4'-DDD	1	2	ug/Kg	<MDL	10.0	9.42	94		78-121
Endrin Aldehyde	1	2	ug/Kg	<MDL	10.0	1.5	15		10-77
Endosulfan Sulfate	1	2	ug/Kg	<MDL	10.0	7.7	77		61-104
4,4'-DDT	1	2	ug/Kg	<MDL	10.0	10	100		57-145
Methoxychlor	5	10	ug/Kg	<MDL	10.0	10.8	108		72-131

Matrix Spike Duplicate Report
MSD:WG85662-4 MS:WG85662-3 L38758-1 Matrix: SALTWTRSED Listtype: ORPESTLL Method: EPA 8081A/8082 (7-3-03-002) Project: 423368-80 Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
Alpha-BHC	.5	1	ug/Kg	<MDL	10.0	10.3	103		59-111	10.0	8.51	85		19		35
Beta-BHC	.5	1	ug/Kg	<MDL	10.0	10.1	101		60-119	10.0	8.37	84		18		35
Delta-BHC	.5	1	ug/Kg	<MDL	10.0	9.41	94		54-126	10.0	8.06	81		15		35
Gamma-BHC (Lindane)	.5	1	ug/Kg	<MDL	10.0	9.94	99		61-135	10.0	8.39	84		16		35
Heptachlor	.5	1	ug/Kg	<MDL	10.0	10	100		52-157	10.0	8.55	85		16		35
Aldrin	1	2	ug/Kg	<MDL	10.0	9.57	96		61-119	10.0	8.05	81		17		35
Heptachlor Epoxide	.5	1	ug/Kg	<MDL	10.0	11.5	115		61-118	10.0	9.81	98		16		35
Endosulfan I	1	2	ug/Kg	<MDL	10.0	8.74	87		64-118	10.0	7.63	76		13		35
Dieldrin	1	2	ug/Kg	<MDL	10.0	12.8	128		60-139	10.0	10.6	106		19		35
4,4'-DDE	1	2	ug/Kg	<MDL	10.0	11.4	114		59-125	10.0	9.63	96		17		35
Endrin	1	2	ug/Kg	<MDL	10.0	10.6	106		62-166	10.0	9.24	92		14		35
Endosulfan II	1	2	ug/Kg	<MDL	10.0	9.1	91		36-146	10.0	7.21	72		23		35
4,4'-DDD	1	2	ug/Kg	6.35	10.0	15.3	90		41-157	10.0	12.1	58		43	*	35
Endrin Aldehyde	2	4	ug/Kg	<MDL	10.0	5.9	59		10-66	10.0	5.36	54		9		35
Endosulfan Sulfate	1	2	ug/Kg	<MDL	10.0	12.7	127	L	46-113	10.0	10.1	101		23		35
4,4'-DDT	1	2	ug/Kg	11.9	10.0	21.9	100		50-144	10.0	17.2	53		61	*	35
Methoxychlor	5	10	ug/Kg	<MDL	10.0	16.5	165	L	53-129	10.0	13	130	*	24		35

SRM:WG85662-5 Matrix: SALTWTRSED Listtype: ORPESTLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
4,4'-DDT	5.3	10.7	ug/Kg	119	187	157		10-200
Alpha-Chlordane	2.7	5.33	ug/Kg	16.5	18.2	110		48-144

LD:WG85662-6 L38758-3 Matrix: SALTWTRSED Listtype: ORPESTLL Method: EPA 8081A/8082 (7-3-03-002) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
Alpha-BHC	.5	1	ug/Kg	<MDL	<MDL			35
Beta-BHC	.5	1	ug/Kg	<MDL	<MDL			35
Delta-BHC	.5	1	ug/Kg	<MDL	<MDL			35
Gamma-BHC (Lindane)	.5	1	ug/Kg	<MDL	<MDL			35
Heptachlor	.5	1	ug/Kg	<MDL	<MDL			35
Aldrin	1	2	ug/Kg	<MDL	<MDL			35
Heptachlor Epoxide	.5	1	ug/Kg	<MDL	<MDL			35
Endosulfan I	1	2	ug/Kg	<MDL	<MDL			35
Dieldrin	1	2	ug/Kg	<MDL	<MDL			35
4,4'-DDE	1	2	ug/Kg	<MDL	<MDL			35
Endrin	1	2	ug/Kg	<MDL	<MDL			35
Endosulfan II	1	2	ug/Kg	<MDL	<MDL			35
4,4'-DDD	1	2	ug/Kg	4.99	4	22		35
Endrin Aldehyde	2	4	ug/Kg	<MDL	<MDL			35
Endosulfan Sulfate	1	2	ug/Kg	<MDL	<MDL			35
4,4'-DDT	1	2	ug/Kg	<MDL	<MDL			35
Methoxychlor	5	10	ug/Kg	<MDL	<MDL			35
Gamma-Chlordane	.5	1	ug/Kg	<MDL	<MDL			35
Alpha-Chlordane	.5	1	ug/Kg	1.02	.62	49	E	35

LD:WG85662-6 L38758-3 Matrix: SALTWTRSED Listtype: ORPESTLL Method: EPA 8081A/8082 (7-3-03-002) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
Toxaphene	10	20	ug/Kg	<MDL	<MDL			35

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 07/18/06 02:50
Run ID: R114590 Workgroup: WG85662 (PPLLS#54 PESTLL)

Sample #	2,4,5,6-Tetrachlo-ro-m-xylene	Decachlorobipheny-l
(Lab Limits)	30-134	15-155
L38758-1	122	676 L
L38758-2	101	117
L38758-3	115	110
L38758-4	103	95
L38758-5	108	99
L38758-6	102	95
L38758-7	101	88
L38758-8	102	98
L38758-9	84	74
L38758-10	82	80
L38758-11	104	97
L38758-12	106	95
L38758-13	112	85
L38758-14	107	98
L38758-15	101	95
L38758-16	104	99
WG85662-1	42	102
WG85662-2	49	120
WG85662-3	129	170 L
WG85662-4	107	156 L
WG85662-5	113	113
WG85662-6	89	110

Trace Organics Data Anomaly Form

Date(s) Occurred: *06/08/2006*

WG #(s): *85662*

☒ **All samples in WKGP(s) or Sample #(s):**

Project #(s): *423368*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Extraction

☐ BNA	☐ BNALL	☐ EDC	☐ EDC-LVI
☐ CLPESTPCB	☒ PEST	☐ PCB	☐ OPPEST
☐ VOA-GCMS	☐ NWTPH-GX	☐ NWTPH-DX	☐ NWTPH-HCID
☐ BUTYL TIN	☐ AIRTOX	☐ AIR-SULFUR	
☐ Other:			
☐ Subcontracted:			

II. Instrument

GC/ICP/MS:	☐ P						
GC/MS:	☐ D	☐ E	☐ J	☐ K	☐ L	☐ M	☐ N
GC:	☐ F ECD	☒ G ECD	☐ H FID	☐ H OI4450PID/FID			
	☐ I FID						
Extraction/Cleanup:	☐ PFE	☐ GPC					
	☐ Other:						

III. Type of Sample/Analytical Anomaly

☐ Values Outside of Control Limits:

[1] ☐ Blank Contamination	[8] ☒ Surrogate Spike Recoveries
[2] ☐ SB/SBD Spike Recoveries	[9] ☐ SB/SBD RPD
[3] ☒ MS/MSD Spike Recoveries	[10] ☒ MS/MSD RPD
[4] ☐ LCS/SRM Recoveries	[11] ☒ Sample/LD RPD
[5] ☐ Initial Calibration	[12] ☒ Continuing Calibration Checks
[6] ☐ Performance Checks	[13] ☐ Tuning Criteria
[7] ☐ ISTD % Differences	

[14] ☐ Holding time exceeded by:
[15] ☐ Insufficient sample amount.
[16] ☐ Inappropriate storage, container or preservation.
[17] ☐ Other

Anomaly Description: *3. Both the MS and MSD had high recoveries (>129%) for methoxyclor. The MS had a high recovery (>113%) for endosulfan sulfate. 8. a.The surrogate levels for L38758-2 have been doubled in LIMS due to an extraction error resulting in 2X surrogate levels (see extraction sheet). b. DCB recovery in L38758-1, WG85662-3, and WG85662-4 are out of range high due to a contributing interfering peak. 10. The MS and MSD had an RPD for DDD and DDT that was >35%. 11.The RPD*

for alpha-chlordane in L38758-3 and the LD was >35%. 12. Column #2 had low DCB (<85%) recoveries throughout. PPES-03 and PPES-04 had low recoveries for DDT and Methoxyclor as well. Endrin ketone is not reported and only used to calculate endrin breakdown.

IV. Type of Project Anomaly

☒ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description: *Note that reported MDL/RDLs are not as stated in the SAP. Those listed in the SAP are based on dry weight results and an extraction scheme of 30 grams to a final volume of 0.5 ml. This extraction technique is either incorrect or out of date as the stated MDL/RDLs would be about a 1/3 of those listed using normal instrument detection limits. Current extraction technique is a split of 20 grams to 2.5 ml and low level instrument detection limits. I believe this is sufficient considering the reported PCB levels and the raised MDL/RDLs for non-detects as well. I changed the MDL/RDL for endrin aldehyde in the SB to allow recoveries of >5 ppb. This makes it possible to have recoveries down to the lab limit of 10%.*

V. Corrective Action Taken

☐ Sample(s) re-analyzed ☐ Sample(s) re-prepared and re-analyzed
☒ Sample(s) reported "AS IS"
☒ Data qualified with the following flags: *L,E,* *
☐ Other

Corrective Action Description: *3. Both the MS and MSD have high background concentrations of various aroclors so it is not very surprising to have spike recoveries out of range due to interfering peaks. Neither of these compounds were reported for any sample. Endosulfan sulfate and methoxyclor were both flagged with an "L" for all samples. 8. a. Corrected value in LIMS. 8b. L38758-1, WG85662-3, and WG85662-4 have all parameters flagged with an "L" due to high surrogate recovery. The MS and MSD were extracted using L38758-1 so it is not surprising they have the same DCB recovery problem. 10. It appears some small amount in the MSD may have been lost. The MSD values for the most part are about 15% lower than the MS. The values are all within the recovery limits. Qualified with an "*" on the QC sheet. 11. The values for alpha-chlordane are both quite low. The sample value is just above the RDL and the LD value is between the MDL and RDL. Alpha-chlordane is flagged with an "E" for all samples. 12. Column #2 is used only to confirm ID, no quantitated value is reported from it for this run.*

VI. Potential Effects on Data Quality

Based upon the expected performance of this method:

☐ It is <u>likely</u> the observed anomaly influenced the reported value(s).
☒ It is <u>unlikely</u> the observed anomaly influenced the reported value(s).
☐ The observed anomaly <u>may have</u> influenced the reported value(s).
☐ It is <u>unknown</u> whether or not the observed anomaly affected the reported value(s).

Explanation: *All other QC, spikes, and surrogates are in range and may be used without qualifcation.*

	Signatures	Signature Dates
Reported By: *JSF*		8-18-06
Reviewer: *Gretchen Nerlin*		8/21/06
Supervisor: *Dana Walker*	Dana Walker	8/21/2006
QA Officer: *Colin Elliott* (For QA1 only)	Col. Elliott	8/21/06
cc: LPM:		

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Jun 07 2006, 03:33 pm

Work Group: WG85663 (PPLLS#54 PCBLL) for Department: 7 - Organics, Trace

Created: 12-MAY-06 PrepDate: 12-MAY-06 Due: Operator: JG/BW

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L38758-1	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
L38758-10	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	02-MAY-06	18-JUL-06
L38758-11	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	02-MAY-06	18-JUL-06
L38758-12	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	03-MAY-06	18-JUL-06
L38758-13	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	02-MAY-06	18-JUL-06
L38758-14	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	02-MAY-06	18-JUL-06
L38758-15	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	02-MAY-06	18-JUL-06
L38758-16	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	02-MAY-06	18-JUL-06
L38758-2	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
L38758-3	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
L38758-4	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	03-MAY-06	18-JUL-06
L38758-5	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
L38758-6	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
L38758-7	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	03-MAY-06	18-JUL-06
L38758-8	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
L38758-9	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	01-MAY-06	18-JUL-06
WG85663-1	MB			S	PCBLL	OTHR SOLID	PREP	U	12-MAY-06	
WG85663-2	SB			S	PCBLL	OTHR SOLID	PREP	U	12-MAY-06	
WG85663-3	MS		SED	S	PCBLL	SALTWTRSED	PREP	U	12-MAY-06	
WG85663-4	MSD		SED	S	PCBLL	SALTWTRSED	PREP	U	12-MAY-06	
WG85663-5	SRM		SED	S	PCBLL	SALTWTRSED	PREP	U	12-MAY-06	
WG85663-6	LD		SED	S	PCBLL	SALTWTRSED	PREP	U	12-MAY-06	

Comments:

L38758-1	0-2 cm, 3 grap COMP
L38758-10	0-2 cm, 3 grab COMP
L38758-11	0-2 cm, 3 grab COMP
L38758-12	0-2 cm, 3 grab COMP
L38758-13	0-2 cm, 3 grab COMP
L38758-14	0-2 cm, 3 grab COMP
L38758-15	0-2 cm, 3 grab COMP
L38758-16	0-2 cm, 3 grab COMP
L38758-2	0-2 cm, 3 grap COMP
L38758-3	0-2 cm, 3 grap COMP
L38758-4	0-2 cm, 3 grap COMP
L38758-5	0-2 cm, 3 grap COMP
L38758-6	0-2 cm, 3 grap COMP
L38758-7	0-2 cm, 3 grap COMP
L38758-8	0-2 cm, 3 grab COMP
L38758-9	0-2 cm, 3 grab COMP
WG85663-1	MB060512
WG85663-2	WG85663-1
WG85663-3	L38758-2
WG85663-4	WG85663-3 L38758-2
WG85663-5	SRMHS2
WG85663-6	L38758-3

1:1 MeCL2:ACETONE

EXTRACTION RECORD FOR PESTICIDE-LL/PCB-LL ANALYSES
TRACE ORGANICS LABORATORY

PESTLL/PCBLL

QC BATCH NO.: PPLLS # 54

EPA SW-846 EXTRACTON METHOD:

SONICATION EPA 3550 SOXHLET EPA 3540

2.0 ml PCB extract split from 2.5 ml total

PEST-LL WORKGROUP NO.: [illegible]

PCB-LL WORKGROUP NO.: [illegible]

LL PESTICIDE SURROGATE SPIKE I.D. # 1260 [illegible]

LL PESTICIDE MATRIX SPIKE I.D. # 1163.1 FULL PESTLL MS

LL PCB MATRIX SPIKE I.D. # 1203A PCBLL MS

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Initial Amt(g)		Effective Amt. (g) after split	Spike Amt. (uL)	Vf (ml)	CLEANUPS (GPC, AL,TBA)	PCB H+	Pest-LL conc.	Pest-LL anlyst	Pest-LL turn in Date	PCB-LL conc.	PCB-LL anlyst	PCB-LL turn in Date	Comments
JG/BW 06/12/06	W6856062-1	QC	MB		20.0	Pest		(1260-- 100µl)	2.5	YES				6/6/06				
	W6856063-1					PCB			0.5		H+						6/7/06	
	W6856062-2		SB PESTLL		20.0	Pest		(1260- 100µl 1163.1- 100µl)	2.5					6/6/06				
	W6856063-2		SB PCBLL		16.0	PCB			/		/						6/7/06	
						Pest		(1260-- 100µl 1203A- 200µl)	/					6/6/06				
	W6856062-3		PESTLL MS (L38758-1)		20.0	PCB			0.5		H+						6/7/06	
						Pest		(1260- 100µl 1163.1- 100µl)	2.5					6/6/06				
	W6856062-4		PESTLL MSD (L38758-1)		20.0	PCB			/		/						6/7/06	
						Pest		(1260- 100µl 1163.1- 100µl)	2.5					6/6/06				
	W6856063-3		PCBLL MS (L38758-2)		16.0	PCB			/		/						6/7/06	
						Pest		(1260- 100µl 1203A- 200µl)	/					—				
	W6856063-4		PCBLL MSD (L38758-2)		16.0	PCB			0.5		H+						6/7/06	
						Pest		(1260-- 100µl 1203A 200µl)	/					—				
	W6856062-5		PESTLL SRM 1944		3.0	PCB			0.5		H+						6/7/06	
						Pest		(1260-- 100µl)	2.0					6/6/06				
	W6856063-5		PCBLL SRM 1952		7.5	PCB			/		/						6/7/06	
						Pest			/					6/6/06				
	W6856062-6		LD (L38758-3)		20.0	PCB			0.5		H+						6/7/06	
	W6856063-6					Pest			2.5									
						PCB			0.5		H+						6/7/06	
	L38758-1	423368 -80	Denny Way Sediment Pump Construction		20.0	Pest			2.5					6/6/06				
						PCB			0.5		H+						6/7/06	

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR PESTICIDE-LL/PCB-LL ANALYSIS
TRACE ORGANICS LABORATORY

1:1 MeCL2:ACETONE

PEST-LL WORKGROUP NO.: WG85662
PCB-LL WORKGROUP NO.: WG85663
" PESTICIDE SURROGATE SPIKE I.D. # 1260
" PESTICIDE MATRIX SPIKE I.D. # 1163.1
" PCB MATRIX SPIKE I.D. # 1203A

QC BATCH NO.: PPLLS #54 (continued)

EPA SW-846 EXTRACTON METHOD:
SONICATION EPA 3550 SOXHLET EPA 3540

2.0 ml PCB extract split from 2.5 ml total

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Initial Amt(g)	Effective Amt. (g) after split	Spike Amt. (uL)	Vf (ml)	CLEANUPS (GPC, AL,TBA)	PCB H+	Pest-LL conc. anlyst	Pest-LL turn in Date	PCB-LL conc. anlyst	PCB-LL turn in Date	Comments
JG/BW 05/12/06	L38758-2	42336B-80	Deering Way Sediment-Post Construction		20.0	Pest	(1260-100µl)	2.5	4ES		[illegible]	6/6/06			# Surr likely dropped 200 µl. (JG) 2-57
						PCB		0.5		H+			[illegible]	6/7/06	
	-3					Pest		2.5			[illegible]	6/6/06			
						PCB		0.5		H+					
	-4					Pest		2.5			[illegible]	6/6/06			
						PCB		0.5		H+					
	-5					Pest		2.5			[illegible]	6/6/06			
						PCB		0.5		H+					
	-6					Pest		2.5			[illegible]	6/6/06			
						PCB		0.5		H+					
	-7					Pest		2.5			[illegible]	6/6/06			
						PCB		0.5		H+					
	-8					Pest		2.5			[illegible]	6/6/06			
						PCB		0.5		H+					
	-9					Pest		2.5			[illegible]	6/6/06			
						PCB		0.5		H+					
	-10					Pest		2.5			[illegible]	6/6/06			
						PCB		0.5		H+					
	-11					Pest		2.5			[illegible]	6/6/06			
						PCB		0.5		H+					
	-12					Pest		2.5			[illegible]	6/6/06			
						PCB		0.5		H+					

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR PESTICIDE-LL/PCB-LL ANALYSIS
TRACE ORGANICS LABORATORY

1:1 MeCL2:ACETONE

PEST-LL WORKGROUP NO.: W685662
PCB-LL WORKGROUP NO.: W685663
LL PESTICIDE SURROGATE SPIKE I.D. # 1260
LL PESTICIDE MATRIX SPIKE I.D. # 1163.1
LL PCB MATRIX SPIKE I.D. # 1203A

QC BATCH NO.: PPLLS #54 (continued)

EPA SW-846 EXTRACTON METHOD:
SONICATION EPA 3550 SOXHLET EPA 3540

2.0 ml PCB extract split from 2.5 ml total

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Initial Amt(g)	Effective Amt. (g) after split	Spike Amt. (uL)	Vf (ml)	CLEANUPS (GPC, AL,TBA)	PCB H+	Pest-LL conc. anlyst	Pest-LL turn in Date	PCB-LL conc. anlyst	PCB-LL turn in Date	Comments
JG/BW 05/12/06	L38758-13	423368-80	Denny Way Sediment Post-Construction		20.0	Pest	(1260 - 100µl)	2.5	GPC			6/6/06			
						PCB		0.5		H+				6/7/06	
	-14					Pest		2.5				6/6/06			
						PCB		0.5		H+					
	-15					Pest		2.5				6/6/06			
						PCB		0.5		H+					
	-16					Pest		2.5				6/6/06			
						PCB		0.5		H+					
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									

Data File Name	Sample Name	Date Acquired	Vial Numbe	Sample Amount	Sample Multiplie	Isodrin (RT)	Isodrin (Height)	Leptophos (RT)	Leptophos (Height)	Isodrin #2 (RT)	Isodrin #2 (Height)	Leptoph (RT)	Leptophos #2 (Height)	Misc Info	Data File Path
COND-01.D	conditioner	6/12/2006 9:52	1	0	1										S:\MSDCHEM\2\DATA\060612\
BLANK-01.D	blank	6/12/2006 10:29	2	0	1										S:\MSDCHEM\2\DATA\060612\
PCB-01.D	1218D 1016/1260 500/50	6/12/2006 11:05	3	0	1	14.368	75089822	22.587	149628906	13.051	227369925	19.507	327623006		S:\MSDCHEM\2\DATA\060612\
PCB-02.D	1209.1 1248 500/50	6/12/2006 11:42	4	0	1	14.367	77739297	22.588	149007241	13.049	241147021	19.505	349984355		S:\MSDCHEM\2\DATA\060612\
PCB-03.D	1210.1 1254 500/50	6/12/2006 12:19	5	0	1	14.367	72914098	22.588	137189109	13.050	228673803	19.507	334479426		S:\MSDCHEM\2\DATA\060612\
PCB-04.D	1206.1 1221 500/50	6/12/2006 12:56	6	0	1	14.366	77369189	22.587	146875897	13.050	222710137	19.507	319993829		S:\MSDCHEM\2\DATA\060612\
PCB-05.D	1207.1 1232 500/50	6/12/2006 13:32	7	0	1	14.368	74003784	22.587	145569157	13.049	224327651	19.506	320943178		S:\MSDCHEM\2\DATA\060612\
PCB-06.D	1208.1 1242 500/50	6/12/2006 14:09	8	0	1	14.365	75837990	22.587	151063211	13.050	224405956	19.505	329284296		S:\MSDCHEM\2\DATA\060612\
WG85663-1.D	MB	6/12/2006 14:46	9	10	0.5	14.366	60505990	22.585	117941175	13.049	188507942	19.505	274565746	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
WG85663-2.D	SB	6/12/2006 15:22	10	10	0.5	14.365	63585004	22.586	129690960	13.049	190425603	19.505	288177014	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
WG85663-3.D	MS L38758-2	6/12/2006 15:59	11	10	0.5	14.370	62570937	22.597	144327411	13.054	178225229	19.525	342891546	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
WG85663-4.D	MSD L38758-2	6/12/2006 16:36	12	10	0.5	14.371	52435730	22.600	123207664	13.054	159482302	19.530	313050518	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
WG85663-5.D	SRM HS2	6/12/2006 17:13	13	4.6875	0.5	14.380	68094553	22.603	131884666	13.064	159608903	19.540	321478361	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
WG85663-6.D	LD L38758-3	6/12/2006 17:50	14	10	0.5	14.376	51680882	22.605	122713574	13.057	150157861	19.531	305955661	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-1.D	L38758-1	6/12/2006 18:26	15	10	0.5	14.382	44630349	22.630	112713015	13.071	135836783	19.588	266819111	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-2.D	L38758-2	6/12/2006 19:03	16	10	0.5	14.373	50574290	22.599	115202002	13.054	145114658	19.522	286093317	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-3.D	L38758-3	6/12/2006 19:40	17	10	0.5	14.375	48259046	22.601	114347013	13.056	147057888	19.529	292487539	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
BLANK-02.D	blank	6/12/2006 20:16	2	0	1										S:\MSDCHEM\2\DATA\060612\
PCB-07.D	1218D 1016/1260 500/50	6/12/2006 20:53	3	0	1	14.367	73993089	22.587	146632262	13.050	223101723	19.506	333899283		S:\MSDCHEM\2\DATA\060612\
PCB-08.D	1209.1 1248 500/50	6/12/2006 21:30	4	0	1	14.366	75777360	22.587	149906222	13.048	233716679	19.503	337396954		S:\MSDCHEM\2\DATA\060612\
L38758-4.D	L38758-4	6/12/2006 22:06	18	10	0.5	14.370	53301145	22.596	124686157	13.055	160427669	19.526	318738943	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-5.D	L38758-5	6/12/2006 22:43	19	10	0.5	14.372	46929613	22.600	106435247	13.055	136886359	19.529	267903172	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-6.D	L38758-6	6/12/2006 23:20	20	10	0.5	14.371	52470899	22.597	121205451	13.052	149871080	19.520	288164683	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-7.D	L38758-7	6/12/2006 23:57	21	10	0.5	14.371	51095306	22.596	119726210	13.054	149842156	19.523	296742007	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-8.D	L38758-8	6/13/2006 12:33	22	10	0.5	14.373	57288447	22.602	134193434	13.058	164557425	19.536	327297771	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-9.D	L38758-9	6/13/2006 1:10	23	10	0.5	14.372	47012245	22.599	111981844	13.057	143840284	19.529	277140759	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-10.D	L38758-10	6/13/2006 1:47	24	10	0.5	14.373	51712814	22.600	110564954	13.056	152998630	19.531	294036474	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-11.D	L38758-11	6/13/2006 2:23	25	10	0.5	14.371	50894127	22.597	117987390	13.055	145749581	19.527	286552642	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-12.D	L38758-12	6/13/2006 3:00	26	10	0.5	14.373	48399026	22.603	119292431	13.057	147127306	19.533	302269517	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
BLANK-03.D	blank	6/13/2006 3:37	2	0	1										S:\MSDCHEM\2\DATA\060612\
PCB-09.D	1218D 1016/1260 500/50	6/13/2006 4:13	3	0	1	14.366	73455029	22.586	157668142	13.049	226152672	19.506	338319479		S:\MSDCHEM\2\DATA\060612\
PCB-10.D	1210.1 1254 500/50	6/13/2006 4:50	5	0	1	14.364	72611474	22.584	141849511	13.050	217546876	19.508	307260038		S:\MSDCHEM\2\DATA\060612\
L38758-13.D	L38758-13	6/13/2006 5:26	27	10	0.5	14.370	51150101	22.597	111191176	13.055	153850425	19.526	295504641	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-14.D	L38758-14	6/13/2006 6:05	28	10	0.5	14.377	50007884	22.610	114983311	13.064	151043285	19.553	314015979	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-15.D	L38758-15	6/13/2006 6:41	29	10	0.5	14.371	48460816	22.598	116334421	13.056	150493712	19.525	299135052	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
L38758-16.D	L38758-16	6/13/2006 7:17	30	10	0.5	14.374	49880392	22.600	115778648	13.057	147137842	19.527	293502167	PPLLS54 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\2\DATA\060612\
BLANK-04.D	blank	6/13/2006 7:53	2	0	1										S:\MSDCHEM\2\DATA\060612\
PCB-11.D	1218D 1016/1260 500/50	6/13/2006 8:30	3	0	1	14.367	75098801	22.587	156858321	13.051	227534071	19.507	341057173		S:\MSDCHEM\2\DATA\060612\
PCB-12.D	1209.1 1248 500/50	6/13/2006 9:07	4	0	1	14.368	79204802	22.588	158761260	13.051	239958786	19.508	365368314		S:\MSDCHEM\2\DATA\060612\
					Ave.	14.370	60706892	22.595	130217511	13.054	180728124	19.522	310532704		
					Std. Dev.	0.004	11965396	0.009	16352962	0.005	37524950	0.017	24818951		
					%RSD		20%		13%		21%		8%		

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/27/06 02:56
Run ID: R114104 Workgroup: WG85663 (PPLLS#54 PCBLL)

MB:WG85663-1 Matrix: OTHR SOLID Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Aroclor 1016	1.3	2.5	ug/Kg	<MDL	
Aroclor 1221	2.5	5	ug/Kg	<MDL	
Aroclor 1232	2.5	5	ug/Kg	<MDL	
Aroclor 1242	1.3	2.5	ug/Kg	<MDL	
Aroclor 1248	1.3	2.5	ug/Kg	<MDL	
Aroclor 1254	1.3	2.5	ug/Kg	<MDL	
Aroclor 1260	1.3	2.5	ug/Kg	<MDL	

SB:WG85663-2 MB:WG85663-1 Matrix: OTHR SOLID Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Aroclor 1016	1.3	2.5	ug/Kg	<MDL	37.5	20.1	54		39-121
Aroclor 1260	1.3	2.5	ug/Kg	<MDL	37.5	33.2	88		53-140

MSD:WG85663-4 MS:WG85663-3 L38758-2 Matrix: SALTWTRSED Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
Aroclor 1016	1.3	2.5	ug/Kg	<MDL	37.5	34.2	91		32-164	37.5	38.3	102		11		35
Aroclor 1260	1.3	2.5	ug/Kg	30	37.5	54.8	66		28-144	37.5	61.6	84		24		35

SRM:WG85663-5 Matrix: SALTWTRSED Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
Aroclor 1254	2.7	5.33	ug/Kg	112.	82.2	73		57-139

LD:WG85663-6 L38758-3 Matrix: SALTWTRSED Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-03-002) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
Aroclor 1016	9	18	ug/Kg	<MDL	<MDL			35
Aroclor 1221	2.5	5	ug/Kg	<MDL	<MDL			35
Aroclor 1232	27	53.4	ug/Kg	<MDL	<MDL			35
Aroclor 1242	31	61.3	ug/Kg	<MDL	<MDL			35
Aroclor 1248	1.3	2.5	ug/Kg	22.9	24.7	8		35
Aroclor 1254	1.3	2.5	ug/Kg	62	72.9	16		35
Aroclor 1260	1.3	2.5	ug/Kg	43.7	57.4	27		35

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/27/06 02:56
Run ID: R114104 Workgroup: WG85663 (PPLLS#54 PCBLL)

Sample #	2,4,5,6-Tetrachlo-ro-m-xylene	Decachlorobipheny-l
(Lab Limits)	30-134	15-155
L38758-1	105	346 L
L38758-2	86	79
L38758-3	93	83
L38758-4	96	89
L38758-5	98	85
L38758-6	86	78
L38758-7	96	87
L38758-8	96	88
L38758-9	92	82
L38758-10	99	82
L38758-11	83	79
L38758-12	83	85
L38758-13	100	76
L38758-14	104	78
L38758-15	86	83
L38758-16	91	82
WG85663-1	38	88
WG85663-2	37	117
WG85663-3	109	95
WG85663-4	121	115
WG85663-5	92	79
WG85663-6	89	81

Trace Organics Data Anomaly Form

Date(s) Occurred: *6-12-06*

WG #(s): *WG85663*

☒ **All samples in WKGP(s) or Sample #(s):**

Project #(s): *423368*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Extraction

☐ BNA	☐ BNALL	☐ EDC	☐ EDC-LVI
☐ CLPESTPCB	☐ PEST	☒ PCB	☐ OPPEST
☐ VOA-GCMS	☐ NWTPH-GX	☐ NWTPH-DX	☐ NWTPH-HCID
☐ BUTYL TIN	☐ AIRTOX	☐ AIR-SULFUR	

☐ Other:
☐ Subcontracted:

II. Instrument

GC/ICP/MS: ☐ P
GC/MS: ☐ D ☐ E ☐ J ☐ K ☐ L ☐ M ☐ N
GC: ☐ F ECD ☒ G ECD ☐ H FID ☐ ~~H OI4450PID/FID~~
☐ I FID
Extraction/Cleanup: ☐ PFE ☐ GPC
☐ Other:

III. Type of Sample/Analytical Anomaly

☒ Values Outside of Control Limits:

1 ☐ Blank Contamination	8 ☒ Surrogate Spike Recoveries
2 ☐ SB/SBD Spike Recoveries	9 ☐ SB/SBD RPD
3 ☐ MS/MSD Spike Recoveries	10 ☐ MS/MSD RPD
4 ☐ LCS/SRM Recoveries	11 ☐ Sample/LD RPD
5 ☐ Initial Calibration	12 ☒ Continuing Calibration Checks
6 ☐ Performance Checks	13 ☐ Tuning Criteria
7 ☐ ISTD % Differences	

14 ☐ Holding time exceeded by:
15 ☐ Insufficient sample amount.
16 ☐ Inappropriate storage, container or preservation.
17 ☐ Other

Anomaly Description: *8. a.The surrogate levels for L38758-2 have been doubled in LIMS due to an extraction error resulting in 2X surrogate levels (see extraction sheet). b. DCB recovery in L38758-1 is out of range high due to a contributing interfering peak. 12. DCB in the continuing cals (PCB-07 through PCB-12) are low (<85%) following the samples. PCB-04 (aroclor 1221) has a recovery of 84% for DCB as well.*

IV. Type of Project Anomaly

- [x] SAP/Work Plan specified MDLs not met.
- [ ] SAP/Work Plan specified QC frequency or QC type not met.
- [ ] SAP/Work Plan specified methodology not used.
- [ ] Sample exceeds regulatory and/or hazardous waste limits.
- [ ] Sample data results are unusual or inconsistent with expected results.
- [ ] Other

Anomaly Description: *PCB data reported for this set include numeric values only for those aroclors that could be positively ID'd in each sample. ID for aroclors 1016, 1232, and 1242 was not possible for all samples due to the overlap of components from other more prominent aroclors. These samples have had their MDL/RDLs eveyated to the maximum amount that would have been reported if these aroclors had been positively identified. These samples have been qualified with a "TA" and a short text message for each effected aroclor. Samples effected are: WG85663-6 and L38758-(1-16).*

V. Corrective Action Taken

- [ ] Sample(s) re-analyzed
- [ ] Sample(s) re-prepared and re-analyzed
- [x] Sample(s) reported "AS IS"
- [x] Data qualified with the following flags: *L,E,TA*
- [ ] Other

Corrective Action Description: *8. a. Corrected value in LIMS. b. L38758-1 has all parameters flagged with a "L" due to high surrogate recovery. 12. All DCB recoveries are flagged with an "E" and "TA" with text added, "Estimate due to CCV failure". Normal maintenance should correct any surrogate recovery problems in the CCALs. I will make another 1221 CCAL. All other continuing cals are in range.*

VI. Potential Effects on Data Quality

Based upon the expected performance of this method:

- [ ] It is <u>likely</u> the observed anomaly influenced the reported value(s).
- [x] It is <u>unlikely</u> the observed anomaly influenced the reported value(s).
- [ ] The observed anomaly <u>may have</u> influenced the reported value(s).
- [ ] It is <u>unknown</u> whether or not the observed anomaly affected the reported value(s).

Explanation: *All other QC, spikes, and surrogates are acceptable.*

	Signatures	Signature Dates
Reported By: *JSF*		6-20-06
Reviewer: *Gretchen Nerlin*		6/22/06
Supervisor: *Dana Walker*	Dana M. Walker	6/29/06
QA Officer: *Colin Elliott* (For QA1 only)	Col. Elliott	June 23, 2006
cc: LPM:		

CHAIN OF CUSTODY FORMS

LABORATORY WORK ORDER
Chain of Custody

King County Department of Natural Resources
Water and Land Resources Division
Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507

Project Name: Denny Way Post-construction Subtidal Sediments
Project Number: 423368-80
Laboratory Project Manager: Fritz Grothkopp/John Blaine
Telephone Number: 684 2327/2384

Sample Number	Client Locator	Collect Date		TOC/TOTS/TVS	NH3-KCL	TOTSULFIDE *	PSD	Metals + HG-CVAA		BNASMS/PESTLL/PCBLL	VOA-GC/MS-LOWSED							Number of Containers	Comments
Note: Use only one Login No. per sheet.				Analyses															
L38758 - 1				1	1	1	1	1		1	1							7	
L - 2							1											7	
L - 3							2											8	
L - 5							1											7	
L - 6							2											8	
L - 8							1											7	
L - 9							1											7	
L -																			
L -																			
L -																			
L -																			

Additional Comments:

* Sub-contracted lab parameters.

Total Number of Containers 51

Sampled By:

Relinquished By:		**Received By:**	
Signature Jean Power	Date 4/17/06	Signature David C. Hunn	Date 4/17/06
Printed Name Jean Power	Time 1612	Printed Name David C. Hunn	Time 1612
Organization King County Environmental Laboratory	1612	Organization King County Environmental Laboratory	

LABORATORY WORK ORDER
Chain of Custody

King County Department of Natural Resources
Water and Land Resources Division
Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507

Project Name: Denny Way Post-construction Subtidal Sediments
Project Number: 423368-80
Laboratory Project Manager: Fritz Grothkopp/John Blaine
Telephone Number: 684 2327/2384

Sample Number (Note: Use only one Login No. per sheet.)	Client Locator	Collect Date		TOC/TOTS/TVS	NH3-KCL	TOTSULFIDE *	PSD	Metals + HG-CVAA		BNASMS/PESTLL/PCBLL	VOA-GC/MS-LOWSED							Number of Containers	Comments
L38758-10	DWMP-10	18-APR-06		1	1	1	1	1		1	2							8	
L -11	DWMP-11			1	1	1	1	1		1	2							8	
L -13	DWMP-13			1	1	1	1	1		1	2							8	
L -14	DWMP-14			1	1	1	1	1		1	2							8	
L -15	DWMP-15			1	1	1	1	1		1	2							8	
L -16	DWMP-16			1	1	1	1	1		1	2							8	
L -																			
L -																			
L -																			
L -																			
L -																			

Analyses

Additional Comments:

Total Number of Containers 48

Sampled By: SH, JDD, JB, AF, Steve

* Sub-contracted lab parameters.

Relinquished By:		Received By:	
Signature: Stephanie Hess	Date: 4/18/06	Signature: David C. Hunn	Date: 4/18/06
Printed Name: Stephanie Hess	Time: 1615	Printed Name: David C. Hunn	Time: 1615
Organization: King County Environmental Laboratory		Organization: King County Environmental Laboratory	

LABORATORY WORK ORDER
Chain of Custody

King County Department of Natural Resources
Water and Land Resources Division
Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507

Project Name: Denny Way Post-construction Subtidal Sediments
Project Number: 423368-80
Laboratory Project Manager: Fritz Grothkopp/John Blaine
Telephone Number: 684 2327/2384

Sample Number (Note: Use only one Login No. per sheet.)	Client Locator	Collect Date		Analyses: TOC/TOTS/TVS	NH3-KCL	TOTSULFIDE *	PSD	Metals + HG-CVAA		BNASMS/PESTLL/PCBLL	VOA-GC/MS-LOWSED							Number of Containers	Comments
L38758-4		19-APR-06		1	1	1	1	1		1	2							8	
L -7		↓		↓	↓	↓	↓	↓		↓	↓							↓	
L -12		↓		↓	↓	↓	↓	↓		↓	↓							↓	
L -																			
L -																			
L -																			
L -																			
L -																			
L -																			
L -																			
L -																			

Additional Comments:

* Sub-contracted lab parameters.

Total Number of Containers 24

Sampled By: JB, JP, JH

Relinquished By:		Received By:	
Signature: Jean Power	Date: 4/19/06	Signature: David C Hunn	Date: 4/19/06
Printed Name: Jean Power	Time: 1208	Printed Name: David C Hunn	Time: 1208
Organization: King County Environmental Laboratory		Organization: King County Environmental Laboratory	

Dock 'A' 7467

Login Number: P38758

T-DN.CHEM06

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80

Personnel:

Sample Number	P38758-1	P38758-2	P38758-3
Locator	DWMP-01	DWMP-02	DWMP-03
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
~~Start Date/Time~~			
~~End Date/Time~~			
Sample Depth	9	12	15
Collect Date	17-APR-06	→	→
Comments	0-2 cm, 3 grap COMP	0-2 cm, 3 grap COMP	0-2 cm, 3 grap COMP
PERSONNEL	JP, JDD, JB, AF	→	→
SAMP METH	20042		
SED DEPTH	~~15~~ 14, 12, 15	7 9 10	~~12~~ 16, 17 17
SED SAMP RANGE	0-2CM	→	→
SED TYPE	23P21	23T21	20S21
TIDE COND	E	E	S
TIDE HT	3	0	-1.0
TIME	0940	1118	1225
Dept., Matrix, Prod			
	3 |SALTWTRSED|NH3-KCL	3 |SALTWTRSED|NH3-KCL	3 |SALTWTRSED|NH3-KCL
	3 |SALTWTRSED|PSD	3 |SALTWTRSED|PSD	3 |SALTWTRSED|PSD
	3 |SALTWTRSED|TOC	3 |SALTWTRSED|TOC	3 |SALTWTRSED|TOC
	3 |SALTWTRSED|TOTS	3 |SALTWTRSED|TOTS	3 |SALTWTRSED|TOTS
	3 |SALTWTRSED|TOTSULFIDE	3 |SALTWTRSED|TOTSULFIDE	3 |SALTWTRSED|TOTSULFIDE
	3 |SALTWTRSED|TVS	3 |SALTWTRSED|TVS	3 |SALTWTRSED|TVS
	6 |SALTWTRSED|HG-CVAA	6 |SALTWTRSED|HG-CVAA	6 |SALTWTRSED|HG-CVAA
	6 |SALTWTRSED|NPDES ICP	6 |SALTWTRSED|NPDES ICP	6 |SALTWTRSED|NPDES ICP

Coords WG 85725 A+W 5/17

Data WG 85762 A+W 5/17

CHAIN OF CUSTODY

RELINQUISHED BY	Date	Time
J. Power	4/17/06	1612
RECEIVED BY	Date	Time
[signature]	4/17/06	1612

Sample Number(s): L38758 1-3, 5, 6, 8-9 (All)

CHAIN OF CUSTODY

RELINQUISHED BY	Date	Time
[signature]	4/18/06	1615
RECEIVED BY	Date	Time
[signature]	4/18/06	1615

Sample Number(s): 10, 11, 13-16 (All)

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80

Personnel: _____

Sample Number	P38758-1	P38758-2	P38758-3
	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP
	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS
	7 SALTWTRSED PCBLL	7 SALTWTRSED PCBLL	7 SALTWTRSED PCBLL
	7 SALTWTRSED PESTLL	7 SALTWTRSED PESTLL	7 SALTWTRSED PESTLL
	7 SALTWTRSED VOA-GC/MS-LOWSED	7 SALTWTRSED VOA-GC/MS-LOWSED	7 SALTWTRSED VOA-GC/MS-LOWSED

continue...

CHAIN OF CUSTODY

RELINQUISHED BY	Date	Time
J. Power	4/19/06	1208
RECEIVED BY	Date	Time
[illegible]	4/19/06	1208

Sample Number(s)
38758- 4,7,12 (All)

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel: _____

Sample Number	P38758-4	P38758-5	P38758-6
Locator	DWMP-04	DWMP-05	DWMP-06
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
~~Start Date/Time~~			
~~End Date/Time~~			
Sample Depth	25	4	18
Collect Date	19-APR-06	17-APR-06	→
Comments	0-2 cm, 3 grap COMP	0-2 cm, 3 grap COMP	0-2 cm, 3 grap COMP
PERSONNEL	JP,SH,JB,BK,AF	JR,JDD,JB,AF	→
SAMP METH	20042		
SED DEPTH	14,17,15	5,6,7,8	17,17,17
SED SAMP RANGE	0-2 cm	→	→
SED TYPE	2ØN2Ø	43521	23W21
TIDE COND	E	E	S
TIDE HT	5	1	-1.5
TIME	0848	1020	1305
Dept., Matrix, Prod			
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	3 SALTWTRSED TVS	3 SALTWTRSED TVS	3 SALTWTRSED TVS
	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA
	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80

Personnel: _____

Sample Number	P38758-4	P38758-5	P38758-6
	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP
	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS
	7 SALTWTRSED PCBLL	7 SALTWTRSED PCBLL	7 SALTWTRSED PCBLL
	7 SALTWTRSED PESTLL	7 SALTWTRSED PESTLL	7 SALTWTRSED PESTLL
	7 SALTWTRSED VOA-GC/MS-LOWSED	7 SALTWTRSED VOA-GC/MS-LOWSED	7 SALTWTRSED VOA-GC/MS-LOWSED

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel: _____

Sample Number	P38758-7	P38758-8	P38758-9
Locator	DWMP-07	DWMP-08	DWMP-09
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
~~Start Date/Time~~			
~~End Date/Time~~			
Sample Depth	33	20	28
Collect Date	19-APR-06	17-APR-06	→
Comments	0-2 cm, 3 grap COMP	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP
PERSONNEL	JP, SH, JB, BK, AF	JP, JDD, JB, AF	→
SAMP METH	20042		→
SED DEPTH	14, 17, 17 (16)	(17), 17, 17	(17), 17, 17
SED SAMP RANGE	0-2cm	→	→
SED TYPE	20N20	23W21	20W21
TIDE COND	E	S	F
TIDE HT	4	-1.4	0
TIME	0940	1345	1425
Dept., Matrix, Prod			
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	3 SALTWTRSED TVS	3 SALTWTRSED TVS	3 SALTWTRSED TVS
	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA
	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80

Personnel: _____

Sample Number	P38758-7	P38758-8	P38758-9
	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP
	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS
	7 SALTWTRSED PCBLL	7 SALTWTRSED PCBLL	7 SALTWTRSED PCBLL
	7 SALTWTRSED PESTLL	7 SALTWTRSED PESTLL	7 SALTWTRSED PESTLL
	7 SALTWTRSED VOA-GC/MS-LOWSED	7 SALTWTRSED VOA-GC/MS-LOWSED	7 SALTWTRSED VOA-GC/MS-LOWSED

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel: _____

Sample Number	P38758-10	P38758-11	P38758-12
Locator	DWMP-10	DWMP-11	DWMP-12
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
~~Start Date/Time~~			
~~End Date/Time~~			
Sample Depth	7	19	30
Collect Date	18-APR-06	→	19-APR-06
Comments	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP
PERSONNEL	JDD, SH, JR, AF	→	SH, JP, JB, BK, AF
SAMP METH	300 ft2 →		
SED DEPTH	7, 8, 7, 8	14, 14, 14	17, 17, 17
SED SAMP RANGE	0-2cm	→	→
SED TYPE	32P26	32S21	20N20
TIDE COND	E	S	E
TIDE HT	4.5	-1.3	2.5
TIME	0840	1323	1035
Dept., Matrix, Prod			
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	3 SALTWTRSED TVS	3 SALTWTRSED TVS	3 SALTWTRSED TVS
	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA
	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80

Personnel: _____

Sample Number	P38758-10	P38758-11	P38758-12
	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP
	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS
	7 SALTWTRSED PCBLL	7 SALTWTRSED PCBLL	7 SALTWTRSED PCBLL
	7 SALTWTRSED PESTLL	7 SALTWTRSED PESTLL	7 SALTWTRSED PESTLL
	7 SALTWTRSED VOA-GC/MS-LOWSED	7 SALTWTRSED VOA-GC/MS-LOWSED	7 SALTWTRSED VOA-GC/MS-LOWSED

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel: _____

Sample Number	P38758-13	P38758-14	P38758-15
Locator	DWMP-13	DWMP-14	DWMP-15
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
~~Start Date/Time~~			
~~End Date/Time~~			
Sample Depth	5	12	21
Collect Date	18-APR-06	→	→
Comments	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP
PERSONNEL	JDD, SH, JB, AF	→	→
SAMP METH	20042		
SED DEPTH	7,6,5,5	15,13,13 (14)	12,10,17 (13)
SED SAMP RANGE	0-2cm	→	→
SED TYPE	34531	12W41	12T40
TIDE COND	S	S	S
TIDE HT	-1	1.5	-0.5
TIME	1142-5	1045	1155
Dept., Matrix, Prod	Keep all products!		
	~~3 |SALTWTRSED|NH3-KCL~~ (SH)	3 |SALTWTRSED|NH3-KCL	3 |SALTWTRSED|NH3-KCL
	~~3 |SALTWTRSED|PSD~~	3 |SALTWTRSED|PSD	3 |SALTWTRSED|PSD
	3 |SALTWTRSED|TOC	3 |SALTWTRSED|TOC	3 |SALTWTRSED|TOC
	3 |SALTWTRSED|TOTS	3 |SALTWTRSED|TOTS	3 |SALTWTRSED|TOTS
	3 |SALTWTRSED|TOTSULFIDE	3 |SALTWTRSED|TOTSULFIDE	3 |SALTWTRSED|TOTSULFIDE
	3 |SALTWTRSED|TVS	3 |SALTWTRSED|TVS	3 |SALTWTRSED|TVS
	6 |SALTWTRSED|HG-CVAA	6 |SALTWTRSED|HG-CVAA	6 |SALTWTRSED|HG-CVAA
	~~6 |SALTWTRSED|NPDES ICP~~	6 |SALTWTRSED|NPDES ICP	6 |SALTWTRSED|NPDES ICP

ignore this → ~~not enough to fill all sample bottles. also all crossed out products~~

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel: _____

Sample Number	P38758-13	P38758-14	P38758-15
	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP
	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS
	7 SALTWTRSED PCBLL	7 SALTWTRSED PCBLL	7 SALTWTRSED PCBLL
	7 SALTWTRSED PESTLL	7 SALTWTRSED PESTLL	7 SALTWTRSED PESTLL
	7 SALTWTRSED VOA-GC/MS-LOWSED	7 SALTWTRSED VOA-GC/MS-LOWSED	7 SALTWTRSED VOA-GC/MS-LOWSED

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel: _____

Sample Number	P38758-16	
Locator	DWMP-16	
Short Loc. Desc.		
Locator Desc.		
Site	SEATTLE WATERFRONT	
Start Date/Time		
~~End Date/Time~~		
Sample Depth	24	
Collect Date	18-APR-06	
Comments	0-2 cm, 3 grab COMP	
PERSONNEL	JDD, SH, JB, AF	
SAMP METH	20042	
SED DEPTH	13, 17, 10	
SED SAMP RANGE	0-2 cm	
SED TYPE	15N40	
TIDE COND	E	
TIDE HT	-1	
TIME	1235	
Dept., Matrix, Prod		
	3 SALTWTRSED NH3-KCL	
	3 SALTWTRSED PSD	
	3 SALTWTRSED TOC	
	3 SALTWTRSED TOTS	
	3 SALTWTRSED TOTSULFIDE	
	3 SALTWTRSED TVS	
	6 SALTWTRSED HG-CVAA	
	6 SALTWTRSED NPDES ICP	

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80

Personnel: _____

Sample Number	P38758-16		
	6	SALTWTRSED	SB-ICP
	7	SALTWTRSED	BNASMS
	7	SALTWTRSED	PCBLL
	7	SALTWTRSED	PESTLL
	7	SALTWTRSED	VOA-GC/MS-LOWSED

End of Fieldsheet.

KING COUNTY ENVIRONMENTAL LABORATORY
QUALITY ASSURANCE REVIEW

For

Denny Way CSO and Elliott West CSO
Storage and Treatment Facility
Post-Operation Sediment Monitoring
Year Two - 2007

Prepared by:

Fritz Grothkopp

Fritz Grothkopp
Laboratory Project Manager

Date: 12-19-07

Reviewed by:

Colin Elliott

Colin Elliott
Quality Assurance Officer

Date: 12/19/2007

King County Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507
(206) 684-2300

INTRODUCTION

This quality assurance (QA) narrative is intended to document the QA review conducted on the chemistry analyses performed for the Denny Way CSO and Elliott West CSO Storage and Treatment Facility, Post-operation Sediment Monitoring, Year Two - 2007. The QA narrative is organized into the five sections listed below.

- General Comments
- Sample Collection
- Conventional Analyses
- Metal Chemistry
- Organic Chemistry

An overview of the approach used for the QA review is detailed in the *General Comments* section. Additional information specific to each analysis is included in the appropriate analytical section.

This QA review and narrative (specifically defined as QA1) have been conducted in accordance with guidelines established through the Puget Sound Dredged Disposal Analysis (PSDDA) program, Sediment Management Standards (WAC 173-204-610) and the Sediment Sampling and Analysis Appendix (SAPA), WDOE 2003. Other approaches incorporated in the QA review have been established through collaboration between the King County Environmental Laboratory (KC Laboratory) and the Washington State Department of Ecology (Ecology) Sediment Management Unit.

GENERAL COMMENTS

Scope of Samples Submitted
This QA review is associated with marine sediment samples collected on May 15, 16 and 17, 2007 as part of the Denny Way CSO and Elliott West CSO Storage and Treatment Facility, Post-operation Sediment Monitoring, Year Two - 2007.

Except where noted in the subcontracting sections of this QA review, all analyses have been conducted by the King County Environmental Laboratory (KCEL). Sediment analytical data are reported with associated data qualifiers and have undergone QA1 review, as summarized in this narrative report.

Completeness
Completeness has been evaluated for this data submission and QA review by considering the following criteria:

- Comparing reported data to the planned project analyses summarized in Table 1.
- Compliance with storage conditions and holding times.
- Frequency of analysis of the complete set of quality control (QC) samples outlined in Table 2.

Subcontracted Analyses
Analyses that have been subcontracted and the issues associated with these subcontracted analyses are noted in this narrative.

Methods
Analytical methods are noted in the applicable analytical sections of this QA review.

Target Lists
The reported target lists have been compared to the target analytes listed in *Table 1 - Marine Sediment Quality Standards Chemical Criteria* and *Table 3 - Puget Sound Marine Sediment Cleanup Screening Levels Chemical Criteria* contained in Chapter 173-204 WAC.

Detection Limits
As part of the QA1 review, the detection limits reported for each parameter have been reviewed against the detection limit requirements defined in the SAP. When sample results have been reported as less than the Method Detection Limit (<MDL) and the associated detection limits are higher than those defined in the SAP, the particular samples and parameters have been identified and the circumstances explained. These summaries are included with each analytical section of this QA review.

The KC Laboratory reports include both the reporting detection limit (RDL) and the method detection limit (MDL) for each sample and parameter, where applicable. The RDL is defined as *the minimum concentration of a chemical constituent that can be reliably quantified while* the MDL is defined as *the minimum concentration of a chemical constituent that can be detected*. Some subcontracted laboratory data are available with an MDL only, in accordance with the subcontracting laboratory policies. For some methods the detection limits reported may vary from sample to sample depending on the amount of sample analyzed and any additional dilutions required.

Storage Conditions and Holding Times
Storage conditions and holding times have been evaluated using guidelines defined in the project SAP. Preparation and analysis holding times for each method are summarized in each analytical section.

Method Blanks
Method blank results have been used to evaluate the possible laboratory contamination of samples. Method blank results have been reviewed for the presence of analytes detected at or greater than the MDL. For analytes where the method blank response was at or above the MDL all associated sample results have been qualified with a B flag.

Standard Reference Materials
Standard reference material (SRM) recoveries have been used to evaluate possible low or high analytical bias on a batch-specific basis. SRM analysis is included with metals and selected organic and conventional parameters (see Table 2). SRMs are purchased from outside agencies (NIST or NRCC) and must have a certified analyte value in order for a particular parameter to be evaluated. All associated sample results for the certified analytes are flagged if the SRM recoveries are unacceptable. Associated sample results are flagged with an L whenever recoveries are measured above the acceptance limits and are flagged with a G when recoveries are measured below the acceptance limits.

Matrix Spikes
Matrix spike recoveries have been used to evaluate possible low or high analytical bias on a matrix and batch-specific basis. Matrix spikes are analyzed with metals, organics and selected conventionals parameters (see Table 2). Associated sample results are flagged with an L whenever recoveries are measured above the acceptance limits and are flagged with a G when recoveries are measured below the acceptance limits (but at or above 10%). Associated results are flagged with an X whenever recoveries are less than 10%.

For Metals only, matrix spike recovery results are used to qualify sample data only when the sample levels in the spiked sample are less than 4 times the spiked concentration. High sample levels relative to the spiked concentration can compromise the measurement of accurate spike recoveries.

Laboratory Replicate Samples
Replicate analysis (laboratory duplicates or triplicates) is used as an indicator of method precision and is used to qualify data on an analyte and batch-specific basis. Not all replicate data are used, however, as an indicator for data qualification. Only sets of replicate results which include at least one result greater than the RDL are considered for data qualification. These guidelines have been used to account for the fact that precision obtained near the detection limit is not representative of precision obtained throughout the entire analytical range. Associated results are flagged with an E whenever the measured precision is unacceptable (greater than the acceptance limit).

Surrogates
Surrogate recoveries have been used to evaluate possible low or high analytical bias on a sample-specific basis. Surrogates are only analyzed for organic parameters. Individual sample results are flagged with an L whenever recoveries are measured above the acceptance limits and are flagged with a G when recoveries are measured below the acceptance limits (but at or above 10%). Associated results are flagged with an X whenever recoveries are less than 10%.

Data Qualifiers
The data qualification guidelines described above has been summarized in Table 3. This table conforms to the guidelines in the current SAPA and also shows the data qualifiers used for the Sedqual electronic data format.

Units and Significant Figures
Units and the reporting basis vary, depending on the parameter and are explained in the analytical sections below. Data generally have been reported to three significant figures if above the RDL and two significant figures if equal to or below the RDL.

SAMPLE COLLECTION

This section describes sampling activities associated with the collection of 16 marine sediment samples on May 15, 16 and 17, 2007. All sampling activities were conducted following guidance suggested in the Puget Sound Protocols (PSEP, 1996 and 1998).

Sampling Locations and Station Positioning

Sampling locations (stations) were selected and the prescribed coordinates determined prior to field activities. Stations were selected to match existing stations from the Pre-Construction monitoring program. The prescribed station coordinates are presented in the following table. Also presented in the table are the actual coordinates recorded during sampling activities. All station coordinates are recorded in state plane coordinate system North American Datum 1983 (NAD83).

DENNY WAY CHEM. SEDIMENT GRAB SAMPLING POINTS, May 2007

Lab Number	Locator	Cast #	Grabs Accepted	Prescribed Northing	Actual Northing	Prescribed Easting	Actual Easting
L42475-1	DWMP-01			228813		1264047	
		1	1		228812		1264046
		2	1		228812		1264049
		4	1		228814		1264047
L42475-2	DWMP-02			228770		1263919	
		2	1		228768		1263915
		3	1		228772		1263912
		4	1		228773		1263920
L42475-3	DWMP-03			228638		1263846	
		1	1		228639		1263848
		2	1		228641		1263846
		3	1		228639		1263847
L42475-4	DWMP-04			228546		1263631	
		1	1		228549		1263632
		2	2		228548		1263630
L42475-5	DWMP-05			229041		1263836	
		2	1		229029		1263819
		5	2		229034		1263822
L42475-6	DWMP-06			228839		1263542	
		1	1		228839		1263543
		2	2		228840		1263541
L42475-7	DWMP-07			228660		1263350	
		1	1		228657		1263351
		2	1		228659		1263349
		3	1		228662		1263349
L42475-8	DWMP-08			228907		1263341	
		1	1		228907		1263340
		2	2		228910		1263341
L42475-9	DWMP-09			228806		1263215	
		1	1		228806		1263217
		3	1		228809		1263216
		4	1		228810		1263213
L42475-10	DWMP-10			229326		1263565	
		1	1		229321		1263558
		2	2		229328		1263559
L42475-11	DWMP-11			229156		1263272	

		1	1		229156		1263272
		3	1		229155		1263267
		4	1		229157		1263268
L42475-12	DWMP-12			228963		1263055	
		1	1		228964		1263049
		2	1		228963		1263056
		3	1		228960		1263055
L42475-13	DWMP-13			229640		1263317	
		1	1		229648		1263305
		3	1		229634		1263303
		6	1		229628		1263313
L42475-14	DWMP-14			229553		1263228	
		1	1		229554		1263223
		2	1		229554		1263226
		3	1		229550		1263226
L42475-15	DWMP-15			229444		1263053	
		1	1		229437		1263058
		2	1		229444		1263052
		3	1		229444		1263054
L42475-16	DWMP-16			229353		1262966	
		1	1		229355		1262969
		2	1		229354		1262973
		3	1		229352		1262965

Sediment grab samples were collected from the King County research vessel *Liberty*, which is equipped with a differential global positioning system (DGPS). Field coordinates were recorded using DGPS for each deployment of the tandem grab samplers as they contacted the sediment. All field coordinates for individual casts listed in the above table are within the +/- 6 meter accuracy limits, as defined in the SAP, with one exception. Cast # 2 at DWMP-5 was sampled 6.3 meters from the prescribed coordinate location due to the presence of inferior sample material at that site.

Sample Description Table

Lab Sample #	Locator	Sample Collection	Average Sediment Sampling Depth (cm)	Sample Usage
L42475-1	DWMP-01	Surface Grabs	13	Chemistry
L42475-2	DWMP-02	Surface Grabs	11	Chemistry
L42475-3	DWMP-03	Surface Grabs	16	Chemistry
L42475-4	DWMP-04	Surface Grabs	13	Chemistry
L42475-5	DWMP-05	Surface Grabs	8	Chemistry
L42475-6	DWMP-06	Surface Grabs	17	Chemistry
L42475-7	DWMP-07	Surface Grabs	16	Chemistry
L42475-8	DWMP-08	Surface Grabs	14	Chemistry
L42475-9	DWMP-09	Surface Grabs	17	Chemistry
L42475-10	DWMP-10	Surface Grabs	7	Chemistry
L42475-11	DWMP-11	Surface Grabs	14	Chemistry
L42475-12	DWMP-12	Surface Grabs	17	Chemistry
L42475-13	DWMP-13	Surface Grabs	5	Chemistry
L42475-14	DWMP-14	Surface Grabs	15	Chemistry
L42475-15	DWMP-15	Surface Grabs	13	Chemistry
L42475-16	DWMP-16	Surface Grabs	13	Chemistry

Sample Collection
Sediment was collected at each station using two, stainless steel, modified, 0.1 m^2 Van Veen grab samplers deployed in tandem via hydrowire. For each acceptable deployment, between 5-17 cm of sediment was recovered, allowing sub-sampling from the top 2 cm. Multiple sampler deployments were needed to collect sufficient sample volume to perform all chemistry analyses.

Water depth at the 16 subtidal cap sample stations ranged between 4 and 30 meters (not corrected for tide).

Sample Handling
At each station, approximately equal amounts of sediment from the top 2 cm were subsampled from the separate grabs through the use of a 200 cm^2 "cookie cutter" and stainless steel spatula. These aliquots were placed into a stainless steel compositing bowl, covered with foil between grab deployments. After all aliquots had been collected for that station, the sediment within the bowl was thoroughly homogenized and split out into pre-labeled containers. Sample containers were supplied by the King County Environmental Laboratory and were pre-cleaned according to analytical specifications.

Decontamination
Individual sets of the compositing bowls and sub-sampling and mixing equipment were dedicated to each station, precluding the need for decontamination of this field gear. The Van Veen grab samplers were decontaminated between stations by scrubbing with a brush and ambient seawater, followed by a thorough *in situ* rinsing.

Sample Storage and Preservation
Samples were stored in ice-filled coolers from the time of collection until delivery to the King County Environmental Laboratory. Samples were delivered under chain-of-custody and were maintained as such throughout the analytical process. Samples were stored frozen (-18°C) by the laboratory until analysis with the exception of samples for particle size distribution (PSD), VOA and Total Sulfide analysis. For these 3 methods, samples were stored refrigerated at approximately 4°C. A more complete description of sample handling and storage can be found in each analytical chemistry section of this narrative.

Copies of chain-of-custody forms and field notes are included as an appendix to this QA review narrative. The collect time is defined as that time that sampling commences at each station.

CONVENTIONAL ANALYSES

Completeness
Conventional data are reported for all samples and parameters summarized in Table 1. These samples were analyzed in association with the complete set of QC samples outlined in Table 2.

Subcontracted Analyses
All analyses were performed at the King County Environmental Lab.

Methods
Ammonia analysis was performed in accordance with Standard Method (SM)4500-NH3-G following a KCl extraction (Plumb, 1981). PSD analysis was performed in accordance with ASTM and Puget Sound Protocols methodologies (*Recommended Protocols for Measuring Conventional Sediment Variables in Puget Sound* - page 9 - PSEP, 1986). TOC analysis was performed in accordance with SM5310-B and EPA 9060. Total solids and total volatile solids analyses were performed in accordance with SM2540-G. Total sulfide analysis was performed in accordance with EPA 376.2 / SM4500S2-D and Plumb, 1981.

Detection Limits
The detection limits (MDLs) reported for Conventionals parameters are all within the requirements defined in the SAP, except for the following:

Parameter (mg/Kg)	Sample ID#	SAP MDL (dry wt.)	Reported MDL (dry wt.)	Reason for higher MDL Value
Total Sulfide	L42475-1,3,5,6,8,9 to 13, 16	1.0	(1)	Sample dilutions and totals solids values below 50%.
Total Organic Carbon	L42475-1 to 12, 14	1000	(1)	Reduced sample size analyzed and totals solids values below 50%.
Ammonia Nitrogen	L42475-1 to 16	0.2	(1)	Sample dilutions and totals solids values below 50%.

(1) See attached SAP MDL Comparison table
In all cases where the reported MDL was higher than the SAP MDL, a detectable level was measured, therefore project objectives were met.

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied. This may not apply to subcontracted data.

In the Comprehensive Report attached, Conventionals parameters are reported in mg/Kg, dry weight basis, for TOC, ammonia, Total Sulfide and Total Volatile Solids. Particle Size Distribution (PSD) and Total Solids are reported in percent, wet weight basis. For all parameters, the MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times

Sample storage conditions and holding times have been evaluated using guidelines established in the SAP. The dates and holding time criteria for the actual storage conditions used for conventional analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Prep Date	Date Analyzed	Sample Holding Time	Extract Holding Time
Ammonia Nitrogen	L42475-1,2,3,4,7	15-May-2007	18-May-2007	21-May-2007	6 months at -18°C	14 days at -18°C
	L42475-6,8,9,10,11,12,14	16-May-2007	18-May-2007	21-May-2007		
	L42475-5,13,15,16	17-May-2007	18-May-2007	21-May-2007		
Particle Size Distribution	L42475-1,2,3,4,7	15-May-2007	06-Jun-2007	07-Jun-2007	6 months at 4°C	NA
	L42475-5	17-May-2007	06-Jun-2007	07-Jun-2007		
	L42475-6	16-May-2007	06-Jun-2007	07-Jun-2007		
	L42475-8,9,10,11,12,14	16-May-2007	20-Jun-2007	21-Jun-2007		
	L42475-13,15,16	17-May-2007	20-Jun-2007	21-Jun-2007		
Total Organic Carbon	L42475-1,2,3,4,7	15-May-2007	29-May-2007	14-Jun-2007	6 months at -18°C	6 months at -18°C
	L42475-6,8,9,10,11,12,14	16-May-2007	29-May-2007	14-Jun-2007		
	L42475-5,13,15,16	17-May-2007	29-May-2007	14-Jun-2007		
Total Solids	L42475-1,2,3,4,7	15-May-2007	29-May-2007	29-May-2007	6 months at -18°C	NA
	L42475-6,8,9,10,11,12,14	16-May-2007	29-May-2007	29-May-2007		
	L42475-5,13,15,16	17-May-2007	29-May-2007	29-May-2007		
Total Sulfide	L42475-1,2,3,4,7	15-May-2007	17-May-2007	17-May-2007	7 days at 4°C	NA
	L42475-6,8	16-May-2007	17-May-2007	17-May-2007		
	L42475-5,13,15,16	17-May-2007	18-May-2007	18-May-2007		
	L42475-9,10,11,12,14	16-May-2007	18-May-2007	18-May-2007		
Total Volatile Solids	L42475-1,2,3,4,7	15-May-2007	29-May-2007	29-May-2007	6 months at -18°C	NA
	L42475-6,8,9,10,11,12,14	16-May-2007	29-May-2007	29-May-2007		
	L42475-5,13,15,16	17-May-2007	29-May-2007	29-May-2007		

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks
Method blanks were analyzed in connection with ammonia nitrogen/solids/total sulfides/total organic carbon analyses. All method blanks results were less than the MDL.

Standard Reference Materials
An SRM (Buffalo River Sediment) was analyzed in connection with TOC analysis. The percent recovery for the SRM analysis was within the 80 to 120% QC limits.

Matrix Spikes
The matrix spike recovery for ammonia nitrogen and TOC were within the 75 to 125% acceptance limits. The matrix spike recovery for total sulfide was within the 65 to 135% acceptance limits. The acceptance limits are not applicable when the unspiked sample level is 4 times or greater than the spiked concentration.

Laboratory Replicate Samples
A set of laboratory triplicates was analyzed for each of the conventional parameters. The percent relative standard deviation (%RSD) for each triplicate set was less than or equal to the 20% acceptance limit.

METALS CHEMISTRY

Completeness
Metal chemistry data are reported for all samples and parameters summarized in Table 1. These samples were analyzed for mercury and other metals in association with the complete set of QC samples outlined in Table 2.

Subcontracted Analyses
Metals analysis was not subcontracted for these sets of samples.

Methods
Mercury analysis was performed in accordance with EPA Method 7471A. Analysis for other metals was performed in accordance with EPA method 3050B/6010B.

Target List
The reported target list includes all metals specified in Table 1.

Detection Limits
The detection limits (MDLs) reported for Metals parameters are all within the requirements defined by the SAP with the exception of those noted in the table below. Since all samples had detectable responses for all these parameters, the project objectives were met.

Parameter	Sample ID#	SAP MDL (mg/Kg wet wt.)	Reported MDL (mg/Kg wet wt.)
Chromium	all	0.125	0.15
Lead	all	0.75	1.0
Mercury	L42475-1, -5, -9 and -13	0.020	0.021

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied.

In the Comprehensive Report attached, Metals parameters are reported in mg/Kg, dry weight basis, for all elements. The MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times
Sample storage conditions and holding times have been evaluated using guidelines established during the Third Annual PSDDA Review Meeting. The dates and holding time criteria for the actual storage conditions used for metals analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Date Digested/ Extracted	Date Analyzed	Sample Holding Time	Digestate/Extract Holding Time
Total Metals	L42475-1 through -16	5/15/07 through 5/17/07	6/20/07	6/20/07	2 Years at -18°C	6 months
Total Mercury	L42475-1 through -16	5/15/07 through 5/17/07	6/1/07	6/4/07	28 days at -18°C	NA

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks
All metals method blanks results were less than the MDL.

Standard Reference Materials
The SRM analyzed in association with samples included in this data submission is National Research Council of Canada PACS-2. This SRM is not certified for Silver, Arsenic or Cadmium. Acceptance limits for the certified elements have been developed using historical lab data since the certified SRM values and limits were determined with different analysis techniques. SRM recoveries outside these lab-defined limits indicate the method has not performed as expected and the sample data have been flagged to indicate the expected bias.

All metals SRM recoveries were within the lab defined limits indicated in the SAP.

A laboratory control sample (LCS) was also analyzed with the total metals digestion. All recoveries were within the certified limits of the sample. The LCS is used as a secondary check for the total metals digestion procedure because the certified values for the elements are determined using the same methodology. LCS results are not used to qualify data.

Matrix Spikes
All matrix spike recoveries were within the 75 to 125% QC limits with the following exceptions:

The reported matrix spike recovery of 31% for Antimony in WG91968 for sample numbers L42475-1 to 16 failed to meet the 75 to 125% QC acceptance criteria. All antimony results have been flagged with an "G".

The reported matrix spike recovery of -174% for Mercury in WG91968 for sample numbers L42475-1 to 16 failed to meet the 75 to 125% QC acceptance criteria. The reported matrix spike duplicate recovery of -162% for Mercury in WG91968 for sample numbers L42475-1 to 16 failed to meet the 75 to 125% acceptance criteria. All samples and QC were re-digested and analyzed including a matrix spike of a different sample. The re-analysis results indicate that the background levels of mercury are highly variable in these samples and that was the cause of the unacceptable matrix spikes. It was decided that an E flag would better indicate the cause of this failure rather than an X flag. The X flag was removed from all sample data but was left to identify an unacceptable result for the matrix spike.

Laboratory Replicate Samples
The relative percent differences (RPDs) for laboratory duplicate results for all metals were less than or equal to the QC limit of 20% with the following exceptions: The reported RPD of 147% for Mercury in WG91756 for sample numbers L42475-1 to 16 failed to meet the 20% QC acceptance limit. Mercury results for all samples in this data submission have been qualified with the E flag.

ORGANIC CHEMISTRY

Completeness
Organics data are reported for all samples and parameters summarized in Table 1. These samples were analyzed in association with the complete set of QC samples outlined in Table 2.

Methods
BNA analysis was performed in accordance with EPA method 8270. PCB and chlorinated pesticides analysis was performed in accordance with EPA methods 8082 and 8081A. Volatile Organic Analysis was performed in accordance with EPA Method 8260B.

Target List
The reported BNA target list includes all compounds specified in *Table 1 - Marine Sediment Quality Standards Chemical Criteria* and *Table 3 - Puget Sound Marine Sediment Cleanup Screening Levels Chemical Criteria* contained in Chapter 173-204 WAC with the exception of benzo(j)fluoranthene. The KC Laboratory has verified that analytical conditions are sufficient to calculate a total benzofluoranthene result using the reported *b* and *k* isomers.

Reported PCB data include Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.

Reported Volatile Organics include: 1,1,2-Trichloroethylene, Ethyl Benzene, Tetrachloroethylene and Total Xylenes.

Detection Limits, Units and Significant Figures
The detection limits (MDLs), as reported on a wet weight basis for Organics parameters, are all within the requirements defined in the SAP, except for the following:

PCBs
The reported MDLs for Aroclors 1016, 1232 and 1242 in all samples were greater than the wet weight MDL values listed in the SAP. The reported MDLs for these Aroclors were elevated to compensate for overlap of PCB congeners from other Aroclors detected in the samples. Elevated MDLs for all Aroclors in samples L42475-1 and -8 were due to additional dilutions done prior to analysis. Detectable levels of Aroclors 1260, 1254 and 1248 were reported in all samples.

For Non-ionizable Organic parameters, MDL values were also converted to an Organic Carbon (OC) basis, using the TOC values determined for each sample. The attached SMS OC and Dry Weight Comparison table list those samples where the reported MDL value did not meet the SAP requirements, when converted to an OC basis.

BNAs
All of the OC normalized Non-ionizable Organic parameters met the SAP required limits.

PCBs
The reported OC MDLs for Aroclors 1016, 1232 and 1242 in all samples were greater than the values listed in the SAP. As stated above, the MDLs were elevated to compensate for overlap of PCB congeners from other Aroclors detected in the samples.

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied. This may not apply to subcontracted data.

In the Comprehensive Report attached, Organics parameters are reported in ug/Kg, dry weight basis. In this report format, non-ionizable organic parameters have not been converted to mg/Kg TOC. For all parameters, the MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times

Sample storage conditions and holding times have been evaluated using guidelines established in the SAPA (WDOE, 2003). The dates and holding time criteria for the actual storage conditions used for organics analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Date Extracted	Date Analyzed	Sample Holding Time	Extract Holding Time
BNAs	L42475-1, 6 to 12	15, 16, 17-May 07	22-May-07	06-Jun-07	1 year at -18°C	40 days at 4°C
	L42475-2	15-May 07	05-Jun-07	06-Jun-07		
	L42475-3,4,5,13, 14,15,16	15, 16, 17-May 07	22-May-07	30-May-07		
Chlorinated Pesticides	L42475-1 to 16	15, 16, 17-May 07	24-May-07	05, 06, 07-Jun-07	1 year at -18°C	40 days at 4°C
PCBs	L42475-1 to 16	15, 16, 17-May 07	24-May-07	27, 28, 29-Jun-07	1 year at -18°C	40 days at 4°C
VOA	L42475-1 to 9	15, 16, 17-May 07	NA	24-May-07	14 Days at 4°C	Same as sample
	L42475-10, 11, 13 to 16	16, 17-May 07	NA	25-May-07		
	L42475-12	16-May-07	NA	29-May-07		

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks

Method blanks were analyzed for all Organics parameters and all method blank results were less than the MDL, except as noted below:

1. BNAs

The method blank analyzed with BNAs for L42475 had a result above the MDL for Bis (2-Ethylhexyl) Phthalate (5.5 ug/Kg). Sample results for Bis (2-Ethylhexyl) Phthalate for that batch (L42475) have been qualified with the B flag. All Bis (2-Ethylhexyl) Phthalate results for these samples should be treated as estimated values. The original laboratory duplicate (LD) and sample analysis failed lab QC for this batch (WG91559). The sample (L42475-2) and lab duplicate were re-extracted on June 5, 2007 and re-analyzed on June 6, 2007. The original method blank for the group was associated with the re-extracted and re-analyzed samples.

Surrogate Recoveries

Surrogate recovery acceptance limits for sediment samples have been developed based on historical lab performance using the current analytical methods. The exceptions to this are the TPH methods (NWTPH-Dx, -Gx and -HCID) where method-defined surrogate acceptance limits must be applied. Recoveries measured above the acceptance limits are flagged with an L. Recoveries measured below the acceptance limits (but at or above 10%) are flagged with a G.

Recoveries below 10% are flagged with an X. Surrogate recovery summaries for each method are shown below.

1. BNAs
For BNA sample data, surrogate recoveries are evaluated separately for the acid and base/neutral fractions. Within each fraction, 2 or more surrogates must be outside the acceptance limits in order to qualify the associated sample data. All BNA surrogate recoveries were within the lab-specific acceptance limits.

2. PCBs
Sample data are qualified when individual surrogate recoveries are outside lab-specific acceptance limits. For each set of analyses, all surrogate recoveries were within the lab-specific acceptance limits for all samples in this data submission.

3. Chlorinated Pesticides
Sample data are qualified when individual surrogate recoveries are outside lab-specific acceptance limits. For each set of analyses, all surrogate recoveries were within the lab-specific acceptance limits for all samples in this data submission with the exception of Decachlorobiphenyl on sample L42475-1. Decachlorobiphenyl recovery was 240%, due to background interferences. All Chlorinated Pesticide results for sample L42475-1 have been flagged with an "L".

4. VOA
TPH sample data are qualified when individual surrogate recoveries are outside QC acceptance limits. For the VOA, all surrogates were within the lab-specific acceptance limits. Note: Between the time the SAP was finalized and the time the samples were tested the lab-specific limits had been updated. These new limits are similar but slightly wider than those listed in the SAP. This difference is not expected to have influenced the quality of the data.

Standard Reference Materials (SRMs)
The SRM results associated with these samples are summarized below, according to the analysis method. Acceptance limits for the certified parameters reported in this data set have been developed using historical lab data. SRM recoveries outside these lab-defined limits indicate the method has not performed as expected and the associated sample data have been flagged.

1. BNAs
The sediment SRM analyzed in association with the reported BNA results is 1944, certified by the National Institute of Standards and Technology (NIST). The certified organics parameters in SRM 1944 are only a partial list of all the BNA compounds reported in this analysis. All measured recoveries for this SRM were within acceptance limits for this data set.

2. PCBs and Chlorinated Pesticides
The sediment SRM analyzed in association with the reported Chlorinated Pesticides results is 1944, certified by the NIST. SRM 1944 contains certified levels of DDT and alpha Chlordane. The sediment SRM analyzed in association with the reported PCB results is HS-2, certified by the National Research Council of Canada. SRM HS-2 contains Aroclor 1254. All measured recoveries for both SRMs were within acceptance limits.

A sediment SRM is not available for VOA.

Matrix Spikes
Matrix Spikes have been analyzed for each method. Recovery acceptance limits for each parameter in sediment have been developed based on historical lab performance using the current analytical methods. The acceptance limits are not applicable when the unspiked sample

level was 4 times or greater than the spiked concentration. When applicable, matrix spike recoveries outside these lab-defined limits indicate the method has not performed as expected and the associated sample data have been flagged.

1. BNAs
Each of the reported BNA compounds was included in the matrix spike and measured recoveries for each were within their acceptance limits with the exception Bis (2-ethylhexyl) phthalate with a recovery of 295%. Since the MSD showed acceptable recovery, it is assumed the high recovery of the MS was an anomaly for that QC sample only. No L flag was therefore added to the sample results.

2. PCBs and Chlorinated Pesticides
Each of the reported Pesticide compounds (excluding alpha and gamma chlordane) was included in the Chlorinated Pesticide matrix spike. Aroclor 1260 and 1016 only are used as the spiking parameters for PCB matrix spike. The measured recovery for each spiked parameter was within their acceptance limits.

3. VOA
Each of the reported Volatile Organic Compounds (VOA) was included in the matrix spike. The measured recovery for each spiked parameter was within their acceptance limits.

Laboratory Replicate Samples
A laboratory duplicate sample(s) was analyzed for each Organics parameter. The relative percent differences (RPDs) for laboratory duplicate for all parameters at or above the RDL were less than or equal to the acceptance limit of 35%, except for the following:

1. BNAs
The RPD for 2-methyl naphthalene for the duplicate analysis of Sample L42475-2 was 50%. 2-Methyl naphthalene was the only analyte of 24 target compounds reported to exceed the % RPD for lab duplicates. The sample concentrations ranged from <MDL to 22.7 ug/Kg, with the majority of the samples reported between the MDL and RDL (2 to 4 ug/Kg) or just slightly above the RDL. Since 2-Methyl naphthalene was less than zero to approximately 2.5 % of the total LPAHs for the samples, the LD should be considered a sample anomaly. Therefore, the results for this parameter have not been flagged with an "E".

Additional QA Issues:

PCB Analysis:
PCB data reported for this set of samples include numeric values for only those Aroclors that could be positively identified in each sample and were measured above the detection limit. Identification of Aroclors 1016, 1232 and 1242 was not possible for all samples (L42475-1 through –16) due to the overlap of the congeners from Aroclors 1248, 1254 and 1260. For those Aroclors where this overlap has occurred, the result is reported as <MDL with elevated MDL and RDL values. The elevated MDL represents the maximum amount that would have been reported for that Aroclor had it been positively identified. The RDL value has also been elevated by the same proportion.

The table below lists the samples and affected Aroclors.

Lab Sample Number	PCB 1016	PCB 1232	PCB 1242
L42475-1	x	x	x
L42475-2	x	x	x
L42475-3	x	x	x
L42475-4	x	x	x

L42475-5	x	x	x
L42475-6	x	x	x
L42475-7	x	x	x
L42475-8	x	x	x
L42475-9	x	x	x
L42475-10	x	x	x
L42475-11	x	x	x
L42475-12	x	x	x
L42475-13	x		x
L42475-14	x	x	x
L42475-15	x	x	x
L42475-16	x	x	x

Pesticide Analysis:
The Continuing Calibration Verification Stds for samples L42475-1 through -16 were unacceptable for DDT due to matrix interferences. The Continuing Calibration Verification Std for samples L42475-4 through -16 was also unacceptable for Methoxychlor due to matrix interferences. The results for these parameters for these samples have been qualified with an "E" flag.

TABLE 1
SEDIMENT SAMPLE INVENTORY

Sample	Locator / Description (see SAP)	Sulfides	PSD	Nutrients[1]	Solids	TOC	Metals[2]	BNAs[3]	Pest/ PCBs	VOA	Comments
L42475-1	DWMP-01	X	X	X	X	X	X	X	X	X	
L42475-2	DWMP-02	X	X	X	X	X	X	X	X	X	
L42475-3	DWMP-03	X	X	X	X	X	X	X	X	X	
L42475-4	DWMP-04	X	X	X	X	X	X	X	X	X	
L42475-5	DWMP-05	X	X	X	X	X	X	X	X	X	
L42475-6	DWMP-06	X	X	X	X	X	X	X	X	X	
L42475-7	DWMP-07	X	X	X	X	X	X	X	X	X	
L42475-8	DWMP-08	X	X	X	X	X	X	X	X	X	
L42475-9	DWMP-09	X	X	X	X	X	X	X	X	X	
L42475-10	DWMP-10	X	X	X	X	X	X	X	X	X	
L42475-11	DWMP-11	X	X	X	X	X	X	X	X	X	
L42475-12	DWMP-12	X	X	X	X	X	X	X	X	X	
L42475-13	DWMP-13	X	X	X	X	X	X	X	X	X	
L42475-14	DWMP-14	X	X	X	X	X	X	X	X	X	
L42475-15	DWMP-15	X	X	X	X	X	X	X	X	X	
L42475-16	DWMP-16	X	X	X	X	X	X	X	X	X	

1 Nutrients = Ammonia
2 Metals = Hg, Sb, As, Cd, Cr, Cu, Pb, Ni, Ag, Zn
3 BNAs = includes Chlorobenzenes

TABLE 2
QC SAMPLE FREQUENCY FOR SEDIMENT CHEMICAL AND PHYSICAL PARAMETERS

Parameter	Method Blank	Duplicate	Triplicate	Matrix Spike	SRM	Surrogates
Ammonia Nitrogen	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	As Available	No
PSD	No	See Triplicate	5% minimum, 1 per QC batch	No	No	No
Total Solids & Volatile Solids	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	No	No	No
TOC	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	1 per QC batch	No
Sulfides	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	No	No
Metals	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	No
BNAs	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	Yes
PCBs/Chlorinated Pesticides	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	Yes
VOA	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	No	Yes

TABLE 3 - SUMMARY OF SEDIMENT DATA QUALIFIERS

Condition to Qualify	King County Data Qualifier	Sedqual Data Qualifier	Organic QC Limits	Metal QC Limits	Conventional QC Limits	Comment
very low matrix spike recovery	X	X	< 10 %	< 10 %	< 10 %	
low matrix spike recovery	G	G	Compound specific	< 75%	< 75% *	
high matrix spike recovery	L	L	Compound specific	>125%	>125% *	
low standard reference material recovery	G	G	Compound and SRM specific	Element and SRM specific	< 80%	
high standard reference material recovery	L	L	Compound and SRM specific	Element and SRM specific	>120%	
high duplicate relative percent difference	E	E	>35 %	>20%	NA	for organics and metals
high triplicate relative standard deviation	E	E	NA	NA	> 20%	for conventionals
less than the reporting detection limit	<RDL**	T	NA	NA	NA	
less than the method detection limit	<MDL	U	NA	NA	NA	
contamination detected in method blank	B	B	>/=MDL	>/=MDL	>/=MDL	
biased data based on very low surrogate recoveries	X	X	any surrogate <10%	NA	NA	
biased data based on low surrogate recoveries	G	G	Surrogate specific	NA	NA	At least 2 surrogates < limit for BNAs
biased data based on high surrogate recoveries	L	L	Surrogate specific	NA	NA	At least 2 surrogates > limit for BNAs
rejected - unusable for all purposes	R	J or Q	NA	NA	NA	
a sample handling criteria has not been met	H	H	NA	NA	NA	container, hold time, preservation
		-				

* 65% to 135% for Total Sulfides.

** For Sedqual files, <MDL uses a "U" flag, <RDL is not flagged since the RDL value is not included in the Sedqual templates generated by King County.

Sample Results Tables

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	DWMP-01	DWMP-02	DWMP-03	DWMP-04
Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM
TimeSpan:				
Lab ID:	L42475-1	L42475-2	L42475-3	L42475-4
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	44.6	54.6	47.2	49.9

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		
COMBINED LABS																				
M=CV ASTM D422(03-02-005-001)																				
Fines *	57.7		0.5	1	%	39.4		0.5	1	%	59.1		0.5	1	%	49.3		0.5	1	%
Gravel *	5.7		0.1	1	%	3.4		0.1	1	%	1.2		0.1	1	%	5.5		0.1	1	%
Sand *	28.8		0.1	1	%	53.5		0.1	1	%	33.7		0.1	1	%	39.4		0.1	1	%
Silt *	40		0.5	1	%	27.4		0.5	1	%	43.6		0.5	1	%	36.5		0.5	1	%
Clay *	17.7		0.5	1	%	12		0.5	1	%	15.6		0.5	1	%	12.8		0.5	1	%
p+0.00 *	1.7		0.1	1	%	2.4		0.1	1	%	0.9	<RDL	0.1	1	%	3.2		0.1	1	%
p+1.00 *	1.3		0.1	1	%	5.2		0.1	1	%	2.5		0.1	1	%	4.9		0.1	1	%
p+10.0(equal/more than) *	9.4		0.5	1	%	7.7		0.5	1	%	9.3		0.5	1	%	8.9		0.5	1	%
p+2.00 *	2.6		0.1	1	%	13.9		0.1	1	%	7.9		0.1	1	%	10.5		0.1	1	%
p+3.00 *	7		0.1	1	%	14.5		0.1	1	%	8.7		0.1	1	%	10.6		0.1	1	%
p+4.00 *	16.3		0.1	1	%	17.6		0.1	1	%	13.8		0.1	1	%	10.1		0.1	1	%
p+5.00 *	20		0.5	1	%	15.4		0.5	1	%	20.7		0.5	1	%	14.8		0.5	1	%
p+6.00 *	7.1		0.5	1	%	3.4		0.5	1	%	5.2		0.5	1	%	6.9		0.5	1	%
p+7.00 *	11.8		0.5	1	%	5.1		0.5	1	%	12.4		0.5	1	%	7.9		0.5	1	%
p+8.00 *	1.2		0.5	1	%	3.4		0.5	1	%	5.2		0.5	1	%	6.9		0.5	1	%
p+9.00 *	8.2		0.5	1	%	4.3		0.5	1	%	6.2		0.5	1	%	4		0.5	1	%
p-1.00 *	2.6		0.1	1	%	2.6		0.1	1	%	0.8	<RDL	0.1	1	%	3.4		0.1	1	%
p-2.00 *	0.7	<RDL	0.1	1	%		<MDL	0.1	1	%	0.1	<RDL	0.1	1	%	0.2	<RDL	0.1	1	%
p-2.00(less than) *	2.3		0.1	1	%	0.7	<RDL	0.1	1	%	0.3	<RDL	0.1	1	%	1.9		0.1	1	%
M=CV EPA 9030B (03-03-015-000)																				
Total Sulfide	122		11	44.8	mg/Kg		<MDL	0.92	3.66	mg/Kg	4.2	<RDL	1.1	4.24	mg/Kg	4.61		1	4.01	mg/Kg
M=CV EPA 9060-PSEP96(03-04-002-003)																				
Total Organic Carbon	37000		3100	6080	mg/Kg	14700		2200	4320	mg/Kg	20300		3600	7180	mg/Kg	14800		1900	3750	mg/Kg
M=CV SM2540-G (03-01-007-002)																				
Total Solids *	44.6		0.005	0.01	%	54.6		0.005	0.01	%	47.2		0.005	0.01	%	49.9		0.005	0.01	%
Total Volatile Solids	15.9		0.0112	0.0224	%	5.24		0.00916	0.0183	%	6.33		0.0106	0.0212	%	5.55		0.01	0.02	%
M=CV SM4500-NH3-G(03-03-014-001)KCL																				
Ammonia Nitrogen	5.9		0.22	0.448	mg/Kg	0.582		0.18	0.366	mg/Kg	1.77		0.21	0.424	mg/Kg	1.4		0.2	0.401	mg/Kg
M=ES NONE																				
Field Personnel	JB,JD,JDD,AllenF				none	JB,JD,JDD,AllenF				none	JB,JD,JDD,AllenF				none	JB,JD,JDD,AllenF				none
Sampcoordx1 *	1264046				ft	1263915				ft	1263848				ft	1263632				ft
Sampcoordx2 *	1264049				ft	1263912				ft	1263846				ft	1263630				ft
Sampcoordx3 *	1264047				ft	1263920				ft	1263847				ft					
Sampcoordy1 *	228812				ft	228768				ft	228639				ft	228549				ft
Sampcoordy2 *	228812				ft	228772				ft	228641				ft	228548				ft
Sampcoordy3 *	228814				ft	228773				ft	228639				ft					
Sample Depth *	7				m	13				m	17				m	21				m
Sample Information																				
Sampling Method *	20042				none	20042				none	20042				none	20042				none
Sediment Sampling Depth *	13				cm	11				cm	16				cm	13				cm
Sediment Sampling Range *	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	Locator:	DWMP-01				Locator:	DWMP-02				Locator:	DWMP-03				Locator:	DWMP-04			
	Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI			
	Sampled:	05/15/07 12:00:00 AM				Sampled:	05/15/07 12:00:00 AM				Sampled:	05/15/07 12:00:00 AM				Sampled:	05/15/07 12:00:00 AM			
	TimeSpan:					TimeSpan:					TimeSpan:					TimeSpan:				
	Lab ID:	L42475-1				Lab ID:	L42475-2				Lab ID:	L42475-3				Lab ID:	L42475-4			
	Matrix:	SALTWTRSED				Matrix:	SALTWTRSED				Matrix:	SALTWTRSED				Matrix:	SALTWTRSED			
	% Solids:	44.6				% Solids:	54.6				% Solids:	47.2				% Solids:	49.9			
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		
COMBINED LABS																				
Sediment Type	23P20				none						23N20				none	23N20				none
Tidal Condition	F				none	F				none	F				none	S				none
Tide Height *	-1				ft	5				ft	3				ft	-2				ft
M=MT EPA 7471A (06-01-004-003)																				
Mercury, Total, CVAA	0.861	E	0.047	0.462	mg/Kg	0.31	<RDL,E	0.037	0.361	mg/Kg	0.731	E	0.04	0.405	mg/Kg	0.387	E	0.038	0.385	mg/Kg
M=MT EPA3050B/6010B MOD(6-2-04-02)																				
Antimony, Total, ICP		<MDL,G	1.7	8.41	mg/Kg		<MDL,G	1.4	6.85	mg/Kg		<MDL,G	1.6	7.92	mg/Kg		<MDL,G	1.5	7.49	mg/Kg
Arsenic, Total, ICP	14	<RDL	2.7	14	mg/Kg	7.5	<RDL	2.2	11.4	mg/Kg	10	<RDL	2.5	13.2	mg/Kg	9.4	<RDL	2.4	12.5	mg/Kg
Cadmium, Total, ICP	1.38		0.22	1.12	mg/Kg	0.27	<RDL	0.18	0.914	mg/Kg	1.1		0.21	1.06	mg/Kg	0.42	<RDL	0.2	0.998	mg/Kg
Chromium, Total, ICP	52.9		0.34	1.68	mg/Kg	41.8		0.27	1.37	mg/Kg	47.5		0.32	1.58	mg/Kg	47.7		0.3	1.5	mg/Kg
Copper, Total, ICP	88.3		0.45	2.24	mg/Kg	49.1		0.37	1.83	mg/Kg	64.2		0.42	2.11	mg/Kg	48.7		0.4	2	mg/Kg
Lead, Total, ICP	160		2.2	11.2	mg/Kg	58.4		1.8	9.14	mg/Kg	95.1		2.1	10.6	mg/Kg	48.1		2	9.98	mg/Kg
Nickel, Total, ICP	45.5		0.56	2.8	mg/Kg	43.4		0.46	2.29	mg/Kg	46.4		0.53	2.65	mg/Kg	49.9		0.5	2.51	mg/Kg
Silver, Total, ICP	5.29		0.45	2.24	mg/Kg	1.5	<RDL	0.37	1.83	mg/Kg	3.67		0.42	2.11	mg/Kg	1.3	<RDL	0.4	2	mg/Kg
Zinc, Total, ICP	171		0.56	2.8	mg/Kg	93.2		0.46	2.29	mg/Kg	123		0.53	2.65	mg/Kg	97.4		0.5	2.51	mg/Kg
M=OR EPA 3550B/8270C (7-3-01-004)																				
1,2,4-Trichlorobenzene		<MDL	0.22	0.448	ug/Kg		<MDL	0.18	0.366	ug/Kg		<MDL	0.21	0.424	ug/Kg		<MDL	0.2	0.401	ug/Kg
1,2-Dichlorobenzene		<MDL	0.45	0.897	ug/Kg		<MDL	0.37	0.733	ug/Kg		<MDL	0.42	0.847	ug/Kg		<MDL	0.4	0.802	ug/Kg
1,3-Dichlorobenzene		<MDL	0.45	0.897	ug/Kg		<MDL	0.37	0.733	ug/Kg		<MDL	0.42	0.847	ug/Kg		<MDL	0.4	0.802	ug/Kg
1,4-Dichlorobenzene		<MDL	0.45	0.897	ug/Kg	1.64		0.37	0.733	ug/Kg		<MDL	0.42	0.847	ug/Kg		<MDL	0.4	0.802	ug/Kg
2,4-Dimethylphenol		<MDL	2.2	4.48	ug/Kg		<MDL	1.8	3.66	ug/Kg		<MDL	2.1	4.24	ug/Kg		<MDL	2	4.01	ug/Kg
2-Methylnaphthalene	28.5		4.5	8.97	ug/Kg	24.7		3.7	7.33	ug/Kg	10.4		4.2	8.47	ug/Kg		<MDL	4	8.02	ug/Kg
2-Methylphenol		<MDL	4.5	8.97	ug/Kg		<MDL	3.7	7.33	ug/Kg		<MDL	4.2	8.47	ug/Kg		<MDL	4	8.02	ug/Kg
4-Methylphenol		<MDL	9	17.9	ug/Kg		<MDL	7.3	14.7	ug/Kg		<MDL	8.5	16.9	ug/Kg		<MDL	8	16	ug/Kg
Acenaphthene	63.5		4.5	8.97	ug/Kg	113		3.7	7.33	ug/Kg	20.8		4.2	8.47	ug/Kg	13.3		4	8.02	ug/Kg
Acenaphthylene	325		4.5	8.97	ug/Kg	22.7		3.7	7.33	ug/Kg	32.8		4.2	8.47	ug/Kg	16		4	8.02	ug/Kg
Anthracene	1370		4.5	8.97	ug/Kg	238		3.7	7.33	ug/Kg	135		4.2	8.47	ug/Kg	64.5		4	8.02	ug/Kg
Benzo(a)anthracene	2600		4.5	8.97	ug/Kg	582		3.7	7.33	ug/Kg	294		4.2	8.47	ug/Kg	131		4	8.02	ug/Kg
Benzo(a)pyrene	3650		4.5	8.97	ug/Kg	458		3.7	7.33	ug/Kg	267		4.2	8.47	ug/Kg	140		4	8.02	ug/Kg
Benzo(b)fluoranthene	4390		4.5	8.97	ug/Kg	548		3.7	7.33	ug/Kg	375		4.2	8.47	ug/Kg	162		4	8.02	ug/Kg
Benzo(g,h,i)perylene	1540		4.5	8.97	ug/Kg	251		3.7	7.33	ug/Kg	162		4.2	8.47	ug/Kg	75.6		4	8.02	ug/Kg
Benzo(k)fluoranthene	3410		4.5	8.97	ug/Kg	333		3.7	7.33	ug/Kg	328		4.2	8.47	ug/Kg	124		4	8.02	ug/Kg
Benzoic Acid	126		22	44.8	ug/Kg	130		18	36.6	ug/Kg		<MDL	21	42.4	ug/Kg	91.6		20	40.1	ug/Kg
Benzyl Alcohol		<MDL	4.5	8.97	ug/Kg		<MDL	3.7	7.33	ug/Kg		<MDL	4.2	8.47	ug/Kg		<MDL	4	8.02	ug/Kg
Benzyl Butyl Phthalate	119		2.2	4.48	ug/Kg	46.5		1.8	3.66	ug/Kg		<MDL	2.1	4.24	ug/Kg		<MDL	2	4.01	ug/Kg
Bis(2-Ethylhexyl)Phthalate	740	B	9	17.9	ug/Kg	429	B	7.3	14.7	ug/Kg	517	B	8.5	16.9	ug/Kg	199	B	8	16	ug/Kg
Carbazole	437		4.5	8.97	ug/Kg	164		3.7	7.33	ug/Kg	55.3		4.2	8.47	ug/Kg	26.3		4	8.02	ug/Kg
Chrysene	4640		4.5	8.97	ug/Kg	630		3.7	7.33	ug/Kg	316		4.2	8.47	ug/Kg	182		4	8.02	ug/Kg
Coprostanol		<MDL	90	179	ug/Kg		<MDL	73	147	ug/Kg		<MDL	85	169	ug/Kg		<MDL	80	160	ug/Kg
Dibenzo(a,h)anthracene	922		4.5	8.97	ug/Kg	71.8		3.7	7.33	ug/Kg	57.8		4.2	8.47	ug/Kg	25.3		4	8.02	ug/Kg
Dibenzofuran	35.2		4.5	8.97	ug/Kg	49.1		3.7	7.33	ug/Kg	10.4		4.2	8.47	ug/Kg	4.8	<RDL	4	8.02	ug/Kg
Diethyl Phthalate		<MDL	9	17.9	ug/Kg		<MDL	7.3	14.7	ug/Kg		<MDL	8.5	16.9	ug/Kg		<MDL	8	16	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM
TimeSpan:				
Lab ID:	L42475-1	L42475-2	L42475-3	L42475-4
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	44.6	54.6	47.2	49.9

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		
COMBINED LABS																				
Dimethyl Phthalate		<MDL	9	17.9	ug/Kg		<MDL	7.3	14.7	ug/Kg		<MDL	8.5	16.9	ug/Kg		<MDL	8	16	ug/Kg
Di-N-Butyl Phthalate		<MDL	9	17.9	ug/Kg	20.5		7.3	14.7	ug/Kg		<MDL	8.5	16.9	ug/Kg	39.9		8	16	ug/Kg
Di-N-Octyl Phthalate		<MDL	9	17.9	ug/Kg		<MDL	7.3	14.7	ug/Kg		<MDL	8.5	16.9	ug/Kg		<MDL	8	16	ug/Kg
Fluoranthene	1880		4.5	8.97	ug/Kg	1160		3.7	7.33	ug/Kg	517		4.2	8.47	ug/Kg	228		4	8.02	ug/Kg
Fluorene	175		4.5	8.97	ug/Kg	98.7		3.7	7.33	ug/Kg	33.7		4.2	8.47	ug/Kg	17		4	8.02	ug/Kg
Hexachlorobenzene		<MDL	0.22	0.448	ug/Kg		<MDL	0.18	0.366	ug/Kg		<MDL	0.21	0.424	ug/Kg		<MDL	0.2	0.401	ug/Kg
Hexachlorobutadiene		<MDL	1.1	2.24	ug/Kg		<MDL	0.92	1.83	ug/Kg		<MDL	1.1	2.12	ug/Kg		<MDL	1	2	ug/Kg
Hexachloroethane		<MDL	2.2	4.48	ug/Kg		<MDL	1.8	3.66	ug/Kg		<MDL	2.1	4.24	ug/Kg		<MDL	2	4.01	ug/Kg
Indeno(1,2,3-Cd)Pyrene	1980		4.5	8.97	ug/Kg	304		3.7	7.33	ug/Kg	178		4.2	8.47	ug/Kg	87.8		4	8.02	ug/Kg
Naphthalene	46.2		4.5	8.97	ug/Kg	28.8		3.7	7.33	ug/Kg	12.5		4.2	8.47	ug/Kg		<MDL	4	8.02	ug/Kg
N-Nitrosodiphenylamine		<MDL	9	17.9	ug/Kg		<MDL	7.3	14.7	ug/Kg		<MDL	8.5	16.9	ug/Kg		<MDL	8	16	ug/Kg
Pentachlorophenol		<MDL	22	44.8	ug/Kg		<MDL	18	36.6	ug/Kg		<MDL	21	42.4	ug/Kg		<MDL	20	40.1	ug/Kg
Phenanthrene	857		4.5	8.97	ug/Kg	824		3.7	7.33	ug/Kg	216		4.2	8.47	ug/Kg	109		4	8.02	ug/Kg
Phenol		<MDL	9	17.9	ug/Kg		<MDL	7.3	14.7	ug/Kg		<MDL	8.5	16.9	ug/Kg		<MDL	8	16	ug/Kg
Pyrene	2690		4.5	8.97	ug/Kg	1020		3.7	7.33	ug/Kg	544		4.2	8.47	ug/Kg	224		4	8.02	ug/Kg
Total HPAHS	29100		4.5	8.97	ug/Kg	5420		3.7	7.33	ug/Kg	3030		4.2	8.47	ug/Kg	1380		4	8.02	ug/Kg
Total LPAHs	2870		4.5	8.97	ug/Kg	1350		3.7	7.33	ug/Kg	462		4.2	8.47	ug/Kg	222		4	8.02	ug/Kg
M=OR EPA 8081A/8082 (7-3-03-002)																				
4,4'-DDD		<MDL,L	1.5	2.98	ug/Kg	3.63		1.2	2.44	ug/Kg	12.3		1.4	2.82	ug/Kg	3.11		1.3	2.67	ug/Kg
4,4'-DDE		<MDL,L	1.5	2.98	ug/Kg		<MDL	1.2	2.44	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	1.3	2.67	ug/Kg
4,4'-DDT		<MDL,L,E	1.5	2.98	ug/Kg		<MDL,E	1.2	2.44	ug/Kg		<MDL,E	1.4	2.82	ug/Kg		<MDL,E	1.3	2.67	ug/Kg
Aldrin		<MDL,L	1.5	2.98	ug/Kg		<MDL	1.2	2.44	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	1.3	2.67	ug/Kg
Alpha-BHC		<MDL,L	0.74	1.5	ug/Kg		<MDL	0.6	1.22	ug/Kg		<MDL	0.7	1.41	ug/Kg		<MDL	0.66	1.34	ug/Kg
Alpha-Chlordane		<MDL,L	0.74	1.5	ug/Kg	0.73	<RDL	0.6	1.22	ug/Kg	2.56		0.7	1.41	ug/Kg		<MDL	0.66	1.34	ug/Kg
Beta-BHC		<MDL,L	0.74	1.5	ug/Kg		<MDL	0.6	1.22	ug/Kg		<MDL	0.7	1.41	ug/Kg		<MDL	0.66	1.34	ug/Kg
Delta-BHC		<MDL,L	0.74	1.5	ug/Kg		<MDL	0.6	1.22	ug/Kg		<MDL	0.7	1.41	ug/Kg		<MDL	0.66	1.34	ug/Kg
Dieldrin		<MDL,L	1.5	2.98	ug/Kg		<MDL	1.2	2.44	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	1.3	2.67	ug/Kg
Endosulfan I		<MDL,L	1.5	2.98	ug/Kg		<MDL	1.2	2.44	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	1.3	2.67	ug/Kg
Endosulfan II		<MDL,L	1.5	2.98	ug/Kg		<MDL	1.2	2.44	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	1.3	2.67	ug/Kg
Endosulfan Sulfate		<MDL,L	1.5	2.98	ug/Kg		<MDL	1.2	2.44	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	1.3	2.67	ug/Kg
Endrin		<MDL,L	1.5	2.98	ug/Kg		<MDL	1.2	2.44	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	1.3	2.67	ug/Kg
Endrin Aldehyde		<MDL,L	1.5	2.98	ug/Kg		<MDL	1.2	2.44	ug/Kg		<MDL	1.4	2.82	ug/Kg		<MDL	1.3	2.67	ug/Kg
Gamma-BHC (Lindane)		<MDL,L	0.74	1.5	ug/Kg		<MDL	0.6	1.22	ug/Kg		<MDL	0.7	1.41	ug/Kg		<MDL	0.66	1.34	ug/Kg
Gamma-Chlordane		<MDL,L	0.74	1.5	ug/Kg		<MDL	0.6	1.22	ug/Kg	10.1		0.7	1.41	ug/Kg	2.61		0.66	1.34	ug/Kg
Heptachlor		<MDL,L	0.74	1.5	ug/Kg		<MDL	0.6	1.22	ug/Kg		<MDL	0.7	1.41	ug/Kg		<MDL	0.66	1.34	ug/Kg
Heptachlor Epoxide		<MDL,L	0.74	1.5	ug/Kg		<MDL	0.6	1.22	ug/Kg		<MDL	0.7	1.41	ug/Kg		<MDL	0.66	1.34	ug/Kg
Methoxychlor		<MDL,L	7.4	15	ug/Kg		<MDL	6	12.2	ug/Kg		<MDL	7	14.1	ug/Kg		<MDL,E	6.6	13.4	ug/Kg
Toxaphene		<MDL,L	15	29.8	ug/Kg		<MDL	12	24.4	ug/Kg		<MDL	14	28.2	ug/Kg		<MDL	13	26.7	ug/Kg
M=OR EPA 8081A/8082 (7-3-103-000)																				
Aroclor 1016		<MDL,TA	76	151	ug/Kg		<MDL,TA	7.7	15.4	ug/Kg		<MDL,TA	30	60.6	ug/Kg		<MDL,TA	8.6	17.1	ug/Kg
Aroclor 1221		<MDL	38	74.7	ug/Kg		<MDL	3.1	6.1	ug/Kg		<MDL	3.6	7.06	ug/Kg		<MDL	3.4	6.67	ug/Kg
Aroclor 1232		<MDL,TA	160	316	ug/Kg		<MDL,TA	24	47.1	ug/Kg		<MDL,TA	70	142	ug/Kg		<MDL,TA	24	48.7	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-01					Locator:	DWMP-02					Locator:	DWMP-03					Locator:	DWMP-04				
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
Sampled:	05/15/07 12:00:00 AM					Sampled:	05/15/07 12:00:00 AM					Sampled:	05/15/07 12:00:00 AM					Sampled:	05/15/07 12:00:00 AM				
TimeSpan:						TimeSpan:						TimeSpan:						TimeSpan:					
Lab ID:	L42475-1					Lab ID:	L42475-2					Lab ID:	L42475-3					Lab ID:	L42475-4				
Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED				
% Solids:	44.6					% Solids:	54.6					% Solids:	47.2					% Solids:	49.9				
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		
COMBINED LABS																				
Aroclor 1242		<MDL,TA	250	500	ug/Kg		<MDL,TA	24	47.8	ug/Kg		<MDL,TA	91	184	ug/Kg		<MDL,TA	38	78	ug/Kg
Aroclor 1248	172		19	37.4	ug/Kg	19		1.5	3.06	ug/Kg	62.1		1.8	3.54	ug/Kg	22		1.7	3.35	ug/Kg
Aroclor 1254	451		19	37.4	ug/Kg	63.9		1.5	3.06	ug/Kg	180		1.8	3.54	ug/Kg	65.5		1.7	3.35	ug/Kg
Aroclor 1260	162		19	37.4	ug/Kg	54.6		1.5	3.06	ug/Kg	111		1.8	3.54	ug/Kg	51.5		1.7	3.35	ug/Kg
M=OR EPA 8260B (7-3-02-003)																				
1,1,2-Trichloroethylene		<MDL	2.2	4.48	ug/Kg		<MDL	1.8	3.66	ug/Kg		<MDL	2.1	4.24	ug/Kg		<MDL	2	4.01	ug/Kg
Ethylbenzene		<MDL	2.2	4.48	ug/Kg		<MDL	1.8	3.66	ug/Kg		<MDL	2.1	4.24	ug/Kg		<MDL	2	4.01	ug/Kg
Tetrachloroethylene		<MDL	2.2	4.48	ug/Kg		<MDL	1.8	3.66	ug/Kg		<MDL	2.1	4.24	ug/Kg		<MDL	2	4.01	ug/Kg
Total Xylenes		<MDL	2.2	4.48	ug/Kg		<MDL	1.8	3.66	ug/Kg		<MDL	2.1	4.24	ug/Kg		<MDL	2	4.01	ug/Kg

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-05	DWMP-06	DWMP-07	DWMP-08
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/17/07 12:00:00 AM	05/16/07 12:00:00 AM	05/15/07 12:00:00 AM	05/16/07 12:00:00 AM
TimeSpan:				
Lab ID:	L42475-5	L42475-6	L42475-7	L42475-8
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	74.2	49.7	51.3	48.8

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		
COMBINED LABS																				
M=CV ASTM D422(03-02-005-001)																				
Fines *	8.5		0.5	1	%	33.7		0.5	1	%	45		0.5	1	%	45.8		0.5	1	%
Gravel *	61.6		0.1	1	%	1.8		0.1	1	%	2.6		0.1	1	%	9.2		0.1	1	%
Sand *	30.9		0.1	1	%	62.6		0.1	1	%	46.9		0.1	1	%	42.8		0.1	1	%
Silt *	3.6		0.5	1	%	23.4		0.5	1	%	31.9		0.5	1	%	32.5		0.5	1	%
Clay *	4.9		0.5	1	%	10.3		0.5	1	%	13.1		0.5	1	%	13.4		0.5	1	%
p+0.00 *	10.7		0.1	1	%	1.3		0.1	1	%	1.9		0.1	1	%	3.3		0.1	1	%
p+1.00 *	6.7		0.1	1	%	13.1		0.1	1	%	3.6		0.1	1	%	5.5		0.1	1	%
p+10.0(equal/more than) *	2.4		0.5	1	%	6.5		0.5	1	%	7.5		0.5	1	%	7.6		0.5	1	%
p+2.00 *	6.8		0.1	1	%	31.3		0.1	1	%	12		0.1	1	%	14.2		0.1	1	%
p+3.00 *	4.2		0.1	1	%	10.9		0.1	1	%	17.5		0.1	1	%	10.9		0.1	1	%
p+4.00 *	2.7		0.1	1	%	6		0.1	1	%	11.9		0.1	1	%	9		0.1	1	%
p+5.00 *	2.4		0.5	1	%	11.2		0.5	1	%	16.9		0.5	1	%	14.3		0.5	1	%
p+6.00 *	1.2		0.5	1	%	3.7		0.5	1	%	4.7		0.5	1	%	4.8		0.5	1	%
p+7.00 *		<MDL	0.5	1	%	5.6		0.5	1	%	5.6		0.5	1	%	8.6		0.5	1	%
p+8.00 *		<MDL	0.5	1	%	2.8		0.5	1	%	4.7		0.5	1	%	4.8		0.5	1	%
p+9.00 *	2.4		0.5	1	%	3.7		0.5	1	%	5.6		0.5	1	%	5.7		0.5	1	%
p-1.00 *	19.8		0.1	1	%	0.9	<RDL	0.1	1	%	1.7		0.1	1	%	3.8		0.1	1	%
p-2.00 *	7.3		0.1	1	%	0.4	<RDL	0.1	1	%	0.6	<RDL	0.1	1	%	0.4	<RDL	0.1	1	%
p-2.00(less than) *	34.4		0.1	1	%	0.5	<RDL	0.1	1	%	0.3	<RDL	0.1	1	%	5.1		0.1	1	%
M=CV EPA 9030B (03-03-015-000)																				
Total Sulfide	121		6.7	27	mg/Kg		<MDL	1	4.02	mg/Kg	18.2		1.9	7.8	mg/Kg	1030		100	410	mg/Kg
M=CV EPA 9060-PSEP96(03-04-002-003)																				
Total Organic Carbon	14200		1800	3520	mg/Kg	18200		3200	6360	mg/Kg	15800		2300	4780	mg/Kg	22700		2300	4530	mg/Kg
M=CV SM2540-G (03-01-007-002)																				
Total Solids *	74.2		0.005	0.01	%	49.7		0.005	0.01	%	51.3		0.005	0.01	%	48.8		0.005	0.01	%
Total Volatile Solids	2.74		0.00674	0.0135	%	6.32		0.0101	0.0201	%	5.05		0.00975	0.0195	%	7.54		0.0102	0.0205	%
M=CV SM4500-NH3-G(03-03-014-001)KCL																				
Ammonia Nitrogen	7.13		0.67	1.35	mg/Kg	1.8		0.2	0.402	mg/Kg	1.16		0.19	0.39	mg/Kg	3.3		0.2	0.41	mg/Kg
M=ES NONE																				
Field Personnel	MP,JB,JDD,CB,AllenF				none	JB,JDD,CB,SH,Allen,ValerieF				none	JB,JD,JDD,AllenF				none	JB,JDD,CB,SH,Allen,ValerieF				none
Sampcoordx1 *	1263819				ft	1263543				ft	1263351				ft	1263340				ft
Sampcoordx2 *	1263822				ft	1263541				ft	1263349				ft	1263341				ft
Sampcoordx3 *											1263349				ft					
Sampcoordy1 *	229029				ft	228839				ft	228657				ft	228907				ft
Sampcoordy2 *	229034				ft	228840				ft	228659				ft	228910				ft
Sampcoordy3 *											228662				ft					
Sample Depth *	5				m	18				m	27				m	23				m
Sample Information	Mostly rocks & kelp. Major washout probs				none															
Sampling Method *	20042				none	20042				none	20042				none	20042				none
Sediment Sampling Depth *	8				cm	17				cm	16				cm	14				cm
Sediment Sampling Range *	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-05					DWMP-06					DWMP-07					DWMP-08				
Descrip:	DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI				
Sampled:	05/17/07 12:00:00 AM					05/16/07 12:00:00 AM					05/15/07 12:00:00 AM					05/16/07 12:00:00 AM				
TimeSpan:																				
Lab ID:	L42475-5					L42475-6					L42475-7					L42475-8				
Matrix:	SALTWTRSED					SALTWTRSED					SALTWTRSED					SALTWTRSED				
% Solids:	74.2					49.7					51.3					48.8				
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		
COMBINED LABS																				
Sediment Type	43S21				none	23N20				none	23N21				none	23N21				none
Tidal Condition	F				none	E				none	E				none	E				none
Tide Height *	-1				ft	0				ft	-1				ft	-1				ft
M=MT EPA 7471A (06-01-004-003)																				
Mercury, Total, CVAA	0.065	<RDL,E	0.028	0.282	mg/Kg	0.2	<RDL,E	0.038	0.392	mg/Kg	0.476	E	0.037	0.38	mg/Kg	0.605	E	0.039	0.393	mg/Kg
M=MT EPA3050B/6010B MOD(6-2-04-02)																				
Antimony, Total, ICP		<MDL,G	1	5.03	mg/Kg		<MDL,G	1.5	7.55	mg/Kg		<MDL,G	1.5	7.31	mg/Kg		<MDL,G	1.5	7.68	mg/Kg
Arsenic, Total, ICP	14.3		1.6	8.38	mg/Kg	6.8	<RDL	2.4	12.6	mg/Kg	7.8	<RDL	2.3	12.2	mg/Kg	9.4	<RDL	2.7	12.8	mg/Kg
Cadmium, Total, ICP	0.31	<RDL	0.13	0.67	mg/Kg	0.34	<RDL	0.2	1.01	mg/Kg	0.43	<RDL	0.19	0.975	mg/Kg	0.8	<RDL	0.2	1.02	mg/Kg
Chromium, Total, ICP	616		0.2	1.01	mg/Kg	28.2		0.3	1.51	mg/Kg	36.6		0.29	1.46	mg/Kg	57		0.31	1.54	mg/Kg
Copper, Total, ICP	76.7		0.27	1.34	mg/Kg	35.2		0.4	2.01	mg/Kg	46.8		0.39	1.95	mg/Kg	62.3		0.41	2.05	mg/Kg
Lead, Total, ICP	24.4		1.3	6.7	mg/Kg	31.6		2	10.1	mg/Kg	69.4		1.9	9.75	mg/Kg	79.7		2	10.2	mg/Kg
Nickel, Total, ICP	69		0.34	1.67	mg/Kg	27.2		0.5	2.52	mg/Kg	33.5		0.49	2.44	mg/Kg	51.2		0.51	2.56	mg/Kg
Silver, Total, ICP	1.1	<RDL	0.27	1.34	mg/Kg	1	<RDL	0.4	2.01	mg/Kg	1.5	<RDL	0.39	1.95	mg/Kg	3.77		0.41	2.05	mg/Kg
Zinc, Total, ICP	62.9		0.34	1.67	mg/Kg	81.3		0.5	2.52	mg/Kg	91		0.49	2.44	mg/Kg	119		0.51	2.56	mg/Kg
M=OR EPA 3550B/8270C (7-3-01-004)																				
1,2,4-Trichlorobenzene		<MDL	0.13	0.27	ug/Kg		<MDL	0.2	0.402	ug/Kg		<MDL	0.19	0.39	ug/Kg		<MDL	0.2	0.41	ug/Kg
1,2-Dichlorobenzene		<MDL	0.27	0.539	ug/Kg		<MDL	0.4	0.805	ug/Kg		<MDL	0.39	0.78	ug/Kg		<MDL	0.41	0.82	ug/Kg
1,3-Dichlorobenzene		<MDL	0.27	0.539	ug/Kg		<MDL	0.4	0.805	ug/Kg		<MDL	0.39	0.78	ug/Kg		<MDL	0.41	0.82	ug/Kg
1,4-Dichlorobenzene		<MDL	0.27	0.539	ug/Kg		<MDL	0.4	0.805	ug/Kg		<MDL	0.39	0.78	ug/Kg	5.08		0.41	0.82	ug/Kg
2,4-Dimethylphenol		<MDL	1.3	2.7	ug/Kg		<MDL	2	4.02	ug/Kg		<MDL	1.9	3.9	ug/Kg		<MDL	2	4.1	ug/Kg
2-Methylnaphthalene	6.39		2.7	5.39	ug/Kg		<MDL	4	8.05	ug/Kg	4.5	<RDL	3.9	7.8	ug/Kg	9.08		4.1	8.2	ug/Kg
2-Methylphenol		<MDL	2.7	5.39	ug/Kg		<MDL	4	8.05	ug/Kg		<MDL	3.9	7.8	ug/Kg		<MDL	4.1	8.2	ug/Kg
4-Methylphenol		<MDL	5.4	10.8	ug/Kg		<MDL	8	16.1	ug/Kg		<MDL	7.8	15.6	ug/Kg		<MDL	8.2	16.4	ug/Kg
Acenaphthene	29.2		2.7	5.39	ug/Kg	8.71		4	8.05	ug/Kg	10		3.9	7.8	ug/Kg	20.7		4.1	8.2	ug/Kg
Acenaphthylene	26.8		2.7	5.39	ug/Kg	11		4	8.05	ug/Kg	8.75		3.9	7.8	ug/Kg		<MDL	4.1	8.2	ug/Kg
Anthracene	193		2.7	5.39	ug/Kg	41.4		4	8.05	ug/Kg	48		3.9	7.8	ug/Kg	75		4.1	8.2	ug/Kg
Benzo(a)anthracene	226		2.7	5.39	ug/Kg	106		4	8.05	ug/Kg	119		3.9	7.8	ug/Kg	152		4.1	8.2	ug/Kg
Benzo(a)pyrene	236		2.7	5.39	ug/Kg	127		4	8.05	ug/Kg	135		3.9	7.8	ug/Kg	161		4.1	8.2	ug/Kg
Benzo(b)fluoranthene	268		2.7	5.39	ug/Kg	168		4	8.05	ug/Kg	179		3.9	7.8	ug/Kg	183		4.1	8.2	ug/Kg
Benzo(g,h,i)perylene	87.9		2.7	5.39	ug/Kg	62.8		4	8.05	ug/Kg	65.3		3.9	7.8	ug/Kg	79.7		4.1	8.2	ug/Kg
Benzo(k)fluoranthene	322		2.7	5.39	ug/Kg	101		4	8.05	ug/Kg	91		3.9	7.8	ug/Kg	151		4.1	8.2	ug/Kg
Benzoic Acid	163		13	27	ug/Kg	98.2		20	40.2	ug/Kg	86		19	39	ug/Kg	97.3		20	41	ug/Kg
Benzyl Alcohol		<MDL	2.7	5.39	ug/Kg		<MDL	4	8.05	ug/Kg		<MDL	3.9	7.8	ug/Kg		<MDL	4.1	8.2	ug/Kg
Benzyl Butyl Phthalate		<MDL	1.3	2.7	ug/Kg	25.8		2	4.02	ug/Kg	26.7		1.9	3.9	ug/Kg	75.6		2	4.1	ug/Kg
Bis(2-Ethylhexyl)Phthalate	1000	B	5.4	10.8	ug/Kg	4770	B	8	16.1	ug/Kg	170	B	7.8	15.6	ug/Kg	949	B	8.2	16.4	ug/Kg
Carbazole	98.9		2.7	5.39	ug/Kg	39		4	8.05	ug/Kg	21.8		3.9	7.8	ug/Kg	39.1		4.1	8.2	ug/Kg
Chrysene	354		2.7	5.39	ug/Kg	158		4	8.05	ug/Kg	161		3.9	7.8	ug/Kg	183		4.1	8.2	ug/Kg
Coprostanol		<MDL	54	108	ug/Kg	427		80	161	ug/Kg		<MDL	78	156	ug/Kg	568		82	164	ug/Kg
Dibenzo(a,h)anthracene	44.1		2.7	5.39	ug/Kg	21.1		4	8.05	ug/Kg	25.5		3.9	7.8	ug/Kg	32.2		4.1	8.2	ug/Kg
Dibenzofuran	13.9		2.7	5.39	ug/Kg	4.6	<RDL	4	8.05	ug/Kg	4.7	<RDL	3.9	7.8	ug/Kg	16.6		4.1	8.2	ug/Kg
Diethyl Phthalate		<MDL	5.4	10.8	ug/Kg		<MDL	8	16.1	ug/Kg		<MDL	7.8	15.6	ug/Kg		<MDL	8.2	16.4	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	DWMP-05	DWMP-06	DWMP-07	DWMP-08
Locator:	DWMP-05	DWMP-06	DWMP-07	DWMP-08
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/17/07 12:00:00 AM	05/16/07 12:00:00 AM	05/15/07 12:00:00 AM	05/16/07 12:00:00 AM
TimeSpan:				
Lab ID:	L42475-5	L42475-6	L42475-7	L42475-8
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	74.2	49.7	51.3	48.8

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		
COMBINED LABS																				
Dimethyl Phthalate		<MDL	5.4	10.8	ug/Kg		<MDL	8	16.1	ug/Kg		<MDL	7.8	15.6	ug/Kg		<MDL	8.2	16.4	ug/Kg
Di-N-Butyl Phthalate		<MDL	5.4	10.8	ug/Kg		<MDL	8	16.1	ug/Kg	11	<RDL	7.8	15.6	ug/Kg		<MDL	8.2	16.4	ug/Kg
Di-N-Octyl Phthalate		<MDL	5.4	10.8	ug/Kg		<MDL	8	16.1	ug/Kg		<MDL	7.8	15.6	ug/Kg		<MDL	8.2	16.4	ug/Kg
Fluoranthene	512		2.7	5.39	ug/Kg	239		4	8.05	ug/Kg	220		3.9	7.8	ug/Kg	365		4.1	8.2	ug/Kg
Fluorene	40.3		2.7	5.39	ug/Kg	15.2		4	8.05	ug/Kg	14.7		3.9	7.8	ug/Kg	28.7		4.1	8.2	ug/Kg
Hexachlorobenzene		<MDL	0.13	0.27	ug/Kg		<MDL	0.2	0.402	ug/Kg		<MDL	0.19	0.39	ug/Kg		<MDL	0.2	0.41	ug/Kg
Hexachlorobutadiene		<MDL	0.67	1.35	ug/Kg		<MDL	1	2.01	ug/Kg		<MDL	0.97	1.95	ug/Kg		<MDL	1	2.05	ug/Kg
Hexachloroethane		<MDL	1.3	2.7	ug/Kg		<MDL	2	4.02	ug/Kg		<MDL	1.9	3.9	ug/Kg		<MDL	2	4.1	ug/Kg
Indeno(1,2,3-Cd)Pyrene	126		2.7	5.39	ug/Kg	77.3		4	8.05	ug/Kg	84.8		3.9	7.8	ug/Kg	103		4.1	8.2	ug/Kg
Naphthalene	4	<RDL	2.7	5.39	ug/Kg	5	<RDL	4	8.05	ug/Kg	7.93		3.9	7.8	ug/Kg	12.1		4.1	8.2	ug/Kg
N-Nitrosodiphenylamine		<MDL	5.4	10.8	ug/Kg		<MDL	8	16.1	ug/Kg		<MDL	7.8	15.6	ug/Kg		<MDL	8.2	16.4	ug/Kg
Pentachlorophenol		<MDL	13	27	ug/Kg		<MDL	20	40.2	ug/Kg		<MDL	19	39	ug/Kg		<MDL	20	41	ug/Kg
Phenanthrene	279		2.7	5.39	ug/Kg	121		4	8.05	ug/Kg	119		3.9	7.8	ug/Kg	207		4.1	8.2	ug/Kg
Phenol		<MDL	5.4	10.8	ug/Kg		<MDL	8	16.1	ug/Kg		<MDL	7.8	15.6	ug/Kg		<MDL	8.2	16.4	ug/Kg
Pyrene	484		2.7	5.39	ug/Kg	219		4	8.05	ug/Kg	211		3.9	7.8	ug/Kg	385		4.1	8.2	ug/Kg
Total HPAHS	2650		2.7	5.39	ug/Kg	1280		4	8.05	ug/Kg	1290		3.9	7.8	ug/Kg	1800		4.1	8.2	ug/Kg
Total LPAHs	578		2.7	5.39	ug/Kg	205		4	8.05	ug/Kg	212		3.9	7.8	ug/Kg	352		4.1	8.2	ug/Kg
M=OR EPA 8081A/8082 (7-3-03-002)																				
4,4'-DDD		<MDL	0.9	1.79	ug/Kg	1.8	<RDL	1.3	2.68	ug/Kg	3.49		1.3	2.59	ug/Kg		<MDL	1.4	2.73	ug/Kg
4,4'-DDE		<MDL	0.9	1.79	ug/Kg		<MDL	1.3	2.68	ug/Kg		<MDL	1.3	2.59	ug/Kg	41		1.4	2.73	ug/Kg
4,4'-DDT		<MDL,E	0.9	1.79	ug/Kg		<MDL,E	1.3	2.68	ug/Kg		<MDL,E	1.3	2.59	ug/Kg		<MDL,E	1.4	2.73	ug/Kg
Aldrin		<MDL	0.9	1.79	ug/Kg		<MDL	1.3	2.68	ug/Kg		<MDL	1.3	2.59	ug/Kg		<MDL	1.4	2.73	ug/Kg
Alpha-BHC		<MDL	0.44	0.899	ug/Kg		<MDL	0.66	1.34	ug/Kg		<MDL	0.64	1.3	ug/Kg		<MDL	0.68	1.37	ug/Kg
Alpha-Chlordane		<MDL	0.44	0.899	ug/Kg		<MDL	0.66	1.34	ug/Kg		<MDL	0.64	1.3	ug/Kg	1.45		0.68	1.37	ug/Kg
Beta-BHC		<MDL	0.44	0.899	ug/Kg		<MDL	0.66	1.34	ug/Kg		<MDL	0.64	1.3	ug/Kg		<MDL	0.68	1.37	ug/Kg
Delta-BHC		<MDL	0.44	0.899	ug/Kg		<MDL	0.66	1.34	ug/Kg		<MDL	0.64	1.3	ug/Kg		<MDL	0.68	1.37	ug/Kg
Dieldrin		<MDL	0.9	1.79	ug/Kg		<MDL	1.3	2.68	ug/Kg		<MDL	1.3	2.59	ug/Kg		<MDL	1.4	2.73	ug/Kg
Endosulfan I		<MDL	0.9	1.79	ug/Kg		<MDL	1.3	2.68	ug/Kg		<MDL	1.3	2.59	ug/Kg		<MDL	1.4	2.73	ug/Kg
Endosulfan II		<MDL	0.9	1.79	ug/Kg		<MDL	1.3	2.68	ug/Kg		<MDL	1.3	2.59	ug/Kg		<MDL	1.4	2.73	ug/Kg
Endosulfan Sulfate		<MDL	0.9	1.79	ug/Kg		<MDL	1.3	2.68	ug/Kg		<MDL	1.3	2.59	ug/Kg		<MDL	1.4	2.73	ug/Kg
Endrin		<MDL	0.9	1.79	ug/Kg		<MDL	1.3	2.68	ug/Kg		<MDL	1.3	2.59	ug/Kg		<MDL	1.4	2.73	ug/Kg
Endrin Aldehyde		<MDL	0.9	1.79	ug/Kg		<MDL	1.3	2.68	ug/Kg		<MDL	1.3	2.59	ug/Kg		<MDL	1.4	2.73	ug/Kg
Gamma-BHC (Lindane)		<MDL	0.44	0.899	ug/Kg		<MDL	0.66	1.34	ug/Kg		<MDL	0.64	1.3	ug/Kg		<MDL	0.68	1.37	ug/Kg
Gamma-Chlordane		<MDL	0.44	0.899	ug/Kg	1.96		0.66	1.34	ug/Kg		<MDL	0.64	1.3	ug/Kg	9.86		0.68	1.37	ug/Kg
Heptachlor		<MDL	0.44	0.899	ug/Kg		<MDL	0.66	1.34	ug/Kg		<MDL	0.64	1.3	ug/Kg		<MDL	0.68	1.37	ug/Kg
Heptachlor Epoxide		<MDL	0.44	0.899	ug/Kg		<MDL	0.66	1.34	ug/Kg		<MDL	0.64	1.3	ug/Kg		<MDL	0.68	1.37	ug/Kg
Methoxychlor		<MDL,E	4.4	8.99	ug/Kg		<MDL,E	6.6	13.4	ug/Kg		<MDL,E	6.4	13	ug/Kg		<MDL,E	6.8	13.7	ug/Kg
Toxaphene		<MDL	9	17.9	ug/Kg		<MDL	13	26.8	ug/Kg		<MDL	13	25.9	ug/Kg		<MDL	14	27.3	ug/Kg
M=OR EPA 8081A/8082 (7-3-103-000)																				
Aroclor 1016		<MDL,TA	9.8	19.8	ug/Kg		<MDL,TA	7	14.1	ug/Kg		<MDL,TA	9.7	19.4	ug/Kg		<MDL,TA	49	99.8	ug/Kg
Aroclor 1221		<MDL	2.3	4.49	ug/Kg		<MDL	3.4	6.7	ug/Kg		<MDL	3.3	6.49	ug/Kg		<MDL	35	68.2	ug/Kg
Aroclor 1232		<MDL,TA	23	44.6	ug/Kg		<MDL,TA	24	47.7	ug/Kg		<MDL,TA	29	58.3	ug/Kg		<MDL,TA	110	219	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-05	DWMP-06	DWMP-07	DWMP-08
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/17/07 12:00:00 AM	05/16/07 12:00:00 AM	05/15/07 12:00:00 AM	05/16/07 12:00:00 AM
TimeSpan:				
Lab ID:	L42475-5	L42475-6	L42475-7	L42475-8
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	74.2	49.7	51.3	48.8

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		
COMBINED LABS																				
Aroclor 1242		<MDL,TA	31	62	ug/Kg		<MDL,TA	28	55.3	ug/Kg		<MDL,TA	43	86	ug/Kg		<MDL,TA	170	334	ug/Kg
Aroclor 1248	24		1.1	2.25	ug/Kg	17.1		1.7	3.36	ug/Kg	26.1		1.6	3.26	ug/Kg	101		17	34.2	ug/Kg
Aroclor 1254	41.2		1.1	2.25	ug/Kg	47.7		1.7	3.36	ug/Kg	84		1.6	3.26	ug/Kg	198		17	34.2	ug/Kg
Aroclor 1260	16.7		1.1	2.25	ug/Kg	35.8		1.7	3.36	ug/Kg	64.1		1.6	3.26	ug/Kg	123		17	34.2	ug/Kg
M=OR EPA 8260B (7-3-02-003)																				
1,1,2-Trichloroethylene		<MDL	1.3	2.7	ug/Kg		<MDL	2	4.02	ug/Kg		<MDL	1.9	3.9	ug/Kg		<MDL	2	4.1	ug/Kg
Ethylbenzene		<MDL	1.3	2.7	ug/Kg		<MDL	2	4.02	ug/Kg		<MDL	1.9	3.9	ug/Kg		<MDL	2	4.1	ug/Kg
Tetrachloroethylene		<MDL	1.3	2.7	ug/Kg		<MDL	2	4.02	ug/Kg		<MDL	1.9	3.9	ug/Kg		<MDL	2	4.1	ug/Kg
Total Xylenes		<MDL	1.3	2.7	ug/Kg		<MDL	2	4.02	ug/Kg		<MDL	1.9	3.9	ug/Kg		<MDL	2	4.1	ug/Kg

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-09	DWMP-10	DWMP-11	DWMP-12
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM
TimeSpan:				
Lab ID:	L42475-9	L42475-10	L42475-11	L42475-12
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	37.3	70.7	47.7	30.8

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		
COMBINED LABS																				
M=CV ASTM D422(03-02-005-001)																				
Fines *	61.2		0.5	1	%	4.6		0.5	1	%	31.1		0.5	1	%	75.9		0.5	1	%
Gravel *	2.2		0.1	1	%	1.9		0.1	1	%	2.5		0.1	1	%	0.7	<RDL	0.1	1	%
Sand *	28.5		0.1	1	%	91.7		0.1	1	%	64.6		0.1	1	%	19.6		0.1	1	%
Silt *	46.6		0.5	1	%	2		0.5	1	%	21.1		0.5	1	%	59.4		0.5	1	%
Clay *	14.6		0.5	1	%	2.6		0.5	1	%	10		0.5	1	%	16.5		0.5	1	%
p+0.00 *	1.1		0.1	1	%	1.3		0.1	1	%	1.5		0.1	1	%	0.2	<RDL	0.1	1	%
p+1.00 *	1.6		0.1	1	%	13		0.1	1	%	10.9		0.1	1	%	0.4	<RDL	0.1	1	%
p+10.0(equal/more than) *	10.7		0.5	1	%	2		0.5	1	%	6		0.5	1	%	13.2		0.5	1	%
p+2.00 *	4.1		0.1	1	%	51.9		0.1	1	%	30.6		0.1	1	%	1.6		0.1	1	%
p+3.00 *	8		0.1	1	%	17.3		0.1	1	%	14		0.1	1	%	6.7		0.1	1	%
p+4.00 *	13.7		0.1	1	%	8.4		0.1	1	%	7.6		0.1	1	%	10.7		0.1	1	%
p+5.00 *	28		0.5	1	%	1.3		0.5	1	%	9		0.5	1	%	28.1		0.5	1	%
p+6.00 *	6.7		0.5	1	%		<MDL	0.5	1	%	4		0.5	1	%	9.9		0.5	1	%
p+7.00 *	8		0.5	1	%	0.7	<RDL	0.5	1	%	5		0.5	1	%	14.9		0.5	1	%
p+8.00 *	4		0.5	1	%		<MDL	0.5	1	%	3		0.5	1	%	6.6		0.5	1	%
p+9.00 *	4		0.5	1	%	0.7	<RDL	0.5	1	%	4		0.5	1	%	3.3		0.5	1	%
p-1.00 *	0.7	<RDL	0.1	1	%	0.7	<RDL	0.1	1	%	1.2		0.1	1	%	0.3	<RDL	0.1	1	%
p-2.00 *	0.2	<RDL	0.1	1	%		<MDL	0.1	1	%	0.1	<RDL	0.1	1	%	0.3	<RDL	0.1	1	%
p-2.00(less than) *	1.4		0.1	1	%	1.1		0.1	1	%	1.1		0.1	1	%		<MDL	0.1	1	%
M=CV EPA 9030B (03-03-015-000)																				
Total Sulfide	26.6		1.3	5.36	mg/Kg	5.76		0.71	2.83	mg/Kg	121		10	41.9	mg/Kg	32.8		1.6	6.49	mg/Kg
M=CV EPA 9060-PSEP96(03-04-002-003)																				
Total Organic Carbon	29500		3200	6460	mg/Kg	8730		2100	4130	mg/Kg	22200		3100	6440	mg/Kg	37300		3900	7660	mg/Kg
M=CV SM2540-G (03-01-007-002)																				
Total Solids *	37.3		0.005	0.01	%	70.7		0.005	0.01	%	47.7		0.005	0.01	%	30.8		0.005	0.01	%
Total Volatile Solids	9.46		0.0134	0.0268	%	2.45		0.00707	0.0141	%	8.34		0.0105	0.021	%	11.7		0.0162	0.0325	%
M=CV SM4500-NH3-G(03-03-014-001)KCL																				
Ammonia Nitrogen	1.92		0.27	0.536	mg/Kg	4.88		0.14	0.283	mg/Kg	2.81		0.21	0.419	mg/Kg	1.68		0.32	0.649	mg/Kg
M=ES NONE																				
Field Personnel	JB,JDD,CB,SH,Allen,ValerieF				none	JB,JDD,CB,SH,Allen,ValerieF				none	JB,JDD,CB,SH,Allen,ValerieF				none	JB,JDD,CB,SH,Allen,ValerieF				none
Sampcoordx1 *	1263217				ft	1263558				ft	1263272				ft	1263049				ft
Sampcoordx2 *	1263216				ft	1263559				ft	1263267				ft	1263056				ft
Sampcoordx3 *	1263213				ft						1263268				ft	1263055				ft
Sampcoordy1 *	228806				ft	229321				ft	229156				ft	228964				ft
Sampcoordy2 *	228809				ft	229328				ft	229155				ft	228963				ft
Sampcoordy3 *	228810				ft						229157				ft	228960				ft
Sample Depth *	29				m	4				m	19				m	30				m
Sample Information																				
Sampling Method *	20042				none	20042				none	20042				none	20042				none
Sediment Sampling Depth *	17				cm	7				cm	14				cm	17				cm
Sediment Sampling Range *	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-09					DWMP-10					DWMP-11					DWMP-12				
Descrip:	DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI				
Sampled:	05/16/07 12:00:00 AM					05/16/07 12:00:00 AM					05/16/07 12:00:00 AM					05/16/07 12:00:00 AM				
TimeSpan:																				
Lab ID:	L42475-9					L42475-10					L42475-11					L42475-12				
Matrix:	SALTWTRSED					SALTWTRSED					SALTWTRSED					SALTWTRSED				
% Solids:	37.3					70.7					47.7					30.8				
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				
COMBINED LABS																				
Sediment Type	23P36				none	23N31				none	23W31				none	20N20				none
Tidal Condition	E				none	S				none	F				none	F				none
Tide Height *	2				ft	-3.1				ft	-1				ft	0.5				ft
M=MT EPA 7471A (06-01-004-003)																				
Mercury, Total, CVAA	0.622	E	0.056	0.558	mg/Kg	2.36	E	0.028	0.276	mg/Kg	0.4	<RDL,E	0.04	0.403	mg/Kg	0.42	<RDL,E	0.065	0.646	mg/Kg
M=MT EPA3050B/6010B MOD(6-2-04-02)																				
Antimony, Total, ICP		<MDL,G	2	10.1	mg/Kg		<MDL,G	1.1	5.28	mg/Kg		<MDL,G	1.6	7.84	mg/Kg		<MDL,G	2.4	12.1	mg/Kg
Arsenic, Total, ICP	9.4	<RDL	3.2	16.8	mg/Kg	6.2	<RDL	1.7	8.8	mg/Kg	6.5	<RDL	2.5	13.1	mg/Kg	11	<RDL	3.9	20.2	mg/Kg
Cadmium, Total, ICP	0.67	<RDL	0.27	1.34	mg/Kg	0.918		0.14	0.704	mg/Kg	0.42	<RDL	0.21	1.05	mg/Kg	0.62	<RDL	0.32	1.62	mg/Kg
Chromium, Total, ICP	47.7		0.4	2.01	mg/Kg	31		0.21	1.06	mg/Kg	28.5		0.31	1.57	mg/Kg	46.8		0.49	2.42	mg/Kg
Copper, Total, ICP	66.5		0.54	2.68	mg/Kg	94.1		0.28	1.41	mg/Kg	43		0.42	2.09	mg/Kg	59.7		0.65	3.23	mg/Kg
Lead, Total, ICP	76.9		2.7	13.4	mg/Kg	86.8		1.4	7.04	mg/Kg	42.1		2.1	10.5	mg/Kg	59.1		3.2	16.2	mg/Kg
Nickel, Total, ICP	42.1		0.67	3.35	mg/Kg	25.6		0.35	1.75	mg/Kg	26.2		0.52	2.62	mg/Kg	46.4		0.81	4.03	mg/Kg
Silver, Total, ICP	3.08		0.54	2.68	mg/Kg	4.77		0.28	1.41	mg/Kg	1.7	<RDL	0.42	2.09	mg/Kg	2.5	<RDL	0.65	3.23	mg/Kg
Zinc, Total, ICP	113		0.67	3.35	mg/Kg	111		0.35	1.75	mg/Kg	87		0.52	2.62	mg/Kg	100		0.81	4.03	mg/Kg
M=OR EPA 3550B/8270C (7-3-01-004)																				
1,2,4-Trichlorobenzene		<MDL	0.27	0.536	ug/Kg		<MDL	0.14	0.283	ug/Kg		<MDL	0.21	0.419	ug/Kg		<MDL	0.32	0.649	ug/Kg
1,2-Dichlorobenzene		<MDL	0.54	1.07	ug/Kg		<MDL	0.28	0.566	ug/Kg		<MDL	0.42	0.839	ug/Kg		<MDL	0.65	1.3	ug/Kg
1,3-Dichlorobenzene		<MDL	0.54	1.07	ug/Kg		<MDL	0.28	0.566	ug/Kg		<MDL	0.42	0.839	ug/Kg		<MDL	0.65	1.3	ug/Kg
1,4-Dichlorobenzene	9.62		0.54	1.07	ug/Kg	10.1		0.28	0.566	ug/Kg	3.73		0.42	0.839	ug/Kg		<MDL	0.65	1.3	ug/Kg
2,4-Dimethylphenol		<MDL	2.7	5.36	ug/Kg		<MDL	1.4	2.83	ug/Kg		<MDL	2.1	4.19	ug/Kg		<MDL	3.2	6.49	ug/Kg
2-Methylnaphthalene	6.7	<RDL	5.4	10.7	ug/Kg	7.38		2.8	5.66	ug/Kg	5.7	<RDL	4.2	8.39	ug/Kg	8.4	<RDL	6.5	13	ug/Kg
2-Methylphenol		<MDL	5.4	10.7	ug/Kg		<MDL	2.8	5.66	ug/Kg		<MDL	4.2	8.39	ug/Kg		<MDL	6.5	13	ug/Kg
4-Methylphenol		<MDL	11	21.4	ug/Kg		<MDL	5.7	11.3	ug/Kg		<MDL	8.4	16.8	ug/Kg		<MDL	13	26	ug/Kg
Acenaphthene	18.7		5.4	10.7	ug/Kg	27.6		2.8	5.66	ug/Kg	29.6		4.2	8.39	ug/Kg	12	<RDL	6.5	13	ug/Kg
Acenaphthylene	17.5		5.4	10.7	ug/Kg	14		2.8	5.66	ug/Kg	10.7		4.2	8.39	ug/Kg	15.8		6.5	13	ug/Kg
Anthracene	83.1		5.4	10.7	ug/Kg	147		2.8	5.66	ug/Kg	75.7		4.2	8.39	ug/Kg	66.2		6.5	13	ug/Kg
Benzo(a)anthracene	202		5.4	10.7	ug/Kg	386		2.8	5.66	ug/Kg	146		4.2	8.39	ug/Kg	149		6.5	13	ug/Kg
Benzo(a)pyrene	234		5.4	10.7	ug/Kg	373		2.8	5.66	ug/Kg	172		4.2	8.39	ug/Kg	190		6.5	13	ug/Kg
Benzo(b)fluoranthene	322		5.4	10.7	ug/Kg	545		2.8	5.66	ug/Kg	220		4.2	8.39	ug/Kg	217		6.5	13	ug/Kg
Benzo(g,h,i)perylene	127		5.4	10.7	ug/Kg	195		2.8	5.66	ug/Kg	88.7		4.2	8.39	ug/Kg	100		6.5	13	ug/Kg
Benzo(k)fluoranthene	155		5.4	10.7	ug/Kg	283		2.8	5.66	ug/Kg	173		4.2	8.39	ug/Kg	166		6.5	13	ug/Kg
Benzoic Acid	117		27	53.6	ug/Kg	82.2		14	28.3	ug/Kg	97.3		21	41.9	ug/Kg	159		32	64.9	ug/Kg
Benzyl Alcohol		<MDL	5.4	10.7	ug/Kg		<MDL	2.8	5.66	ug/Kg		<MDL	4.2	8.39	ug/Kg		<MDL	6.5	13	ug/Kg
Benzyl Butyl Phthalate	50.7		2.7	5.36	ug/Kg	96.2		1.4	2.83	ug/Kg		<MDL	2.1	4.19	ug/Kg	90.6		3.2	6.49	ug/Kg
Bis(2-Ethylhexyl)Phthalate	448	B	11	21.4	ug/Kg	839	B	5.7	11.3	ug/Kg	237	B	8.4	16.8	ug/Kg	584	B	13	26	ug/Kg
Carbazole	44.5		5.4	10.7	ug/Kg	102		2.8	5.66	ug/Kg	40.7		4.2	8.39	ug/Kg	36		6.5	13	ug/Kg
Chrysene	273		5.4	10.7	ug/Kg	477		2.8	5.66	ug/Kg	203		4.2	8.39	ug/Kg	231		6.5	13	ug/Kg
Coprostanol	769		110	214	ug/Kg	349		57	113	ug/Kg	612		84	168	ug/Kg	756		130	260	ug/Kg
Dibenzo(a,h)anthracene	44.8		5.4	10.7	ug/Kg	72.6		2.8	5.66	ug/Kg	32.3		4.2	8.39	ug/Kg	30		6.5	13	ug/Kg
Dibenzofuran	8.3	<RDL	5.4	10.7	ug/Kg	18.1		2.8	5.66	ug/Kg	13.4		4.2	8.39	ug/Kg	6.8	<RDL	6.5	13	ug/Kg
Diethyl Phthalate		<MDL	11	21.4	ug/Kg		<MDL	5.7	11.3	ug/Kg		<MDL	8.4	16.8	ug/Kg		<MDL	13	26	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-09	DWMP-10	DWMP-11	DWMP-12
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM
TimeSpan:				
Lab ID:	L42475-9	L42475-10	L42475-11	L42475-12
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	37.3	70.7	47.7	30.8

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		
COMBINED LABS																				
Dimethyl Phthalate		<MDL	11	21.4	ug/Kg		<MDL	5.7	11.3	ug/Kg		<MDL	8.4	16.8	ug/Kg		<MDL	13	26	ug/Kg
Di-N-Butyl Phthalate	22.1		11	21.4	ug/Kg	21.4		5.7	11.3	ug/Kg	19.6		8.4	16.8	ug/Kg		<MDL	13	26	ug/Kg
Di-N-Octyl Phthalate		<MDL	11	21.4	ug/Kg		<MDL	5.7	11.3	ug/Kg		<MDL	8.4	16.8	ug/Kg		<MDL	13	26	ug/Kg
Fluoranthene	362		5.4	10.7	ug/Kg	982		2.8	5.66	ug/Kg	329		4.2	8.39	ug/Kg	254		6.5	13	ug/Kg
Fluorene	24.8		5.4	10.7	ug/Kg	44.8		2.8	5.66	ug/Kg	27.7		4.2	8.39	ug/Kg	19.1		6.5	13	ug/Kg
Hexachlorobenzene		<MDL	0.27	0.536	ug/Kg		<MDL	0.14	0.283	ug/Kg		<MDL	0.21	0.419	ug/Kg		<MDL	0.32	0.649	ug/Kg
Hexachlorobutadiene		<MDL	1.3	2.68	ug/Kg		<MDL	0.71	1.41	ug/Kg		<MDL	1	2.1	ug/Kg		<MDL	1.6	3.25	ug/Kg
Hexachloroethane		<MDL	2.7	5.36	ug/Kg		<MDL	1.4	2.83	ug/Kg		<MDL	2.1	4.19	ug/Kg		<MDL	3.2	6.49	ug/Kg
Indeno(1,2,3-Cd)Pyrene	146		5.4	10.7	ug/Kg	243		2.8	5.66	ug/Kg	106		4.2	8.39	ug/Kg	120		6.5	13	ug/Kg
Naphthalene	9.4	<RDL	5.4	10.7	ug/Kg	6.9		2.8	5.66	ug/Kg	10.2		4.2	8.39	ug/Kg	11	<RDL	6.5	13	ug/Kg
N-Nitrosodiphenylamine		<MDL	11	21.4	ug/Kg		<MDL	5.7	11.3	ug/Kg		<MDL	8.4	16.8	ug/Kg		<MDL	13	26	ug/Kg
Pentachlorophenol		<MDL	27	53.6	ug/Kg		<MDL	14	28.3	ug/Kg		<MDL	21	41.9	ug/Kg		<MDL	32	64.9	ug/Kg
Phenanthrene	184		5.4	10.7	ug/Kg	431		2.8	5.66	ug/Kg	184		4.2	8.39	ug/Kg	130		6.5	13	ug/Kg
Phenol		<MDL	11	21.4	ug/Kg	11.9		5.7	11.3	ug/Kg	14	<RDL	8.4	16.8	ug/Kg		<MDL	13	26	ug/Kg
Pyrene	383		5.4	10.7	ug/Kg	912		2.8	5.66	ug/Kg	304		4.2	8.39	ug/Kg	278		6.5	13	ug/Kg
Total HPAHS	2250		5.4	10.7	ug/Kg	4470		2.8	5.66	ug/Kg	1780		4.2	8.39	ug/Kg	1740		6.5	13	ug/Kg
Total LPAHs	343		5.4	10.7	ug/Kg	680		2.8	5.66	ug/Kg	344		4.2	8.39	ug/Kg	262		6.5	13	ug/Kg
M=OR EPA 8081A/8082 (7-3-03-002)																				
4,4'-DDD	6.84		1.8	3.57	ug/Kg	3.45		0.95	1.88	ug/Kg	3.88		1.4	2.79	ug/Kg	4.2	<RDL	2.2	4.32	ug/Kg
4,4'-DDE		<MDL	1.8	3.57	ug/Kg		<MDL	0.95	1.88	ug/Kg		<MDL	1.4	2.79	ug/Kg		<MDL	2.2	4.32	ug/Kg
4,4'-DDT		<MDL,E	1.8	3.57	ug/Kg		<MDL,E	0.95	1.88	ug/Kg		<MDL,E	1.4	2.79	ug/Kg		<MDL,E	2.2	4.32	ug/Kg
Aldrin		<MDL	1.8	3.57	ug/Kg		<MDL	0.95	1.88	ug/Kg		<MDL	1.4	2.79	ug/Kg		<MDL	2.2	4.32	ug/Kg
Alpha-BHC		<MDL	0.88	1.79	ug/Kg		<MDL	0.47	0.943	ug/Kg		<MDL	0.69	1.4	ug/Kg		<MDL	1.1	2.17	ug/Kg
Alpha-Chlordane	1.1	<RDL	0.88	1.79	ug/Kg	0.75	<RDL	0.47	0.943	ug/Kg		<MDL	0.69	1.4	ug/Kg		<MDL	1.1	2.17	ug/Kg
Beta-BHC		<MDL	0.88	1.79	ug/Kg		<MDL	0.47	0.943	ug/Kg		<MDL	0.69	1.4	ug/Kg		<MDL	1.1	2.17	ug/Kg
Delta-BHC		<MDL	0.88	1.79	ug/Kg		<MDL	0.47	0.943	ug/Kg		<MDL	0.69	1.4	ug/Kg		<MDL	1.1	2.17	ug/Kg
Dieldrin		<MDL	1.8	3.57	ug/Kg		<MDL	0.95	1.88	ug/Kg		<MDL	1.4	2.79	ug/Kg		<MDL	2.2	4.32	ug/Kg
Endosulfan I		<MDL	1.8	3.57	ug/Kg		<MDL	0.95	1.88	ug/Kg		<MDL	1.4	2.79	ug/Kg		<MDL	2.2	4.32	ug/Kg
Endosulfan II		<MDL	1.8	3.57	ug/Kg		<MDL	0.95	1.88	ug/Kg		<MDL	1.4	2.79	ug/Kg		<MDL	2.2	4.32	ug/Kg
Endosulfan Sulfate		<MDL	1.8	3.57	ug/Kg		<MDL	0.95	1.88	ug/Kg		<MDL	1.4	2.79	ug/Kg		<MDL	2.2	4.32	ug/Kg
Endrin		<MDL	1.8	3.57	ug/Kg		<MDL	0.95	1.88	ug/Kg		<MDL	1.4	2.79	ug/Kg		<MDL	2.2	4.32	ug/Kg
Endrin Aldehyde		<MDL	1.8	3.57	ug/Kg		<MDL	0.95	1.88	ug/Kg		<MDL	1.4	2.79	ug/Kg		<MDL	2.2	4.32	ug/Kg
Gamma-BHC (Lindane)		<MDL	0.88	1.79	ug/Kg		<MDL	0.47	0.943	ug/Kg		<MDL	0.69	1.4	ug/Kg		<MDL	1.1	2.17	ug/Kg
Gamma-Chlordane	5.68		0.88	1.79	ug/Kg	4.02		0.47	0.943	ug/Kg	3.29		0.69	1.4	ug/Kg		<MDL	1.1	2.17	ug/Kg
Heptachlor		<MDL	0.88	1.79	ug/Kg		<MDL	0.47	0.943	ug/Kg		<MDL	0.69	1.4	ug/Kg		<MDL	1.1	2.17	ug/Kg
Heptachlor Epoxide		<MDL	0.88	1.79	ug/Kg		<MDL	0.47	0.943	ug/Kg		<MDL	0.69	1.4	ug/Kg		<MDL	1.1	2.17	ug/Kg
Methoxychlor		<MDL,E	8.8	17.9	ug/Kg		<MDL,E	4.7	9.43	ug/Kg		<MDL,E	6.9	14	ug/Kg		<MDL,E	11	21.7	ug/Kg
Toxaphene		<MDL	18	35.7	ug/Kg		<MDL	9.5	18.8	ug/Kg		<MDL	14	27.9	ug/Kg		<MDL	22	43.2	ug/Kg
M=OR EPA 8081A/8082 (7-3-103-000)																				
Aroclor 1016		<MDL,TA	18	35.9	ug/Kg		<MDL,TA	9.8	19.4	ug/Kg		<MDL,TA	13	26.4	ug/Kg		<MDL,TA	23	46.1	ug/Kg
Aroclor 1221		<MDL	4.6	8.93	ug/Kg		<MDL	2.4	4.71	ug/Kg		<MDL	3.6	6.98	ug/Kg		<MDL	5.5	10.8	ug/Kg
Aroclor 1232		<MDL,TA	46	91.4	ug/Kg		<MDL,TA	24	48.2	ug/Kg		<MDL,TA	36	69.6	ug/Kg		<MDL,TA	58	114	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-09					Locator:	DWMP-10					Locator:	DWMP-11					Locator:	DWMP-12				
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
Sampled:	05/16/07 12:00:00 AM					Sampled:	05/16/07 12:00:00 AM					Sampled:	05/16/07 12:00:00 AM					Sampled:	05/16/07 12:00:00 AM				
TimeSpan:						TimeSpan:						TimeSpan:						TimeSpan:					
Lab ID:	L42475-9					Lab ID:	L42475-10					Lab ID:	L42475-11					Lab ID:	L42475-12				
Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED				
% Solids:	37.3					% Solids:	70.7					% Solids:	47.7					% Solids:	30.8				
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		
COMBINED LABS																				
Aroclor 1242		<MDL,TA	70	141	ug/Kg		<MDL,TA	37	74.3	ug/Kg		<MDL,TA	50	101	ug/Kg		<MDL,TA	81	160	ug/Kg
Aroclor 1248	38.6		2.2	4.48	ug/Kg	25.2		1.2	2.36	ug/Kg	30.8		1.7	3.5	ug/Kg	52.3		2.7	5.42	ug/Kg
Aroclor 1254	121		2.2	4.48	ug/Kg	105		1.2	2.36	ug/Kg	86.6		1.7	3.5	ug/Kg	148		2.7	5.42	ug/Kg
Aroclor 1260	79.4		2.2	4.48	ug/Kg	24.9		1.2	2.36	ug/Kg	50.3		1.7	3.5	ug/Kg	80.8		2.7	5.42	ug/Kg
M=OR EPA 8260B (7-3-02-003)																				
1,1,2-Trichloroethylene		<MDL	2.7	5.36	ug/Kg		<MDL	1.4	2.83	ug/Kg		<MDL	2.1	4.19	ug/Kg		<MDL	3.2	6.49	ug/Kg
Ethylbenzene		<MDL	2.7	5.36	ug/Kg		<MDL	1.4	2.83	ug/Kg		<MDL	2.1	4.19	ug/Kg		<MDL	3.2	6.49	ug/Kg
Tetrachloroethylene		<MDL	2.7	5.36	ug/Kg		<MDL	1.4	2.83	ug/Kg		<MDL	2.1	4.19	ug/Kg		<MDL	3.2	6.49	ug/Kg
Total Xylenes		<MDL	2.7	5.36	ug/Kg		<MDL	1.4	2.83	ug/Kg		<MDL	2.1	4.19	ug/Kg		<MDL	3.2	6.49	ug/Kg

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	DWMP-13	DWMP-14	DWMP-15	DWMP-16
Locator:	DWMP-13	DWMP-14	DWMP-15	DWMP-16
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/17/07 12:00:00 AM	05/16/07 12:00:00 AM	05/17/07 12:00:00 AM	05/17/07 12:00:00 AM
TimeSpan:				
Lab ID:	L42475-13	L42475-14	L42475-15	L42475-16
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	79.3	50.5	51.6	52.4

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		
COMBINED LABS																				
M=CV ASTM D422(03-02-005-001)																				
Fines *	3.2		0.5	1	%	54.3		0.5	1	%	44.1		0.5	1	%	65.4		0.5	1	%
Gravel *	29.5		0.1	1	%	0.6	<RDL	0.1	1	%	10.1		0.1	1	%	6.2		0.1	1	%
Sand *	67.8		0.1	1	%	35.2		0.1	1	%	36.7		0.1	1	%	21.8		0.1	1	%
Silt *	1.9		0.5	1	%	41.7		0.5	1	%	30.7		0.5	1	%	36.5		0.5	1	%
Clay *	1.3		0.5	1	%	12.6		0.5	1	%	13.4		0.5	1	%	29		0.5	1	%
p+0.00 *	7		0.1	1	%	0.5	<RDL	0.1	1	%	3.4		0.1	1	%	2.1		0.1	1	%
p+1.00 *	10.8		0.1	1	%	0.7	<RDL	0.1	1	%	4.3		0.1	1	%	2.1		0.1	1	%
p+10.0(equal/more than) *		<MDL	0.5	1	%	8.7		0.5	1	%	8.6		0.5	1	%	15.9		0.5	1	%
p+2.00 *	27.2		0.1	1	%	1.8		0.1	1	%	8.6		0.1	1	%	3.9		0.1	1	%
p+3.00 *	19.1		0.1	1	%	8.1		0.1	1	%	9.2		0.1	1	%	5.5		0.1	1	%
p+4.00 *	3.8		0.1	1	%	24.1		0.1	1	%	11.2		0.1	1	%	8.2		0.1	1	%
p+5.00 *	1.9		0.5	1	%	19.4		0.5	1	%	11.5		0.5	1	%	14		0.5	1	%
p+6.00 *		<MDL	0.5	1	%	9.7		0.5	1	%	5.8		0.5	1	%	4.7		0.5	1	%
p+7.00 *		<MDL	0.5	1	%	6.8		0.5	1	%	6.7		0.5	1	%	7.5		0.5	1	%
p+8.00 *		<MDL	0.5	1	%	5.8		0.5	1	%	6.7		0.5	1	%	10.3		0.5	1	%
p+9.00 *	1.3		0.5	1	%	3.9		0.5	1	%	4.8		0.5	1	%	13.1		0.5	1	%
p-1.00 *	7.8		0.1	1	%	0.4	<RDL	0.1	1	%	6.6		0.1	1	%	2.8		0.1	1	%
p-2.00 *	2.1		0.1	1	%	0.1	<RDL	0.1	1	%	1		0.1	1	%	1	<RDL	0.1	1	%
p-2.00(less than) *	19.6		0.1	1	%	0.1	<RDL	0.1	1	%	2.5		0.1	1	%	2.3		0.1	1	%
M=CV EPA 9030B (03-03-015-000)																				
Total Sulfide	19.9		1.3	5.04	mg/Kg	6.44		0.99	3.96	mg/Kg	9.46		0.97	3.88	mg/Kg	11.2		0.95	3.82	mg/Kg
M=CV EPA 9060-PSEP96(03-04-002-003)																				
Total Organic Carbon	3820		570	1130	mg/Kg	22600		3000	5980	mg/Kg	13300		1000	2020	mg/Kg	11600		1900	3850	mg/Kg
M=CV SM2540-G (03-01-007-002)																				
Total Solids *	79.3		0.005	0.01	%	50.5		0.005	0.01	%	51.6		0.005	0.01	%	52.4		0.005	0.01	%
Total Volatile Solids	1.58		0.00631	0.0126	%	6.83		0.0099	0.0198	%	5.29		0.00969	0.0194	%	4.9		0.00954	0.0191	%
M=CV SM4500-NH3-G(03-03-014-001)KCL																				
Ammonia Nitrogen	4.39		0.13	0.252	mg/Kg	2.53		0.2	0.396	mg/Kg	1.54		0.19	0.388	mg/Kg	1.76		0.19	0.382	mg/Kg
M=ES NONE																				
Field Personnel	MP,JB,JDD,CB,AllenF				none	JB,JDD,CB,SH,Allen,ValerieF				none	MP,JB,JDD,CB,AllenF				none	MP,JB,JDD,CB,AllenF				none
Sampcoordx1 *	1263305				ft	1263223				ft	1263058				ft	1262969				ft
Sampcoordx2 *	1263303				ft	1263226				ft	1263052				ft	1262973				ft
Sampcoordx3 *	1263313				ft	1263226				ft	1263054				ft	1262965				ft
Sampcoordy1 *	229648				ft	229554				ft	229437				ft	229355				ft
Sampcoordy2 *	229634				ft	229554				ft	229444				ft	229354				ft
Sampcoordy3 *	229628				ft	229550				ft	229444				ft	229352				ft
Sample Depth *	5				m	13				m	19				m	24				m
Sample Information	Mostly shell & gravel material. Very few fir				none															
Sampling Method *	20042				none	20042				none	20042				none	20042				none
Sediment Sampling Depth *	5				cm	15				cm	13				cm	13				cm
Sediment Sampling Range *	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm	0-2 cm				cm

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	DWMP-13	DWMP-14	DWMP-15	DWMP-16
Locator:	DWMP-13	DWMP-14	DWMP-15	DWMP-16
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/17/07 12:00:00 AM	05/16/07 12:00:00 AM	05/17/07 12:00:00 AM	05/17/07 12:00:00 AM
TimeSpan:				
Lab ID:	L42475-13	L42475-14	L42475-15	L42475-16
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	79.3	50.5	51.6	52.4

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		
COMBINED LABS																				
Sediment Type	34S30				none	20N20				none	23N20				none	21N30				none
Tidal Condition	S				none	F				none	E				none	E				none
Tide Height *	-3.7				ft	2.5				ft	-1				ft	3				ft
M=MT EPA 7471A (06-01-004-003)																				
Mercury, Total, CVAA	0.067	<RDL,E	0.026	0.261	mg/Kg	0.97	E	0.04	0.388	mg/Kg	0.37	<RDL,E	0.039	0.382	mg/Kg	0.31	<RDL,E	0.036	0.365	mg/Kg
M=MT EPA3050B/6010B MOD(6-2-04-02)																				
Antimony, Total, ICP		<MDL,G	0.95	4.72	mg/Kg		<MDL,G	1.5	7.41	mg/Kg		<MDL,G	1.5	7.25	mg/Kg		<MDL,G	1.4	7.14	mg/Kg
Arsenic, Total, ICP	2.8	<RDL	1.5	7.87	mg/Kg	8.1	<RDL	2.4	12.3	mg/Kg	9.7	<RDL	2.3	12.1	mg/Kg	8.8	<RDL	2.3	11.9	mg/Kg
Cadmium, Total, ICP	0.24	<RDL	0.13	0.629	mg/Kg	0.73	<RDL	0.2	0.986	mg/Kg	0.43	<RDL	0.19	0.965	mg/Kg	0.42	<RDL	0.19	0.952	mg/Kg
Chromium, Total, ICP	18.5		0.19	0.945	mg/Kg	50.1		0.3	1.48	mg/Kg	61.6		0.29	1.45	mg/Kg	64.3		0.29	1.43	mg/Kg
Copper, Total, ICP	16.5		0.25	1.26	mg/Kg	69.9		0.4	1.97	mg/Kg	55.8		0.39	1.93	mg/Kg	56.1		0.38	1.9	mg/Kg
Lead, Total, ICP	13.7		1.3	6.29	mg/Kg	105		2	9.86	mg/Kg	49		1.9	9.65	mg/Kg	39.9		1.9	9.52	mg/Kg
Nickel, Total, ICP	22.2		0.32	1.58	mg/Kg	43.8		0.5	2.48	mg/Kg	63		0.48	2.42	mg/Kg	68.5		0.48	2.39	mg/Kg
Silver, Total, ICP	0.4	<RDL	0.25	1.26	mg/Kg	4.5		0.4	1.97	mg/Kg	1.7	<RDL	0.39	1.93	mg/Kg	1.4	<RDL	0.38	1.9	mg/Kg
Zinc, Total, ICP	165		0.32	1.58	mg/Kg	118		0.5	2.48	mg/Kg	109		0.48	2.42	mg/Kg	112		0.48	2.39	mg/Kg
M=OR EPA 3550B/8270C (7-3-01-004)																				
1,2,4-Trichlorobenzene		<MDL	0.13	0.252	ug/Kg		<MDL	0.2	0.396	ug/Kg		<MDL	0.19	0.388	ug/Kg		<MDL	0.19	0.382	ug/Kg
1,2-Dichlorobenzene		<MDL	0.25	0.504	ug/Kg		<MDL	0.4	0.792	ug/Kg		<MDL	0.39	0.775	ug/Kg		<MDL	0.38	0.763	ug/Kg
1,3-Dichlorobenzene		<MDL	0.25	0.504	ug/Kg		<MDL	0.4	0.792	ug/Kg		<MDL	0.39	0.775	ug/Kg		<MDL	0.38	0.763	ug/Kg
1,4-Dichlorobenzene		<MDL	0.25	0.504	ug/Kg		<MDL	0.4	0.792	ug/Kg		<MDL	0.39	0.775	ug/Kg	1.9		0.38	0.763	ug/Kg
2,4-Dimethylphenol		<MDL	1.3	2.52	ug/Kg		<MDL	2	3.96	ug/Kg		<MDL	1.9	3.88	ug/Kg		<MDL	1.9	3.82	ug/Kg
2-Methylnaphthalene	3	<RDL	2.5	5.04	ug/Kg	9.64		4	7.92	ug/Kg	6.2	<RDL	3.9	7.75	ug/Kg	7.77		3.8	7.63	ug/Kg
2-Methylphenol		<MDL	2.5	5.04	ug/Kg		<MDL	4	7.92	ug/Kg		<MDL	3.9	7.75	ug/Kg		<MDL	3.8	7.63	ug/Kg
4-Methylphenol		<MDL	5	10.1	ug/Kg		<MDL	7.9	15.8	ug/Kg		<MDL	7.8	15.5	ug/Kg		<MDL	7.6	15.3	ug/Kg
Acenaphthene	5.91		2.5	5.04	ug/Kg	22		4	7.92	ug/Kg	14		3.9	7.75	ug/Kg	12.6		3.8	7.63	ug/Kg
Acenaphthylene		<MDL	2.5	5.04	ug/Kg	11.9		4	7.92	ug/Kg	8.72		3.9	7.75	ug/Kg	5.7	<RDL	3.8	7.63	ug/Kg
Anthracene	37.1		2.5	5.04	ug/Kg	88.3		4	7.92	ug/Kg	58.7		3.9	7.75	ug/Kg	40.5		3.8	7.63	ug/Kg
Benzo(a)anthracene	78.7		2.5	5.04	ug/Kg	263		4	7.92	ug/Kg	175		3.9	7.75	ug/Kg	74.8		3.8	7.63	ug/Kg
Benzo(a)pyrene	103		2.5	5.04	ug/Kg	273		4	7.92	ug/Kg	196		3.9	7.75	ug/Kg	101		3.8	7.63	ug/Kg
Benzo(b)fluoranthene	89.5		2.5	5.04	ug/Kg	323		4	7.92	ug/Kg	260		3.9	7.75	ug/Kg	113		3.8	7.63	ug/Kg
Benzo(g,h,i)perylene	47.3		2.5	5.04	ug/Kg	154		4	7.92	ug/Kg	112		3.9	7.75	ug/Kg	53.4		3.8	7.63	ug/Kg
Benzo(k)fluoranthene	108		2.5	5.04	ug/Kg	261		4	7.92	ug/Kg	158		3.9	7.75	ug/Kg	80.7		3.8	7.63	ug/Kg
Benzoic Acid	117		13	25.2	ug/Kg	101		20	39.6	ug/Kg	100		19	38.8	ug/Kg	86.3		19	38.2	ug/Kg
Benzyl Alcohol		<MDL	2.5	5.04	ug/Kg		<MDL	4	7.92	ug/Kg		<MDL	3.9	7.75	ug/Kg		<MDL	3.8	7.63	ug/Kg
Benzyl Butyl Phthalate	30.6		1.3	2.52	ug/Kg	74.9		2	3.96	ug/Kg	43.8		1.9	3.88	ug/Kg	32.3		1.9	3.82	ug/Kg
Bis(2-Ethylhexyl)Phthalate	3150	B	5	10.1	ug/Kg	539	B	7.9	15.8	ug/Kg	295	B	7.8	15.5	ug/Kg	127	B	7.6	15.3	ug/Kg
Carbazole	12.9		2.5	5.04	ug/Kg	48.9		4	7.92	ug/Kg	26.9		3.9	7.75	ug/Kg	17.6		3.8	7.63	ug/Kg
Chrysene	125		2.5	5.04	ug/Kg	333		4	7.92	ug/Kg	246		3.9	7.75	ug/Kg	117		3.8	7.63	ug/Kg
Coprostanol		<MDL	50	101	ug/Kg		<MDL	79	158	ug/Kg		<MDL	78	155	ug/Kg		<MDL	76	153	ug/Kg
Dibenzo(a,h)anthracene	15.8		2.5	5.04	ug/Kg	43		4	7.92	ug/Kg	29.8		3.9	7.75	ug/Kg	18		3.8	7.63	ug/Kg
Dibenzofuran	5.22		2.5	5.04	ug/Kg	12.6		4	7.92	ug/Kg	6.8	<RDL	3.9	7.75	ug/Kg	6.1	<RDL	3.8	7.63	ug/Kg
Diethyl Phthalate		<MDL	5	10.1	ug/Kg		<MDL	7.9	15.8	ug/Kg		<MDL	7.8	15.5	ug/Kg		<MDL	7.6	15.3	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	DWMP-13	DWMP-14	DWMP-15	DWMP-16
Locator:	DWMP-13	DWMP-14	DWMP-15	DWMP-16
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/17/07 12:00:00 AM	05/16/07 12:00:00 AM	05/17/07 12:00:00 AM	05/17/07 12:00:00 AM
TimeSpan:				
Lab ID:	L42475-13	L42475-14	L42475-15	L42475-16
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	79.3	50.5	51.6	52.4

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		
COMBINED LABS																				
Dimethyl Phthalate		<MDL	5	10.1	ug/Kg		<MDL	7.9	15.8	ug/Kg		<MDL	7.8	15.5	ug/Kg		<MDL	7.6	15.3	ug/Kg
Di-N-Butyl Phthalate		<MDL	5	10.1	ug/Kg	75.6		7.9	15.8	ug/Kg	36.4		7.8	15.5	ug/Kg	16.9		7.6	15.3	ug/Kg
Di-N-Octyl Phthalate		<MDL	5	10.1	ug/Kg		<MDL	7.9	15.8	ug/Kg		<MDL	7.8	15.5	ug/Kg		<MDL	7.6	15.3	ug/Kg
Fluoranthene	233		2.5	5.04	ug/Kg	503		4	7.92	ug/Kg	302		3.9	7.75	ug/Kg	163		3.8	7.63	ug/Kg
Fluorene	11.3		2.5	5.04	ug/Kg	28.3		4	7.92	ug/Kg	18.6		3.9	7.75	ug/Kg	13.5		3.8	7.63	ug/Kg
Hexachlorobenzene		<MDL	0.13	0.252	ug/Kg		<MDL	0.2	0.396	ug/Kg		<MDL	0.19	0.388	ug/Kg		<MDL	0.19	0.382	ug/Kg
Hexachlorobutadiene		<MDL	0.63	1.26	ug/Kg		<MDL	0.99	1.98	ug/Kg		<MDL	0.97	1.94	ug/Kg		<MDL	0.95	1.91	ug/Kg
Hexachloroethane		<MDL	1.3	2.52	ug/Kg		<MDL	2	3.96	ug/Kg		<MDL	1.9	3.88	ug/Kg		<MDL	1.9	3.82	ug/Kg
Indeno(1,2,3-Cd)Pyrene	50.3		2.5	5.04	ug/Kg	169		4	7.92	ug/Kg	124		3.9	7.75	ug/Kg	62.6		3.8	7.63	ug/Kg
Naphthalene	2.6	<RDL	2.5	5.04	ug/Kg	12.1		4	7.92	ug/Kg	7.91		3.9	7.75	ug/Kg	8.65		3.8	7.63	ug/Kg
N-Nitrosodiphenylamine		<MDL	5	10.1	ug/Kg		<MDL	7.9	15.8	ug/Kg		<MDL	7.8	15.5	ug/Kg		<MDL	7.6	15.3	ug/Kg
Pentachlorophenol		<MDL	13	25.2	ug/Kg		<MDL	20	39.6	ug/Kg		<MDL	19	38.8	ug/Kg		<MDL	19	38.2	ug/Kg
Phenanthrene	89.2		2.5	5.04	ug/Kg	226		4	7.92	ug/Kg	137		3.9	7.75	ug/Kg	89.5		3.8	7.63	ug/Kg
Phenol	13.9		5	10.1	ug/Kg		<MDL	7.9	15.8	ug/Kg		<MDL	7.8	15.5	ug/Kg		<MDL	7.6	15.3	ug/Kg
Pyrene	216		2.5	5.04	ug/Kg	537		4	7.92	ug/Kg	316		3.9	7.75	ug/Kg	166		3.8	7.63	ug/Kg
Total HPAHS	1070		2.5	5.04	ug/Kg	2850		4	7.92	ug/Kg	1920		3.9	7.75	ug/Kg	948		3.8	7.63	ug/Kg
Total LPAHs	149		2.5	5.04	ug/Kg	398		4	7.92	ug/Kg	252		3.9	7.75	ug/Kg	178		3.8	7.63	ug/Kg
M=OR EPA 8081A/8082 (7-3-03-002)																				
4,4'-DDD	0.91	<RDL	0.84	1.68	ug/Kg	11.4		1.3	2.63	ug/Kg	3.88		1.3	2.58	ug/Kg	1.8	<RDL	1.3	2.54	ug/Kg
4,4'-DDE		<MDL	0.84	1.68	ug/Kg		<MDL	1.3	2.63	ug/Kg		<MDL	1.3	2.58	ug/Kg		<MDL	1.3	2.54	ug/Kg
4,4'-DDT		<MDL,E	0.84	1.68	ug/Kg		<MDL,E	1.3	2.63	ug/Kg		<MDL,E	1.3	2.58	ug/Kg		<MDL,E	1.3	2.54	ug/Kg
Aldrin		<MDL	0.84	1.68	ug/Kg		<MDL	1.3	2.63	ug/Kg		<MDL	1.3	2.58	ug/Kg		<MDL	1.3	2.54	ug/Kg
Alpha-BHC		<MDL	0.42	0.841	ug/Kg		<MDL	0.65	1.32	ug/Kg		<MDL	0.64	1.29	ug/Kg		<MDL	0.63	1.27	ug/Kg
Alpha-Chlordane		<MDL	0.42	0.841	ug/Kg	1.39		0.65	1.32	ug/Kg		<MDL	0.64	1.29	ug/Kg		<MDL	0.63	1.27	ug/Kg
Beta-BHC		<MDL	0.42	0.841	ug/Kg		<MDL	0.65	1.32	ug/Kg		<MDL	0.64	1.29	ug/Kg		<MDL	0.63	1.27	ug/Kg
Delta-BHC		<MDL	0.42	0.841	ug/Kg		<MDL	0.65	1.32	ug/Kg		<MDL	0.64	1.29	ug/Kg		<MDL	0.63	1.27	ug/Kg
Dieldrin		<MDL	0.84	1.68	ug/Kg		<MDL	1.3	2.63	ug/Kg		<MDL	1.3	2.58	ug/Kg		<MDL	1.3	2.54	ug/Kg
Endosulfan I		<MDL	0.84	1.68	ug/Kg		<MDL	1.3	2.63	ug/Kg		<MDL	1.3	2.58	ug/Kg		<MDL	1.3	2.54	ug/Kg
Endosulfan II		<MDL	0.84	1.68	ug/Kg		<MDL	1.3	2.63	ug/Kg		<MDL	1.3	2.58	ug/Kg		<MDL	1.3	2.54	ug/Kg
Endosulfan Sulfate		<MDL	0.84	1.68	ug/Kg		<MDL	1.3	2.63	ug/Kg		<MDL	1.3	2.58	ug/Kg		<MDL	1.3	2.54	ug/Kg
Endrin		<MDL	0.84	1.68	ug/Kg		<MDL	1.3	2.63	ug/Kg		<MDL	1.3	2.58	ug/Kg		<MDL	1.3	2.54	ug/Kg
Endrin Aldehyde		<MDL	0.84	1.68	ug/Kg		<MDL	1.3	2.63	ug/Kg		<MDL	1.3	2.58	ug/Kg		<MDL	1.3	2.54	ug/Kg
Gamma-BHC (Lindane)		<MDL	0.42	0.841	ug/Kg		<MDL	0.65	1.32	ug/Kg		<MDL	0.64	1.29	ug/Kg		<MDL	0.63	1.27	ug/Kg
Gamma-Chlordane	0.89		0.42	0.841	ug/Kg		<MDL	0.65	1.32	ug/Kg	3.91		0.64	1.29	ug/Kg		<MDL	0.63	1.27	ug/Kg
Heptachlor		<MDL	0.42	0.841	ug/Kg		<MDL	0.65	1.32	ug/Kg		<MDL	0.64	1.29	ug/Kg		<MDL	0.63	1.27	ug/Kg
Heptachlor Epoxide		<MDL	0.42	0.841	ug/Kg		<MDL	0.65	1.32	ug/Kg		<MDL	0.64	1.29	ug/Kg		<MDL	0.63	1.27	ug/Kg
Methoxychlor		<MDL,E	4.2	8.41	ug/Kg		<MDL,E	6.5	13.2	ug/Kg		<MDL,E	6.4	12.9	ug/Kg		<MDL,E	6.3	12.7	ug/Kg
Toxaphene		<MDL	8.4	16.8	ug/Kg		<MDL	13	26.3	ug/Kg		<MDL	13	25.8	ug/Kg		<MDL	13	25.4	ug/Kg
M=OR EPA 8081A/8082 (7-3-103-000)																				
Aroclor 1016		<MDL,TA	2.3	4.63	ug/Kg		<MDL,TA	38	75.6	ug/Kg		<MDL,TA	16	32.8	ug/Kg		<MDL,TA	9	18.1	ug/Kg
Aroclor 1221		<MDL	2.1	4.2	ug/Kg		<MDL	3.4	6.59	ug/Kg		<MDL	3.3	6.45	ug/Kg		<MDL	3.2	6.35	ug/Kg
Aroclor 1232		<MDL	2.1	4.2	ug/Kg		<MDL,TA	85	171	ug/Kg		<MDL,TA	33	66.9	ug/Kg		<MDL,TA	25	51	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	DWMP-13	DWMP-14	DWMP-15	DWMP-16
Locator:	DWMP-13	DWMP-14	DWMP-15	DWMP-16
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/17/07 12:00:00 AM	05/16/07 12:00:00 AM	05/17/07 12:00:00 AM	05/17/07 12:00:00 AM
TimeSpan:				
Lab ID:	L42475-13	L42475-14	L42475-15	L42475-16
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	79.3	50.5	51.6	52.4

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		
COMBINED LABS																				
Aroclor 1242		<MDL,TA	12	23.8	ug/Kg		<MDL,TA	140	275	ug/Kg		<MDL,TA	48	98.4	ug/Kg		<MDL,TA	36	73.9	ug/Kg
Aroclor 1248	6.96		1	2.11	ug/Kg	78		1.6	3.31	ug/Kg	32.2		1.6	3.24	ug/Kg	21		1.6	3.19	ug/Kg
Aroclor 1254	16.1		1	2.11	ug/Kg	196	TA	1.6	3.31	ug/Kg	104		1.6	3.24	ug/Kg	59.9		1.6	3.19	ug/Kg
Aroclor 1260	6.87		1	2.11	ug/Kg	125		1.6	3.31	ug/Kg	73.1		1.6	3.24	ug/Kg	41.6		1.6	3.19	ug/Kg
M=OR EPA 8260B (7-3-02-003)																				
1,1,2-Trichloroethylene		<MDL	1.3	2.52	ug/Kg		<MDL	2	3.96	ug/Kg		<MDL	1.9	3.88	ug/Kg		<MDL	1.9	3.82	ug/Kg
Ethylbenzene		<MDL	1.3	2.52	ug/Kg		<MDL	2	3.96	ug/Kg		<MDL	1.9	3.88	ug/Kg		<MDL	1.9	3.82	ug/Kg
Tetrachloroethylene		<MDL	1.3	2.52	ug/Kg		<MDL	2	3.96	ug/Kg		<MDL	1.9	3.88	ug/Kg		<MDL	1.9	3.82	ug/Kg
Total Xylenes		<MDL	1.3	2.52	ug/Kg		<MDL	2	3.96	ug/Kg		<MDL	1.9	3.88	ug/Kg		<MDL	1.9	3.82	ug/Kg

* Not converted to dry weight basis for this parameter

PROJECT: 423368-80

King County Environmental Lab Matrix Report

COMBINED LABS-Solid

Locator	Sample Depth	Lab ID	Fines * %	Gravel * %	Sand * %	Silt * %	Clay * %	p+0.00 * %	p+1.00 * %	p+10.0(equal/more than) * %	p+2.00 * %	p+3.00 * %	p+4.00 * %	p+5.00 * %	p+6.00 * %	p+7.00 * %	p+8.00 * %	p+9.00 * %	p-1.00 * %	p-2.00 * %	p-2.00(less than) * %	Ammonia Nitrogen mg/Kg	Total Organic Carbon mg/Kg	Total Solids * %	Total Sulfide mg/Kg	Total Volatile Solids %	Arsenic, Total, ICP mg/Kg
DWMP-01	7	L42475-1	57.7	5.7	28.8	40	17.7	1.7	1.3	9.4	2.6	7	16.3	20	7.1	11.8	1.2	8.2	2.6	0.7	2.3	5.9	37000	44.6	122	15.9	14
DWMP-02	13	L42475-2	39.4	3.4	53.5	27.4	12	2.4	5.2	7.7	13.9	14.5	17.6	15.4	3.4	5.1	3.4	4.3	2.6		0.7	0.582	14700	54.6		5.24	7.5
DWMP-03	17	L42475-3	59.1	1.2	33.7	43.6	15.6	0.9	2.5	9.3	7.9	8.7	13.8	20.7	5.2	12.4	5.2	6.2	0.8	0.1	0.3	1.77	20300	47.2	4.2	6.33	10
DWMP-04	21	L42475-4	49.3	5.5	39.4	36.5	12.8	3.2	4.9	8.9	10.5	10.6	10.1	14.8	6.9	7.9	6.9	4	3.4	0.2	1.9	1.4	14800	49.9	4.61	5.55	9.4
DWMP-05	5	L42475-5	8.5	61.6	30.9	3.6	4.9	10.7	6.7	2.4	6.8	4.2	2.7	2.4	1.2			2.4	19.8	7.3	34.4	7.13	14200	74.2	121	2.74	14.3
DWMP-06	18	L42475-6	33.7	1.8	62.6	23.4	10.3	1.3	13.1	6.5	31.3	10.9	6	11.2	3.7	5.6	2.8	3.7	0.9	0.4	0.5	1.8	18200	49.7		6.32	6.8
DWMP-07	27	L42475-7	45	2.6	46.9	31.9	13.1	1.9	3.6	7.5	12	17.5	11.9	16.9	4.7	5.6	4.7	5.6	1.7	0.6	0.3	1.16	15800	51.3	18.2	5.05	7.8
DWMP-08	23	L42475-8	45.8	9.2	42.8	32.5	13.4	3.3	5.5	7.6	14.2	10.9	9	14.3	4.8	8.6	4.8	5.7	3.8	0.4	5.1	3.3	22700	48.8	1030	7.54	9.4
DWMP-09	29	L42475-9	61.2	2.2	28.5	46.6	14.6	1.1	1.6	10.7	4.1	8	13.7	28	6.7	8	4	4	0.7	0.2	1.4	1.92	29500	37.3	26.6	9.46	9.4
DWMP-10	4	L42475-10	4.6	1.9	91.7	2	2.6	1.3	13	2	51.9	17.3	8.4	1.3		0.7		0.7	0.7		1.1	4.88	8730	70.7	5.76	2.45	6.2
DWMP-11	19	L42475-11	31.1	2.5	64.6	21.1	10	1.5	10.9	6	30.6	14	7.6	9	4	5	3	4	1.2	0.1	1.1	2.81	22200	47.7	121	8.34	6.5
DWMP-12	30	L42475-12	75.9	0.7	19.6	59.4	16.5	0.2	0.4	13.2	1.6	6.7	10.7	28.1	9.9	14.9	6.6	3.3	0.3	0.3		1.68	37300	30.8	32.8	11.7	11
DWMP-13	5	L42475-13	3.2	29.5	67.8	1.9	1.3	7	10.8		27.2	19.1	3.8	1.9				1.3	7.8	2.1	19.6	4.39	3820	79.3	19.9	1.58	2.8
DWMP-14	13	L42475-14	54.3	0.6	35.2	41.7	12.6	0.5	0.7	8.7	1.8	8.1	24.1	19.4	9.7	6.8	5.8	3.9	0.4	0.1	0.1	2.53	22600	50.5	6.44	6.83	8.1
DWMP-15	19	L42475-15	44.1	10.1	36.7	30.7	13.4	3.4	4.3	8.6	8.6	9.2	11.2	11.5	5.8	6.7	6.7	4.8	6.6	1	2.5	1.54	13300	51.6	9.46	5.29	9.7
DWMP-16	24	L42475-16	65.4	6.2	21.8	36.5	29	2.1	2.1	15.9	3.9	5.5	8.2	14	4.7	7.5	10.3	13.1	2.8	1	2.3	1.76	11600	52.4	11.2	4.9	8.8

PROJECT: 423368-80

King County Environmental Lab Matrix Report

COMBINED LABS-Solid

Locator	Sample Depth	Lab ID	Cadmium, Total, ICP mg/Kg	Chromium, Total, ICP mg/Kg	Copper, Total, ICP mg/Kg	Lead, Total, ICP mg/Kg	Mercury, Total, CVAA mg/Kg	Nickel, Total, ICP mg/Kg	Silver, Total, ICP mg/Kg	Zinc, Total, ICP mg/Kg	1,4-Dichlorobenzene ug/Kg	2-Methylnaphthalene ug/Kg	4,4'-DDD ug/Kg	4,4'-DDE ug/Kg	Acenaphthene ug/Kg	Acenaphthylene ug/Kg	Alpha-Chlordane ug/Kg	Anthracene ug/Kg	Aroclor 1248 ug/Kg	Aroclor 1254 ug/Kg	Aroclor 1260 ug/Kg	Benzo(a)anthracene ug/Kg	Benzo(a)pyrene ug/Kg	Benzo(b)fluoranthene ug/Kg
DWMP-01	7	L42475-1	1.38	52.9	88.3	160	0.861	45.5	5.29	171		28.5			63.5	325		1370	172	451	162	2600	3650	4390
DWMP-02	13	L42475-2	0.27	41.8	49.1	58.4	0.31	43.4	1.5	93.2	1.64	24.7	3.63		113	22.7	0.73	238	19	63.9	54.6	582	458	548
DWMP-03	17	L42475-3	1.1	47.5	64.2	95.1	0.731	46.4	3.67	123		10.4	12.3		20.8	32.8	2.56	135	62.1	180	111	294	267	375
DWMP-04	21	L42475-4	0.42	47.7	48.7	48.1	0.387	49.9	1.3	97.4			3.11		13.3	16		64.5	22	65.5	51.5	131	140	162
DWMP-05	5	L42475-5	0.31	616	76.7	24.4	0.065	69	1.1	62.9		6.39			29.2	26.8		193	24	41.2	16.7	226	236	268
DWMP-06	18	L42475-6	0.34	28.2	35.2	31.6	0.2	27.2	1	81.3			1.8		8.71	11		41.4	17.1	47.7	35.8	106	127	168
DWMP-07	27	L42475-7	0.43	36.6	46.8	69.4	0.476	33.5	1.5	91		4.5	3.49		10	8.75		48	26.1	84	64.1	119	135	179
DWMP-08	23	L42475-8	0.8	57	62.3	79.7	0.605	51.2	3.77	119	5.08	9.08		41	20.7		1.45	75	101	198	123	152	161	183
DWMP-09	29	L42475-9	0.67	47.7	66.5	76.9	0.622	42.1	3.08	113	9.62	6.7	6.84		18.7	17.5	1.1	83.1	38.6	121	79.4	202	234	322
DWMP-10	4	L42475-10	0.918	31	94.1	86.8	2.36	25.6	4.77	111	10.1	7.38	3.45		27.6	14	0.75	147	25.2	105	24.9	386	373	545
DWMP-11	19	L42475-11	0.42	28.5	43	42.1	0.4	26.2	1.7	87	3.73	5.7	3.88		29.6	10.7		75.7	30.8	86.6	50.3	146	172	220
DWMP-12	30	L42475-12	0.62	46.8	59.7	59.1	0.42	46.4	2.5	100		8.4	4.2		12	15.8		66.2	52.3	148	80.8	149	190	217
DWMP-13	5	L42475-13	0.24	18.5	16.5	13.7	0.067	22.2	0.4	165		3	0.91		5.91			37.1	6.96	16.1	6.87	78.7	103	89.5
DWMP-14	13	L42475-14	0.73	50.1	69.9	105	0.97	43.8	4.5	118		9.64	11.4		22	11.9	1.39	88.3	78	196	125	263	273	323
DWMP-15	19	L42475-15	0.43	61.6	55.8	49	0.37	63	1.7	109		6.2	3.88		14	8.72		58.7	32.2	104	73.1	175	196	260
DWMP-16	24	L42475-16	0.42	64.3	56.1	39.9	0.31	68.5	1.4	112	1.9	7.77	1.8		12.6	5.7		40.5	21	59.9	41.6	74.8	101	113

PROJECT: 423368-80

King County Environmental Lab Matrix Report

COMBINED LABS-Solid

Locator	Sample Depth	Lab ID	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl Butyl Phthalate	Bis(2-Ethylhexyl)Phthalate	Carbazole	Chrysene	Coprostanol	Di-N-Butyl Phthalate	Dibenzo(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Gamma-Chlordane	Indeno(1,2,3-Cd)Pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene	Total HPAHS	Total LPAHs	Sampcoordx1 *
			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ft
DWMP-01	7	L42475-1	1540	3410	126	119	740	437	4640			922	35.2	1880	175		1980	46.2	857		2690	29100	2870	1264046
DWMP-02	13	L42475-2	251	333	130	46.5	429	164	630		20.5	71.8	49.1	1160	98.7		304	28.8	824		1020	5420	1350	1263915
DWMP-03	17	L42475-3	162	328			517	55.3	316			57.8	10.4	517	33.7	10.1	178	12.5	216		544	3030	462	1263848
DWMP-04	21	L42475-4	75.6	124	91.6		199	26.3	182		39.9	25.3	4.8	228	17	2.61	87.8		109		224	1380	222	1263632
DWMP-05	5	L42475-5	87.9	322	163		1000	98.9	354			44.1	13.9	512	40.3		126	4	279		484	2650	578	1263819
DWMP-06	18	L42475-6	62.8	101	98.2	25.8	4770	39	158	427		21.1	4.6	239	15.2	1.96	77.3	5	121		219	1280	205	1263543
DWMP-07	27	L42475-7	65.3	91	86	26.7	170	21.8	161		11	25.5	4.7	220	14.7		84.8	7.93	119		211	1290	212	1263351
DWMP-08	23	L42475-8	79.7	151	97.3	75.6	949	39.1	183	568		32.2	16.6	365	28.7	9.86	103	12.1	207		385	1800	352	1263340
DWMP-09	29	L42475-9	127	155	117	50.7	448	44.5	273	769	22.1	44.8	8.3	362	24.8	5.68	146	9.4	184		383	2250	343	1263217
DWMP-10	4	L42475-10	195	283	82.2	96.2	839	102	477	349	21.4	72.6	18.1	982	44.8	4.02	243	6.9	431	11.9	912	4470	680	1263558
DWMP-11	19	L42475-11	88.7	173	97.3		237	40.7	203	612	19.6	32.3	13.4	329	27.7	3.29	106	10.2	184	14	304	1780	344	1263272
DWMP-12	30	L42475-12	100	166	159	90.6	584	36	231	756		30	6.8	254	19.1		120	11	130		278	1740	262	1263049
DWMP-13	5	L42475-13	47.3	108	117	30.6	3150	12.9	125			15.8	5.22	233	11.3	0.89	50.3	2.6	89.2	13.9	216	1070	149	1263305
DWMP-14	13	L42475-14	154	261	101	74.9	539	48.9	333		75.6	43	12.6	503	28.3		169	12.1	226		537	2850	398	1263223
DWMP-15	19	L42475-15	112	158	100	43.8	295	26.9	246		36.4	29.8	6.8	302	18.6	3.91	124	7.91	137		316	1920	252	1263058
DWMP-16	24	L42475-16	53.4	80.7	86.3	32.3	127	17.6	117		16.9	18	6.1	163	13.5		62.6	8.65	89.5		166	948	178	1262969

PROJECT: 423368-80

King County Environmental Lab Matrix Report

COMBINED LABS-Solid

Locator	Sample Depth	Lab ID	Sampcoordx2 *	Sampcoordx3 *	Sampcoordy1 *	Sampcoordy2 *	Sampcoordy3 *	Sample Depth *	Sampling Method *	Sediment Sampling Depth *	Tide Height *
			ft	ft	ft	ft	ft	m	none	cm	ft
DWMP-01	7	L42475-1	1264049	1264047	228812	228812	228814	7	20042	13	-1
DWMP-02	13	L42475-2	1263912	1263920	228768	228772	228773	13	20042	11	5
DWMP-03	17	L42475-3	1263846	1263847	228639	228641	228639	17	20042	16	3
DWMP-04	21	L42475-4	1263630		228549	228548		21	20042	13	-2
DWMP-05	5	L42475-5	1263822		229029	229034		5	20042	8	-1
DWMP-06	18	L42475-6	1263541		228839	228840		18	20042	17	0
DWMP-07	27	L42475-7	1263349	1263349	228657	228659	228662	27	20042	16	-1
DWMP-08	23	L42475-8	1263341		228907	228910		23	20042	14	-1
DWMP-09	29	L42475-9	1263216	1263213	228806	228809	228810	29	20042	17	2
DWMP-10	4	L42475-10	1263559		229321	229328		4	20042	7	-3.1
DWMP-11	19	L42475-11	1263267	1263268	229156	229155	229157	19	20042	14	-1
DWMP-12	30	L42475-12	1263056	1263055	228964	228963	228960	30	20042	17	0.5
DWMP-13	5	L42475-13	1263303	1263313	229648	229634	229628	5	20042	5	-3.7
DWMP-14	13	L42475-14	1263226	1263226	229554	229554	229550	13	20042	15	2.5
DWMP-15	19	L42475-15	1263052	1263054	229437	229444	229444	19	20042	13	-1
DWMP-16	24	L42475-16	1262973	1262965	229355	229354	229352	24	20042	13	3

KING COUNTY ENVIRONMENTAL LABORATORY

Analytical Text Value Report

AUG 21 2007, 14:12

PROJECT:423368-80

SAMPLENUM	PARM NAME	TEXT VALUE
L42475-1	4,4'-DDT	Estimate due to CCAL failure
L42475-1	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-1	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-1	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-1	Benzo(a)anthracene	value from x 10 dilution
L42475-1	Benzo(a)pyrene	value from x 10 dilution
L42475-1	Benzo(b)fluoranthene	value from x 10 dilution
L42475-1	Benzo(g,h,i)perylene	value from x 10 dilution
L42475-1	Benzo(k)fluoranthene	value from x 10 dilution
L42475-1	Chrysene	value from x 10 dilution
L42475-1	Fluoranthene	value from x 10 dilution
L42475-1	Indeno(1,2,3-Cd)Pyrene	value from x 10 dilution
L42475-1	Mercury, Total, CVAA	See DAF
L42475-1	Pyrene	value from x 10 dilution
L42475-2	4,4'-DDT	Estimate due to CCAL failure
L42475-2	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-2	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-2	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-2	Mercury, Total, CVAA	See DAF
L42475-3	4,4'-DDT	Estimate due to CCAL failure
L42475-3	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-3	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-3	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-3	Mercury, Total, CVAA	See DAF
L42475-4	4,4'-DDT	Estimate due to CCAL failure
L42475-4	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-4	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-4	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-4	Mercury, Total, CVAA	See DAF
L42475-4	Methoxychlor	Estimate due to CCAL failure
L42475-5	4,4'-DDT	Estimate due to CCAL failure
L42475-5	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-5	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-5	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-5	Mercury, Total, CVAA	See DAF
L42475-5	Methoxychlor	Estimate due to CCAL failure
L42475-5	Sample Information	Mostly rocks & kelp. Major washout probs. Inferior sample quality.
L42475-6	4,4'-DDT	Estimate due to CCAL failure
L42475-6	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners

L42475-6	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-6	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-6	Bis(2-Ethylhexyl)Phthalate	value from x 10 dilution
L42475-6	Mercury, Total, CVAA	See DAF
L42475-6	Methoxychlor	Estimate due to CCAL failure
L42475-7	4,4'-DDT	Estimate due to CCAL failure
L42475-7	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-7	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-7	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-7	Mercury, Total, CVAA	See DAF
L42475-7	Methoxychlor	Estimate due to CCAL failure
L42475-8	4,4'-DDT	Estimate due to CCAL failure
L42475-8	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-8	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-8	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-8	Mercury, Total, CVAA	See DAF
L42475-8	Methoxychlor	Estimate due to CCAL failure
L42475-9	4,4'-DDT	Estimate due to CCAL failure
L42475-9	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-9	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-9	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-9	Mercury, Total, CVAA	See DAF
L42475-9	Methoxychlor	Estimate due to CCAL failure
L42475-10	4,4'-DDT	Estimate due to CCAL failure
L42475-10	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-10	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-10	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-10	Mercury, Total, CVAA	See DAF
L42475-10	Methoxychlor	Estimate due to CCAL failure
L42475-11	4,4'-DDT	Estimate due to CCAL failure
L42475-11	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-11	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-11	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-11	Mercury, Total, CVAA	See DAF
L42475-11	Methoxychlor	Estimate due to CCAL failure
L42475-12	4,4'-DDT	Estimate due to CCAL failure
L42475-12	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-12	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-12	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-12	Mercury, Total, CVAA	See DAF
L42475-12	Methoxychlor	Estimate due to CCAL failure
L42475-13	4,4'-DDT	Estimate due to CCAL failure
L42475-13	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-13	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-13	Bis(2-Ethylhexyl)Phthalate	value from x 10 dilution

L42475-13	Mercury, Total, CVAA	See DAF
L42475-13	Methoxychlor	Estimate due to CCAL failure
L42475-13	Sample Information	Mostly shell & gravel material. Very few fines present.
L42475-14	4,4'-DDT	Estimate due to CCAL failure
L42475-14	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-14	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-14	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-14	Aroclor 1254	From 10X dilution
L42475-14	Mercury, Total, CVAA	See DAF
L42475-14	Methoxychlor	Estimate due to CCAL failure
L42475-15	4,4'-DDT	Estimate due to CCAL failure
L42475-15	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-15	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-15	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-15	Mercury, Total, CVAA	See DAF
L42475-15	Methoxychlor	Estimate due to CCAL failure
L42475-16	4,4'-DDT	Estimate due to CCAL failure
L42475-16	Aroclor 1016	MDL/RDL raised due to overlapping PCB congeners
L42475-16	Aroclor 1232	MDL/RDL raised due to overlapping PCB congeners
L42475-16	Aroclor 1242	MDL/RDL raised due to overlapping PCB congeners
L42475-16	Mercury, Total, CVAA	See DAF
L42475-16	Methoxychlor	Estimate due to CCAL failure

SAP & SMS OC and Dry Weight Normalization MDL Check Tables

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.01	2.3	2.3
1,4-Dichlorobenzene	0.2	0.01	3.1	3.1
2-Methylnaphthalene	2	0.12	38	38
2,4-Dimethylphenol	1	2.24	29	27
2-Methylphenol	2	4.48	63	59
4-Methylphenol	4	8.97	670	661
Acenaphthene	2	0.12	16	16
Acenaphthylene	2	0.12	66	66
Anthracene	2	0.12	220	220
Benzo(a)anthracene	2	0.12	110	110
Benzo(a)pyrene	2	0.12	99	99
Benzo(b)fluoranthene	2	0.12	115	115
Benzo(g,h,i)perylene	2	0.12	31	31
Benzo(k)fluoranthene	2	0.12	115	115
Benzoic Acid	10	22.42	650	628
Benzyl Alcohol	2	4.48	57	53
Benzyl Butyl Phthalate	1	0.06	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.24	47	47
Chrysene	2	0.12	110	110
Dibenzo(a,h)anthracene	2	0.12	12	12
Dibenzofuran	2	0.12	15	15
Diethyl Phthalate	4	0.24	61	61
Dimethyl Phthalate	4	0.24	53	53
Di-N-Butyl Phthalate	4	0.24	220	220
Di-N-Octyl Phthalate	4	0.24	58	58
Fluorene	2	0.12	23	23
Fluoranthene	2	0.12	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.03	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.12	34	34
N-Nitrosodiphenylamine	4	0.24	11	11
Naphthalene	2	0.12	99	99
Pentachlorophenol	10	22.42	360	338
Phenanthrene	2	0.12	100	100
Phenol	4	8.97	420	411
Pyrene	2	0.12	1000	1000
Aroclor 1016	34	2.06		
Aroclor 1221	17	1.03		
Aroclor 1232	71	4.30		
Aroclor 1242	110	6.67		
Aroclor 1248	8.3	0.50		
Aroclor 1254	8.3	0.50		
Aroclor 1260	8.3	0.50		
Total Organic Carbon (dry)	36995.5157			
Total Solids	44.6			
HPAH	20	1.21	960	959
LPAH	14	0.85	370	369
Total PCB	110	6.67	12	5.3

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.25	38	38
2,4-Dimethylphenol	1	1.83	29	27
2-Methylphenol	2	3.66	63	59
4-Methylphenol	4	7.33	670	663
Acenaphthene	2	0.25	16	16
Acenaphthylene	2	0.25	66	66
Anthracene	2	0.25	220	220
Benzo(a)anthracene	2	0.25	110	110
Benzo(a)pyrene	2	0.25	99	99
Benzo(b)fluoranthene	2	0.25	115	115
Benzo(g,h,i)perylene	2	0.25	31	31
Benzo(k)fluoranthene	2	0.25	115	115
Benzoic Acid	10	18.32	650	632
Benzyl Alcohol	2	3.66	57	53
Benzyl Butyl Phthalate	1	0.12	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.50	47	47
Chrysene	2	0.25	110	110
Dibenzo(a,h)anthracene	2	0.25	12	12
Dibenzofuran	2	0.25	15	15
Diethyl Phthalate	4	0.50	61	61
Dimethyl Phthalate	4	0.50	53	53
Di-N-Butyl Phthalate	4	0.50	220	220
Di-N-Octyl Phthalate	4	0.50	58	58
Fluorene	2	0.25	23	23
Fluoranthene	2	0.25	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.06	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.25	34	34
N-Nitrosodiphenylamine	4	0.50	11	11
Naphthalene	2	0.25	99	99
Pentachlorophenol	10	18.32	360	342
Phenanthrene	2	0.25	100	100
Phenol	4	7.33	420	413
Pyrene	2	0.25	1000	1000
Aroclor 1016	4.2	0.52		
Aroclor 1221	1.7	0.21		
Aroclor 1232	13	1.62		
Aroclor 1242	13	1.62		
Aroclor 1248	0.83	0.10		
Aroclor 1254	0.83	0.10		
Aroclor 1260	0.83	0.10		
Total Organic Carbon (dry)	14688.64469			
Total Solids	54.6			
HPAH	20	2.49	960	958
LPAH	14	1.75	370	368
Total PCB	13	1.62	12	10.4

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.21	38	38
2,4-Dimethylphenol	1	2.12	29	27
2-Methylphenol	2	4.24	63	59
4-Methylphenol	4	8.47	670	662
Acenaphthene	2	0.21	16	16
Acenaphthylene	2	0.21	66	66
Anthracene	2	0.21	220	220
Benzo(a)anthracene	2	0.21	110	110
Benzo(a)pyrene	2	0.21	99	99
Benzo(b)fluoranthene	2	0.21	115	115
Benzo(g,h,i)perylene	2	0.21	31	31
Benzo(k)fluoranthene	2	0.21	115	115
Benzoic Acid	10	21.19	650	629
Benzyl Alcohol	2	4.24	57	53
Benzyl Butyl Phthalate	1	0.10	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.42	47	47
Chrysene	2	0.21	110	110
Dibenzo(a,h)anthracene	2	0.21	12	12
Dibenzofuran	2	0.21	15	15
Diethyl Phthalate	4	0.42	61	61
Dimethyl Phthalate	4	0.42	53	53
Di-N-Butyl Phthalate	4	0.42	220	220
Di-N-Octyl Phthalate	4	0.42	58	58
Fluorene	2	0.21	23	23
Fluoranthene	2	0.21	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.05	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.21	34	34
N-Nitrosodiphenylamine	4	0.42	11	11
Naphthalene	2	0.21	99	99
Pentachlorophenol	10	21.19	360	339
Phenanthrene	2	0.21	100	100
Phenol	4	8.47	420	412
Pyrene	2	0.21	1000	1000
Aroclor 1016	14	1.46		
Aroclor 1221	1.7	0.18		
Aroclor 1232	33	3.44		
Aroclor 1242	43	4.48		
Aroclor 1248	0.83	0.09		
Aroclor 1254	0.83	0.09		
Aroclor 1260	0.83	0.09		
Total Organic Carbon (dry)	20338.98305			
Total Solids	47.2			
HPAH	20	2.08	960	958
LPAH	14	1.46	370	369
Total PCB	43	4.48	12	7.5

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.03	2.3	2.3
1,4-Dichlorobenzene	0.2	0.03	3.1	3.1
2-Methylnaphthalene	2	0.27	38	38
2,4-Dimethylphenol	1	2.00	29	27
2-Methylphenol	2	4.01	63	59
4-Methylphenol	4	8.02	670	662
Acenaphthene	2	0.27	16	16
Acenaphthylene	2	0.27	66	66
Anthracene	2	0.27	220	220
Benzo(a)anthracene	2	0.27	110	110
Benzo(a)pyrene	2	0.27	99	99
Benzo(b)fluoranthene	2	0.27	115	115
Benzo(g,h,i)perylene	2	0.27	31	31
Benzo(k)fluoranthene	2	0.27	115	115
Benzoic Acid	10	20.04	650	630
Benzyl Alcohol	2	4.01	57	53
Benzyl Butyl Phthalate	1	0.13	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.54	47	46
Chrysene	2	0.27	110	110
Dibenzo(a,h)anthracene	2	0.27	12	12
Dibenzofuran	2	0.27	15	15
Diethyl Phthalate	4	0.54	61	60
Dimethyl Phthalate	4	0.54	53	52
Di-N-Butyl Phthalate	4	0.54	220	219
Di-N-Octyl Phthalate	4	0.54	58	57
Fluorene	2	0.27	23	23
Fluoranthene	2	0.27	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.07	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.27	34	34
N-Nitrosodiphenylamine	4	0.54	11	10
Naphthalene	2	0.27	99	99
Pentachlorophenol	10	20.04	360	340
Phenanthrene	2	0.27	100	100
Phenol	4	8.02	420	412
Pyrene	2	0.27	1000	1000
Aroclor 1016	4.3	0.58		
Aroclor 1221	1.7	0.23		
Aroclor 1232	12	1.62		
Aroclor 1242	19	2.56		
Aroclor 1248	0.83	0.11		
Aroclor 1254	0.83	0.11		
Aroclor 1260	0.83	0.11		
Total Organic Carbon (dry)	14849.6994			
Total Solids	49.9			
HPAH	20	2.70	960	957
LPAH	14	1.89	370	368
Total PCB	19	2.56	12	9.4

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.19	38	38
2,4-Dimethylphenol	1	1.35	29	28
2-Methylphenol	2	2.70	63	60
4-Methylphenol	4	5.39	670	665
Acenaphthene	2	0.19	16	16
Acenaphthylene	2	0.19	66	66
Anthracene	2	0.19	220	220
Benzo(a)anthracene	2	0.19	110	110
Benzo(a)pyrene	2	0.19	99	99
Benzo(b)fluoranthene	2	0.19	115	115
Benzo(g,h,i)perylene	2	0.19	31	31
Benzo(k)fluoranthene	2	0.19	115	115
Benzoic Acid	10	13.48	650	637
Benzyl Alcohol	2	2.70	57	54
Benzyl Butyl Phthalate	1	0.10	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.38	47	47
Chrysene	2	0.19	110	110
Dibenzo(a,h)anthracene	2	0.19	12	12
Dibenzofuran	2	0.19	15	15
Diethyl Phthalate	4	0.38	61	61
Dimethyl Phthalate	4	0.38	53	53
Di-N-Butyl Phthalate	4	0.38	220	220
Di-N-Octyl Phthalate	4	0.38	58	58
Fluorene	2	0.19	23	23
Fluoranthene	2	0.19	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.05	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.19	34	34
N-Nitrosodiphenylamine	4	0.38	11	11
Naphthalene	2	0.19	99	99
Pentachlorophenol	10	13.48	360	347
Phenanthrene	2	0.19	100	100
Phenol	4	5.39	420	415
Pyrene	2	0.19	1000	1000
Aroclor 1016	7.3	0.70		
Aroclor 1221	1.7	0.16		
Aroclor 1232	17	1.62		
Aroclor 1242	23	2.19		
Aroclor 1248	0.83	0.08		
Aroclor 1254	0.83	0.08		
Aroclor 1260	0.83	0.08		
Total Organic Carbon (dry)	14150.9434			
Total Solids	74.2			
HPAH	20	1.90	960	958
LPAH	14	1.33	370	369
Total PCB	23	2.19	12	9.8

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.22	38	38
2,4-Dimethylphenol	1	2.01	29	27
2-Methylphenol	2	4.02	63	59
4-Methylphenol	4	8.05	670	662
Acenaphthene	2	0.22	16	16
Acenaphthylene	2	0.22	66	66
Anthracene	2	0.22	220	220
Benzo(a)anthracene	2	0.22	110	110
Benzo(a)pyrene	2	0.22	99	99
Benzo(b)fluoranthene	2	0.22	115	115
Benzo(g,h,i)perylene	2	0.22	31	31
Benzo(k)fluoranthene	2	0.22	115	115
Benzoic Acid	10	20.12	650	630
Benzyl Alcohol	2	4.02	57	53
Benzyl Butyl Phthalate	1	0.11	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.44	47	47
Chrysene	2	0.22	110	110
Dibenzo(a,h)anthracene	2	0.22	12	12
Dibenzofuran	2	0.22	15	15
Diethyl Phthalate	4	0.44	61	61
Dimethyl Phthalate	4	0.44	53	53
Di-N-Butyl Phthalate	4	0.44	220	220
Di-N-Octyl Phthalate	4	0.44	58	58
Fluorene	2	0.22	23	23
Fluoranthene	2	0.22	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.06	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.22	34	34
N-Nitrosodiphenylamine	4	0.44	11	11
Naphthalene	2	0.22	99	99
Pentachlorophenol	10	20.12	360	340
Phenanthrene	2	0.22	100	100
Phenol	4	8.05	420	412
Pyrene	2	0.22	1000	1000
Aroclor 1016	3.5	0.39		
Aroclor 1221	1.7	0.19		
Aroclor 1232	12	1.32		
Aroclor 1242	14	1.54		
Aroclor 1248	0.83	0.09		
Aroclor 1254	0.83	0.09		
Aroclor 1260	0.83	0.09		
Total Organic Carbon (dry)	18249.49698			
Total Solids	49.7			
HPAH	20	2.21	960	958
LPAH	14	1.54	370	368
Total PCB	14	1.54	12	10.5

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.25	38	38
2,4-Dimethylphenol	1	1.95	29	27
2-Methylphenol	2	3.90	63	59
4-Methylphenol	4	7.80	670	662
Acenaphthene	2	0.25	16	16
Acenaphthylene	2	0.25	66	66
Anthracene	2	0.25	220	220
Benzo(a)anthracene	2	0.25	110	110
Benzo(a)pyrene	2	0.25	99	99
Benzo(b)fluoranthene	2	0.25	115	115
Benzo(g,h,i)perylene	2	0.25	31	31
Benzo(k)fluoranthene	2	0.25	115	115
Benzoic Acid	10	19.49	650	631
Benzyl Alcohol	2	3.90	57	53
Benzyl Butyl Phthalate	1	0.12	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.50	47	47
Chrysene	2	0.25	110	110
Dibenzo(a,h)anthracene	2	0.25	12	12
Dibenzofuran	2	0.25	15	15
Diethyl Phthalate	4	0.50	61	61
Dimethyl Phthalate	4	0.50	53	53
Di-N-Butyl Phthalate	4	0.50	220	220
Di-N-Octyl Phthalate	4	0.50	58	58
Fluorene	2	0.25	23	23
Fluoranthene	2	0.25	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.06	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.25	34	34
N-Nitrosodiphenylamine	4	0.50	11	11
Naphthalene	2	0.25	99	99
Pentachlorophenol	10	19.49	360	341
Phenanthrene	2	0.25	100	100
Phenol	4	7.80	420	412
Pyrene	2	0.25	1000	1000
Aroclor 1016	5	0.62		
Aroclor 1221	1.7	0.21		
Aroclor 1232	15	1.86		
Aroclor 1242	22	2.72		
Aroclor 1248	0.83	0.10		
Aroclor 1254	0.83	0.10		
Aroclor 1260	0.83	0.10		
Total Organic Carbon (dry)	15750.48733			
Total Solids	51.3			
HPAH	20	2.48	960	958
LPAH	14	1.73	370	368
Total PCB	22	2.72	12	9.3

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.18	38	38
2,4-Dimethylphenol	1	2.05	29	27
2-Methylphenol	2	4.10	63	59
4-Methylphenol	4	8.20	670	662
Acenaphthene	2	0.18	16	16
Acenaphthylene	2	0.18	66	66
Anthracene	2	0.18	220	220
Benzo(a)anthracene	2	0.18	110	110
Benzo(a)pyrene	2	0.18	99	99
Benzo(b)fluoranthene	2	0.18	115	115
Benzo(g,h,i)perylene	2	0.18	31	31
Benzo(k)fluoranthene	2	0.18	115	115
Benzoic Acid	10	20.49	650	630
Benzyl Alcohol	2	4.10	57	53
Benzyl Butyl Phthalate	1	0.09	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.36	47	47
Chrysene	2	0.18	110	110
Dibenzo(a,h)anthracene	2	0.18	12	12
Dibenzofuran	2	0.18	15	15
Diethyl Phthalate	4	0.36	61	61
Dimethyl Phthalate	4	0.36	53	53
Di-N-Butyl Phthalate	4	0.36	220	220
Di-N-Octyl Phthalate	4	0.36	58	58
Fluorene	2	0.18	23	23
Fluoranthene	2	0.18	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.05	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.18	34	34
N-Nitrosodiphenylamine	4	0.36	11	11
Naphthalene	2	0.18	99	99
Pentachlorophenol	10	20.49	360	340
Phenanthrene	2	0.18	100	100
Phenol	4	8.20	420	412
Pyrene	2	0.18	1000	1000
Aroclor 1016	24	2.16		
Aroclor 1221	17	1.53		
Aroclor 1232	53	4.77		
Aroclor 1242	81	7.30		
Aroclor 1248	8.3	0.75		
Aroclor 1254	8.3	0.75		
Aroclor 1260	8.3	0.75		
Total Organic Carbon (dry)	22745.90164			
Total Solids	48.8			
HPAH	20	1.80	960	958
LPAH	14	1.26	370	369
Total PCB	81	7.30	12	4.7

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.18	38	38
2,4-Dimethylphenol	1	2.68	29	26
2-Methylphenol	2	5.36	63	58
4-Methylphenol	4	10.72	670	659
Acenaphthene	2	0.18	16	16
Acenaphthylene	2	0.18	66	66
Anthracene	2	0.18	220	220
Benzo(a)anthracene	2	0.18	110	110
Benzo(a)pyrene	2	0.18	99	99
Benzo(b)fluoranthene	2	0.18	115	115
Benzo(g,h,i)perylene	2	0.18	31	31
Benzo(k)fluoranthene	2	0.18	115	115
Benzoic Acid	10	26.81	650	623
Benzyl Alcohol	2	5.36	57	52
Benzyl Butyl Phthalate	1	0.09	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.36	47	47
Chrysene	2	0.18	110	110
Dibenzo(a,h)anthracene	2	0.18	12	12
Dibenzofuran	2	0.18	15	15
Diethyl Phthalate	4	0.36	61	61
Dimethyl Phthalate	4	0.36	53	53
Di-N-Butyl Phthalate	4	0.36	220	220
Di-N-Octyl Phthalate	4	0.36	58	58
Fluorene	2	0.18	23	23
Fluoranthene	2	0.18	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.05	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.18	34	34
N-Nitrosodiphenylamine	4	0.36	11	11
Naphthalene	2	0.18	99	99
Pentachlorophenol	10	26.81	360	333
Phenanthrene	2	0.18	100	100
Phenol	4	10.72	420	409
Pyrene	2	0.18	1000	1000
Aroclor 1016	6.7	0.61		
Aroclor 1221	1.7	0.15		
Aroclor 1232	17	1.55		
Aroclor 1242	26	2.36		
Aroclor 1248	0.83	0.08		
Aroclor 1254	0.83	0.08		
Aroclor 1260	0.83	0.08		
Total Organic Carbon (dry)	29490.61662			
Total Solids	37.3			
HPAH	20	1.82	960	958
LPAH	14	1.27	370	369
Total PCB	26	2.36	12	9.6

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.02	0.81	0.79
1,2-Dichlorobenzene	0.2	0.03	2.3	2.3
1,4-Dichlorobenzene	0.2	0.03	3.1	3.1
2-Methylnaphthalene	2	0.32	38	38
2,4-Dimethylphenol	1	1.41	29	28
2-Methylphenol	2	2.83	63	60
4-Methylphenol	4	5.66	670	664
Acenaphthene	2	0.32	16	16
Acenaphthylene	2	0.32	66	66
Anthracene	2	0.32	220	220
Benzo(a)anthracene	2	0.32	110	110
Benzo(a)pyrene	2	0.32	99	99
Benzo(b)fluoranthene	2	0.32	115	115
Benzo(g,h,i)perylene	2	0.32	31	31
Benzo(k)fluoranthene	2	0.32	115	115
Benzoic Acid	10	14.14	650	636
Benzyl Alcohol	2	2.83	57	54
Benzyl Butyl Phthalate	1	0.16	4.9	4.7
Bis(2-Ethylhexyl)Phthalate	4	0.65	47	46
Chrysene	2	0.32	110	110
Dibenzo(a,h)anthracene	2	0.32	12	12
Dibenzofuran	2	0.32	15	15
Diethyl Phthalate	4	0.65	61	60
Dimethyl Phthalate	4	0.65	53	52
Di-N-Butyl Phthalate	4	0.65	220	219
Di-N-Octyl Phthalate	4	0.65	58	57
Fluorene	2	0.32	23	23
Fluoranthene	2	0.32	160	160
Hexachlorobenzene	0.1	0.02	0.38	0.36
Hexachlorobutadiene	0.5	0.08	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.32	34	34
N-Nitrosodiphenylamine	4	0.65	11	10
Naphthalene	2	0.32	99	99
Pentachlorophenol	10	14.14	360	346
Phenanthrene	2	0.32	100	100
Phenol	4	5.66	420	414
Pyrene	2	0.32	1000	1000
Aroclor 1016	6.9	1.12		
Aroclor 1221	1.7	0.28		
Aroclor 1232	17	2.76		
Aroclor 1242	26	4.21		
Aroclor 1248	0.83	0.13		
Aroclor 1254	0.83	0.13		
Aroclor 1260	0.83	0.13		
Total Organic Carbon (dry)	8727.015559			
Total Solids	70.7			
HPAH	20	3.24	960	957
LPAH	14	2.27	370	368
Total PCB	26	4.21	12	7.8

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.19	38	38
2,4-Dimethylphenol	1	2.10	29	27
2-Methylphenol	2	4.19	63	59
4-Methylphenol	4	8.39	670	662
Acenaphthene	2	0.19	16	16
Acenaphthylene	2	0.19	66	66
Anthracene	2	0.19	220	220
Benzo(a)anthracene	2	0.19	110	110
Benzo(a)pyrene	2	0.19	99	99
Benzo(b)fluoranthene	2	0.19	115	115
Benzo(g,h,i)perylene	2	0.19	31	31
Benzo(k)fluoranthene	2	0.19	115	115
Benzoic Acid	10	20.96	650	629
Benzyl Alcohol	2	4.19	57	53
Benzyl Butyl Phthalate	1	0.09	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.38	47	47
Chrysene	2	0.19	110	110
Dibenzo(a,h)anthracene	2	0.19	12	12
Dibenzofuran	2	0.19	15	15
Diethyl Phthalate	4	0.38	61	61
Dimethyl Phthalate	4	0.38	53	53
Di-N-Butyl Phthalate	4	0.38	220	220
Di-N-Octyl Phthalate	4	0.38	58	58
Fluorene	2	0.19	23	23
Fluoranthene	2	0.19	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.05	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.19	34	34
N-Nitrosodiphenylamine	4	0.38	11	11
Naphthalene	2	0.19	99	99
Pentachlorophenol	10	20.96	360	339
Phenanthrene	2	0.19	100	100
Phenol	4	8.39	420	412
Pyrene	2	0.19	1000	1000
Aroclor 1016	6.3	0.59		
Aroclor 1221	1.7	0.16		
Aroclor 1232	17	1.60		
Aroclor 1242	24	2.26		
Aroclor 1248	0.83	0.08		
Aroclor 1254	0.83	0.08		
Aroclor 1260	0.83	0.08		
Total Organic Carbon (dry)	22222.22222			
Total Solids	47.7			
HPAH	20	1.89	960	958
LPAH	14	1.32	370	369
Total PCB	24	2.26	12	9.7

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.17	38	38
2,4-Dimethylphenol	1	3.25	29	26
2-Methylphenol	2	6.49	63	57
4-Methylphenol	4	12.99	670	657
Acenaphthene	2	0.17	16	16
Acenaphthylene	2	0.17	66	66
Anthracene	2	0.17	220	220
Benzo(a)anthracene	2	0.17	110	110
Benzo(a)pyrene	2	0.17	99	99
Benzo(b)fluoranthene	2	0.17	115	115
Benzo(g,h,i)perylene	2	0.17	31	31
Benzo(k)fluoranthene	2	0.17	115	115
Benzoic Acid	10	32.47	650	618
Benzyl Alcohol	2	6.49	57	51
Benzyl Butyl Phthalate	1	0.09	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.35	47	47
Chrysene	2	0.17	110	110
Dibenzo(a,h)anthracene	2	0.17	12	12
Dibenzofuran	2	0.17	15	15
Diethyl Phthalate	4	0.35	61	61
Dimethyl Phthalate	4	0.35	53	53
Di-N-Butyl Phthalate	4	0.35	220	220
Di-N-Octyl Phthalate	4	0.35	58	58
Fluorene	2	0.17	23	23
Fluoranthene	2	0.17	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.04	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.17	34	34
N-Nitrosodiphenylamine	4	0.35	11	11
Naphthalene	2	0.17	99	99
Pentachlorophenol	10	32.47	360	328
Phenanthrene	2	0.17	100	100
Phenol	4	12.99	420	407
Pyrene	2	0.17	1000	1000
Aroclor 1016	7.1	0.62		
Aroclor 1221	1.7	0.15		
Aroclor 1232	18	1.57		
Aroclor 1242	25	2.17		
Aroclor 1248	0.83	0.07		
Aroclor 1254	0.83	0.07		
Aroclor 1260	0.83	0.07		
Total Organic Carbon (dry)	37337.66234			
Total Solids	30.8			
HPAH	20	1.74	960	958
LPAH	14	1.22	370	369
Total PCB	25	2.17	12	9.8

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.03	0.81	0.78
1,2-Dichlorobenzene	0.2	0.07	2.3	2.2
1,4-Dichlorobenzene	0.2	0.07	3.1	3.0
2-Methylnaphthalene	2	0.66	38	37
2,4-Dimethylphenol	1	1.26	29	28
2-Methylphenol	2	2.52	63	60
4-Methylphenol	4	5.04	670	665
Acenaphthene	2	0.66	16	15
Acenaphthylene	2	0.66	66	65
Anthracene	2	0.66	220	219
Benzo(a)anthracene	2	0.66	110	109
Benzo(a)pyrene	2	0.66	99	98
Benzo(b)fluoranthene	2	0.66	115	114
Benzo(g,h,i)perylene	2	0.66	31	30
Benzo(k)fluoranthene	2	0.66	115	114
Benzoic Acid	10	12.61	650	637
Benzyl Alcohol	2	2.52	57	54
Benzyl Butyl Phthalate	1	0.33	4.9	4.6
Bis(2-Ethylhexyl)Phthalate	4	1.32	47	46
Chrysene	2	0.66	110	109
Dibenzo(a,h)anthracene	2	0.66	12	11
Dibenzofuran	2	0.66	15	14
Diethyl Phthalate	4	1.32	61	60
Dimethyl Phthalate	4	1.32	53	52
Di-N-Butyl Phthalate	4	1.32	220	219
Di-N-Octyl Phthalate	4	1.32	58	57
Fluorene	2	0.66	23	22
Fluoranthene	2	0.66	160	159
Hexachlorobenzene	0.1	0.03	0.38	0.35
Hexachlorobutadiene	0.5	0.17	3.9	3.7
Indeno(1,2,3-Cd)Pyrene	2	0.66	34	33
N-Nitrosodiphenylamine	4	1.32	11	10
Naphthalene	2	0.66	99	98
Pentachlorophenol	10	12.61	360	347
Phenanthrene	2	0.66	100	99
Phenol	4	5.04	420	415
Pyrene	2	0.66	1000	999
Aroclor 1016	1.8	0.59		
Aroclor 1221	1.7	0.56		
Aroclor 1232	1.7	0.56		
Aroclor 1242	9.4	3.10		
Aroclor 1248	0.83	0.27		
Aroclor 1254	0.83	0.27		
Aroclor 1260	0.83	0.27		
Total Organic Carbon (dry)	3820.933165			
Total Solids	79.3			
HPAH	20	6.60	960	953
LPAH	14	4.62	370	365
Total PCB	9.4	3.10	12	8.9

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.18	38	38
2,4-Dimethylphenol	1	1.98	29	27
2-Methylphenol	2	3.96	63	59
4-Methylphenol	4	7.92	670	662
Acenaphthene	2	0.18	16	16
Acenaphthylene	2	0.18	66	66
Anthracene	2	0.18	220	220
Benzo(a)anthracene	2	0.18	110	110
Benzo(a)pyrene	2	0.18	99	99
Benzo(b)fluoranthene	2	0.18	115	115
Benzo(g,h,i)perylene	2	0.18	31	31
Benzo(k)fluoranthene	2	0.18	115	115
Benzoic Acid	10	19.80	650	630
Benzyl Alcohol	2	3.96	57	53
Benzyl Butyl Phthalate	1	0.09	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.35	47	47
Chrysene	2	0.18	110	110
Dibenzo(a,h)anthracene	2	0.18	12	12
Dibenzofuran	2	0.18	15	15
Diethyl Phthalate	4	0.35	61	61
Dimethyl Phthalate	4	0.35	53	53
Di-N-Butyl Phthalate	4	0.35	220	220
Di-N-Octyl Phthalate	4	0.35	58	58
Fluorene	2	0.18	23	23
Fluoranthene	2	0.18	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.04	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.18	34	34
N-Nitrosodiphenylamine	4	0.35	11	11
Naphthalene	2	0.18	99	99
Pentachlorophenol	10	19.80	360	340
Phenanthrene	2	0.18	100	100
Phenol	4	7.92	420	412
Pyrene	2	0.18	1000	1000
Aroclor 1016	19	1.67		
Aroclor 1221	1.7	0.15		
Aroclor 1232	43	3.77		
Aroclor 1242	70	6.14		
Aroclor 1248	0.83	0.07		
Aroclor 1254	0.83	0.07		
Aroclor 1260	0.83	0.07		
Total Organic Carbon (dry)	22574.25743			
Total Solids	50.5			
HPAH	20	1.75	960	958
LPAH	14	1.23	370	369
Total PCB	70	6.14	12	5.9

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.03	2.3	2.3
1,4-Dichlorobenzene	0.2	0.03	3.1	3.1
2-Methylnaphthalene	2	0.29	38	38
2,4-Dimethylphenol	1	1.94	29	27
2-Methylphenol	2	3.88	63	59
4-Methylphenol	4	7.75	670	662
Acenaphthene	2	0.29	16	16
Acenaphthylene	2	0.29	66	66
Anthracene	2	0.29	220	220
Benzo(a)anthracene	2	0.29	110	110
Benzo(a)pyrene	2	0.29	99	99
Benzo(b)fluoranthene	2	0.29	115	115
Benzo(g,h,i)perylene	2	0.29	31	31
Benzo(k)fluoranthene	2	0.29	115	115
Benzoic Acid	10	19.38	650	631
Benzyl Alcohol	2	3.88	57	53
Benzyl Butyl Phthalate	1	0.15	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.58	47	46
Chrysene	2	0.29	110	110
Dibenzo(a,h)anthracene	2	0.29	12	12
Dibenzofuran	2	0.29	15	15
Diethyl Phthalate	4	0.58	61	60
Dimethyl Phthalate	4	0.58	53	52
Di-N-Butyl Phthalate	4	0.58	220	219
Di-N-Octyl Phthalate	4	0.58	58	57
Fluorene	2	0.29	23	23
Fluoranthene	2	0.29	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.07	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.29	34	34
N-Nitrosodiphenylamine	4	0.58	11	10
Naphthalene	2	0.29	99	99
Pentachlorophenol	10	19.38	360	341
Phenanthrene	2	0.29	100	100
Phenol	4	7.75	420	412
Pyrene	2	0.29	1000	1000
Aroclor 1016	8.4	1.22		
Aroclor 1221	1.7	0.25		
Aroclor 1232	17	2.48		
Aroclor 1242	25	3.64		
Aroclor 1248	0.83	0.12		
Aroclor 1254	0.83	0.12		
Aroclor 1260	0.83	0.12		
Total Organic Carbon (dry)	13294.57364			
Total Solids	51.6			
HPAH	20	2.92	960	957
LPAH	14	2.04	370	368
Total PCB	25	3.64	12	8.4

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.02	0.81	0.79
1,2-Dichlorobenzene	0.2	0.03	2.3	2.3
1,4-Dichlorobenzene	0.2	0.03	3.1	3.1
2-Methylnaphthalene	2	0.33	38	38
2,4-Dimethylphenol	1	1.91	29	27
2-Methylphenol	2	3.82	63	59
4-Methylphenol	4	7.63	670	662
Acenaphthene	2	0.33	16	16
Acenaphthylene	2	0.33	66	66
Anthracene	2	0.33	220	220
Benzo(a)anthracene	2	0.33	110	110
Benzo(a)pyrene	2	0.33	99	99
Benzo(b)fluoranthene	2	0.33	115	115
Benzo(g,h,i)perylene	2	0.33	31	31
Benzo(k)fluoranthene	2	0.33	115	115
Benzoic Acid	10	19.08	650	631
Benzyl Alcohol	2	3.82	57	53
Benzyl Butyl Phthalate	1	0.16	4.9	4.7
Bis(2-Ethylhexyl)Phthalate	4	0.66	47	46
Chrysene	2	0.33	110	110
Dibenzo(a,h)anthracene	2	0.33	12	12
Dibenzofuran	2	0.33	15	15
Diethyl Phthalate	4	0.66	61	60
Dimethyl Phthalate	4	0.66	53	52
Di-N-Butyl Phthalate	4	0.66	220	219
Di-N-Octyl Phthalate	4	0.66	58	57
Fluorene	2	0.33	23	23
Fluoranthene	2	0.33	160	160
Hexachlorobenzene	0.1	0.02	0.38	0.36
Hexachlorobutadiene	0.5	0.08	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.33	34	34
N-Nitrosodiphenylamine	4	0.66	11	10
Naphthalene	2	0.33	99	99
Pentachlorophenol	10	19.08	360	341
Phenanthrene	2	0.33	100	100
Phenol	4	7.63	420	412
Pyrene	2	0.33	1000	1000
Aroclor 1016	4.7	0.77		
Aroclor 1221	1.7	0.28		
Aroclor 1232	13	2.14		
Aroclor 1242	19	3.13		
Aroclor 1248	0.83	0.14		
Aroclor 1254	0.83	0.14		
Aroclor 1260	0.83	0.14		
Total Organic Carbon (dry)	11603.05344			
Total Solids	52.4			
HPAH	20	3.29	960	957
LPAH	14	2.30	370	368
Total PCB	19	3.13	12	8.9

SAP MDL Comparison Table

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:		DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05	DWMP-06
Descrip:		DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:		05/15/07 12:00:00 AM	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM	05/17/07 12:00:00 AM	05/16/07 12:00:00 AM
Lab ID:		L42475-1	L42475-2	L42475-3	L42475-4	L42475-5	L42475-6
Matrix:		SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:		44.6	54.6	47.2	49.9	74.2	49.7
Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS								
M=CV ASTM D422(03-02-005-001)								
Fines *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Gravel *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sand *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Silt *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Clay *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+0.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+1.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+10.0(equal/more than) *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+2.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+3.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+4.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+5.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+6.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+7.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+8.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+9.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p-1.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p-2.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p-2.00(less than) *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
M=CV EPA 9030B (03-03-015-000)								
Total Sulfide	mg/Kg	1.0	11	0.92	1.1	1	6.7	1
M=CV EPA 9060-PSEP96(03-04-002-003)								
Total Organic Carbon	mg/Kg	1000	3100	2200	3600	1900	1800	3200
M=CV SM2540-G (03-01-007-002)								
Total Solids *	%	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Total Volatile Solids	%	0.005	0.0112	0.00916	0.0106	0.01	0.00674	0.0101
M=CV SM4500-NH3-G(03-03-014-001)KCL								
Ammonia Nitrogen	mg/Kg	0.2	0.22	0.18	0.21	0.2	0.67	0.2
M=MT EPA 7471A (06-01-004-003)								
Mercury, Total, CVAA	mg/Kg	0.04	0.047	0.037	0.04	0.038	0.028	0.038
M=MT EPA3050B/6010B MOD(6-2-04-02)								
Antimony, Total, ICP	mg/Kg	3.0	1.7	1.4	1.6	1.5	1	1.5
Arsenic, Total, ICP	mg/Kg	5.0	2.7	2.2	2.5	2.4	1.6	2.4
Cadmium, Total, ICP	mg/Kg	0.30	0.22	0.18	0.21	0.2	0.13	0.2
Chromium, Total, ICP	mg/Kg	0.50	0.34	0.27	0.32	0.3	0.2	0.3
Copper, Total, ICP	mg/Kg	0.40	0.45	0.37	0.42	0.4	0.27	0.4
Lead, Total, ICP	mg/Kg	3.0	2.2	1.8	2.1	2	1.3	2
Nickel, Total, ICP	mg/Kg	2.0	0.56	0.46	0.53	0.5	0.34	0.5
Silver, Total, ICP	mg/Kg	0.40	0.45	0.37	0.42	0.4	0.27	0.4
Zinc, Total, ICP	mg/Kg	0.50	0.56	0.46	0.53	0.5	0.34	0.5
M=OR EPA 3550B/8270C (7-3-01-004)								
1,2,4-Trichlorobenzene	ug/Kg	0.54	0.22	0.18	0.21	0.2	0.13	0.2

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05	DWMP-06
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM	05/17/07 12:00:00 AM	05/16/07 12:00:00 AM
Lab ID:	L42475-1	L42475-2	L42475-3	L42475-4	L42475-5	L42475-6
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	44.6	54.6	47.2	49.9	74.2	49.7

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS								
1,2-Dichlorobenzene	ug/Kg	0.54	0.45	0.37	0.42	0.4	0.27	0.4
1,3-Dichlorobenzene	ug/Kg	0.54	0.45	0.37	0.42	0.4	0.27	0.4
1,4-Dichlorobenzene	ug/Kg	0.54	0.45	0.37	0.42	0.4	0.27	0.4
2,4-Dimethylphenol	ug/Kg	5.4	2.2	1.8	2.1	2	1.3	2
2-Methylnaphthalene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
2-Methylphenol	ug/Kg	11	4.5	3.7	4.2	4	2.7	4
4-Methylphenol	ug/Kg	11	9	7.3	8.5	8	5.4	8
Acenaphthene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Acenaphthylene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Anthracene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Benzo(a)anthracene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Benzo(a)pyrene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Benzo(b)fluoranthene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Benzo(g,h,i)perylene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Benzo(k)fluoranthene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Benzoic Acid	ug/Kg	26	22	18	21	20	13	20
Benzyl Alcohol	ug/Kg	11	4.5	3.7	4.2	4	2.7	4
Benzyl Butyl Phthalate	ug/Kg	11	2.2	1.8	2.1	2	1.3	2
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	9	7.3	8.5	8	5.4	8
Carbazole	ug/Kg	NA	4.5	3.7	4.2	4	2.7	4
Chrysene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Coprostanol	ug/Kg	110	90	73	85	80	54	80
Dibenzo(a,h)anthracene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Dibenzofuran	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Diethyl Phthalate	ug/Kg	11	9	7.3	8.5	8	5.4	8
Dimethyl Phthalate	ug/Kg	11	9	7.3	8.5	8	5.4	8
Di-N-Butyl Phthalate	ug/Kg	11	9	7.3	8.5	8	5.4	8
Di-N-Octyl Phthalate	ug/Kg	11	9	7.3	8.5	8	5.4	8
Fluoranthene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Fluorene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Hexachlorobenzene	ug/Kg	1.1	0.22	0.18	0.21	0.2	0.13	0.2
Hexachlorobutadiene	ug/Kg	2.6	1.1	0.92	1.1	1	0.67	1
Hexachloroethane	ug/Kg	5.4	2.2	1.8	2.1	2	1.3	2
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Naphthalene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
N-Nitrosodiphenylamine	ug/Kg	11	9	7.3	8.5	8	5.4	8
Pentachlorophenol	ug/Kg	26	22	18	21	20	13	20
Phenanthrene	ug/Kg	5.4	4.5	3.7	4.2	4	2.7	4
Phenol	ug/Kg	11	9	7.3	8.5	8	5.4	8
Pyrene	ug/Kg	11	4.5	3.7	4.2	4	2.7	4
Total HPAHS	ug/Kg	NA	4.5	3.7	4.2	4	2.7	4
Total LPAHs	ug/Kg	NA	4.5	3.7	4.2	4	2.7	4
M=OR EPA 8081A/8082 (7-3-03-002)								

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05	DWMP-06
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM	05/15/07 12:00:00 AM	05/17/07 12:00:00 AM	05/16/07 12:00:00 AM
Lab ID:	L42475-1	L42475-2	L42475-3	L42475-4	L42475-5	L42475-6
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	44.6	54.6	47.2	49.9	74.2	49.7

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS								
4,4'-DDD	ug/Kg	2	1.5	1.2	1.4	1.3	0.9	1.3
4,4'-DDE	ug/Kg	2	1.5	1.2	1.4	1.3	0.9	1.3
4,4'-DDT	ug/Kg	2	1.5	1.2	1.4	1.3	0.9	1.3
Aldrin	ug/Kg	2	1.5	1.2	1.4	1.3	0.9	1.3
Alpha-BHC	ug/Kg	1	0.74	0.6	0.7	0.66	0.44	0.66
Alpha-Chlordane	ug/Kg	1	0.74	0.6	0.7	0.66	0.44	0.66
Beta-BHC	ug/Kg	1	0.74	0.6	0.7	0.66	0.44	0.66
Delta-BHC	ug/Kg	1	0.74	0.6	0.7	0.66	0.44	0.66
Dieldrin	ug/Kg	2	1.5	1.2	1.4	1.3	0.9	1.3
Endosulfan I	ug/Kg	2	1.5	1.2	1.4	1.3	0.9	1.3
Endosulfan II	ug/Kg	2	1.5	1.2	1.4	1.3	0.9	1.3
Endosulfan Sulfate	ug/Kg	2	1.5	1.2	1.4	1.3	0.9	1.3
Endrin	ug/Kg	2	1.5	1.2	1.4	1.3	0.9	1.3
Endrin Aldehyde	ug/Kg	4	1.5	1.2	1.4	1.3	0.9	1.3
Gamma-BHC (Lindane)	ug/Kg	1	0.74	0.6	0.7	0.66	0.44	0.66
Gamma-Chlordane	ug/Kg	1	0.74	0.6	0.7	0.66	0.44	0.66
Heptachlor	ug/Kg	1	0.74	0.6	0.7	0.66	0.44	0.66
Heptachlor Epoxide	ug/Kg	1	0.74	0.6	0.7	0.66	0.44	0.66
Methoxychlor	ug/Kg	10	7.4	6	7	6.6	4.4	6.6
Toxaphene	ug/Kg	20	15	12	14	13	9	13
M=OR EPA 8081A/8082 (7-3-103-000)								
Aroclor 1016	ug/Kg	2.6	76	7.7	30	8.6	9.8	7
Aroclor 1221	ug/Kg	6.6	38	3.1	3.6	3.4	2.3	3.4
Aroclor 1232	ug/Kg	6.6	160	24	70	24	23	24
Aroclor 1242	ug/Kg	6.6	250	24	91	38	31	28
Aroclor 1248	ug/Kg	2.6	19	1.5	1.8	1.7	1.1	1.7
Aroclor 1254	ug/Kg	2.6	19	1.5	1.8	1.7	1.1	1.7
Aroclor 1260	ug/Kg	2.6	19	1.5	1.8	1.7	1.1	1.7
M=OR EPA 8260B (7-3-02-003)								
1,1,2-Trichloroethylene	ug/Kg	2.0	2.2	1.8	2.1	2	1.3	2
Ethylbenzene	ug/Kg	2.0	2.2	1.8	2.1	2	1.3	2
Tetrachloroethylene	ug/Kg	2.0	2.2	1.8	2.1	2	1.3	2
Total Xylenes	ug/Kg	2.0	2.2	1.8	2.1	2	1.3	2

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-07	DWMP-08	DWMP-09	DWMP-10	DWMP-11	DWMP-12
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/15/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM
Lab ID:	L42475-7	L42475-8	L42475-9	L42475-10	L42475-11	L42475-12
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	51.3	48.8	37.3	70.7	47.7	30.8

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS								
M=CV ASTM D422(03-02-005-001)								
Fines *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Gravel *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sand *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Silt *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Clay *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+0.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+1.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+10.0(equal/more than) *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+2.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+3.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+4.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p+5.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+6.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+7.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+8.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p+9.00 *	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
p-1.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p-2.00 *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
p-2.00(less than) *	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1
M=CV EPA 9030B (03-03-015-000)								
Total Sulfide	mg/Kg	1.0	1.9	100	1.3	0.71	10	1.6
M=CV EPA 9060-PSEP96(03-04-002-003)								
Total Organic Carbon	mg/Kg	1000	2300	2300	3200	2100	3100	3900
M=CV SM2540-G (03-01-007-002)								
Total Solids *	%	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Total Volatile Solids	%	0.005	0.00975	0.0102	0.0134	0.00707	0.0105	0.0162
M=CV SM4500-NH3-G(03-03-014-001)KCL								
Ammonia Nitrogen	mg/Kg	0.2	0.19	0.2	0.27	0.14	0.21	0.32
M=MT EPA 7471A (06-01-004-003)								
Mercury, Total, CVAA	mg/Kg	0.04	0.037	0.039	0.056	0.028	0.04	0.065
M=MT EPA3050B/6010B MOD(6-2-04-02)								
Antimony, Total, ICP	mg/Kg	3.0	1.5	1.5	2	1.1	1.6	2.4
Arsenic, Total, ICP	mg/Kg	5.0	2.3	2.7	3.2	1.7	2.5	3.9
Cadmium, Total, ICP	mg/Kg	0.30	0.19	0.2	0.27	0.14	0.21	0.32
Chromium, Total, ICP	mg/Kg	0.50	0.29	0.31	0.4	0.21	0.31	0.49
Copper, Total, ICP	mg/Kg	0.40	0.39	0.41	0.54	0.28	0.42	0.65
Lead, Total, ICP	mg/Kg	3.0	1.9	2	2.7	1.4	2.1	3.2
Nickel, Total, ICP	mg/Kg	2.0	0.49	0.51	0.67	0.35	0.52	0.81
Silver, Total, ICP	mg/Kg	0.40	0.39	0.41	0.54	0.28	0.42	0.65
Zinc, Total, ICP	mg/Kg	0.50	0.49	0.51	0.67	0.35	0.52	0.81
M=OR EPA 3550B/8270C (7-3-01-004)								
1,2,4-Trichlorobenzene	ug/Kg	0.54	0.19	0.2	0.27	0.14	0.21	0.32

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-07	DWMP-08	DWMP-09	DWMP-10	DWMP-11	DWMP-12
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/15/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM
Lab ID:	L42475-7	L42475-8	L42475-9	L42475-10	L42475-11	L42475-12
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	51.3	48.8	37.3	70.7	47.7	30.8

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS								
1,2-Dichlorobenzene	ug/Kg	0.54	0.39	0.41	0.54	0.28	0.42	0.65
1,3-Dichlorobenzene	ug/Kg	0.54	0.39	0.41	0.54	0.28	0.42	0.65
1,4-Dichlorobenzene	ug/Kg	0.54	0.39	0.41	0.54	0.28	0.42	0.65
2,4-Dimethylphenol	ug/Kg	5.4	1.9	2	2.7	1.4	2.1	3.2
2-Methylnaphthalene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
2-Methylphenol	ug/Kg	11	3.9	4.1	5.4	2.8	4.2	6.5
4-Methylphenol	ug/Kg	11	7.8	8.2	11	5.7	8.4	13
Acenaphthene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Acenaphthylene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Anthracene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Benzo(a)anthracene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Benzo(a)pyrene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Benzo(b)fluoranthene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Benzo(g,h,i)perylene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Benzo(k)fluoranthene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Benzoic Acid	ug/Kg	26	19	20	27	14	21	32
Benzyl Alcohol	ug/Kg	11	3.9	4.1	5.4	2.8	4.2	6.5
Benzyl Butyl Phthalate	ug/Kg	11	1.9	2	2.7	1.4	2.1	3.2
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	7.8	8.2	11	5.7	8.4	13
Carbazole	ug/Kg	NA	3.9	4.1	5.4	2.8	4.2	6.5
Chrysene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Coprostanol	ug/Kg	110	78	82	110	57	84	130
Dibenzo(a,h)anthracene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Dibenzofuran	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Diethyl Phthalate	ug/Kg	11	7.8	8.2	11	5.7	8.4	13
Dimethyl Phthalate	ug/Kg	11	7.8	8.2	11	5.7	8.4	13
Di-N-Butyl Phthalate	ug/Kg	11	7.8	8.2	11	5.7	8.4	13
Di-N-Octyl Phthalate	ug/Kg	11	7.8	8.2	11	5.7	8.4	13
Fluoranthene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Fluorene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Hexachlorobenzene	ug/Kg	1.1	0.19	0.2	0.27	0.14	0.21	0.32
Hexachlorobutadiene	ug/Kg	2.6	0.97	1	1.3	0.71	1	1.6
Hexachloroethane	ug/Kg	5.4	1.9	2	2.7	1.4	2.1	3.2
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Naphthalene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
N-Nitrosodiphenylamine	ug/Kg	11	7.8	8.2	11	5.7	8.4	13
Pentachlorophenol	ug/Kg	26	19	20	27	14	21	32
Phenanthrene	ug/Kg	5.4	3.9	4.1	5.4	2.8	4.2	6.5
Phenol	ug/Kg	11	7.8	8.2	11	5.7	8.4	13
Pyrene	ug/Kg	11	3.9	4.1	5.4	2.8	4.2	6.5
Total HPAHS	ug/Kg	NA	3.9	4.1	5.4	2.8	4.2	6.5
Total LPAHs	ug/Kg	NA	3.9	4.1	5.4	2.8	4.2	6.5

M=OR EPA 8081A/8082 (7-3-03-002)

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:		DWMP-07	DWMP-08	DWMP-09	DWMP-10	DWMP-11	DWMP-12
Descrip:		DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:		05/15/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM	05/16/07 12:00:00 AM
Lab ID:		L42475-7	L42475-8	L42475-9	L42475-10	L42475-11	L42475-12
Matrix:		SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:		51.3	48.8	37.3	70.7	47.7	30.8
Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS								
4,4'-DDD	ug/Kg	2	1.3	1.4	1.8	0.95	1.4	2.2
4,4'-DDE	ug/Kg	2	1.3	1.4	1.8	0.95	1.4	2.2
4,4'-DDT	ug/Kg	2	1.3	1.4	1.8	0.95	1.4	2.2
Aldrin	ug/Kg	2	1.3	1.4	1.8	0.95	1.4	2.2
Alpha-BHC	ug/Kg	1	0.64	0.68	0.88	0.47	0.69	1.1
Alpha-Chlordane	ug/Kg	1	0.64	0.68	0.88	0.47	0.69	1.1
Beta-BHC	ug/Kg	1	0.64	0.68	0.88	0.47	0.69	1.1
Delta-BHC	ug/Kg	1	0.64	0.68	0.88	0.47	0.69	1.1
Dieldrin	ug/Kg	2	1.3	1.4	1.8	0.95	1.4	2.2
Endosulfan I	ug/Kg	2	1.3	1.4	1.8	0.95	1.4	2.2
Endosulfan II	ug/Kg	2	1.3	1.4	1.8	0.95	1.4	2.2
Endosulfan Sulfate	ug/Kg	2	1.3	1.4	1.8	0.95	1.4	2.2
Endrin	ug/Kg	2	1.3	1.4	1.8	0.95	1.4	2.2
Endrin Aldehyde	ug/Kg	4	1.3	1.4	1.8	0.95	1.4	2.2
Gamma-BHC (Lindane)	ug/Kg	1	0.64	0.68	0.88	0.47	0.69	1.1
Gamma-Chlordane	ug/Kg	1	0.64	0.68	0.88	0.47	0.69	1.1
Heptachlor	ug/Kg	1	0.64	0.68	0.88	0.47	0.69	1.1
Heptachlor Epoxide	ug/Kg	1	0.64	0.68	0.88	0.47	0.69	1.1
Methoxychlor	ug/Kg	10	6.4	6.8	8.8	4.7	6.9	11
Toxaphene	ug/Kg	20	13	14	18	9.5	14	22
M=OR EPA 8081A/8082 (7-3-103-000)								
Aroclor 1016	ug/Kg	2.6	9.7	49	18	9.8	13	23
Aroclor 1221	ug/Kg	6.6	3.3	35	4.6	2.4	3.6	5.5
Aroclor 1232	ug/Kg	6.6	29	110	46	24	36	58
Aroclor 1242	ug/Kg	6.6	43	170	70	37	50	81
Aroclor 1248	ug/Kg	2.6	1.6	17	2.2	1.2	1.7	2.7
Aroclor 1254	ug/Kg	2.6	1.6	17	2.2	1.2	1.7	2.7
Aroclor 1260	ug/Kg	2.6	1.6	17	2.2	1.2	1.7	2.7
M=OR EPA 8260B (7-3-02-003)								
1,1,2-Trichloroethylene	ug/Kg	2.0	1.9	2	2.7	1.4	2.1	3.2
Ethylbenzene	ug/Kg	2.0	1.9	2	2.7	1.4	2.1	3.2
Tetrachloroethylene	ug/Kg	2.0	1.9	2	2.7	1.4	2.1	3.2
Total Xylenes	ug/Kg	2.0	1.9	2	2.7	1.4	2.1	3.2

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-13	DWMP-14	DWMP-15	DWMP-16
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/17/07 12:00:00 AM	05/16/07 12:00:00 AM	05/17/07 12:00:00 AM	05/17/07 12:00:00 AM
Lab ID:	L42475-13	L42475-14	L42475-15	L42475-16
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	79.3	50.5	51.6	52.4

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS						
M=CV ASTM D422(03-02-005-001)						
Fines *	%	0.5	0.5	0.5	0.5	0.5
Gravel *	%	0.1	0.1	0.1	0.1	0.1
Sand *	%	0.1	0.1	0.1	0.1	0.1
Silt *	%	0.5	0.5	0.5	0.5	0.5
Clay *	%	0.5	0.5	0.5	0.5	0.5
p+0.00 *	%	0.1	0.1	0.1	0.1	0.1
p+1.00 *	%	0.1	0.1	0.1	0.1	0.1
p+10.0(equal/more than) *	%	0.5	0.5	0.5	0.5	0.5
p+2.00 *	%	0.1	0.1	0.1	0.1	0.1
p+3.00 *	%	0.1	0.1	0.1	0.1	0.1
p+4.00 *	%	0.1	0.1	0.1	0.1	0.1
p+5.00 *	%	0.5	0.5	0.5	0.5	0.5
p+6.00 *	%	0.5	0.5	0.5	0.5	0.5
p+7.00 *	%	0.5	0.5	0.5	0.5	0.5
p+8.00 *	%	0.5	0.5	0.5	0.5	0.5
p+9.00 *	%	0.5	0.5	0.5	0.5	0.5
p-1.00 *	%	0.1	0.1	0.1	0.1	0.1
p-2.00 *	%	0.1	0.1	0.1	0.1	0.1
p-2.00(less than) *	%	0.1	0.1	0.1	0.1	0.1
M=CV EPA 9030B (03-03-015-000)						
Total Sulfide	mg/Kg	1.0	1.3	0.99	0.97	0.95
M=CV EPA 9060-PSEP96(03-04-002-003)						
Total Organic Carbon	mg/Kg	1000	570	3000	1000	1900
M=CV SM2540-G (03-01-007-002)						
Total Solids *	%	0.005	0.005	0.005	0.005	0.005
Total Volatile Solids	%	0.005	0.00631	0.0099	0.00969	0.00954
M=CV SM4500-NH3-G(03-03-014-001)KCL						
Ammonia Nitrogen	mg/Kg	0.2	0.13	0.2	0.19	0.19
M=MT EPA 7471A (06-01-004-003)						
Mercury, Total, CVAA	mg/Kg	0.04	0.026	0.04	0.039	0.036
M=MT EPA3050B/6010B MOD(6-2-04-02)						
Antimony, Total, ICP	mg/Kg	3.0	0.95	1.5	1.5	1.4
Arsenic, Total, ICP	mg/Kg	5.0	1.5	2.4	2.3	2.3
Cadmium, Total, ICP	mg/Kg	0.30	0.13	0.2	0.19	0.19
Chromium, Total, ICP	mg/Kg	0.50	0.19	0.3	0.29	0.29
Copper, Total, ICP	mg/Kg	0.40	0.25	0.4	0.39	0.38
Lead, Total, ICP	mg/Kg	3.0	1.3	2	1.9	1.9
Nickel, Total, ICP	mg/Kg	2.0	0.32	0.5	0.48	0.48
Silver, Total, ICP	mg/Kg	0.40	0.25	0.4	0.39	0.38
Zinc, Total, ICP	mg/Kg	0.50	0.32	0.5	0.48	0.48
M=OR EPA 3550B/8270C (7-3-01-004)						
1,2,4-Trichlorobenzene	ug/Kg	0.54	0.13	0.2	0.19	0.19

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-13	DWMP-14	DWMP-15	DWMP-16
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/17/07 12:00:00 AM	05/16/07 12:00:00 AM	05/17/07 12:00:00 AM	05/17/07 12:00:00 AM
Lab ID:	L42475-13	L42475-14	L42475-15	L42475-16
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	79.3	50.5	51.6	52.4

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS						
1,2-Dichlorobenzene	ug/Kg	0.54	0.25	0.4	0.39	0.38
1,3-Dichlorobenzene	ug/Kg	0.54	0.25	0.4	0.39	0.38
1,4-Dichlorobenzene	ug/Kg	0.54	0.25	0.4	0.39	0.38
2,4-Dimethylphenol	ug/Kg	5.4	1.3	2	1.9	1.9
2-Methylnaphthalene	ug/Kg	5.4	2.5	4	3.9	3.8
2-Methylphenol	ug/Kg	11	2.5	4	3.9	3.8
4-Methylphenol	ug/Kg	11	5	7.9	7.8	7.6
Acenaphthene	ug/Kg	5.4	2.5	4	3.9	3.8
Acenaphthylene	ug/Kg	5.4	2.5	4	3.9	3.8
Anthracene	ug/Kg	5.4	2.5	4	3.9	3.8
Benzo(a)anthracene	ug/Kg	5.4	2.5	4	3.9	3.8
Benzo(a)pyrene	ug/Kg	5.4	2.5	4	3.9	3.8
Benzo(b)fluoranthene	ug/Kg	5.4	2.5	4	3.9	3.8
Benzo(g,h,i)perylene	ug/Kg	5.4	2.5	4	3.9	3.8
Benzo(k)fluoranthene	ug/Kg	5.4	2.5	4	3.9	3.8
Benzoic Acid	ug/Kg	26	13	20	19	19
Benzyl Alcohol	ug/Kg	11	2.5	4	3.9	3.8
Benzyl Butyl Phthalate	ug/Kg	11	1.3	2	1.9	1.9
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	5	7.9	7.8	7.6
Carbazole	ug/Kg	NA	2.5	4	3.9	3.8
Chrysene	ug/Kg	5.4	2.5	4	3.9	3.8
Coprostanol	ug/Kg	110	50	79	78	76
Dibenzo(a,h)anthracene	ug/Kg	5.4	2.5	4	3.9	3.8
Dibenzofuran	ug/Kg	5.4	2.5	4	3.9	3.8
Diethyl Phthalate	ug/Kg	11	5	7.9	7.8	7.6
Dimethyl Phthalate	ug/Kg	11	5	7.9	7.8	7.6
Di-N-Butyl Phthalate	ug/Kg	11	5	7.9	7.8	7.6
Di-N-Octyl Phthalate	ug/Kg	11	5	7.9	7.8	7.6
Fluoranthene	ug/Kg	5.4	2.5	4	3.9	3.8
Fluorene	ug/Kg	5.4	2.5	4	3.9	3.8
Hexachlorobenzene	ug/Kg	1.1	0.13	0.2	0.19	0.19
Hexachlorobutadiene	ug/Kg	2.6	0.63	0.99	0.97	0.95
Hexachloroethane	ug/Kg	5.4	1.3	2	1.9	1.9
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	2.5	4	3.9	3.8
Naphthalene	ug/Kg	5.4	2.5	4	3.9	3.8
N-Nitrosodiphenylamine	ug/Kg	11	5	7.9	7.8	7.6
Pentachlorophenol	ug/Kg	26	13	20	19	19
Phenanthrene	ug/Kg	5.4	2.5	4	3.9	3.8
Phenol	ug/Kg	11	5	7.9	7.8	7.6
Pyrene	ug/Kg	11	2.5	4	3.9	3.8
Total HPAHS	ug/Kg	NA	2.5	4	3.9	3.8
Total LPAHs	ug/Kg	NA	2.5	4	3.9	3.8
M=OR EPA 8081A/8082 (7-3-03-002)						

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-13	DWMP-14	DWMP-15	DWMP-16
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	05/17/07 12:00:00 AM	05/16/07 12:00:00 AM	05/17/07 12:00:00 AM	05/17/07 12:00:00 AM
Lab ID:	L42475-13	L42475-14	L42475-15	L42475-16
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	79.3	50.5	51.6	52.4

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS						
4,4'-DDD	ug/Kg	2	0.84	1.3	1.3	1.3
4,4'-DDE	ug/Kg	2	0.84	1.3	1.3	1.3
4,4'-DDT	ug/Kg	2	0.84	1.3	1.3	1.3
Aldrin	ug/Kg	2	0.84	1.3	1.3	1.3
Alpha-BHC	ug/Kg	1	0.42	0.65	0.64	0.63
Alpha-Chlordane	ug/Kg	1	0.42	0.65	0.64	0.63
Beta-BHC	ug/Kg	1	0.42	0.65	0.64	0.63
Delta-BHC	ug/Kg	1	0.42	0.65	0.64	0.63
Dieldrin	ug/Kg	2	0.84	1.3	1.3	1.3
Endosulfan I	ug/Kg	2	0.84	1.3	1.3	1.3
Endosulfan II	ug/Kg	2	0.84	1.3	1.3	1.3
Endosulfan Sulfate	ug/Kg	2	0.84	1.3	1.3	1.3
Endrin	ug/Kg	2	0.84	1.3	1.3	1.3
Endrin Aldehyde	ug/Kg	4	0.84	1.3	1.3	1.3
Gamma-BHC (Lindane)	ug/Kg	1	0.42	0.65	0.64	0.63
Gamma-Chlordane	ug/Kg	1	0.42	0.65	0.64	0.63
Heptachlor	ug/Kg	1	0.42	0.65	0.64	0.63
Heptachlor Epoxide	ug/Kg	1	0.42	0.65	0.64	0.63
Methoxychlor	ug/Kg	10	4.2	6.5	6.4	6.3
Toxaphene	ug/Kg	20	8.4	13	13	13
M=OR EPA 8081A/8082 (7-3-103-000)						
Aroclor 1016	ug/Kg	2.6	2.3	38	16	9
Aroclor 1221	ug/Kg	6.6	2.1	3.4	3.3	3.2
Aroclor 1232	ug/Kg	6.6	2.1	85	33	25
Aroclor 1242	ug/Kg	6.6	12	140	48	36
Aroclor 1248	ug/Kg	2.6	1	1.6	1.6	1.6
Aroclor 1254	ug/Kg	2.6	1	1.6	1.6	1.6
Aroclor 1260	ug/Kg	2.6	1	1.6	1.6	1.6
M=OR EPA 8260B (7-3-02-003)						
1,1,2-Trichloroethylene	ug/Kg	2.0	1.3	2	1.9	1.9
Ethylbenzene	ug/Kg	2.0	1.3	2	1.9	1.9
Tetrachloroethylene	ug/Kg	2.0	1.3	2	1.9	1.9
Total Xylenes	ug/Kg	2.0	1.3	2	1.9	1.9

* Not converted to dry weight basis for this parameter

CONVENTIONAL ANALYSES QC DATA

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Aug 14 2007, 04:31 pm

Work Group: WG91501 (PSD - Denny Way) for Department: 3 - Conventionals

Created: 16-MAY-07 PrepDate: Due: Operator: keiht

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L42475-1	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-10	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-11	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-12	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-13	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-14	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-15	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-16	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-2	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-3	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-4	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-5	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-6	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-7	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-8	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-9	423368-80	Denny Way Sediment, Post Constru	SED	S	PSD	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
WG91501-1	LD		SED	S	PSD	SALTWTRSED	ANAL	U	11-JUN-07	
WG91501-2	LT		SED	S	PSD	SALTWTRSED	ANAL	U	11-JUN-07	

Comments:

L42475-1	0-2 cm, 3 grap COMP
L42475-10	0-2 cm, 3 grab COMP
L42475-11	0-2 cm, 3 grab COMP
L42475-12	0-2 cm, 3 grab COMP
L42475-13	0-2 cm, 3 grab COMP
L42475-14	0-2 cm, 3 grab COMP
L42475-15	0-2 cm, 3 grab COMP
L42475-16	0-2 cm, 3 grab COMP
L42475-2	0-2 cm, 3 grap COMP
L42475-3	0-2 cm, 3 grap COMP
L42475-4	0-2 cm, 3 grap COMP
L42475-5	0-2 cm, 3 grap COMP
L42475-6	0-2 cm, 3 grap COMP
L42475-7	0-2 cm, 3 grap COMP
L42475-8	0-2 cm, 3 grab COMP
L42475-9	0-2 cm, 3 grab COMP
WG91501-1	L42475-3
WG91501-2	WG91501-1 L42475-3

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 08/14/07 04:30
Run ID: R121527 Workgroup: WG91501 (PSD - Denny Way)

LT:WG91501-2 LD:WG91501-1 L42475-3 Matrix: SALTWTRSED Listtype: CVPSD Method: ASTM D422(03-02-005-001) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLim
Gravel	.1	1	%	1.2	.8	1	20		20
Sand	.1	1	%	33.7	32.7	32.7	2		20
Silt	.5	1	%	43.6	42.8	42.9	1		20
Clay	.5	1	%	15.6	15.6	15	2		20

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If the following parameters are reported, values in the RPD column are their Absolute Differences:

- pH
- pH, Field
- Salinity
- Salinity, Field
- Sample Depth
- Sample Temperature, Field

Locator	CollectDate	Labsamplenum	Matrix	Depth(m)	ParmName	Text	ParmName	Text	Method
DWMP-01	5/15/2007 0:00	L42475-1	SF SALTWTRSED	7	Prep Date	6-Jun-07	Analysis Date	7-Jun-07	ASTM D422(03-02-005-001)
DWMP-02	5/15/2007 0:00	L42475-2	SF SALTWTRSED	13	Prep Date	6-Jun-07	Analysis Date	7-Jun-07	ASTM D422(03-02-005-001)
DWMP-03	5/15/2007 0:00	L42475-3	SF SALTWTRSED	17	Prep Date	6-Jun-07	Analysis Date	7-Jun-07	ASTM D422(03-02-005-001)
DWMP-04	5/15/2007 0:00	L42475-4	SF SALTWTRSED	21	Prep Date	6-Jun-07	Analysis Date	7-Jun-07	ASTM D422(03-02-005-001)
DWMP-05	5/17/2007 0:00	L42475-5	SF SALTWTRSED	5	Prep Date	6-Jun-07	Analysis Date	7-Jun-07	ASTM D422(03-02-005-001)
DWMP-06	5/16/2007 0:00	L42475-6	SF SALTWTRSED	18	Prep Date	6-Jun-07	Analysis Date	7-Jun-07	ASTM D422(03-02-005-001)
DWMP-07	5/15/2007 0:00	L42475-7	SF SALTWTRSED	27	Prep Date	6-Jun-07	Analysis Date	7-Jun-07	ASTM D422(03-02-005-001)
DWMP-08	5/16/2007 0:00	L42475-8	SF SALTWTRSED	23	Prep Date	20-Jun-07	Analysis Date	21-Jun-07	ASTM D422(03-02-005-001)
DWMP-09	5/16/2007 0:00	L42475-9	SF SALTWTRSED	29	Prep Date	20-Jun-07	Analysis Date	21-Jun-07	ASTM D422(03-02-005-001)
DWMP-10	5/16/2007 0:00	L42475-10	SF SALTWTRSED	4	Prep Date	20-Jun-07	Analysis Date	21-Jun-07	ASTM D422(03-02-005-001)
DWMP-11	5/16/2007 0:00	L42475-11	SF SALTWTRSED	19	Prep Date	20-Jun-07	Analysis Date	21-Jun-07	ASTM D422(03-02-005-001)
DWMP-12	5/16/2007 0:00	L42475-12	SF SALTWTRSED	30	Prep Date	20-Jun-07	Analysis Date	21-Jun-07	ASTM D422(03-02-005-001)
DWMP-13	5/17/2007 0:00	L42475-13	SF SALTWTRSED	5	Prep Date	20-Jun-07	Analysis Date	21-Jun-07	ASTM D422(03-02-005-001)
DWMP-14	5/16/2007 0:00	L42475-14	SF SALTWTRSED	13	Prep Date	20-Jun-07	Analysis Date	21-Jun-07	ASTM D422(03-02-005-001)
DWMP-15	5/17/2007 0:00	L42475-15	SF SALTWTRSED	19	Prep Date	20-Jun-07	Analysis Date	21-Jun-07	ASTM D422(03-02-005-001)
DWMP-16	5/17/2007 0:00	L42475-16	SF SALTWTRSED	24	Prep Date	20-Jun-07	Analysis Date	21-Jun-07	ASTM D422(03-02-005-001)

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Jun 05 2007, 03:45 pm

Work Group: WG91541 (nh3-kcl) for Department: 3 - Conventionals

Created: 18-MAY-07 PrepDate: Due: Operator: casey

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L42475-1	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-10	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-11	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-12	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-13	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-14	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-15	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-16	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-2	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-3	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-4	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-5	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-6	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-7	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-8	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-9	423368-80	Denny Way Sediment, Post Constru	SED	S	NH3-KCL	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
WG91541-1	MB			S	NH3-KCL	OTHR SOLID	ANAL	U	05-JUN-07	
WG91541-2	SB			S	NH3-KCL	OTHR SOLID	ANAL	U	05-JUN-07	
WG91541-3	LCS			S	NH3-KCL	OTHR SOLID	ANAL	U	05-JUN-07	
WG91541-4	LD		SED	S	NH3-KCL	SALTWTRSED	ANAL	U	05-JUN-07	
WG91541-5	LT		SED	S	NH3-KCL	SALTWTRSED	ANAL	U	05-JUN-07	
WG91541-6	MS		SED	S	NH3-KCL	SALTWTRSED	ANAL	U	05-JUN-07	

Comments:

L42475-1	0-2 cm, 3 grap COMP
L42475-10	0-2 cm, 3 grab COMP
L42475-11	0-2 cm, 3 grab COMP
L42475-12	0-2 cm, 3 grab COMP
L42475-13	0-2 cm, 3 grab COMP
L42475-14	0-2 cm, 3 grab COMP
L42475-15	0-2 cm, 3 grab COMP
L42475-16	0-2 cm, 3 grab COMP
L42475-2	0-2 cm, 3 grap COMP
L42475-3	0-2 cm, 3 grap COMP
L42475-4	0-2 cm, 3 grap COMP
L42475-5	0-2 cm, 3 grap COMP
L42475-6	0-2 cm, 3 grap COMP
L42475-7	0-2 cm, 3 grap COMP
L42475-8	0-2 cm, 3 grab COMP
L42475-9	0-2 cm, 3 grab COMP
WG91541-1	MB1 070518
WG91541-2	WG91541-1
WG91541-3	LEVEL1
WG91541-4	L42475-3
WG91541-5	WG91541-4 L42475-3
WG91541-6	L42475-3

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/05/07 03:49
Run ID: R120498 Workgroup: WG91541 (nh3-kcl)

MB:WG91541-1 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G(03-03-014-001)KCL Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Ammonia Nitrogen	.1	.2	mg/Kg	<MDL	

SB:WG91541-2 MB:WG91541-1 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G(03-03-014-001)KCL Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Ammonia Nitrogen	.1	.2	mg/Kg	<MDL	1	.939	94		80-120

LCS:WG91541-3 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G(03-03-014-001)KCL Project: Pkey: SED
(Lab Control Sample)

Parameter	Mdl	Rdl	Units	Truevalue	LCS Value	% Rec.	Qual	LabLimit
Ammonia Nitrogen	.1	.2	mg/Kg	1	.935	93		80-120

LT:WG91541-5 LD:WG91541-4 L42475-3 Matrix: SALTWTRSED Listtype: CVNH3-KCL Method: SM4500-NH3-G(03-03-014-001)KCL Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Ammonia Nitrogen	.1	.2	mg/Kg	.835	.921	.945	6		20

MS:WG91541-6 L42475-3 Matrix: SALTWTRSED Listtype: CVNH3-KCL Method: SM4500-NH3-G(03-03-014-001)KCL Project: 423368-80 Pkey: SED
(Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit
Ammonia Nitrogen	.1	.2	mg/Kg	.835	1.25782	2.02	94		75-125

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If the following parameters are reported, values in the RPD column are their Absolute Differences:

- pH
- pH, Field
- Salinity
- Salinity, Field
- Sample Depth
- Sample Temperature, Field

FreshWater Dissolved Nutrients Analysis Log

Date: 05/18/07 Start Time: 100
Analyst: am Data Filename: 051807

(1) Sample Transfer: From 18 To 14b Date: 5/18/07
(2) Sample Transfer: From 14b To 18 Date: 5/18/07
(3) Sample Transfer: From To Date:
Coolers: 4 °C (11,12,13,14,17) -20 °C(9,10,18) LAB (ambient room temp for analysis)

Standards	Prep ID
Calibration Stock	10
LCS	27
Spike Cocktail	1
NO2 Check Std	NA
Dilutor Accuracy	NA

Sample #	Products	Project #	Comments
L42620-1 to 12	NH3	421240AC	W691662
L42475-1 to 16	NH3-KCL	423364B-BD	W691541

Analysis Summary

Extractions

NH3

Channel: NH3 Sync Peak Height: Cd Column Eff.

Samples L42475-1 to 16 were taken from cooler 12 (4°C) for preparation. 5g was weighed for each sample aliquot into a new 250 mL HDPE container. Exact weights were stored in a calculation sheet, "NH3 KCL Ext mA 4 18 2007". 50mL 2M KCL extraction solution (#3) was added to each container. Intermediate LCS cocktail #7 had 2.5mL brought to 50 mL w/ extraction solution for LCS1 070518 CAL was modified. SB1 070518, L42475-3MS1 had 0.5mL low level spike #1 added to each container prior to 49.5 mL KCL extraction solution. SB2 070518 and L42475-3MS2 had 5.0 mL low level spike added to the samples prior to 45mL KCL. MB1,2,3 070518 was prepared by adding 50 mL KCL extraction solution to each container. All samples were placed on an orbital shaker @ 200 rpm for 30 minutes and then centrifuged @ 3270 rpm for ≈ 7 minutes. Samples were then filtered through 0.45µm SFCA syringe filters into clean, 60 mL amber bottles. Sample jars were returned to cooler 12 after aliquots were taken for extraction.

continued next page? (Y/N)

Channel: Sync Peak Height:

continued next page? (Y/N)

Channel: SI Sync Peak Height:

continued next page? (Y/N)

Channel: NH3 Sync Peak Height: 0.02994

All method and matrix QC was acceptable for samples L42620-1 to 12. This run not used for KCL analysis of NH3 due to possible kinetics effects. The higher the sample concentration, the worse the recovery was (120% to 140% high). Matrix matching may take care of this issue. At 1 method QC came off. The recoveries were high based upon known levels in dealing w/ KCL extracted QC. Sample L42620-9 was verified to see if small spike on downward

continued next page? (Y/N) Y

FreshWater Dissolved Nutrients Analysis Log

Channel 1 NO23

Channel 2 ORTHOP

Channel 3 Si

Channel 4 NH3 shoulder affected sample recovery. The re-analyzed values agreed w/ the initial in being @ the mdl level. The original result will be reported.

The method blank (MB3 070509) was analyzed in a different analysis with WG91345 due to running out of reagent @ the time of analysis. These samples could not be analyzed @ the same time. The samples will therefore be associated w/ the method blank and WG91345-6. There is ample QC @ the project level to meet the 1 in 20 criteria.

FreshWater Dissolved Nutrients Analysis Log

Date: 05/21/07 Start Time: 900
Analyst: Cary Data Filename: 0521A

(1) Sample Transfer: From 18 To 14 Date: 5/21/07
(2) Sample Transfer: From 14 To 18 Date: 5/21/07
(3) Sample Transfer: From ____ To ____ Date: ____

Coolers: 4 °C (11,12,13,14,17) -20 °C(9,10,18) LAB (ambient room temp for analysis)

Standards	Prep ID
Calibration Stock	10
LCS	Cocktail #7
Spike Cocktail	Intermediate #1
NO2 Check Std	NA
Dilutor Accuracy	NA

Sample #	Products	Project #	Comments
42475-1 to 16	NH3-KCL	423368-90	W69154

Analysis Summary

Channel NO23 Sync Peak Height ____ Cd Column Eff. ____

continued next page? (Y/N) ☐

Channel [illegible] Sync Peak Height ____

continued next page? (Y/N) ☐

Channel Si Sync Peak Height ____

continued next page? (Y/N) ☐

Channel NH3 Sync Peak Height 0.03539 Sample tubes were removed from freezer and allowed to thaw. The standards and washes were made from the same KCL solution. The samples were extracted in. This seemed to take care of the kinetic effects taking place from the last analysis. Method blank subtraction was necessary as samples & standards in same matrix. Initially, the spike blank and the LCS were out of acceptance @ 75% recovery. The samples were reposured and analyzed, and found to be acceptable. Sample L42475-6

continued next page? (Y/N) ☐

FreshWater Dissolved Nutrients Analysis Log

Channel 1
NO23

Channel 2
ORTHOP

Channel 3
Si

Channel 4
NH3 was re-analyzed by software due to carryover from sample L42475-5 which was diluted 5x by the software to bring it w/in the range of the calibration curve. Detection limits will be adjusted accordingly for -5. The other samples re-analyzed by the software were not necessary to ~~re-~~analyze, and :. original results will be reported! The established window for re-analyzed ~~samples~~ samples is based upon the CT value of 0.20 as a high level which would have samples after it re-analyzed due to carryover concerns.
As a test, two LCS' were analyzed. One was from CAL Lot A LCS source, and the other from CAL Lot A ~~A~~ mixed source. In both cases, both were shown to be acceptable w/ not much difference between the two.

Ammonia 2 Molar KCl Extraction - Balance Link Template

5/18/2007	Extraction Date	10	MSA Spike ID	10	SBA Spike ID
CASEY	Extraction Analyst	0.5	MS Spike Added (mL)	0.5	SB Spike Added (mL)
		10	MSB Spike ID	10	SBB Spike ID
5/21/2007	Analysis Date	5	MS Spike Added (mL)	5	SB Spike Added (mL)
CM	Analyst Initials	3	KCl Extraction Solution ID	6 & 7	LCS Intermediate Cocktail ID

Sample #	Date Analyzed	Sample Weight (g)	Volume of Diluent (ml)	NH3 (mg/L) Initial Result	Average Blank (mg/L)	NH3 (mg/L) Avg Blk Corrected	Analysis Dilution Factor	NH3 (mg/Kg)		
MB1 070518	5/21/2007	5.0000	50.0000	0.00399	0.00000	0.0040	1.0000	[redacted]		
MB2 070518	5/21/2007	5.0000	50.0000		0.00000	0.0000	1.0000	[redacted]		
MB3 070518	5/21/2007	5.0000	50.0000		0.00000	0.0000	1.0000	[redacted]		
LCS1 070518 CAL NUTS MOD	5/21/2007	5.0000	50.0000	0.09349	0.00000	0.0935	1.0000	[redacted]		
LCS2 070518 CAL NUTS A	5/21/2007	5.0000	50.0000	0.10195	0.00000	0.1020	1.0000	[redacted]		
L42475-1	5/21/2007	4.9469	50.0000	0.26032	0.00000	0.2603	1.0000	[redacted]	PUDDING CONSISTENCY SOME ROCKS	
L42475-2	5/21/2007	5.0985	50.0000	0.03246	0.00000	0.0325	1.0000	[redacted]	PUDDING CONSISTENCY	
L42475-3	5/21/2007	5.0359	50.0000	0.0841	0.00000	0.0841	1.0000	[redacted]	PUDDING CONSISTENCY	
L42475-3 LD	5/21/2007	5.1136	50.0000	0.09423	0.00000	0.0942	1.0000	[redacted]		
L42475-3 LT	5/21/2007	5.1482	50.0000	0.09732	0.00000	0.0973	1.0000	[redacted]		
L42475-4	5/21/2007	4.9903	50.0000	0.06991	0.00000	0.0699	1.0000	[redacted]	PUDDING CONSISTENCY	SOFTWAR
L42475-5	5/21/2007	4.9256	50.0000	0.104134	0.00000	0.1041	5.0000	[redacted]	WET ROCKS AND SHELLS, LITTLE SAND	0.9518
L42475-6	5/21/2007	5.1901	50.0000	0.09296	0.00000	0.0930	1.0000	[redacted]	PUDDING CONSISTENCY	
L42475-7	5/21/2007	4.9579	50.0000	0.05902	0.00000	0.0590	1.0000	[redacted]	PUDDING CONSISTENCY	
L42475-8	5/21/2007	5.1466	50.0000	0.16573	0.00000	0.1657	1.0000	[redacted]	PUDDING CONSISTENCY	
L42475-9	5/21/2007	4.9663	50.0000	0.0711	0.00000	0.0711	1.0000	[redacted]	PUDDING CONSISTENCY	
L42475-10	5/21/2007	4.9577	50.0000	0.3423	0.00000	0.3423	1.0000	[redacted]	WET, FINE SAND	0.58952
L42475-11	5/21/2007	4.9543	50.0000	0.13288	0.00000	0.1329	1.0000	[redacted]	PUDDING CONSISTENCY SOME ROCKS	
L42475-12	5/21/2007	5.0085	50.0000	0.05164	0.00000	0.0516	1.0000	[redacted]	THICK PUDDING	
L42475-13	5/21/2007	5.0206	50.0000	0.34991	0.00000	0.3499	1.0000	[redacted]	WET SAND AND SHELLS	0.59366
L42475-14	5/21/2007	5.1064	50.0000	0.13035	0.00000	0.1304	1.0000	[redacted]	PUDDING CONSISTENCY	
L42475-15	5/21/2007	5.0010	50.0000	0.07961	0.00000	0.0796	1.0000	[redacted]	PUDDING CONSISTENCY SOME ROCKS	
L42475-16	5/21/2007	5.0669	50.0000	0.09353	0.00000	0.0935	1.0000	[redacted]	PUDDING CONSISTENCY	
SB1 070518 (LOW)	5/21/2007	5.0000	50.0000	0.09387	0.00000	0.0939	1.0000	0.939		
L42475-3 MS1	5/21/2007	4.9689	50.0000	0.20083	0.00000	0.2008	1.0000	2.021		
Calc spike for sample		4.9689	50.0000			0.1250	1.0000	1.258		
SB2 070518 (HIGH)		5.0000	50.0000		0.00000	0.0000	1.0000	0.000		
L42475-3 MS2		5.0117	50.0000		0.00000	0.0000	1.0000	0.000		
Calc spike for sample		5.0117	50.0000		0.00000	1.2500	1.0000	12.471		

Blank ID	Blank Result (mg/L)
1	0
2	0
2	0
avg	0

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Jun 15 2007, 09:36 am

Work Group: WG91677 (TOC Denny Way Seds 423368-80) for Department: 3 - Conventionals

Created: 29-MAY-07 PrepDate: Due: Operator: DO

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L42475-1	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-10	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-11	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-12	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-13	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-14	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-15	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-16	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-2	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-3	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-4	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-5	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-6	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-7	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-8	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-9	423368-80	Denny Way Sediment, Post Constru	SED	S	TOC	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
WG91677-1	MB			S	TOC	OTHR SOLID	ANAL	U	30-MAY-07	
WG91677-2	SRM			S	TOC	OTHR SOLID	ANAL	U	30-MAY-07	
WG91677-3	SB			S	TOC	OTHR SOLID	ANAL	U	30-MAY-07	
WG91677-4	LD		SED	S	TOC	SALTWTRSED	ANAL	U	30-MAY-07	
WG91677-5	LT		SED	S	TOC	SALTWTRSED	ANAL	U	30-MAY-07	
WG91677-6	MS		SED	S	TOC	SALTWTRSED	ANAL	U	30-MAY-07	

Comments:

L42475-1	0-2 cm, 3 grap COMP
L42475-10	0-2 cm, 3 grab COMP
L42475-11	0-2 cm, 3 grab COMP
L42475-12	0-2 cm, 3 grab COMP
L42475-13	0-2 cm, 3 grab COMP
L42475-14	0-2 cm, 3 grab COMP
L42475-15	0-2 cm, 3 grab COMP
L42475-16	0-2 cm, 3 grab COMP
L42475-2	0-2 cm, 3 grap COMP
L42475-3	0-2 cm, 3 grap COMP
L42475-4	0-2 cm, 3 grap COMP
L42475-5	0-2 cm, 3 grap COMP
L42475-6	0-2 cm, 3 grap COMP
L42475-7	0-2 cm, 3 grap COMP
L42475-8	0-2 cm, 3 grab COMP
L42475-9	0-2 cm, 3 grab COMP
WG91677-2	HICONC
WG91677-3	WG91677-1
WG91677-4	L42475-6
WG91677-5	WG91677-4 L42475-6
WG91677-6	L42475-6

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/15/07 09:37
Run ID: R120636 Workgroup: WG91677 (TOC Denny Way Seds 423368-80)

MB:WG91677-1 Matrix: OTHR SOLID Listtype: CVTOC Method: EPA 9060-PSEP96(03-04-002-003) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

SRM:WG91677-2 Matrix: OTHR SOLID Listtype: CVTOC Method: EPA 9060-PSEP96(03-04-002-003) Project: Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1600	3270	mg/Kg	21900	20600	94		80-120

SB:WG91677-3 MB:WG91677-1 Matrix: OTHR SOLID Listtype: CVTOC Method: EPA 9060-PSEP96(03-04-002-003) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	500	1000	mg/Kg	<MDL	2500	2650	106		80-120

LT:WG91677-5 LD:WG91677-4 L42475-6 Matrix: SALTWTRSED Listtype: CVTOC Method: EPA 9060-PSEP96(03-04-002-003) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimi
Total Organic Carbon	1500	2990	mg/Kg	9070	10100	9300	6		20

MS:WG91677-6 L42475-6 Matrix: SALTWTRSED Listtype: CVTOC Method: EPA 9060-PSEP96(03-04-002-003) Project: 423368-80 Pkey: SED
(Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1600	3130	mg/Kg	9070	7830	16400	93		75-125

==========

If the following parameters are reported, values in the RPD column are their Absolute Differences:

- pH
- pH, Field
- Salinity
- Salinity, Field
- Sample Depth
- Sample Temperature, Field

TOC Solids Sample Preparation Worksheet

Analyst: D. Osada
Drying Date (start): 5/29/2007 Time: 1428 Temp (°C): 71
Drying Date (end): 5/30/2007 Time: 615 Temp (°C): 69
Workgroup #: WG91677

Initialize Calc. Function — Help w/ this function?
Add Analysis Worksheet — Help w/ this function?

Sample Number	Crucible ID	Crucible Weight (g)	Wet Weight (g)	Crucible + Dry Weight (g)	% Solids (@ 70°C)	Comment	Acid Treatment and Dates (10% H_3PO_4) Marked w/: X									
							1	Date	2	Date	3	Date	4	Date	5	Date
L42475-1	D1	112.0424	7.7821	115.6175	45.94	removed woody debris, rocks and shell fragments	X	5/30/2007	X	5/31/2007						
L42475-2	T7	100.7880	11.0509	106.9778	56.01	removed plant debris, rocks and shell fragments	X	5/30/2007	X	5/31/2007						
L42475-3	D21	106.6379	7.8479	110.3291	47.03	removed shell fragements	X	5/30/2007	X	5/31/2007						
L42475-4	D22	107.2449	7.9578	111.2688	50.57	removed shell fragements	X	5/30/2007	X	5/31/2007						
L42475-5	T3	105.1901	25.1947	123.9103	74.30	removed a lot of rocks and shell fragments	X	5/30/2007	X	5/31/2007						
L42475-6	D18	99.7239	9.1168	104.3448	50.69	removed shell fragements	X	5/30/2007	X	5/31/2007						
L42475-6LD	D12	100.3747	9.8479	105.2847	49.86	removed shell fragements	X	5/30/2007	X	5/31/2007						
L42475-6LT	D5	102.0295	10.7823	107.3765	49.59	removed shell fragements	X	5/30/2007	X	5/31/2007						
L42475-6MS	D18	99.7239	9.1168	104.3448	50.69	removed shell fragements	X	5/30/2007	X	5/31/2007						
L42475-7	T4	104.3926	10.2412	109.6538	51.37	removed shell fragements	X	5/30/2007	X	5/31/2007						
L42475-8	D7	98.1095	11.2752	103.7585	50.10	removed a few rocks and shell fragments	X	5/30/2007	X	5/31/2007						
L42475-9	D6	100.0916	8.2893	103.1824	37.29	removed plant debris, rocks and shell fragments	X	5/30/2007	X	5/31/2007						
L42475-10	D19	100.1634	14.6922	110.4817	70.23	removed shell fragements	X	5/30/2007	X	5/31/2007						
L42475-11	T8	104.0968	11.0133	109.4015	48.17	removed woody debris, rocks and shell fragments	X	5/30/2007	X	5/31/2007						
L42475-12	B84	102.8642	12.6657	106.8035	31.10	removed shell fragements	X	5/30/2007	X	5/31/2007						
L42475-13	D11	102.2787	22.6599	119.8522	77.55	removed a lot of rocks and shell fragments	X	5/30/2007	X	5/31/2007						
L42475-14	T6	104.8405	14.6243	112.2456	50.64	removed a few rocks and shell fragments	X	5/30/2007	X	5/31/2007						
L42475-15	C14	102.3497	11.8341	108.4901	51.89	removed a few rocks and shell fragments	X	5/30/2007	X	5/31/2007						
L42475-16	C7	95.3350	14.3765	102.9543	53.00	removed a few rocks and shell fragments	X	5/30/2007	X	5/31/2007						

TOC Solid -Matrix Sample Analysis Logbook

6/14/07	Date	~~451~~ 371	Instrument Flowrate in CCM	#36	Sucrose 4000 mg/L ID#	BCSS-1	~~Buffalo River SRM Lot#~~
D. Osada	Analyst	451	Baseline IR Signal	#35	Sucrose 10000 mg/L ID#	#35	Spike Std ID#
WG91677	Workgroup No.	6/13/07	Calibration Date	#34	Sucrose 20000 mg/L ID#	50 µL	Spike Volume Added
422385-80	Project No.	0.9998	R^2 Value	#33	Sucrose 40000 mg/L ID#	752	0.2 mgC Std Area Counts
	Analysis Filename (mmddyy)					6117	2 mgC Std Area Counts

Prepared Sample Tracking

	Date	Time	Cooler ID	Temp °C	Comments
Initial Storage	6/14/07	0610	18	-20°C	
Transfer To	6/14/07	0610	LAB	ROOM	For analysis
Transfer To	6/14/07	1600	18	-20°C	For storage

Analysis Log

Sample Identification	Sample Volume in milligrams (mg)			Comments
	Replicate 1	Replicate 2	Replicate 3	
Baseline	—	—		
CCV1	1.0	1.0	1.0	
RDL CK	0.2	0.2	0.2	
MBI 070614	200	200	200	
SRM1 070614	62.0	59.6	62.1	BCSS-1 +.V = 2.19% C
SBI 070614	200	200	200	
L42475-1	47.7	~~22.8~~ 27.3	26.7	
L42475-2	42.2	52.2	48.0	
L42475-3	26.6	28.7	28.0	
L42475-4	~~28.0~~ 51.5	54.3	56.4	1st rep entered 28.0 in wrong space ✓
L42475-5	58.6	55.2	56.8	
L42475-6	28.4	32.1	35.8	2nd rep entered wt as 32.099 into WINTOC ✓
CCV2	1.0	1.0	1.0	
L42475-6LD	33.2	33.5	32.9	
L42475-6LT	30.4	35.9	33.1	
L42475-6MS	30.5	33.7	32.9	
L42475-7	43.2	41.6	40.8	
L42475-8	47.5	45.7	43.1	
L42475-9	31.0	31.9	29.9	
L42475-10	22.9	61.3	60.3	
L42475-11	31.7	30.4	32.2	
L42475-12	31.4	24.0	23.7	aborted after 1st rep - didn't change cup for rep 2

Continue on next page

TOC Solid -Matrix Sample Analysis Logbook

continued from previous page

6/14/07	Date	371	Instrument Flowrate in CCM	#36	Sucrose 4000 mg/L ID#	BCS51	~~Buffalo River SRM~~ Lot#
D. Osack	Analyst	451	Baseline IR Signal	#35	Sucrose 10000 mg/L ID#	#35	Spike Std ID#
WG91677	Workgroup No.	6/13/07	Calibration Date	#34	Sucrose 20000 mg/L ID#	50 µL	Spike Volume Added
423368-80	Project No.	0.9998	R^2 Value	#33	Sucrose 40000 mg/L ID#	752	0.2 mgC Std Area Counts
	Analysis Filename (mmddyy)					6117	2 mgC Std Area Counts

Prepared Sample Tracking

	Date	Time	Cooler ID	Temp °C	Comments
Initial Storage	6/14/07	0610	18	-20°C	
Transfer To	6/14/07	0610	LAB	Room	For analysis
Transfer To	6/14/07	1600	18	-20°C	for storage

Analysis Log

Sample Identification	Sample Volume in milligrams (mg)			Comments
	Replicate 1	Replicate 2	Replicate 3	
L42475-13	51.6 / 173.4	174.4	172.3 ✓	1st rep rerun w/more sample 1st result <RDL.
CCV3	1.0	1.0	1.0	
L42475-14	32.0	34.1	34.5	
L42475-15	152.3 / 96.5	103.8	99.6 ✓	Restarted w/to use less sample
L42475-16	50.4	54.3	52.9	
CCV4	1.0	1.0	1.0	

TOC Solid-Matrix Preparation Logbook

Analyst D. Osada
Beginning Prep Date 5/29/07
Ending Prep Date 5/31/07

Workgroup # WG91677
Project No. 423368-80
Project Name Denny Way Sed

10/2496 H^3PO^4 Lot No

Sample Container Tracking

Date	Sample Numbers	Collect Date Jar ID	Initial Login	Transfer to:	Comments	Transfer to:	Comments
5/29/07	L42475-1 to 16		10	LAB	Weighed for TOC Solids	10	Returned for storage

Prepared Sample Tracking

Date	Sample Numbers	Batch QC (-LD, -LT, -MS)	Initial Storage	Transfer to:	Comments	Transfer to:	Comments	Final Prep Date
5/29/07	L42475-1 to 16	-6, LD, LT, MS	LAB	TOC OVEN	Dried overnight @ 70°C			
5/30/07	L42475-1 to 16	-6, LD, LT, MS	TOC OVEN	DESICCATOR	Weighed for TOC solids	CH	Pulverized + Acidified	
↓	↓	↓	CH	TOC OVEN	Dried overnight @ 70°C			
5/31/07	L42475-1 to 16	-6 LD, LT, MS	TOC OVEN	CH	Pulverized + Acidified	TOC OVEN	Dried 4 hrs @ 70°C	
↓	↓	↓	TOC OVEN	CH	Pulverized + transferred to vials	18	For storage	5/31/07

Cooler 10 / -20 °C
Cooler 18 / -20 °C
Cooler 12 / 4 °C

TOC Oven / 70 °C
Conventionals Hood (CH) / Room Temp

Logbook ID: Conv TOCS-Prep-5

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

May 31 2007, 09:10 am

Work Group: WG91676 (TOTS/TVS Denny Way Seds 423368-80) for Department: 3 - Conventionals

Created: 29-MAY-07 PrepDate: Due: Operator: DO

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L42475-1	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-1	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-10	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-10	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-11	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-11	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-12	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-12	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-13	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-13	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-14	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-14	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-15	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-15	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-16	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-16	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-2	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-2	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-3	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-3	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-4	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-4	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-5	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-5	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-6	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-6	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-7	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-7	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	15-MAY-07	15-AUG-07
L42475-8	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-8	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-9	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-9	423368-80	Denny Way Sediment, Post Constru	SED	S	TVS	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
WG91676-1	MB			S	TOTS	OTHR SOLID	ANAL	U	29-MAY-07	
WG91676-1	MB			S	TVS	OTHR SOLID	ANAL	U	29-MAY-07	
WG91676-2	LD		SED	S	TOTS	SALTWTRSED	ANAL	U	29-MAY-07	
WG91676-2	LD		SED	S	TVS	SALTWTRSED	ANAL	U	29-MAY-07	
WG91676-3	LT		SED	S	TOTS	SALTWTRSED	ANAL	U	29-MAY-07	
WG91676-3	LT		SED	S	TVS	SALTWTRSED	ANAL	U	29-MAY-07	

Comments:

L42475-1	0-2 cm, 3 grap COMP
L42475-10	0-2 cm, 3 grab COMP
L42475-11	0-2 cm, 3 grab COMP
L42475-12	0-2 cm, 3 grab COMP
L42475-13	0-2 cm, 3 grab COMP
L42475-14	0-2 cm, 3 grab COMP
L42475-15	0-2 cm, 3 grab COMP
L42475-16	0-2 cm, 3 grab COMP
L42475-2	0-2 cm, 3 grap COMP
L42475-3	0-2 cm, 3 grap COMP
L42475-4	0-2 cm, 3 grap COMP
L42475-5	0-2 cm, 3 grap COMP
L42475-6	0-2 cm, 3 grap COMP
L42475-7	0-2 cm, 3 grap COMP
L42475-8	0-2 cm, 3 grab COMP
L42475-9	0-2 cm, 3 grab COMP
WG91676-1	MB1 070529
WG91676-2	L42475-10
WG91676-3	WG91676-2 L42475-10

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 05/31/07 09:11
Run ID: R120403 Workgroup: WG91676 (TOTS/TVS Denny Way Seds 423368-80)

MB:WG91676-1 Matrix: OTHR SOLID Listtype: CVTOTS Method: SM2540-G (03-01-007-002) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Solids	.005	.01	%	<MDL	

MB:WG91676-1 Matrix: OTHR SOLID Listtype: CVTVS Method: SM2540-G (03-01-007-002) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Volatile Solids	.005	.01	%	<MDL	

LT:WG91676-3 LD:WG91676-2 L42475-10 Matrix: SALTWTRSED Listtype: CVTOTS Method: SM2540-G (03-01-007-002) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLim
Total Solids	.005	.01	%	70.7	70.9	70.5	0		20

LT:WG91676-3 LD:WG91676-2 L42475-10 Matrix: SALTWTRSED Listtype: CVTVS Method: SM2540-G (03-01-007-002) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLim
Total Volatile Solids	.005	.01	%	1.73	1.79	1.9	5		20

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If the following parameters are reported, values in the RPD column are their Absolute Differences:

- pH
- pH, Field
- Salinity
- Salinity, Field
- Sample Depth
- Sample Temperature, Field

Solids Analysis Logbook #14

Test/ Date/ Initials	Sample Number	Crucible Number	Sample Vol, mL	Matrix Code	Project Number	Temp/ Time in	Temp/ Time out	Temp/ Time in	Temp/ Time out	Comment
TSS45	MB1 070525	1	500	LN	421250	105/2:25 pm	103/4:15 PM			WG91565
5/25/07	LCS1 070525	2	100	LN	↓	↓	↓			#95
KS	L42621-32	3	505	LL						
	↓ 32LD	4	500	LL						
	↓ 33	5	250	LL						
	L42622-1	6	500	LK						
	↓ 1LD	7	500	LK						
	↓ 2	8	500	LK	↓	↓	↓			
TOS/TVS	MB1 070524	188	~20g	SA	423368-80	104°C	104°C	550°C	550°C	WG91677
5/29/07	L42475-1	189	↓	SC	↓	1425	0605	0815	1030	obtained samples from cooler #10 (-20°C). Weighed
OK	-2	190				5/29/07	5/30/07	5/30/07	5/30/07	~~aliquots~~ OK aliquots + returned
	-3	191								remaining sample to cooler #10 (-20°C)
	-4	192								
	-5	193								
	-6	194								
	-7	195								
	-8	196								
	-9	197								
	-10	198								
	-10LD	199								
	-10LT	200								
	-11	201								
	-12	202								
	-13	203								
	-14	204								
	-15	205								
	-16	206	↓	↓	↓	↓	↓	↓	↓	
TOTS	MB2 070529	207	~20g	SA	423365-4	103°C	104°C			WG91678
5/29/07	L42810-1	208	↓	SC	↓	1445	0605			obtained sample from cooler #12 (4°C). Weighed
OK	-1LD	209				5/29/07	5/30/07			aliquots for TOTS + returned to cooler #12 (4°C).
	-1LT	210	↓	↓	↓	↓	↓			

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

May 18 2007, 11:35 am

Work Group: WG91543 (Total Sulfide for Denny Way Sediments) for Department: 3 - Conventionals

Created: 18-MAY-07 PrepDate: Due: Operator: T Siebens

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L42475-1	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	15-MAY-07	13-AUG-07
L42475-2	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	15-MAY-07	13-AUG-07
L42475-3	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	15-MAY-07	13-AUG-07
L42475-4	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	15-MAY-07	13-AUG-07
L42475-6	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	16-MAY-07	14-AUG-07
L42475-7	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	15-MAY-07	13-AUG-07
L42475-8	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	16-MAY-07	14-AUG-07
WG91543-1	MB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	18-MAY-07	
WG91543-2	SB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	18-MAY-07	
WG91543-3	LD		SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	18-MAY-07	
WG91543-4	LT		SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	18-MAY-07	
WG91543-5	MS		SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	18-MAY-07	

Comments:

L42475-1	0-2 cm, 3 grap COMP
L42475-2	0-2 cm, 3 grap COMP
L42475-3	0-2 cm, 3 grap COMP
L42475-4	0-2 cm, 3 grap COMP
L42475-6	0-2 cm, 3 grap COMP
L42475-7	0-2 cm, 3 grap COMP
L42475-8	0-2 cm, 3 grab COMP
WG91543-1	MB1 070517
WG91543-2	WG91543-1
WG91543-3	L42475-1
WG91543-4	WG91543-3 L42475-1
WG91543-5	L42475-1

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/07/07 11:16
Run ID: R120180 Workgroup: WG91543 (Total Sulfide for Denny Way Sediments)

MB:WG91543-1 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Sulfide	.5	2	mg/Kg	<MDL	

SB:WG91543-2 MB:WG91543-1 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Total Sulfide	5	20	mg/Kg	<MDL	46.4	45.7	98		80-120

LT:WG91543-4 LD:WG91543-3 L42475-1 Matrix: SALTWTRSED Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLim
Total Sulfide	5	20	mg/Kg	54.6	68.4	80.7	19		20

MS:WG91543-5 L42475-1 Matrix: SALTWTRSED Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: 423368-80 Pkey: SED
(Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit
Total Sulfide	10	40	mg/Kg	54.6	46.4	114	129		65-135

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If the following parameters are reported, values in the RPD column are their Absolute Differences:

- pH
- pH, Field
- Salinity
- Salinity, Field
- Sample Depth
- Sample Temperature, Field

Sulfide Distillation Benchsheet

5/17/07 Distillation Date
Dim / TS Analyst Initials
423368-80-1 Project Number(s)
WG91543 Workgroup #(s)

✓ Total Sulfide (TOTSULFIDE)
Acid Volatile Sulfide (AVS)

112 Spike Solution Prep ID
5133707 OxyTrap Lot #

Distill Batch #	Distill Spot #	Sample ID Login	No.	QC ID	Sample Matrix	Spl Size g mL	Final Vol. mL	Dilution Factor	1:1 Acid (mL) HCl H_2SO_4	Deoxy RO H_2O Added (mL)	Comments
070517	1	MB	-1	MB	~~AA~~ LN	50mL RGN	50	1	2	50	Distillation Apparatus A
	2	L42475	-1	~~SF~~	SF	4.9173			21	40	
	3		-1	LD		5.1819					
	4		-1	~~MLT~~		5.0604					
	5		-1	MS		5.0113					
	6		-2	—		4.8800					
	7	SB	-1	~~SB~~	LN	5.1432			~~1~~ 2	50	Distillation Apparatus B
	8	L42475	-3	—	SF	50mL RGN			2	40	
	9		-4	—		4.9848			2		
	10		-6	—		5.1287					
	11		-7	—		5.0380					
	12		-8	—		4.9987					
			-								
			-								
			-								
			-								
			-								
			-								

Page 05

Logbook No. Conv_Sulfide_Distill-3

Sulfide Distillation Spreadsheet

Acid Pretreatment Date:	5/17/2007	Analyst:	TS / BM
Distillation Date:	5/17/2007	Analyst:	TS / BM
Analysis Date:	5/17/2007	Analyst:	TS / BM

Workgroup Number(s):	WG91543
Project Number(s):	423368-80-1

9030B (Total Sulfide)
AVS (Acid Volatile Sulfide)

OxyTrap Lot #:	5133707
DROW Prep ID:	130
1:1 H_2SO_4 Lot #:	1610360
0.25N NaOH Prep ID:	94
Iodine Solution Lot #:	1604395
Na Thiosulfate Lot #:	1606098
1:1 HCl Lot #:	5158-07a

Spike Solution Prep ID: 112

Conc of Spike Solution (mg/L)	Volume of Spike (mL)	True Value of Spike (mg/L)
46.4	5.00	4.64

Standardization of Iodine Solution

Deoxy RO H_2O Volume (mL)	Volume Iodine (mL)	Thiosulfate titrated (mL)	Normality of Thiosulfate Solution	Normality of Iodine Solution
50	2.50	2.49	0.025	0.0249
50	2.50	2.48	0.025	0.0248
50	2.50	2.50	0.025	0.025
			Avg Normality of Iodine Sol'n=	0.0249

Standardization of Working Sulfide Spike Solution

Sulfide Spike Sol'n Volume (mL)	Volume Iodine (mL)	Normality of Iodine Solution	Thiosulfate titrated (mL)	Normality of Thiosulfate Solution	Working Stock Conc (mg/L)
5.00	2.50	0.0249	1.91	0.025	46.40
5.00	2.50	0.0249	1.91	0.025	46.40
5.00	2.50	0.0249	1.91	0.025	46.40
				Avg Working Spike Sol'n Conc=	46.40

	Acid Pretreatment Data					Sample Distillation Data				
Sample ID	**sample (g)**	**Distillation Procedure**	**Distillation Acid**	**required pH**	**mL acid added**	**sample (g)**	**mL acid required**	**mL DROW required**	**final trap volume (mL)**	**Comments**
		9030B	1:1 H_2SO_4	<1			0.0	0.0		
		AVS	1:1 HCl	<3			20.0	0		
MB1	NA	90308	1:1 H2SO4	<1	NA	NA	2	50	50	A - Distillation Apparatus
SB1	NA	90308	1:1 H2SO4	<1	NA	NA	2	50	50	B - Distillation Apparatus
L42475-1	~5	90308	1:1 H2SO5	<1	1.00	4.9173	21	40	50	A - Distillation Apparatus
L42475-1 LD	NA	90308	1:1 H2SO6	<1	NA	5.1819	21	40	50	A - Distillation Apparatus
L42475-1 LT	NA	90308	1:1 H2SO7	<1	NA	5.0604	21	40	50	A - Distillation Apparatus
L42475-1 MS	NA	90308	1:1 H2SO8	<1	NA	5.0113	21	40	50	A - Distillation Apparatus
L42475-2	~5	90308	1:1 H2SO9	<1	1.00	4.8800	21	40	50	A - Distillation Apparatus
L42475-3	~5	90308	1:1 H2SO10	<1	1.00	5.1432	21	40	50	B - Distillation Apparatus
L42475-4	~5	90308	1:1 H2SO11	<1	1.00	4.9848	21	40	50	B - Distillation Apparatus
L42475-6	~5	90308	1:1 H2SO12	<1	1.00	5.1287	21	40	50	B - Distillation Apparatus
L42475-7	~5	90308	1:1 H2SO13	<1	1.00	5.0380	21	40	50	B - Distillation Apparatus
L42475-8	~5	90308	1:1 H2SO14	<1	1.00	4.9987	21	40	50	B - Distillation Apparatus

Sulfide Analysis Benchsheet

EKK/TS Analyst Initials
5/17/07 Analysis Date

Spreadsheet File Name: Sulfide_Solid_ColorV7_070517
Analysis: Total Sulfide / AVS (Circle one)

Sample ID	Matrix	QC	Project No.	Workgroup
L42475-1 to 4, 6, 7, 8	SF	-1	423368-80-1	WG91543

Analysis Summary $R^2 = 0.9996$. C6 removed from calibration curve due to low ABS reading from aliquot B resulting in an avg. C6 result of 0.8101 mg/L which was only 88% of True C6 value of 0.917 mg/L. C6A & C6B were re-prepared & re-analyzed w/ a result of 0.867 mg/L which was 95% of the true C6 value of 0.917 mg/L. C6 will just be used a range extender. C7 (TV = 1.101 mg/L) had acceptable recovery of 92% and will also be used a range extender.

- SBI 070517 & L42475-1 MS were prepared w/ a 10X DF (0.75 mL distilled sample + 6.75 mL 0.25N NaOH) prior to analysis.
- Samples L42475-1, -1D, -1LT were re-prepared at 10X because initial undiluted results were above C7 extended range. L42475-1 MS (10X) was reprepared at 20X (~~3.75~~ 0.375 mL of L42475-1MS distillate + 7.375 mL 0.25N NaOH) because initial 10X result was above C7 extended range. L42475-1 at 10X was re-prepared again at 10X to verify first 10X result. First 10X result for L42475-1 will be reported.
- Based on observed sample matrix, samples L42475-3, 4, ~~7~~ 7 & 8 were initially ~~prepe~~ prepared w/ a 10X DF prior to analysis. Samples L42475-3 & 4 were reanalyzed undiluted because 10X ~~results~~ ~~slope~~ responses were < ~~RPL~~ MDL level. Sample L42475-7 was re-analyzed w/ a 2X DF (3.75 mL distilled sample + 3.75 mL 0.25N NaOH) because response from initial 10X analysis was < ~~RPL~~ MDL level. ~~Bec~~ Color development from ~~10X~~ L42475-8 10X was visually more ~~intense~~ intense the color development from C7 standard. L42475-8 was re-prepared at 10X DF (~~10X~~ Prepare a new 10X & perform another 10X from the ~~4~~ newly prepared 10X for a serial dilu DF of 100X).
- ~~All~~ B aliquots for all samples were < MDL.
- Initial SBI 070517 at 10X was outside acceptance criteria. A new 10X prepared sample was re-analyzed w/ an acceptable recovery.

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Jun 08 2007, 09:07 am

Work Group: WG91824 (TOTSULFIDES for Denny Way) for Department: 3 - Conventionals

Created: 07-JUN-07 PrepDate: Due: Operator: BVM / TS

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L42475-10	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-11	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-12	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-13	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-14	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
L42475-15	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-16	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-5	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	17-MAY-07	15-AUG-07
L42475-9	423368-80	Denny Way Sediment, Post Constru	SED	S	TOTSULFIDE	SALTWTRSED	ANAL	U	16-MAY-07	15-AUG-07
WG91824-1	MB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	08-JUN-07	
WG91824-2	SB			S	TOTSULFIDE	OTHR SOLID	ANAL	U	08-JUN-07	

Comments:

L42475-10	0-2 cm, 3 grab COMP
L42475-11	0-2 cm, 3 grab COMP
L42475-12	0-2 cm, 3 grab COMP
L42475-13	0-2 cm, 3 grab COMP
L42475-14	0-2 cm, 3 grab COMP
L42475-15	0-2 cm, 3 grab COMP
L42475-16	0-2 cm, 3 grab COMP
L42475-5	0-2 cm, 3 grap COMP
L42475-9	0-2 cm, 3 grab COMP
WG91824-1	MB 070518
WG91824-2	WG91824-1

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/08/07 11:55
Run ID: R120555 Workgroup: WG91824 (TOTSULFIDES for Denny Way)

MB:WG91824-1 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Total Sulfide	5	2	mg/Kg	<MDL	

SB:WG91824-2 MB:WG91824-1 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Total Sulfide	5	20	mg/Kg	<MDL	50.4	40.5	80		80-120

LT:WG91543-4 LD:WG91543-3 L42475-1 Matrix: Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLim
Total Sulfide	5	20	mg/Kg	54.6	68.4	80.7	19		20

MS:WG91543-5 L42475-1 Matrix: Listtype: CVTOTSULFIDE Method: EPA 9030B (03-03-015-000) Project: Pkey: SED
(Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit
Total Sulfide	10	40	mg/Kg	54.6	46.4	114	129		65-135

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If the following parameters are reported, values in the RPD column are their Absolute Differences:

- pH
- pH, Field
- Salinity
- Salinity, Field
- Sample Depth
- Sample Temperature, Field

Sulfide Distillation Benchsheet

5/18/07 Distillation Date
BM / TS Analyst Initials
423368-80-1 Project Number(s)
WG91824 Workgroup #(s)

✓ Total Sulfide (TOTSULFIDE)
Acid Volatile Sulfide (AVS)

113 Spike Solution Prep ID
5133707 OxyTrap Lot #

Distill Batch #	Distill Spot #	Sample ID Login	No.	QC ID	Sample Matrix	Spl Size g mL	Final Vol. mL	Dilution Factor	1:1 Acid (mL) HCl H_2SO_4	Deoxy RO H_2O Added (mL)	Comments
070518	1	MB	-	MB	LW	50mL	50	1	2	50mL	
	2	L42475	-5	—	SF	5.0395			21	40 mL	Distillation Apparatus A
	3		-9	—		4.9799					
	4		-10	—		5.0162					
	5		-11	—		5.1811					
	6		-12	—		4.9110					
	7	SB	~~-13~~	SB	LW	50mL			2	50mL	
	8	L42475	-13	—	SF	4.9487			21	40 mL	Distillation Apparatus B
	9		-14	—		5.0452					
	10		-15	—		4.9829					
	11		-16	—		5.1764					
			-								
			-								
			-								
			-								
			-								
			-								
			-								

Sulfide Distillation Spreadsheet

Acid Pretreatment Date:	5/18/2007	Analyst:	BM / TS
Distillation Date:	5/18/2007	Analyst:	BM / TS
Analysis Date:	5/18/2007	Analyst:	BM / TS

Workgroup Number(s):	WG91824
Project Number(s):	423368-80-1

9030B (Total Sulfide)
AVS (Acid Volatile Sulfide)

OxyTrap Lot #:	5133707
DROW Prep ID:	131
1:1 H_2SO_4 Lot #:	1610360
0.25N NaOH Prep ID:	95
Iodine Solution Lot #:	1604395
Na Thiosulfate Lot #:	1606098
1:1 HCl Lot #:	5158-07a

Spike Solution Prep ID: 113

Conc of Spike Solution (mg/L)	Volume of Spike (mL)	True Value of Spike (mg/L)
50.4	5.00	5.04

Standardization of Iodine Solution

Deoxy RO H_2O Volume (mL)	Volume Iodine (mL)	Thiosulfate titrated (mL)	Normality of Thiosulfate Solution	Normality of Iodine Solution
50	2.50	2.50	0.025	0.025
50	2.50	2.49	0.025	0.0249
50	2.50	2.49	0.025	0.0249
			Avg Normality of Iodine Sol'n=	0.0249

Standardization of Working Sulfide Spike Solution

Sulfide Spike Sol'n Volume (mL)	Volume Iodine (mL)	Normality of Iodine Solution	Thiosulfate titrated (mL)	Normality of Thiosulfate Solution	Working Stock Conc (mg/L)
5.00	2.50	0.0249	1.87	0.025	49.87
5.00	2.50	0.0249	1.86	0.025	50.67
5.00	2.50	0.0249	1.86	0.025	50.67
				Avg Working Spike Sol'n Conc=	50.40

	Acid Pretreatment Data					Sample Distillation Data				
Sample ID	sample (g)	Distillation Procedure	Distillation Acid	required pH	mL acid added	sample (g)	mL acid required	mL DROW required	final trap volume (mL)	Comments
		9030B	1:1 H_2SO_4	<1			0.0	0.0	50	
		AVS	1:1 HCl	<3			20.0	0	50	
MB1	NA	90308	1:1 H2SO4	<1	NA	NA	2	50	50	Distillation Apparatus A
SB1	NA	90308	1:1 H2SO4	<1	NA	NA	2	50	50	Distillation Apparatus B
L42475-5	~ 5	90308	1:1 H2SO4	<1	1.0	5.0395	21	40	50	Distillation Apparatus A
L42475-9	~ 5	90308	1:1 H2SO4	<1	1.0	4.9799	21	40	50	Distillation Apparatus A
L42475-10	~ 5	90308	1:1 H2SO4	<1	1.0	5.0162	21	40	50	Distillation Apparatus A
L42475-11	~ 5	90308	1:1 H2SO4	<1	1.0	5.1811	21	40	50	Distillation Apparatus A
L42475-12	~ 5	90308	1:1 H2SO4	<1	1.0	4.9110	21	40	50	Distillation Apparatus A
L42475-13	~ 5	90308	1:1 H2SO4	<1	1.0	4.9487	21	40	50	Distillation Apparatus B
L42475-14	~ 5	90308	1:1 H2SO4	<1	1.0	5.0452	21	40	50	Distillation Apparatus B
L42475-15	~ 5	90308	1:1 H2SO4	<1	1.0	4.9829	21	40	50	Distillation Apparatus B
L42475-16	~ 5	90308	1:1 H2SO4	<1	1.0	5.1764	21	40	50	Distillation Apparatus B

Sulfide Analysis Benchsheet

TJ/TS Analyst Initials
5/18/07 Analysis Date

Spreadsheet File Name: Sulfide Solid_CalcV7_070518
Analysis: Total Sulfide / AVS (Circle one)

Sample ID	Matrix	QC	Project No.	Workgroup
L42475-5,9,10 to 16	SF	— see WG91543 for associated matrix QC information	423368-80-1	WG91824

Analysis Summary R^2 = 0.99777. Initial results for C5A & C6A were not used. Re-prepared & re-analyzed results for C5 & C6 were used in the "Absorbance #1" cells of the spreadsheet for the calibration.

~~C7A~~ Initial C7A result was also not used because of a low reading compared to C7B & C7 TV. Using the C7B value for calculation, C7 had an acceptable recovery of 95% and will be used as a range extender.

- All QC samples were within acceptance limits. SB 070518 was analyzed with an initial 10X DF of the distillate (0.75 mL distillate + 6.75 mL 0.25N NaOH) due to expected sulfide levels.
- Samples L42475-11A was ~~initial prepared~~ analyzed w/ an initial DF of 10X due to expected ~~total~~ elevated level of total sulfide based acid test of the sample.
- Initial results for L42475-13A was above the extended range of C7. The distilled sample A was re-prepared w/ a 2X DF (3.75 mL distillate + 3.75 mL 0.25N NaOH) and re-analyzed.
- Visual inspection of L42475-5A indicated that result will be above extended range of C7 and was therefore not analyzed. L42475-5A distillate was re-prepared w/ a 10X DF and re-analyzed.
- B aliquots for all sample distillates were < MDL and not needed for sample final calculations.

METAL CHEMISTRY QC DATA

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Jun 26 2007, 01:56 pm

Work Group: WG91756 (Denny Way Seds) for Department: 6 - Metals, Trace

Created: 01-JUN-07 PrepDate: 01-JUN-07 Due: Operator: ST

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L42475-1	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	12-JUN-07	15-AUG-07
L42475-10	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	13-JUN-07	15-AUG-07
L42475-11	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	13-JUN-07	15-AUG-07
L42475-12	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	13-JUN-07	15-AUG-07
L42475-13	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	14-JUN-07	15-AUG-07
L42475-14	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	13-JUN-07	15-AUG-07
L42475-15	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	14-JUN-07	15-AUG-07
L42475-16	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	14-JUN-07	15-AUG-07
L42475-2	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	12-JUN-07	15-AUG-07
L42475-3	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	12-JUN-07	15-AUG-07
L42475-4	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	12-JUN-07	15-AUG-07
L42475-5	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	14-JUN-07	15-AUG-07
L42475-6	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	13-JUN-07	15-AUG-07
L42475-7	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	12-JUN-07	15-AUG-07
L42475-8	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	13-JUN-07	15-AUG-07
L42475-9	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA	SALTWTRSED	WKGP	U	13-JUN-07	15-AUG-07
WG91756-1	SRM		SED	S	HG-CVAA	SALTWTRSED	WKGP	U	26-JUN-07	
WG91756-2	MB			S	HG-CVAA	SOLIDBLANK	WKGP	U	26-JUN-07	
WG91756-3	SB			S	HG-CVAA	SOLIDBLANK	WKGP	U	26-JUN-07	
WG91756-4	MS		SED	S	HG-CVAA	SALTWTRSED	WKGP	U	26-JUN-07	
WG91756-5	MSD		SED	S	HG-CVAA	SALTWTRSED	WKGP	U	26-JUN-07	
WG91756-6	LD		SED	S	HG-CVAA	SALTWTRSED	WKGP	U	26-JUN-07	

Comments:

L42475-1	0-2 cm, 3 grap COMP
L42475-10	0-2 cm, 3 grab COMP
L42475-11	0-2 cm, 3 grab COMP
L42475-12	0-2 cm, 3 grab COMP
L42475-13	0-2 cm, 3 grab COMP
L42475-14	0-2 cm, 3 grab COMP
L42475-15	0-2 cm, 3 grab COMP
L42475-16	0-2 cm, 3 grab COMP
L42475-2	0-2 cm, 3 grap COMP
L42475-3	0-2 cm, 3 grap COMP
L42475-4	0-2 cm, 3 grap COMP
L42475-5	0-2 cm, 3 grap COMP
L42475-6	0-2 cm, 3 grap COMP
L42475-7	0-2 cm, 3 grap COMP
L42475-8	0-2 cm, 3 grab COMP
L42475-9	0-2 cm, 3 grab COMP
WG91756-1	PACS2
WG91756-2	METHOD BLANK
WG91756-3	WG91756-2 HG-SOL
WG91756-4	L42475-10 HG-SOL
WG91756-5	WG91756-4 L42475-10 HG-SOL-MSD
WG91756-6	L42475-10 RPD-SOL

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/26/07 01:59
Run ID: R120773 Workgroup: WG91756 (Denny Way Seds)

SRM:WG91756-1 Matrix: SALTWTRSED Listtype: MTHG-SED Method: EPA 7471A (06-01-004-003) Project: Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	.097	.971	mg/Kg	3.04	2.92	96		80-120

MB:WG91756-2 Matrix: SOLIDBLANK Listtype: MTHG-SED Method: EPA 7471A (06-01-004-003) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Mercury, Total, CVAA	.019	.19	mg/Kg	<MDL	

SB:WG91756-3 MB:WG91756-2 Matrix: SOLIDBLANK Listtype: MTHG-SED Method: EPA 7471A (06-01-004-003) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	.019	.19	mg/Kg	<MDL	0.476	.502	105		85-115

MSD:WG91756-5 MS:WG91756-4 L42475-10 Matrix: SALTWTRSED Listtype: MTHG-SED Method: EPA 7471A (06-01-004-003) Project: 423368-80 Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
Mercury, Total, CVAA	.019	.194	mg/Kg	1.67	0.506	.791	-174	X	75-125	0.485	.89	-162	*			20

LD:WG91756-6 L42475-10 Matrix: SALTWTRSED Listtype: MTHG-SED Method: EPA 7471A (06-01-004-003) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
Mercury, Total, CVAA	.021	.208	mg/Kg	1.67	.254	147	E	20

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If the following parameters are reported, values in the RPD column are their Absolute Differences:

- pH
- pH, Field
- Salinity
- Salinity, Field
- Sample Depth
- Sample Temperature, Field

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Jun 19 2007, 02:22 pm

Work Group: WG91968 (ICP 6/20/07) for Department: 6 - Metals, Trace

Created: 19-JUN-07 PrepDate: 20-JUN-07 Due: Operator: BDM

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L42475-1	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-1	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-10	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-10	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-11	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-11	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-12	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-12	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-13	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-13	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-14	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-14	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-15	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-15	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-16	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-16	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-2	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-2	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-3	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-3	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-4	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-4	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-5	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-5	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-6	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-6	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-7	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-7	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-8	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-8	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-9	423368-80	Denny Way Sediment, Post Constru	SED	S	NPDES ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
L42475-9	423368-80	Denny Way Sediment, Post Constru	SED	S	SB-ICP	SALTWTRSED	WKGP	U	15-AUG-07	15-AUG-07
WG91968-1	SB			S	NPDES ICP	SOLIDBLANK	WKGP	U	19-JUN-07	
WG91968-2	SRM		SED	S	NPDES ICP	SALTWTRSED	WKGP	U	19-JUN-07	
WG91968-3	MB			S	NPDES ICP	SOLIDBLANK	WKGP	U	19-JUN-07	
WG91968-4	LD		SED	S	NPDES ICP	SALTWTRSED	WKGP	U	19-JUN-07	
WG91968-5	MS		SED	S	NPDES ICP	SALTWTRSED	WKGP	U	19-JUN-07	
WG91968-6	LCS			S	NPDES ICP	SOIL	WKGP	U	19-JUN-07	

Comments:

L42475-1	0-2 cm, 3 grap COMP
L42475-10	0-2 cm, 3 grab COMP
L42475-11	0-2 cm, 3 grab COMP
L42475-12	0-2 cm, 3 grab COMP
L42475-13	0-2 cm, 3 grab COMP
L42475-14	0-2 cm, 3 grab COMP
L42475-15	0-2 cm, 3 grab COMP
L42475-16	0-2 cm, 3 grab COMP
L42475-2	0-2 cm, 3 grap COMP
L42475-3	0-2 cm, 3 grap COMP
L42475-4	0-2 cm, 3 grap COMP
L42475-5	0-2 cm, 3 grap COMP
L42475-6	0-2 cm, 3 grap COMP
L42475-7	0-2 cm, 3 grap COMP
L42475-8	0-2 cm, 3 grab COMP
L42475-9	0-2 cm, 3 grab COMP
WG91968-1	WG91968-3 ICPMARINE SPIKE BLANK
WG91968-2	PACS2 M1-11-30
WG91968-3	DIGESTED METHOD BLANK
WG91968-4	L42475-2 RPD-SOL LAB DUPLICATE

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Jun 19 2007, 02:22 pm

Work Group: WG91968 (ICP 6/20/07) for Department: 6 - Metals, Trace

Created: 19-JUN-07 PrepDate: 20-JUN-07 Due: Operator: BDM

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
WG91968-5	L42475-2	ICPMARINE MATRIX SPIKE								
WG91968-6	ERASOIL M-05-038									

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/21/07 10:41
Run ID: R120703 Workgroup: WG91968 (ICP 6/20/07)

SB:WG91968-1 MB:WG91968-3 Matrix: SOLIDBLANK Listtype: MTICP-SED Method: EPA3050B/6010B MOD(6-2-04-02) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec	Qual	LabLimit
Silver, Total, ICP	.19	.952	mg/Kg	<MDL	47.6	47.9	101		85-115
Arsenic, Total, ICP	1.2	5.95	mg/Kg	<MDL	47.6	49.5	104		85-115
Cadmium, Total, ICP	.095	.476	mg/Kg	<MDL	47.6	48	101		85-115
Chromium, Total, ICP	.14	.714	mg/Kg	<MDL	47.6	48.4	102		85-115
Copper, Total, ICP	.19	.952	mg/Kg	<MDL	47.6	47.9	101		85-115
Nickel, Total, ICP	.24	1.19	mg/Kg	<MDL	47.6	46.9	98		85-115
Lead, Total, ICP	.95	4.76	mg/Kg	<MDL	47.6	47.3	99		85-115
Antimony, Total, ICP	.71	3.57	mg/Kg	<MDL	47.6	49.4	104		85-115
Zinc, Total, ICP	.24	1.19	mg/Kg	<MDL	238	240	101		85-115

SRM:WG91968-2 Matrix: SALTWTRSED Listtype: MTICP-SED Method: EPA3050B/6010B MOD(6-2-04-02) Project: Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec	Qual	LabLimit
Chromium, Total, ICP	.6	3.02	mg/Kg	90.7	45.9	51		30-70
Copper, Total, ICP	.81	4.03	mg/Kg	310	300	97		78-118
Nickel, Total, ICP	1	5.04	mg/Kg	39.5	29.1	74		51-91
Lead, Total, ICP	4	20.2	mg/Kg	183	170	93		74-114
Zinc, Total, ICP	1	5.04	mg/Kg	364	340	93		73-113

MB:WG91968-3 Matrix: SOLIDBLANK Listtype: MTICP-SED Method: EPA3050B/6010B MOD(6-2-04-02) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Silver, Total, ICP	.19	.952	mg/Kg	<MDL	
Arsenic, Total, ICP	1.2	5.95	mg/Kg	<MDL	
Cadmium, Total, ICP	.095	.476	mg/Kg	<MDL	
Chromium, Total, ICP	.14	.714	mg/Kg	<MDL	
Copper, Total, ICP	.19	.952	mg/Kg	<MDL	
Nickel, Total, ICP	.24	1.19	mg/Kg	<MDL	
Lead, Total, ICP	.95	4.76	mg/Kg	<MDL	
Antimony, Total, ICP	.71	3.57	mg/Kg	<MDL	
Zinc, Total, ICP	.24	1.19	mg/Kg	<MDL	

LD:WG91968-4 L42475-2 Matrix: SALTWTRSED Listtype: MTICP-SED Method: EPA3050B/6010B MOD(6-2-04-02) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
Silver, Total, ICP	.2	.998	mg/Kg	.83	.74			20
Arsenic, Total, ICP	1.2	6.24	mg/Kg	4.1	4.2			20
Cadmium, Total, ICP	.1	.499	mg/Kg	.15	.18			20
Chromium, Total, ICP	.15	.749	mg/Kg	22.8	22	3		20
Copper, Total, ICP	.2	.998	mg/Kg	26.8	25.2	6		20
Nickel, Total, ICP	.25	1.25	mg/Kg	23.7	21.4	10		20
Lead, Total, ICP	1	4.99	mg/Kg	31.9	32.6	2		20
Antimony, Total, ICP	.75	3.74	mg/Kg	<MDL	<MDL			20
Zinc, Total, ICP	.25	1.25	mg/Kg	50.9	50.5	1		20

MS:WG91968-5 L42475-2 Matrix: SALTWTRSED Listtype: MTICP-SED Method: EPA3050B/6010B MOD(6-2-04-02) Project: 423368-80 Pkey: SED
(Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit
Silver, Total, ICP	.2	1	mg/Kg	.83	49.9	51.3	101		75-125
Arsenic, Total, ICP	1.2	6.25	mg/Kg	4.1	49.9	57.1	106		75-125
Cadmium, Total, ICP	.1	.5	mg/Kg	.15	49.9	50.9	102		75-125
Chromium, Total, ICP	.15	.75	mg/Kg	22.8	49.9	72.8	100		75-125
Copper, Total, ICP	.2	1	mg/Kg	26.8	49.9	78.5	103		75-125
Nickel, Total, ICP	.25	1.25	mg/Kg	23.7	49.9	70.5	94		75-125
Lead, Total, ICP	1	5	mg/Kg	31.9	49.9	80.2	97		75-125
Antimony, Total, ICP	.75	3.75	mg/Kg	<MDL	49.9	14.9	30	G	75-125
Zinc, Total, ICP	.25	1.25	mg/Kg	50.9	250.	299	99		75-125

LCS:WG91968-6 Matrix: SOIL Listtype: MTICP-SED Method: EPA3050B/6010B MOD(6-2-04-02) Project: Pkey: SED
(Lab Control Sample)

Parameter	Mdl	Rdl	Units	Truevalue	LCS Value	% Rec.	Qual	LabLimit
Silver, Total, ICP	.83	4.14	mg/Kg	171	192	112		80-120
Arsenic, Total, ICP	5.2	25.9	mg/Kg	142	151	106		80-120
Cadmium, Total, ICP	.41	2.07	mg/Kg	64.5	66.5	103		80-120
Chromium, Total, ICP	.62	3.11	mg/Kg	86.5	90.1	104		80-120
Copper, Total, ICP	.83	4.14	mg/Kg	68.6	69.8	102		80-120
Nickel, Total, ICP	1	5.18	mg/Kg	68.4	71.8	105		80-120
Lead, Total, ICP	4.1	20.7	mg/Kg	93.6	98.7	105		80-120
Antimony, Total, ICP	3.1	15.5	mg/Kg	105	94	90		80-120
Zinc, Total, ICP	1	5.18	mg/Kg	296	312	105		80-120

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If the following parameters are reported, values in the RPD column are their Absolute Differences:

- pH
- pH, Field
- Salinity
- Salinity, Field
- Sample Depth
- Sample Temperature, Field

ORGANIC CHEMISTRY QC DATA

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

May 30 2007, 08:45 am

Work Group: WG91554 (VSM370) for Department: 7 - Organics, Trace

Created: 24-MAY-07 PrepDate: 24-MAY-07 Due: Operator: LK

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L42475-1	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	29-MAY-07	15-AUG-07
L42475-10	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	30-MAY-07	15-AUG-07
L42475-11	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	30-MAY-07	15-AUG-07
L42475-12	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	30-MAY-07	15-AUG-07
L42475-13	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	31-MAY-07	15-AUG-07
L42475-14	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	30-MAY-07	15-AUG-07
L42475-15	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	31-MAY-07	15-AUG-07
L42475-16	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	31-MAY-07	15-AUG-07
L42475-2	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	29-MAY-07	15-AUG-07
L42475-3	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	29-MAY-07	15-AUG-07
L42475-4	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	29-MAY-07	15-AUG-07
L42475-5	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	31-MAY-07	15-AUG-07
L42475-6	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	30-MAY-07	15-AUG-07
L42475-7	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	29-MAY-07	15-AUG-07
L42475-8	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	30-MAY-07	15-AUG-07
L42475-9	423368-80	Denny Way Sediment, Post Constru	SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	30-MAY-07	15-AUG-07
WG91554-1	MB			S	VOA-GC/MS-LOWSED	SOLIDBLANK	WKGP	U	21-MAY-07	
WG91554-2	SB			S	VOA-GC/MS-LOWSED	SOLIDBLANK	WKGP	U	21-MAY-07	
WG91554-3	MS		SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	21-MAY-07	
WG91554-4	MSD		SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	21-MAY-07	
WG91554-5	LD		SED	S	VOA-GC/MS-LOWSED	SALTWTRSED	WKGP	U	21-MAY-07	
WG91554-6	MB			S	VOA-GC/MS-LOWSED	SOLIDBLANK	WKGP	U	25-MAY-07	
WG91554-7	SB			S	VOA-GC/MS-LOWSED	SOLIDBLANK	WKGP	U	25-MAY-07	
WG91554-8	MB			S	VOA-GC/MS-LOWSED	SOLIDBLANK	WKGP	U	29-MAY-07	
WG91554-9	SB			S	VOA-GC/MS-LOWSED	SOLIDBLANK	WKGP	U	29-MAY-07	

Comments:

L42475-1	0-2 cm, 3 grap COMP
L42475-10	0-2 cm, 3 grab COMP
L42475-11	0-2 cm, 3 grab COMP
L42475-12	0-2 cm, 3 grab COMP
L42475-13	0-2 cm, 3 grab COMP
L42475-14	0-2 cm, 3 grab COMP
L42475-15	0-2 cm, 3 grab COMP
L42475-16	0-2 cm, 3 grab COMP
L42475-2	0-2 cm, 3 grap COMP
L42475-3	0-2 cm, 3 grap COMP
L42475-4	0-2 cm, 3 grap COMP
L42475-5	0-2 cm, 3 grap COMP
L42475-6	0-2 cm, 3 grap COMP
L42475-7	0-2 cm, 3 grap COMP
L42475-8	0-2 cm, 3 grab COMP
L42475-9	0-2 cm, 3 grab COMP
WG91554-1	MB070524
WG91554-2	WG91554-1
WG91554-3	L42475-2
WG91554-4	WG91554-3 L42475-2
WG91554-5	L42475-3
WG91554-6	MB070525
WG91554-7	WG91554-6
WG91554-8	MB070529
WG91554-9	WG91554-8

Batch: \\Orgizmo\EE\chem\6890m.i\070524s.b

#	Smp. #	Injection Time	Wkgp. #	QC #	Project #	Sample Description	Matrix	Amount	DilFac	IS#2-RT	IS#2-Area	Method	Init Cali	Analyst
1	TUNE-1	24-MAY-2007 08:19	EM Volt	bfb.u	421152	1413; 10ppb BFB	NONE	0.000	5.0	17.018	34784	BFB390.m		LK
2	CCAL-1	24-MAY-2007 08:51	EM Volt	IS#131	421152	1407; 50ppb VOA STD	SOIL	5.000	5.0	8.974	2124358	8260s.m	19-SEP-2006	LK
3	BLANK-1	24-MAY-2007 09:24	WG91554	VSM370	423368	System Blank	SOIL	5.000	5.0	8.974	1888674	8260S.m	19-SEP-2006	LK
4	WG91554-1	24-MAY-2007 09:57	WG91554	VSM370	423368	Method Blank	SOIL	5.000	1.0	8.974	1742035	8260s.m	19-SEP-2006	LK
5	WG91554-2	24-MAY-2007 10:29	WG91554	VSM370	423368	1411; VOA SPK	SOIL	5.000	1.0	8.979	2051721	8260s.m	19-SEP-2006	LK
6	WG91554-3	24-MAY-2007 11:02	WG91554	VSM370	423368	1411; VOA SPK(L42475-2)	SOIL	5.000	1.0	8.979	2051941	8260s.m	19-SEP-2006	LK
7	WG91554-4	24-MAY-2007 11:36	WG91554	VSM370	423368	1411; VOA SPK(L42475-2)	SOIL	5.000	1.0	8.980	1781346	8260s.m	19-SEP-2006	LK
8	L42475-2	24-MAY-2007 12:09	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.979	1764401	8260S.m	19-SEP-2006	LK
9	L42475-1	24-MAY-2007 12:42	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.985	1432687	8260S.m	19-SEP-2006	LK
10	L42475-3	24-MAY-2007 13:15	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.974	1752812	8260S.m	19-SEP-2006	LK
11	WG91554-5	24-MAY-2007 13:48	WG91554	VSM370	423368	LD of L42475-3	SOIL	5.000	1.0	8.980	1873348	8260S.m	19-SEP-2006	LK
12	L42475-4	24-MAY-2007 14:20	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.974	2049716	8260S.m	19-SEP-2006	LK
13	L42475-5	24-MAY-2007 14:53	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.974	2232386	8260S.m	19-SEP-2006	LK
14	L42475-6	24-MAY-2007 15:25	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.979	2214940	8260S.m	19-SEP-2006	LK
15	L42475-7	24-MAY-2007 15:58	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.980	1270536	8260S.m	19-SEP-2006	LK
16	L42475-8	24-MAY-2007 16:30	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.980	2057414	8260S.m	19-SEP-2006	LK
17	L42475-9	24-MAY-2007 17:03	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.980	2625890	8260S.m	19-SEP-2006	LK
18	BLANK-2	24-MAY-2007 17:36	WG91554	VSM370	423368	System Blank	SOIL	5.000	5.0	8.974	3101389	8260S.m	19-SEP-2006	LK
19	BLANK-3	24-MAY-2007 18:08	WG91554	VSM370	423368	System Blank	SOIL	5.000	5.0	8.974	2194793	8260S.m	19-SEP-2006	LK

Samples: 9 **QC Samples + Misc.:** 8 **ContinuingCals:** 1 **Tunes:** 1 **Calibrations:** 0

Batch: \\Orgizmo\EE\chem\6890m.i\070525s.b

#	Smp. #	Injection Time	Wkgp. #	QC #	Project #	Sample Description	Matrix	Amount	DilFac	IS#2-RT	IS#2-Area	Method	Init Cali	Analyst
1	TUNE-1	25-MAY-2007 06:55	EM Volt	bfb.u	421152	1413; 10ppb BFB	NONE	0.000	5.0	17.019	47864	BFB390.m		LK
2	CCAL-1	25-MAY-2007 07:28	EM Volt	IS#131	421152	1407; 50ppb VOA STD	SOIL	5.000	5.0	8.974	2802366	8260s.m	19-SEP-2006	LK
3	BLANK-1	25-MAY-2007 08:00	WG91554	VSM370	423368	System Blank	SOIL	5.000	5.0	0.000	0	8260S.m	19-SEP-2006	LK
4	WG91554-6	25-MAY-2007 08:33	WG91554	VSM370	423368	Method Blank	SOIL	5.000	1.0	8.974	2304018	8260s.m	19-SEP-2006	LK
5	WG91554-7	25-MAY-2007 09:05	WG91554	VSM370	423368	1411; VOA SPK	SOIL	5.000	1.0	8.974	2553972	8260s.m	19-SEP-2006	LK
6	L42475-10	25-MAY-2007 09:38	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.980	2123439	8260s.m	19-SEP-2006	LK
7	L42475-11	25-MAY-2007 10:11	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.980	1970305	8260s.m	19-SEP-2006	LK
8	L42475-13	25-MAY-2007 11:17	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.980	1875446	8260s.m	19-SEP-2006	LK
9	L42475-14	25-MAY-2007 11:50	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.980	1759461	8260s.m	19-SEP-2006	LK
10	L42475-15	25-MAY-2007 12:23	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.985	1439399	8260s.m	19-SEP-2006	LK
11	L42475-16	25-MAY-2007 12:56	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.979	1774655	8260s.m	19-SEP-2006	LK

Samples: 6 **QC Samples + Misc.:** 3 **ContinuingCals:** 1 **Tunes:** 1 **Calibrations:** 0

Batch: \\Orgizmo\EE\chem\6890m.i\070529s.b

#	Smp. #	Injection Time	Wkgp. #	QC #	Project #	Sample Description	Matrix	Amount	DilFac	IS#2-RT	IS#2-Area	Method	Init Cali	Analyst
1	BLANK-1	29-MAY-2007 07:47	WG91554	VSM370	423368	System Blank	SOIL	5.000	5.0	8.974	1676472	8260S.m	19-SEP-2006	LK
2	TUNE-1	29-MAY-2007 08:19	EM Volt	bfb.u	421152	1413; 10ppb BFB	NONE	0.000	5.0	17.019	20176	bfb390.m		LK
3	CCAL-1	29-MAY-2007 08:52	EM Volt	IS#131	421152	1407; 50ppb VOA STD	SOIL	5.000	5.0	8.974	1938300	8260s.m	19-SEP-2006	LK
4	BLANK-2	29-MAY-2007 09:25	WG91554	VSM370	423368	System Blank	SOIL	5.000	5.0	8.974	1809055	8260S.m	19-SEP-2006	LK
5	BLANK-3	29-MAY-2007 09:57	WG91554	VSM370	423368	System Blank	SOIL	5.000	5.0	8.979	1710155	8260S.m	19-SEP-2006	LK
6	BLANK-4	29-MAY-2007 10:30	WG91554	VSM370	423368	System Blank	SOIL	5.000	1.0	8.980	1697860	8260S.m	19-SEP-2006	LK
7	WG91554-8	29-MAY-2007 11:03	WG91554	VSM370	423368	Method Blank	SOIL	5.000	1.0	8.985	1605731	8260S.m	19-SEP-2006	LK
8	WG91554-9	29-MAY-2007 11:36	WG91554	VSM370	423368	1411; VOA SPK	SOIL	5.000	1.0	8.980	1964479	8260s.m	19-SEP-2006	LK
9	L42475-12	29-MAY-2007 12:10	WG91554	VSM370	423368	Dennyway Sediment	SOIL	5.000	1.0	8.985	1755081	8260S.m	19-SEP-2006	LK

Samples: 1 **QC Samples + Misc.:** 6 **ContinuingCals:** 1 **Tunes:** 1 **Calibrations:** 0

WG 91554 Denny Way Sediment low level extraction

VOLATILE ORGANICS DILUTION LOG

King County Department of Natural Resources

Date/ Analyst	QA/QC Batch #	Sample ~~Amount~~ ML	~~Final Volume~~ Sample Amount (g)	Dilution (H_2O)	Dilution Factor	Comments
LK 5/24/2007	VSM370	MS(L42475-2)	5.025 g	+ 4 ml of	H_2O + 1ml	of full spike (used from the @250ppb ccal's same conc as ccal)
	WG91554	MSD(L42475-2)	5.024 g	↓		instrument conc. for ms + msD is @ 50ppb
		L42475-2	5.035 g	+ 5 ml of	H_2O	~~[illegible]~~
		L42475-1	5.009 g			std #1407 used to make 250ppb conc. → 1ml of that
		L42475-3	4.995 g			into 5g of sample + 4ml of H_2O = 10ml
		LD of L4245-3	4.997 g			solatek add 5ml of
		L42475-4	5.057 g			to make 15ml of total
		↓ -5	5.020 g			same as the working std. volume

SpK #1407 $\frac{200\ ug/ml \times 0.0625\ ml}{50\ ml} = .250\ ug/ml = 250ppb$.

VOLATILE ORGANICS MAINTENANCE LOG

Date/ Analyst				Maintenance
		L42475-6	5.030 g	
		-7	5.044 g	
		-8	5.003 g	
		↓ -9	5.000 g	
		SB	4 ml of H_2O + 1 ml of full spK	solatek add 10ml of H_2O
			instrument conc. for SB @ 30ppb → same as ccal-1	
			All samples + QCs have dilution factor of 1	

VOLATILE ~~MEDIUM LEVEL EXTRACTIONS~~

Method: SW-846 8260 (Solids)

Date/ Analyst	QA/QC Batch #	Sample ~~Number~~ Amount (g)	~~Amount~~	Surrogate/ Spike	Final Volume (MeOH)	Dilution (H_2O)	Comments
5/29/2007 LK	L42475-12	5.026 g	DNU	+ 5ml	of H_2O		
Rerun	~~[illegible]~~			~~+ 5ml~~	~~of H_2O~~		
	MB						

WG 91554 Cont. Denny Way Sediments Low Level

VOLATILE ORGANICS DILUTION LOG

King County Department of Natural Resources

Date/ Analyst	QA/QC Batch #	Sample ~~Amount~~ ~~ML~~	~~Final Volume~~ sample ~~(H_2O)~~ amount	Dilution (H_2O)	Dilution Factor	Comments
LK 5/25/2007	VSM 37	L42475-10	5.014g	+ 5 ml of H_2O		
		-11	5.041g	+ 5 ml of H_2O		
		-12	5.033g	+ 5 ml of H_2O		
		-13	5.014g	+ 5 ml of H_2O		
		-14	5.002g	+ 5 ml of H_2O		
		-15	5.032g	+ 5 ml of H_2O		
		-16	5.016g	+ 5 ml of H_2O		

VOLATILE ~~ORGANICS MAINTENANCE LOG~~

Date/ Analyst	Maintenance
	Rerun 5/29/2007
	MB
	SB
	L42475-12 5.026g + 5ml of H_2O

VOLATILE MEDIUM LEVEL EXTRACTIONS

Method: SW-846 8260 (Solids)

Date/ Analyst	QA/QC Batch #	Sample Number	Amount	Surrogate/ Spike	Final Volume (MeOH)	Dilution (H_2O)	Comments

LIMSView Analytical QC Report - run on 12/14/07 08:17 am

Workgroup: WG91554 Volatile Organics

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	
Ethylbenzene	1	2	ug/Kg	<MDL	
Tetrachloroethylene	1	2	ug/Kg	<MDL	
Total Xylenes	1	2	ug/Kg	<MDL	

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	50	45.6	91		35--118
Ethylbenzene	1	2	ug/Kg	<MDL	50	48	96		70--130
Tetrachloroethylene	1	2	ug/Kg	<MDL	50	56.7	113		70--130
Total Xylenes	1	2	ug/Kg	<MDL	100	108	108		70--130

(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	Samp Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	50	39.6	79		35--118	50	38.8	78		1		35
Ethylbenzene	1	2	ug/Kg	<MDL	50	41.7	83		70--130	50	42.9	86		4		35
Tetrachloroethylene	1	2	ug/Kg	<MDL	50	48.5	97		70--130	50	48.2	96		1		35
Total Xylenes	1	2	ug/Kg	<MDL	100	94.1	94		70--130	100	97	97		3		35

(Lab Duplicate)

Parameter	MDL	RDL	Units	Samp Value	LD Value	RPD^	Qual	Lab Limit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	<MDL			35
Ethylbenzene	1	2	ug/Kg	<MDL	<MDL			35
Tetrachloroethylene	1	2	ug/Kg	<MDL	<MDL			35
Total Xylenes	1	2	ug/Kg	<MDL	<MDL			35

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	
Ethylbenzene	1	2	ug/Kg	<MDL	
Tetrachloroethylene	1	2	ug/Kg	<MDL	
Total Xylenes	1	2	ug/Kg	<MDL	

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	50	41.5	83		35--118
Ethylbenzene	1	2	ug/Kg	<MDL	50	42.8	86		70--130
Tetrachloroethylene	1	2	ug/Kg	<MDL	50	49.1	98		70--130
Total Xylenes	1	2	ug/Kg	<MDL	100	91.9	92		70--130

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	
Ethylbenzene	1	2	ug/Kg	<MDL	
Tetrachloroethylene	1	2	ug/Kg	<MDL	
Total Xylenes	1	2	ug/Kg	<MDL	

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	50	41.8	84		35--118
Ethylbenzene	1	2	ug/Kg	<MDL	50	41.4	83		70--130
Tetrachloroethylene	1	2	ug/Kg	<MDL	50	46.9	94		70--130
Total Xylenes	1	2	ug/Kg	<MDL	100	91.4	91		70--130

Surrogate:	4-Bromofluorobenzene	d4-1,2-Dichloroethane	dB-Toluene
(Lab Limits)	**78--110**	**76--128**	**84--106**
L42475-1	92	95	93
L42475-2	93	90	91
L42475-3	89	94	95
L42475-4	97	90	92
L42475-5	98	88	91
L42475-6	95	93	89
L42475-7	92	93	93
L42475-8	90	91	91
L42475-9	93	82	88
L42475-10	92	88	91
L42475-11	90	88	89
L42475-12	83	94	92
L42475-13	92	88	91
L42475-14	83	93	89
L42475-15	89	90	91
L42475-16	88	87	90
WG91554-1	107	96	94
WG91554-2	105	84	100
WG91554-3	96	81	99
WG91554-4	99	81	97
WG91554-5	94	90	90
WG91554-6	89	83	91
WG91554-7	93	77	98
WG91554-8	89	98	95
WG91554-9	96	84	103

A/M
7/20/07
MS

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Jun 13 2007, 11:03 am

Work Group: WG91559 (bs#246 bnasms) for Department: 7 - Organics, Trace

Created: 21-MAY-07 PrepDate: 22-MAY-07 Due: Operator: km

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L42475-1	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-10	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-11	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-12	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-13	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	31-MAY-07	15-AUG-07
L42475-14	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-15	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	31-MAY-07	15-AUG-07
L42475-16	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	31-MAY-07	15-AUG-07
L42475-2	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-3	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-4	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-5	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	31-MAY-07	15-AUG-07
L42475-6	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-7	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-8	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-9	423368-80	Denny Way Sediment, Post Constru	SED	S	BNASMS	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
WG91559-1	MB			S	BNASMS	OTHR SOLID	PREP	U	21-MAY-07	
WG91559-5	SRM		SED	S	BNASMS	SALTWTRSED	PREP	U	21-MAY-07	
WG91559-6	LD		SED	S	BNASMS	SALTWTRSED	PREP	U	21-MAY-07	
WG91559-7	SB			S	BNASMS	OTHR SOLID	PREP	U	21-MAY-07	
WG91559-8	MS		SED	S	BNASMS	SALTWTRSED	PREP	U	21-MAY-07	
WG91559-9	MSD		SED	S	BNASMS	SALTWTRSED	PREP	U	21-MAY-07	

Comments:

L42475-1	0-2 cm, 3 grap COMP
L42475-10	0-2 cm, 3 grab COMP
L42475-11	0-2 cm, 3 grab COMP
L42475-12	0-2 cm, 3 grab COMP
L42475-13	0-2 cm, 3 grab COMP
L42475-14	0-2 cm, 3 grab COMP
L42475-15	0-2 cm, 3 grab COMP
L42475-16	0-2 cm, 3 grab COMP
L42475-2	0-2 cm, 3 grap COMP
L42475-3	0-2 cm, 3 grap COMP
L42475-4	0-2 cm, 3 grap COMP
L42475-5	0-2 cm, 3 grap COMP
L42475-6	0-2 cm, 3 grap COMP
L42475-7	0-2 cm, 3 grap COMP
L42475-8	0-2 cm, 3 grab COMP
L42475-9	0-2 cm, 3 grab COMP
WG91559-1	MB070522
WG91559-5	1944
WG91559-6	L42475-2
WG91559-7	WG91559-1
WG91559-8	L42475-3
WG91559-9	WG91559-8 L42475-3

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR BNA ANALYSIS
TRACE ORGANICS LABORATORY

QC BATCH NO.: BS #246 1:1 Acetone:MeCl2 BNA SMS

EPA SW-846 EXTRACTION METHOD:

SONICATION EPA 3550 SOXHLET EPA 3540

WORKGROUP NO.: WG 91559

BNA SURROGATE SPIKE I.D.#: ~~136~~ 1376 #1304 ~~Coprostanol:~~

BNA MATRIX SPIKE I.D.#: 1263A ~~Caffeine:~~

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Init. Amt (g)	Spike Amount (uL)	Vf (mL)	Clean ups (GPC)	Conc. Anal.	Turn Over Date	Comments
KM 5/22/07	WG 91559-1	QC	MB		40.0 g	1376 100 µl	0.5	YES	KM	5/25/07	
	-2		SB LOW			1263A 100 µl					
	-3		MS LOW (L42475-1)								
	-4		MSD LOW (L42475-1)								
	-5		SRM 1944		3.0 g	1304 100 µl	5.0				
	-6		LD (L42475-2)		40.0 g	1376 100 µl	0.5				
	-7		~~MS 2~~ & SB2 HIGH			1263A 300 µl					
	-8		MSD 2 (L42475-3)								
	-9		MSD 2 (L42475-3)								
	L42475-1	423368	DENNY WAYSED			1376 100 µl					
	-2	080-	POST CONSTRUCTION								
	-3										
	-4										
	-5										faulted resumed low proba
	-6										
	-7										
	-8										
	-9										
	-10										
	-11										
	-12										
	-13										
	-14										
	-15										
	-16										

KM 5/2

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR BNA ANALYSIS
TRACE ORGANICS LABORATORY

QC BATCH NO.: BS #248 1:1 Acetone:MeCl2

EPA SW-846 EXTRACTION METHOD: BNA SMS

SONICATION EPA 3550 SOXHLET EPA 3540

WORKGROUP NO.:

BNA SURROGATE SPIKE I.D.#: 1376

BNA MATRIX SPIKE I.D.#:

Coprostanol:

Caffeine:

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Init. Amt (g)	Spike Amount (uL)	Vf (mL)	Clean-ups (GPC)	Conc. Anal.	Turn Over Date	Comments
KM 6/5/07		~~MB~~ QC	MB		40.0	1376 100 ul	0.5	YES	1 ul	6/6/07	
		~~L~~	LD1 (L4247-2)		40.0						
			LD2 (L4247-2)		20.0						
	L4247S-2	423268	L4247S-2		40.0						
		-080	DENNY WAY SED								

Batch: \\orgizmo\EE\chem\6890j.i\070606.b

#	Smp. #	Injection Time	Wkgp. #	QC #	Project #	Sample Description	Matrix	Amount	DilFac	IS#2-RT	IS#2-Area	Method	Init Cali	Analyst
1	DFTPP-1	06-JUN-2007 08:05	SDGa0971	SDGa09		10 NG/UL DFTPP MIX	NONE	0.000	1.0	12.867	81392	DFTPP.m		M.Doubrava
2	CCALI-01	06-JUN-2007 09:25	SDGa0282	SDGa02		SS#1354 D 8.0 PPM BNA STD	WATER	0.000	1.0	8.256	346070	8270b1sms.m	17-APR-2007	M.Doubrava
3	BLANK-01	06-JUN-2007 10:04	SDGa0282	SDGa02		MECL2 INSTRUMENT BLANK	SOIL	0.000	1.0	0.000	0	8270B1SMS.m	17-APR-2007	M.Doubrava
4	MB-1	06-JUN-2007 10:52	SDGa0282	SDGa02		MB	SOIL	25.000	0.5	8.286	308742	8270b1sms.m	17-APR-2007	M.Doubrava
5	LD-2	06-JUN-2007 11:40	SDGa0282	SDGa02		LD2	SOIL	12.500	0.5	8.287	274060	8270b1sms.m	17-APR-2007	M.Doubrava
6	WG91559-6	06-JUN-2007 12:28	WG91559	SDGa02		WG91559-6 LD L42475-2 DENNY	SOIL	25.000	0.5	8.286	423783	8270b1sms.m	17-APR-2007	M.Doubrava
7	L42475-2	06-JUN-2007 13:17	WG91559	SDGa02		L42475-2	SOIL	25.000	0.5	8.287	231896	8270B1SMS.m	17-APR-2007	M.Doubrava
8	L42475-1	06-JUN-2007 14:05	WG91559	BS#246		L42475-1 DENNY WAY SEDS	SOIL	25.000	0.5	8.286	348583	8270B1SMS.m	17-APR-2007	M.Doubrava
9	L42475-6	06-JUN-2007 14:53	WG91559	BS#246		L42475-6 DENNY WAY SEDS	SOIL	25.000	0.5	8.286	254466	8270b1sms.m	17-APR-2007	M.Doubrava
10	L42475-7	06-JUN-2007 15:41	WG91559	BS#246		L42475-7 DENNY WAY SEDS	SOIL	25.000	0.5	8.286	329273	8270B1SMS.m	17-APR-2007	M.Doubrava
11	L42475-8	06-JUN-2007 16:30	WG91559	BS#246		L42475-8 DENNY WAY SEDS	SOIL	25.000	0.5	8.287	309672	8270B1SMS.m	17-APR-2007	M.Doubrava
12	L42475-9	06-JUN-2007 17:18	WG91559	BS#246		L42475-9 DENNY WAY SEDS	SOIL	25.000	0.5	8.286	261783	8270B1SMS.m	17-APR-2007	M.Doubrava
13	L42475-10	06-JUN-2007 18:06	WG91559	BS#246		L42475-10 DENNY WAY SEDS	SOIL	25.000	0.5	8.287	278445	8270B1SMS.m	17-APR-2007	M.Doubrava
14	L42475-11	06-JUN-2007 18:54	WG91559	BS#246		L42475-11 DENNY WAY SEDS	SOIL	25.000	0.5	8.286	306884	8270B1SMS.m	17-APR-2007	M.Doubrava
15	L42475-12	06-JUN-2007 19:42	WG91559	BS#246		L42475-12 DENNY WAY SEDS	SOIL	25.000	0.5	8.286	329612	8270B1SMS.m	17-APR-2007	M.Doubrava
16	DFTPP-2	06-JUN-2007 20:30	SDGa0971	SDGa09		10 NG/UL DFTPP MIX	NONE	0.000	1.0	12.872	92416	DFTPP.m		M.Doubrava
17	CCALI-02	06-JUN-2007 21:04	SDGa0282	SDGa02		SS#1354 D 8.0 PPM BNA STD	WATER	0.000	1.0	8.256	274053	8270b1sms.m	17-APR-2007	M.Doubrava
18	BLANK-02	06-JUN-2007 21:47	SDGa0282	SDGa02		MECL2 INSTRUMENT BLANK	SOIL	0.000	1.0	0.000	0	8270B1SMS.m	17-APR-2007	M.Doubrava

Samples: 10 **QC Samples + Misc.: 5** **ContinuingCals: 1** **Tunes: 2** **Calibrations: 0**

```
          Comment:
         Operator:
        Data Path: C:\MSDChem\1\data\070606\
Top                    Pre-Seq Cmd:
Instrument Control     Pre-Seq Cmd:
Data Analysis          Pre-Seq Cmd:

Top                   Post-Seq Cmd:
Instrument Control    Post-Seq Cmd:
Data Analysis         Post-Seq Cmd:

   Method Sections To Run      On A Barcode Mismatch
     (X) Full Method             (X) Inject Anyway
     ( ) Reprocessing Only       ( ) Don't Inject

   ---------------------------------------------------------------------
   Line                     Sample Name/Misc Info
 1)  Tune            3  DFTPP-1  DFTPP    10 NG/UL DFTPP MIX
 2)  Sample          4  CCALI-01 8270B1   SS#1354 D 8.0 PPM BNA STD
 3)  Blank           2
     Datafile          BLANK-01
     Method            8270B1SMS
 4)  Blank           5
     Datafile          MB-1
     Method            8270B1SMS
 5)  LD              6
     Datafile          LD-2
     Method            8270B1SMS
 6)  LD              7
     Datafile          LD-1
     Method            8270B1SMS
 7)  Sample          8
     Datafile          L42475-2
     Method            8270B1SMS
 8)  Sample          9
     Datafile          L42475-1
     Method            8270B1SMS
 9)  Sample         10
     Datafile          L42475-6
     Method            8270B1SMS
10)  Sample         11
     Datafile          L42475-7
     Method            8270B1SMS
11)  Sample         12
     Datafile          L42475-8
     Method            8270B1SMS
12)  Sample         13
     Datafile          L42475-9
     Method            8270B1SMS
13)  Sample         14
     Datafile          L42475-10
     Method            8270B1SMS
14)  Sample         15
     Datafile          L42475-11
     Method            8270B1SMS
15)  Sample         16
     Datafile          L42475-12
     Method            8270B1SMS
16)  Tune            3  DFTPP-2  DFTPP    10 NG/UL DFTPP MIX
17)  Sample          4  CCALI-02 8270B1   SS#1354 D 8.0 PPM BNA STD
18)  Blank           2
     Datafile          BLANK-02
     Method            8270B1SMS
```

A/M
7/20/07
MMS

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 07/17/07 07:06
Run ID: R120436 Workgroup: WG91559 (bs#246 bnasms)

MB:WG91559-1 Matrix: OTHR SOLID Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Phenol	4	8	ug/Kg	<MDL	
1,3-Dichlorobenzene	.2	.4	ug/Kg	<MDL	
1,4-Dichlorobenzene	.2	.4	ug/Kg	<MDL	
1,2-Dichlorobenzene	.2	.4	ug/Kg	<MDL	
Hexachloroethane	1	2	ug/Kg	<MDL	
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	
1,2,4-Trichlorobenzene	.1	.2	ug/Kg	<MDL	
Naphthalene	2	4	ug/Kg	<MDL	
Hexachlorobutadiene	.5	1	ug/Kg	<MDL	
Acenaphthylene	2	4	ug/Kg	<MDL	
Dimethyl Phthalate	4	8	ug/Kg	<MDL	
Acenaphthene	2	4	ug/Kg	<MDL	
Fluorene	2	4	ug/Kg	<MDL	
Diethyl Phthalate	4	8	ug/Kg	<MDL	
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	
Hexachlorobenzene	.1	.2	ug/Kg	<MDL	
Pentachlorophenol	10	20	ug/Kg	<MDL	
Phenanthrene	2	4	ug/Kg	<MDL	
Anthracene	2	4	ug/Kg	<MDL	
Di-N-Butyl Phthalate	4	8	ug/Kg	<MDL	
Fluoranthene	2	4	ug/Kg	<MDL	
Pyrene	2	4	ug/Kg	<MDL	
Benzyl Butyl Phthalate	1	2	ug/Kg	<MDL	
Benzo(a)anthracene	2	4	ug/Kg	<MDL	
Chrysene	2	4	ug/Kg	<MDL	
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	5.5	B
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	
Benzo(b)fluoranthene	2	4	ug/Kg	<MDL	
Benzo(k)fluoranthene	2	4	ug/Kg	<MDL	
Benzo(a)pyrene	2	4	ug/Kg	<MDL	
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	<MDL	
Dibenzo(a,h)anthracene	2	4	ug/Kg	<MDL	
Benzo(g,h,i)perylene	2	4	ug/Kg	<MDL	
Benzyl Alcohol	2	4	ug/Kg	<MDL	
2-Methylphenol	2	4	ug/Kg	<MDL	
4-Methylphenol	4	8	ug/Kg	<MDL	
Benzoic Acid	10	20	ug/Kg	<MDL	
2-Methylnaphthalene	2	4	ug/Kg	<MDL	
Dibenzofuran	2	4	ug/Kg	<MDL	
Carbazole	2	4	ug/Kg	<MDL	
Coprostanol	40	80	ug/Kg	<MDL	
Total LPAHs	2	4	ug/Kg	<MDL	
Total HPAHS	2	4	ug/Kg	<MDL	

SRM:WG91559-5 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec	Qual	LabLimit
Naphthalene	270	533	ug/Kg	1630	270	17		10-29
Phenanthrene	270	533	ug/Kg	5200	3280	63		51-106

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 07/17/07 07:06
Run ID: R120436 Workgroup: WG91559 (bs#246 bnasms)

SRM:WG91559-5 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
Anthracene	270	533	ug/Kg	1750	743	43		28-98
Fluoranthene	270	533	ug/Kg	8800	7010	80		45-126
Pyrene	270	533	ug/Kg	9570	7040	74		36-135
Benzo(a)anthracene	270	533	ug/Kg	4660	3360	72		66-124
Chrysene	270	533	ug/Kg	4800	4140	86		77-136
Benzo(b)fluoranthene	270	533	ug/Kg	3820	3930	103		52-190
Benzo(k)fluoranthene	270	533	ug/Kg	2270	1690	75		60-146
Benzo(a)pyrene	270	533	ug/Kg	4240	3030	72		60-116
Indeno(1,2,3-Cd)Pyrene	270	533	ug/Kg	2740	2250	82		33-121
Dibenzo(a,h)anthracene	270	533	ug/Kg	419.	520	125		10-200
Benzo(g,h,i)perylene	270	533	ug/Kg	2800	1770	63		15-121

LD:WG91559-6 L42475-2 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimi
Phenol	4	8	ug/Kg	<MDL	<MDL			35
1,3-Dichlorobenzene	.2	.4	ug/Kg	<MDL	<MDL			35
1,4-Dichlorobenzene	.2	.4	ug/Kg	.893	.925	4		35
1,2-Dichlorobenzene	.2	.4	ug/Kg	<MDL	<MDL			35
Hexachloroethane	1	2	ug/Kg	<MDL	<MDL			35
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	<MDL			35
1,2,4-Trichlorobenzene	.1	.2	ug/Kg	<MDL	<MDL			35
Naphthalene	2	4	ug/Kg	15.7	20.5	26		35
Hexachlorobutadiene	.5	1	ug/Kg	<MDL	<MDL			35
Acenaphthylene	2	4	ug/Kg	12.4	9.87	23		35
Dimethyl Phthalate	4	8	ug/Kg	<MDL	<MDL			35
Acenaphthene	2	4	ug/Kg	61.8	80.1	26		35
Fluorene	2	4	ug/Kg	53.9	71.3	28		35
Diethyl Phthalate	4	8	ug/Kg	<MDL	<MDL			35
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	<MDL			35
Hexachlorobenzene	.1	.2	ug/Kg	<MDL	<MDL			35
Pentachlorophenol	10	20	ug/Kg	<MDL	<MDL			35
Phenanthrene	2	4	ug/Kg	450	534	17		35
Anthracene	2	4	ug/Kg	130	156	18		35
Di-N-Butyl Phthalate	4	8	ug/Kg	11.2	12.5	11		35
Fluoranthene	2	4	ug/Kg	633	558	13		35
Pyrene	2	4	ug/Kg	555	549	1		35
Benzyl Butyl Phthalate	1	2	ug/Kg	25.4	22.9	10		35
Benzo(a)anthracene	2	4	ug/Kg	318	228	33		35
Chrysene	2	4	ug/Kg	344	276	22		35
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	234	223	5		35
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	<MDL			35
Benzo(b)fluoranthene	2	4	ug/Kg	299	232	25		35
Benzo(k)fluoranthene	2	4	ug/Kg	182	187	3		35
Benzo(a)pyrene	2	4	ug/Kg	250	213	16		35
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	166	132	22		35
Dibenzo(a,h)anthracene	2	4	ug/Kg	39.2	36.4	8		35
Benzo(g,h,i)perylene	2	4	ug/Kg	137	121	12		35
Benzyl Alcohol	2	4	ug/Kg	<MDL	<MDL			35

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 07/17/07 07:06
Run ID: R120436 Workgroup: WG91559 (bs#246 bnasms)

LD:WG91559-6 L42475-2 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimi
2-Methylphenol	2	4	ug/Kg	<MDL	<MDL			35
4-Methylphenol	4	8	ug/Kg	<MDL	<MDL			35
Benzoic Acid	10	20	ug/Kg	70.9	66.6	6		35
2-Methylnaphthalene	2	4	ug/Kg	13.5	22.7	50	E	35
Dibenzofuran	2	4	ug/Kg	26.8	21.7	21		35
Carbazole	2	4	ug/Kg	89.7	69.9	25		35
Coprostanol	40	80	ug/Kg	<MDL	<MDL			35

SB:WG91559-7 MB:WG91559-1 Matrix: OTHR SOLID Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Phenol	4	8	ug/Kg	<MDL	300.	114	38		10-107
1,3-Dichlorobenzene	.2	.4	ug/Kg	<MDL	300.	111	37		18-95
1,4-Dichlorobenzene	.2	.4	ug/Kg	<MDL	300.	105	35		21-99
1,2-Dichlorobenzene	.2	.4	ug/Kg	<MDL	300.	111	37		10-116
Hexachloroethane	1	2	ug/Kg	<MDL	300.	106	35		17-92
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	300.	43.6	15		10-81
1,2,4-Trichlorobenzene	.1	.2	ug/Kg	<MDL	300.	112	37		13-110
Naphthalene	2	4	ug/Kg	<MDL	300.	118	39		17-94
Hexachlorobutadiene	.5	1	ug/Kg	<MDL	300.	102	34		10-97
Acenaphthylene	2	4	ug/Kg	<MDL	300.	124	41		31-101
Dimethyl Phthalate	4	8	ug/Kg	<MDL	300.	158	53		38-114
Acenaphthene	2	4	ug/Kg	<MDL	300.	147	49		29-102
Fluorene	2	4	ug/Kg	<MDL	300.	173	58		39-106
Diethyl Phthalate	4	8	ug/Kg	<MDL	300.	176	59		51-118
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	300.	152	51		11-148
Hexachlorobenzene	.1	.2	ug/Kg	<MDL	300.	156	52		40-111
Pentachlorophenol	10	20	ug/Kg	<MDL	300.	88.3	29	*	38-124
Phenanthrene	2	4	ug/Kg	<MDL	300.	176	59		57-104
Anthracene	2	4	ug/Kg	<MDL	300.	183	61		45-114
Di-N-Butyl Phthalate	4	8	ug/Kg	<MDL	300.	179	60		17-180
Fluoranthene	2	4	ug/Kg	<MDL	300.	206	69		55-132
Pyrene	2	4	ug/Kg	<MDL	300.	210	70		48-132
Benzyl Butyl Phthalate	1	2	ug/Kg	<MDL	300.	174	58		15-183
Benzo(a)anthracene	2	4	ug/Kg	<MDL	300.	197	66	*	69-117
Chrysene	2	4	ug/Kg	<MDL	300.	208	69		69-111
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	5.5	300.	179	58		10-182
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	300.	184	61		10-200
Benzo(b)fluoranthene	2	4	ug/Kg	<MDL	300.	181	60		50-121
Benzo(k)fluoranthene	2	4	ug/Kg	<MDL	300.	212	71		58-128
Benzo(a)pyrene	2	4	ug/Kg	<MDL	300.	164	55		15-137
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	<MDL	300.	206	69		51-132
Dibenzo(a,h)anthracene	2	4	ug/Kg	<MDL	300.	195	65		53-129
Benzo(g,h,i)perylene	2	4	ug/Kg	<MDL	300.	158	53		46-126
Benzyl Alcohol	2	4	ug/Kg	<MDL	300.	99.6	33		10-119
2-Methylphenol	2	4	ug/Kg	<MDL	300.	100	33		16-91
4-Methylphenol	4	8	ug/Kg	<MDL	300.	89.5	30		10-125
Benzoic Acid	10	20	ug/Kg	<MDL	300.	104	35		10-170
2-Methylnaphthalene	2	4	ug/Kg	<MDL	300.	122	41		22-99

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 07/17/07 07:06
Run ID: R120436 Workgroup: WG91559 (bs#246 bnasms)

SB:WG91559-7 MB:WG91559-1 Matrix: OTHR SOLID Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Dibenzofuran	2	4	ug/Kg	<MDL	300.	159	53		37-97
Carbazole	2	4	ug/Kg	<MDL	300.	307	102		44-179
Coprostanol	40	80	ug/Kg	<MDL	3000	2120	71		10-159
Total LPAHs	2	4	ug/Kg	<MDL	150.	1040			
Total HPAHS	2	4	ug/Kg	<MDL	150.	1930			

MSD:WG91559-9 MS:WG91559-8 L42475-3 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
Phenol	4	8	ug/Kg	<MDL	300.	151	50		10-127	300.	117	39		25		35
1,3-Dichlorobenzene	.2	.4	ug/Kg	<MDL	300.	114	38		10-103	300.	106	35		8		35
1,4-Dichlorobenzene	.2	.4	ug/Kg	<MDL	300.	111	37		10-104	300.	102	34		8		35
1,2-Dichlorobenzene	.2	.4	ug/Kg	<MDL	300.	121	40		10-105	300.	111	37		8		35
Hexachloroethane	1	2	ug/Kg	<MDL	300.	104	35		10-89	300.	80.1	27		26		35
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	300.	182	61		10-150	300.	163	54		12		35
1,2,4-Trichlorobenzene	.1	.2	ug/Kg	<MDL	300.	150	50		10-115	300.	135	45		11		35
Naphthalene	2	4	ug/Kg	5.91	300.	159	51		12-97	300.	136	44		15		35
Hexachlorobutadiene	.5	1	ug/Kg	<MDL	300.	149	50		10-97	300.	139	46		8		35
Acenaphthylene	2	4	ug/Kg	15.5	300.	176	53		27-132	300.	178	54		2		35
Dimethyl Phthalate	4	8	ug/Kg	<MDL	300.	174	58		13-162	300.	171	57		2		35
Acenaphthene	2	4	ug/Kg	9.82	300.	192	61		25-130	300.	196	62		2		35
Fluorene	2	4	ug/Kg	15.9	300.	211	65		22-147	300.	219	68		5		35
Diethyl Phthalate	4	8	ug/Kg	<MDL	300.	180	60		31-150	300.	196	65		8		35
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	300.	182	61		10-169	300.	185	62		2		35
Hexachlorobenzene	.1	.2	ug/Kg	<MDL	300.	184	61		18-151	300.	195	65		6		35
Pentachlorophenol	10	20	ug/Kg	<MDL	300.	163	54		17-170	300.	159	53		2		35
Phenanthrene	2	4	ug/Kg	102	300.	287	62		10-200	300.	293	64		3		35
Anthracene	2	4	ug/Kg	63.9	300.	263	66		10-181	300.	264	67		2		35
Di-N-Butyl Phthalate	4	8	ug/Kg	<MDL	300.	208	69		10-194	300.	212	71		3		35
Fluoranthene	2	4	ug/Kg	244	300.	428	61		12-188	300.	447	68		11		35
Pyrene	2	4	ug/Kg	257	300.	432	58		20-174	300.	437	60		3		35
Benzyl Butyl Phthalate	1	2	ug/Kg	<MDL	300.	195	65		41-145	300.	202	67		3		35
Benzo(a)anthracene	2	4	ug/Kg	139	300.	354	72		32-168	300.	382	81		12		35
Chrysene	2	4	ug/Kg	149	300.	295	48		14-184	300.	283	44		9		35
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	244	300.	1130	295	L	10-189	300.	475	77		117	*	35
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	300.	209	70		52-151	300.	199	66		6		35
Benzo(b)fluoranthene	2	4	ug/Kg	177	300.	429	84		10-199	300.	411	78		7		35
Benzo(k)fluoranthene	2	4	ug/Kg	155	300.	345	64		10-192	300.	341	62		3		35
Benzo(a)pyrene	2	4	ug/Kg	126	300.	299	58		10-200	300.	296	57		2		35
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	83.8	300.	285	67		10-177	300.	285	67		0		35
Dibenzo(a,h)anthracene	2	4	ug/Kg	27.3	300.	230	67		10-166	300.	230	68		1		35
Benzo(g,h,i)perylene	2	4	ug/Kg	76.6	300.	231	51		10-173	300.	230	51		0		35
Benzyl Alcohol	2	4	ug/Kg	<MDL	300.	131	44		10-138	300.	101	34		26		35
2-Methylphenol	2	4	ug/Kg	<MDL	300.	153	51		10-142	300.	128	43		17		35
4-Methylphenol	4	8	ug/Kg	<MDL	300.	151	50		10-163	300.	121	40		22		35

Matrix Spike Duplicate Report
MSD:WG91559-9 MS:WG91559-8 L42475-3 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
Benzoic Acid	10	20	ug/Kg	<MDL	300.	122	41		10-158	300.	86	29		34		35
2-Methylnaphthalene	2	4	ug/Kg	4.9	300.	183	60		22-112	300.	165	53		12		35
Dibenzofuran	2	4	ug/Kg	4.89	300.	180	58		21-134	300.	183	59		2		35
Carbazole	2	4	ug/Kg	26.1	300.	373	116		16-200	300.	365	113		3		35
Coprostanol	40	80	ug/Kg	<MDL	3000	2730	91		10-183	3000	2760	92		1		35
Total LPAHs	2	4	ug/Kg	218	150.	1470				150.	1450					
Total HPAHS	2	4	ug/Kg	1430	150.	3260				150.	3340					

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 07/17/07 07:06
Run ID: R120436 Workgroup: WG91559 (bs#246 bnasms)

Sample # (Lab Limits)	2-Fluorophenol- 10-112	d5-Phenol 10-106	d5-Nitrobenzene 28-94	d4-2-Chlorophenol 11-105	d4-1,2-Dichlorobenzene 24-91	2-Fluorobiphenyl 31-101	2,4,6-Tribromophenol 29-112	d14-Terphenyl 51-130
L42475-1	42	55	55	57	41	58	67	86
L42475-2	56	64	67	67	49	73	72	76
L42475-3	37	35	44	43	39	50	70	72
L42475-4	26	20	31	25	30	49	74	73
L42475-5	32	27	29	30	29	47	69	63
L42475-6	41	50	51	49	39	54	68	73
L42475-7	47	52	56	56	44	56	67	75
L42475-8	37	46	44	46	37	59	73	72
L42475-9	38	45	42	45	31	48	64	69
L42475-10	46	53	53	53	44	53	70	72
L42475-11	45	53	50	55	41	56	73	76
L42475-12	40	45	49	47	36	60	70	79
L42475-13	54	66	64	70	54	73	80	81
L42475-14	45	58	56	55	40	67	77	85
L42475-15	46	63	58	59	43	73	82	91
L42475-16	51	60	62	59	53	69	74	80
WG91559-1	35	34	40	38	38	32	30	53
WG91559-5	65	64	76	74	60	65	93	87
WG91559-6	50	60	56	61	43	64	70	80
WG91559-7	40	41	40	41	39	45	51	66
WG91559-8	44	52	46	51	41	53	61	71
WG91559-9	37	41	39	42	36	52	61	71

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If the following parameters are reported, values in the RPD column are their Absolute Differences:

- pH
- pH, Field
- Salinity
- Salinity, Field
- Sample Depth
- Sample Temperature, Field

LIMSView Analytical QC Report - run on 09/19/07 03:02 pm

Workgroup: WG91559 (bs#246 bnasms) Run ID: R120436

MB:WG91559-1 Matrix: OTHR SOLID Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
1,2,4-Trichlorobenzene	0.1	0.2	ug/Kg	<MDL	
1,2-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	
1,3-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	
1,4-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	
2-Methylnaphthalene	2	4	ug/Kg	<MDL	
2-Methylphenol	2	4	ug/Kg	<MDL	
4-Methylphenol	4	8	ug/Kg	<MDL	
Acenaphthene	2	4	ug/Kg	<MDL	
Acenaphthylene	2	4	ug/Kg	<MDL	
Anthracene	2	4	ug/Kg	<MDL	
Benzo(a)anthracene	2	4	ug/Kg	<MDL	
Benzo(a)pyrene	2	4	ug/Kg	<MDL	
Benzo(b)fluoranthene	2	4	ug/Kg	<MDL	
Benzo(g,h,i)perylene	2	4	ug/Kg	<MDL	
Benzo(k)fluoranthene	2	4	ug/Kg	<MDL	
Benzoic Acid	10	20	ug/Kg	<MDL	
Benzyl Alcohol	2	4	ug/Kg	<MDL	
Benzyl Butyl Phthalate	1	2	ug/Kg	<MDL	
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	5.5	B
Carbazole	2	4	ug/Kg	<MDL	
Chrysene	2	4	ug/Kg	<MDL	
Coprostanol	40	80	ug/Kg	<MDL	
Di-N-Butyl Phthalate	4	8	ug/Kg	<MDL	
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	
Dibenzo(a,h)anthracene	2	4	ug/Kg	<MDL	
Dibenzofuran	2	4	ug/Kg	<MDL	
Diethyl Phthalate	4	8	ug/Kg	<MDL	
Dimethyl Phthalate	4	8	ug/Kg	<MDL	
Fluoranthene	2	4	ug/Kg	<MDL	
Fluorene	2	4	ug/Kg	<MDL	
Hexachlorobenzene	0.1	0.2	ug/Kg	<MDL	
Hexachlorobutadiene	0.5	1	ug/Kg	<MDL	
Hexachloroethane	1	2	ug/Kg	<MDL	
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	<MDL	
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	
Naphthalene	2	4	ug/Kg	<MDL	
Pentachlorophenol	10	20	ug/Kg	<MDL	
Phenanthrene	2	4	ug/Kg	<MDL	
Phenol	4	8	ug/Kg	<MDL	
Pyrene	2	4	ug/Kg	<MDL	
Total HPAHS	2	4	ug/Kg	<MDL	
Total LPAHs	2	4	ug/Kg	<MDL	

SRM:WG91559-5 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit
Anthracene	270	533	ug/Kg	1750	743	43		28--98
Benzo(a)anthracene	270	533	ug/Kg	4660	3360	72		66--124
Benzo(a)pyrene	270	533	ug/Kg	4240	3030	72		60--116
Benzo(b)fluoranthene	270	533	ug/Kg	3820	3930	103		52--190
Benzo(g,h,i)perylene	270	533	ug/Kg	2800	1770	63		15--121
Benzo(k)fluoranthene	270	533	ug/Kg	2270	1690	75		60--146
Chrysene	270	533	ug/Kg	4800	4140	86		77--136
Dibenzo(a,h)anthracene	270	533	ug/Kg	419	520	125		10--200
Fluoranthene	270	533	ug/Kg	8800	7010	80		45--126
Indeno(1,2,3-Cd)Pyrene	270	533	ug/Kg	2740	2250	82		33--121
Naphthalene	270	533	ug/Kg	1630	270	17		10--29

Phenanthrene	270	533	ug/Kg	5200	3280	63		51--106
Pyrene	270	533	ug/Kg	9570	7040	74		36--135

LD:WG91559-6 L42475-2 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SampValue	LD Value	RPD^	Qual	LabLimit
1,2,4-Trichlorobenzene	0.1	0.2	ug/Kg	<MDL	<MDL			35
1,2-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	<MDL			35
1,3-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	<MDL			35
1,4-Dichlorobenzene	0.2	0.4	ug/Kg	0.893	0.925	4		35
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	<MDL			35
2-Methylnaphthalene	2	4	ug/Kg	13.5	22.7	50	E	35
2-Methylphenol	2	4	ug/Kg	<MDL	<MDL			35
4-Methylphenol	4	8	ug/Kg	<MDL	<MDL			35
Acenaphthene	2	4	ug/Kg	61.8	80.1	26		35
Acenaphthylene	2	4	ug/Kg	12.4	9.87	23		35
Anthracene	2	4	ug/Kg	130	156	18		35
Benzo(a)anthracene	2	4	ug/Kg	318	228	33		35
Benzo(a)pyrene	2	4	ug/Kg	250	213	16		35
Benzo(b)fluoranthene	2	4	ug/Kg	299	232	25		35
Benzo(g,h,i)perylene	2	4	ug/Kg	137	121	12		35
Benzo(k)fluoranthene	2	4	ug/Kg	182	187	3		35
Benzoic Acid	10	20	ug/Kg	70.9	66.6	6		35
Benzyl Alcohol	2	4	ug/Kg	<MDL	<MDL			35
Benzyl Butyl Phthalate	1	2	ug/Kg	25.4	22.9	10		35
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	234	223	5		35
Carbazole	2	4	ug/Kg	89.7	69.9	25		35
Chrysene	2	4	ug/Kg	344	276	22		35
Coprostanol	40	80	ug/Kg	<MDL	<MDL			35
Di-N-Butyl Phthalate	4	8	ug/Kg	11.2	12.5	11		35
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	<MDL			35
Dibenzo(a,h)anthracene	2	4	ug/Kg	39.2	36.4	8		35
Dibenzofuran	2	4	ug/Kg	26.8	21.7	21		35
Diethyl Phthalate	4	8	ug/Kg	<MDL	<MDL			35
Dimethyl Phthalate	4	8	ug/Kg	<MDL	<MDL			35
Fluoranthene	2	4	ug/Kg	633	558	13		35
Fluorene	2	4	ug/Kg	53.9	71.3	28		35
Hexachlorobenzene	0.1	0.2	ug/Kg	<MDL	<MDL			35
Hexachlorobutadiene	0.5	1	ug/Kg	<MDL	<MDL			35
Hexachloroethane	1	2	ug/Kg	<MDL	<MDL			35
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	166	132	22		35
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	<MDL			35
Naphthalene	2	4	ug/Kg	15.7	20.5	26		35
Pentachlorophenol	10	20	ug/Kg	<MDL	<MDL			35
Phenanthrene	2	4	ug/Kg	450	534	17		35
Phenol	4	8	ug/Kg	<MDL	<MDL			35
Pyrene	2	4	ug/Kg	555	549	1		35

SB:WG91559-7 MB:WG91559-1 Matrix: OTHR SOLID Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
1,2,4-Trichlorobenzene	0.1	0.2	ug/Kg	<MDL	300	112	37		13--110
1,2-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	300	111	37		10--116
1,3-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	300	111	37		18--95
1,4-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	300	105	35		21--99
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	300	43.6	15		10--81
2-Methylnaphthalene	2	4	ug/Kg	<MDL	300	122	41		22--99
2-Methylphenol	2	4	ug/Kg	<MDL	300	100	33		16--91
4-Methylphenol	4	8	ug/Kg	<MDL	300	89.5	30		10--125
Acenaphthene	2	4	ug/Kg	<MDL	300	147	49		29--102
Acenaphthylene	2	4	ug/Kg	<MDL	300	124	41		31--101
Anthracene	2	4	ug/Kg	<MDL	300	183	61		45--114
Benzo(a)anthracene	2	4	ug/Kg	<MDL	300	197	66	*	69--117
Benzo(a)pyrene	2	4	ug/Kg	<MDL	300	164	55		15--137
Benzo(b)fluoranthene	2	4	ug/Kg	<MDL	300	181	60		50--121
Benzo(g,h,i)perylene	2	4	ug/Kg	<MDL	300	158	53		46--126

Benzo(k)fluoranthene	2	4	ug/Kg	<MDL	300	212	71	58--128
Benzoic Acid	10	20	ug/Kg	<MDL	300	104	35	10--170
Benzyl Alcohol	2	4	ug/Kg	<MDL	300	99.6	33	10--119
Benzyl Butyl Phthalate	1	2	ug/Kg	<MDL	300	174	58	15--183
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	5.5	300	179	58	10--182
Carbazole	2	4	ug/Kg	<MDL	300	307	102	44--179
Chrysene	2	4	ug/Kg	<MDL	300	208	69	69--111
Coprostanol	40	80	ug/Kg	<MDL	3000	2120	71	10--159
Di-N-Butyl Phthalate	4	8	ug/Kg	<MDL	300	179	60	17--180
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	300	184	61	10--200
Dibenzo(a,h)anthracene	2	4	ug/Kg	<MDL	300	195	65	53--129
Dibenzofuran	2	4	ug/Kg	<MDL	300	159	53	37--97
Diethyl Phthalate	4	8	ug/Kg	<MDL	300	176	59	51--118
Dimethyl Phthalate	4	8	ug/Kg	<MDL	300	158	53	38--114
Fluoranthene	2	4	ug/Kg	<MDL	300	206	69	55--132
Fluorene	2	4	ug/Kg	<MDL	300	173	58	39--106
Hexachlorobenzene	0.1	0.2	ug/Kg	<MDL	300	156	52	40--111
Hexachlorobutadiene	0.5	1	ug/Kg	<MDL	300	102	34	10--97
Hexachloroethane	1	2	ug/Kg	<MDL	300	106	35	17--92
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	<MDL	300	206	69	51--132
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	300	152	51	11--148
Naphthalene	2	4	ug/Kg	<MDL	300	118	39	17--94
Pentachlorophenol	10	20	ug/Kg	<MDL	300	88.3	29	38--124
Phenanthrene	2	4	ug/Kg	<MDL	300	176	59	57--104
Phenol	4	8	ug/Kg	<MDL	300	114	38	10--107
Pyrene	2	4	ug/Kg	<MDL	300	210	70	48--132
Total HPAHS	2	4	ug/Kg	<MDL	150	1930		--
Total LPAHs	2	4	ug/Kg	<MDL	150	1040		--

MSD:WG91559-9 MS:WG91559-8 L42475-3 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SampValue	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
1,2,4-Trichlorobenzene	0.1	0.2	ug/Kg	<MDL	300	150	50		10--115	300	135	45		11		35
1,2-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	300	121	40		10--105	300	111	37		8		35
1,3-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	300	114	38		10--103	300	106	35		8		35
1,4-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	300	111	37		10--104	300	102	34		8		35
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	300	182	61		10--150	300	163	54		12		35
2-Methylnaphthalene	2	4	ug/Kg	4.9	300	183	60		22--112	300	165	53		12		35
2-Methylphenol	2	4	ug/Kg	<MDL	300	153	51		10--142	300	128	43		17		35
4-Methylphenol	4	8	ug/Kg	<MDL	300	151	50		10--163	300	121	40		22		35
Acenaphthene	2	4	ug/Kg	9.82	300	192	61		25--130	300	196	62		2		35
Acenaphthylene	2	4	ug/Kg	15.5	300	176	53		27--132	300	178	54		2		35
Anthracene	2	4	ug/Kg	63.9	300	263	66		10--181	300	264	67		2		35
Benzo(a)anthracene	2	4	ug/Kg	139	300	354	72		32--168	300	382	81		12		35
Benzo(a)pyrene	2	4	ug/Kg	126	300	299	58		10--200	300	296	57		2		35
Benzo(b)fluoranthene	2	4	ug/Kg	177	300	429	84		10--199	300	411	78		7		35
Benzo(g,h,i)perylene	2	4	ug/Kg	76.6	300	231	51		10--173	300	230	51		0		35
Benzo(k)fluoranthene	2	4	ug/Kg	155	300	345	64		10--192	300	341	62		3		35
Benzoic Acid	10	20	ug/Kg	<MDL	300	122	41		10--158	300	86	29		34		35
Benzyl Alcohol	2	4	ug/Kg	<MDL	300	131	44		10--138	300	101	34		26		35
Benzyl Butyl Phthalate	1	2	ug/Kg	<MDL	300	195	65		41--145	300	202	67		3		35
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	244	300	1130	295	L	10--189	300	475	77		117		35
Carbazole	2	4	ug/Kg	26.1	300	373	116		16--200	300	365	113		3		35
Chrysene	2	4	ug/Kg	149	300	295	48		14--184	300	283	44		9		35
Coprostanol	40	80	ug/Kg	<MDL	3000	2730	91		10--183	3000	2760	92		1		35
Di-N-Butyl Phthalate	4	8	ug/Kg	<MDL	300	208	69		10--194	300	212	71		3		35
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	300	209	70		52--151	300	199	66		6		35
Dibenzo(a,h)anthracene	2	4	ug/Kg	27.3	300	230	67		10--166	300	230	68		1		35
Dibenzofuran	2	4	ug/Kg	4.89	300	180	58		21--134	300	183	59		2		35
Diethyl Phthalate	4	8	ug/Kg	<MDL	300	180	60		31--150	300	196	65		8		35
Dimethyl Phthalate	4	8	ug/Kg	<MDL	300	174	58		13--162	300	171	57		2		35
Fluoranthene	2	4	ug/Kg	244	300	428	61		12--188	300	447	68		11		35
Fluorene	2	4	ug/Kg	15.9	300	211	65		22--147	300	219	68		5		35
Hexachlorobenzene	0.1	0.2	ug/Kg	<MDL	300	184	61		18--151	300	195	65		6		35
Hexachlorobutadiene	0.5	1	ug/Kg	<MDL	300	149	50		10--97	300	139	46		8		35
Hexachloroethane	1	2	ug/Kg	<MDL	300	104	35		10--89	300	80.1	27		26		35

Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	83.8	300	285	67	10--177	300	285	67	0	35
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	300	182	61	10--169	300	185	62	2	35
Naphthalene	2	4	ug/Kg	5.91	300	159	51	12--97	300	136	44	15	35
Pentachlorophenol	10	20	ug/Kg	<MDL	300	163	54	17--170	300	159	53	2	35
Phenanthrene	2	4	ug/Kg	102	300	287	62	10--200	300	293	64	3	35
Phenol	4	8	ug/Kg	<MDL	300	151	50	10--127	300	117	39	25	35
Pyrene	2	4	ug/Kg	257	300	432	58	20--174	300	437	60	3	35
Total HPAHS	2	4	ug/Kg	1430	150	3260		–	150	3340			
Total LPAHs	2	4	ug/Kg	218	150	1470		–	150	1450			

Surrogate:	**2,4,6-Tribromophenol**	**2-Fluorobiphenyl**	**2-Fluorophenol**	**d14-Terphenyl**	**d4-1,2-Dichlorobenzene**	**d4-2-Chlorophenol**	**d5-Nitrobenzene**	**d5-Phenol**
(Lab Limits)	**29--112**	**31--101**	**10--112**	**51--130**	**24--91**	**11--105**	**28--94**	**10--106**
L42475-1	67	58	42	86	41	57	55	55
L42475-2	72	73	56	76	49	67	67	64
L42475-3	70	50	37	72	39	43	44	35
L42475-4	74	49	26	73	30	25	31	20
L42475-5	69	47	32	63	29	30	29	27
L42475-6	68	54	41	73	39	49	51	50
L42475-7	67	56	47	75	44	56	56	52
L42475-8	73	59	37	72	37	46	44	46
L42475-9	64	48	38	69	31	45	42	45
L42475-10	70	53	46	72	44	53	53	53
L42475-11	73	56	45	76	41	55	50	53
L42475-12	70	60	40	79	36	47	49	45
L42475-13	80	73	54	81	54	70	64	66
L42475-14	77	67	45	85	40	55	56	58
L42475-15	82	73	46	91	43	59	58	63
L42475-16	74	69	51	80	53	59	62	60
WG91559-1	30	32	35	53	38	38	40	34
WG91559-5	93	65	65	87	60	74	76	64
WG91559-6	70	64	50	80	43	61	56	60
WG91559-7	51	45	40	66	39	41	40	41
WG91559-8	61	53	44	71	41	51	46	52
WG91559-9	61	52	37	71	36	42	39	41

^ For the following parameters, the values in RPD column are Absolute Difference:
pH
pH, Field
Salinity
Salinity, Field
sample Depth
sample Temperature, Field

*** End of WG91559_3138Q.xls**

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Jun 01 2007, 01:46 pm

Work Group: WG91600 (ppl1s#63 pestl1) for Department: 7 - Organics, Trace

Created: 23-MAY-07 PrepDate: 24-MAY-07 Due: Operator: km

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L42475-1	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-10	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-11	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-12	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-13	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	31-MAY-07	15-AUG-07
L42475-14	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-15	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	31-MAY-07	15-AUG-07
L42475-16	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	31-MAY-07	15-AUG-07
L42475-2	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-3	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-4	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-5	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	31-MAY-07	15-AUG-07
L42475-6	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-7	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-8	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-9	423368-80	Denny Way Sediment, Post Constru	SED	S	PESTLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
WG91600-1	MB			S	PESTLL	OTHR SOLID	PREP	U	23-MAY-07	
WG91600-2	SB			S	PESTLL	OTHR SOLID	PREP	U	23-MAY-07	
WG91600-3	MS		SED	S	PESTLL	SALTWTRSED	PREP	U	23-MAY-07	
WG91600-4	MSD		SED	S	PESTLL	SALTWTRSED	PREP	U	23-MAY-07	
WG91600-5	SRM			S	PESTLL	OTHR SOLID	PREP	U	23-MAY-07	
WG91600-6	LD		SED	S	PESTLL	SALTWTRSED	PREP	U	23-MAY-07	

Comments:

L42475-1	0-2 cm, 3 grap COMP
L42475-10	0-2 cm, 3 grab COMP
L42475-11	0-2 cm, 3 grab COMP
L42475-12	0-2 cm, 3 grab COMP
L42475-13	0-2 cm, 3 grab COMP
L42475-14	0-2 cm, 3 grab COMP
L42475-15	0-2 cm, 3 grab COMP
L42475-16	0-2 cm, 3 grab COMP
L42475-2	0-2 cm, 3 grap COMP
L42475-3	0-2 cm, 3 grap COMP
L42475-4	0-2 cm, 3 grap COMP
L42475-5	0-2 cm, 3 grap COMP
L42475-6	0-2 cm, 3 grap COMP
L42475-7	0-2 cm, 3 grap COMP
L42475-8	0-2 cm, 3 grab COMP
L42475-9	0-2 cm, 3 grab COMP
WG91600-1	MB070524
WG91600-2	WG91600-1
WG91600-3	L42475-4
WG91600-4	WG91600-3 L42475-4
WG91600-5	1944
WG91600-6	L42475-6

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR PESTICIDE-LL/PCB-LL ANALYSIS
TRACE ORGANICS LABORATORY

1:1 MeCL2:ACETONE

pestll / pcbll

QC BATCH NO.: PPLLS #63

EPA SW-846 ~~EXTRACTON METHOD~~:
SONICATION EPA 3550 SOXHLET EPA 3540

2.0 ml PCB extract split from 2.5 ml total

PEST-LL WORKGROUP NO.: WG-91600
PCB-LL WORKGROUP NO.: WG-91601
PESTICIDE SURROGATE SPIKE I.D. # 1372
PESTICIDE MATRIX SPIKE I.D. # 1310.1
PCB MATRIX SPIKE I.D. # 1402

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Initial Amt(g)	Effective Amt. (g) after split	Spike Amt. (uL)	Vf (ml)	CLEANUPS (GPC, AL,TBA)	PCB H+	Pest-LL conc. anlyst	Pest-LL turn in Date	PCB-LL conc. anlyst	PCB-LL turn in Date	Comments
Kim 5/24/07	WG91600-1	QC	MB		30.0g	Pest	1372 100 ul	2.5	ALL			6/1/07			
	WG91601-1					PCB		0.5		H+					
	WG91600-2		SB pestll		30.0g	Pest	1310.1 100 µl	2.5							
						PCB		/		/					
	WG91601-2		SB pcbll		24.0g	Pest	1402 200 µl	/							
						PCB		0.5		H+					
	WG91600-3		pestll MS(L42475-4)		30.0g	Pest	1310.1 100 ul	2.5							
						PCB		/		/					
	WG91600-4		pestll MSD(L42475-4)		30.0g	Pest		2.5							
						PCB		/		/					
	WG91601-3		pcbll MS(L42475-5)		24.0g	Pest	1402 200 µl	/							
						PCB		0.5		H+					
	WG91601-4		pcbll MSD(L42475-5)		24.0g	Pest		/							
						PCB		0.5		H+					
	WG91600-5		SRM 1944 pestll ~~pcbll~~		3.0g	Pest		2.0							
						PCB		/		/					
	WG91601-5		SRM HS2 pcbll		7.5g	Pest		/							
						PCB		0.5		H+					
WG	91600/01-6	/	LD(L42475-6)		30.0	Pest		2.5							
						PCB		0.5		H+					
	L42475-1	423368 080	DENNY WAY SED POST. CONST.		30.0	Pest		2.5							
						PCB	/	0.5	/	H+	/	/			

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR PESTICIDE-LL/PCB-LL ANALYSIS
TRACE ORGANICS LABORATORY

1:1 MeCL2:ACETONE

PEST-LL WORKGROUP NO.: [redacted]
PCB-LL WORKGROUP NO.: [redacted]
PESTICIDE SURROGATE SPIKE I.D. # 1372
PESTICIDE MATRIX SPIKE I.D. # 1310.1
PCB MATRIX SPIKE I.D. # 1402

QC BATCH NO.: PPLLS #63 pestll/pcbll

EPA SW-846 EXTRACTION METHOD:
SONICATION EPA 3550 SOXHLET EPA 3540

2.0 ml PCB extract split from 2.5 ml total

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Initial Amt(g)	Effective Amt. (g) after split	Spike Amt. (uL)	Vf (ml)	CLEANUPS (GPC, AL,TBA)	PCB H+	Pest-LL conc. anlyst	Pest-LL turn in Date	PCB-LL conc. anlyst	PCB-LL turn in Date	Comments
5/24/07	L42475-2	423368	DENNY WAY SED.		30.0	Pest	1372 100 ul	2.5	ALL			6/1/07			
	-080		POST CONST			PCB		0.5		H+					
	-3				30.0	Pest		2.5							
						PCB		0.5		H+					
	-4				30.0	Pest		2.5							
						PCB		0.5		H+					
	-5				30.0	Pest		2.5							
						PCB		0.5		H+					
	-6				30.0	Pest		2.5							
						PCB		0.5		H+					
	-7				30.0	Pest		2.5							
						PCB		0.5		H+					
	-8				30.0	Pest		2.5							
						PCB		0.5		H+					
	-9				30.0	Pest		2.5							
						PCB		0.5		H+					
	-10				30.0	Pest		2.5							
						PCB		0.5		H+					
	-11				30.0	Pest		2.5							
						PCB		0.5		H+					
	-12				30.0	Pest		2.5							
						PCB		0.5		H+					

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR PESTICIDE-LL/PCB-LL ANALYSIS
TRACE ORGANICS LABORATORY

1:1 MeCL2:ACETONE

QC BATCH NO.: PPLLS #63 pestll/pcbll

EPA SW-846 EXTRACTON METHOD:
SONICATION EPA 3550 SOXHLET EPA 3540

2.0 ml PCB extract split from 2.5 ml total

PEST-LL WORKGROUP NO.: WG91[illegible]600
PCB-LL WORKGROUP NO.: WG91[illegible]601
PESTICIDE SURROGATE SPIKE I.D. # 1372
PESTICIDE MATRIX SPIKE I.D. # 1310.1
PCB MATRIX SPIKE I.D. # 1-102

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Initial Amt(g)	Effective Amt. (g) after split	Spike Amt. (uL)	Vf (ml)	CLEANUPS (GPC, AL,TBA)	PCB H+	Pest-LL conc. anlyst	Pest-LL turn in Date	PCB-LL conc. anlyst	PCB-LL turn in Date	Comments
5/24/07	L42475-13	423368	DENNY WAY SED		30.0	Pest	1372 100 ul	2.5	ALL			6/1/07			
		6880	DOC CONSTituents			PCB		0.5		Ht					
	-14				30.0	Pest		2.5							
						PCB		0.5		Ht					
	-15				30.0	Pest		2.5							
						PCB		0.5		Ht					
	-16				30.0	Pest		2.5							
						PCB		0.5		Ht					
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									

Data File Name	Sample Name	Date Acquired	Vial Number	Sample Amount	Sample Multiplier	Isodrin (RT)	Isodrin (Height)	Leptophos (RT)	Leptophos (Height)	Isodrin #2 (RT)	Isodrin #2 (Height)	Leptophos #2 (RT)	Leptophos #2 (Height)	Misc Info	Data File Path
COND-01.D	conditioner	05 Jun 2007 11:20 am	1	0	1										S:\MSDCHEM\2\DATA\070605\
BLANK-01.D	blank	05 Jun 2007 11:56 am	2	0	1										S:\MSDCHEM\2\DATA\070605\
PPES-01.D	1358 PPES 20 PPB (BREAKDOWWN)	05 Jun 2007 12:33 pm	3	0	1	15.256	120692419	23.603	186198711	12.805	832448273	19.141	1148739410		S:\MSDChem\2\data\070605\
PEST-01.D	1328D PEST 50/100 PPB (DAILY CAL)	05 Jun 2007 1:10 pm	4	0	1	15.255	103777077	23.601	152902340	12.804	711089616	19.141	1018580647		S:\MSDCHEM\2\DATA\070605\
TOX-01.D	1367.1 TOXAPHENE 1000 PPB (DAILY CAL)	05 Jun 2007 1:46 pm	5	0	1	15.254	116355121	23.601	183245373	12.805	784794798	19.140	1094982770		S:\MSDCHEM\2\DATA\070605\
WG91600-1.D	MB	05 Jun 2007 2:23 pm	6	18.75	2.5	15.253	90763354	23.601	141426016	12.804	640058301	19.154	1045644233	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
WG91600-2.D	SB	05 Jun 2007 2:59 pm	7	18.75	2.5	15.255	97839654	23.601	150118716	12.804	671572745	19.141	1018452685	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
WG91600-3.D	MS L42475-4	05 Jun 2007 3:36 pm	8	18.75	2.5	15.256	69142664	23.607	131850043	12.806	576823480	19.159	1104791011	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
WG91600-4.D	MSD L42475-4	05 Jun 2007 4:13 pm	9	18.75	2.5	15.256	67665447	23.606	137950814	12.806	526025967	19.158	1026419738	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
WG91600-5.D	SRM 1944	05 Jun 2007 4:49 pm	10	1.875	2	15.265	65255314	23.620	136907890	12.815	559546636	19.180	992585430	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
WG91600-6.D	LD L42475-6	05 Jun 2007 5:26 pm	11	18.75	2.5	15.256	71840870	23.606	147138433	12.806	574786691	19.140	831667486	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-1.D	L42475-1	05 Jun 2007 6:02 pm	12	18.75	2.5	15.263	59790764	23.635	131788990	12.812	482084503	19.191	836452569	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-2.D	L42475-2	05 Jun 2007 6:39 pm	13	18.75	2.5	15.256	53056399	23.607	117081130	12.805	456431719	19.160	877101736	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-3.D	L42475-3	05 Jun 2007 7:16 pm	14	18.75	2.5	15.259	61579588	23.613	131030949	12.808	515578058	19.167	1028637371	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
COND-02.D	conditioner	05 Jun 2007 7:52 pm	1	0	1										S:\MSDCHEM\2\DATA\070605\
PPES-02.D	1358 PPES 20 PPB (BREAKDOWWN)	05 Jun 2007 8:29 pm	3	0	1	15.255	94924759	23.602	171494450	12.803	766445743	19.143	1285068401		S:\MSDChem\2\data\070605\
PEST-02.D	1328D PEST 50/100 PPB (DAILY CAL)	05 Jun 2007 9:06 pm	4	0	1	15.254	87261753	23.600	149447010	12.803	680270280	19.140	1088429580		S:\MSDChem\2\data\070605\
L42475-4.D	L42475-4	05 Jun 2007 9:42 pm	15	18.75	2.5	15.257	75388074	23.607	161393287	12.805	639226970	19.142	955227026	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-5.D	L42475-5	05 Jun 2007 10:19 pm	16	18.75	2.5	15.256	68595243	23.607	39458236	12.805	561290070	19.159	179615935	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-6.D	L42475-6	05 Jun 2007 10:56 pm	17	18.75	2.5	15.256	65337519	23.606	130654489	12.804	550418231	19.155	1039660230	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-7.D	L42475-7	05 Jun 2007 11:33 pm	18	18.75	2.5	15.256	66064052	23.606	139322301	12.804	560823689	19.158	1062000947	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-8.D	L42475-8	06 Jun 2007 12:09 am	19	18.75	2.5	15.261	70741542	23.616	151439366	12.809	598882295	19.156	991305149	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-9.D	L42475-9	06 Jun 2007 12:46 am	20	18.75	2.5	15.258	59484848	23.607	123063440	12.804	502745522	19.157	999399269	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-10.D	L42475-10	06 Jun 2007 1:23 am	21	18.75	2.5	15.253	66774903	23.609	129671754	12.806	518819396	19.164	1009692250	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-11.D	L42475-11	06 Jun 2007 1:59 am	22	18.75	2.5	15.257	64445388	23.607	132348290	12.805	545787667	19.159	1027060207	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-12.D	L42475-12	06 Jun 2007 2:36 am	23	18.75	2.5	15.257	64309780	23.606	136445142	12.805	544759868	19.159	1067064633	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
COND-03.D	conditioner	06 Jun 2007 3:13 am	1	0	1										S:\MSDCHEM\2\DATA\070605\
PPES-03.D	1358 PPES 20 PPB (BREAKDOWWN)	06 Jun 2007 3:49 am	3	0	1	15.253	95482668	23.599	169119122	12.803	771330900	19.146	1353937989		S:\MSDChem\2\data\070605\
PEST-03.D	1328D PEST 50/100 PPB (DAILY CAL)	06 Jun 2007 4:26 am	4	0	1	15.253	91473947	23.600	148878364	12.803	665244234	19.140	1033648594		S:\MSDCHEM\2\DATA\070605\
L42475-13.D	L42475-13	06 Jun 2007 5:03 am	24	18.75	2.5	15.255	65884294	23.606	122772006	12.805	534011618	19.159	990627685	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-14.D	L42475-14	06 Jun 2007 5:39 am	25	18.75	2.5	15.259	61323399	23.614	131697851	12.810	517607678	19.170	1026932029	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-15.D	L42475-15	06 Jun 2007 6:16 am	26	18.75	2.5	15.258	59387838	23.610	119454676	12.809	483168528	19.166	973299771	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-16.D	L42475-16	06 Jun 2007 6:53 am	27	18.75	2.5	15.259	60167512	23.610	116997633	12.809	513420605	19.163	853993407	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
COND-04.D	conditioner	06 Jun 2007 7:29 am	1	0	1										S:\MSDCHEM\2\DATA\070605\
PPES-04.D	1358 PPES 20 PPB (BREAKDOWWN)	06 Jun 2007 8:06 am	3	0	1	15.256	92341882	23.604	157013153	12.807	786343555	19.142	1071315827		S:\MSDChem\2\data\070605\
PEST-04.D	1328D PEST 50/100 PPB (DAILY CAL)	06 Jun 2007 8:42 am	4	0	1	15.257	86276733	23.605	142916829	12.807	671287343	19.141	928196743		S:\MSDCHEM\2\DATA\070605\
					Ave.	15.257	75091146	23.607	137834336	12.806	597069290	19.155	993727045		
					Std. Dev.	0.003	16146740	0.007	24689187	0.003	96711621	0.013	188256890		
					%RSD		22%		18%		16%		19%		

DCB - front
Endrin Aldehyde - front - Endrin
DDT - front - "E"
TCX - back
Methoxy - Back

Data File Name	Sample Name	Date Acquired	Vial Number	Sample Amount	Sample Multiplier	Isodrin (RT)	Isodrin (Height)	Leptophos (RT)	Leptophos (Height)	Isodrin #2 (RT)	Isodrin #2 (Height)	Leptophos #2 (RT)	Leptophos #2 (Height)	Misc Info	Data File Path
COND-01.D	conditioner	05 Jun 2007 11:20 am	1	0	1										S:\MSDCHEM\2\DATA\070605\
BLANK-01.D	blank	05 Jun 2007 11:56 am	2	0	1										S:\MSDCHEM\2\DATA\070605\
PPES-01.D	1358 PPES 20 PPB (BREAKDOWWN)	05 Jun 2007 12:33 pm	3	0	1	15.256	120692419	23.603	186198711	12.805	832448273	19.141	1148739410		S:\MSDChem\2\data\070605\
PEST-01.D	1328D PEST 50/100 PPB (DAILY CAL)	05 Jun 2007 1:10 pm	4	0	1	15.255	103777077	23.601	152902340	12.804	711089616	19.141	1018580647		S:\MSDCHEM\2\DATA\070605\
TOX-01.D	1367.1 TOXAPHENE 1000 PPB (DAILY CAL)	05 Jun 2007 1:46 pm	5	0	1	15.254	116355121	23.601	183245373	12.805	784794798	19.140	1094982770		S:\MSDCHEM\2\DATA\070605\
WG91600-1.D	MB	05 Jun 2007 2:23 pm	6	18.75	2.5	15.253	90763354	23.601	141426016	12.804	640058301	19.154	1045644233	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
WG91600-2.D	SB	05 Jun 2007 2:59 pm	7	18.75	2.5	15.255	97839654	23.601	150118716	12.804	671572745	19.141	1018452685	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
WG91600-3.D	MS L42475-4	05 Jun 2007 3:36 pm	8	18.75	2.5	15.256	69142664	23.607	131850043	12.806	576823480	19.159	1104791011	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
WG91600-4.D	MSD L42475-4	05 Jun 2007 4:13 pm	9	18.75	2.5	15.256	67665447	23.606	137950814	12.806	526025967	19.158	1026419738	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
WG91600-5.D	SRM 1944	05 Jun 2007 4:49 pm	10	1.875	2	15.265	65255314	23.620	136907890	12.815	559546636	19.180	992585430	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
WG91600-6.D	LD L42475-6	05 Jun 2007 5:26 pm	11	18.75	2.5	15.258	71840870	23.606	147138433	12.806	574788691	19.140	831667488	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-1.D	L42475-1	05 Jun 2007 6:02 pm	12	18.75	2.5	15.263	59790764	23.635	131788990	12.812	482084503	19.191	836452569	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-2.D	L42475-2	05 Jun 2007 6:39 pm	13	18.75	2.5	15.256	53058399	23.607	117081130	12.805	458431719	19.160	877101736	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-3.D	L42475-3	05 Jun 2007 7:16 pm	14	18.75	2.5	15.259	61579588	23.613	131030949	12.808	515578058	19.167	1028637371	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
COND-02.D	conditioner	05 Jun 2007 7:52 pm	1	0	1										S:\MSDCHEM\2\DATA\070605\
PPES-02.D	1358 PPES 20 PPB (BREAKDOWWN)	05 Jun 2007 8:29 pm	3	0	1	15.255	94924759	23.602	171494450	12.803	766445743	19.143	1285068401		S:\MSDChem\2\data\070605\
PEST-02.D	1328D PEST 50/100 PPB (DAILY CAL)	05 Jun 2007 9:06 pm	4	0	1	15.254	87261753	23.600	149447010	12.803	680270280	19.140	1088429580		S:\MSDChem\2\data\070605\
L42475-4.D	L42475-4	05 Jun 2007 9:42 pm	15	18.75	2.5	15.257	75388074	23.607	161393287	12.805	639226970	19.142	955227026	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-5.D	L42475-5	05 Jun 2007 10:19 pm	16	18.75	2.5	15.256	68595243	23.607	39458236	12.805	561290070	19.159	179615935	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-6.D	L42475-6	05 Jun 2007 10:56 pm	17	18.75	2.5	15.256	65337519	23.606	130654489	12.804	550418231	19.155	1039680230	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-7.D	L42475-7	05 Jun 2007 11:33 pm	18	18.75	2.5	15.256	66064052	23.606	139322301	12.804	560823689	19.158	1062000947	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-8.D	L42475-8	06 Jun 2007 12:09 am	19	18.75	2.5	15.261	70741542	23.616	151439366	12.809	598882295	19.156	991305149	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-9.D	L42475-9	06 Jun 2007 12:46 am	20	18.75	2.5	15.258	59484848	23.607	123063440	12.804	502745522	19.157	999399269	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-10.D	L42475-10	06 Jun 2007 1:23 am	21	18.75	2.5	15.253	66774903	23.609	129671754	12.806	518819396	19.164	1009692250	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-11.D	L42475-11	06 Jun 2007 1:59 am	22	18.75	2.5	15.257	64445388	23.607	132348290	12.805	545787667	19.159	1027060207	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-12.D	L42475-12	06 Jun 2007 2:36 am	23	18.75	2.5	15.257	64309780	23.606	136445142	12.805	544759868	19.159	1067064633	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
COND-03.D	conditioner	06 Jun 2007 3:13 am	1	0	1										S:\MSDCHEM\2\DATA\070605\
PPES-03.D	1358 PPES 20 PPB (BREAKDOWWN)	06 Jun 2007 3:49 am	3	0	1	15.253	95482668	23.599	169119122	12.803	771330900	19.146	1353937989		S:\MSDChem\2\data\070605\
PEST-03.D	1328D PEST 50/100 PPB (DAILY CAL)	06 Jun 2007 4:26 am	4	0	1	15.253	91473947	23.600	148878364	12.803	665244234	19.140	1033648594		S:\MSDCHEM\2\DATA\070605\
L42475-13.D	L42475-13	06 Jun 2007 5:03 am	24	18.75	2.5	15.255	65884294	23.606	122772006	12.805	534011618	19.158	990627685	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-14.D	L42475-14	06 Jun 2007 5:39 am	25	18.75	2.5	15.259	61323399	23.614	131697851	12.810	517607678	19.170	1026932029	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-15.D	L42475-15	06 Jun 2007 6:16 am	26	18.75	2.5	15.258	59387838	23.610	119454676	12.809	483168528	19.166	973299771	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
L42475-16.D	L42475-16	06 Jun 2007 6:53 am	27	18.75	2.5	15.259	60167512	23.610	116897633	12.809	513420605	19.163	853993407	PPLLS63 PESTLL DENNY WAY SOIL	S:\MSDCHEM\2\DATA\070605\
COND-04.D	conditioner	06 Jun 2007 7:29 am	1	0	1										S:\MSDCHEM\2\DATA\070605\
PPES-04.D	1358 PPES 20 PPB (BREAKDOWWN)	06 Jun 2007 8:06 am	3	0	1	15.256	92341882	23.604	157013153	12.807	786343555	19.142	1071315827		S:\MSDChem\2\data\070605\
PEST-04.D	1328D PEST 50/100 PPB (DAILY CAL)	06 Jun 2007 8:42 am	4	0	1	15.257	86276733	23.605	142918829	12.807	671287343	19.141	928196743		S:\MSDCHEM\2\DATA\070605\
					Ave.	15.257	75091146	23.607	137834336	12.806	597089290	19.155	993727045		
					Std. Dev.	0.003	16146740	0.007	24689187	0.003	96711621	0.013	188256890		
					%RSD		22%		18%		16%		19%		

Data File Name	Sample Name	Date Acquired	Vial Number	Sample Amount	Sample Multiplier	Isodrin (RT)	Isodrin (Height)	Leptophos (RT)	Leptophos (Height)	Isodrin #2 (RT)	Isodrin #2 (Height)	Leptophos #2 (RT)	Leptophos #2 (Height)	Misc Info	Data File Path
COND-01.D	conditioner	06 Jun 2007 1:30 pm	1	0	1										R:\MSDCHEM\2\DATA\070606\
BLANK-01.D	blank	06 Jun 2007 2:06 pm	2	0	1										R:\MSDCHEM\2\DATA\070606\
PPES-01.D	1358 PPES 20 PPB (BREAKDOWWN)	06 Jun 2007 2:43 pm	3	0	1	15.254	107819456	23.601	179016151	12.806	831584100	19.141	1213728282		R:\MSDCHEM\2\DATA\070606\
PEST-01.D	1328D PEST 50/100 PPB (DAILY CAL)	06 Jun 2007 3:19 pm	4	0	1	15.252	90731447	23.600	140826488	12.806	722381456	19.140	1035534664		R:\MSDCHEM\2\DATA\070606\
TOX-01.D	1367.1 TOXAPHENE 1000 PPB (DAILY CAL)	06 Jun 2007 3:56 pm	5	0	1	15.254	102354176	23.599	171793161	12.806	805364106	19.141	1117977072		R:\MSDCHEM\2\DATA\070606\
L42475-4.D	L42475-4	06 Jun 2007 4:33 pm	15	18.75	2.5	15.255	76381326	23.606	160536555	12.808	680515740	19.140	822289678	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-5.D	L42475-5	06 Jun 2007 5:09 pm	16	18.75	2.5	15.255	65461786	23.607	52148842	12.807	582706697	19.161	289767008	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-6.D	L42475-6	06 Jun 2007 5:46 pm	17	18.75	2.5	15.254	61511537	23.604	121842907	12.809	565644374	19.159	1069376056	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-7.D	L42475-7	06 Jun 2007 6:23 pm	18	18.75	2.5	15.256	66756587	23.606	134081872	12.807	620257887	19.161	1092708891	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-8.D	L42475-8	06 Jun 2007 6:59 pm	19	18.75	2.5	15.259	64487682	23.612	142810171	12.810	618913333	19.157	1061300032	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-9.D	L42475-9	06 Jun 2007 7:36 pm	20	18.75	2.5	15.253	56746370	23.603	119621125	12.805	535304047	19.157	1007777922	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-10.D	L42475-10	06 Jun 2007 8:12 pm	21	18.75	2.5	15.247	64031154	23.606	124051541	12.805	546286264	19.162	1065856336	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-11.D	L42475-11	06 Jun 2007 8:49 pm	22	18.75	2.5	15.251	62993415	23.598	123641659	12.802	559255845	19.157	1018243284	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-12.D	L42475-12	06 Jun 2007 9:26 pm	23	18.75	2.5	15.253	60168228	23.601	125260073	12.803	573431379	19.141	969687883	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
COND-02.D	conditioner	06 Jun 2007 10:02 pm	1	0	1										R:\MSDCHEM\2\DATA\070606\
PPES-02.D	1358 PPES 20 PPB (BREAKDOWWN)	06 Jun 2007 10:39 pm	3	0	1	15.249	96513756	23.593	172920066	12.802	808103059	19.125	911440644		S:\MSDChem\2\data\070606\
PEST-02.D	1328D PEST 50/100 PPB (DAILY CAL)	06 Jun 2007 11:16 pm	4	0	1	15.248	85483473	23.593	145142907	12.801	707923157	19.125	765530740		R:\MSDCHEM\2\DATA\070606\
L42475-13.D	L42475-13	06 Jun 2007 11:52 pm	24	18.75	2.5	15.248	64054929	23.599	123853859	12.803	554532831	19.155	1040382310	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-14.D	L42475-14	07 Jun 2007 12:29 am	25	18.75	2.5	15.251	61754392	23.606	134913853	12.804	534596898	19.162	1026472243	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-15.D	L42475-15	07 Jun 2007 1:05 am	26	18.75	2.5	15.250	55954444	23.600	112620449	12.804	499677802	19.156	952988511	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-16.D	L42475-16	07 Jun 2007 1:42 am	27	18.75	2.5	15.251	60698902	23.597	111756719	12.804	541036654	19.152	830578528	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDChem\2\data\070606\
COND-03.D	conditioner	07 Jun 2007 2:19 am	1	0	1										R:\MSDCHEM\2\DATA\070606\
PPES-03.D	1358 PPES 20 PPB (BREAKDOWWN)	07 Jun 2007 2:55 am	3	0	1	15.246	88344990	23.593	161047121	12.801	792308780	19.123	887907565		R:\MSDChem\2\data\070606\
PEST-03.D	1328D PEST 50/100 PPB (DAILY CAL)	07 Jun 2007 3:32 am	4	0	1	15.249	85279308	23.592	149964070	12.802	674460889	19.125	773646650		R:\MSDCHEM\2\DATA\070606\
WG91600-1.D	MB	07 Jun 2007 4:09 am	6	18.75	2.5	15.249	76753676	23.592	136224857	12.801	620828560	19.146	1060549448	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
WG91600-2.D	SB	07 Jun 2007 4:45 am	7	18.75	2.5	15.248	86358740	23.592	141256898	12.801	658904826	19.145	1120154469	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
WG91600-3.D	MS L42475-4	07 Jun 2007 5:22 am	8	18.75	2.5	15.250	67392584	23.596	137803580	12.804	571658769	19.141	915723055	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
WG91600-4.D	MSD L42475-4	07 Jun 2007 5:59 am	9	18.75	2.5	15.251	64961497	23.598	137545436	12.805	558540036	19.156	1057586903	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
WG91600-5.D	SRM 1944	07 Jun 2007 6:35 am	10	1.875	2	15.262	62950785	23.615	127581892	12.815	600213079	19.173	1034677369	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
WG91600-6.D	LD L42475-6	07 Jun 2007 7:12 am	11	18.75	2.5	15.252	69826169	23.601	146032909	12.807	623891105	19.140	881390665	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-1.D	L42475-1	07 Jun 2007 7:49 am	12	18.75	2.5	15.261	62426510	23.636	148416208	12.815	571354676	19.189	1013243947	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-2.D	L42475-2	07 Jun 2007 8:25 am	13	18.75	2.5	15.254	51374446	23.604	114821465	12.807	491627129	19.163	987572731	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-3.D	L42475-3	07 Jun 2007 9:02 am	14	18.75	2.5	15.256	58162262	23.609	132617881	12.810	539084612	19.155	958428746	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
COND-04.D	conditioner	07 Jun 2007 9:38 am	1	0	1										R:\MSDCHEM\2\DATA\070606\
PPES-04.D	1358 PPES 20 PPB (BREAKDOWWN)	07 Jun 2007 10:15 am	3	0	1	15.251	92336472	23.597	171983862	12.806	783055598	19.157	1361403443		R:\MSDChem\2\data\070606\
PEST-04.D	1328D PEST 50/100 PPB (DAILY CAL)	07 Jun 2007 10:52 am	4	0	1	15.250	78959492	23.597	135239429	12.806	676540408	19.139	1031684271		R:\MSDCHEM\2\DATA\070606\
					Ave.	15.252	72549354	23.602	136624968	12.806	627418635	19.150	979858366		
					Std. Dev.	0.004	14894399	0.009	24032058	0.004	97579363	0.015	177430095		
					%RSD		21%		18%		16%		18%		

DDT - "E" - back

DDT / DDE / DDD - back column

Methoxychlor - back column

DCB - front

TCX - back

Endrine Aldehyde - front & Endrin

Data File Name	Sample Name	Date Acquired	Vial Number	Sample Amount	Sample Multiplier	Isodrin (RT)	Isodrin (Height)	Leptophos (RT)	Leptophos (Height)	Isodrin #2 (RT)	Isodrin #2 (Height)	Leptophos #2 (RT)	Leptophos #2 (Height)	Misc Info	Data File Path
COND-01.D	conditioner	06 Jun 2007 1:30 pm	1	0	1										R:\MSDCHEM\2\DATA\070606\
BLANK-01.D	blank	06 Jun 2007 2:06 pm	2	0	1										R:\MSDCHEM\2\DATA\070606\
PPES-01.D	1358 PPES 20 PPB (BREAKDOWWN)	06 Jun 2007 2:43 pm	3	0	1	15.254	107819456	23.601	179016151	12.806	831584100	19.141	1213728282		R:\MSDCHEM\2\DATA\070606\
PEST-01.D	1328D PEST 50/100 PPB (DAILY CAL)	06 Jun 2007 3:19 pm	4	0	1	15.252	90731447	23.600	140826488	12.806	722381456	19.140	1035534664		R:\MSDCHEM\2\DATA\070606\
TOX-01.D	1367.1 TOXAPHENE 1000 PPB (DAILY CAL)	06 Jun 2007 3:56 pm	5	0	1	15.254	102354176	23.599	171793161	12.806	805364106	19.141	1117977072		R:\MSDCHEM\2\DATA\070606\
L42475-4.D	L42475-4	06 Jun 2007 4:33 pm	15	18.75	2.5	15.255	76381326	23.606	160536555	12.808	680515740	19.140	822289678	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-5.D	L42475-5	06 Jun 2007 5:09 pm	16	18.75	2.5	15.255	65461786	23.607	52148842	12.807	582706697	19.161	289767008	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-6.D	L42475-6	06 Jun 2007 5:46 pm	17	18.75	2.5	15.254	61511537	23.604	121842907	12.809	565844374	19.159	1069376056	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-7.D	L42475-7	06 Jun 2007 6:23 pm	18	18.75	2.5	15.256	66756587	23.606	134081872	12.807	620257887	19.161	1092708891	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-8.D	L42475-8	06 Jun 2007 6:59 pm	19	18.75	2.5	15.259	64487682	23.612	142810171	12.810	618913333	19.157	1061300032	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-9.D	L42475-9	06 Jun 2007 7:36 pm	20	18.75	2.5	15.253	56746370	23.603	119621125	12.805	535304047	19.157	1007777922	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-10.D	L42475-10	06 Jun 2007 8:12 pm	21	18.75	2.5	15.247	64031154	23.606	124051541	12.805	546286264	19.162	1065856336	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-11.D	L42475-11	06 Jun 2007 8:49 pm	22	18.75	2.5	15.251	62993415	23.598	123641659	12.802	559255645	19.157	1018243284	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-12.D	L42475-12	06 Jun 2007 9:26 pm	23	18.75	2.5	15.253	60168228	23.601	125260073	12.803	573431379	19.141	969687883	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
COND-02.D	conditioner	06 Jun 2007 10:02 pm	1	0	1										R:\MSDCHEM\2\DATA\070606\
PPES-02.D	1358 PPES 20 PPB (BREAKDOWWN)	06 Jun 2007 10:39 pm	3	0	1	15.249	96513756	23.593	172920066	12.802	808103059	19.125	911440644		S:\MSDChem\2\data\070606\
PEST-02.D	1328D PEST 50/100 PPB (DAILY CAL)	06 Jun 2007 11:16 pm	4	0	1	15.248	85483473	23.593	145142907	12.801	707923157	19.125	765530740		R:\MSDCHEM\2\DATA\070606\
L42475-13.D	L42475-13	06 Jun 2007 11:52 pm	24	18.75	2.5	15.248	64054929	23.599	123853859	12.803	554532831	19.155	1040382310	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-14.D	L42475-14	07 Jun 2007 12:29 am	25	18.75	2.5	15.251	61754392	23.606	134913853	12.804	534596898	19.162	1026472243	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-15.D	L42475-15	07 Jun 2007 1:05 am	26	18.75	2.5	15.250	55954444	23.600	112620449	12.804	499677802	19.156	952968511	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-16.D	L42475-16	07 Jun 2007 1:42 am	27	18.75	2.5	15.251	60698902	23.597	111756719	12.804	541036654	19.152	830578528	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDChem\2\data\070606\
COND-03.D	conditioner	07 Jun 2007 2:19 am	1	0	1										R:\MSDCHEM\2\DATA\070606\
PPES-03.D	1358 PPES 20 PPB (BREAKDOWWN)	07 Jun 2007 2:55 am	3	0	1	15.248	88344990	23.593	161047121	12.801	792308780	19.123	887907565		R:\MSDChem\2\data\070606\
PEST-03.D	1328D PEST 50/100 PPB (DAILY CAL)	07 Jun 2007 3:32 am	4	0	1	15.249	85279308	23.592	149964070	12.802	674460889	19.125	773646650		R:\MSDCHEM\2\DATA\070606\
WG91600-1.D	MB	07 Jun 2007 4:09 am	6	18.75	2.5	15.249	76753676	23.592	136224857	12.801	620828560	19.146	1060549448	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
WG91600-2.D	SB	07 Jun 2007 4:45 am	7	18.75	2.5	15.248	86358740	23.592	141256898	12.801	658904826	19.145	1120154469	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
WG91600-3.D	MS L42475-4	07 Jun 2007 5:22 am	8	18.75	2.5	15.250	67392584	23.596	137803580	12.804	571658769	19.141	915723055	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
WG91600-4.D	MSD L42475-4	07 Jun 2007 5:59 am	9	18.75	2.5	15.251	64961497	23.598	137545436	12.805	558540036	19.156	1057586903	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
WG91600-5.D	SRM 1944	07 Jun 2007 6:35 am	10	1.875	2	15.262	62950785	23.615	127581892	12.815	600213079	19.173	1034677369	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
WG91600-6.D	LD L42475-6	07 Jun 2007 7:12 am	11	18.75	2.5	15.252	69826169	23.601	146032909	12.807	623891105	19.140	881390665	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-1.D	L42475-1	07 Jun 2007 7:49 am	12	18.75	2.5	15.261	62426510	23.636	146416208	12.815	571354676	19.189	1013243947	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-2.D	L42475-2	07 Jun 2007 8:25 am	13	18.75	2.5	15.254	51374446	23.604	114821465	12.807	491627129	19.163	987572731	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
L42475-3.D	L42475-3	07 Jun 2007 9:02 am	14	18.75	2.5	15.256	58162262	23.609	132617881	12.810	539084612	19.155	958428746	PPLLS63 PESTLL DENNY WAY SOIL	R:\MSDCHEM\2\DATA\070606\
COND-04.D	conditioner	07 Jun 2007 9:38 am	1	0	1										R:\MSDCHEM\2\DATA\070606\
PPES-04.D	1358 PPES 20 PPB (BREAKDOWWN)	07 Jun 2007 10:15 am	3	0	1	15.251	92336472	23.597	171983862	12.806	783055598	19.157	1361403443		R:\MSDChem\2\data\070606\
PEST-04.D	1328D PEST 50/100 PPB (DAILY CAL)	07 Jun 2007 10:52 am	4	0	1	15.250	78959492	23.597	135239429	12.806	676540408	19.139	1031684271		R:\MSDCHEM\2\DATA\070606\
					Ave.	15.252	72549354	23.602	136624968	12.806	627418835	19.150	979858366		
					Std. Dev.	0.004	14894399	0.009	24032058	0.004	97579363	0.015	177430095		
					%RSD		21%		18%		16%		18%		

Trace Organics Data Anomaly Form

Date(s) Occurred: *06/05 & 06/2007*

WG #(s): *WG91600*

☒ **All samples in WKGP(s)** **or** ☐ **Sample #(s):**

Project #(s): *423368-080-001*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Extraction

☐ BNA	☐ BNALL	☐ EDC	☐ EDC-LVI
☐ CLPESTPCB	☒ PEST	☐ PCB	☐ OPPEST
☐ VOA-GCMS	☐ NWTPH-GX	☐ NWTPH-DX	☐ NWTPH-HCID
☐ BUTYL TIN	☐ AIRTOX	☐ AIR-SULFUR	
☐ Other:			
☐ Subcontracted:			

II. Instrument

GC/ICP/MS:	☐ P						
GC/MS:	☐ D	☐ E	☐ J	☐ K	☐ L	☐ M	☐ N
GC:	☐ F ECD	☒ G ECD	☐ H FID	☐ H OI4450PID/FID			
	☐ I FID						
Extraction/Cleanup:	☐ PFE	☐ GPC					
	☐ Other:						

III. Type of Sample/Analytical Anomaly

☒ Values Outside of Control Limits:

1 ☐ Blank Contamination	8 ☒ Surrogate Spike Recoveries
2 ☐ SB/SBD Spike Recoveries	9 ☐ SB/SBD RPD
3 ☐ MS/MSD Spike Recoveries	10 ☐ MS/MSD RPD
4 ☐ LCS/SRM Recoveries	11 ☐ Sample/LD RPD
5 ☐ Initial Calibration	12 ☒ Continuing Calibration Checks
6 ☐ Performance Checks	13 ☐ Tuning Criteria
7 ☐ ISTD % Differences	

14 ☐ Holding time exceeded by:
15 ☐ Insufficient sample amount.
16 ☐ Inappropriate storage, container or preservation.
17 ☒ Other

Anomaly Description: *8. Sample L42475-1 had a surrogate outside the acceptance limits of 15-155%, at 240%. 12. The continuing calibrations consistantly failed on both columns due to matrix issues, and on both analytical days. 17. All the samples were analyzed on both June 05th and June 06th. All the QC and sample 1-->3 were reported from the 6/5 run and all the rest of the samples were reported from the 6/6 run.*

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 08/02/07 03:42
Run ID: R120608 Workgroup: WG91600 (pplls#63 pestll)

MB:WG91600-1 Matrix: OTHR SOLID Listtype: ORPESTLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Alpha-BHC	.33	.667	ug/Kg	<MDL	
Beta-BHC)	.33	.667	ug/Kg	<MDL	
Delta-BHC	.33	.667	ug/Kg	<MDL	
Gamma-BHC (Lindane)	.33	.667	ug/Kg	<MDL	
Heptachlor	.33	.667	ug/Kg	<MDL	
Aldrin	.67	1.33	ug/Kg	<MDL	
Heptachlor Epoxide	.33	.667	ug/Kg	<MDL	
Endosulfan I	.67	1.33	ug/Kg	<MDL	
Dieldrin	.67	1.33	ug/Kg	<MDL	
4,4'-DDE	.67	1.33	ug/Kg	<MDL	
Endrin	.67	1.33	ug/Kg	<MDL	
Endosulfan II	.67	1.33	ug/Kg	<MDL	
4,4'-DDD	.67	1.33	ug/Kg	<MDL	
Endrin Aldehyde	.67	1.33	ug/Kg	<MDL	
Endosulfan Sulfate	.67	1.33	ug/Kg	<MDL	
4,4'-DDT	.67	1.33	ug/Kg	<MDL	
Methoxychlor	3.3	6.67	ug/Kg	<MDL	
Gamma-Chlordane	.33	.667	ug/Kg	<MDL	
Alpha-Chlordane	.33	.667	ug/Kg	<MDL	
Toxaphene	6.7	13.3	ug/Kg	<MDL	

SB:WG91600-2 MB:WG91600-1 Matrix: OTHR SOLID Listtype: ORPESTLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec	Qual	LabLimit
Alpha-BHC	.33	.667	ug/Kg	<MDL	6.67	5.68	85		20-99
Beta-BHC	.33	.667	ug/Kg	<MDL	6.67	5.89	88		66-102
Delta-BHC	.33	.667	ug/Kg	<MDL	6.67	5.84	88		63-108
Gamma-BHC (Lindane)	.33	.667	ug/Kg	<MDL	6.67	5.71	86		27-130
Heptachlor	.33	.667	ug/Kg	<MDL	6.67	5.43	81		20-137
Aldrin	.67	1.33	ug/Kg	<MDL	6.67	5.32	80		28-113
Heptachlor Epoxide	.33	.667	ug/Kg	<MDL	6.67	6	90		59-107
Endosulfan I	.67	1.33	ug/Kg	<MDL	6.67	6.17	93		62-104
Dieldrin	.67	1.33	ug/Kg	<MDL	6.67	6.45	97		58-139
4,4'-DDE	.67	1.33	ug/Kg	<MDL	6.67	6.38	96		75-111
Endrin	.67	1.33	ug/Kg	<MDL	6.67	7.14	107		60-160
Endosulfan II	.67	1.33	ug/Kg	<MDL	6.67	6.42	96		72-109
4,4'-DDD	.67	1.33	ug/Kg	<MDL	6.67	6.63	99		78-121
Endrin Aldehyde	.67	1.33	ug/Kg	<MDL	6.67	.9	13		10-77
Endosulfan Sulfate	.67	1.33	ug/Kg	<MDL	6.67	5.78	87		61-104
4,4'-DDT	.67	1.33	ug/Kg	<MDL	6.67	7.08	106		57-145
Methoxychlor	3.3	6.67	ug/Kg	<MDL	6.67	6.97	105		72-131

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 08/02/07 03:42
Run ID: R120608 Workgroup: WG91600 (pplls#63 pestll)

Matrix Spike Duplicate Report
MSD:WG91600-4 MS:WG91600-3 L42475-4 Matrix: SALTWTRSED Listtype: ORPESTLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
Alpha-BHC	.33	.667	ug/Kg	<MDL	6.67	7.03	105		59-111	6.67	6.99	105		0		35
Beta-BHC	.33	.667	ug/Kg	<MDL	6.67	6.19	93		60-119	6.67	6.3	95		2		35
Delta-BHC	.33	.667	ug/Kg	<MDL	6.67	5.8	87		54-126	6.67	6.1	91		4		35
Gamma-BHC (Lindane)	.33	.667	ug/Kg	<MDL	6.67	6.71	101		61-135	6.67	6.77	102		1		35
Heptachlor	.33	.667	ug/Kg	<MDL	6.67	6.4	96		52-157	6.67	6.72	101		5		35
Aldrin	.67	1.33	ug/Kg	<MDL	6.67	6.02	90		61-119	6.67	6.27	94		4		35
Heptachlor Epoxide	.33	.667	ug/Kg	<MDL	6.67	6.89	103		61-118	6.67	7.29	109		6		35
Endosulfan I	.67	1.33	ug/Kg	<MDL	6.67	5.9	89		64-118	6.67	6.35	95		7		35
Dieldrin	.67	1.33	ug/Kg	<MDL	6.67	6.24	94		60-139	6.67	6.64	100		6		35
4,4'-DDE	.67	1.33	ug/Kg	<MDL	6.67	6.39	96		59-125	6.67	6.7	101		5		35
Endrin	.67	1.33	ug/Kg	<MDL	6.67	7.02	105		62-166	6.67	7.76	116		10		35
Endosulfan II	.67	1.33	ug/Kg	<MDL	6.67	5.84	88		36-146	6.67	6.6	99		12		35
4,4'-DDD	.67	1.33	ug/Kg	1.55	6.67	7.16	84		41-157	6.67	7.85	94		11		35
Endrin Aldehyde	.67	1.33	ug/Kg	<MDL	6.67	1.69	25		10-66	6.67	1.82	27		8		35
Endosulfan Sulfate	.67	1.33	ug/Kg	<MDL	6.67	6.43	96		46-113	6.67	7.21	108		12		35
4,4'-DDT	.67	1.33	ug/Kg	<MDL	6.67	8.44	127		50-144	6.67	9	135		6		35
Methoxychlor	3.3	6.67	ug/Kg	<MDL	6.67	7.22	108		53-129	6.67	7.93	119		10		35

SRM:WG91600-5 Matrix: OTHR SOLID Listtype: ORPESTLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
4,4'-DDT	5.3	10.7	ug/Kg	119.	232	195		10-200
Alpha-Chlordane	2.7	5.33	ug/Kg	16.5	19.4	118		48-144

LD:WG91600-6 L42475-6 Matrix: SALTWTRSED Listtype: ORPESTLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
Alpha-BHC	.33	.667	ug/Kg	<MDL	<MDL			35
Beta-BHC	.33	.667	ug/Kg	<MDL	<MDL			35
Delta-BHC	.33	.667	ug/Kg	<MDL	<MDL			35
Gamma-BHC (Lindane)	.33	.667	ug/Kg	<MDL	<MDL			35
Heptachlor	.33	.667	ug/Kg	<MDL	<MDL			35
Aldrin	.67	1.33	ug/Kg	<MDL	<MDL			35
Heptachlor Epoxide	.33	.667	ug/Kg	<MDL	<MDL			35
Endosulfan I	.67	1.33	ug/Kg	<MDL	<MDL			35
Dieldrin	.67	1.33	ug/Kg	<MDL	<MDL			35
4,4'-DDE	.67	1.33	ug/Kg	<MDL	<MDL			35
Endrin	.67	1.33	ug/Kg	<MDL	<MDL			35
Endosulfan II	.67	1.33	ug/Kg	<MDL	<MDL			35
4,4'-DDD	.67	1.33	ug/Kg	.9	.94			35
Endrin Aldehyde	.67	1.33	ug/Kg	<MDL	<MDL			35
Endosulfan Sulfate	.67	1.33	ug/Kg	<MDL	<MDL			35
4,4'-DDT	.67	1.33	ug/Kg	<MDL	<MDL			35
Methoxychlor	3.3	6.67	ug/Kg	<MDL	<MDL			35
Gamma-Chlordane	.33	.667	ug/Kg	.975	.725			35
Alpha-Chlordane	.33	.667	ug/Kg	<MDL	<MDL	29		35

LD:WG91600-6 L42475-6 Matrix: SALTWTRSED Listtype: ORPESTLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
Toxaphene	6.7	13.3	ug/Kg	<MDL	<MDL			35

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 08/02/07 03:42
Run ID: R120608 Workgroup: WG91600 (pp11s#63 pest11)

Sample # (Lab Limits)	2,4,5,6-Tetrachloro-m-xylene 30-134	Decachlorobiphenyl 15-155
L42475-1	96	240 L
L42475-2	95	98
L42475-3	94	115
L42475-4	75	87
L42475-5	77	68
L42475-6	82	91
L42475-7	76	93
L42475-8	82	95
L42475-9	88	105
L42475-10	98	95
L42475-11	84	97
L42475-12	76	84
L42475-13	83	84
L42475-14	78	97
L42475-15	85	97
L42475-16	72	87
WG91600-1	76	98
WG91600-2	80	99
WG91600-3	83	76
WG91600-4	86	88
WG91600-5	94	91
WG91600-6	83	93

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If the following parameters are reported, values in the RPD column are their Absolute Differences:

pH
pH, Field
Salinity
Salinity, Field
Sample Depth
Sample Temperature, Field

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Jul 10 2007, 02:21 pm

Work Group: WG91601 (ppls#63 pcbll) for Department: 7 - Organics, Trace

Created: 23-MAY-07 PrepDate: 24-MAY-07 Due: Operator: km

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L42475-1	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-10	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-11	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-12	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-13	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	31-MAY-07	15-AUG-07
L42475-14	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-15	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	31-MAY-07	15-AUG-07
L42475-16	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	31-MAY-07	15-AUG-07
L42475-2	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-3	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-4	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-5	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	31-MAY-07	15-AUG-07
L42475-6	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-7	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	29-MAY-07	15-AUG-07
L42475-8	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
L42475-9	423368-80	Denny Way Sediment, Post Constru	SED	S	PCBLL	SALTWTRSED	PREP	U	30-MAY-07	15-AUG-07
WG91601-1	MB			S	PCBLL	OTHR SOLID	PREP	U	23-MAY-07	
WG91601-2	SB			S	PCBLL	OTHR SOLID	PREP	U	23-MAY-07	
WG91601-3	MS		SED	S	PCBLL	SALTWTRSED	PREP	U	23-MAY-07	
WG91601-4	MSD		SED	S	PCBLL	SALTWTRSED	PREP	U	23-MAY-07	
WG91601-5	SRM			S	PCBLL	OTHR SOLID	PREP	U	23-MAY-07	
WG91601-6	LD		SED	S	PCBLL	SALTWTRSED	PREP	U	23-MAY-07	

Comments:

L42475-1	0-2 cm, 3 grap COMP
L42475-10	0-2 cm, 3 grab COMP
L42475-11	0-2 cm, 3 grab COMP
L42475-12	0-2 cm, 3 grab COMP
L42475-13	0-2 cm, 3 grab COMP
L42475-14	0-2 cm, 3 grab COMP
L42475-15	0-2 cm, 3 grab COMP
L42475-16	0-2 cm, 3 grab COMP
L42475-2	0-2 cm, 3 grap COMP
L42475-3	0-2 cm, 3 grap COMP
L42475-4	0-2 cm, 3 grap COMP
L42475-5	0-2 cm, 3 grap COMP
L42475-6	0-2 cm, 3 grap COMP
L42475-7	0-2 cm, 3 grap COMP
L42475-8	0-2 cm, 3 grab COMP
L42475-9	0-2 cm, 3 grab COMP
WG91601-1	MB070524
WG91601-2	WG91601-1
WG91601-3	L42475-5
WG91601-4	WG91601-3 L42475-5
WG91601-5	HS2
WG91601-6	L42475-6

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR PESTICIDE-LL/PCB-LL ANALYSIS
TRACE ORGANICS LABORATORY

1:1 MeCL2:ACETONE

pestll/pcbll

QC BATCH NO.: PPLLS #63

EPA SW-846 ~~EXTRACTON METHOD~~:
SONICATION EPA 3550 SOXHLET EPA 3540

2.0 ml PCB extract split from 2.5 ml total

PEST-LL WORKGROUP NO.: WG91600
PCB-LL WORKGROUP NO.: WG91601
PESTICIDE SURROGATE SPIKE I.D. # 1372
PESTICIDE MATRIX SPIKE I.D. # 1310.1
PCB MATRIX SPIKE I.D. # 1402

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Initial Amt(g)	Effective Amt. (g) after split	Spike Amt. (uL)	Vf (ml)	CLEANUPS (GPC, AL,TBA)	PCB H+	Pest-LL conc. anlyst	Pest-LL turn in Date	PCB-LL conc. anlyst	PCB-LL turn in Date	Comments
Km 5/24/07	WG91600-1	QC	MB		30.0g	Pest	1372 100 ul	2.5	ALL		Km	6/1/07			
	WG91601-1					PCB		0.5		H+			KM	6/5/07	
	WG91600-2		SB pestll		30.0g	Pest	1310.1 100 µl	2.5							
						PCB		/		/					
	WG91601-2		SB pcbll		24.0g	Pest	1402 200 µl	/							
						PCB		0.5		H+					
	WG91600-3		MS(L42475-4)		30.0g	Pest	1310.1 100 ul	2.5							
						PCB		/		/					
	WG91600-4		MSD(L42475-4)		30.0g	Pest		2.5							
						PCB		/		/					
	WG91601-3		MS(L42475-5)		24.0g	Pest	1402 200 µl	/							
						PCB		0.5		H+					
	WG91601-4		MSD(L42475-5)		24.0g	Pest		/							
						PCB		0.5		H+					
	WG91600-5		SRM 1944 ~~pcbll~~ pestll		3.0g	Pest		2.0							
						PCB		/		/					
	WG91601-5		SRM HS2 pcbll		7.5g	Pest		/							
						PCB		0.5		H+					
WG	91600/01-6	/	LD(L42475-6)		30.0	Pest		2.5							
						PCB		0.5		H+					
	L42475-1	H23368 080	DENNY WAY SED POST. CONST.		30.0	Pest		2.5							
						PCB	/	0.5	/	H+		/	/		

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR PESTICIDE-LL/PCB-LL ANALYSIS
TRACE ORGANICS LABORATORY

1:1 MeCL2:ACETONE

QC BATCH NO.: PPLLS #63 pestll/pcbll

EPA SW-846 EXTRACTON METHOD:
SONICATION EPA 3550 SOXHLET EPA 3540

2.0 ml PCB extract split from 2.5 ml total

PEST-LL WORKGROUP NO.: WG-91600
PCB-LL WORKGROUP NO.: WG-91601
PESTICIDE SURROGATE SPIKE I.D. # 1372
PESTICIDE MATRIX SPIKE I.D. # 1310.1
PCB MATRIX SPIKE I.D. # 1402

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Initial Amt(g)	Effective Amt. (g) after split	Spike Amt. (uL)	Vf (ml)	CLEANUPS (GPC, AL,TBA)	PCB H+	Pest-LL conc. anlyst	Pest-LL turn in Date	PCB-LL conc. anlyst	PCB-LL turn in Date	Comments
RW 5/24/07	L42475-2	423368	DENNY WAY SED.		30.0	Pest	1372 100 ul	2.5	ALL			6/1/07			
						PCB		0.5		H+				6/5/07	
	-3				30.0	Pest		2.5							
						PCB		0.5		H+					
	-4				30.0	Pest		2.5							
						PCB		0.5		H+					
	-5				30.0	Pest		2.5							
						PCB		0.5		H+					
	-6				30.0	Pest		2.5							
						PCB		0.5		H+					
	-7				30.0	Pest		2.5							
						PCB		0.5		H+					
	-8				30.0	Pest		2.5							
						PCB		0.5		H+					
	-9				30.0	Pest		2.5							
						PCB		0.5		H+					
	-10				30.0	Pest		2.5							
						PCB		0.5		H+					
	-11				30.0	Pest		2.5							
						PCB		0.5		H+					
	-12				30.0	Pest		2.5							
						PCB		0.5		H+					

SOLID AND TISSUE SAMPLE EXTRACTION RECORD FOR PESTICIDE-LL/PCB-LL ANALYSIS
TRACE ORGANICS LABORATORY

1:1 MeCL2:ACETONE

QC BATCH NO.: PPLLS #63 pestll/pcbll

EPA SW-846 EXTRACTON METHOD:
SONICATION EPA 3550 SOXHLET EPA 3540

2.0 ml PCB extract split from 2.5 ml total

PEST-LL WORKGROUP NO.: WG91~~0~~600
PCB-LL WORKGROUP NO.: WG91~~0~~601
PESTICIDE SURROGATE SPIKE I.D. # 1372
PESTICIDE MATRIX SPIKE I.D. # 1310.1
PCB MATRIX SPIKE I.D. # 1-102

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	Initial Amt(g)	Effective Amt. (g) after split	Spike Amt. (uL)	Vf (ml)	CLEANUPS (GPC, AL,TBA)	PCB H+	Pest-LL conc. anlyst	Pest-LL turn in Date	PCB-LL conc. anlyst	PCB-LL turn in Date	Comments
5/24/07	L42475-13	423368	DENNY WAY SED		30.0	Pest	1372 100 uL	2.5	ALL			6/1/07			
						PCB		0.5		Hx				6/5/07	
	-14				30.0	Pest		2.5							
						PCB		0.5		Hx					
	-15				30.0	Pest		2.5							
						PCB		0.5		Hx					
	-16				30.0	Pest		2.5							
						PCB		0.5		Hx					
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									
						Pest									
						PCB									

Data File Name	Sample Name	Date Acquired	Vial Numb	Sample Amount	Sample Multiplie	Isodrin (RT)	Isodrin (Height)	Leptophos (RT)	Leptophos (Height)	Isodrin #2 (RT)	Isodrin #2 (Height)	Leptoph (RT)	Leptophos #2 (Height)	Misc Info	Data File Path
COND-01.D	conditioner	6/28/2007 15:54	1	0	1										S:\MSDCHEM\1\DATA\070628\
BLANK-01.D	blank	6/28/2007 16:31	2	0	1										S:\MSDCHEM\1\DATA\070628\
PCB-01.D	1366D 1016/1260 500/50	6/28/2007 17:08	3	0	1	12.476	767963277	19.435	1675950361	16.718	87729462	26.561	94789231		S:\MSDCHEM\1\DATA\070628\
PCB-02.D	1378.1 1248 500/50	6/28/2007 17:44	4	0	1	12.478	765083018	19.434	1539492062	16.718	83496364	26.559	91755742		S:\MSDCHEM\1\DATA\070628\
PCB-03.D	1210.2 1254 500/50	6/28/2007 18:21	5	0	1	12.477	700342991	19.442	1470862989	16.719	78150844	26.561	85655069		S:\MSDCHEM\1\DATA\070628\
PCB-04.D	1206.2 1221 500/50	6/28/2007 18:58	6	0	1	12.477	792250514	19.442	1684970132	16.720	89943156	26.561	99142497		S:\MSDCHEM\1\DATA\070628\
PCB-05.D	1207.2 1232 500/50	6/28/2007 19:35	7	0	1	12.478	699538142	19.442	1460789670	16.719	76813006	26.560	88835507		S:\MSDCHEM\1\DATA\070628\
PCB-06.D	1208.2 1242 500/50	6/28/2007 20:11	8	0	1	12.477	693357769	19.435	1456624863	16.719	78002888	26.559	84686265		S:\MSDCHEM\1\DATA\070628\
L42475-12.D	L42475-12	6/28/2007 20:48	26	15	0.5	12.485	416889237	19.464	828142483	16.722	52892341	26.572	60264374	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-13.D	L42475-13	6/28/2007 21:25	27	15	0.5	12.483	443874261	19.465	806665258	16.722	56229290	26.576	62658301	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-14.D	L42475-14	6/28/2007 22:01	28	15	0.5	12.493	414921597	19.493	848249201	16.728	54698731	26.588	63233379	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-15.D	L42475-15	6/28/2007 22:38	29	15	0.5	12.486	394930466	19.467	781636801	16.724	51388796	26.576	60067637	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-16.D	L42475-16	6/28/2007 23:15	30	15	0.5	12.483	413005267	19.459	800867169	16.722	54776103	26.572	63592498	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475R1 10X.D	L42475R1	6/28/2007 23:51	31	15	5	12.480	541787396	19.456	1005102385	16.721	68194553	26.571	79270323	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475R8 10X.D	L42475R8	6/29/2007 12:28	32	15	5	12.479	555221508	19.446	1029268994	16.719	68428058	26.564	80367891	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475R14 10X.D	L42475R14	6/29/2007 1:05	33	15	5	12.477	581216145	19.442	1050474158	16.719	70810886	26.563	81646322	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
BLANK-02.D	blank	6/29/2007 1:41	2	0	1										S:\MSDCHEM\1\DATA\070628\
PCB-07.D	1366D 1016/1260 500/50	6/29/2007 2:18	3	0	1	12.477	778697990	19.438	1695998446	16.718	84475547	26.557	95948989		S:\MSDCHEM\1\DATA\070628\
PCB-08.D	1378.1 1248 500/50	6/29/2007 2:55	4	0	1	12.476	745334104	19.436	1561617361	16.716	82664215	26.557	91947619		S:\MSDCHEM\1\DATA\070628\
L42475-4.D	L42475-4	6/29/2007 3:31	18	15	0.5	12.486	439748797	19.471	868539532	16.721	56079772	26.574	63887518	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-5.D	L42475-5	6/29/2007 4:08	19	15	0.5	12.486	458993770	19.477	890208195	16.722	59617821	26.577	68635628	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-6.D	L42475-6	6/29/2007 4:45	20	15	0.5	12.482	440434439	19.458	840759673	16.720	56000114	26.570	65851276	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-7.D	L42475-7	6/29/2007 5:21	21	15	0.5	12.485	416450574	19.467	835087135	16.723	54149424	26.575	63358332	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-8.D	L42475-8	6/29/2007 5:58	22	15	0.5	12.500	382646191	19.505	788399876	16.731	48692595	26.592	58828626	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-9.D	L42475-9	6/29/2007 6:34	23	15	0.5	12.484	419813543	19.466	824748721	16.722	53188088	26.573	61141908	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-10.D	L42475-10	6/29/2007 7:11	24	15	0.5	12.487	377717426	19.480	752133289	16.724	50409153	26.578	58675887	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-11.D	L42475-11	6/29/2007 7:48	25	15	0.5	12.484	430120824	19.469	822051169	16.723	54609876	26.577	64619294	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
BLANK-03.D	blank	6/29/2007 8:24	2	0	1										S:\MSDCHEM\1\DATA\070628\
PCB-09.D	1366D 1016/1260 500/50	6/29/2007 9:01	3	0	1	12.479	736727811	19.441	1665860654	16.721	85571445	26.563	96772669		S:\MSDCHEM\1\DATA\070628\
PCB-10.D	1210.2 1254 500/50	6/29/2007 9:38	5	0	1	12.478	663745294	19.443	1435314002	16.719	76385157	26.562	85639677		S:\MSDCHEM\1\DATA\070628\
WG91601-1.D	MB	6/29/2007 10:15	9	15	0.5	12.479	555644366	19.440	901558206	16.719	60846340	26.561	70141864	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
WG91601-2.D	SB	6/29/2007 10:51	10	15	0.5	12.478	579830398	19.441	1012130558	16.718	63895411	26.559	72343310	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
WG91601-3.D	MS L42475-5	6/29/2007 11:28	11	15	0.5	12.488	400453197	19.484	788182468	16.725	51667009	26.585	60240661	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
WG91601-4.D	MSD L42475-5	6/29/2007 12:04	12	15	0.5	12.493	445576998	19.495	879641107	16.726	58311319	26.587	66823162	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
WG91601-5.D	SRM HS2	6/29/2007 12:41	13	4.6875	0.5	12.495	455117803	19.477	923624242	16.731	81535562	26.577	66186342	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
WG91601-6.D	LD L42475-6	6/29/2007 13:18	14	15	0.5	12.481	418188836	19.455	793015274	16.721	50854132	26.568	54605292	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-1.D	L42475-1	6/29/2007 13:54	15	15	0.5	12.511	407657912	19.456	765453051	16.740	53885747	26.629	58297536	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-2.D	L42475-2	6/29/2007 14:31	16	15	0.5	12.487	476806317	19.471	972840063	16.724	60469713	26.577	67683834	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
L42475-3.D	L42475-3	6/29/2007 15:08	17	15	0.5	12.498	431169578	19.496	859446045	16.732	55986631	26.589	65404114	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070628\
BLANK-04.D	blank	6/29/2007 15:45	2	0	1										S:\MSDCHEM\1\DATA\070628\
PCB-11.D	1366D 1016/1260 500/50	6/29/2007 16:21	3	0	1	12.478	733663278	19.434	1628448857	16.718	84321194	26.559	93633144		S:\MSDCHEM\1\DATA\070628\
PCB-12.D	1378.1 1248 500/50	6/29/2007 16:58	4	0	1	12.478	729369201	19.434	1557789108	16.716	80549384	26.557	86312993		S:\MSDCHEM\1\DATA\070628\
					Ave.	12.484	543358655	19.458	1094647123	16.722	65830274	26.572	73863371		
					Std. Dev.	0.008	144453940	0.020	345268656	0.005	13379826	0.014	13735126		
					%RSD		27%		32%		20%		19%		

Data File Name	Sample Name	Date Acquired	Vial Numb	Sample Amount	Sample Multiplie	Isodrin (RT)	Isodrin (Height)	Leptophos (RT)	Leptophos (Height)	Isodrin #2 (RT)	Isodrin #2 (Height)	Leptoph (RT)	Leptophos #2 (Height)	Misc Info	Data File Path
COND-01.D	conditioner	6/27/2007 10:14	1	0	1										S:\MSDCHEM\1\DATA\070627\
BLANK-01.D	blank	6/27/2007 10:51	2	0	1										S:\MSDCHEM\1\DATA\070627\
PCB-01.D	1366D 1016/1260 500/50	6/27/2007 11:28	3	0	1	12.478	684571769	19.434	1470447441	16.719	81737007	26.562	83540057		S:\MSDCHEM\1\DATA\070627\
PCB-02.D	1378.1 1248 500/50	6/27/2007 12:04	4	0	1	12.481	674136358	19.441	1032394701	16.720	80124805	26.565	80442957		S:\MSDCHEM\1\DATA\070627\
PCB-03.D	1210.2 1254 500/50	6/27/2007 12:41	5	0	1	12.482	659189799	19.442	1052672689	16.719	75714126	26.561	78077042		S:\MSDCHEM\1\DATA\070627\
PCB-04.D	1206.2 1221 500/50	6/27/2007 13:18	6	0	1	12.481	738923144	19.441	1557116719	16.719	88761028	26.562	89156018		S:\MSDCHEM\1\DATA\070627\
PCB-05.D	1207.2 1232 500/50	6/27/2007 13:54	7	0	1	12.480	666493718	19.438	1014284570	16.719	78111661	26.561	80853105		S:\MSDCHEM\1\DATA\070627\
PCB-06.D	1208.2 1242 500/50	6/27/2007 14:31	8	0	1	12.481	645498480	19.440	1007633400	16.720	77087991	26.564	79916442		S:\MSDCHEM\1\DATA\070627\
WG91601-1.D	MB	6/27/2007 15:08	9	15	0.5	12.481	543750385	19.440	879807111	16.720	62147179	26.564	66245046	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
WG91601-2.D	SB	6/27/2007 15:44	10	15	0.5	12.482	572065121	19.443	941058174	16.721	65654212	26.564	69709110	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
WG91601-3.D	MS L42475-5	6/27/2007 16:21	11	15	0.5	12.491	388577879	19.488	729979696	16.727	50765759	26.588	59503404	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
WG91601-4.D	MSD L42475-5	6/27/2007 16:58	12	15	0.5	12.494	379777397	19.496	781356256	16.730	51639871	26.593	60250613	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
WG91601-5.D	SRM HS2	6/27/2007 17:35	13	4.6875	0.5	12.501	407038121	19.483	801988554	16.733	69137145	26.584	61921029	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
WG91601-6.D	LD L42475-6	6/27/2007 18:11	14	15	0.5	12.489	380116107	19.463	720055949	16.724	48568501	26.575	53077517	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-1.D	L42475-1	6/27/2007 18:48	15	15	0.5	12.518	380674055	19.586	730338707	16.742	50056412	26.635	57725628	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-2.D	L42475-2	6/27/2007 19:25	16	15	0.5	12.495	426768261	19.483	852026232	16.730	57601757	26.583	64610169	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-3.D	L42475-3	6/27/2007 20:01	17	15	0.5	12.507	394984229	19.506	785868390	16.736	53142345	26.597	62117566	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
BLANK-02.D	blank	6/27/2007 20:38	2	0	1										S:\MSDCHEM\1\DATA\070627\
PCB-07.D	1366D 1016/1260 500/50	6/27/2007 21:15	3	0	1	12.488	641513561	19.451	1050468016	16.723	74927166	26.568	80264281		S:\MSDCHEM\1\DATA\070627\
PCB-08.D	1378.1 1248 500/50	6/27/2007 21:51	4	0	1	12.487	655261226	19.450	1032422646	16.722	74293166	26.567	76837944		S:\MSDCHEM\1\DATA\070627\
L42475-4.D	L42475-4	6/27/2007 22:28	18	15	0.5	12.496	399679172	19.481	770526331	16.729	53196921	26.584	59579714	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-5.D	L42475-5	6/27/2007 23:05	19	15	0.5	12.497	427522168	19.490	808342982	16.729	55307901	26.587	63994778	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-6.D	L42475-6	6/27/2007 23:41	20	15	0.5	12.494	407128907	19.472	786240613	16.727	54368371	26.580	63748981	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-9.D	L42475-9	6/28/2007 1:32	23	15	0.5	12.496	384476786	19.481	753237280	16.729	52360714	26.585	59775965	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-7.D	L42475-7	6/28/2007 12:18	21	15	0.5	12.498	384846849	19.482	759562892	16.730	51117892	26.585	59806872	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-8.D	L42475-8	6/28/2007 12:55	22	15	0.5	12.512	354743417	19.519	702304546	16.738	47367050	26.602	55970413	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-10.D	L42475-10	6/28/2007 2:08	24	15	0.5	12.499	365477623	19.495	710853892	16.732	48267997	26.591	56610667	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-11.D	L42475-11	6/28/2007 2:45	25	15	0.5	12.495	397300181	19.481	770093251	16.729	52154261	26.585	61485127	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
BLANK-03.D	blank	6/28/2007 3:22	2	0	1										S:\MSDCHEM\1\DATA\070627\
PCB-09.D	1366D 1016/1260 500/50	6/28/2007 3:58	3	0	1	12.488	880135102	19.450	1172838870	16.724	81148741	26.567	85325074		S:\MSDCHEM\1\DATA\070627\
PCB-10.D	1210.2 1254 500/50	6/28/2007 4:35	5	0	1	12.487	650773439	19.449	1067727433	16.723	75253842	26.568	79716898		S:\MSDCHEM\1\DATA\070627\
L42475-12.D	L42475-12	6/28/2007 5:12	26	15	0.5	12.494	391423465	19.476	775201975	16.728	51634177	26.580	58168424	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-13.D	L42475-13	6/28/2007 5:49	27	15	0.5	12.492	416271102	19.478	759190798	16.726	52786218	26.581	60893160	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-14.D	L42475-14	6/28/2007 6:25	28	15	0.5	12.501	394386528	19.500	806071774	16.733	51493507	26.594	60634971	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-15.D	L42475-15	6/28/2007 7:02	29	15	0.5	12.493	382313696	19.478	771850116	16.727	50081510	26.580	58181352	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
L42475-16.D	L42475-16	6/28/2007 7:39	30	15	0.5	12.490	409859458	19.466	797212149	16.725	52763092	26.575	63377469	PPLLS63 PCBLL DENNY WAY SEDS SOIL	S:\MSDCHEM\1\DATA\070627\
BLANK-04.D	blank	6/28/2007 8:15	2	0	1										S:\MSDCHEM\1\DATA\070627\
PCB-11.D	1366D 1016/1260 500/50	6/28/2007 8:52	3	0	1	12.482	726621065	19.443	1608815707	16.720	83308277	26.560	91282189		S:\MSDCHEM\1\DATA\070627\
PCB-12.D	1378.1 1248 500/50	6/28/2007 9:29	4	0	1	12.480	695079561	19.435	1478108083	16.720	82069970	26.562	85358095		S:\MSDCHEM\1\DATA\070627\
					Ave.	12.491	503157591	19.471	932884645	16.726	62769134	26.578	68475232		
					Std. Dev.	0.010	137502287	0.031	254887880	0.006	13424452	0.016	11254187		
					%RSD		27%		27%		21%		16%		

Data not used - Dilutions only

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 07/10/07 02:23
Run ID: R120957 Workgroup: WG91601 (ppls#63 pcb11)

MB:WG91601-1 Matrix: OTHR SOLID Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-103-000) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Aroclor 1016	.83	1.67	ug/Kg	<MDL	
Aroclor 1221	1.7	3.33	ug/Kg	<MDL	
Aroclor 1232	1.7	3.33	ug/Kg	<MDL	
Aroclor 1242	.83	1.67	ug/Kg	<MDL	
Aroclor 1248	.83	1.67	ug/Kg	<MDL	
Aroclor 1254	.83	1.67	ug/Kg	<MDL	
Aroclor 1260	.83	1.67	ug/Kg	<MDL	

SB:WG91601-2 MB:WG91601-1 Matrix: OTHR SOLID Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-103-000) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Aroclor 1016	.83	1.67	ug/Kg	<MDL	25.0	19.8	79		39-121
Aroclor 1260	.83	1.67	ug/Kg	<MDL	25.0	21.4	86		53-140

MSD:WG91601-4 MS:WG91601-3 L42475-5 Matrix: SALTWTRSED Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-103-000) Project: 423368-80 Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
Aroclor 1016	.83	1.67	ug/Kg	<MDL	25.0	30.1	120		32-164	25.0	30.1	121		1		35
Aroclor 1260	.83	1.67	ug/Kg	12.4	25.0	33.3	84		28-144	25.0	31.4	76		10		35

SRM:WG91601-5 Matrix: OTHR SOLID Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-103-000) Project: Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
Aroclor 1254	2.7	5.33	ug/Kg	112.	65.7	59		57-139

LD:WG91601-6 L42475-6 Matrix: SALTWTRSED Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-103-000) Project: Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
Aroclor 1016	.83	1.67	ug/Kg	<MDL	<MDL			35
Aroclor 1221	1.7	3.33	ug/Kg	<MDL	<MDL			35
Aroclor 1232	1.7	3.33	ug/Kg	<MDL	<MDL			35
Aroclor 1242	.83	1.67	ug/Kg	<MDL	<MDL			35
Aroclor 1248	.83	1.67	ug/Kg	8.5	6.73	23		35
Aroclor 1254	.83	1.67	ug/Kg	23.7	17.8	29		35
Aroclor 1260	.83	1.67	ug/Kg	17.8	13.6	27		35

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 07/10/07 02:23
Run ID: R120957 Workgroup: WG91601 (ppls#63 pcbll)

Sample #	2,4,5,6-Tetrac-hloro-m-xylene	Decachlorobiph-enyl
(Lab Limits)	30-134	15-155
L42475-1	78	60
L42475-2	63	66
L42475-3	70	80
L42475-4	73	79
L42475-5	75	71
L42475-6	68	76
L42475-7	67	74
L42475-8	80	81
L42475-9	69	77
L42475-10	81	76
L42475-11	71	76
L42475-12	68	77
L42475-13	77	72
L42475-14	70	72
L42475-15	72	81
L42475-16	68	75
WG91601-1	55	72
WG91601-2	72	88
WG91601-3	104	89
WG91601-4	113	74
WG91601-5	78	68
WG91601-6	67	73

==========

If the following parameters are reported, values in the RPD column are their Absolute Differences:

- pH
- pH, Field
- Salinity
- Salinity, Field
- Sample Depth
- Sample Temperature, Field

CHAIN OF CUSTODY FORMS

Login Number: P42475

T-DW, CHEM06

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80

Personnel: _____

Sample Number	P42475-1	P42475-2	P42475-3
Locator	DWMP-01	DWMP-02	DWMP-03
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time			
End Date/Time			
Sample Depth			
Collect Date			
Comments	0-2 cm, 3 grap COMP	0-2 cm, 3 grap COMP	0-2 cm, 3 grap COMP
PERSONNEL			
SAMP METH			
SED DEPTH	14,14,11	10,12,11	14,17,16
SED SAMP RANGE			
SED TYPE	23P20		23N20
TIDE COND			
TIDE HT			
TIME			
Dept., Matrix, Prod			
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	3 SALTWTRSED TVS	3 SALTWTRSED TVS	3 SALTWTRSED TVS
	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA
	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP

CHAIN OF CUSTODY

RELINQUISHED BY	Date	Time
[illegible]	5/15/07	1650
RECEIVED BY	Date	Time
[illegible]	5/15/0	1650

Sam. Number(s) 42475 1-4,7

CHAIN OF CUSTODY

RELINQUISHED BY	Date	Time
[illegible]	5/16/07	1608
RECEIVED BY	Date	Time
[illegible]	5/16/07	1608

Sam. Number(s) 42475 6,8,9,10,11,12,14

continue ...

5/17/07

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80

Personnel: _____

Sample Number	P42475-4	P42475-5	P42475-6
Locator	DWMP-04	DWMP-05	DWMP-06
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time			
End Date/Time			
Sample Depth			
Collect Date	05/15/07	05/17/06	5/16/07
Comments	0-2 cm, 3 grap COMP	0-2 cm, 3 grap COMP	0-2 cm, 3 grap COMP
PERSONNEL			
SAMP METH			
SED DEPTH	17,11,11	6,9,9	17,17,17
SED SAMP RANGE			
SED TYPE	23N2ϕ	43521	23N2ϕ
TIDE COND			
TIDE HT			
TIME			
Dept., Matrix, Prod			
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	3 SALTWTRSED TVS	3 SALTWTRSED TVS	3 SALTWTRSED TVS
	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA
	6 SALTWTRSED NPDES-ICP	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP

CHAIN OF CUSTODY

RELINQUISHED BY	Date	Time
[illegible]	5/17/07	1445
RECEIVED BY	Date	Time
[illegible]	5/17/07	1445

Sam[illegible]nber(s)

5, 13, 15, 16

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel: _____

Sample Number	P42475-7	P42475-8	P42475-9
Locator	DWMP-07	DWMP-08	DWMP-09
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time			
End Date/Time			
Sample Depth			
Collect Date		5/16/07	5/16/07
Comments	0-2 cm, 3 grap COMP	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP
PERSONNEL			
SAMP METH			
SED DEPTH	15,16,17	11,17,13	17,17,17
SED SAMP RANGE			
SED TYPE	23N21	23N21	23P36
TIDE COND			
TIDE HT			
TIME			
Dept., Matrix, Prod			
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	3 SALTWTRSED TVS	3 SALTWTRSED TVS	3 SALTWTRSED TVS
	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA
	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel: _____

Sample Number	P42475-10	P42475-11	P42475-12
Locator	DWMP-10	DWMP-11	DWMP-12
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time			
End Date/Time			
Sample Depth			
Collect Date	5/16/07	5/16/07	5/16/07
Comments	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP
PERSONNEL			
SAMP METH			
SED DEPTH	7,7,8	13,13,17	17,17,17
SED SAMP RANGE			
SED TYPE	23N31	23W31	20N20
TIDE COND			
TIDE HT			
TIME			
Dept., Matrix, Prod			
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	3 SALTWTRSED TVS	3 SALTWTRSED TVS	3 SALTWTRSED TVS
	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA
	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel: _____

Sample Number	P42475-13	P42475-14	P42475-15
Locator	DWMP-13	DWMP-14	DWMP-15
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time			
End Date/Time			
Sample Depth			
Collect Date	5/17/07	5/16/07	5/17/07
Comments	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP
PERSONNEL			
SAMP METH			
SED DEPTH	5,5,5	16,13,17	13,14,11
SED SAMP RANGE			
SED TYPE	3,4530	20N20	23N20
TIDE COND			
TIDE HT			
TIME			
Dept., Matrix, Prod			
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	3 SALTWTRSED TVS	3 SALTWTRSED TVS	3 SALTWTRSED TVS
	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA	6 SALTWTRSED HG-CVAA
	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel: _____

Sample Number	P42475-16	
Locator	DWMP-16	
Short Loc. Desc.		
Locator Desc.		
Site	SEATTLE WATERFRONT	
Start Date/Time		
End Date/Time		
Sample Depth		
Collect Date	5/17/07	
Comments	0-2 cm, 3 grab COMP	
PERSONNEL		
SAMP METH		
SED DEPTH	13,17,9	
SED SAMP RANGE		
SED TYPE	21N3Ø	
TIDE COND		
TIDE HT		
TIME		
Dept., Matrix, Prod		
	3 SALTWTRSED NH3-KCL	
	3 SALTWTRSED PSD	
	3 SALTWTRSED TOC	
	3 SALTWTRSED TOTS	
	3 SALTWTRSED TOTSULFIDE	
	3 SALTWTRSED TVS	
	6 SALTWTRSED HG-CVAA	
	6 SALTWTRSED NPDES ICP	

continue ...

LABORATORY WORK ORDER
Chain of Custody

King County Department of Natural Resources
Water and Land Resources Division
Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507

Project Name: Denny Way Post-construction Subtidal Sediments
Project Number: 423368-80
Laboratory Project Manager: Fritz Grothkopp/John Blaine
Telephone Number: 684 2327/2384

Sample Number	Client Locator	Collect Date		TOC/TOTS/TVS	NH3-KCL	TOTSULFIDE *	PSD	Metals + HG-CVAA		BNASMS/PESTLL/PCBLL	VOA-GC/MS-LOWSED							Number of Containers	Comments
Note: Use only one Login No. per sheet.				Analyses															
L42475 - 1		5/15/07		1	1	1	1	1		1	2							8	
L42475 - 2		5/15/07		1	1	1	1	1		1	2							8	
L 42475 - 3		5/15/07		1	1	1	2	1		1	2							9	
L 42475 - 4		5/15/07		1	1	1	1	1		1	2							8	
L 42475 - 7		5/15/07		1	1	1	1	1		1	2							8	
L -																			
L -																			
L -																			
L -																			
L -																			
L -																			

Additional Comments:

* Sub-contracted lab parameters.

Total Number of Containers 41

Sampled By: JD JDD JB ALAN F

Relinquished By:		Received By:	
Signature	Jeffrey Drolet	Signature	Lynne Cox
Date	5/15/07	Date	5/15/07
Printed Name	Jeffrey Drolet	Printed Name	Lynne Cox
Time	1650	Time	1650
Organization	King County Environmental Laboratory	Organization	King County Environmental Laboratory

LABORATORY WORK ORDER
Chain of Custody

King County Department of Natural Resources
Water and Land Resources Division
Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507

Project Name: Denny Way Post-construction Subtidal Sediments
Project Number: 423368-80
Laboratory Project Manager: Fritz Grothkopp/John Blaine
Telephone Number: 684 2327/2384

Sample Number	Client Locator	Collect Date		TOC/TOTS/TVS	NH3-KCL	TOTSULFIDE *	PSD	Metals + HG-CVAA		BNASMS/PESTLL/PCBLL	VOA-GC/MS-LOWSED							Number of Containers	Comments
				Analyses															
Note: Use only one Login No. per sheet.																			
L42475-6	DWMP-06	16-May-07		1	1	1	1	1		1	2							8	
L42475-8	DWMP-08	16-May-07		1	1	1	1	1		1	2							8	
L42475-9	DWMP-09	16-May-07		1	1	1	1	1		1	2							8	
L42475-10	DWMP-10	16-May-07		1	1	1	1	1		1	2							8	
L42475-11	DWMP-11	16-May-07		1	1	1	1	1		1	2							8	
L42475-12	DWMP-12	16-May-07		1	1	1	1	1		1	2							8	
L42475-14	DWMP-14	16-May-07		1	1	1	1	1		1	2							8	
L -																			
L -																			
L -																			
L -																			

Additional Comments:

* Sub-contracted lab parameters.

Total Number of Containers 56

Sampled By: CB, JDD, SH, AF, VF, JB

Relinquished By:		**Received By:**	
Signature		Signature	
Date	05/16/07	Date	5/16/07
Printed Name	Christopher Barnes	Printed Name	Lynne Cole
Time	1608	Time	1605
Organization	King County Environmental Laboratory	Organization	King County Environmental Laboratory

LABORATORY WORK ORDER
Chain of Custody

King County Department of Natural Resources
Water and Land Resources Division
Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507

Project Name: Denny Way Post-construction Subtidal Sediments
Project Number: 423368-80
Laboratory Project Manager: Fritz Grothkopp/John Blaine
Telephone Number: 684 2327/2384

Note: Use only one Login No. per sheet. Sample Number	Client Locator	Collect Date		Analyses: TOC/TOTS/TVS	NH3-KCL	TOTSULFIDE *	PSD	Metals + HG-CVAA		BNASMS/PESTLL/PCBLL	VOA-GC/MS-LOWSED							Number of Containers	Comments
L42475-05	DWMP-05	05/17/07		1	1	1	1	1		1	2							8	
L42475-13	DWMP-13	↓		1	1	1	1	1		1	2							8	
L42475-15	DWMP-15	↓		1	1	1	1	1		1	2							8	
L42475-16	DWMP-16	↓		1	1	1	1	1		1	2							8	
L -																			
L -																			
L -																			
L -																			
L -																			
L -																			
L -																			

Additional Comments:

* Sub-contracted lab parameters.

Total Number of Containers 32

Sampled By: JB, MP, JDP, CB, & F

Relinquished By:		Received By:	
Signature	Date 05/17/07	Signature	Date 5/17/07
Printed Name Christopher Barnes	Time 1445	Printed Name David C. Hunn	Time 1548
Organization King County Environmental Laboratory		Organization King County Environmental Laboratory	

KING COUNTY ENVIRONMENTAL LABORATORY
QUALITY ASSURANCE REVIEW

For

Denny Way CSO and Elliott West CSO
Storage and Treatment Facility
Post-Operation Sediment Monitoring
Year Three - 2008

Prepared by:

Fritz Grothkopp
Laboratory Project Manager

Date: 12-3-08

Reviewed by:

Colin Elliott
Quality Assurance Officer

Date: Dec. 3, 2008

King County Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507
(206) 684-2300

INTRODUCTION

This quality assurance (QA) narrative is intended to document the QA review conducted on the chemistry analyses performed for the Denny Way CSO and Elliott West CSO Storage and Treatment Facility, Post-operation Sediment Monitoring, Year Three - 2008. The QA narrative is organized into the five sections listed below.

- General Comments
- Sample Collection
- Conventional Analyses
- Metal Chemistry
- Organic Chemistry

An overview of the approach used for the QA review is detailed in the *General Comments* section. Additional information specific to each analysis is included in the appropriate analytical section.

This QA review and narrative (specifically defined as QA1) have been conducted in accordance with guidelines established through the Puget Sound Dredged Disposal Analysis (PSDDA) program, Sediment Management Standards (WAC 173-204-610) and the Sediment Sampling and Analysis Appendix (SAPA), WDOE 2003. Other approaches incorporated in the QA review have been established through collaboration between the King County Environmental Laboratory (KC Laboratory) and the Washington State Department of Ecology (Ecology) Sediment Management Unit.

GENERAL COMMENTS

Scope of Samples Submitted
This QA review is associated with marine sediment samples collected on March 31, April 1, 2, 2008 as part of the Denny Way CSO and Elliott West CSO Storage and Treatment Facility, Post-operation Sediment Monitoring, Year Three - 2008.

Except where noted in the subcontracting sections of this QA review, all analyses have been conducted by the King County Environmental Laboratory (KCEL). Sediment analytical data are reported with associated data qualifiers and have undergone QA1 review, as summarized in this narrative report.

Completeness
Completeness has been evaluated for this data submission and QA review by considering the following criteria:

- Comparing reported data to the planned project analyses summarized in Table 1.
- Compliance with storage conditions and holding times.
- Frequency of analysis of the complete set of quality control (QC) samples outlined in Table 2.

Subcontracted Analyses
Analyses that have been subcontracted and the issues associated with these subcontracted analyses are noted in this narrative.

Methods
Analytical methods are noted in the applicable analytical sections of this QA review.

Target Lists
The reported target lists have been compared to the target analytes listed in *Table 1 - Marine Sediment Quality Standards Chemical Criteria* and *Table 3 - Puget Sound Marine Sediment Cleanup Screening Levels Chemical Criteria* contained in Chapter 173-204 WAC.

Detection Limits
As part of the QA1 review, the detection limits reported for each parameter have been reviewed against the detection limit requirements defined in the SAP. When sample results have been reported as less than the Method Detection Limit (<MDL) and the associated detection limits are higher than those defined in the SAP, the particular samples and parameters have been identified and the circumstances explained. These summaries are included with each analytical section of this QA review.

The KC Laboratory reports include both the reporting detection limit (RDL) and the method detection limit (MDL) for each sample and parameter, where applicable. The RDL is defined as *the minimum concentration of a chemical constituent that can be reliably quantified while* the MDL is defined as *the minimum concentration of a chemical constituent that can be detected.* Some subcontracted laboratory data are available with an MDL only, in accordance with the subcontracting laboratory policies. For some methods the detection limits reported may vary from sample to sample depending on the amount of sample analyzed and any additional dilutions required.

Storage Conditions and Holding Times
Storage conditions and holding times have been evaluated using guidelines defined in the project SAP. Preparation and analysis holding times for each method are summarized in each analytical section.

Method Blanks
Method blank results have been used to evaluate the possible laboratory contamination of samples. Method blank results have been reviewed for the presence of analytes detected at or greater than the MDL. For analytes where the method blank response was at or above the MDL all associated sample results have been qualified with a B flag.

Standard Reference Materials
Standard reference material (SRM) recoveries have been used to evaluate possible low or high analytical bias on a batch-specific basis. SRM analysis is included with metals and selected organic and conventional parameters (see Table 2). SRMs are purchased from outside agencies (NIST or NRCC) and must have a certified analyte value in order for a particular parameter to be evaluated. All associated sample results for the certified analytes are flagged if the SRM recoveries are unacceptable. Associated sample results are flagged with an L whenever recoveries are measured above the acceptance limits and are flagged with a G when recoveries are measured below the acceptance limits.

Matrix Spikes
Matrix spike recoveries have been used to evaluate possible low or high analytical bias on a matrix and batch-specific basis. Matrix spikes are analyzed with metals, organics and selected conventionals parameters (see Table 2). Associated sample results are flagged with an L whenever recoveries are measured above the acceptance limits and are flagged with a G when recoveries are measured below the acceptance limits (but at or above 10%). Associated results are flagged with an X whenever recoveries are less than 10%.

For Metals only, matrix spike recovery results are used to qualify sample data only when the sample levels in the spiked sample are less than 4 times the spiked concentration. High sample levels relative to the spiked concentration can compromise the measurement of accurate spike recoveries.

Laboratory Replicate Samples
Replicate analysis (laboratory duplicates or triplicates) is used as an indicator of method precision and is used to qualify data on an analyte and batch-specific basis. Not all replicate data are used, however, as an indicator for data qualification. Only sets of replicate results which include at least one result greater than the RDL are considered for data qualification. These guidelines have been used to account for the fact that precision obtained near the detection limit is not representative of precision obtained throughout the entire analytical range. Associated results are flagged with an E whenever the measured precision is unacceptable (greater than the acceptance limit).

Surrogates
Surrogate recoveries have been used to evaluate possible low or high analytical bias on a sample-specific basis. Surrogates are only analyzed for organic parameters. Individual sample results are flagged with an L whenever recoveries are measured above the acceptance limits and are flagged with a G when recoveries are measured below the acceptance limits (but at or above 10%). Associated results are flagged with an X whenever recoveries are less than 10%.

Data Qualifiers
The data qualification guidelines described above has been summarized in Table 3. This table conforms to the guidelines in the 2003 SAPA and also shows the data qualifiers used for the Sedqual electronic data format.

Units and Significant Figures
Units and the reporting basis vary, depending on the parameter and are explained in the analytical sections below. Data generally have been reported to three significant figures if above the RDL and two significant figures if equal to or below the RDL.

SAMPLE COLLECTION

This section describes sampling activities associated with the collection of 14 marine sediment samples on March 31 & April 1, 2, 2008. All sampling activities were conducted following guidance suggested in the Puget Sound Protocols (PSEP, 1996 and 1998).

Sampling Locations and Station Positioning

Sampling locations (stations) were selected and the prescribed coordinates determined prior to field activities. Stations were selected to match existing stations from the Pre-Construction monitoring program. The prescribed station coordinates are presented in the following table. Also presented in the table are the actual coordinates recorded during sampling activities. All station coordinates are recorded in state plane coordinate system North American Datum 1983 (NAD83).

DENNY WAY CHEM. SEDIMENT GRAB SAMPLING POINTS, March/April 2008

Lab Number	Locator	Cast #	# Grabs	Prescribed Northing	Actual Northing	Prescribed Easting	Actual Easting	Offset > 6 m
L45313-1	DWMP-01	1	1	228813	228813	1264047	1264041	
L45313-1	DWMP-01	2	1	228813	228810	1264047	1264051	
L45313-1	DWMP-01	3	1	228813	228811	1264047	1264046	
L45313-2	DWMP-02	1	2	228770	228767	1263919	1263920	
L45313-2	DWMP-02	2	1	228770	228768	1263919	1263922	
L45313-3	DWMP-03	1	1	228638	228637	1263846	1263844	
L45313-3	DWMP-03	2	1	228638	228634	1263846	1263842	
L45313-3	DWMP-03	3	1	228638	228638	1263846	1263848	
L45313-4	DWMP-04	1	2	228546	228547	1263631	1263631	
L45313-4	DWMP-04	2	2	228546	228549	1263631	1263629	
L45313-6	DWMP-06	1	2	228839	228836	1263542	1263543	
L45313-6	DWMP-06	2	1	228839	228836	1263542	1263545	
L45313-7	DWMP-07	1	2	228660	228661	1263350	1263350	
L45313-7	DWMP-07	2	2	228660	228666	1263350	1263349	
L45313-8	DWMP-08, 0-2 cm	1	1	228907	228908	1263341	1263338	
L45313-8	DWMP-08, 0-2 cm	2	1	228907	228908	1263341	1263339	
L45313-8	DWMP-08, 0-2 cm	3	1	228907	228912	1263341	1263342	
L45313-9	DWMP-09	1	1	228806	228804	1263215	1263215	
L45313-9	DWMP-09	3	1	228806	228804	1263215	1263214	
L45313-9	DWMP-09	4	1	228806	228808	1263215	1263212	
L45313-11	DWMP-11	1	2	229156	229157	1263272	1263269	
L45313-11	DWMP-11	2	1	229156	229154	1263272	1263269	
L45313-12	DWMP-12	1	2	228963	228967	1263055	1263054	
L45313-12	DWMP-12	2	2	228963	228961	1263055	1263058	
L45313-14	DWMP-14	2	1	229553	229554	1263228	1263228	
L45313-14	DWMP-14	3	1	229553	229557	1263228	1263225	
L45313-14	DWMP-14	4	1	229553	229553	1263228	1263228	
L45313-15	DWMP-15	1	1	229444	229441	1263053	1263054	
L45313-15	DWMP-15	2	1	229444	229448	1263053	1263049	
L45313-15	DWMP-15	3	1	229444	229445	1263053	1263055	
L45313-16	DWMP-16	1	1	229353	229355	1262966	1262967	
L45313-16	DWMP-16	2	2	229353	229351	1262966	1262964	
L45313-17	DWMP-08, 0-10 cm	1	1	228907	228909	1263341	1263341	
L45313-17	DWMP-08, 0-10 cm	2	2	228907	228910	1263341	1263337	

Sediment grab samples were collected from the King County research vessel *Liberty*, which is equipped with a differential global positioning system (DGPS). Field coordinates were recorded using DGPS for each deployment of the tandem grab samplers as they contacted the sediment. All field coordinates for individual casts listed in the above table are within the +/- 6 meter accuracy limits, as defined in the SAP, with one exception: For taxonomy analysis (not shown in

above table), cast #2 and #3 at DWMP-5 were sampled 6.2 and 54.8 meters from the prescribed coordinate location due to the presence of inferior sample material at that site. Chemistry samples could not be collected at locations DWMP-05, DWMP-10, and DWMP-13 due to lack of suitable sediment material. All three locations consisted of rock and gravel.

Sample Description Table

Lab Sample #	Locator	Sample Collection	Sub Sample Depth (cm)	Average Sediment Sampling Depth (cm)	Sample Usage
L45313-1	DWMP-01	Surface Grabs	0 -10	14	Chemistry
L45313-2	DWMP-02	Surface Grabs	0 -10	10	Chemistry
L45313-3	DWMP-03	Surface Grabs	0 -10	16	Chemistry
L45313-4	DWMP-04	Surface Grabs	0 -10	11	Chemistry
L45313-6	DWMP-06	Surface Grabs	0 - 2	17	Chemistry
L45313-7	DWMP-07	Surface Grabs	0 - 2	13	Chemistry
L45313-8	DWMP-08	Surface Grabs	0 - 2	17	Chemistry
L45313-9	DWMP-09	Surface Grabs	0 - 2	17	Chemistry
L45313-11	DWMP-11	Surface Grabs	0 - 2	15	Chemistry
L45313-12	DWMP-12	Surface Grabs	0 - 2	17	Chemistry
L45313-14	DWMP-14	Surface Grabs	0 -10	15	Chemistry
L45313-15	DWMP-15	Surface Grabs	0 -10	13	Chemistry
L45313-16	DWMP-16	Surface Grabs	0 -10	11	Chemistry
L45313-17	DWMP-08	Surface Grabs	0 -10	15	Chemistry

Sample Collection

Sediment was collected at each station using two, stainless steel, modified, 0.1 m^2 Van Veen grab samplers deployed in tandem via hydrowire. For each acceptable deployment, between 9-17 cm of sediment was recovered, allowing sub-sampling from the top 2 or 10 cm. Multiple sampler deployments were needed to collect sufficient sample volume to perform all chemistry analyses.

Water depth at the 13 subtidal cap sample stations ranged between 8 and 30 meters (not corrected for tide).

Sample Handling

At each station, approximately equal amounts of sediment from either the top 2 or top 10 cm were subsampled from the separate grabs by using a large stainless steel spoon since it gave more consistent results than the 200 cm^2 "cookie cutter"/spatula method. These aliquots were placed into a stainless steel compositing bowl, covered with foil between grab deployments. After all aliquots had been collected for that station, the sediment within the bowl was thoroughly homogenized and split out into pre-labeled containers. Sample containers were supplied by the King County Environmental Laboratory and were pre-cleaned according to analytical specifications.

Decontamination

Individual sets of the compositing bowls and sub-sampling and mixing equipment were dedicated to each station, precluding the need for decontamination of this field gear. The Van Veen grab samplers were decontaminated between stations by scrubbing with a brush and ambient seawater, followed by a thorough *in situ* rinsing.

Sample Storage and Preservation

All samples were stored in ice-filled coolers from the time of collection until delivery to the King County Environmental Laboratory. They were delivered under chain-of-custody and were

maintained as such throughout the analytical process. These samples were stored frozen (-18°C) by the laboratory until analysis with the exception of samples for particle size distribution (PSD), VOA, and Total Sulfide analysis. For these 3 methods, samples were stored refrigerated at approximately 4°C. A more complete description of sample handling and storage can be found in each analytical chemistry section of this narrative.

Copies of chain-of-custody forms and field notes are included as an appendix to this QA review narrative. The collect time is defined as that time that sampling commences at each station.

CONVENTIONAL ANALYSES

Completeness
Conventional data are reported for all samples and parameters summarized in Table 1. These samples were analyzed in association with the complete set of QC samples outlined in Table 2.

Subcontracted Analyses
All analyses were performed at the King County Environmental Lab.

Methods
Ammonia analysis was performed in accordance with Standard Method (SM)4500-NH3-G following a KCl extraction (Plumb, 1981). PSD analysis was performed in accordance with ASTM and Puget Sound Protocols methodologies (*Recommended Protocols for Measuring Conventional Sediment Variables in Puget Sound* - page 9 - PSEP, 1986). TOC analysis was performed in accordance with SM5310-B and EPA 9060. Total solids and total volatile solids analyses were performed in accordance with SM2540-G. Total sulfide analysis was performed in accordance with EPA 376.2 / SM4500S2-D and Plumb, 1981.

Detection Limits
The detection limits (MDLs) reported for Conventionals parameters are all within the requirements defined in the SAP, except for the following:

Parameter (mg/Kg)	Sample ID#	SAP MDL (dry wt.)	Reported MDL (dry wt.)	Reason for higher MDL Value
Total Sulfide	L45313-1, 3, 6, 8, 9, 12, 15, 17	1.0	(1)	Sample dilutions and totals solids values below 50%.
Total Organic Carbon	L45313-1 to 4, 6 to 9, 11 to 17	1000	(1)	Reduced sample size analyzed and totals solids values below 50%.
Ammonia Nitrogen	L45313-3, 8, 9, 12	0.2	(1)	Sample dilutions and totals solids values below 50%.
Total Volatile Solids	L45313-3, 8, 9, 12	0.01	(1)	Totals solids values below 50%.

(1) See attached SAP MDL Comparison table
In all cases where the reported MDL was higher than the SAP MDL, a detectable level was measured, therefore project objectives were met.

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied. This may not apply to subcontracted data.

In the Comprehensive Report attached, Conventionals parameters are reported in mg/Kg, dry weight basis, for TOC, ammonia, Total Sulfide and Total Volatile Solids. Particle Size Distribution (PSD) and Total Solids are reported in percent, wet weight basis. For all parameters, the MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times

Sample storage conditions and holding times have been evaluated using guidelines established in the SAP. The dates and holding time criteria for the actual storage conditions used for conventional analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Prep Date	Date Analyzed	Sample Holding Time	Extract Holding Time
Ammonia Nitrogen	L45313-2,3,8,9,17	31-Mar-2008	02-Jun-2008	05-Jun-2008	6 months at -18°C	14 days at -18°C
	L45313-1,6,14,15,16	01-Apr-2008				
	L45313-4,7,11,12	02-Apr-2008				
Particle Size Distribution	L45313-2,3	31-Mar-2008	14-Apr-2008	16-Apr-2008	6 months at ≤6°C	NA
	L45313-1	01-Apr-2008				
	L45313-4,7	02-Apr-2008				
	L45313-8,9,17	31-Mar-2008	12-May-2008	15-May-2008		
	L45313-6,14,15,16	01-Apr-2008				
	L45313-11,12	02-Apr-2008				
Total Organic Carbon	L45313-2,3,8	31-Mar-2008	14-May-2008	05-Jun-2008	6 months at -18°C	6 months at -18°C
	L45313-1,6	01-Apr-2008				
	L45313-4,7	02-Apr-2008				
	L45313-9,17	31-Mar-2008	27-May-2008	06-Jun-2008		
	L45313-14,15,16	01-Apr-2008				
	L45313-11,12	02-Apr-2008				
Total Solids & Total Volatile Solids	L45313-2,3,8	31-Mar-2008	14-May-2008	14-May-2008	6 months at -18°C	NA
	L45313-1,6	01-Apr-2008				
	L45313-4,7	02-Apr-2008				
	L45313-9,17	31-Mar-2008	27-May-2008	27-May-2008		
	L45313-14,15,16	01-Apr-2008				
	L45313-11,12	02-Apr-2008				
Total Sulfide	L45313-2,3,8	31-Mar-2008	02-Apr-2008	02-Apr-2008	7 days at ≤6°C	NA
	L45313-1,6,14	01-Apr-2008				
	L45313-4,7,11,12	02-Apr-2008	03-Apr-2008	03-Apr-2008		
	L45313-9,17	31-Mar-2008				
	L45313-15,16	01-Apr-2008				

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks

Method blanks were analyzed in connection with ammonia nitrogen/solids/total sulfides/total organic carbon analyses. All method blanks results were less than the MDL.

Standard Reference Materials

An SRM (Buffalo River Sediment) was analyzed in connection with TOC analysis. The percent recovery for the SRM analysis was within the 80 to 120% QC limits.

Matrix Spikes

The matrix spike recovery for ammonia nitrogen and TOC were within the 75 to 125% acceptance limits. The matrix spike recovery for total sulfide was not within the 65 to 135% acceptance limits. The primary matrix spike for sample L45313-2 had a percent recovery of 44% for total sulfide which was outside of the established control limit window. An additional matrix spike prepared in an identical manner was also included in this batch for verification purposes. The matrix spike percent recovery for this sample was 21% which was again, outside of the established control window.

No additional re-analyses were performed as the data already collected were consistent in indicating that matrix interference was the likely cause. The primary matrix spike value associated with the 44% recovery was reported. The additional matrix spike associated with the 21% recovery was used for informational purposes only in support of the reported data. As a result, samples L45313-1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 14, 15, 16, 17 were 'G' qualified in LIMS for total sulfide to note that the recovery of the MS associated with theses batches of samples was less than 65%.

Laboratory Replicate Samples

A set of laboratory triplicates was analyzed for each of the conventional parameters. The percent relative standard deviation (%RSD) for each triplicate set was less than or equal to the 20% acceptance limit with the following exception. Samples L45313-3 and -6 were analyzed in triplicate for PSD. The gravel categories had %RSDs of 65% and 31% respectively, both outside the 20% control limit. As a result, the gravel categories for samples L45313-1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 14, 15, 16, 17 were 'E' qualified to indicate estimate values were reported. No further corrective action was taken for these samples since the gravel categories for both L45313-3 and -6 represented less than 10% of the total PSD of each sample.

METALS CHEMISTRY

Completeness
Metal chemistry data are reported for all samples and parameters summarized in Table 1. These samples were analyzed for mercury and other metals in association with the complete set of QC samples outlined in Table 2.

Subcontracted Analyses
Metals analysis was not subcontracted for these sets of samples.

Methods
Mercury analysis was performed in accordance with EPA Method 7471A. Analysis for other metals was performed in accordance with EPA method 3050B/6010B.

Target List
The reported target list includes all metals specified in Table 1.

Detection Limits
The detection limits (MDLs) reported for Metals parameters are all within the requirements defined by the SAP with the exception of those noted in the table below. Since all samples had detectable responses for all these parameters, the project objectives were met.

Parameter	Sample ID#	SAP MDL (mg/Kg dry wt.)	Reported MDL (mg/Kg dry wt.)	Reason for higher MDL Value
Arsenic	L45313- 3, 8, 9, 12, 14	2.5	(1)	Totals solids values below 50%
Cadmium	L45313- 3, 8, 9, 12	0.30	(1)	Totals solids values below 50%
Chromium	L45313- 3, 8, 9, 12	0.50	(1)	Totals solids values below 50%
Copper	L45313- 3, 8, 9, 12	0.40	(1)	Totals solids values below 50%
Lead	L45313- 3, 8, 9, 12	3.0	(1)	Totals solids values below 50%
Nickel	L45313- 3, 8, 9, 12, 14	0.50	(1)	Totals solids values below 50%
Silver	L45313- 3, 8, 9, 12	0.40	(1)	Totals solids values below 50%
Zinc	L45313- 3, 8, 9, 12	0.50	(1)	Totals solids values below 50%
Mercury	L45313- 3, 8, 9, 12	0.010	(1)	Totals solids values below 50% and additional dilutions needed

(1) See attached SAP MDL Comparison table

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied.

In the Comprehensive Report attached, Metals parameters are reported in mg/Kg, dry weight basis, for all elements. The MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less

than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times

Sample storage conditions and holding times have been evaluated using guidelines established during the Third Annual PSDDA Review Meeting. The dates and holding time criteria for the actual storage conditions used for metals analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Date Digested/ Extracted	Date Analyzed	Sample Holding Time	Digestate/Extract Holding Time
Total Metals	L45313-1 - 4, 6 - 9, 11 - 12, 14 - 17	3/31/2008 through 4/2/2008	5/6/2008	5/7/2008	2 Years at -18°C	6 months
Total Mercury	L45313-1 – 4, 6 - 9, 11 - 12, 14 – 17	3/31/2008 through 4/2/2008	4/17/2008 and 4/22/2008	4/18/2008 and 4/22/2008	28 days at -18°C	NA

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks

All metals method blanks results were less than the MDL.

Standard Reference Materials

The SRM analyzed in association with samples included in this data submission is National Research Council of Canada PACS-2. This SRM is not certified for Silver, Arsenic or Cadmium. Acceptance limits for the certified elements have been developed using historical lab data since the certified SRM values and limits were determined with different analysis techniques. SRM recoveries outside these lab-defined limits indicate the method has not performed as expected and the sample data have been qualified to indicate the expected bias.

All metals SRM recoveries were within the lab defined limits indicated in the SAP.

A laboratory control sample (LCS) ERA Soil was also analyzed with the total metals digestion. All recoveries were within the certified limits of the sample. The LCS is used as a secondary check for the total metals digestion procedure because the certified values for the elements are determined using the same methodology. No results from the LCS are used to qualify data.

Matrix Spikes

All matrix spike recoveries were within the 75 to 125% QC limits with the following exceptions:
The reported matrix spike recovery of 29% for Antimony in WG96464 for sample numbers L45313-1 to 9, 11 to 12 and 14 to 17 failed to meet the 75 to 125% QC acceptance criteria. Antimony results for all samples have been qualified with a "G".
The reported matrix spike recovery of 53% for Mercury in WG96285 (samples L45313-11 to 12, 15 to 16) failed to meet the 75 to 125% acceptance criteria. The reported matrix spike duplicate recovery of 69% for Mercury in the same workgroup also failed to meet the 75 to 125% QC acceptance criteria and the relative percent differences (RPDs) between the matrix and the matrix spike duplicate for failed to meet the 20% QC acceptance limit. Mercury results for all samples in WG96285 have therefore been qualified with an "E" assuming the in-homogeneity of the background sample was the cause of the low recoveries.
The matrix spike recovery for WG96261 was not determined since the sample levels were more than 4 times the spike levels, making it difficult to evaluate the accuracy of the recovery.

Laboratory Replicate Samples

The relative percent differences (RPDs) for laboratory duplicate results for all metals were less than or equal to the QC limit of 20% with the exceptions: The reported RPD of 70% for Mercury in WG96285 for sample numbers L45313-11 to 12, 15 to 16 failed to meet the 20% QC

acceptance limit. Mercury results for all samples in WG96285 have been qualified with an "E". The reported RPD of 41% for Mercury in WG96261 for sample numbers L45313-1 to 3, 6, 8 to 9, 14 and 17 failed to meet the 20% QC acceptance limit. Mercury results for all samples in WG96261 have been qualified with an "E".

ORGANIC CHEMISTRY

Completeness
Organics data are reported for all samples and parameters summarized in Table 1. These samples were analyzed in association with the complete set of QC samples outlined in Table 2.

Methods
BNA analysis was performed in accordance with EPA method 8270. PCB and chlorinated pesticides analysis was performed in accordance with EPA methods 8082 and 8081A. Volatile Organic Analysis was performed in accordance with EPA Method 8260B.

Target List
The reported BNA target list includes all compounds specified in *Table 1 - Marine Sediment Quality Standards Chemical Criteria* and *Table 3 - Puget Sound Marine Sediment Cleanup Screening Levels Chemical Criteria* contained in Chapter 173-204 WAC with the exception of benzo(j)fluoranthene. The KC Laboratory has verified that analytical conditions are sufficient to calculate a total benzofluoranthene result using the reported *b* and *k* isomers.

Reported PCB data include Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.

Reported Volatile Organics include: 1,1,2-Trichloroethylene, Ethyl Benzene, Tetrachloroethylene and Total Xylenes.

Detection Limits, Units and Significant Figures
The sample detection limits (MDLs), as reported on a wet weight basis for Organics parameters, generally met the requirements defined in the SAP. When converted to a dry weight basis, some samples and parameters did not meet dry weight SAP MDLs. These are noted below:

BNA
The reported MDLs for selected semi volatile compounds were above the SAP MDL (See SAP MDL Comparison table) for samples L45313-9, -12 due to total solids being significantly below 50%.

Pesticides
The reported MDLs for selected pesticides compounds were above the SAP MDL (See SAP MDL Comparison table) for samples L45313-1, -3, -8, -9 and -12 due to total solids being below 50%.

PCBs
The reported MDLs for Aroclors 1016, 1221, 1232 and 1242 in some or all samples were greater than the SAP MDLs. The reported MDLs for these Aroclors were elevated to compensate for overlap of PCB congeners from other Aroclors detected in the samples. Detectable levels of Aroclors 1260, 1254 and 1248 were reported in all samples.

VOA
The reported MDLs for all volatile compounds were above the SAP MDL (See SAP MDL Comparison table) for samples L45313-1, -3, -8, -9 and -12 due to total solids being below 50%.

For Non-ionizable Organic parameters, MDL values were also converted to an Organic Carbon (OC) basis, using the TOC values determined for each sample. The attached SMS OC and Dry Weight Comparison table list those samples where the reported MDL value did not meet the SAP requirements, when converted to an OC basis.

All target compounds met the SAP SMS OC and Dry Weight MDL levels.

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied.

In the Comprehensive Report attached, Organics parameters are reported in ug/Kg, dry weight basis. In this report format, non-ionizable organic parameters have not been converted to mg/Kg TOC. For all parameters, the MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times
Sample storage conditions and holding times have been evaluated using guidelines established in the SAPA (WDOE, 2003). The dates and holding time criteria for the actual storage conditions used for organics analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Date Extracted	Date Analyzed	Sample Holding Time	Extract Holding Time
BNAs	L45313-1 – 4, 6 – 9, and 11, 12, 14 – 17	31-Mar-08 to 02-Apr-08	08-Apr-08	17-Apr-08	1 year at -18°C	40 days at 4°C
Chlorinated Pesticides	L45313-1 – 4, 6 – 9, and 11, 12, 14 – 17	31-Mar-08 to 02-Apr-08	10-Apr-08	15, 16-May-08	1 year at -18°C	40 days at 4°C
PCBs	L45313-1 – 4, 6 – 9, and 11, 12, 14 – 17	31-Mar-08 to 02-Apr-08	11-Apr-08	13-May-08	1 year at -18°C	40 days at 4°C
VOA	L45313-1	01-Apr-08	NA	15-Apr-08	14 Days at 4°C	Same as sample
	L45313-2, 6 , 8, 9, 14 to 17	31-Mar-08, 01-Apr-08	NA	02-Apr-08		
	L45313-4, 7, 11, 12	02-Apr-08	NA	03-Apr-08		
	L45313-3	31-Mar-08	NA	09-Apr-08		

Sample storage conditions and holding times were met for all samples in this data submission with the exception of the Volatile Organic Analysis samples for L45313-2, 3, 8, 9, 17. These samples were inadvertently frozen upon receipt at the lab. They were thawed the next day for analysis. All the samples have been flagged with an "H" qualifier to indicate a sample handling issue.

Method Blanks
Method blanks were analyzed for all Organics parameters and all method blank results were less than the MDL, except as noted below:

1. BNAs
The method blank analyzed with BNAs for L45313 had a result above the MDL for Bis (2-Ethylhexyl) Phthalate (11.8 ug/Kg), Benzyl Butyl Phthalate (4.28 ug/Kg) and Di-n-Butyl Phthalate (5.2 ug/Kg). Sample results for Bis (2-Ethylhexyl) Phthalate, Benzyl Butyl Phthalate and Di-n-Butyl Phthalate for that batch (L45313) have been qualified with the B flag. All Bis (2-Ethylhexyl)

Phthalate, Benzyl Butyl Phthalate and Di-n-Butyl Phthalate results for these samples should be treated as estimated values.

Surrogate Recoveries

Surrogate recovery acceptance limits for sediment samples have been developed based on historical lab performance using the current analytical methods. Recoveries measured above the acceptance limits are flagged with an L. Recoveries measured below the acceptance limits (but at or above 10%) are flagged with a G. Recoveries below 10% are flagged with an X. Surrogate recovery summaries for each method are shown below.

1. BNAs

For BNA sample data, surrogate recoveries are evaluated separately for the acid and base/neutral fractions. Within each fraction, 2 or more surrogates must be outside the acceptance limits in order to qualify the associated sample data. All BNA surrogate recoveries were within the lab-specific acceptance limits.

2. PCBs

Sample data are qualified when individual surrogate recoveries are outside lab-specific acceptance limits. All PCB surrogate recoveries were within the lab-specific acceptance limits for all samples in this data submission.

3. Chlorinated Pesticides

Sample data are qualified when individual surrogate recoveries are outside lab-specific acceptance limits. All pesticide surrogate recoveries were within the lab-specific acceptance limits for all samples in this data submission, except for the method blank which had a slightly low recovery for 2,4,5,6-Tetrachloro-m-xylene. Since the DCB surrogate recovery was acceptable for this sample, no corrective action was taken.

4. VOA

VOA sample data are qualified when individual surrogate recoveries are outside QC acceptance limits. For the VOA analyses, all surrogates were within the lab-specific acceptance limits. Note: Between the time the SAP was finalized and the time the samples were tested the lab-specific limits had been updated. These new limits are similar but slightly wider than those listed in the SAP. This difference is not expected to have influenced the quality of the data.

Standard Reference Materials (SRMs)

The SRM results associated with these samples are summarized below, according to the analysis method. Acceptance limits for the certified parameters reported in this data set have been developed using historical lab data. SRM recoveries outside these lab-defined limits indicate the method has not performed as expected and the associated sample data have been flagged.

1. BNAs

The sediment SRM analyzed in association with the reported BNA results is 1944, certified by the National Institute of Standards and Technology (NIST). The certified organics parameters in SRM 1944 are only a partial list of all the BNA compounds reported in this analysis. All measured recoveries for this SRM were within acceptance limits for this data set.

2. PCBs and Chlorinated Pesticides

The sediment SRM analyzed in association with the reported Chlorinated Pesticides results is 1944, certified by the NIST. SRM 1944 contains certified levels of DDT and alpha Chlordane. The sediment SRM analyzed in association with the reported PCB results is HS-2, certified by the National Research Council of Canada. SRM HS-2 contains Aroclor 1254. All measured recoveries for both SRMs were within acceptance limits.

A sediment SRM is not available for VOA.

Matrix Spikes
Matrix Spikes have been analyzed for each method. Recovery acceptance limits for each parameter in sediment have been developed based on historical lab performance using the current analytical methods. The acceptance limits are not applicable when the unspiked sample level was 4 times or greater than the spiked concentration. When applicable, matrix spike recoveries outside these lab-defined limits indicate the method has not performed as expected and the associated sample data have been flagged.

1. BNAs
Each of the reported BNA compounds was included in the matrix spike and measured recoveries for each were within their acceptance limits.

2. PCBs and Chlorinated Pesticides
Each of the reported Pesticide compounds (excluding alpha and gamma chlordane) was included in the Chlorinated Pesticide matrix spike. Aroclor 1260 and 1016 only are used as the spiking parameters for PCB matrix spike. The measured recovery for each spiked parameter was within their acceptance limits.

3. VOA
Each of the reported Volatile Organic Compounds (VOA) was included in the matrix spike. The measured recovery for each spiked parameter was within their acceptance limits.

Laboratory Replicate Samples
A laboratory duplicate sample(s) was analyzed for each Organics parameter. The relative percent differences (RPDs) for laboratory duplicate for all parameters at or above the RDL were less than or equal to the acceptance limit of 35%, except for the following:

1. BNAs
The RPDs for Bis (2-Ethylhexyl) Phthalate and Pyrene for the duplicate analysis of Sample L45314-3 were 41% and 38% respectively. All Bis (2-Ethylhexyl) Phthalate and Pyrene results for this data set have been flagged with an "E" to indicate an estimated value.

Additional QA Issues:

PCB Analysis:
PCB data reported for this set of samples include numeric values for only those Aroclors that could be positively identified in each sample and were measured above the detection limit. Identification of Aroclors 1016, 1232 and 1242 was not possible for all samples (L45313-1 through –17) due to the overlap of the congeners from Aroclors 1248, 1254 and 1260. For those Aroclors where this overlap has occurred, the result is reported as <MDL with elevated MDL and RDL values. The elevated MDL represents the maximum amount that would have been reported for that Aroclor had it been positively identified. The RDL value has also been elevated by the same proportion.

The table below lists the samples and affected Aroclors.

Lab Sample Number	PCB 1016	PCB 1221	PCB 1232	PCB 1242
L45313-1	x		x	x
L45313-2	x			x
L45313-3	x	x	x	x
L45313-4	x		x	x
L45313-6	x		x	
L45313-7	x			x

L45313-8	x			x
L45313-9	x			x
L45313-11	x		x	x
L45313-12	x			x
L45313-14	x	x	x	x
L45313-15	x		x	x
L45313-16	x		x	x
L45313-17	x	x	x	x

Pesticide Analysis:
The Continuing Calibration Verification Stds for samples L45313-1 to 4, 6 to 9 11, 12, 14 to 17 were unacceptable for Endrin Aldehyde. The results for this parameter for these samples have been qualified with an "E" flag.

TABLE 1
SEDIMENT SAMPLE INVENTORY

Sample	Locator / Description (see SAP)	Sulfides	PSD	Nutrients[1]	Solids	TOC	Metals[2]	BNAs[3]	Pest/ PCBs	VOA	Comments
L45313-1	DWMP-01	X	X	X	X	X	X	X	X	X	
L45313-2	DWMP-02	X	X	X	X	X	X	X	X	X	
L45313-3	DWMP-03	X	X	X	X	X	X	X	X	X	
L45313-4	DWMP-04	X	X	X	X	X	X	X	X	X	
L45313-6	DWMP-06	X	X	X	X	X	X	X	X	X	
L45313-7	DWMP-07	X	X	X	X	X	X	X	X	X	
L45313-8	DWMP-08 0-2 cm	X	X	X	X	X	X	X	X	X	
L45313-9	DWMP-09	X	X	X	X	X	X	X	X	X	
L45313-11	DWMP-11	X	X	X	X	X	X	X	X	X	
L45313-12	DWMP-12	X	X	X	X	X	X	X	X	X	
L45313-14	DWMP-14	X	X	X	X	X	X	X	X	X	
L45313-15	DWMP-15	X	X	X	X	X	X	X	X	X	
L45313-16	DWMP-16	X	X	X	X	X	X	X	X	X	
L45313-17	DWMP-08 0-10cm	X	X	X	X	X	X	X	X	X	

1 Nutrients = Ammonia
2 Metals = Hg, Sb, As, Cd, Cr, Cu, Pb, Ni, Ag, Zn
3 BNAs = includes Chlorobenzenes

TABLE 2
QC SAMPLE FREQUENCY FOR SEDIMENT CHEMICAL AND PHYSICAL PARAMETERS

Parameter	Method Blank	Duplicate	Triplicate	Matrix Spike	SRM	Surrogates
Ammonia Nitrogen	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	As Available	No
PSD	No	See Triplicate	5% minimum, 1 per QC batch	No	No	No
Total Solids & Volatile Solids	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	No	No	No
TOC	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	1 per QC batch	No
Sulfides	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	No	No
Metals	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	No
BNAs	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	Yes
PCBs/Chlorinated Pesticides	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	Yes
VOA	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	No	Yes

TABLE 3 - SUMMARY OF SEDIMENT DATA QUALIFIERS

Condition to Qualify	King County Data Qualifier	Sedqual Data Qualifier	Organic QC Limits	Metal QC Limits	Conventional QC Limits	Comment
very low matrix spike recovery	X	X	< 10 %	< 10 %	< 10 %	
low matrix spike recovery	G	G	Compound specific	< 75%	< 75% *	
high matrix spike recovery	L	L	Compound specific	>125%	>125% *	
low standard reference material recovery	G	G	Compound and SRM specific	Element and SRM specific	< 80%	
high standard reference material recovery	L	L	Compound and SRM specific	Element and SRM specific	>120%	
high duplicate relative percent difference	E	E	>35 %	>20%	NA	for organics and metals
high triplicate relative standard deviation	E	E	NA	NA	> 20%	for conventionals
less than the reporting detection limit	<RDL**	T	NA	NA	NA	
less than the method detection limit	<MDL	U	NA	NA	NA	
contamination detected in method blank	B	B	>/=MDL	>/=MDL	>/=MDL	
biased data based on very low surrogate recoveries	X	X	any surrogate <10%	NA	NA	
biased data based on low surrogate recoveries	G	G	Surrogate specific	NA	NA	At least 2 surrogates < limit for BNAs
biased data based on high surrogate recoveries	L	L	Surrogate specific	NA	NA	At least 2 surrogates > limit for BNAs
rejected - unusable for all purposes	R	J or Q	NA	NA	NA	
a sample handling criteria has not been met	H	H	NA	NA	NA	container, hold time, preservation
		-				

* 65% to 135% for Total Sulfides.

** For Sedqual files, <MDL uses a "U" flag, <RDL is not flagged since the RDL value is not included in the Sedqual templates generated by King County.

Sample Results Tables

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-01					DWMP-02					DWMP-03					DWMP-04				
Descrip:	DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI				
Sampled:	04/01/08 12:00:00 AM					03/31/08 12:00:00 AM					03/31/08 12:00:00 AM					04/02/08 12:00:00 AM				
Lab ID:	L45313-1					L45313-2					L45313-3					L45313-4				
Matrix:	SALTWTRSED					SALTWTRSED					SALTWTRSED					SALTWTRSED				
% Solids:	48.1					64.9					45.6					58.9				
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		
COMBINED LABS																				
M=CV ASTM D422(318V1)																				
Dry Weight Factor	4.03					2.3					4.67					2.84				
Fines *	61.2		0.97	1.94	%	24.6		0.75	1.49	%	59.7		1.1	2.13	%	46.7		0.83	1.67	%
Clay *	15.6		0.97	1.94	%	8.2		0.75	1.49	%	14.9		1.1	2.13	%	16.7		0.83	1.67	%
Silt *	45.7		0.97	1.94	%	16.4		0.75	1.49	%	44.8		1.1	2.13	%	30		0.83	1.67	%
Sand *	26.7		0.19	1.94	%	59.7		0.15	1.49	%	32		0.21	2.13	%	29.8		0.17	1.67	%
Gravel *	4	E	0.19	1.94	%	7.5	E	0.15	1.49	%	3.2	E	0.21	2.13	%	24.1	E	0.17	1.67	%
p+0.00 *	0.7	<RDL	0.19	1.94	%	4.2		0.15	1.49	%	0.9	<RDL	0.21	2.13	%	3.9		0.17	1.67	%
p+1.00 *	0.8	<RDL	0.19	1.94	%	8.3		0.15	1.49	%	2.2		0.21	2.13	%	4.8		0.17	1.67	%
p+10.0(equal/more than) *	10.7		0.97	1.94	%	5.2		0.75	1.49	%	10.7		1.1	2.13	%	10		0.83	1.67	%
p+2.00 *	1.9		0.19	1.94	%	18.6		0.15	1.49	%	7.5		0.21	2.13	%	8.3		0.17	1.67	%
p+3.00 *	7.6		0.19	1.94	%	15.7		0.15	1.49	%	9.7		0.21	2.13	%	6.2		0.17	1.67	%
p+4.00 *	15.8		0.19	1.94	%	12.9		0.15	1.49	%	11.7		0.21	2.13	%	6.6		0.17	1.67	%
p+5.00 *	10.7		0.97	1.94	%	7.5		0.75	1.49	%	6.4		1.1	2.13	%	5.8		0.83	1.67	%
p+6.00 *	17.5		0.97	1.94	%	2.2		0.75	1.49	%	19.2		1.1	2.13	%	10.8		0.83	1.67	%
p+7.00 *	9.7		0.97	1.94	%	3.7		0.75	1.49	%	11.7		1.1	2.13	%	7.5		0.83	1.67	%
p+8.00 *	7.8		0.97	1.94	%	3		0.75	1.49	%	7.5		1.1	2.13	%	5.8		0.83	1.67	%
p+9.00 *	4.9		0.97	1.94	%	3		0.75	1.49	%	4.3		1.1	2.13	%	6.7		0.83	1.67	%
p-1.00 *	0.8	<RDL	0.19	1.94	%	3.9		0.15	1.49	%	0.7	<RDL	0.21	2.13	%	5.5		0.17	1.67	%
p-2.00 *	0.2	<RDL	0.19	1.94	%	1.5		0.15	1.49	%	0.9	<RDL	0.21	2.13	%	1.5		0.17	1.67	%
p-2.00(less than) *	2.9		0.19	1.94	%	2.1		0.15	1.49	%	1.6		0.21	2.13	%	17.1		0.17	1.67	%
M=CV EPA 9030B/SM4500-S2-D (330V0)																				
Total Sulfide	356	G	27	104	mg/Kg	2.9	<RDL,G	0.77	3.08	mg/Kg	86.4	G	11	43.9	mg/Kg	5.21	G	0.85	3.4	mg/Kg
M=CV EPA 9060-PSEP96(337V3)																				
Total Organic Carbon	33700		2500	4970	mg/Kg	13900		2800	5670	mg/Kg	23000		2600	5260	mg/Kg	11600		2400	4750	mg/Kg
M=CV SM2540-G (307V2)																				
Total Volatile Solids	9.77		0.01	0.0208	%	3.81		0.0077	0.0154	%	7.26		0.011	0.0219	%	4.52		0.0085	0.017	%
M=CV SM2540-G (307V3)																				
Total Solids *	48.1		0.005	0.01	%	64.9		0.005	0.01	%	45.6		0.005	0.01	%	58.9		0.005	0.01	%
M=CV SM4500-NH3-G(332V1)KCL																				
Ammonia Nitrogen	4.32		0.2	0.407	mg/Kg	1.49		0.15	0.302	mg/Kg	2.5		0.21	0.417	mg/Kg	1.57		0.17	0.34	mg/Kg
M=ES NONE																				
Field Personnel	SH,JDD,JB,AF				none	JB,JD,CB,AF				none	JB,JD,CB,AF				none	CB,JB,JP				none
Sampcoordx1 *	1264041				ft	1263920				ft	1263844				ft	1263631				ft
Sampcoordx2 *	1264051				ft	1263922				ft	1263842				ft	1263629				ft
Sampcoordx3 *	1264046				ft						1263848				ft					
Sampcoordy1 *	228813				ft	228767				ft	228637				ft	228547				ft
Sampcoordy2 *	228810				ft	228768				ft	228634				ft	228549				ft
Sampcoordy3 *	228811				ft						228638				ft					
Sample Depth *	8				m	13				m	18				m	23				m

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-01					DWMP-02					DWMP-03					DWMP-04				
Descrip:	DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI					DENNY WAY MONITORI				
Sampled:	04/01/08 12:00:00 AM					03/31/08 12:00:00 AM					03/31/08 12:00:00 AM					04/02/08 12:00:00 AM				
Lab ID:	L45313-1					L45313-2					L45313-3					L45313-4				
Matrix:	SALTWTRSED					SALTWTRSED					SALTWTRSED					SALTWTRSED				
% Solids:	48.1					64.9					45.6					58.9				
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				
COMBINED LABS																				
Sample Information																				
																Some rocks w/ barnacles; sticky layer of grey clay 4 cm down from surface.				none
Sampling Method *	20042				none	20042				none	20042				none	20042				none
Sediment Sampling Depth *	14				cm	10				cm	16				cm	11				cm
Sediment Sampling Range *	0-10 cm				cm	0-9 cm				cm	0-10 cm				cm	0-10 cm				cm
Sediment Type	23T21				none	23N30				none	23N30				none	24N20				none
Tidal Condition	F				none	S				none	F				none	S				none
Tide Height *	6.8				ft	8.1				ft	7.8				ft	5.2				ft
M=MT CVAA EPA 7471B (604V4)																				
Mercury, Total, CVAA	1.16	E	0.052	0.509	mg/Kg	0.2	E	0.0074	0.0737	mg/Kg	0.57	E	0.011	0.109	mg/Kg	0.27	E	0.0081	0.0813	mg/Kg
M=MT ICP EPA3050B/6010C MOD(612V3)																				
Antimony, Total, ICP		<MDL,G	1.5	7.59	mg/Kg		<MDL,G	1.1	5.7	mg/Kg		<MDL,G	1.6	7.87	mg/Kg		<MDL,G	1.3	6.28	mg/Kg
Arsenic, Total, ICP	13.3		2.5	12.7	mg/Kg	6.3	<RDL	1.8	9.51	mg/Kg	9.6	<RDL	2.6	13.1	mg/Kg	8	<RDL	2	10.5	mg/Kg
Cadmium, Total, ICP	1.23		0.2	1.01	mg/Kg	0.26	<RDL	0.15	0.761	mg/Kg	0.83	<RDL	0.21	1.05	mg/Kg	0.29	<RDL	0.17	0.837	mg/Kg
Chromium, Total, ICP	55.1		0.31	1.52	mg/Kg	35.4		0.23	1.14	mg/Kg	49.1		0.31	1.57	mg/Kg	54.3		0.25	1.26	mg/Kg
Copper, Total, ICP	87.9		0.4	2.02	mg/Kg	37		0.31	1.52	mg/Kg	56.8		0.42	2.1	mg/Kg	49.1		0.34	1.68	mg/Kg
Lead, Total, ICP	148		2	10.1	mg/Kg	60.4		1.5	7.61	mg/Kg	81.4		2.1	10.5	mg/Kg	41.3		1.7	8.37	mg/Kg
Nickel, Total, ICP	46.2		0.5	2.54	mg/Kg	37.1		0.39	1.9	mg/Kg	48.5		0.53	2.63	mg/Kg	57.4		0.42	2.09	mg/Kg
Silver, Total, ICP	4.93		0.4	2.02	mg/Kg	1.1	<RDL	0.31	1.52	mg/Kg	2.54		0.42	2.1	mg/Kg	0.87	<RDL	0.34	1.68	mg/Kg
Zinc, Total, ICP	161		0.5	2.54	mg/Kg	82		0.39	1.9	mg/Kg	113		0.53	2.63	mg/Kg	96.6		0.42	2.09	mg/Kg
M=OR EPA 3550B/8270C (7-3-01-004)																				
1,2,4-Trichlorobenzene		<MDL	0.21	0.416	ug/Kg		<MDL	0.15	0.308	ug/Kg		<MDL	0.22	0.439	ug/Kg		<MDL	0.17	0.34	ug/Kg
1,2-Dichlorobenzene	0.56	<RDL	0.42	0.832	ug/Kg		<MDL	0.31	0.616	ug/Kg		<MDL	0.44	0.877	ug/Kg		<MDL	0.34	0.679	ug/Kg
1,3-Dichlorobenzene		<MDL	0.42	0.832	ug/Kg		<MDL	0.31	0.616	ug/Kg		<MDL	0.44	0.877	ug/Kg		<MDL	0.34	0.679	ug/Kg
1,4-Dichlorobenzene	3.12		0.42	0.832	ug/Kg	1.54		0.31	0.616	ug/Kg	2.24		0.44	0.877	ug/Kg		<MDL	0.34	0.679	ug/Kg
2,4-Dimethylphenol		<MDL	2.1	4.16	ug/Kg		<MDL	1.5	3.08	ug/Kg		<MDL	2.2	4.39	ug/Kg		<MDL	1.7	3.4	ug/Kg
2-Methylnaphthalene	32.8		4.2	8.32	ug/Kg	130		3.1	6.16	ug/Kg	38.4		4.4	8.77	ug/Kg	9.98		3.4	6.79	ug/Kg
2-Methylphenol		<MDL	4.2	8.32	ug/Kg		<MDL	3.1	6.16	ug/Kg		<MDL	4.4	8.77	ug/Kg		<MDL	3.4	6.79	ug/Kg
4-Methylphenol	18.4		8.3	16.6	ug/Kg	19.9		6.2	12.3	ug/Kg		<MDL	8.8	17.5	ug/Kg		<MDL	6.8	13.6	ug/Kg
Acenaphthene	52		4.2	8.32	ug/Kg	438		3.1	6.16	ug/Kg	65.1		4.4	8.77	ug/Kg	10.2		3.4	6.79	ug/Kg
Acenaphthylene	97.5		4.2	8.32	ug/Kg	22.2		3.1	6.16	ug/Kg	22.4		4.4	8.77	ug/Kg	6.89		3.4	6.79	ug/Kg
Anthracene	441		4.2	8.32	ug/Kg	678		3.1	6.16	ug/Kg	201		4.4	8.77	ug/Kg	41.9		3.4	6.79	ug/Kg
Benzo(a)anthracene	933		4.2	8.32	ug/Kg	886		3.1	6.16	ug/Kg	300		4.4	8.77	ug/Kg	114		3.4	6.79	ug/Kg
Benzo(a)pyrene	1670		4.2	8.32	ug/Kg	737		3.1	6.16	ug/Kg	351		4.4	8.77	ug/Kg	139		3.4	6.79	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	DWMP-01	DWMP-02	DWMP-03	DWMP-04
Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	04/01/08 12:00:00 AM	03/31/08 12:00:00 AM	03/31/08 12:00:00 AM	04/02/08 12:00:00 AM
Lab ID:	L45313-1	L45313-2	L45313-3	L45313-4
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	48.1	64.9	45.6	58.9

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		
COMBINED LABS																				
Benzo(b)fluoranthene	1830		4.2	8.32	ug/Kg	700		3.1	6.16	ug/Kg	333		4.4	8.77	ug/Kg	141		3.4	6.79	ug/Kg
Benzo(g,h,i)perylene	786		4.2	8.32	ug/Kg	398		3.1	6.16	ug/Kg	191		4.4	8.77	ug/Kg	66.9		3.4	6.79	ug/Kg
Benzo(k)fluoranthene	1720		4.2	8.32	ug/Kg	493		3.1	6.16	ug/Kg	342		4.4	8.77	ug/Kg	133		3.4	6.79	ug/Kg
Benzoic Acid	181		21	41.6	ug/Kg	138		15	30.8	ug/Kg	192		22	43.9	ug/Kg	117		17	34	ug/Kg
Benzyl Alcohol		<MDL	4.2	8.32	ug/Kg		<MDL	3.1	6.16	ug/Kg		<MDL	4.4	8.77	ug/Kg		<MDL	3.4	6.79	ug/Kg
Benzyl Butyl Phthalate	118	B	2.1	4.16	ug/Kg	43.6	B	1.5	3.08	ug/Kg	44.3	B	2.2	4.39	ug/Kg	18.3	B	1.7	3.4	ug/Kg
Bis(2-Ethylhexyl)Phthalate	1340	B,E	8.3	16.6	ug/Kg	302	B,E	6.2	12.3	ug/Kg	656	B,E	8.8	17.5	ug/Kg	121	B,E	6.8	13.6	ug/Kg
Caffeine		<MDL	8.3	16.6	ug/Kg		<MDL	6.2	12.3	ug/Kg		<MDL	8.8	17.5	ug/Kg		<MDL	6.8	13.6	ug/Kg
Carbazole	145		4.2	8.32	ug/Kg	214		3.1	6.16	ug/Kg	52.4		4.4	8.77	ug/Kg	14.2		3.4	6.79	ug/Kg
Chrysene	1500		4.2	8.32	ug/Kg	901		3.1	6.16	ug/Kg	390		4.4	8.77	ug/Kg	155		3.4	6.79	ug/Kg
Coprostanol		<MDL	83	166	ug/Kg		<MDL	62	123	ug/Kg		<MDL	88	175	ug/Kg		<MDL	68	136	ug/Kg
Dibenzo(a,h)anthracene	393		4.2	8.32	ug/Kg	111		3.1	6.16	ug/Kg	77.2		4.4	8.77	ug/Kg	25		3.4	6.79	ug/Kg
Dibenzofuran	29.5		4.2	8.32	ug/Kg	98.8		3.1	6.16	ug/Kg	20.2		4.4	8.77	ug/Kg	5.3	<RDL	3.4	6.79	ug/Kg
Diethyl Phthalate		<MDL	8.3	16.6	ug/Kg		<MDL	6.2	12.3	ug/Kg		<MDL	8.8	17.5	ug/Kg		<MDL	6.8	13.6	ug/Kg
Dimethyl Phthalate	18.2		8.3	16.6	ug/Kg		<MDL	6.2	12.3	ug/Kg		<MDL	8.8	17.5	ug/Kg		<MDL	6.8	13.6	ug/Kg
Di-N-Butyl Phthalate	44.1	B	8.3	16.6	ug/Kg	46.1	B	6.2	12.3	ug/Kg	26.3	B	8.8	17.5	ug/Kg	14	B	6.8	13.6	ug/Kg
Di-N-Octyl Phthalate		<MDL	8.3	16.6	ug/Kg		<MDL	6.2	12.3	ug/Kg		<MDL	8.8	17.5	ug/Kg		<MDL	6.8	13.6	ug/Kg
Fluoranthene	1200		4.2	8.32	ug/Kg	2110		3.1	6.16	ug/Kg	575		4.4	8.77	ug/Kg	187		3.4	6.79	ug/Kg
Fluorene	83.8		4.2	8.32	ug/Kg	339		3.1	6.16	ug/Kg	74.8		4.4	8.77	ug/Kg	13.8		3.4	6.79	ug/Kg
Hexachlorobenzene	2.56		0.21	0.416	ug/Kg		<MDL	0.15	0.308	ug/Kg		<MDL	0.22	0.439	ug/Kg		<MDL	0.17	0.34	ug/Kg
Hexachlorobutadiene		<MDL	1	2.08	ug/Kg		<MDL	0.77	1.54	ug/Kg		<MDL	1.1	2.19	ug/Kg		<MDL	0.85	1.7	ug/Kg
Hexachloroethane		<MDL	2.1	4.16	ug/Kg		<MDL	1.5	3.08	ug/Kg		<MDL	2.2	4.39	ug/Kg		<MDL	1.7	3.4	ug/Kg
Indeno(1,2,3-Cd)Pyrene	915		4.2	8.32	ug/Kg	362		3.1	6.16	ug/Kg	184		4.4	8.77	ug/Kg	73.7		3.4	6.79	ug/Kg
Naphthalene	41		4.2	8.32	ug/Kg	96.9		3.1	6.16	ug/Kg	41.9		4.4	8.77	ug/Kg	5.8	<RDL	3.4	6.79	ug/Kg
N-Nitrosodiphenylamine		<MDL	8.3	16.6	ug/Kg	28.7		6.2	12.3	ug/Kg		<MDL	8.8	17.5	ug/Kg		<MDL	6.8	13.6	ug/Kg
Pentachlorophenol		<MDL	21	41.6	ug/Kg		<MDL	15	30.8	ug/Kg		<MDL	22	43.9	ug/Kg		<MDL	17	34	ug/Kg
Phenanthrene	649		4.2	8.32	ug/Kg	2710		3.1	6.16	ug/Kg	535		4.4	8.77	ug/Kg	120		3.4	6.79	ug/Kg
Phenol	43.9		8.3	16.6	ug/Kg	435		6.2	12.3	ug/Kg	200		8.8	17.5	ug/Kg		<MDL	6.8	13.6	ug/Kg
Pyrene	2540	E	4.2	8.32	ug/Kg	2200	E	3.1	6.16	ug/Kg	708	E	4.4	8.77	ug/Kg	205	E	3.4	6.79	ug/Kg
Total 4-Nonylphenol	351		10	20.8	ug/Kg	81.2		7.7	15.4	ug/Kg		<MDL	11	21.9	ug/Kg	58.6		8.5	17	ug/Kg
Total HPAHS	13500	E	4.2	8.32	ug/Kg	8120	E	3.1	6.16	ug/Kg	3440	E	4.4	8.77	ug/Kg	1240	E	3.4	6.79	ug/Kg
Total LPAHs	1400		4.2	8.32	ug/Kg	3570		3.1	6.16	ug/Kg	978		4.4	8.77	ug/Kg	209		3.4	6.79	ug/Kg
M=OR EPA 8081A/8082 (7-3-03-002)																				
4,4'-DDD		<MDL	2.1	4.16	ug/Kg	3.37		1.5	3.08	ug/Kg		<MDL	2.2	4.39	ug/Kg	2.4	<RDL	1.7	3.4	ug/Kg
4,4'-DDE		<MDL	2.1	4.16	ug/Kg		<MDL	1.5	3.08	ug/Kg		<MDL	2.2	4.39	ug/Kg		<MDL	1.7	3.4	ug/Kg
4,4'-DDT		<MDL	2.1	4.16	ug/Kg		<MDL	1.5	3.08	ug/Kg		<MDL	2.2	4.39	ug/Kg		<MDL	1.7	3.4	ug/Kg
Aldrin		<MDL	2.1	4.16	ug/Kg		<MDL	1.5	3.08	ug/Kg		<MDL	2.2	4.39	ug/Kg		<MDL	1.7	3.4	ug/Kg
Alpha-BHC		<MDL	1	2.08	ug/Kg		<MDL	0.77	1.54	ug/Kg		<MDL	1.1	2.19	ug/Kg		<MDL	0.85	1.7	ug/Kg
Alpha-Chlordane		<MDL	1	2.08	ug/Kg		<MDL	0.77	1.54	ug/Kg	1.5	<RDL	1.1	2.19	ug/Kg		<MDL	0.85	1.7	ug/Kg
Beta-BHC		<MDL	1	2.08	ug/Kg		<MDL	0.77	1.54	ug/Kg		<MDL	1.1	2.19	ug/Kg		<MDL	0.85	1.7	ug/Kg
Delta-BHC		<MDL	1	2.08	ug/Kg		<MDL	0.77	1.54	ug/Kg		<MDL	1.1	2.19	ug/Kg		<MDL	0.85	1.7	ug/Kg
Dieldrin		<MDL	2.1	4.16	ug/Kg		<MDL	1.5	3.08	ug/Kg		<MDL	2.2	4.39	ug/Kg		<MDL	1.7	3.4	ug/Kg
Endosulfan I		<MDL	2.1	4.16	ug/Kg		<MDL	1.5	3.08	ug/Kg		<MDL	2.2	4.39	ug/Kg		<MDL	1.7	3.4	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	DWMP-01	DWMP-02	DWMP-03	DWMP-04
Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	04/01/08 12:00:00 AM	03/31/08 12:00:00 AM	03/31/08 12:00:00 AM	04/02/08 12:00:00 AM
Lab ID:	L45313-1	L45313-2	L45313-3	L45313-4
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	48.1	64.9	45.6	58.9

Locator: DWMP-01 (MDL, RDL - Dry Weight Basis)

Parameters	Value	Qual	MDL	RDL	Units
COMBINED LABS					
Endosulfan II		<MDL	2.1	4.16	ug/Kg
Endosulfan Sulfate		<MDL	2.1	4.16	ug/Kg
Endrin		<MDL	2.1	4.16	ug/Kg
Endrin Aldehyde		<MDL,E	2.1	4.16	ug/Kg
Gamma-BHC (Lindane)		<MDL	1	2.08	ug/Kg
Gamma-Chlordane		<MDL	1	2.08	ug/Kg
Heptachlor		<MDL	1	2.08	ug/Kg
Heptachlor Epoxide		<MDL	1	2.08	ug/Kg
Methoxychlor		<MDL	10	20.8	ug/Kg
Toxaphene		<MDL	21	41.6	ug/Kg
M=OR EPA 8081A/8082 (7-3-103-000)					
Aroclor 1016		<MDL,TA	69	138	ug/Kg
Aroclor 1221		<MDL	4.2	8.32	ug/Kg
Aroclor 1232		<MDL,TA	110	225	ug/Kg
Aroclor 1242		<MDL,TA	160	320	ug/Kg
Aroclor 1248	150		2.1	4.16	ug/Kg
Aroclor 1254	308		2.1	4.16	ug/Kg
Aroclor 1260	188		2.1	4.16	ug/Kg
Total Aroclors	647		2.1	4.16	ug/Kg
M=OR EPA 8260B (7-3-02-003)					
1,1,2-Trichloroethylene		<MDL	2.1	4.16	ug/Kg
Ethylbenzene		<MDL	2.1	4.16	ug/Kg
Tetrachloroethylene		<MDL	2.1	4.16	ug/Kg
Total Xylenes		<MDL	2.1	4.16	ug/Kg

Locator: DWMP-02 (MDL, RDL - Dry Weight Basis)

Parameters	Value	Qual	MDL	RDL	Units
COMBINED LABS					
Endosulfan II		<MDL	1.5	3.08	ug/Kg
Endosulfan Sulfate		<MDL	1.5	3.08	ug/Kg
Endrin		<MDL	1.5	3.08	ug/Kg
Endrin Aldehyde		<MDL,E	1.5	3.08	ug/Kg
Gamma-BHC (Lindane)		<MDL	0.77	1.54	ug/Kg
Gamma-Chlordane		<MDL	0.77	1.54	ug/Kg
Heptachlor		<MDL	0.77	1.54	ug/Kg
Heptachlor Epoxide		<MDL	0.77	1.54	ug/Kg
Methoxychlor		<MDL	7.7	15.4	ug/Kg
Toxaphene		<MDL	15	30.8	ug/Kg
M=OR EPA 8081A/8082 (7-3-103-000)					
Aroclor 1016		<MDL,TA	7.1	14.2	ug/Kg
Aroclor 1221		<MDL	3.1	6.16	ug/Kg
Aroclor 1232		<MDL	3.1	6.16	ug/Kg
Aroclor 1242		<MDL,TA	12	23.6	ug/Kg
Aroclor 1248	13.2		1.5	3.08	ug/Kg
Aroclor 1254	45.1		1.5	3.08	ug/Kg
Aroclor 1260	41.4		1.5	3.08	ug/Kg
Total Aroclors	99.7		1.5	3.08	ug/Kg
M=OR EPA 8260B (7-3-02-003)					
1,1,2-Trichloroethylene		<MDL,H	1.5	3.08	ug/Kg
Ethylbenzene		<MDL,H	1.5	3.08	ug/Kg
Tetrachloroethylene		<MDL,H	1.5	3.08	ug/Kg
Total Xylenes		<MDL,H	1.5	3.08	ug/Kg

Locator: DWMP-03 (MDL, RDL - Dry Weight Basis)

Parameters	Value	Qual	MDL	RDL	Units
COMBINED LABS					
Endosulfan II		<MDL	2.2	4.39	ug/Kg
Endosulfan Sulfate		<MDL	2.2	4.39	ug/Kg
Endrin		<MDL	2.2	4.39	ug/Kg
Endrin Aldehyde		<MDL,E	2.2	4.39	ug/Kg
Gamma-BHC (Lindane)		<MDL	1.1	2.19	ug/Kg
Gamma-Chlordane	2	<RDL	1.1	2.19	ug/Kg
Heptachlor		<MDL	1.1	2.19	ug/Kg
Heptachlor Epoxide		<MDL	1.1	2.19	ug/Kg
Methoxychlor		<MDL	11	21.9	ug/Kg
Toxaphene		<MDL	22	43.9	ug/Kg
M=OR EPA 8081A/8082 (7-3-103-000)					
Aroclor 1016		<MDL,TA	46	91.9	ug/Kg
Aroclor 1221		<MDL,TA	9.6	19.1	ug/Kg
Aroclor 1232		<MDL,TA	86	172	ug/Kg
Aroclor 1242		<MDL,TA	100	204	ug/Kg
Aroclor 1248	107		2.2	4.39	ug/Kg
Aroclor 1254	232		2.2	4.39	ug/Kg
Aroclor 1260	168		2.2	4.39	ug/Kg
Total Aroclors	507		2.2	4.39	ug/Kg
M=OR EPA 8260B (7-3-02-003)					
1,1,2-Trichloroethylene		<MDL,H	2.2	4.39	ug/Kg
Ethylbenzene		<MDL,H	2.2	4.39	ug/Kg
Tetrachloroethylene		<MDL,H	2.2	4.39	ug/Kg
Total Xylenes		<MDL,H	2.2	4.39	ug/Kg

Locator: DWMP-04 (MDL, RDL - Dry Weight Basis)

Parameters	Value	Qual	MDL	RDL	Units
COMBINED LABS					
Endosulfan II		<MDL	1.7	3.4	ug/Kg
Endosulfan Sulfate		<MDL	1.7	3.4	ug/Kg
Endrin		<MDL	1.7	3.4	ug/Kg
Endrin Aldehyde		<MDL,E	1.7	3.4	ug/Kg
Gamma-BHC (Lindane)		<MDL	0.85	1.7	ug/Kg
Gamma-Chlordane		<MDL	0.85	1.7	ug/Kg
Heptachlor		<MDL	0.85	1.7	ug/Kg
Heptachlor Epoxide		<MDL	0.85	1.7	ug/Kg
Methoxychlor		<MDL	8.5	17	ug/Kg
Toxaphene		<MDL	17	34	ug/Kg
M=OR EPA 8081A/8082 (7-3-103-000)					
Aroclor 1016		<MDL,TA	6.1	12.1	ug/Kg
Aroclor 1221		<MDL	3.4	6.79	ug/Kg
Aroclor 1232		<MDL,TA	14	27.5	ug/Kg
Aroclor 1242		<MDL,TA	16	32.3	ug/Kg
Aroclor 1248	12.3		1.7	3.4	ug/Kg
Aroclor 1254	41.6		1.7	3.4	ug/Kg
Aroclor 1260	41.9		1.7	3.4	ug/Kg
Total Aroclors	95.9		1.7	3.4	ug/Kg
M=OR EPA 8260B (7-3-02-003)					
1,1,2-Trichloroethylene		<MDL	1.7	3.4	ug/Kg
Ethylbenzene		<MDL	1.7	3.4	ug/Kg
Tetrachloroethylene		<MDL	1.7	3.4	ug/Kg
Total Xylenes		<MDL	1.7	3.4	ug/Kg

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-05					Locator:	DWMP-06					Locator:	DWMP-07					Locator:	DWMP-08				
Descrip:	DENNY WAY MONITOR					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
Sampled:	04/08/08 12:00:00 AM					Sampled:	04/01/08 12:00:00 AM					Sampled:	04/02/08 12:00:00 AM					Sampled:	03/31/08 12:00:00 AM				
Lab ID:	L45313-5					Lab ID:	L45313-6					Lab ID:	L45313-7					Lab ID:	L45313-8				
Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED				
% Solids:						% Solids:	52.3					% Solids:	50.8					% Solids:	44.6				
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
			- Wet Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis		
COMBINED LABS																				
M=CV ASTM D422(318V1)																				
Dry Weight Factor						3.65					3.84					4.96				
Fines *						30.5		0.95	1.91	%	39.1		0.98	1.95	%	40.9		1.1	2.21	%
Clay *						12.4		0.95	1.91	%	13.7		0.98	1.95	%	13.3		1.1	2.21	%
Silt *						18.1		0.95	1.91	%	25.4		0.98	1.95	%	27.6		1.1	2.21	%
Sand *						67.7		0.19	1.91	%	55.3		0.2	1.95	%	50.3		0.22	2.21	%
Gravel *						4.7	E	0.19	1.91	%	4.9	E	0.2	1.95	%	11	E	0.22	2.21	%
p+0.00 *						1.6		0.19	1.91	%	3		0.2	1.95	%	2.8		0.22	2.21	%
p+1.00 *						10		0.19	1.91	%	4.6		0.2	1.95	%	5.4		0.22	2.21	%
p+10.0(equal/more than) *						8.6		0.95	1.91	%	12.7		0.98	1.95	%	11.1		1.1	2.21	%
p+2.00 *						36.5		0.19	1.91	%	18.2		0.2	1.95	%	18.4		0.22	2.21	%
p+3.00 *						14.3		0.19	1.91	%	17.3		0.2	1.95	%	13.8		0.22	2.21	%
p+4.00 *						5.3		0.19	1.91	%	12.2		0.2	1.95	%	9.8		0.22	2.21	%
p+5.00 *						6.7		0.95	1.91	%	9.8		0.98	1.95	%	14.4		1.1	2.21	%
p+6.00 *						3.8		0.95	1.91	%	3.9		0.98	1.95	%	4.4		1.1	2.21	%
p+7.00 *						4.8		0.95	1.91	%	5.9		0.98	1.95	%	5.5		1.1	2.21	%
p+8.00 *						2.9		0.95	1.91	%	5.9		0.98	1.95	%	3.3		1.1	2.21	%
p+9.00 *						3.8		0.95	1.91	%	1	<RDL	0.98	1.95	%	2.2		1.1	2.21	%
p-1.00 *						1.5		0.19	1.91	%	2.9		0.2	1.95	%	2.3		0.22	2.21	%
p-2.00 *						0.8	<RDL	0.19	1.91	%	0.8	<RDL	0.2	1.95	%	0.4	<RDL	0.22	2.21	%
p-2.00(less than) *						2.4		0.19	1.91	%	1.3		0.2	1.95	%	8.3		0.22	2.21	%
M=CV EPA 9030B/SM4500-S2-D (330V0)																				
Total Sulfide						88	G	9.6	38.2	mg/Kg	11.2	G	0.98	3.94	mg/Kg	619	G	29	112	mg/Kg
M=CV EPA 9060-PSEP96(337V3)																				
Total Organic Carbon						17000		2300	4530	mg/Kg	14400		2400	4860	mg/Kg	33600		2500	4960	mg/Kg
M=CV SM2540-G (307V2)																				
Total Volatile Solids						5.41		0.0096	0.0191	%	5		0.0098	0.0197	%	10.2		0.011	0.0224	%
M=CV SM2540-G (307V3)																				
Total Solids *						52.3		0.005	0.01	%	50.8		0.005	0.01	%	44.6		0.005	0.01	%
M=CV SM4500-NH3-G(332V1)KCL																				
Ammonia Nitrogen						2.41		0.18	0.367	mg/Kg	2.46		0.19	0.39	mg/Kg	7.33		0.22	0.43	mg/Kg
M=ES NONE																				
Field Personnel	JB,CB,JO,AF				none	SH,JDD,JB,AF				none	JB,CB,JP				none	JB,CB,JO,AF				none
Sampcoordx1 *						1263543				ft	1263350				ft	1263338				ft
Sampcoordx2 *						1263545				ft	1263349				ft	1263339				ft
Sampcoordx3 *																1263342				ft
Sampcoordy1 *						228836				ft	228661				ft	228908				ft
Sampcoordy2 *						228836				ft	228666				ft	228908				ft
Sampcoordy3 *																228912				ft
Sample Depth *						22				m	29				m	25				m

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-05					Locator:	DWMP-06					Locator:	DWMP-07					Locator:	DWMP-08				
Descrip:	DENNY WAY MONITOR					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
Sampled:	04/08/08 12:00:00 AM					Sampled:	04/01/08 12:00:00 AM					Sampled:	04/02/08 12:00:00 AM					Sampled:	03/31/08 12:00:00 AM				
Lab ID:	L45313-5					Lab ID:	L45313-6					Lab ID:	L45313-7					Lab ID:	L45313-8				
Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED				
% Solids:						% Solids:	52.3					% Solids:	50.8					% Solids:	44.6				
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Wet Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
COMBINED LABS																				
Sample Information	No chem; all rocks; 3 poor tax. collected.				none					none					none	Lots of organic matter: leaves, sticks, trash, rags.				none
Sampling Method *						20042				none	20042				none	20042				none
Sediment Sampling Depth *						17				cm	13				cm	17				cm
Sediment Sampling Range *						0-2 cm				cm	0-2 cm				cm	0-2 cm				cm
Sediment Type						23N21				none	23N20				none	23W30				none
Tidal Condition						F				none	S				none	F				none
Tide Height *						7.2				ft	5.3				ft	8				ft
M=MT CVAA EPA 7471B (604V4)																				
Mercury, Total, CVAA						0.184	E	0.0094	0.0929	mg/Kg	0.512	E	0.0096	0.0974	mg/Kg	0.46	E	0.011	0.115	mg/Kg
M=MT ICP EPA3050B/6010C MOD(612V3)																				
Antimony, Total, ICP							<MDL,G	1.5	7.25	mg/Kg		<MDL,G	1.4	7.19	mg/Kg		<MDL,G	1.8	8.81	mg/Kg
Arsenic, Total, ICP						6.7	<RDL	2.5	12.1	mg/Kg	8.5	<RDL	2.4	12	mg/Kg	7.8	<RDL	2.9	14.7	mg/Kg
Cadmium, Total, ICP						0.31	<RDL	0.19	0.967	mg/Kg	0.37	<RDL	0.19	0.959	mg/Kg	0.83	<RDL	0.22	1.17	mg/Kg
Chromium, Total, ICP						29.1		0.29	1.45	mg/Kg	33.3		0.3	1.44	mg/Kg	43.7		0.36	1.76	mg/Kg
Copper, Total, ICP						31.7		0.38	1.93	mg/Kg	40.4		0.37	1.92	mg/Kg	63.7		0.47	2.35	mg/Kg
Lead, Total, ICP						28.9		1.9	9.67	mg/Kg	45.3		1.9	9.59	mg/Kg	69.1		2.2	11.7	mg/Kg
Nickel, Total, ICP						28.3		0.48	2.41	mg/Kg	30.5		0.47	2.4	mg/Kg	37.4		0.58	2.94	mg/Kg
Silver, Total, ICP						0.54	<RDL	0.38	1.93	mg/Kg	0.96	<RDL	0.37	1.92	mg/Kg	2.2	<RDL	0.47	2.35	mg/Kg
Zinc, Total, ICP						77.1		0.48	2.41	mg/Kg	75.4		0.47	2.4	mg/Kg	132		0.58	2.94	mg/Kg
M=OR EPA 3550B/8270C (7-3-01-004)																				
1,2,4-Trichlorobenzene							<MDL	0.19	0.382	ug/Kg		<MDL	0.2	0.394	ug/Kg		<MDL	0.22	0.448	ug/Kg
1,2-Dichlorobenzene							<MDL	0.38	0.765	ug/Kg		<MDL	0.39	0.787	ug/Kg		<MDL	0.45	0.897	ug/Kg
1,3-Dichlorobenzene							<MDL	0.38	0.765	ug/Kg		<MDL	0.39	0.787	ug/Kg		<MDL	0.45	0.897	ug/Kg
1,4-Dichlorobenzene						6.52		0.38	0.765	ug/Kg	3.13		0.39	0.787	ug/Kg	20.9		0.45	0.897	ug/Kg
2,4-Dimethylphenol							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL	2.2	4.48	ug/Kg
2-Methylnaphthalene						11		3.8	7.65	ug/Kg	13.2		3.9	7.87	ug/Kg	17.1		4.5	8.97	ug/Kg
2-Methylphenol							<MDL	3.8	7.65	ug/Kg		<MDL	3.9	7.87	ug/Kg		<MDL	4.5	8.97	ug/Kg
4-Methylphenol							<MDL	7.6	15.3	ug/Kg		<MDL	7.9	15.7	ug/Kg	136		9	17.9	ug/Kg
Acenaphthene						9.39		3.8	7.65	ug/Kg	16.7		3.9	7.87	ug/Kg	21		4.5	8.97	ug/Kg
Acenaphthylene						9.62		3.8	7.65	ug/Kg	16.7		3.9	7.87	ug/Kg	17.8		4.5	8.97	ug/Kg
Anthracene						49.3		3.8	7.65	ug/Kg	80.5		3.9	7.87	ug/Kg	106		4.5	8.97	ug/Kg
Benzo(a)anthracene						128		3.8	7.65	ug/Kg	192		3.9	7.87	ug/Kg	260		4.5	8.97	ug/Kg
Benzo(a)pyrene						162		3.8	7.65	ug/Kg	226		3.9	7.87	ug/Kg	309		4.5	8.97	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-05					Locator:	DWMP-06					Locator:	DWMP-07					Locator:	DWMP-08				
Descrip:	DENNY WAY MONITOR					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
Sampled:	04/08/08 12:00:00 AM					Sampled:	04/01/08 12:00:00 AM					Sampled:	04/02/08 12:00:00 AM					Sampled:	03/31/08 12:00:00 AM				
Lab ID:	L45313-5					Lab ID:	L45313-6					Lab ID:	L45313-7					Lab ID:	L45313-8				
Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED				
% Solids:						% Solids:	52.3					% Solids:	50.8					% Solids:	44.6				
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Wet Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
COMBINED LABS																				
Benzo(b)fluoranthene						182		3.8	7.65	ug/Kg	260		3.9	7.87	ug/Kg	383		4.5	8.97	ug/Kg
Benzo(g,h,i)perylene						65		3.8	7.65	ug/Kg	78.7		3.9	7.87	ug/Kg	154		4.5	8.97	ug/Kg
Benzo(k)fluoranthene						169		3.8	7.65	ug/Kg	213		3.9	7.87	ug/Kg	289		4.5	8.97	ug/Kg
Benzoic Acid						166		19	38.2	ug/Kg	139		20	39.4	ug/Kg	190		22	44.8	ug/Kg
Benzyl Alcohol							<MDL	3.8	7.65	ug/Kg		<MDL	3.9	7.87	ug/Kg		<MDL	4.5	8.97	ug/Kg
Benzyl Butyl Phthalate						35.4	B	1.9	3.82	ug/Kg	20.9	B	2	3.94	ug/Kg	58.5	B	2.2	4.48	ug/Kg
Bis(2-Ethylhexyl)Phthalate						359	B,E	7.6	15.3	ug/Kg	236	B,E	7.9	15.7	ug/Kg	673	B,E	9	17.9	ug/Kg
Caffeine							<MDL	7.6	15.3	ug/Kg		<MDL	7.9	15.7	ug/Kg		<MDL	9	17.9	ug/Kg
Carbazole						15.4		3.8	7.65	ug/Kg	26.2		3.9	7.87	ug/Kg	41.5		4.5	8.97	ug/Kg
Chrysene						191		3.8	7.65	ug/Kg	256		3.9	7.87	ug/Kg	339		4.5	8.97	ug/Kg
Coprostanol							<MDL	76	153	ug/Kg		<MDL	79	157	ug/Kg		<MDL	90	179	ug/Kg
Dibenzo(a,h)anthracene						29.6		3.8	7.65	ug/Kg	33.9		3.9	7.87	ug/Kg	62.6		4.5	8.97	ug/Kg
Dibenzofuran						7.1	<RDL	3.8	7.65	ug/Kg	9.65		3.9	7.87	ug/Kg	13.6		4.5	8.97	ug/Kg
Diethyl Phthalate							<MDL	7.6	15.3	ug/Kg		<MDL	7.9	15.7	ug/Kg		<MDL	9	17.9	ug/Kg
Dimethyl Phthalate							<MDL	7.6	15.3	ug/Kg		<MDL	7.9	15.7	ug/Kg		<MDL	9	17.9	ug/Kg
Di-N-Butyl Phthalate						16.6	B	7.6	15.3	ug/Kg	27	B	7.9	15.7	ug/Kg	33.2	B	9	17.9	ug/Kg
Di-N-Octyl Phthalate							<MDL	7.6	15.3	ug/Kg		<MDL	7.9	15.7	ug/Kg		<MDL	9	17.9	ug/Kg
Fluoranthene						210		3.8	7.65	ug/Kg	276		3.9	7.87	ug/Kg	471		4.5	8.97	ug/Kg
Fluorene						11.4		3.8	7.65	ug/Kg	21.3		3.9	7.87	ug/Kg	27.8		4.5	8.97	ug/Kg
Hexachlorobenzene							<MDL	0.19	0.382	ug/Kg		<MDL	0.2	0.394	ug/Kg		<MDL	0.22	0.448	ug/Kg
Hexachlorobutadiene							<MDL	0.96	1.91	ug/Kg		<MDL	0.98	1.97	ug/Kg		<MDL	1.1	2.24	ug/Kg
Hexachloroethane							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL	2.2	4.48	ug/Kg
Indeno(1,2,3-Cd)Pyrene						74.8		3.8	7.65	ug/Kg	87.4		3.9	7.87	ug/Kg	155		4.5	8.97	ug/Kg
Naphthalene						7.6	<RDL	3.8	7.65	ug/Kg	12.1		3.9	7.87	ug/Kg	18		4.5	8.97	ug/Kg
N-Nitrosodiphenylamine							<MDL	7.6	15.3	ug/Kg		<MDL	7.9	15.7	ug/Kg		<MDL	9	17.9	ug/Kg
Pentachlorophenol							<MDL	19	38.2	ug/Kg		<MDL	20	39.4	ug/Kg		<MDL	22	44.8	ug/Kg
Phenanthrene						121		3.8	7.65	ug/Kg	165		3.9	7.87	ug/Kg	271		4.5	8.97	ug/Kg
Phenol						20.7		7.6	15.3	ug/Kg		<MDL	7.9	15.7	ug/Kg	217		9	17.9	ug/Kg
Pyrene						203	E	3.8	7.65	ug/Kg	252	E	3.9	7.87	ug/Kg	451	E	4.5	8.97	ug/Kg
Total 4-Nonylphenol						161		9.6	19.1	ug/Kg	119		9.8	19.7	ug/Kg	504		11	22.4	ug/Kg
Total HPAHS						1410	E	3.8	7.65	ug/Kg	1870	E	3.9	7.87	ug/Kg	2870	E	4.5	8.97	ug/Kg
Total LPAHs						220		3.8	7.65	ug/Kg	325		3.9	7.87	ug/Kg	478		4.5	8.97	ug/Kg
M=OR EPA 8081A/8082 (7-3-03-002)																				
4,4'-DDD							<MDL	1.9	3.82	ug/Kg	3.7	<RDL	2	3.94	ug/Kg	11.1		2.2	4.48	ug/Kg
4,4'-DDE							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL	2.2	4.48	ug/Kg
4,4'-DDT							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL	2.2	4.48	ug/Kg
Aldrin							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL	2.2	4.48	ug/Kg
Alpha-BHC							<MDL	0.96	1.91	ug/Kg		<MDL	0.98	1.97	ug/Kg		<MDL	1.1	2.24	ug/Kg
Alpha-Chlordane							<MDL	0.96	1.91	ug/Kg		<MDL	0.98	1.97	ug/Kg		<MDL	1.1	2.24	ug/Kg
Beta-BHC							<MDL	0.96	1.91	ug/Kg		<MDL	0.98	1.97	ug/Kg		<MDL	1.1	2.24	ug/Kg
Delta-BHC							<MDL	0.96	1.91	ug/Kg		<MDL	0.98	1.97	ug/Kg		<MDL	1.1	2.24	ug/Kg
Dieldrin							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL	2.2	4.48	ug/Kg
Endosulfan I							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL	2.2	4.48	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-05					Locator:	DWMP-06					Locator:	DWMP-07					Locator:	DWMP-08				
Descrip:	DENNY WAY MONITOR					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
Sampled:	04/08/08 12:00:00 AM					Sampled:	04/01/08 12:00:00 AM					Sampled:	04/02/08 12:00:00 AM					Sampled:	03/31/08 12:00:00 AM				
Lab ID:	L45313-5					Lab ID:	L45313-6					Lab ID:	L45313-7					Lab ID:	L45313-8				
Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED				
% Solids:						% Solids:	52.3					% Solids:	50.8					% Solids:	44.6				
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
		- Wet Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis			
COMBINED LABS																				
Endosulfan II							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL	2.2	4.48	ug/Kg
Endosulfan Sulfate							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL	2.2	4.48	ug/Kg
Endrin							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL	2.2	4.48	ug/Kg
Endrin Aldehyde							<MDL,E	1.9	3.82	ug/Kg		<MDL,E	2	3.94	ug/Kg		<MDL,E	2.2	4.48	ug/Kg
Gamma-BHC (Lindane)							<MDL	0.96	1.91	ug/Kg		<MDL	0.98	1.97	ug/Kg		<MDL	1.1	2.24	ug/Kg
Gamma-Chlordane							<MDL	0.96	1.91	ug/Kg		<MDL	0.98	1.97	ug/Kg	7.47		1.1	2.24	ug/Kg
Heptachlor							<MDL	0.96	1.91	ug/Kg		<MDL	0.98	1.97	ug/Kg		<MDL	1.1	2.24	ug/Kg
Heptachlor Epoxide							<MDL	0.96	1.91	ug/Kg		<MDL	0.98	1.97	ug/Kg		<MDL	1.1	2.24	ug/Kg
Methoxychlor							<MDL	9.6	19.1	ug/Kg		<MDL	9.8	19.7	ug/Kg		<MDL	11	22.4	ug/Kg
Toxaphene							<MDL	19	38.2	ug/Kg		<MDL	20	39.4	ug/Kg		<MDL	22	44.8	ug/Kg
M=OR EPA 8081A/8082 (7-3-103-000)																				
Aroclor 1016							<MDL,TA	8	16.1	ug/Kg		<MDL,TA	8.3	16.5	ug/Kg		<MDL,TA	29	56.7	ug/Kg
Aroclor 1221							<MDL	3.8	7.65	ug/Kg		<MDL	3.9	7.87	ug/Kg		<MDL	4.5	8.97	ug/Kg
Aroclor 1232							<MDL,TA	16	31.4	ug/Kg		<MDL	3.9	7.87	ug/Kg		<MDL	4.5	8.97	ug/Kg
Aroclor 1242							<MDL	1.9	3.82	ug/Kg		<MDL,TA	17	33.7	ug/Kg		<MDL,TA	54	109	ug/Kg
Aroclor 1248						13.6		1.9	3.82	ug/Kg	18.7		2	3.94	ug/Kg	59.4		2.2	4.48	ug/Kg
Aroclor 1254						34.6		1.9	3.82	ug/Kg	61.8		2	3.94	ug/Kg	146		2.2	4.48	ug/Kg
Aroclor 1260						31.4		1.9	3.82	ug/Kg	57.1		2	3.94	ug/Kg	111		2.2	4.48	ug/Kg
Total Aroclors						79.5		1.9	3.82	ug/Kg	138		2	3.94	ug/Kg	316		2.2	4.48	ug/Kg
M=OR EPA 8260B (7-3-02-003)																				
1,1,2-Trichloroethylene							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL,H	2.2	4.48	ug/Kg
Ethylbenzene							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL,H	2.2	4.48	ug/Kg
Tetrachloroethylene							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL,H	2.2	4.48	ug/Kg
Total Xylenes							<MDL	1.9	3.82	ug/Kg		<MDL	2	3.94	ug/Kg		<MDL,H	2.2	4.48	ug/Kg

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-09					DWMP-10					DWMP-11					DWMP-12				
Descrip:	DENNY WAY MONITORI					DENNY WAY MONITOR					DENNY WAY MONITORI					DENNY WAY MONITORI				
Sampled:	03/31/08 12:00:00 AM					04/01/08 12:50:00 PM					04/02/08 12:00:00 AM					04/02/08 12:00:00 AM				
Lab ID:	L45313-9					L45313-10					L45313-11					L45313-12				
Matrix:	SALTWTRSED					SALTWTRSED					SALTWTRSED					SALTWTRSED				
% Solids:	34.5										50.5					31.6				
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis					- Wet Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
COMBINED LABS																				
M=CV ASTM D422(318V1)																				
Dry Weight Factor	8.03										3.8					9.75				
Fines *	65.1		1.4	2.77	%						32.6		0.96	1.92	%	77		1.5	3.08	%
Clay *	18		1.4	2.77	%						12.5		0.96	1.92	%	20		1.5	3.08	%
Silt *	47.1		1.4	2.77	%						20.2		0.96	1.92	%	57		1.5	3.08	%
Sand *	29.4		0.28	2.77	%						61.7		0.19	1.92	%	27.7		0.31	3.08	%
Gravel *	0.8	<RDL,E	0.28	2.77	%						3.1	E	0.19	1.92	%	1.4	E	0.31	3.08	%
p+0.00 *	0.7	<RDL	0.28	2.77	%						1.3		0.19	1.92	%	0.3	<RDL	0.31	3.08	%
p+1.00 *	1.1		0.28	2.77	%						10		0.19	1.92	%	0.7	<RDL	0.31	3.08	%
p+10.0(equal/more than) *	13.9		1.4	2.77	%						9.6		0.96	1.92	%	15.4		1.5	3.08	%
p+2.00 *	4.1		0.28	2.77	%						29.1		0.19	1.92	%	4		0.31	3.08	%
p+3.00 *	11.1		0.28	2.77	%						13.1		0.19	1.92	%	11.1		0.31	3.08	%
p+4.00 *	12.3		0.28	2.77	%						8.2		0.19	1.92	%	11.6		0.31	3.08	%
p+5.00 *	18		1.4	2.77	%						10.6		0.96	1.92	%	27.7		1.5	3.08	%
p+6.00 *	9.7		1.4	2.77	%						2.9		0.96	1.92	%	7.7		1.5	3.08	%
p+7.00 *	12.5		1.4	2.77	%						3.8		0.96	1.92	%	13.9		1.5	3.08	%
p+8.00 *	6.9		1.4	2.77	%						2.9		0.96	1.92	%	7.7		1.5	3.08	%
p+9.00 *	4.2		1.4	2.77	%						2.9		0.96	1.92	%	4.6		1.5	3.08	%
p-1.00 *	0.8	<RDL	0.28	2.77	%						0.9	<RDL	0.19	1.92	%	0.4	<RDL	0.31	3.08	%
p-2.00 *		<MDL	0.28	2.77	%						0.19	<RDL	0.19	1.92	%		<MDL	0.31	3.08	%
p-2.00(less than) *		<MDL	0.28	2.77	%						2		0.19	1.92	%	1		0.31	3.08	%
M=CV EPA 9030B/SM4500-S2-D (330V0)																				
Total Sulfide	59.7	G	7.2	29	mg/Kg						14.4	G	0.99	3.96	mg/Kg	77.2	G	16	63.3	mg/Kg
M=CV EPA 9060-PSEP96(337V3)																				
Total Organic Carbon	31300		2700	5420	mg/Kg						23400		2600	5250	mg/Kg	35100		2600	5160	mg/Kg
M=CV SM2540-G (307V2)																				
Total Volatile Solids	9.91		0.014	0.029	%						7.45		0.0099	0.0198	%	11.4		0.016	0.0316	%
M=CV SM2540-G (307V3)																				
Total Solids *	34.5		0.005	0.01	%						50.5		0.005	0.01	%	31.6		0.005	0.01	%
M=CV SM4500-NH3-G(332V1)KCL																				
Ammonia Nitrogen	4		0.29	0.58	mg/Kg						3.03		0.19	0.388	mg/Kg	3.83		0.3	0.608	mg/Kg
M=ES NONE																				
Field Personnel	JB,CB,JO,AF				none	JDD,SH,JB,AF				none	JB,CB,JP				none	JB,CB,JP				none
Sampcoordx1 *	1263215				ft						1263269				ft	1263054				ft
Sampcoordx2 *	1263214				ft						1263269				ft	1263058				ft
Sampcoordx3 *	1263212				ft															
Sampcoordy1 *	228804				ft						229157				ft	228967				ft
Sampcoordy2 *	228804				ft						229154				ft	228961				ft
Sampcoordy3 *	228808				ft															
Sample Depth *	30				m						22				m	29				m

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	Locator:	DWMP-09				Locator:	DWMP-10				Locator:	DWMP-11				Locator:	DWMP-12			
	Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITOR				Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI			
	Sampled:	03/31/08 12:00:00 AM				Sampled:	04/01/08 12:50:00 PM				Sampled:	04/02/08 12:00:00 AM				Sampled:	04/02/08 12:00:00 AM			
	Lab ID:	L45313-9				Lab ID:	L45313-10				Lab ID:	L45313-11				Lab ID:	L45313-12			
	Matrix:	SALTWTRSED				Matrix:	SALTWTRSED				Matrix:	SALTWTRSED				Matrix:	SALTWTRSED			
	% Solids:	34.5				% Solids:					% Solids:	50.5				% Solids:	31.6			
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis					- Wet Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
COMBINED LABS																				
Sample Information						No samples; all rocks and gravel; looks like cap material.				none						Silty; somewhat flocculent; greenish tint.				none
Sampling Method *	20042				none						20042				none	20042				none
Sediment Sampling Depth *	17				cm						15				cm	17				cm
Sediment Sampling Range *	0-2 cm				cm						0-2 cm				cm	0-2 cm				cm
Sediment Type	23N30				none						23P26				none	23N21				none
Tidal Condition	E				none						F				none	E				none
Tide Height *	6.2				ft						5.8				ft	6				ft
M=MT CVAA EPA 7471B (604V4)																				
Mercury, Total, CVAA	1.25	E	0.07	0.696	mg/Kg						0.354	E	0.0095	0.0952	mg/Kg	0.399	E	0.016	0.154	mg/Kg
M=MT ICP EPA3050B/6010C MOD(612V3)																				
Antimony, Total, ICP		<MDL,G	2.2	11.1	mg/Kg							<MDL,G	1.4	7.23	mg/Kg		<MDL,G	2.5	12.5	mg/Kg
Arsenic, Total, ICP	11	<RDL	3.8	18.6	mg/Kg						7.3	<RDL	2.4	12	mg/Kg	11	<RDL	4.1	20.8	mg/Kg
Cadmium, Total, ICP	0.75	<RDL	0.29	1.48	mg/Kg						0.5	<RDL	0.19	0.962	mg/Kg	1	<RDL	0.35	1.66	mg/Kg
Chromium, Total, ICP	50.4		0.43	2.23	mg/Kg						32.5		0.3	1.44	mg/Kg	49.7		0.51	2.5	mg/Kg
Copper, Total, ICP	62		0.58	2.96	mg/Kg						42.2		0.38	1.92	mg/Kg	62.7		0.66	3.32	mg/Kg
Lead, Total, ICP	80.6		2.9	14.8	mg/Kg						52.7		1.9	9.62	mg/Kg	62.7		3.5	16.6	mg/Kg
Nickel, Total, ICP	49.6		0.75	3.71	mg/Kg						25.7		0.48	2.42	mg/Kg	47.8		0.82	4.15	mg/Kg
Silver, Total, ICP	2.4	<RDL	0.58	2.96	mg/Kg						1.5	<RDL	0.38	1.92	mg/Kg	1.9	<RDL	0.66	3.32	mg/Kg
Zinc, Total, ICP	113		0.75	3.71	mg/Kg						87.1		0.48	2.42	mg/Kg	131		0.82	4.15	mg/Kg
M=OR EPA 3550B/8270C (7-3-01-004)																				
1,2,4-Trichlorobenzene		<MDL	0.29	0.58	ug/Kg							<MDL	0.2	0.396	ug/Kg		<MDL	0.32	0.633	ug/Kg
1,2-Dichlorobenzene		<MDL	0.58	1.16	ug/Kg							<MDL	0.4	0.792	ug/Kg		<MDL	0.63	1.27	ug/Kg
1,3-Dichlorobenzene		<MDL	0.58	1.16	ug/Kg							<MDL	0.4	0.792	ug/Kg		<MDL	0.63	1.27	ug/Kg
1,4-Dichlorobenzene	3.68		0.58	1.16	ug/Kg						8.69		0.4	0.792	ug/Kg	5.13		0.63	1.27	ug/Kg
2,4-Dimethylphenol		<MDL	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg
2-Methylnaphthalene	19.4		5.8	11.6	ug/Kg						11		4	7.92	ug/Kg	18		6.3	12.7	ug/Kg
2-Methylphenol		<MDL	5.8	11.6	ug/Kg							<MDL	4	7.92	ug/Kg		<MDL	6.3	12.7	ug/Kg
4-Methylphenol	13	<RDL	12	23.2	ug/Kg							<MDL	7.9	15.8	ug/Kg		<MDL	13	25.3	ug/Kg
Acenaphthene	27.4		5.8	11.6	ug/Kg						15.9		4	7.92	ug/Kg	18.2		6.3	12.7	ug/Kg
Acenaphthylene	20.4		5.8	11.6	ug/Kg						12.1		4	7.92	ug/Kg	20.9		6.3	12.7	ug/Kg
Anthracene	125		5.8	11.6	ug/Kg						72.1		4	7.92	ug/Kg	91.8		6.3	12.7	ug/Kg
Benzo(a)anthracene	260		5.8	11.6	ug/Kg						184		4	7.92	ug/Kg	235		6.3	12.7	ug/Kg
Benzo(a)pyrene	316		5.8	11.6	ug/Kg						206		4	7.92	ug/Kg	294		6.3	12.7	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	Locator:	DWMP-09				Locator:	DWMP-10				Locator:	DWMP-11				Locator:	DWMP-12			
	Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITOR				Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI			
	Sampled:	03/31/08 12:00:00 AM				Sampled:	04/01/08 12:50:00 PM				Sampled:	04/02/08 12:00:00 AM				Sampled:	04/02/08 12:00:00 AM			
	Lab ID:	L45313-9				Lab ID:	L45313-10				Lab ID:	L45313-11				Lab ID:	L45313-12			
	Matrix:	SALTWTRSED				Matrix:	SALTWTRSED				Matrix:	SALTWTRSED				Matrix:	SALTWTRSED			
	% Solids:	34.5				% Solids:					% Solids:	50.5				% Solids:	31.6			
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
			- Dry Weight Basis				- Wet Weight Basis						- Dry Weight Basis					- Dry Weight Basis		
COMBINED LABS																				
Benzo(b)fluoranthene	359		5.8	11.6	ug/Kg						242		4	7.92	ug/Kg	339		6.3	12.7	ug/Kg
Benzo(g,h,i)perylene	151		5.8	11.6	ug/Kg						77		4	7.92	ug/Kg	119		6.3	12.7	ug/Kg
Benzo(k)fluoranthene	322		5.8	11.6	ug/Kg						197		4	7.92	ug/Kg	303		6.3	12.7	ug/Kg
Benzoic Acid	241		29	58	ug/Kg						130		20	39.6	ug/Kg	270		32	63.3	ug/Kg
Benzyl Alcohol		<MDL	5.8	11.6	ug/Kg							<MDL	4	7.92	ug/Kg		<MDL	6.3	12.7	ug/Kg
Benzyl Butyl Phthalate	55.1	B	2.9	5.8	ug/Kg						28.5	B	2	3.96	ug/Kg	54.1	B	3.2	6.33	ug/Kg
Bis(2-Ethylhexyl)Phthalate	933	B,E	12	23.2	ug/Kg						289	B,E	7.9	15.8	ug/Kg	734	B,E	13	25.3	ug/Kg
Caffeine		<MDL	12	23.2	ug/Kg							<MDL	7.9	15.8	ug/Kg		<MDL	13	25.3	ug/Kg
Carbazole	37.7		5.8	11.6	ug/Kg						28.1		4	7.92	ug/Kg	29.6		6.3	12.7	ug/Kg
Chrysene	339		5.8	11.6	ug/Kg						238		4	7.92	ug/Kg	335		6.3	12.7	ug/Kg
Coprostanol		<MDL	120	232	ug/Kg							<MDL	79	158	ug/Kg		<MDL	130	253	ug/Kg
Dibenzo(a,h)anthracene	58.3		5.8	11.6	ug/Kg						34.9		4	7.92	ug/Kg	50.6		6.3	12.7	ug/Kg
Dibenzofuran	13.5		5.8	11.6	ug/Kg						8.28		4	7.92	ug/Kg	11	<RDL	6.3	12.7	ug/Kg
Diethyl Phthalate		<MDL	12	23.2	ug/Kg							<MDL	7.9	15.8	ug/Kg		<MDL	13	25.3	ug/Kg
Dimethyl Phthalate		<MDL	12	23.2	ug/Kg							<MDL	7.9	15.8	ug/Kg		<MDL	13	25.3	ug/Kg
Di-N-Butyl Phthalate	34.5	B	12	23.2	ug/Kg						17.4	B	7.9	15.8	ug/Kg	35.4	B	13	25.3	ug/Kg
Di-N-Octyl Phthalate		<MDL	12	23.2	ug/Kg							<MDL	7.9	15.8	ug/Kg		<MDL	13	25.3	ug/Kg
Fluoranthene	429		5.8	11.6	ug/Kg						343		4	7.92	ug/Kg	389		6.3	12.7	ug/Kg
Fluorene	36.5		5.8	11.6	ug/Kg						20.8		4	7.92	ug/Kg	26.1		6.3	12.7	ug/Kg
Hexachlorobenzene		<MDL	0.29	0.58	ug/Kg							<MDL	0.2	0.396	ug/Kg		<MDL	0.32	0.633	ug/Kg
Hexachlorobutadiene		<MDL	1.4	2.9	ug/Kg							<MDL	0.99	1.98	ug/Kg		<MDL	1.6	3.16	ug/Kg
Hexachloroethane		<MDL	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg
Indeno(1,2,3-Cd)Pyrene	160		5.8	11.6	ug/Kg						84.6		4	7.92	ug/Kg	125		6.3	12.7	ug/Kg
Naphthalene	15.7		5.8	11.6	ug/Kg						9.9		4	7.92	ug/Kg	15.5		6.3	12.7	ug/Kg
N-Nitrosodiphenylamine		<MDL	12	23.2	ug/Kg							<MDL	7.9	15.8	ug/Kg		<MDL	13	25.3	ug/Kg
Pentachlorophenol		<MDL	29	58	ug/Kg							<MDL	20	39.6	ug/Kg		<MDL	32	63.3	ug/Kg
Phenanthrene	276		5.8	11.6	ug/Kg						176		4	7.92	ug/Kg	215		6.3	12.7	ug/Kg
Phenol	251		12	23.2	ug/Kg							<MDL	7.9	15.8	ug/Kg	39.9		13	25.3	ug/Kg
Pyrene	409	E	5.8	11.6	ug/Kg						297	E	4	7.92	ug/Kg	332	E	6.3	12.7	ug/Kg
Total 4-Nonylphenol	215		14	29	ug/Kg						122		9.9	19.8	ug/Kg	211		16	31.6	ug/Kg
Total HPAHS	2810	E	5.8	11.6	ug/Kg						1900	E	4	7.92	ug/Kg	2530	E	6.3	12.7	ug/Kg
Total LPAHs	522		5.8	11.6	ug/Kg						319		4	7.92	ug/Kg	405		6.3	12.7	ug/Kg
M=OR EPA 8081A/8082 (7-3-03-002)																				
4,4'-DDD	8		2.9	5.8	ug/Kg						7.56		2	3.96	ug/Kg	5.4	<RDL	3.2	6.33	ug/Kg
4,4'-DDE		<MDL	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg
4,4'-DDT		<MDL	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg
Aldrin		<MDL	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg
Alpha-BHC		<MDL	1.4	2.9	ug/Kg							<MDL	0.99	1.98	ug/Kg		<MDL	1.6	3.16	ug/Kg
Alpha-Chlordane		<MDL	1.4	2.9	ug/Kg							<MDL	0.99	1.98	ug/Kg		<MDL	1.6	3.16	ug/Kg
Beta-BHC		<MDL	1.4	2.9	ug/Kg							<MDL	0.99	1.98	ug/Kg		<MDL	1.6	3.16	ug/Kg
Delta-BHC		<MDL	1.4	2.9	ug/Kg							<MDL	0.99	1.98	ug/Kg		<MDL	1.6	3.16	ug/Kg
Dieldrin		<MDL	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg
Endosulfan I		<MDL	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-09					DWMP-10					DWMP-11					DWMP-12				
Descrip:	DENNY WAY MONITORI					DENNY WAY MONITOR					DENNY WAY MONITORI					DENNY WAY MONITORI				
Sampled:	03/31/08 12:00:00 AM					04/01/08 12:50:00 PM					04/02/08 12:00:00 AM					04/02/08 12:00:00 AM				
Lab ID:	L45313-9					L45313-10					L45313-11					L45313-12				
Matrix:	SALTWTRSED					SALTWTRSED					SALTWTRSED					SALTWTRSED				
% Solids:	34.5										50.5					31.6				
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Dry Weight Basis					- Wet Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
COMBINED LABS																				
Endosulfan II		<MDL	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg
Endosulfan Sulfate		<MDL	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg
Endrin		<MDL	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg
Endrin Aldehyde		<MDL,E	2.9	5.8	ug/Kg							<MDL,E	2	3.96	ug/Kg		<MDL,E	3.2	6.33	ug/Kg
Gamma-BHC (Lindane)		<MDL	1.4	2.9	ug/Kg							<MDL	0.99	1.98	ug/Kg		<MDL	1.6	3.16	ug/Kg
Gamma-Chlordane	2.93		1.4	2.9	ug/Kg						4.16		0.99	1.98	ug/Kg		<MDL	1.6	3.16	ug/Kg
Heptachlor		<MDL	1.4	2.9	ug/Kg							<MDL	0.99	1.98	ug/Kg		<MDL	1.6	3.16	ug/Kg
Heptachlor Epoxide		<MDL	1.4	2.9	ug/Kg							<MDL	0.99	1.98	ug/Kg		<MDL	1.6	3.16	ug/Kg
Methoxychlor		<MDL	14	29	ug/Kg							<MDL	9.9	19.8	ug/Kg		<MDL	16	31.6	ug/Kg
Toxaphene		<MDL	29	58	ug/Kg							<MDL	20	39.6	ug/Kg		<MDL	32	63.3	ug/Kg
M=OR EPA 8081A/8082 (7-3-103-000)																				
Aroclor 1016		<MDL,TA	27	53.9	ug/Kg							<MDL,TA	22	43	ug/Kg		<MDL,TA	23	45.6	ug/Kg
Aroclor 1221		<MDL	5.8	11.6	ug/Kg							<MDL	4	7.92	ug/Kg		<MDL	6.3	12.7	ug/Kg
Aroclor 1232		<MDL	5.8	11.6	ug/Kg							<MDL,TA	38	74.1	ug/Kg		<MDL	6.3	12.7	ug/Kg
Aroclor 1242		<MDL,TA	52	106	ug/Kg							<MDL,TA	51	104	ug/Kg		<MDL,TA	44	90.5	ug/Kg
Aroclor 1248	57.7		2.9	5.8	ug/Kg						41.6		2	3.96	ug/Kg	50		3.2	6.33	ug/Kg
Aroclor 1254	139		2.9	5.8	ug/Kg						95.4		2	3.96	ug/Kg	118		3.2	6.33	ug/Kg
Aroclor 1260	108		2.9	5.8	ug/Kg						69.7		2	3.96	ug/Kg	115		3.2	6.33	ug/Kg
Total Aroclors	304		2.9	5.8	ug/Kg						206		2	3.96	ug/Kg	283		3.2	6.33	ug/Kg
M=OR EPA 8260B (7-3-02-003)																				
1,1,2-Trichloroethylene		<MDL,H	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg
Ethylbenzene		<MDL,H	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg
Tetrachloroethylene		<MDL,H	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg
Total Xylenes		<MDL,H	2.9	5.8	ug/Kg							<MDL	2	3.96	ug/Kg		<MDL	3.2	6.33	ug/Kg

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-13					Locator:	DWMP-14					Locator:	DWMP-15					Locator:	DWMP-16				
Descrip:	DENNY WAY MONITOR					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
Sampled:	04/02/08 10:15:00 AM					Sampled:	04/01/08 12:00:00 AM					Sampled:	04/01/08 12:00:00 AM					Sampled:	04/01/08 12:00:00 AM				
Lab ID:	L45313-13					Lab ID:	L45313-14					Lab ID:	L45313-15					Lab ID:	L45313-16				
Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED				
% Solids:						% Solids:	50.8					% Solids:	57.6					% Solids:	55.1				
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
			- Wet Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis		
COMBINED LABS																				
M=CV ASTM D422(316V1)																				
Dry Weight Factor						3.54					2.85					2.9				
Fines *						55.8		0.9	1.8	%	48.4		0.82	1.64	%	48		0.8	1.6	%
Clay *						14.4		0.9	1.8	%	18		0.82	1.64	%	21.6		0.8	1.6	%
Silt *						41.4		0.9	1.8	%	30.3		0.82	1.64	%	26.4		0.8	1.6	%
Sand *						35.4		0.18	1.8	%	32.7		0.16	1.64	%	25.2		0.16	1.6	%
Gravel *						3.2	E	0.18	1.8	%	13.4	E	0.16	1.64	%	18.5	E	0.16	1.6	%
p+0.00 *						0.3	<RDL	0.18	1.8	%	3.4		0.16	1.64	%	3.1		0.16	1.6	%
p+1.00 *						0.7	<RDL	0.18	1.8	%	3.7		0.16	1.64	%	3.2		0.16	1.6	%
p+10.0(equal/more than) *						10.8		0.9	1.8	%	11.5		0.82	1.64	%	12.8		0.8	1.6	%
p+2.00 *						4.3		0.18	1.8	%	7.4		0.16	1.64	%	5.3		0.16	1.6	%
p+3.00 *						23.3		0.18	1.8	%	8.7		0.16	1.64	%	10		0.16	1.6	%
p+4.00 *						6.8		0.18	1.8	%	9.4		0.16	1.64	%	3.6		0.16	1.6	%
p+5.00 *						9.9		0.9	1.8	%	6.6		0.82	1.64	%	4.8		0.8	1.6	%
p+6.00 *						17.1		0.9	1.8	%	10.7		0.82	1.64	%	8		0.8	1.6	%
p+7.00 *						8.1		0.9	1.8	%	6.6		0.82	1.64	%	4.8		0.8	1.6	%
p+8.00 *						6.3		0.9	1.8	%	6.6		0.82	1.64	%	8.8		0.8	1.6	%
p+9.00 *						3.6		0.9	1.8	%	6.6		0.82	1.64	%	8.8		0.8	1.6	%
p-1.00 *							<MDL	0.18	1.8	%	5.6		0.16	1.64	%	4.3		0.16	1.6	%
p-2.00 *							<MDL	0.18	1.8	%	1.8		0.16	1.64	%	1.3		0.16	1.6	%
p-2.00(less than) *						3.2		0.18	1.8	%	6		0.16	1.64	%	12.9		0.16	1.6	%
M=CV EPA 9030B/SM4500-S2-D (330V0)																				
Total Sulfide						6.93	G	0.98	3.94	mg/Kg	34.9	G	4.3	17.4	mg/Kg	12.5	G	0.91	3.63	mg/Kg
M=CV EPA 9060-PSEP96(337V3)																				
Total Organic Carbon						26400		3300	6710	mg/Kg	11500		2400	4760	mg/Kg	10700		2000	3960	mg/Kg
M=CV SM2540-G (307V2)																				
Total Volatile Solids						7.01		0.0098	0.0197	%	4.41		0.0087	0.0174	%	4.81		0.0091	0.0181	%
M=CV SM2540-G (307V3)																				
Total Solids *						50.8		0.005	0.01	%	57.6		0.005	0.01	%	55.1		0.005	0.01	%
M=CV SM4500-NH3-G(332V1)KCL																				
Ammonia Nitrogen						2.99		0.19	0.382	mg/Kg	1.56		0.17	0.34	mg/Kg	1.51		0.18	0.363	mg/Kg
M=ES NONE																				
Field Personnel	JB,CB,JP				none	SH,JDD,JB,AF				none	SH,JDD,JB,AF				none	SH,JDD,JB,AF				none
Sampcoordx1 *						1263228				ft	1263054				ft	1262967				ft
Sampcoordx2 *						1263225				ft	1263049				ft	1262964				ft
Sampcoordx3 *						1263228				ft	1263055				ft					
Sampcoordy1 *						229554				ft	229441				ft	229355				ft
Sampcoordy2 *						229557				ft	229448				ft	229351				ft
Sampcoordy3 *						229553				ft	229445				ft					
Sample Depth *						14				m	22				m	25				m

King County Environmental Lab Analytical Report

PROJECT: 423368-80

	Locator:	DWMP-13					Locator:	DWMP-14					Locator:	DWMP-15					Locator:	DWMP-16				
	Descrip:	DENNY WAY MONITOR					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
	Sampled:	04/02/08 10:15:00 AM					Sampled:	04/01/08 12:00:00 AM					Sampled:	04/01/08 12:00:00 AM					Sampled:	04/01/08 12:00:00 AM				
	Lab ID:	L45313-13					Lab ID:	L45313-14					Lab ID:	L45313-15					Lab ID:	L45313-16				
	Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED				
	% Solids:						% Solids:	50.8					% Solids:	57.6					% Solids:	55.1				
Parameters	Value	Qual	MDL	RDL	Units		Value	Qual	MDL	RDL	Units		Value	Qual	MDL	RDL	Units		Value	Qual	MDL	RDL	Units	
	- Wet Weight Basis						- Dry Weight Basis						- Dry Weight Basis						- Dry Weight Basis					
COMBINED LABS																								
Sample Information	No chem; all rocks.				none		Lots of garbage, decayed wood; tube worms 2nd most predomin ant sample debris.				none													
Sampling Method *							20042				none		20042				none		20042				none	
Sediment Sampling Depth *							15				cm		13				cm		11				cm	
Sediment Sampling Range *							0-10 cm				cm		0-10 cm				cm		0-10 cm				cm	
Sediment Type							23W26				none		21W31				none		23W31				none	
Tidal Condition							F				none		E				none		S				none	
Tide Height *							6.6				ft		6.6				ft		6.4				ft	
M=MT CVAA EPA 7471B (604V4)																								
Mercury, Total, CVAA							0.52	E	0.01	0.101	mg/Kg		0.354	E	0.0083	0.0837	mg/Kg		0.167	E	0.0091	0.0904	mg/Kg	
M=MT ICP EPA3050B/6010C MOD(612V3)																								
Antimony, Total, ICP								<MDL,G	1.5	7.56	mg/Kg			<MDL,G	1.3	6.32	mg/Kg			<MDL,G	1.3	6.55	mg/Kg	
Arsenic, Total, ICP							8.9	<RDL	2.6	12.6	mg/Kg		9	<RDL	2.1	10.5	mg/Kg		10	<RDL	2.2	10.9	mg/Kg	
Cadmium, Total, ICP							0.85	<RDL	0.2	1.01	mg/Kg		0.896		0.17	0.844	mg/Kg		0.34	<RDL	0.17	0.873	mg/Kg	
Chromium, Total, ICP							48.6		0.3	1.51	mg/Kg		54.5		0.26	1.27	mg/Kg		70.6		0.25	1.31	mg/Kg	
Copper, Total, ICP							70.1		0.39	2.01	mg/Kg		51.9		0.33	1.69	mg/Kg		53.7		0.34	1.75	mg/Kg	
Lead, Total, ICP							102		2	10.1	mg/Kg		55.9		1.7	8.44	mg/Kg		29.8		1.7	8.73	mg/Kg	
Nickel, Total, ICP							42.7		0.51	2.52	mg/Kg		56.8		0.42	2.1	mg/Kg		77.9		0.44	2.18	mg/Kg	
Silver, Total, ICP							3.82		0.39	2.01	mg/Kg		1.71		0.33	1.69	mg/Kg		0.85	<RDL	0.34	1.75	mg/Kg	
Zinc, Total, ICP							118		0.51	2.52	mg/Kg		137		0.42	2.1	mg/Kg		117		0.44	2.18	mg/Kg	
M=OR EPA 3550B/8270C (7-3-01-004)																								
1,2,4-Trichlorobenzene								<MDL	0.2	0.394	ug/Kg			<MDL	0.17	0.347	ug/Kg			<MDL	0.18	0.363	ug/Kg	
1,2-Dichlorobenzene								<MDL	0.39	0.787	ug/Kg			<MDL	0.35	0.694	ug/Kg			<MDL	0.36	0.726	ug/Kg	
1,3-Dichlorobenzene								<MDL	0.39	0.787	ug/Kg			<MDL	0.35	0.694	ug/Kg			<MDL	0.36	0.726	ug/Kg	
1,4-Dichlorobenzene							4.67		0.39	0.787	ug/Kg		1.89		0.35	0.694	ug/Kg		1.46		0.36	0.726	ug/Kg	
2,4-Dimethylphenol								<MDL	2	3.94	ug/Kg			<MDL	1.7	3.47	ug/Kg			<MDL	1.8	3.63	ug/Kg	
2-Methylnaphthalene							20.3		3.9	7.87	ug/Kg		10.1		3.5	6.94	ug/Kg		9.33		3.6	7.26	ug/Kg	
2-Methylphenol								<MDL	3.9	7.87	ug/Kg			<MDL	3.5	6.94	ug/Kg			<MDL	3.6	7.26	ug/Kg	
4-Methylphenol							10	<RDL	7.9	15.7	ug/Kg			<MDL	6.9	13.9	ug/Kg			<MDL	7.3	14.5	ug/Kg	
Acenaphthene							25.6		3.9	7.87	ug/Kg		10.7		3.5	6.94	ug/Kg		8.35		3.6	7.26	ug/Kg	
Acenaphthylene							23.4		3.9	7.87	ug/Kg		9.48		3.5	6.94	ug/Kg		7.3	<RDL	3.6	7.26	ug/Kg	
Anthracene							126		3.9	7.87	ug/Kg		50.3		3.5	6.94	ug/Kg		46.3		3.6	7.26	ug/Kg	
Benzo(a)anthracene							317		3.9	7.87	ug/Kg		125		3.5	6.94	ug/Kg		96.2		3.6	7.26	ug/Kg	
Benzo(a)pyrene							350		3.9	7.87	ug/Kg		156		3.5	6.94	ug/Kg		114		3.6	7.26	ug/Kg	

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-13					Locator:	DWMP-14					Locator:	DWMP-15					Locator:	DWMP-16				
Descrip:	DENNY WAY MONITOR					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
Sampled:	04/02/08 10:15:00 AM					Sampled:	04/01/08 12:00:00 AM					Sampled:	04/01/08 12:00:00 AM					Sampled:	04/01/08 12:00:00 AM				
Lab ID:	L45313-13					Lab ID:	L45313-14					Lab ID:	L45313-15					Lab ID:	L45313-16				
Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED				
% Solids:						% Solids:	50.8					% Solids:	57.6					% Solids:	55.1				
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Wet Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
COMBINED LABS																				
Benzo(b)fluoranthene						429		3.9	7.87	ug/Kg	177		3.5	6.94	ug/Kg	129		3.6	7.26	ug/Kg
Benzo(g,h,i)perylene						189		3.9	7.87	ug/Kg	60.1		3.5	6.94	ug/Kg	46.3		3.6	7.26	ug/Kg
Benzo(k)fluoranthene						339		3.9	7.87	ug/Kg	166		3.5	6.94	ug/Kg	118		3.6	7.26	ug/Kg
Benzoic Acid						134		20	39.4	ug/Kg	110		17	34.7	ug/Kg	118		18	36.3	ug/Kg
Benzyl Alcohol							<MDL	3.9	7.87	ug/Kg		<MDL	3.5	6.94	ug/Kg		<MDL	3.6	7.26	ug/Kg
Benzyl Butyl Phthalate						154	B	2	3.94	ug/Kg	37.5	B	1.7	3.47	ug/Kg	23.4	B	1.8	3.63	ug/Kg
Bis(2-Ethylhexyl)Phthalate						728	B,E	7.9	15.7	ug/Kg	417	B,E	6.9	13.9	ug/Kg	122	B,E	7.3	14.5	ug/Kg
Caffeine							<MDL	7.9	15.7	ug/Kg		<MDL	6.9	13.9	ug/Kg		<MDL	7.3	14.5	ug/Kg
Carbazole						45.9		3.9	7.87	ug/Kg	16.3		3.5	6.94	ug/Kg	15.1		3.6	7.26	ug/Kg
Chrysene						409		3.9	7.87	ug/Kg	174		3.5	6.94	ug/Kg	128		3.6	7.26	ug/Kg
Coprostanol							<MDL	79	157	ug/Kg		<MDL	69	139	ug/Kg		<MDL	73	145	ug/Kg
Dibenzo(a,h)anthracene						78.3		3.9	7.87	ug/Kg	26		3.5	6.94	ug/Kg	20.1		3.6	7.26	ug/Kg
Dibenzofuran						14.4		3.9	7.87	ug/Kg	6.1	<RDL	3.5	6.94	ug/Kg	4.9	<RDL	3.6	7.26	ug/Kg
Diethyl Phthalate							<MDL	7.9	15.7	ug/Kg		<MDL	6.9	13.9	ug/Kg		<MDL	7.3	14.5	ug/Kg
Dimethyl Phthalate							<MDL	7.9	15.7	ug/Kg		<MDL	6.9	13.9	ug/Kg		<MDL	7.3	14.5	ug/Kg
Di-N-Butyl Phthalate						35.2	B	7.9	15.7	ug/Kg	15.4	B	6.9	13.9	ug/Kg	14	<RDL,B	7.3	14.5	ug/Kg
Di-N-Octyl Phthalate							<MDL	7.9	15.7	ug/Kg		<MDL	6.9	13.9	ug/Kg		<MDL	7.3	14.5	ug/Kg
Fluoranthene						533		3.9	7.87	ug/Kg	203		3.5	6.94	ug/Kg	149		3.6	7.26	ug/Kg
Fluorene						34.4		3.9	7.87	ug/Kg	16.1		3.5	6.94	ug/Kg	13.6		3.6	7.26	ug/Kg
Hexachlorobenzene							<MDL	0.2	0.394	ug/Kg	1.46		0.17	0.347	ug/Kg		<MDL	0.18	0.363	ug/Kg
Hexachlorobutadiene							<MDL	0.98	1.97	ug/Kg		<MDL	0.87	1.74	ug/Kg		<MDL	0.91	1.81	ug/Kg
Hexachloroethane							<MDL	2	3.94	ug/Kg		<MDL	1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg
Indeno(1,2,3-Cd)Pyrene						201		3.9	7.87	ug/Kg	65.3		3.5	6.94	ug/Kg	49.4		3.6	7.26	ug/Kg
Naphthalene						23.6		3.9	7.87	ug/Kg	7.62		3.5	6.94	ug/Kg	6.2	<RDL	3.6	7.26	ug/Kg
N-Nitrosodiphenylamine							<MDL	7.9	15.7	ug/Kg		<MDL	6.9	13.9	ug/Kg		<MDL	7.3	14.5	ug/Kg
Pentachlorophenol							<MDL	20	39.4	ug/Kg		<MDL	17	34.7	ug/Kg		<MDL	18	36.3	ug/Kg
Phenanthrene						291		3.9	7.87	ug/Kg	115		3.5	6.94	ug/Kg	94.4		3.6	7.26	ug/Kg
Phenol						38.6		7.9	15.7	ug/Kg	8.2	<RDL	6.9	13.9	ug/Kg		<MDL	7.3	14.5	ug/Kg
Pyrene						583	E	3.9	7.87	ug/Kg	205	E	3.5	6.94	ug/Kg	138	E	3.6	7.26	ug/Kg
Total 4-Nonylphenol							<MDL	9.8	19.7	ug/Kg		<MDL	8.7	17.4	ug/Kg	69.7		9.1	18.1	ug/Kg
Total HPAHS						3430	E	3.9	7.87	ug/Kg	1360	E	3.5	6.94	ug/Kg	987	E	3.6	7.26	ug/Kg
Total LPAHs						543		3.9	7.87	ug/Kg	219		3.5	6.94	ug/Kg	185		3.6	7.26	ug/Kg
M=OR EPA 8081A/8082 (7-3-03-002)																				
4,4'-DDD							<MDL	2	3.94	ug/Kg	6.13		1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg
4,4'-DDE							<MDL	2	3.94	ug/Kg		<MDL	1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg
4,4'-DDT							<MDL	2	3.94	ug/Kg		<MDL	1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg
Aldrin							<MDL	2	3.94	ug/Kg		<MDL	1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg
Alpha-BHC							<MDL	0.98	1.97	ug/Kg		<MDL	0.87	1.74	ug/Kg		<MDL	0.91	1.81	ug/Kg
Alpha-Chlordane						1.8	<RDL	0.98	1.97	ug/Kg		<MDL	0.87	1.74	ug/Kg		<MDL	0.91	1.81	ug/Kg
Beta-BHC							<MDL	0.98	1.97	ug/Kg		<MDL	0.87	1.74	ug/Kg		<MDL	0.91	1.81	ug/Kg
Delta-BHC							<MDL	0.98	1.97	ug/Kg		<MDL	0.87	1.74	ug/Kg		<MDL	0.91	1.81	ug/Kg
Dieldrin							<MDL	2	3.94	ug/Kg		<MDL	1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg
Endosulfan I							<MDL	2	3.94	ug/Kg		<MDL	1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator:	DWMP-13					Locator:	DWMP-14					Locator:	DWMP-15					Locator:	DWMP-16				
Descrip:	DENNY WAY MONITOR					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
Sampled:	04/02/08 10:15:00 AM					Sampled:	04/01/08 12:00:00 AM					Sampled:	04/01/08 12:00:00 AM					Sampled:	04/01/08 12:00:00 AM				
Lab ID:	L45313-13					Lab ID:	L45313-14					Lab ID:	L45313-15					Lab ID:	L45313-16				
Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED					Matrix:	SALTWTRSED				
% Solids:						% Solids:	50.8					% Solids:	57.6					% Solids:	55.1				
Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
	- Wet Weight Basis					- Dry Weight Basis					- Dry Weight Basis					- Dry Weight Basis				
COMBINED LABS																				
Endosulfan II							<MDL	2	3.94	ug/Kg		<MDL	1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg
Endosulfan Sulfate							<MDL	2	3.94	ug/Kg		<MDL	1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg
Endrin							<MDL	2	3.94	ug/Kg		<MDL	1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg
Endrin Aldehyde							<MDL,E	2	3.94	ug/Kg		<MDL,E	1.7	3.47	ug/Kg		<MDL,E	1.8	3.63	ug/Kg
Gamma-BHC (Lindane)							<MDL	0.98	1.97	ug/Kg		<MDL	0.87	1.74	ug/Kg		<MDL	0.91	1.81	ug/Kg
Gamma-Chlordane							<MDL	0.98	1.97	ug/Kg		<MDL	0.87	1.74	ug/Kg		<MDL	0.91	1.81	ug/Kg
Heptachlor							<MDL	0.98	1.97	ug/Kg		<MDL	0.87	1.74	ug/Kg		<MDL	0.91	1.81	ug/Kg
Heptachlor Epoxide							<MDL	0.98	1.97	ug/Kg		<MDL	0.87	1.74	ug/Kg		<MDL	0.91	1.81	ug/Kg
Methoxychlor							<MDL	9.8	19.7	ug/Kg		<MDL	8.7	17.4	ug/Kg		<MDL	9.1	18.1	ug/Kg
Toxaphene							<MDL	20	39.4	ug/Kg		<MDL	17	34.7	ug/Kg		<MDL	18	36.3	ug/Kg
M=OR EPA 8081A/8082 (7-3-103-000)																				
Aroclor 1016							<MDL,TA	53	106	ug/Kg		<MDL,TA	28	56.9	ug/Kg		<MDL,TA	9.3	18.5	ug/Kg
Aroclor 1221							<MDL,TA	9.4	18.9	ug/Kg		<MDL	3.5	6.94	ug/Kg		<MDL	3.6	7.26	ug/Kg
Aroclor 1232							<MDL,TA	83	165	ug/Kg		<MDL,TA	43	87.2	ug/Kg		<MDL,TA	15	30.3	ug/Kg
Aroclor 1242							<MDL,TA	130	256	ug/Kg		<MDL,TA	63	124	ug/Kg		<MDL,TA	20	40.3	ug/Kg
Aroclor 1248						110		2	3.94	ug/Kg	55.7		1.7	3.47	ug/Kg	18.1		1.8	3.63	ug/Kg
Aroclor 1254						242		2	3.94	ug/Kg	119		1.7	3.47	ug/Kg	52.1		1.8	3.63	ug/Kg
Aroclor 1260						157		2	3.94	ug/Kg	88.9		1.7	3.47	ug/Kg	39		1.8	3.63	ug/Kg
Total Aroclors						510		2	3.94	ug/Kg	264		1.7	3.47	ug/Kg	109		1.8	3.63	ug/Kg
M=OR EPA 8260B (7-3-02-003)																				
1,1,2-Trichloroethylene							<MDL	2	3.94	ug/Kg		<MDL	1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg
Ethylbenzene							<MDL	2	3.94	ug/Kg		<MDL	1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg
Tetrachloroethylene							<MDL	2	3.94	ug/Kg		<MDL	1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg
Total Xylenes							<MDL	2	3.94	ug/Kg		<MDL	1.7	3.47	ug/Kg		<MDL	1.8	3.63	ug/Kg

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator: DWMP-08
Descrip: DENNY WAY MONITORI
Sampled: 03/31/08 12:00:00 AM
Lab ID: L45313-17
Matrix: SALTWTRSED
% Solids: 51.7

Parameters	Value	Qual	MDL	RDL	Units
			- Dry Weight Basis		
COMBINED LABS					
M=CV ASTM D422(318V1)					
Dry Weight Factor	3.58				
Fines *	40.7		0.93	1.85	%
Clay *	13		0.93	1.85	%
Silt *	27.8		0.93	1.85	%
Sand *	51.2		0.19	1.85	%
Gravel *	9.4	E	0.19	1.85	%
p+0.00 *	4.6		0.19	1.85	%
p+1.00 *	8.8		0.19	1.85	%
p+10.0(equal/more than) *	9.3		0.93	1.85	%
p+2.00 *	22.5		0.19	1.85	%
p+3.00 *	10.5		0.19	1.85	%
p+4.00 *	4.7		0.19	1.85	%
p+5.00 *	12		0.93	1.85	%
p+6.00 *	5.6		0.93	1.85	%
p+7.00 *	6.5		0.93	1.85	%
p+8.00 *	3.7		0.93	1.85	%
p+9.00 *	3.7		0.93	1.85	%
p-1.00 *	3.7		0.19	1.85	%
p-2.00 *	0.5	<RDL	0.19	1.85	%
p-2.00(less than) *	5.1		0.19	1.85	%
M=CV EPA 9030B/SM4500-S2-D (330V0)					
Total Sulfide	224	G	25	96.7	mg/Kg
M=CV EPA 9060-PSEP96(337V3)					
Total Organic Carbon	24400		3500	6890	mg/Kg
M=CV SM2540-G (307V2)					
Total Volatile Solids	7.04		0.0097	0.0193	%
M=CV SM2540-G (307V3)					
Total Solids *	51.7		0.005	0.01	%
M=CV SM4500-NH3-G(332V1)KCL					
Ammonia Nitrogen	3.33		0.19	0.371	mg/Kg
M=ES NONE					
Field Personnel	JB,CB,JO,AF				none
Sampcoordx1 *	1263341				ft
Sampcoordx2 *	1263337				ft
Sampcoordx3 *					
Sampcoordy1 *	228909				ft
Sampcoordy2 *	228910				ft
Sampcoordy3 *					
Sample Depth *	25				m

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator: DWMP-08
Descrip: DENNY WAY MONITORI
Sampled: 03/31/08 12:00:00 AM
Lab ID: L45313-17
Matrix: SALTWTRSED
% Solids: 51.7

Parameters	Value	Qual	MDL	RDL	Units
			- Dry Weight Basis		
COMBINED LABS					
Sample Information					
Sampling Method *	20042				none
Sediment Sampling Depth *	15				cm
Sediment Sampling Range *	0-10 cm				cm
Sediment Type	24W30				none
Tidal Condition	S				none
Tide Height *	7.9				ft
M=MT CVAA EPA 7471B (604V4)					
Mercury, Total, CVAA	0.447	E	0.0097	0.0959	mg/Kg
M=MT ICP EPA3050B/6010C MOD(612V3)					
Antimony, Total, ICP		<MDL,G	1.4	7.2	mg/Kg
Arsenic, Total, ICP	9.3	<RDL	2.3	12	mg/Kg
Cadmium, Total, ICP	0.77	<RDL	0.19	0.959	mg/Kg
Chromium, Total, ICP	43.7		0.29	1.44	mg/Kg
Copper, Total, ICP	53.6		0.39	1.92	mg/Kg
Lead, Total, ICP	88.2		1.9	9.59	mg/Kg
Nickel, Total, ICP	42.6		0.48	2.4	mg/Kg
Silver, Total, ICP	2.84		0.39	1.92	mg/Kg
Zinc, Total, ICP	127		0.48	2.4	mg/Kg
M=OR EPA 3550B/8270C (7-3-01-004)					
1,2,4-Trichlorobenzene		<MDL	0.19	0.387	ug/Kg
1,2-Dichlorobenzene	1.09		0.39	0.774	ug/Kg
1,3-Dichlorobenzene		<MDL	0.39	0.774	ug/Kg
1,4-Dichlorobenzene	12.7		0.39	0.774	ug/Kg
2,4-Dimethylphenol		<MDL	1.9	3.87	ug/Kg
2-Methylnaphthalene	18.2		3.9	7.74	ug/Kg
2-Methylphenol		<MDL	3.9	7.74	ug/Kg
4-Methylphenol	48.5		7.7	15.5	ug/Kg
Acenaphthene	15.6		3.9	7.74	ug/Kg
Acenaphthylene	10.7		3.9	7.74	ug/Kg
Anthracene	71.4		3.9	7.74	ug/Kg
Benzo(a)anthracene	180		3.9	7.74	ug/Kg
Benzo(a)pyrene	209		3.9	7.74	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator: DWMP-08
Descrip: DENNY WAY MONITORI
Sampled: 03/31/08 12:00:00 AM
Lab ID: L45313-17
Matrix: SALTWTRSED
% Solids: 51.7

Parameters	Value	Qual	MDL	RDL	Units
			- Dry Weight Basis		
COMBINED LABS					
Benzo(b)fluoranthene	236		3.9	7.74	ug/Kg
Benzo(g,h,i)perylene	98.5		3.9	7.74	ug/Kg
Benzo(k)fluoranthene	188		3.9	7.74	ug/Kg
Benzoic Acid	139		19	38.7	ug/Kg
Benzyl Alcohol		<MDL	3.9	7.74	ug/Kg
Benzyl Butyl Phthalate	48	B	1.9	3.87	ug/Kg
Bis(2-Ethylhexyl)Phthalate	567	B,E	7.7	15.5	ug/Kg
Caffeine		<MDL	7.7	15.5	ug/Kg
Carbazole	19.9		3.9	7.74	ug/Kg
Chrysene	211		3.9	7.74	ug/Kg
Coprostanol		<MDL	77	155	ug/Kg
Dibenzo(a,h)anthracene	39.5		3.9	7.74	ug/Kg
Dibenzofuran	10.7		3.9	7.74	ug/Kg
Diethyl Phthalate		<MDL	7.7	15.5	ug/Kg
Dimethyl Phthalate		<MDL	7.7	15.5	ug/Kg
Di-N-Butyl Phthalate	31.9	B	7.7	15.5	ug/Kg
Di-N-Octyl Phthalate		<MDL	7.7	15.5	ug/Kg
Fluoranthene	311		3.9	7.74	ug/Kg
Fluorene	22.1		3.9	7.74	ug/Kg
Hexachlorobenzene		<MDL	0.19	0.387	ug/Kg
Hexachlorobutadiene		<MDL	0.97	1.93	ug/Kg
Hexachloroethane		<MDL	1.9	3.87	ug/Kg
Indeno(1,2,3-Cd)Pyrene	98.3		3.9	7.74	ug/Kg
Naphthalene	20.7		3.9	7.74	ug/Kg
N-Nitrosodiphenylamine		<MDL	7.7	15.5	ug/Kg
Pentachlorophenol		<MDL	19	38.7	ug/Kg
Phenanthrene	149		3.9	7.74	ug/Kg
Phenol	261		7.7	15.5	ug/Kg
Pyrene	414	E	3.9	7.74	ug/Kg
Total 4-Nonylphenol	422		9.7	19.3	ug/Kg
Total HPAHS	1990	E	3.9	7.74	ug/Kg
Total LPAHs	308		3.9	7.74	ug/Kg
M=OR EPA 8081A/8082 (7-3-03-002)					
4,4'-DDD	12.9		1.9	3.87	ug/Kg
4,4'-DDE		<MDL	1.9	3.87	ug/Kg
4,4'-DDT		<MDL	1.9	3.87	ug/Kg
Aldrin		<MDL	1.9	3.87	ug/Kg
Alpha-BHC		<MDL	0.97	1.93	ug/Kg
Alpha-Chlordane	1.4	<RDL	0.97	1.93	ug/Kg
Beta-BHC		<MDL	0.97	1.93	ug/Kg
Delta-BHC		<MDL	0.97	1.93	ug/Kg
Dieldrin		<MDL	1.9	3.87	ug/Kg
Endosulfan I		<MDL	1.9	3.87	ug/Kg

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Locator: DWMP-08
Descrip: DENNY WAY MONITORI
Sampled: 03/31/08 12:00:00 AM
Lab ID: L45313-17
Matrix: SALTWTRSED
% Solids: 51.7

Parameters	Value	Qual	MDL	RDL	Units
			- Dry Weight Basis		
COMBINED LABS					
Endosulfan II		<MDL	1.9	3.87	ug/Kg
Endosulfan Sulfate		<MDL	1.9	3.87	ug/Kg
Endrin		<MDL	1.9	3.87	ug/Kg
Endrin Aldehyde		<MDL,E	1.9	3.87	ug/Kg
Gamma-BHC (Lindane)		<MDL	0.97	1.93	ug/Kg
Gamma-Chlordane	8.38		0.97	1.93	ug/Kg
Heptachlor		<MDL	0.97	1.93	ug/Kg
Heptachlor Epoxide		<MDL	0.97	1.93	ug/Kg
Methoxychlor		<MDL	9.7	19.3	ug/Kg
Toxaphene		<MDL	19	38.7	ug/Kg
M=OR EPA 8081A/8082 (7-3-103-000)					
Aroclor 1016		<MDL,TA	50	102	ug/Kg
Aroclor 1221		<MDL,TA	10	20.7	ug/Kg
Aroclor 1232		<MDL,TA	99	195	ug/Kg
Aroclor 1242		<MDL,TA	110	219	ug/Kg
Aroclor 1248	115		1.9	3.87	ug/Kg
Aroclor 1254	253		1.9	3.87	ug/Kg
Aroclor 1260	135		1.9	3.87	ug/Kg
Total Aroclors	503		1.9	3.87	ug/Kg
M=OR EPA 8260B (7-3-02-003)					
1,1,2-Trichloroethylene		<MDL,H	1.9	3.87	ug/Kg
Ethylbenzene		<MDL,H	1.9	3.87	ug/Kg
Tetrachloroethylene		<MDL,H	1.9	3.87	ug/Kg
Total Xylenes		<MDL,H	1.9	3.87	ug/Kg

* Not converted to dry weight basis for this parameter

PROJECT: 423368-80

King County Environmental Lab Matrix Report

COMBINED LABS-Solid

Locator	Sample Depth	Lab ID	Ammonia Nitrogen mg/Kg	Total Organic Carbon mg/Kg	Total Solids * %	Total Volatile Solids %	Total Sulfide mg/Kg	Dry Weight Factor	Fines * %	Gravel * %	Sand * %	Silt * %	Clay * %	p+0.00 * %	p+1.00 * %	p+10.0(equal/more than) * %	p+2.00 * %	p+3.00 * %	p+4.00 * %	p+5.00 * %	p+6.00 * %	p+7.00 * %	p+8.00 * %	p+9.00 * %	p-1.00 * %	p-2.00 * %	p-2.00(less than) * %
DWMP-01	8	L45313-1	4.32	33700	48.1	9.77	356	4.03	61.2	4	26.7	45.7	15.6	0.7	0.8	10.7	1.9	7.6	15.8	10.7	17.5	9.7	7.8	4.9	0.8	0.2	2.9
DWMP-02	13	L45313-2	1.49	13900	64.9	3.81	2.9	2.3	24.6	7.5	59.7	16.4	8.2	4.2	8.3	5.2	18.6	15.7	12.9	7.5	2.2	3.7	3	3	3.9	1.5	2.1
DWMP-03	18	L45313-3	2.5	23000	45.6	7.26	86.4	4.67	59.7	3.2	32	44.8	14.9	0.9	2.2	10.7	7.5	9.7	11.7	6.4	19.2	11.7	7.5	4.3	0.7	0.9	1.6
DWMP-04	23	L45313-4	1.57	11600	58.9	4.52	5.21	2.84	46.7	24.1	29.8	30	16.7	3.9	4.8	10	8.3	6.2	6.6	5.8	10.8	7.5	5.8	6.7	5.5	1.5	17.1
DWMP-06	22	L45313-6	2.41	17000	52.3	5.41	88	3.65	30.5	4.7	67.7	18.1	12.4	1.6	10	8.6	36.5	14.3	5.3	6.7	3.8	4.8	2.9	3.8	1.5	0.8	2.4
DWMP-07	29	L45313-7	2.46	14400	50.8	5	11.2	3.84	39.1	4.9	55.3	25.4	13.7	3	4.6	12.7	18.2	17.3	12.2	9.8	3.9	5.9	5.9	1	2.9	0.8	1.3
DWMP-08	25	L45313-8	7.33	33600	44.6	10.2	619	4.96	40.9	11	50.3	27.6	13.3	2.8	5.4	11.1	18.4	13.8	9.8	14.4	4.4	5.5	3.3	2.2	2.3	0.4	8.3
DWMP-09	30	L45313-9	4	31300	34.5	9.91	59.7	8.03	65.1	0.8	29.4	47.1	18	0.7	1.1	13.9	4.1	11.1	12.3	18	9.7	12.5	6.9	4.2	0.8		
DWMP-11	22	L45313-11	3.03	23400	50.5	7.45	14.4	3.8	32.6	3.1	61.7	20.2	12.5	1.3	10	9.6	29.1	13.1	8.2	10.6	2.9	3.8	2.9	2.9	0.9	0.19	2
DWMP-12	29	L45313-12	3.83	35100	31.6	11.4	77.2	9.75	77	1.4	27.7	57	20	0.3	0.7	15.4	4	11.1	11.6	27.7	7.7	13.9	7.7	4.6	0.4		1
DWMP-14	14	L45313-14	2.99	26400	50.8	7.01	6.93	3.54	55.8	3.2	35.4	41.4	14.4	0.3	0.7	10.8	4.3	23.3	6.8	9.9	17.1	8.1	6.3	3.6			3.2
DWMP-15	22	L45313-15	1.56	11500	57.6	4.41	34.9	2.85	48.4	13.4	32.7	30.3	18	3.4	3.7	11.5	7.4	8.7	9.4	6.6	10.7	6.6	6.6	6.6	5.6	1.8	6
DWMP-16	25	L45313-16	1.51	10700	55.1	4.81	12.5	2.9	48	18.5	25.2	26.4	21.6	3.1	3.2	12.8	5.3	10	3.6	4.8	8	4.8	8.8	8.8	4.3	1.3	12.9
DWMP-08	25	L45313-17	3.33	24400	51.7	7.04	224	3.58	40.7	9.4	51.2	27.8	13	4.6	8.8	9.3	22.5	10.5	4.7	12	5.6	6.5	3.7	3.7	3.7	0.5	5.1

PROJECT: 423368-80

King County Environmental Lab Matrix Report

COMBINED LABS-Solid

Locator	Sample Depth	Lab ID	Arsenic, Total, ICP	Cadmium, Total, ICP	Chromium, Total, ICP	Copper, Total, ICP	Lead, Total, ICP	Mercury, Total, CVAA	Nickel, Total, ICP	Silver, Total, ICP	Zinc, Total, ICP	1,2-Dichlorobenzene	1,4-Dichlorobenzene	2-Methylnaphthalene	4,4'-DDD	4-Methylphenol	Acenaphthene	Acenaphthylene	Alpha-Chlordane	Anthracene	Aroclor 1248	Aroclor 1254	Aroclor 1260
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
DWMP-01	8	L45313-1	13.3	1.23	55.1	87.9	148	1.16	46.2	4.93	161	0.56	3.12	32.8		18.4	52	97.5		441	150	308	188
DWMP-02	13	L45313-2	6.3	0.26	35.4	37	60.4	0.2	37.1	1.1	82		1.54	130	3.37	19.9	438	22.2		678	13.2	45.1	41.4
DWMP-03	18	L45313-3	9.6	0.83	49.1	56.8	81.4	0.57	48.5	2.54	113		2.24	38.4			65.1	22.4	1.5	201	107	232	168
DWMP-04	23	L45313-4	8	0.29	54.3	49.1	41.3	0.27	57.4	0.87	96.6			9.98	2.4		10.2	6.89		41.9	12.3	41.6	41.9
DWMP-06	22	L45313-6	6.7	0.31	29.1	31.7	28.9	0.184	28.3	0.54	77.1		6.52	11			9.39	9.62		49.3	13.6	34.6	31.4
DWMP-07	29	L45313-7	8.5	0.37	33.3	40.4	45.3	0.512	30.5	0.96	75.4		3.13	13.2	3.7		16.7	16.7		80.5	18.7	61.8	57.1
DWMP-08	25	L45313-8	7.8	0.83	43.7	63.7	69.1	0.46	37.4	2.2	132		20.9	17.1	11.1	136	21	17.8		106	59.4	146	111
DWMP-09	30	L45313-9	11	0.75	50.4	62	80.6	1.25	49.6	2.4	113		3.68	19.4	8	13	27.4	20.4		125	57.7	139	108
DWMP-11	22	L45313-11	7.3	0.5	32.5	42.2	52.7	0.354	25.7	1.5	87.1		8.69	11	7.56		15.9	12.1		72.1	41.6	95.4	69.7
DWMP-12	29	L45313-12	11	1	49.7	62.7	62.7	0.399	47.8	1.9	131		5.13	18	5.4		18.2	20.9		91.8	50	118	115
DWMP-14	14	L45313-14	8.9	0.85	48.6	70.1	102	0.52	42.7	3.82	118		4.67	20.3		10	25.6	23.4	1.8	126	110	242	157
DWMP-15	22	L45313-15	9	0.896	54.5	51.9	55.9	0.354	56.8	1.71	137		1.89	10.1	6.13		10.7	9.48		50.3	55.7	119	88.9
DWMP-16	25	L45313-16	10	0.34	70.6	53.7	29.8	0.167	77.9	0.85	117		1.46	9.33			8.35	7.3		46.3	18.1	52.1	39
DWMP-08	25	L45313-17	9.3	0.77	43.7	53.6	88.2	0.447	42.6	2.84	127	1.09	12.7	18.2	12.9	48.5	15.6	10.7	1.4	71.4	115	253	135

PROJECT: 423368-80

King County Environmental Lab Matrix Report

COMBINED LABS-Solid

Locator	Sample Depth	Lab ID	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl Butyl Phthalate	Bis(2-Ethylhexyl)Phthalate	Carbazole	Chrysene	Di-N-Butyl Phthalate	Dibenzo(a,h)anthracene	Dibenzofuran	Dimethyl Phthalate	Fluoranthene	Fluorene	Gamma-Chlordane	Hexachlorobenzene	Indeno(1,2,3-Cd)Pyrene	N-Nitrosodiphenylamine	Naphthalene	Phenanthrene
			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
DWMP-01	8	L45313-1	933	1670	1830	786	1720	181	118	1340	145	1500	44.1	393	29.5	18.2	1200	83.8		2.56	915		41	649
DWMP-02	13	L45313-2	886	737	700	398	493	138	43.6	302	214	901	46.1	111	98.8		2110	339			362	28.7	96.9	2710
DWMP-03	18	L45313-3	300	351	333	191	342	192	44.3	656	52.4	390	26.3	77.2	20.2		575	74.8	2		184		41.9	535
DWMP-04	23	L45313-4	114	139	141	66.9	133	117	18.3	121	14.2	155	14	25	5.3		187	13.8			73.7		5.8	120
DWMP-06	22	L45313-6	128	162	182	65	169	166	35.4	359	15.4	191	16.6	29.6	7.1		210	11.4			74.8		7.6	121
DWMP-07	29	L45313-7	192	226	260	78.7	213	139	20.9	236	26.2	256	27	33.9	9.65		276	21.3			87.4		12.1	165
DWMP-08	25	L45313-8	260	309	383	154	289	190	58.5	673	41.5	339	33.2	62.6	13.6		471	27.8	7.47		155		18	271
DWMP-09	30	L45313-9	260	316	359	151	322	241	55.1	933	37.7	339	34.5	58.3	13.5		429	36.5	2.93		160		15.7	276
DWMP-11	22	L45313-11	184	206	242	77	197	130	28.5	289	28.1	238	17.4	34.9	8.28		343	20.8	4.16		84.6		9.9	176
DWMP-12	29	L45313-12	235	294	339	119	303	270	54.1	734	29.6	335	35.4	50.6	11		389	26.1			125		15.5	215
DWMP-14	14	L45313-14	317	350	429	189	339	134	154	728	45.9	409	35.2	78.3	14.4		533	34.4			201		23.6	291
DWMP-15	22	L45313-15	125	156	177	60.1	166	110	37.5	417	16.3	174	15.4	26	6.1		203	16.1		1.46	65.3		7.62	115
DWMP-16	25	L45313-16	96.2	114	129	46.3	118	118	23.4	122	15.1	128	14	20.1	4.9		149	13.6			49.4		6.2	94.4
DWMP-08	25	L45313-17	180	209	236	98.5	188	139	48	567	19.9	211	31.9	39.5	10.7		311	22.1	8.38		98.3		20.7	149

PROJECT: 423368-80

King County Environmental Lab Matrix Report

COMBINED LABS-Solid

Locator	Sample Depth	Lab ID	Phenol	Pyrene	Total 4-Nonylphenol	Total Aroclors	Total HPAHS	Total LPAHs	Sampcoordx1 *	Sampcoordx2 *	Sampcoordx3 *	Sampcoordy1 *	Sampcoordy2 *	Sampcoordy3 *	Sample Depth *	Sampling Method *	Sediment Sampling Depth *	Tide Height *
			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ft	ft	ft	ft	ft	ft	m	none	cm	ft
DWMP-01	8	L45313-1	43.9	2540	351	647	13500	1400	1264041	1264051	1264046	228813	228810	228811	8	20042	14	6.8
DWMP-02	13	L45313-2	435	2200	81.2	99.7	8120	3570	1263920	1263922		228767	228768		13	20042	10	8.1
DWMP-03	18	L45313-3	200	708		507	3440	978	1263844	1263842	1263848	228637	228634	228638	18	20042	16	7.8
DWMP-04	23	L45313-4		205	58.6	95.9	1240	209	1263631	1263629		228547	228549		23	20042	11	5.2
DWMP-06	22	L45313-6	20.7	203	161	79.5	1410	220	1263543	1263545		228836	228836		22	20042	17	7.2
DWMP-07	29	L45313-7		252	119	138	1870	325	1263350	1263349		228661	228666		29	20042	13	5.3
DWMP-08	25	L45313-8	217	451	504	316	2870	478	1263338	1263339	1263342	228908	228908	228912	25	20042	17	8
DWMP-09	30	L45313-9	251	409	215	304	2810	522	1263215	1263214	1263212	228804	228804	228808	30	20042	17	6.2
DWMP-11	22	L45313-11		297	122	206	1900	319	1263269	1263269		229157	229154		22	20042	15	5.8
DWMP-12	29	L45313-12	39.9	332	211	283	2530	405	1263054	1263058		228967	228961		29	20042	17	6
DWMP-14	14	L45313-14	38.6	583		510	3430	543	1263228	1263225	1263228	229554	229557	229553	14	20042	15	6.6
DWMP-15	22	L45313-15	8.2	205		264	1360	219	1263054	1263049	1263055	229441	229448	229445	22	20042	13	6.6
DWMP-16	25	L45313-16		138	69.7	109	987	185	1262967	1262964		229355	229351		25	20042	11	6.4
DWMP-08	25	L45313-17	261	414	422	503	1990	308	1263341	1263337		228909	228910		25	20042	15	7.9

SAP & SMS OC and Dry Weight Normalization MDL Check Tables

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.01	2.3	2.3
1,4-Dichlorobenzene	0.2	0.01	3.1	3.1
2-Methylnaphthalene	2	0.12	38	38
2,4-Dimethylphenol	1	2.08	29	27
2-Methylphenol	2	4.16	63	59
4-Methylphenol	4	8.32	670	662
Acenaphthene	2	0.12	16	16
Acenaphthylene	2	0.12	66	66
Anthracene	2	0.12	220	220
Benzo(a)anthracene	2	0.12	110	110
Benzo(a)pyrene	2	0.12	99	99
Benzo(b)fluoranthene	2	0.12	115	115
Benzo(g,h,i)perylene	2	0.12	31	31
Benzo(k)fluoranthene	2	0.12	115	115
Benzoic Acid	10	20.79	650	629
Benzyl Alcohol	2	4.16	57	53
Benzyl Butyl Phthalate	1	0.06	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.25	47	47
Chrysene	2	0.12	110	110
Dibenzo(a,h)anthracene	2	0.12	12	12
Dibenzofuran	2	0.12	15	15
Diethyl Phthalate	4	0.25	61	61
Dimethyl Phthalate	4	0.25	53	53
Di-N-Butyl Phthalate	4	0.25	220	220
Di-N-Octyl Phthalate	4	0.25	58	58
Fluorene	2	0.12	23	23
Fluoranthene	2	0.12	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.03	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.12	34	34
N-Nitrosodiphenylamine	4	0.25	11	11
Naphthalene	2	0.12	99	99
Pentachlorophenol	10	20.79	360	339
Phenanthrene	2	0.12	100	100
Phenol	4	8.32	420	412
Pyrene	2	0.12	1000	1000
Aroclor 1016	33	2.04		
Aroclor 1221	2	0.12		
Aroclor 1232	54	3.33		
Aroclor 1242	77	4.75		
Aroclor 1248	1	0.06		
Aroclor 1254	1	0.06		
Aroclor 1260	1	0.06		
Total Organic Carbon (dry)	33679.83368			
Total Solids	48.1			
HPAH	20	1.23	960	959
LPAH	14	0.86	370	369
Total PCB	77	4.75	12	7.2

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.22	38	38
2,4-Dimethylphenol	1	1.54	29	27
2-Methylphenol	2	3.08	63	60
4-Methylphenol	4	6.16	670	664
Acenaphthene	2	0.22	16	16
Acenaphthylene	2	0.22	66	66
Anthracene	2	0.22	220	220
Benzo(a)anthracene	2	0.22	110	110
Benzo(a)pyrene	2	0.22	99	99
Benzo(b)fluoranthene	2	0.22	115	115
Benzo(g,h,i)perylene	2	0.22	31	31
Benzo(k)fluoranthene	2	0.22	115	115
Benzoic Acid	10	15.41	650	635
Benzyl Alcohol	2	3.08	57	54
Benzyl Butyl Phthalate	1	0.11	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.44	47	47
Chrysene	2	0.22	110	110
Dibenzo(a,h)anthracene	2	0.22	12	12
Dibenzofuran	2	0.22	15	15
Diethyl Phthalate	4	0.44	61	61
Dimethyl Phthalate	4	0.44	53	53
Di-N-Butyl Phthalate	4	0.44	220	220
Di-N-Octyl Phthalate	4	0.44	58	58
Fluorene	2	0.22	23	23
Fluoranthene	2	0.22	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.06	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.22	34	34
N-Nitrosodiphenylamine	4	0.44	11	11
Naphthalene	2	0.22	99	99
Pentachlorophenol	10	15.41	360	345
Phenanthrene	2	0.22	100	100
Phenol	4	6.16	420	414
Pyrene	2	0.22	1000	1000
Aroclor 1016	4.6	0.51		
Aroclor 1221	2	0.22		
Aroclor 1232	2	0.22		
Aroclor 1242	7.6	0.84		
Aroclor 1248	1	0.11		
Aroclor 1254	1	0.11		
Aroclor 1260	1	0.11		
Total Organic Carbon (dry)	13929.12173			
Total Solids	64.9			
HPAH	20	2.21	960	958
LPAH	14	1.55	370	368
Total PCB	7.6	0.84	12	11.2

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.19	38	38
2,4-Dimethylphenol	1	2.19	29	27
2-Methylphenol	2	4.39	63	59
4-Methylphenol	4	8.77	670	661
Acenaphthene	2	0.19	16	16
Acenaphthylene	2	0.19	66	66
Anthracene	2	0.19	220	220
Benzo(a)anthracene	2	0.19	110	110
Benzo(a)pyrene	2	0.19	99	99
Benzo(b)fluoranthene	2	0.19	115	115
Benzo(g,h,i)perylene	2	0.19	31	31
Benzo(k)fluoranthene	2	0.19	115	115
Benzoic Acid	10	21.93	650	628
Benzyl Alcohol	2	4.39	57	53
Benzyl Butyl Phthalate	1	0.10	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.38	47	47
Chrysene	2	0.19	110	110
Dibenzo(a,h)anthracene	2	0.19	12	12
Dibenzofuran	2	0.19	15	15
Diethyl Phthalate	4	0.38	61	61
Dimethyl Phthalate	4	0.38	53	53
Di-N-Butyl Phthalate	4	0.38	220	220
Di-N-Octyl Phthalate	4	0.38	58	58
Fluorene	2	0.19	23	23
Fluoranthene	2	0.19	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.05	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.19	34	34
N-Nitrosodiphenylamine	4	0.38	11	11
Naphthalene	2	0.19	99	99
Pentachlorophenol	10	21.93	360	338
Phenanthrene	2	0.19	100	100
Phenol	4	8.77	420	411
Pyrene	2	0.19	1000	1000
Aroclor 1016	21	2.00		
Aroclor 1221	4.4	0.42		
Aroclor 1232	39	3.71		
Aroclor 1242	46	4.38		
Aroclor 1248	1	0.10		
Aroclor 1254	1	0.10		
Aroclor 1260	1	0.10		
Total Organic Carbon (dry)	23026.31579			
Total Solids	45.6			
HPAH	20	1.90	960	958
LPAH	14	1.33	370	369
Total PCB	46	4.38	12	7.6

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.03	2.3	2.3
1,4-Dichlorobenzene	0.2	0.03	3.1	3.1
2-Methylnaphthalene	2	0.29	38	38
2,4-Dimethylphenol	1	1.70	29	27
2-Methylphenol	2	3.40	63	60
4-Methylphenol	4	6.79	670	663
Acenaphthene	2	0.29	16	16
Acenaphthylene	2	0.29	66	66
Anthracene	2	0.29	220	220
Benzo(a)anthracene	2	0.29	110	110
Benzo(a)pyrene	2	0.29	99	99
Benzo(b)fluoranthene	2	0.29	115	115
Benzo(g,h,i)perylene	2	0.29	31	31
Benzo(k)fluoranthene	2	0.29	115	115
Benzoic Acid	10	16.98	650	633
Benzyl Alcohol	2	3.40	57	54
Benzyl Butyl Phthalate	1	0.15	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.58	47	46
Chrysene	2	0.29	110	110
Dibenzo(a,h)anthracene	2	0.29	12	12
Dibenzofuran	2	0.29	15	15
Diethyl Phthalate	4	0.58	61	60
Dimethyl Phthalate	4	0.58	53	52
Di-N-Butyl Phthalate	4	0.58	220	219
Di-N-Octyl Phthalate	4	0.58	58	57
Fluorene	2	0.29	23	23
Fluoranthene	2	0.29	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.07	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.29	34	34
N-Nitrosodiphenylamine	4	0.58	11	10
Naphthalene	2	0.29	99	99
Pentachlorophenol	10	16.98	360	343
Phenanthrene	2	0.29	100	100
Phenol	4	6.79	420	413
Pyrene	2	0.29	1000	1000
Aroclor 1016	3.6	0.52		
Aroclor 1221	2	0.29		
Aroclor 1232	8.1	1.18		
Aroclor 1242	9.5	1.38		
Aroclor 1248	1	0.15		
Aroclor 1254	1	0.15		
Aroclor 1260	1	0.15		
Total Organic Carbon (dry)	11646.85908			
Total Solids	58.9			
HPAH	20	2.92	960	957
LPAH	14	2.04	370	368
Total PCB	9.5	1.38	12	10.6

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.23	38	38
2,4-Dimethylphenol	1	1.91	29	27
2-Methylphenol	2	3.82	63	59
4-Methylphenol	4	7.65	670	662
Acenaphthene	2	0.23	16	16
Acenaphthylene	2	0.23	66	66
Anthracene	2	0.23	220	220
Benzo(a)anthracene	2	0.23	110	110
Benzo(a)pyrene	2	0.23	99	99
Benzo(b)fluoranthene	2	0.23	115	115
Benzo(g,h,i)perylene	2	0.23	31	31
Benzo(k)fluoranthene	2	0.23	115	115
Benzoic Acid	10	19.12	650	631
Benzyl Alcohol	2	3.82	57	53
Benzyl Butyl Phthalate	1	0.11	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.45	47	47
Chrysene	2	0.23	110	110
Dibenzo(a,h)anthracene	2	0.23	12	12
Dibenzofuran	2	0.23	15	15
Diethyl Phthalate	4	0.45	61	61
Dimethyl Phthalate	4	0.45	53	53
Di-N-Butyl Phthalate	4	0.45	220	220
Di-N-Octyl Phthalate	4	0.45	58	58
Fluorene	2	0.23	23	23
Fluoranthene	2	0.23	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.06	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.23	34	34
N-Nitrosodiphenylamine	4	0.45	11	11
Naphthalene	2	0.23	99	99
Pentachlorophenol	10	19.12	360	341
Phenanthrene	2	0.23	100	100
Phenol	4	7.65	420	412
Pyrene	2	0.23	1000	1000
Aroclor 1016	4.2	0.47		
Aroclor 1221	2	0.23		
Aroclor 1232	8.2	0.92		
Aroclor 1242	1	0.11		
Aroclor 1248	1	0.11		
Aroclor 1254	1	0.11		
Aroclor 1260	1	0.11		
Total Organic Carbon (dry)	16978.9675			
Total Solids	52.3			
HPAH	20	2.25	960	958
LPAH	14	1.58	370	368
Total PCB	8.2	0.92	12	11.1

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.03	2.3	2.3
1,4-Dichlorobenzene	0.2	0.03	3.1	3.1
2-Methylnaphthalene	2	0.27	38	38
2,4-Dimethylphenol	1	1.97	29	27
2-Methylphenol	2	3.94	63	59
4-Methylphenol	4	7.87	670	662
Acenaphthene	2	0.27	16	16
Acenaphthylene	2	0.27	66	66
Anthracene	2	0.27	220	220
Benzo(a)anthracene	2	0.27	110	110
Benzo(a)pyrene	2	0.27	99	99
Benzo(b)fluoranthene	2	0.27	115	115
Benzo(g,h,i)perylene	2	0.27	31	31
Benzo(k)fluoranthene	2	0.27	115	115
Benzoic Acid	10	19.69	650	630
Benzyl Alcohol	2	3.94	57	53
Benzyl Butyl Phthalate	1	0.14	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.55	47	46
Chrysene	2	0.27	110	110
Dibenzo(a,h)anthracene	2	0.27	12	12
Dibenzofuran	2	0.27	15	15
Diethyl Phthalate	4	0.55	61	60
Dimethyl Phthalate	4	0.55	53	52
Di-N-Butyl Phthalate	4	0.55	220	219
Di-N-Octyl Phthalate	4	0.55	58	57
Fluorene	2	0.27	23	23
Fluoranthene	2	0.27	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.07	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.27	34	34
N-Nitrosodiphenylamine	4	0.55	11	10
Naphthalene	2	0.27	99	99
Pentachlorophenol	10	19.69	360	340
Phenanthrene	2	0.27	100	100
Phenol	4	7.87	420	412
Pyrene	2	0.27	1000	1000
Aroclor 1016	4.2	0.58		
Aroclor 1221	2	0.27		
Aroclor 1232	2	0.27		
Aroclor 1242	8.6	1.18		
Aroclor 1248	1	0.14		
Aroclor 1254	1	0.14		
Aroclor 1260	1	0.14		
Total Organic Carbon (dry)	14370.07874			
Total Solids	50.8			
HPAH	20	2.74	960	957
LPAH	14	1.92	370	368
Total PCB	8.6	1.18	12	10.8

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.01	2.3	2.3
1,4-Dichlorobenzene	0.2	0.01	3.1	3.1
2-Methylnaphthalene	2	0.13	38	38
2,4-Dimethylphenol	1	2.24	29	27
2-Methylphenol	2	4.48	63	59
4-Methylphenol	4	8.97	670	661
Acenaphthene	2	0.13	16	16
Acenaphthylene	2	0.13	66	66
Anthracene	2	0.13	220	220
Benzo(a)anthracene	2	0.13	110	110
Benzo(a)pyrene	2	0.13	99	99
Benzo(b)fluoranthene	2	0.13	115	115
Benzo(g,h,i)perylene	2	0.13	31	31
Benzo(k)fluoranthene	2	0.13	115	115
Benzoic Acid	10	22.42	650	628
Benzyl Alcohol	2	4.48	57	53
Benzyl Butyl Phthalate	1	0.07	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.27	47	47
Chrysene	2	0.13	110	110
Dibenzo(a,h)anthracene	2	0.13	12	12
Dibenzofuran	2	0.13	15	15
Diethyl Phthalate	4	0.27	61	61
Dimethyl Phthalate	4	0.27	53	53
Di-N-Butyl Phthalate	4	0.27	220	220
Di-N-Octyl Phthalate	4	0.27	58	58
Fluorene	2	0.13	23	23
Fluoranthene	2	0.13	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.03	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.13	34	34
N-Nitrosodiphenylamine	4	0.27	11	11
Naphthalene	2	0.13	99	99
Pentachlorophenol	10	22.42	360	338
Phenanthrene	2	0.13	100	100
Phenol	4	8.97	420	411
Pyrene	2	0.13	1000	1000
Aroclor 1016	13	0.87		
Aroclor 1221	2	0.13		
Aroclor 1232	2	0.13		
Aroclor 1242	24	1.60		
Aroclor 1248	1	0.07		
Aroclor 1254	1	0.07		
Aroclor 1260	1	0.07		
Total Organic Carbon (dry)	33632.287			
Total Solids	44.6			
HPAH	20	1.33	960	959
LPAH	14	0.93	370	369
Total PCB	24	1.60	12	10.4

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.19	38	38
2,4-Dimethylphenol	1	2.90	29	26
2-Methylphenol	2	5.80	63	57
4-Methylphenol	4	11.59	670	658
Acenaphthene	2	0.19	16	16
Acenaphthylene	2	0.19	66	66
Anthracene	2	0.19	220	220
Benzo(a)anthracene	2	0.19	110	110
Benzo(a)pyrene	2	0.19	99	99
Benzo(b)fluoranthene	2	0.19	115	115
Benzo(g,h,i)perylene	2	0.19	31	31
Benzo(k)fluoranthene	2	0.19	115	115
Benzoic Acid	10	28.99	650	621
Benzyl Alcohol	2	5.80	57	51
Benzyl Butyl Phthalate	1	0.09	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.37	47	47
Chrysene	2	0.19	110	110
Dibenzo(a,h)anthracene	2	0.19	12	12
Dibenzofuran	2	0.19	15	15
Diethyl Phthalate	4	0.37	61	61
Dimethyl Phthalate	4	0.37	53	53
Di-N-Butyl Phthalate	4	0.37	220	220
Di-N-Octyl Phthalate	4	0.37	58	58
Fluorene	2	0.19	23	23
Fluoranthene	2	0.19	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.05	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.19	34	34
N-Nitrosodiphenylamine	4	0.37	11	11
Naphthalene	2	0.19	99	99
Pentachlorophenol	10	28.99	360	331
Phenanthrene	2	0.19	100	100
Phenol	4	11.59	420	408
Pyrene	2	0.19	1000	1000
Aroclor 1016	9.3	0.86		
Aroclor 1221	2	0.19		
Aroclor 1232	2	0.19		
Aroclor 1242	18	1.67		
Aroclor 1248	1	0.09		
Aroclor 1254	1	0.09		
Aroclor 1260	1	0.09		
Total Organic Carbon (dry)	31304.34783			
Total Solids	34.5			
HPAH	20	1.85	960	958
LPAH	14	1.30	370	369
Total PCB	18	1.67	12	10.3

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.17	38	38
2,4-Dimethylphenol	1	1.98	29	27
2-Methylphenol	2	3.96	63	59
4-Methylphenol	4	7.92	670	662
Acenaphthene	2	0.17	16	16
Acenaphthylene	2	0.17	66	66
Anthracene	2	0.17	220	220
Benzo(a)anthracene	2	0.17	110	110
Benzo(a)pyrene	2	0.17	99	99
Benzo(b)fluoranthene	2	0.17	115	115
Benzo(g,h,i)perylene	2	0.17	31	31
Benzo(k)fluoranthene	2	0.17	115	115
Benzoic Acid	10	19.80	650	630
Benzyl Alcohol	2	3.96	57	53
Benzyl Butyl Phthalate	1	0.08	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.34	47	47
Chrysene	2	0.17	110	110
Dibenzo(a,h)anthracene	2	0.17	12	12
Dibenzofuran	2	0.17	15	15
Diethyl Phthalate	4	0.34	61	61
Dimethyl Phthalate	4	0.34	53	53
Di-N-Butyl Phthalate	4	0.34	220	220
Di-N-Octyl Phthalate	4	0.34	58	58
Fluorene	2	0.17	23	23
Fluoranthene	2	0.17	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.04	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.17	34	34
N-Nitrosodiphenylamine	4	0.34	11	11
Naphthalene	2	0.17	99	99
Pentachlorophenol	10	19.80	360	340
Phenanthrene	2	0.17	100	100
Phenol	4	7.92	420	412
Pyrene	2	0.17	1000	1000
Aroclor 1016	11	0.93		
Aroclor 1221	2	0.17		
Aroclor 1232	19	1.61		
Aroclor 1242	26	2.20		
Aroclor 1248	1	0.08		
Aroclor 1254	1	0.08		
Aroclor 1260	1	0.08		
Total Organic Carbon (dry)	23366.33663			
Total Solids	50.5			
HPAH	20	1.69	960	958
LPAH	14	1.19	370	369
Total PCB	26	2.20	12	9.8

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.18	38	38
2,4-Dimethylphenol	1	3.16	29	26
2-Methylphenol	2	6.33	63	57
4-Methylphenol	4	12.66	670	657
Acenaphthene	2	0.18	16	16
Acenaphthylene	2	0.18	66	66
Anthracene	2	0.18	220	220
Benzo(a)anthracene	2	0.18	110	110
Benzo(a)pyrene	2	0.18	99	99
Benzo(b)fluoranthene	2	0.18	115	115
Benzo(g,h,i)perylene	2	0.18	31	31
Benzo(k)fluoranthene	2	0.18	115	115
Benzoic Acid	10	31.65	650	618
Benzyl Alcohol	2	6.33	57	51
Benzyl Butyl Phthalate	1	0.09	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.36	47	47
Chrysene	2	0.18	110	110
Dibenzo(a,h)anthracene	2	0.18	12	12
Dibenzofuran	2	0.18	15	15
Diethyl Phthalate	4	0.36	61	61
Dimethyl Phthalate	4	0.36	53	53
Di-N-Butyl Phthalate	4	0.36	220	220
Di-N-Octyl Phthalate	4	0.36	58	58
Fluorene	2	0.18	23	23
Fluoranthene	2	0.18	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.05	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.18	34	34
N-Nitrosodiphenylamine	4	0.36	11	11
Naphthalene	2	0.18	99	99
Pentachlorophenol	10	31.65	360	328
Phenanthrene	2	0.18	100	100
Phenol	4	12.66	420	407
Pyrene	2	0.18	1000	1000
Aroclor 1016	7.2	0.65		
Aroclor 1221	2	0.18		
Aroclor 1232	2	0.18		
Aroclor 1242	14	1.26		
Aroclor 1248	1	0.09		
Aroclor 1254	1	0.09		
Aroclor 1260	1	0.09		
Total Organic Carbon (dry)	35126.58228			
Total Solids	31.6			
HPAH	20	1.80	960	958
LPAH	14	1.26	370	369
Total PCB	14	1.26	12	10.7

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.01	2.3	2.3
1,4-Dichlorobenzene	0.2	0.01	3.1	3.1
2-Methylnaphthalene	2	0.15	38	38
2,4-Dimethylphenol	1	1.97	29	27
2-Methylphenol	2	3.94	63	59
4-Methylphenol	4	7.87	670	662
Acenaphthene	2	0.15	16	16
Acenaphthylene	2	0.15	66	66
Anthracene	2	0.15	220	220
Benzo(a)anthracene	2	0.15	110	110
Benzo(a)pyrene	2	0.15	99	99
Benzo(b)fluoranthene	2	0.15	115	115
Benzo(g,h,i)perylene	2	0.15	31	31
Benzo(k)fluoranthene	2	0.15	115	115
Benzoic Acid	10	19.69	650	630
Benzyl Alcohol	2	3.94	57	53
Benzyl Butyl Phthalate	1	0.07	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.30	47	47
Chrysene	2	0.15	110	110
Dibenzo(a,h)anthracene	2	0.15	12	12
Dibenzofuran	2	0.15	15	15
Diethyl Phthalate	4	0.30	61	61
Dimethyl Phthalate	4	0.30	53	53
Di-N-Butyl Phthalate	4	0.30	220	220
Di-N-Octyl Phthalate	4	0.30	58	58
Fluorene	2	0.15	23	23
Fluoranthene	2	0.15	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.04	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.15	34	34
N-Nitrosodiphenylamine	4	0.30	11	11
Naphthalene	2	0.15	99	99
Pentachlorophenol	10	19.69	360	340
Phenanthrene	2	0.15	100	100
Phenol	4	7.87	420	412
Pyrene	2	0.15	1000	1000
Aroclor 1016	27	2.01		
Aroclor 1221	4.8	0.36		
Aroclor 1232	42	3.13		
Aroclor 1242	65	4.85		
Aroclor 1248	1	0.07		
Aroclor 1254	1	0.07		
Aroclor 1260	1	0.07		
Total Organic Carbon (dry)	26377.95276			
Total Solids	50.8			
HPAH	20	1.49	960	959
LPAH	14	1.04	370	369
Total PCB	65	4.85	12	7.1

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.02	0.81	0.79
1,2-Dichlorobenzene	0.2	0.03	2.3	2.3
1,4-Dichlorobenzene	0.2	0.03	3.1	3.1
2-Methylnaphthalene	2	0.30	38	38
2,4-Dimethylphenol	1	1.74	29	27
2-Methylphenol	2	3.47	63	60
4-Methylphenol	4	6.94	670	663
Acenaphthene	2	0.30	16	16
Acenaphthylene	2	0.30	66	66
Anthracene	2	0.30	220	220
Benzo(a)anthracene	2	0.30	110	110
Benzo(a)pyrene	2	0.30	99	99
Benzo(b)fluoranthene	2	0.30	115	115
Benzo(g,h,i)perylene	2	0.30	31	31
Benzo(k)fluoranthene	2	0.30	115	115
Benzoic Acid	10	17.36	650	633
Benzyl Alcohol	2	3.47	57	54
Benzyl Butyl Phthalate	1	0.15	4.9	4.7
Bis(2-Ethylhexyl)Phthalate	4	0.61	47	46
Chrysene	2	0.30	110	110
Dibenzo(a,h)anthracene	2	0.30	12	12
Dibenzofuran	2	0.30	15	15
Diethyl Phthalate	4	0.61	61	60
Dimethyl Phthalate	4	0.61	53	52
Di-N-Butyl Phthalate	4	0.61	220	219
Di-N-Octyl Phthalate	4	0.61	58	57
Fluorene	2	0.30	23	23
Fluoranthene	2	0.30	160	160
Hexachlorobenzene	0.1	0.02	0.38	0.36
Hexachlorobutadiene	0.5	0.08	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.30	34	34
N-Nitrosodiphenylamine	4	0.61	11	10
Naphthalene	2	0.30	99	99
Pentachlorophenol	10	17.36	360	343
Phenanthrene	2	0.30	100	100
Phenol	4	6.94	420	413
Pyrene	2	0.30	1000	1000
Aroclor 1016	16	2.42		
Aroclor 1221	2	0.30		
Aroclor 1232	25	3.79		
Aroclor 1242	36	5.45		
Aroclor 1248	1	0.15		
Aroclor 1254	1	0.15		
Aroclor 1260	1	0.15		
Total Organic Carbon (dry)	11458.33333			
Total Solids	57.6			
HPAH	20	3.03	960	957
LPAH	14	2.12	370	368
Total PCB	36	5.45	12	6.5

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.02	0.81	0.79
1,2-Dichlorobenzene	0.2	0.03	2.3	2.3
1,4-Dichlorobenzene	0.2	0.03	3.1	3.1
2-Methylnaphthalene	2	0.34	38	38
2,4-Dimethylphenol	1	1.81	29	27
2-Methylphenol	2	3.63	63	59
4-Methylphenol	4	7.26	670	663
Acenaphthene	2	0.34	16	16
Acenaphthylene	2	0.34	66	66
Anthracene	2	0.34	220	220
Benzo(a)anthracene	2	0.34	110	110
Benzo(a)pyrene	2	0.34	99	99
Benzo(b)fluoranthene	2	0.34	115	115
Benzo(g,h,i)perylene	2	0.34	31	31
Benzo(k)fluoranthene	2	0.34	115	115
Benzoic Acid	10	18.15	650	632
Benzyl Alcohol	2	3.63	57	53
Benzyl Butyl Phthalate	1	0.17	4.9	4.7
Bis(2-Ethylhexyl)Phthalate	4	0.68	47	46
Chrysene	2	0.34	110	110
Dibenzo(a,h)anthracene	2	0.34	12	12
Dibenzofuran	2	0.34	15	15
Diethyl Phthalate	4	0.68	61	60
Dimethyl Phthalate	4	0.68	53	52
Di-N-Butyl Phthalate	4	0.68	220	219
Di-N-Octyl Phthalate	4	0.68	58	57
Fluorene	2	0.34	23	23
Fluoranthene	2	0.34	160	160
Hexachlorobenzene	0.1	0.02	0.38	0.36
Hexachlorobutadiene	0.5	0.08	3.9	3.8
Indeno(1,2,3-Cd)Pyrene	2	0.34	34	34
N-Nitrosodiphenylamine	4	0.68	11	10
Naphthalene	2	0.34	99	99
Pentachlorophenol	10	18.15	360	342
Phenanthrene	2	0.34	100	100
Phenol	4	7.26	420	413
Pyrene	2	0.34	1000	1000
Aroclor 1016	5.1	0.87		
Aroclor 1221	2	0.34		
Aroclor 1232	8.4	1.43		
Aroclor 1242	11	1.87		
Aroclor 1248	1	0.17		
Aroclor 1254	1	0.17		
Aroclor 1260	1	0.17		
Total Organic Carbon (dry)	10689.65517			
Total Solids	55.1			
HPAH	20	3.40	960	957
LPAH	14	2.38	370	368
Total PCB	11	1.87	12	10.1

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS (mg/Kg, dw,oc)	Delta (SMS-MDL)
1,2,4-Trichlorobenzene	0.1	0.01	0.81	0.80
1,2-Dichlorobenzene	0.2	0.02	2.3	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1	3.1
2-Methylnaphthalene	2	0.16	38	38
2,4-Dimethylphenol	1	1.93	29	27
2-Methylphenol	2	3.87	63	59
4-Methylphenol	4	7.74	670	662
Acenaphthene	2	0.16	16	16
Acenaphthylene	2	0.16	66	66
Anthracene	2	0.16	220	220
Benzo(a)anthracene	2	0.16	110	110
Benzo(a)pyrene	2	0.16	99	99
Benzo(b)fluoranthene	2	0.16	115	115
Benzo(g,h,i)perylene	2	0.16	31	31
Benzo(k)fluoranthene	2	0.16	115	115
Benzoic Acid	10	19.34	650	631
Benzyl Alcohol	2	3.87	57	53
Benzyl Butyl Phthalate	1	0.08	4.9	4.8
Bis(2-Ethylhexyl)Phthalate	4	0.32	47	47
Chrysene	2	0.16	110	110
Dibenzo(a,h)anthracene	2	0.16	12	12
Dibenzofuran	2	0.16	15	15
Diethyl Phthalate	4	0.32	61	61
Dimethyl Phthalate	4	0.32	53	53
Di-N-Butyl Phthalate	4	0.32	220	220
Di-N-Octyl Phthalate	4	0.32	58	58
Fluorene	2	0.16	23	23
Fluoranthene	2	0.16	160	160
Hexachlorobenzene	0.1	0.01	0.38	0.37
Hexachlorobutadiene	0.5	0.04	3.9	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.16	34	34
N-Nitrosodiphenylamine	4	0.32	11	11
Naphthalene	2	0.16	99	99
Pentachlorophenol	10	19.34	360	341
Phenanthrene	2	0.16	100	100
Phenol	4	7.74	420	412
Pyrene	2	0.16	1000	1000
Aroclor 1016	26	2.06		
Aroclor 1221	5.4	0.43		
Aroclor 1232	51	4.05		
Aroclor 1242	57	4.52		
Aroclor 1248	1	0.08		
Aroclor 1254	1	0.08		
Aroclor 1260	1	0.08		
Total Organic Carbon (dry)	24371.37331			
Total Solids	51.7			
HPAH	20	1.59	960	958
LPAH	14	1.11	370	369
Total PCB	57	4.52	12	7.5

SAP MDL Comparison Table

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-06	DWMP-07
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	04/01/08 10:48:00 AM	03/31/08 12:30:00 PM	03/31/08 10:20:00 AM	04/02/08 9:05:00 AM	04/01/08 11:25:00 AM	04/02/08 9:30:00 AM
Lab ID:	L45313-1	L45313-2	L45313-3	L45313-4	L45313-6	L45313-7
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	48.1	64.9	45.6	58.9	52.3	50.8

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS								
M=CV ASTM D422(318V1)								
Fines *	%	0.5	0.97	0.75	1.1	0.83	0.95	0.98
Gravel *	%	0.1	0.97	0.15	0.21	0.17	0.19	0.2
Sand *	%	0.1	0.97	0.15	0.21	0.17	0.19	0.2
Silt *	%	0.5	0.97	0.75	1.1	0.83	0.95	0.98
Clay *	%	0.5	0.97	0.75	1.1	0.83	0.95	0.98
p+0.00 *	%	0.1	0.19	0.15	0.21	0.17	0.19	0.2
p+1.00 *	%	0.1	0.19	0.15	0.21	0.17	0.19	0.2
p+10.0(equal/more than) *	%	0.5	0.97	0.75	1.1	0.83	0.95	0.98
p+2.00 *	%	0.1	0.19	0.15	0.21	0.17	0.19	0.2
p+3.00 *	%	0.1	0.19	0.15	0.21	0.17	0.19	0.2
p+4.00 *	%	0.1	0.19	0.15	0.21	0.17	0.19	0.2
p+5.00 *	%	0.5	0.97	0.75	1.1	0.83	0.95	0.98
p+6.00 *	%	0.5	0.97	0.75	1.1	0.83	0.95	0.98
p+7.00 *	%	0.5	0.97	0.75	1.1	0.83	0.95	0.98
p+8.00 *	%	0.5	0.97	0.75	1.1	0.83	0.95	0.98
p+9.00 *	%	0.5	0.97	0.75	1.1	0.83	0.95	0.98
p-1.00 *	%	0.1	0.19	0.15	0.21	0.17	0.19	0.2
p-2.00 *	%	0.1	0.19	0.15	0.21	0.17	0.19	0.2
p-2.00(less than) *	%	0.1	0.19	0.15	0.21	0.17	0.19	0.2
M=CV EPA 9030B/SM4500-S2-D (330V0)								
Total Sulfide	mg/Kg	1.0	27	0.77	11	0.85	9.6	0.98
M=CV EPA 9060-PSEP96(337V3)								
Total Organic Carbon	mg/Kg	1000	2500	2800	2600	2400	2300	2400
M=CV SM2540-G (307V2)								
Total Volatile Solids	%	0.01	0.01	0.0077	0.011	0.0085	0.0096	0.0098
M=CV SM2540-G (307V3)								
Total Solids *	%	0.005	0.005	0.005	0.005	0.005	0.005	0.005
M=CV SM4500-NH3-G(332V1)KCL								
Ammonia Nitrogen	mg/Kg	0.2	0.2	0.15	0.21	0.17	0.18	0.19
M=MT CVAA EPA 7471B (604V4)								
Mercury, Total, CVAA	mg/Kg	0.01	0.052	0.0074	0.011	0.0081	0.0094	0.0096
M=MT ICP EPA3050B/6010C MOD(612V3)								
Antimony, Total, ICP	mg/Kg	3.0	1.5	1.1	1.6	1.3	1.5	1.4
Arsenic, Total, ICP	mg/Kg	2.5	2.5	1.8	2.6	2	2.5	2.4
Cadmium, Total, ICP	mg/Kg	0.20	0.2	0.15	0.21	0.17	0.19	0.19
Chromium, Total, ICP	mg/Kg	0.30	0.31	0.23	0.31	0.25	0.29	0.3
Copper, Total, ICP	mg/Kg	0.40	0.4	0.31	0.42	0.34	0.38	0.37
Lead, Total, ICP	mg/Kg	2.0	2	1.5	2.1	1.7	1.9	1.9
Nickel, Total, ICP	mg/Kg	0.5	0.5	0.39	0.53	0.42	0.48	0.47
Silver, Total, ICP	mg/Kg	0.40	0.4	0.31	0.42	0.34	0.38	0.37
Zinc, Total, ICP	mg/Kg	0.50	0.5	0.39	0.53	0.42	0.48	0.47
M=OR EPA 3550B/8270C (7-3-01-004)								

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-06	DWMP-07
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	04/01/08 10:48:00 AM	03/31/08 12:30:00 PM	03/31/08 10:20:00 AM	04/02/08 9:05:00 AM	04/01/08 11:25:00 AM	04/02/08 9:30:00 AM
Lab ID:	L45313-1	L45313-2	L45313-3	L45313-4	L45313-6	L45313-7
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	48.1	64.9	45.6	58.9	52.3	50.8

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS								
1,2,4-Trichlorobenzene	ug/Kg	0.54	0.21	0.15	0.22	0.17	0.19	0.2
1,2-Dichlorobenzene	ug/Kg	0.54	0.42	0.31	0.44	0.34	0.38	0.39
1,3-Dichlorobenzene	ug/Kg	0.54	0.42	0.31	0.44	0.34	0.38	0.39
1,4-Dichlorobenzene	ug/Kg	0.54	0.42	0.31	0.44	0.34	0.38	0.39
2,4-Dimethylphenol	ug/Kg	5.4	2.1	1.5	2.2	1.7	1.9	2
2-Methylnaphthalene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
2-Methylphenol	ug/Kg	11	4.2	3.1	4.4	3.4	3.8	3.9
4-Methylphenol	ug/Kg	11	8.3	6.2	8.8	6.8	7.6	7.9
Acenaphthene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Acenaphthylene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Anthracene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Benzo(a)anthracene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Benzo(a)pyrene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Benzo(b)fluoranthene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Benzo(g,h,i)perylene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Benzo(k)fluoranthene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Benzoic Acid	ug/Kg	26	21	15	22	17	19	20
Benzyl Alcohol	ug/Kg	11	4.2	3.1	4.4	3.4	3.8	3.9
Benzyl Butyl Phthalate	ug/Kg	11	2.1	1.5	2.2	1.7	1.9	2
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	8.3	6.2	8.8	6.8	7.6	7.9
Carbazole	ug/Kg	4	4.2	3.1	4.4	3.4	3.8	3.9
Chrysene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Coprostanol	ug/Kg	110	83	62	88	68	76	79
Dibenzo(a,h)anthracene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Dibenzofuran	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Diethyl Phthalate	ug/Kg	11	8.3	6.2	8.8	6.8	7.6	7.9
Dimethyl Phthalate	ug/Kg	11	8.3	6.2	8.8	6.8	7.6	7.9
Di-N-Butyl Phthalate	ug/Kg	11	8.3	6.2	8.8	6.8	7.6	7.9
Di-N-Octyl Phthalate	ug/Kg	11	8.3	6.2	8.8	6.8	7.6	7.9
Fluoranthene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Fluorene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Hexachlorobenzene	ug/Kg	1.1	0.21	0.15	0.22	0.17	0.19	0.2
Hexachlorobutadiene	ug/Kg	2.6	1	0.77	1.1	0.85	0.96	0.98
Hexachloroethane	ug/Kg	5.4	2.1	1.5	2.2	1.7	1.9	2
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Naphthalene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
N-Nitrosodiphenylamine	ug/Kg	11	8.3	6.2	8.8	6.8	7.6	7.9
Pentachlorophenol	ug/Kg	27	21	15	22	17	19	20
Phenanthrene	ug/Kg	5.4	4.2	3.1	4.4	3.4	3.8	3.9
Phenol	ug/Kg	11	8.3	6.2	8.8	6.8	7.6	7.9
Pyrene	ug/Kg	11	4.2	3.1	4.4	3.4	3.8	3.9
Total 4-Nonylphenol	ug/Kg	5	10	7.7	11	8.5	9.6	9.8
Total HPAHS	ug/Kg	NA	4.2	3.1	4.4	3.4	3.8	3.9

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-06	DWMP-07
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	04/01/08 10:48:00 AM	03/31/08 12:30:00 PM	03/31/08 10:20:00 AM	04/02/08 9:05:00 AM	04/01/08 11:25:00 AM	04/02/08 9:30:00 AM
Lab ID:	L45313-1	L45313-2	L45313-3	L45313-4	L45313-6	L45313-7
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	48.1	64.9	45.6	58.9	52.3	50.8

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS								
Total LPAHs	ug/Kg	NA	4.2	3.1	4.4	3.4	3.8	3.9
M=OR EPA 8081A/8082 (7-3-03-002)								
4,4'-DDD	ug/Kg	2	2.1	1.5	2.2	1.7	1.9	2
4,4'-DDE	ug/Kg	2	2.1	1.5	2.2	1.7	1.9	2
4,4'-DDT	ug/Kg	2	2.1	1.5	2.2	1.7	1.9	2
Aldrin	ug/Kg	2	2.1	1.5	2.2	1.7	1.9	2
Alpha-BHC	ug/Kg	1	1	0.77	1.1	0.85	0.96	0.98
Alpha-Chlordane	ug/Kg	1	1	0.77	1.1	0.85	0.96	0.98
Beta-BHC	ug/Kg	1	1	0.77	1.1	0.85	0.96	0.98
Delta-BHC	ug/Kg	1	1	0.77	1.1	0.85	0.96	0.98
Dieldrin	ug/Kg	2	2.1	1.5	2.2	1.7	1.9	2
Endosulfan I	ug/Kg	2	2.1	1.5	2.2	1.7	1.9	2
Endosulfan II	ug/Kg	2	2.1	1.5	2.2	1.7	1.9	2
Endosulfan Sulfate	ug/Kg	2	2.1	1.5	2.2	1.7	1.9	2
Endrin	ug/Kg	2	2.1	1.5	2.2	1.7	1.9	2
Endrin Aldehyde	ug/Kg	4	2.1	1.5	2.2	1.7	1.9	2
Gamma-BHC (Lindane)	ug/Kg	1	1	0.77	1.1	0.85	0.96	0.98
Gamma-Chlordane	ug/Kg	1	1	0.77	1.1	0.85	0.96	0.98
Heptachlor	ug/Kg	1	1	0.77	1.1	0.85	0.96	0.98
Heptachlor Epoxide	ug/Kg	1	1	0.77	1.1	0.85	0.96	0.98
Methoxychlor	ug/Kg	10	10	7.7	11	8.5	9.6	9.8
Toxaphene	ug/Kg	20	21	15	22	17	19	20
M=OR EPA 8081A/8082 (7-3-103-000)								
Aroclor 1016	ug/Kg	2.6	69	7.1	46	6.1	8	8.3
Aroclor 1221	ug/Kg	6.6	4.2	3.1	9.6	3.4	3.8	3.9
Aroclor 1232	ug/Kg	6.6	110	3.1	86	14	16	3.9
Aroclor 1242	ug/Kg	6.6	160	12	100	16	1.9	17
Aroclor 1248	ug/Kg	2.6	2.1	1.5	2.2	1.7	1.9	2
Aroclor 1254	ug/Kg	2.6	2.1	1.5	2.2	1.7	1.9	2
Aroclor 1260	ug/Kg	2.6	2.1	1.5	2.2	1.7	1.9	2
M=OR EPA 8260B (7-3-02-003)								
1,1,2-Trichloroethylene	ug/Kg	2.0	2.1	1.5	2.2	1.7	1.9	2
Ethylbenzene	ug/Kg	2.0	2.1	1.5	2.2	1.7	1.9	2
Tetrachloroethylene	ug/Kg	2.0	2.1	1.5	2.2	1.7	1.9	2
Total Xylenes	ug/Kg	2.0	2.1	1.5	2.2	1.7	1.9	2

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-08	DWMP-09	DWMP-11	DWMP-12	DWMP-14	DWMP-15
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	03/31/08 11:10:00 AM	03/31/08 2:50:00 PM	04/02/08 10:40:00 AM	04/02/08 8:30:00 AM	04/01/08 10:07:00 AM	04/01/08 8:40:00 AM
Lab ID:	L45313-8	L45313-9	L45313-11	L45313-12	L45313-14	L45313-15
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	44.6	34.5	50.5	31.6	50.8	57.6

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS								
M=CV ASTM D422(318V1)								
Fines *	%	0.5	1.1	1.4	0.96	1.5	0.9	0.82
Gravel *	%	0.1	0.22	0.28	0.19	0.31	0.18	0.16
Sand *	%	0.1	0.22	0.28	0.19	0.31	0.18	0.16
Silt *	%	0.5	1.1	1.4	0.96	1.5	0.9	0.82
Clay *	%	0.5	1.1	1.4	0.96	1.5	0.9	0.82
p+0.00 *	%	0.1	0.22	0.28	0.19	0.31	0.18	0.16
p+1.00 *	%	0.1	0.22	0.28	0.19	0.31	0.18	0.16
p+10.0(equal/more than) *	%	0.5	1.1	1.4	0.96	1.5	0.9	0.82
p+2.00 *	%	0.1	0.22	0.28	0.19	0.31	0.18	0.16
p+3.00 *	%	0.1	0.22	0.28	0.19	0.31	0.18	0.16
p+4.00 *	%	0.1	0.22	0.28	0.19	0.31	0.18	0.16
p+5.00 *	%	0.5	1.1	1.4	0.96	1.5	0.9	0.82
p+6.00 *	%	0.5	1.1	1.4	0.96	1.5	0.9	0.82
p+7.00 *	%	0.5	1.1	1.4	0.96	1.5	0.9	0.82
p+8.00 *	%	0.5	1.1	1.4	0.96	1.5	0.9	0.82
p+9.00 *	%	0.5	1.1	1.4	0.96	1.5	0.9	0.82
p-1.00 *	%	0.1	0.22	0.28	0.19	0.31	0.18	0.16
p-2.00 *	%	0.1	0.22	0.28	0.19	0.31	0.18	0.16
p-2.00(less than) *	%	0.1	0.22	0.28	0.19	0.31	0.18	0.16
M=CV EPA 9030B/SM4500-S2-D (330V0)								
Total Sulfide	mg/Kg	1.0	29	7.2	0.99	16	0.98	4.3
M=CV EPA 9060-PSEP96(337V3)								
Total Organic Carbon	mg/Kg	1000	2500	2700	2600	2600	3300	2400
M=CV SM2540-G (307V2)								
Total Volatile Solids	%	0.01	0.011	0.014	0.0099	0.016	0.0098	0.0087
M=CV SM2540-G (307V3)								
Total Solids *	%	0.005	0.005	0.005	0.005	0.005	0.005	0.005
M=CV SM4500-NH3-G(332V1)KCL								
Ammonia Nitrogen	mg/Kg	0.2	0.22	0.29	0.19	0.3	0.19	0.17
M=MT CVAA EPA 7471B (604V4)								
Mercury, Total, CVAA	mg/Kg	0.01	0.011	0.07	0.0095	0.016	0.01	0.0083
M=MT ICP EPA3050B/6010C MOD(612V3)								
Antimony, Total, ICP	mg/Kg	3.0	1.8	2.2	1.4	2.5	1.5	1.3
Arsenic, Total, ICP	mg/Kg	2.5	2.9	3.8	2.4	4.1	2.6	2.1
Cadmium, Total, ICP	mg/Kg	0.20	0.22	0.29	0.19	0.35	0.2	0.17
Chromium, Total, ICP	mg/Kg	0.30	0.36	0.43	0.3	0.51	0.3	0.26
Copper, Total, ICP	mg/Kg	0.40	0.47	0.58	0.38	0.66	0.39	0.33
Lead, Total, ICP	mg/Kg	2.0	2.2	2.9	1.9	3.5	2	1.7
Nickel, Total, ICP	mg/Kg	0.5	0.58	0.75	0.48	0.82	0.51	0.42
Silver, Total, ICP	mg/Kg	0.40	0.47	0.58	0.38	0.66	0.39	0.33
Zinc, Total, ICP	mg/Kg	0.50	0.58	0.75	0.48	0.82	0.51	0.42
M=OR EPA 3550B/8270C (7-3-01-004)								

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-08	DWMP-09	DWMP-11	DWMP-12	DWMP-14	DWMP-15
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	03/31/08 11:10:00 AM	03/31/08 2:50:00 PM	04/02/08 10:40:00 AM	04/02/08 8:30:00 AM	04/01/08 10:07:00 AM	04/01/08 8:40:00 AM
Lab ID:	L45313-8	L45313-9	L45313-11	L45313-12	L45313-14	L45313-15
Matrix:	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:	44.6	34.5	50.5	31.6	50.8	57.6

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS								
1,2,4-Trichlorobenzene	ug/Kg	0.54	0.22	0.29	0.2	0.32	0.2	0.17
1,2-Dichlorobenzene	ug/Kg	0.54	0.45	0.58	0.4	0.63	0.39	0.35
1,3-Dichlorobenzene	ug/Kg	0.54	0.45	0.58	0.4	0.63	0.39	0.35
1,4-Dichlorobenzene	ug/Kg	0.54	0.45	0.58	0.4	0.63	0.39	0.35
2,4-Dimethylphenol	ug/Kg	5.4	2.2	2.9	2	3.2	2	1.7
2-Methylnaphthalene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
2-Methylphenol	ug/Kg	11	4.5	5.8	4	6.3	3.9	3.5
4-Methylphenol	ug/Kg	11	9	12	7.9	13	7.9	6.9
Acenaphthene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Acenaphthylene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Anthracene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Benzo(a)anthracene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Benzo(a)pyrene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Benzo(b)fluoranthene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Benzo(g,h,i)perylene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Benzo(k)fluoranthene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Benzoic Acid	ug/Kg	26	22	29	20	32	20	17
Benzyl Alcohol	ug/Kg	11	4.5	5.8	4	6.3	3.9	3.5
Benzyl Butyl Phthalate	ug/Kg	11	2.2	2.9	2	3.2	2	1.7
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	9	12	7.9	13	7.9	6.9
Carbazole	ug/Kg	4	4.5	5.8	4	6.3	3.9	3.5
Chrysene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Coprostanol	ug/Kg	110	90	120	79	130	79	69
Dibenzo(a,h)anthracene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Dibenzofuran	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Diethyl Phthalate	ug/Kg	11	9	12	7.9	13	7.9	6.9
Dimethyl Phthalate	ug/Kg	11	9	12	7.9	13	7.9	6.9
Di-N-Butyl Phthalate	ug/Kg	11	9	12	7.9	13	7.9	6.9
Di-N-Octyl Phthalate	ug/Kg	11	9	12	7.9	13	7.9	6.9
Fluoranthene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Fluorene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Hexachlorobenzene	ug/Kg	1.1	0.22	0.29	0.2	0.32	0.2	0.17
Hexachlorobutadiene	ug/Kg	2.6	1.1	1.4	0.99	1.6	0.98	0.87
Hexachloroethane	ug/Kg	5.4	2.2	2.9	2	3.2	2	1.7
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Naphthalene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
N-Nitrosodiphenylamine	ug/Kg	11	9	12	7.9	13	7.9	6.9
Pentachlorophenol	ug/Kg	27	22	29	20	32	20	17
Phenanthrene	ug/Kg	5.4	4.5	5.8	4	6.3	3.9	3.5
Phenol	ug/Kg	11	9	12	7.9	13	7.9	6.9
Pyrene	ug/Kg	11	4.5	5.8	4	6.3	3.9	3.5
Total 4-Nonylphenol	ug/Kg	5	11	14	9.9	16	9.8	8.7
Total HPAHS	ug/Kg	NA	4.5	5.8	4	6.3	3.9	3.5

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:		DWMP-08	DWMP-09	DWMP-11	DWMP-12	DWMP-14	DWMP-15
Descrip:		DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:		03/31/08 11:10:00 AM	03/31/08 2:50:00 PM	04/02/08 10:40:00 AM	04/02/08 8:30:00 AM	04/01/08 10:07:00 AM	04/01/08 8:40:00 AM
Lab ID:		L45313-8	L45313-9	L45313-11	L45313-12	L45313-14	L45313-15
Matrix:		SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED	SALTWTRSED
% Solids:		44.6	34.5	50.5	31.6	50.8	57.6
Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS								
Total LPAHs	ug/Kg	NA	4.5	5.8	4	6.3	3.9	3.5
M=OR EPA 8081A/8082 (7-3-03-002)								
4,4'-DDD	ug/Kg	2	2.2	2.9	2	3.2	2	1.7
4,4'-DDE	ug/Kg	2	2.2	2.9	2	3.2	2	1.7
4,4'-DDT	ug/Kg	2	2.2	2.9	2	3.2	2	1.7
Aldrin	ug/Kg	2	2.2	2.9	2	3.2	2	1.7
Alpha-BHC	ug/Kg	1	1.1	1.4	0.99	1.6	0.98	0.87
Alpha-Chlordane	ug/Kg	1	1.1	1.4	0.99	1.6	0.98	0.87
Beta-BHC	ug/Kg	1	1.1	1.4	0.99	1.6	0.98	0.87
Delta-BHC	ug/Kg	1	1.1	1.4	0.99	1.6	0.98	0.87
Dieldrin	ug/Kg	2	2.2	2.9	2	3.2	2	1.7
Endosulfan I	ug/Kg	2	2.2	2.9	2	3.2	2	1.7
Endosulfan II	ug/Kg	2	2.2	2.9	2	3.2	2	1.7
Endosulfan Sulfate	ug/Kg	2	2.2	2.9	2	3.2	2	1.7
Endrin	ug/Kg	2	2.2	2.9	2	3.2	2	1.7
Endrin Aldehyde	ug/Kg	4	2.2	2.9	2	3.2	2	1.7
Gamma-BHC (Lindane)	ug/Kg	1	1.1	1.4	0.99	1.6	0.98	0.87
Gamma-Chlordane	ug/Kg	1	1.1	1.4	0.99	1.6	0.98	0.87
Heptachlor	ug/Kg	1	1.1	1.4	0.99	1.6	0.98	0.87
Heptachlor Epoxide	ug/Kg	1	1.1	1.4	0.99	1.6	0.98	0.87
Methoxychlor	ug/Kg	10	11	14	9.9	16	9.8	8.7
Toxaphene	ug/Kg	20	22	29	20	32	20	17
M=OR EPA 8081A/8082 (7-3-103-000)								
Aroclor 1016	ug/Kg	2.6	29	27	22	23	53	28
Aroclor 1221	ug/Kg	6.6	4.5	5.8	4	6.3	9.4	3.5
Aroclor 1232	ug/Kg	6.6	4.5	5.8	38	6.3	83	43
Aroclor 1242	ug/Kg	6.6	54	52	51	44	130	63
Aroclor 1248	ug/Kg	2.6	2.2	2.9	2	3.2	2	1.7
Aroclor 1254	ug/Kg	2.6	2.2	2.9	2	3.2	2	1.7
Aroclor 1260	ug/Kg	2.6	2.2	2.9	2	3.2	2	1.7
M=OR EPA 8260B (7-3-02-003)								
1,1,2-Trichloroethylene	ug/Kg	2.0	2.2	2.9	2	3.2	2	1.7
Ethylbenzene	ug/Kg	2.0	2.2	2.9	2	3.2	2	1.7
Tetrachloroethylene	ug/Kg	2.0	2.2	2.9	2	3.2	2	1.7
Total Xylenes	ug/Kg	2.0	2.2	2.9	2	3.2	2	1.7

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-16	DWMP-08
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	04/01/08 9:20:00 AM	03/31/08 11:55:00 AM
Lab ID:	L45313-16	L45313-17
Matrix:	SALTWTRSED	SALTWTRSED
% Solids:	55.1	51.7

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS				
M=CV ASTM D422(318V1)				
Fines *	%	0.5	0.8	0.93
Gravel *	%	0.1	0.16	0.19
Sand *	%	0.1	0.16	0.19
Silt *	%	0.5	0.8	0.93
Clay *	%	0.5	0.8	0.93
p+0.00 *	%	0.1	0.16	0.19
p+1.00 *	%	0.1	0.16	0.19
p+10.0(equal/more than) *	%	0.5	0.8	0.93
p+2.00 *	%	0.1	0.16	0.19
p+3.00 *	%	0.1	0.16	0.19
p+4.00 *	%	0.1	0.16	0.19
p+5.00 *	%	0.5	0.8	0.93
p+6.00 *	%	0.5	0.8	0.93
p+7.00 *	%	0.5	0.8	0.93
p+8.00 *	%	0.5	0.8	0.93
p+9.00 *	%	0.5	0.8	0.93
p-1.00 *	%	0.1	0.16	0.19
p-2.00 *	%	0.1	0.16	0.19
p-2.00(less than) *	%	0.1	0.16	0.19
M=CV EPA 9030B/SM4500-S2-D (330V0)				
Total Sulfide	mg/Kg	1.0	0.91	25
M=CV EPA 9060-PSEP96(337V3)				
Total Organic Carbon	mg/Kg	1000	2000	3500
M=CV SM2540-G (307V2)				
Total Volatile Solids	%	0.01	0.0091	0.0097
M=CV SM2540-G (307V3)				
Total Solids *	%	0.005	0.005	0.005
M=CV SM4500-NH3-G(332V1)KCL				
Ammonia Nitrogen	mg/Kg	0.2	0.18	0.19
M=MT CVAA EPA 7471B (604V4)				
Mercury, Total, CVAA	mg/Kg	0.01	0.0091	0.0097
M=MT ICP EPA3050B/6010C MOD(612V3)				
Antimony, Total, ICP	mg/Kg	3.0	1.3	1.4
Arsenic, Total, ICP	mg/Kg	2.5	2.2	2.3
Cadmium, Total, ICP	mg/Kg	0.20	0.17	0.19
Chromium, Total, ICP	mg/Kg	0.30	0.25	0.29
Copper, Total, ICP	mg/Kg	0.40	0.34	0.39
Lead, Total, ICP	mg/Kg	2.0	1.7	1.9
Nickel, Total, ICP	mg/Kg	0.5	0.44	0.48
Silver, Total, ICP	mg/Kg	0.40	0.34	0.39
Zinc, Total, ICP	mg/Kg	0.50	0.44	0.48
M=OR EPA 3550B/8270C (7-3-01-004)				

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-16	DWMP-08
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	04/01/08 9:20:00 AM	03/31/08 11:55:00 AM
Lab ID:	L45313-16	L45313-17
Matrix:	SALTWTRSED	SALTWTRSED
% Solids:	55.1	51.7

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS				
1,2,4-Trichlorobenzene	ug/Kg	0.54	0.18	0.19
1,2-Dichlorobenzene	ug/Kg	0.54	0.36	0.39
1,3-Dichlorobenzene	ug/Kg	0.54	0.36	0.39
1,4-Dichlorobenzene	ug/Kg	0.54	0.36	0.39
2,4-Dimethylphenol	ug/Kg	5.4	1.8	1.9
2-Methylnaphthalene	ug/Kg	5.4	3.6	3.9
2-Methylphenol	ug/Kg	11	3.6	3.9
4-Methylphenol	ug/Kg	11	7.3	7.7
Acenaphthene	ug/Kg	5.4	3.6	3.9
Acenaphthylene	ug/Kg	5.4	3.6	3.9
Anthracene	ug/Kg	5.4	3.6	3.9
Benzo(a)anthracene	ug/Kg	5.4	3.6	3.9
Benzo(a)pyrene	ug/Kg	5.4	3.6	3.9
Benzo(b)fluoranthene	ug/Kg	5.4	3.6	3.9
Benzo(g,h,i)perylene	ug/Kg	5.4	3.6	3.9
Benzo(k)fluoranthene	ug/Kg	5.4	3.6	3.9
Benzoic Acid	ug/Kg	26	18	19
Benzyl Alcohol	ug/Kg	11	3.6	3.9
Benzyl Butyl Phthalate	ug/Kg	11	1.8	1.9
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	7.3	7.7
Carbazole	ug/Kg	4	3.6	3.9
Chrysene	ug/Kg	5.4	3.6	3.9
Coprostanol	ug/Kg	110	73	77
Dibenzo(a,h)anthracene	ug/Kg	5.4	3.6	3.9
Dibenzofuran	ug/Kg	5.4	3.6	3.9
Diethyl Phthalate	ug/Kg	11	7.3	7.7
Dimethyl Phthalate	ug/Kg	11	7.3	7.7
Di-N-Butyl Phthalate	ug/Kg	11	7.3	7.7
Di-N-Octyl Phthalate	ug/Kg	11	7.3	7.7
Fluoranthene	ug/Kg	5.4	3.6	3.9
Fluorene	ug/Kg	5.4	3.6	3.9
Hexachlorobenzene	ug/Kg	1.1	0.18	0.19
Hexachlorobutadiene	ug/Kg	2.6	0.91	0.97
Hexachloroethane	ug/Kg	5.4	1.8	1.9
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	3.6	3.9
Naphthalene	ug/Kg	5.4	3.6	3.9
N-Nitrosodiphenylamine	ug/Kg	11	7.3	7.7
Pentachlorophenol	ug/Kg	27	18	19
Phenanthrene	ug/Kg	5.4	3.6	3.9
Phenol	ug/Kg	11	7.3	7.7
Pyrene	ug/Kg	11	3.6	3.9
Total 4-Nonylphenol	ug/Kg	5	9.1	9.7
Total HPAHS	ug/Kg	NA	3.6	3.9

King County Environmental Lab Analytical Report

PROJECT: 423368-80

Exceeds SAP MDL

Locator:	DWMP-16	DWMP-08
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI
Sampled:	04/01/08 9:20:00 AM	03/31/08 11:55:00 AM
Lab ID:	L45313-16	L45313-17
Matrix:	SALTWTRSED	SALTWTRSED
% Solids:	55.1	51.7

Parameters	Units	SAP MDLs (@ 50% TS)	MDL - Dry Weight Basis	MDL - Dry Weight Basis
COMBINED LABS				
Total LPAHs	ug/Kg	NA	3.6	3.9
M=OR EPA 8081A/8082 (7-3-03-002)				
4,4'-DDD	ug/Kg	2	1.8	1.9
4,4'-DDE	ug/Kg	2	1.8	1.9
4,4'-DDT	ug/Kg	2	1.8	1.9
Aldrin	ug/Kg	2	1.8	1.9
Alpha-BHC	ug/Kg	1	0.91	0.97
Alpha-Chlordane	ug/Kg	1	0.91	0.97
Beta-BHC	ug/Kg	1	0.91	0.97
Delta-BHC	ug/Kg	1	0.91	0.97
Dieldrin	ug/Kg	2	1.8	1.9
Endosulfan I	ug/Kg	2	1.8	1.9
Endosulfan II	ug/Kg	2	1.8	1.9
Endosulfan Sulfate	ug/Kg	2	1.8	1.9
Endrin	ug/Kg	2	1.8	1.9
Endrin Aldehyde	ug/Kg	4	1.8	1.9
Gamma-BHC (Lindane)	ug/Kg	1	0.91	0.97
Gamma-Chlordane	ug/Kg	1	0.91	0.97
Heptachlor	ug/Kg	1	0.91	0.97
Heptachlor Epoxide	ug/Kg	1	0.91	0.97
Methoxychlor	ug/Kg	10	9.1	9.7
Toxaphene	ug/Kg	20	18	19
M=OR EPA 8081A/8082 (7-3-103-000)				
Aroclor 1016	ug/Kg	2.6	9.3	50
Aroclor 1221	ug/Kg	6.6	3.6	10
Aroclor 1232	ug/Kg	6.6	15	99
Aroclor 1242	ug/Kg	6.6	20	110
Aroclor 1248	ug/Kg	2.6	1.8	1.9
Aroclor 1254	ug/Kg	2.6	1.8	1.9
Aroclor 1260	ug/Kg	2.6	1.8	1.9
M=OR EPA 8260B (7-3-02-003)				
1,1,2-Trichloroethylene	ug/Kg	2.0	1.8	1.9
Ethylbenzene	ug/Kg	2.0	1.8	1.9
Tetrachloroethylene	ug/Kg	2.0	1.8	1.9
Total Xylenes	ug/Kg	2.0	1.8	1.9

* Not converted to dry weight basis for this parameter

CONVENTIONAL ANALYSES QC DATA

WG96180 (Particle Size Distribution)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-1	423368-80	SALTWTRSED	4/1/2008 10:48	14-Apr-08	16-Apr-08	WG96180-1, -2	
L45313-2	423368-80	SALTWTRSED	3/31/2008 12:30	14-Apr-08	16-Apr-08	WG96180-1, -2	
L45313-3	423368-80	SALTWTRSED	3/31/2008 10:20	14-Apr-08	16-Apr-08	WG96180-1, -2	
L45313-4	423368-80	SALTWTRSED	4/2/2008 9:05	14-Apr-08	16-Apr-08	WG96180-1, -2	
L45313-7	423368-80	SALTWTRSED	4/2/2008 9:30	14-Apr-08	16-Apr-08	WG96180-1, -2	
L45314-1	423368-80	SALTWTRSED	4/2/2008 11:50	14-Apr-08	16-Apr-08	WG96180-1, -2	
L45314-2	423368-80	SALTWTRSED	4/2/2008 14:10	14-Apr-08	16-Apr-08	WG96180-1, -2	
L45314-3	423368-80	SALTWTRSED	4/2/2008 11:30	14-Apr-08	16-Apr-08	WG96180-1, -2	
L45314-4	423368-80	SALTWTRSED	4/2/2008 11:12	14-Apr-08	16-Apr-08	WG96180-1, -2	
L45314-5	423368-80	SALTWTRSED	4/2/2008 13:10	14-Apr-08	16-Apr-08	WG96180-1, -2	
L45314-6	423368-80	SALTWTRSED	4/2/2008 13:40	14-Apr-08	16-Apr-08	WG96180-1, -2	
L45314-7	423368-80	SALTWTRSED	4/2/2008 12:43	14-Apr-08	16-Apr-08	WG96180-1, -2	
WG96180-1	LD	SALTWTRSED		14-Apr-08	16-Apr-08	WG96180-1, -2	L45313-3
WG96180-2	LT	SALTWTRSED		14-Apr-08	16-Apr-08	WG96180-1, -2	WG96180-1 L45313-3

Workgroup: WG96180 (psd) Run ID: R125443

LT:WG96180-2 LD:WG96180-1 L45313-3 Matrix: SALTWTRSED Listtype: CVPSD Method: ASTM D422(318V1) Project: 423368-80 Pkey: SED (Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Clay	1.1	2.16	%	14.9	15.1	19.4	15		20
Gravel	0.22	2.16	%	3.2	0.7	4.1	65	E	20
Sand	0.22	2.16	%	32	32.6	32.2	1		20
Silt	1.1	2.16	%	44.8	48.3	45.3	4		20

Conventionals Data Anomaly Form

Date(s) Occurred: *04/16/08*

WG #(s): *WG96180*

☒ **All samples in WKGP(s)** **or** ☐ **Sample #(s):**

Project #(s): *423368-80*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis

☐ Nutrients:
☐ Demands:
☐ Cyanides:
☐ Physicals:
☐ Solids:
☐ Anions:
☐ Chlorophylls:
☒ Others: *Particle Size Distribution*
☐ Subcontracted:

II. Instrument

Ion Chromatography: ☐ Dionex 120
Spectrophotometer: ☐ Hitachi U3000 UV/VIS ☐ Hach DR 890
Fluorometer: ☐ Turner 10-AU
TOC Analyzer: ☐ OI 1020A ☐ OI TOC Analyzer
Autotitrator: ☐ Metrohm 736GP Titrator ☐ Metrohm 712 Conductometer
Turbidimeter: ☐ Hach 2100AN
Autoanalyzers: ☐ Astoria2+2 (freshwater system) ☐ Astoria2+2 (saltwater system)
☐ Astoria2 (total nutrients system) ☐ Astoria2 (cyanide system)
Dissolved Oxygen: ☐ YSI 5100 ☐ CAT Contriburette
Salinometer: ☐ Portosal 8410A
pH: ☐ Metrohm 736GP ☐ Accument XL60
Others: *AT200 and PG503 Analytical Balances*

III. Type of Sample/Analytical Anomaly

☐ Values Outside of Control Limits:

[1] ☐ Initial Calibration
[2] ☐ Continuing Calibration Checks
[3] ☐ SB Spike Recoveries
[4] ☐ MB Anomaly
[5] ☐ LCS/SRM Recoveries
[6] ☒ Sample/LD/LT RSD
[7] ☐ MS RPD
[8] ☐ Sample/LD RPD
[9] ☐ MS Spike Recoveries

[10] ☐ Holding time exceeded by:
[11] ☐ Insufficient sample amount.
[12] ☐ Inappropriate storage, container or preservation.

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☐ Other

Anomaly Description: *The laboratory triplicate analysis for particle size distribution (PSD) on sample L45313-3 had a percent relative standard deviation (%RSD) of 65% for the gravel category. This exceeded the established acceptance limit of 20% for this category. The gravel category represents a small fraction (4%) of the overall sample mass associated with sample L45313-3. Variability due to the low contribution to this category is the probable cause.*

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

☐ Sample(s) re-analyzed ☐ Sample(s) re-prepared and re-analyzed
☐ Sample(s) reported "AS IS"
☒ Data qualified with the following flags: *"E"*
☐ Other

Corrective Action Description: *No reanalysis was required due to the gravel category representing less than 10% of the overall sample mass. The data were reported to LIMS and the gravel category for all samples in the workgroup were qualified with the E qualifier to indicate that an estimate value was reported for this category. No further corrective action was required.*

VI. Potential Effects on Data Quality

Based upon the expected performance of this method:

☒ None; corrective action entirely corrected anomaly (explanation optional): *This does not affect the quality of the data. Inherent variability at low levels can be expected in the method. In these instances, a high %RSD does not necessarily indicate poor precision or poor method performance. In the case of this sample, the QC data suggest that the gravel category represents too small a fraction of the overall sample constituency to be considered appropriate for evaluation against a 20% control window.*

☐ Potential effect explanation (explanation mandatory):

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	Signatures	Signature Dates
Reported By: *Casey Maggart*		
Reviewer: *Keith Solberg*		
Supervisor: *Brian Prosch*		
QA Officer: *Colin Elliott* (For QA1 only)		
cc: LPM:		

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WG96604 (Particle Size Distribution)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-6	423368-80	SALTWTRSED	4/1/2008 11:25	12-May-08	15-May-08	WG96604-1, -2	
L45313-8	423368-80	SALTWTRSED	3/31/2008 11:10	12-May-08	15-May-08	WG96604-1, -2	
L45313-9	423368-80	SALTWTRSED	3/31/2008 14:50	12-May-08	15-May-08	WG96604-1, -2	
L45313-11	423368-80	SALTWTRSED	4/2/2008 10:40	12-May-08	15-May-08	WG96604-1, -2	
L45313-12	423368-80	SALTWTRSED	4/2/2008 8:30	12-May-08	15-May-08	WG96604-1, -2	
L45313-14	423368-80	SALTWTRSED	4/1/2008 10:07	12-May-08	15-May-08	WG96604-1, -2	
L45313-15	423368-80	SALTWTRSED	4/1/2008 8:40	12-May-08	15-May-08	WG96604-1, -2	
L45313-16	423368-80	SALTWTRSED	4/1/2008 9:20	12-May-08	15-May-08	WG96604-1, -2	
L45313-17	423368-80	SALTWTRSED	3/31/2008 11:55	12-May-08	15-May-08	WG96604-1, -2	
WG96604-1	LD	SALTWTRSED		12-May-08	15-May-08	WG96604-1, -2	L45313-6
WG96604-2	LT	SALTWTRSED		12-May-08	15-May-08	WG96604-1, -2	WG96604-1 L45313-6

Workgroup: WG96604 (psd) Run ID: R126017

LT:WG96604-2 LD:WG96604-1 L45313-6 Matrix: SALTWTRSED Listtype: CVPSD Method: ASTM D422(318V1) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Clay	0.95	1.91	%	12.4	11.5	12.4	4		20
Gravel	0.19	1.91	%	4.7	4.2	2.5	31	E	20
Sand	0.19	1.91	%	67.7	68.3	69	1		20
Silt	0.95	1.91	%	18.1	18.1	18.1	0		20

Conventionals Data Anomaly Form

Date(s) Occurred: *05/15/08*

WG #(s): *WG96604*

☒ **All samples in WKGP(s)** **or** ☐ **Sample #(s):**

Project #(s): *423368-80*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis

☐ Nutrients:
☐ Demands:
☐ Cyanides:
☐ Physicals:
☐ Solids:
☐ Anions:
☐ Chlorophylls:
☒ Others: *Particle Size Distribution*
☐ Subcontracted:

II. Instrument

Ion Chromatography: ☐ Dionex 120
Spectrophotometer: ☐ Hitachi U3000 UV/VIS ☐ Hach DR 890
Fluorometer: ☐ Turner 10-AU
TOC Analyzer: ☐ OI 1020A ☐ OI TOC Analyzer
Autotitrator: ☐ Metrohm 736GP Titrator ☐ Metrohm 712 Conductometer
Turbidimeter: ☐ Hach 2100AN
Autoanalyzers: ☐ Astoria2+2 (freshwater system) ☐ Astoria2+2 (saltwater system)
☐ Astoria2 (total nutrients system) ☐ Astoria2 (cyanide system)
Dissolved Oxygen: ☐ YSI 5100 ☐ CAT Contriburette
Salinometer: ☐ Portosal 8410A
pH: ☐ Metrohm 736GP ☐ Accument XL60
Others: *AT200 and PG503 Analytical Balances*

III. Type of Sample/Analytical Anomaly

☐ Values Outside of Control Limits:

[1] ☐ Initial Calibration
[2] ☐ Continuing Calibration Checks
[3] ☐ SB Spike Recoveries
[4] ☐ MB Anomaly
[5] ☐ LCS/SRM Recoveries
[6] ☒ Sample/LD/LT RSD
[7] ☐ MS RPD
[8] ☐ Sample/LD RPD
[9] ☐ MS Spike Recoveries

[10] ☐ Holding time exceeded by:
[11] ☐ Insufficient sample amount.
[12] ☐ Inappropriate storage, container or preservation.

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☐ Other

Anomaly Description: *The laboratory triplicate analysis for particle size distribution (PSD) on sample L45313-6 had a percent relative standard deviation (%RSD) of 31% for the gravel category. This exceeded the established acceptance limit of 20% for this category. The gravel category represents a small fraction (5%) of the overall sample mass associated with sample L45313-6. Variability due to the low contribution to this category is the probable cause.*

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

☐ Sample(s) re-analyzed
☐ Sample(s) re-prepared and re-analyzed
☐ Sample(s) reported "AS IS"
☒ Data qualified with the following flags: *"E"*
☐ Other

Corrective Action Description: *No reanalysis was required due to the gravel category representing less than 10% of the overall sample mass. The data was reported to LIMS and the gravel category for all samples in the workgroup (L45313-6, -8, -9, -11, -12, -14, -15, -16, -17) were qualified with the "E" qualifier to indicate that an estimate value was reported for this category. No further corrective action was required.*

VI. Potential Effects on Data Quality

Based upon the expected performance of this method:

☒ None; corrective action entirely corrected anomaly (explanation optional): *This does not affect the quality of the data. Inherent variability at low levels can be expected in the method. In these instances, a high %RSD does not necessarily indicate poor precision or poor method performance. In the case of this sample, the QC data suggest that the gravel category represents too small a fraction of the overall sample constituency to be considered appropriate for evaluation against a 20% control window.*

☐ Potential effect explanation (explanation mandatory):

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	Signatures	Signature Dates
Reported By: *Casey Maggart*		
Reviewer: *Keith Solberg*		
Supervisor: *Brian Prosch*		
QA Officer: *Colin Elliott* (For QA1 only)		
cc: LPM:		

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WG96065 (Total Organic Carbon)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-1	423368-80	SALTWTRSED	4/1/2008 10:48	14-May-08	5-Jun-08	WG96065-1, -2, -3, -4, -5, -6	
L45313-2	423368-80	SALTWTRSED	3/31/2008 12:30	14-May-08	5-Jun-08	WG96065-1, -2, -3, -4, -5, -6	
L45313-3	423368-80	SALTWTRSED	3/31/2008 10:20	14-May-08	5-Jun-08	WG96065-1, -2, -3, -4, -5, -6	
L45313-4	423368-80	SALTWTRSED	4/2/2008 9:05	14-May-08	5-Jun-08	WG96065-1, -2, -3, -4, -5, -6	
L45313-6	423368-80	SALTWTRSED	4/1/2008 11:25	14-May-08	5-Jun-08	WG96065-1, -2, -3, -4, -5, -6	
L45313-7	423368-80	SALTWTRSED	4/2/2008 9:30	14-May-08	5-Jun-08	WG96065-1, -2, -3, -4, -5, -6	
L45313-8	423368-80	SALTWTRSED	3/31/2008 11:10	14-May-08	5-Jun-08	WG96065-1, -2, -3, -4, -5, -6	
WG96065-1	MB	OTHR SOLID		5-Jun-08	5-Jun-08	WG96065-1, -2, -3, -4, -5, -6	MB1 080605
WG96065-2	SB	OTHR SOLID		5-Jun-08	5-Jun-08	WG96065-1, -2, -3, -4, -5, -6	WG96065-1
WG96065-3	SRM	OTHR SOLID		5-Jun-08	5-Jun-08	WG96065-1, -2, -3, -4, -5, -6	HICONC
WG96065-4	LD	SALTWTRSED		14-May-08	5-Jun-08	WG96065-1, -2, -3, -4, -5, -6	L45313-2
WG96065-5	LT	SALTWTRSED		14-May-08	5-Jun-08	WG96065-1, -2, -3, -4, -5, -6	WG96065-4 L45313-2
WG96065-6	MS	SALTWTRSED		14-May-08	5-Jun-08	WG96065-1, -2, -3, -4, -5, -6	L45313-2

Workgroup: WG96065 (TOC) Run ID: R126558

MB:WG96065-1 Matrix: OTHR SOLID Listtype: CVTOC Method: EPA 9060-PSEP96(337V3) Project: Pkey: SED
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

SB:WG96065-2 MB:WG96065-1 Matrix: OTHR SOLID Listtype: CVTOC Method: EPA 9060-PSEP96(337V3) Project: NONE Pkey: SED
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	500	1000	mg/Kg	<MDL	2500	2640	106		80--120

SRM:WG96065-3 Matrix: OTHR SOLID Listtype: CVTOC Method: EPA 9060-PSEP96(337V3) Project: NONE Pkey: SED
(Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2300	4510	mg/Kg	36900	34500	93		80--120

LT:WG96065-5 LD:WG96065-4 L45313-2 Matrix: SALTWTRSED Listtype: CVTOC Method: EPA 9060-PSEP96(337V3) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Organic Carbon	1800	3590	mg/Kg	9040	8140	8220	6		20

MS:WG96065-6 L45313-2 Matrix: SALTWTRSED Listtype: CVTOC Method: EPA 9060-PSEP96(337V3) Project: 423368-80 Pkey: SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SampValue	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1900	3720	mg/Kg	9040	9294	18900	106		75--125

WG96068 (Total Organic Carbon)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-9	423368-80	SALTWTRSED	3/31/2008 14:50	27-May-08	6-Jun-08	WG96068-1, -2, -3, -4, -5, -6	
L45313-11	423368-80	SALTWTRSED	4/2/2008 10:40	27-May-08	6-Jun-08	WG96068-1, -2, -3, -4, -5, -6	
L45313-12	423368-80	SALTWTRSED	4/2/2008 8:30	27-May-08	6-Jun-08	WG96068-1, -2, -3, -4, -5, -6	
L45313-14	423368-80	SALTWTRSED	4/1/2008 10:07	27-May-08	6-Jun-08	WG96068-1, -2, -3, -4, -5, -6	
L45313-15	423368-80	SALTWTRSED	4/1/2008 8:40	27-May-08	6-Jun-08	WG96068-1, -2, -3, -4, -5, -6	
L45313-16	423368-80	SALTWTRSED	4/1/2008 9:20	27-May-08	6-Jun-08	WG96068-1, -2, -3, -4, -5, -6	
L45313-17	423368-80	SALTWTRSED	3/31/2008 11:55	27-May-08	6-Jun-08	WG96068-1, -2, -3, -4, -5, -6	
WG96068-1	MB	OTHR SOLID		6-Jun-08	6-Jun-08	WG96068-1, -2, -3, -4, -5, -6	MB1 080606
WG96068-2	SB	OTHR SOLID		6-Jun-08	6-Jun-08	WG96068-1, -2, -3, -4, -5, -6	WG96068-1
WG96068-3	SRM	OTHR SOLID		6-Jun-08	6-Jun-08	WG96068-1, -2, -3, -4, -5, -6	HICONC
WG96068-4	LD	SALTWTRSED		27-May-08	6-Jun-08	WG96068-1, -2, -3, -4, -5, -6	L45313-14
WG96068-5	LT	SALTWTRSED		27-May-08	6-Jun-08	WG96068-1, -2, -3, -4, -5, -6	WG96068-4 L45313-14
WG96068-6	MS	SALTWTRSED		27-May-08	6-Jun-08	WG96068-1, -2, -3, -4, -5, -6	L45313-14

Workgroup: WG96068 (TOC) Run ID: R126639

MB:WG96068-1 Matrix: OTHR SOLID Listtype: CVTOC Method: EPA 9060-PSEP96(337V3) Project: Pkey: SED
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

SB:WG96068-2 MB:WG96068-1 Matrix: OTHR SOLID Listtype: CVTOC Method: EPA 9060-PSEP96(337V3) Project: NONE Pkey: SED
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Organic Carbon	500	1000	mg/Kg	<MDL	2500	2650	106		80--120

SRM:WG96068-3 Matrix: OTHR SOLID Listtype: CVTOC Method: EPA 9060-PSEP96(337V3) Project: NONE Pkey: SED
(Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit
Total Organic Carbon	2200	4460	mg/Kg	36900	34500	93		80--120

LT:WG96068-5 LD:WG96068-4 L45313-14 Matrix: SALTWTRSED Listtype: CVTOC Method: EPA 9060-PSEP96(337V3) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Organic Carbon	1700	3340	mg/Kg	13400	12400	12600	4		20

MS:WG96068-6 L45313-14 Matrix: SALTWTRSED Listtype: CVTOC Method: EPA 9060-PSEP96(337V3) Project: 423368-80 Pkey: SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SampValue	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Organic Carbon	1600	3180	mg/Kg	13400	7937	21200	98		75--125

LIMSView Batch Report - run on 10/07/08, 02:06 pm

WG96820 (Ammonia)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-1	423368-80	SALTWTRSED	4/1/2008 10:48	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
L45313-2	423368-80	SALTWTRSED	3/31/2008 12:30	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
L45313-3	423368-80	SALTWTRSED	3/31/2008 10:20	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
L45313-4	423368-80	SALTWTRSED	4/2/2008 9:05	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
L45313-6	423368-80	SALTWTRSED	4/1/2008 11:25	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
L45313-7	423368-80	SALTWTRSED	4/2/2008 9:30	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
L45313-8	423368-80	SALTWTRSED	3/31/2008 11:10	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
L45313-9	423368-80	SALTWTRSED	3/31/2008 14:50	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
L45313-11	423368-80	SALTWTRSED	4/2/2008 10:40	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
L45313-12	423368-80	SALTWTRSED	4/2/2008 8:30	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
L45313-14	423368-80	SALTWTRSED	4/1/2008 10:07	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
L45313-15	423368-80	SALTWTRSED	4/1/2008 8:40	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
L45313-16	423368-80	SALTWTRSED	4/1/2008 9:20	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
L45313-17	423368-80	SALTWTRSED	3/31/2008 11:55	2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	
WG96820-1	MB	OTHR SOLID		2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	MB1 080602
WG96820-2	SB	OTHR SOLID		2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	WG96820-1
WG96820-3	LCS	OTHR SOLID		5-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	LEVEL1
WG96820-4	LD	SALTWTRSED		2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	L45313-4
WG96820-5	LT	SALTWTRSED		2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	WG96820-4 L45313-4
WG96820-6	MS	SALTWTRSED		2-Jun-08	5-Jun-08	WG96820-1, -2, -3, -4, -5, -6	L45313-4

LIMSView Analytical QC Report - run on 10/07/08 02:06 pm

Workgroup: WG96820 (NH3-KCL Denny Way Seds) Run ID: R126952

MB:WG96820-1 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G(332V1)KCL Project: Pkey: SED
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Ammonia Nitrogen	0.1	0.2	mg/Kg	<MDL	

SB:WG96820-2 MB:WG96820-1 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G(332V1)KCL Project: NONE Pkey: SED
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Ammonia Nitrogen	0.1	0.202	mg/Kg	<MDL	1	1.01	101		80--120

LCS:WG96820-3 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G(332V1)KCL Project: NONE Pkey: SED
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Ammonia Nitrogen	0.11	0.22	mg/Kg	2	2.07	104		80--120

LT:WG96820-5 LD:WG96820-4 L45313-4 Matrix: SALTWTRSED Listtype: CVNH3-KCL Method: SM4500-NH3-G(332V1)KCL Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Ammonia Nitrogen	0.1	0.2	mg/Kg	0.927	0.883	0.908	2		20

MS:WG96820-6 L45313-4 Matrix: SALTWTRSED Listtype: CVNH3-KCL Method: SM4500-NH3-G(332V1)KCL Project: 423368-80 Pkey: SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SampValue	TrueValue	MS Value	% Rec.	Qual	LabLimit
Ammonia Nitrogen	0.097	0.194	mg/Kg	0.927	0.964	1.86	97		75--125

WG96066 (Total Solids/Total Volatile Solids)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-1	423368-80	SALTWTRSED	4/1/2008 10:48	14-May-08	14-May-08	WG96066-1, -2, -3	
L45313-2	423368-80	SALTWTRSED	3/31/2008 12:30	14-May-08	14-May-08	WG96066-1, -2, -3	
L45313-3	423368-80	SALTWTRSED	3/31/2008 10:20	14-May-08	14-May-08	WG96066-1, -2, -3	
L45313-4	423368-80	SALTWTRSED	4/2/2008 9:05	14-May-08	14-May-08	WG96066-1, -2, -3	
L45313-6	423368-80	SALTWTRSED	4/1/2008 11:25	14-May-08	14-May-08	WG96066-1, -2, -3	
L45313-7	423368-80	SALTWTRSED	4/2/2008 9:30	14-May-08	14-May-08	WG96066-1, -2, -3	
L45313-8	423368-80	SALTWTRSED	3/31/2008 11:10	14-May-08	14-May-08	WG96066-1, -2, -3	
WG96066-1	MB	OTHR SOLID		14-May-08	14-May-08	WG96066-1, -2, -3	MB1 080514
WG96066-2	LD	SALTWTRSED		14-May-08	14-May-08	WG96066-1, -2, -3	L45313-4
WG96066-3	LT	SALTWTRSED		14-May-08	14-May-08	WG96066-1, -2, -3	WG96066-2 L45313-4

Workgroup: WG96066 (TOTS/TVS) Run ID: R125933

MB:WG96066-1 Matrix: OTHR SOLID Listtype: CVTVS Method: SM2540-G (307V2) Project: Pkey: SED
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Volatile Solids	0.005	0.01	%	<MDL	

MB:WG96066-1 Matrix: OTHR SOLID Listtype: CVTOTS Method: SM2540-G (307V3) Project: Pkey: SED
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Solids	0.005	0.01	%	<MDL	

LT:WG96066-3 LD:WG96066-2 L45313-4 Matrix: SALTWTRSED Listtype: CVTVS Method: SM2540-G (307V2) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Volatile Solids	0.005	0.01	%	2.66	2.66	2.69	1		20

LT:WG96066-3 LD:WG96066-2 L45313-4 Matrix: SALTWTRSED Listtype: CVTOTS Method: SM2540-G (307V3) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Solids	0.005	0.01	%	58.9	59.1	59	0		20

WG96069 (Total Solids/Total Volatile Solids)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-9	423368-80	SALTWTRSED	3/31/2008 14:50	27-May-08	27-May-08	WG96069-1, -2, -3	
L45313-11	423368-80	SALTWTRSED	4/2/2008 10:40	27-May-08	27-May-08	WG96069-1, -2, -3	
L45313-12	423368-80	SALTWTRSED	4/2/2008 8:30	27-May-08	27-May-08	WG96069-1, -2, -3	
L45313-14	423368-80	SALTWTRSED	4/1/2008 10:07	27-May-08	27-May-08	WG96069-1, -2, -3	
L45313-15	423368-80	SALTWTRSED	4/1/2008 8:40	27-May-08	27-May-08	WG96069-1, -2, -3	
L45313-16	423368-80	SALTWTRSED	4/1/2008 9:20	27-May-08	27-May-08	WG96069-1, -2, -3	
L45313-17	423368-80	SALTWTRSED	3/31/2008 11:55	27-May-08	27-May-08	WG96069-1, -2, -3	
WG96069-1	MB	OTHR SOLID		27-May-08	27-May-08	WG96069-1, -2, -3	MB1 080527
WG96069-2	LD	SALTWTRSED		27-May-08	27-May-08	WG96069-1, -2, -3	L45313-11
WG96069-3	LT	SALTWTRSED		27-May-08	27-May-08	WG96069-1, -2, -3	WG96069-2 L45313-11

Workgroup: WG96069 (TOTS/TVS) Run ID: R126190

MB:WG96069-1 Matrix: OTHR SOLID Listtype: CVTVS Method: SM2540-G (307V2) Project: Pkey: SED
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Volatile Solids	0.005	0.01	%	<MDL	

MB:WG96069-1 Matrix: OTHR SOLID Listtype: CVTOTS Method: SM2540-G (307V3) Project: Pkey: SED
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Solids	0.005	0.01	%	<MDL	

LT:WG96069-3 LD:WG96069-2 L45313-11 Matrix: SALTWTRSED Listtype: CVTVS Method: SM2540-G (307V2) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Volatile Solids	0.005	0.01	%	3.76	3.9	3.59	4		20

LT:WG96069-3 LD:WG96069-2 L45313-11 Matrix: SALTWTRSED Listtype: CVTOTS Method: SM2540-G (307V3) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Solids	0.005	0.01	%	50.5	49.8	51.8	2		20

WG96035 (Total Sulfide)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-1	423368-80	SALTWTRSED	4/1/2008 10:48	2-Apr-08	2-Apr-08	WG96035-1, -2, -3, -4, -5	
L45313-2	423368-80	SALTWTRSED	3/31/2008 12:30	2-Apr-08	2-Apr-08	WG96035-1, -2, -3, -4, -5	
L45313-3	423368-80	SALTWTRSED	3/31/2008 10:20	2-Apr-08	2-Apr-08	WG96035-1, -2, -3, -4, -5	
L45313-6	423368-80	SALTWTRSED	4/1/2008 11:25	2-Apr-08	2-Apr-08	WG96035-1, -2, -3, -4, -5	
L45313-8	423368-80	SALTWTRSED	3/31/2008 11:10	2-Apr-08	2-Apr-08	WG96035-1, -2, -3, -4, -5	
L45313-14	423368-80	SALTWTRSED	4/1/2008 10:07	2-Apr-08	2-Apr-08	WG96035-1, -2, -3, -4, -5	
WG96035-1	MB	OTHR SOLID		2-Apr-08	2-Apr-08	WG96035-1, -2, -3, -4, -5	MB1 080402
WG96035-2	SB	OTHR SOLID		2-Apr-08	2-Apr-08	WG96035-1, -2, -3, -4, -5	WG96035-1
WG96035-3	LD	SALTWTRSED		2-Apr-08	2-Apr-08	WG96035-1, -2, -3, -4, -5	L45313-2
WG96035-4	LT	SALTWTRSED		2-Apr-08	2-Apr-08	WG96035-1, -2, -3, -4, -5	WG96035-3 L45313-2
WG96035-5	MS	SALTWTRSED		2-Apr-08	2-Apr-08	WG96035-1, -2, -3, -4, -5	L45313-2

Workgroup: WG96035 (Denny Way TOTSULFIDE: Day) Run ID: R125267

MB:WG96035-1 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D (330V0) Project: Pkey: SED
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Sulfide	0.5	2	mg/Kg	<MDL	

SB:WG96035-2 MB:WG96035-1 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D (330V0) Project: NONE Pkey: SED
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Sulfide	5	20	mg/Kg	<MDL	52.53	50.9	97		80--120

LT:WG96035-4 LD:WG96035-3 L45313-2 Matrix: SALTWTRSED Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D (330V0) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Sulfide	0.5	2	mg/Kg	1.9	2.13	1.6	14		20

MS:WG96035-5 L45313-2 Matrix: SALTWTRSED Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D (330V0) Project: 423368-80 Pkey: SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SampValue	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Sulfide	5	20	mg/Kg	1.9	52.88	25.2	44	G	65--135

WG96078 (Total Sulfide)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-4	423368-80	SALTWTRSED	4/2/2008 9:05	3-Apr-08	3-Apr-08	WG96035-3, -4, -5, WG96078-1, -2	
L45313-7	423368-80	SALTWTRSED	4/2/2008 9:30	3-Apr-08	3-Apr-08	WG96035-3, -4, -5, WG96078-1, -2	
L45313-9	423368-80	SALTWTRSED	3/31/2008 14:50	3-Apr-08	3-Apr-08	WG96035-3, -4, -5, WG96078-1, -2	
L45313-11	423368-80	SALTWTRSED	4/2/2008 10:40	3-Apr-08	3-Apr-08	WG96035-3, -4, -5, WG96078-1, -2	
L45313-12	423368-80	SALTWTRSED	4/2/2008 8:30	3-Apr-08	3-Apr-08	WG96035-3, -4, -5, WG96078-1, -2	
L45313-15	423368-80	SALTWTRSED	4/1/2008 8:40	3-Apr-08	3-Apr-08	WG96035-3, -4, -5, WG96078-1, -2	
L45313-16	423368-80	SALTWTRSED	4/1/2008 9:20	3-Apr-08	3-Apr-08	WG96035-3, -4, -5, WG96078-1, -2	
L45313-17	423368-80	SALTWTRSED	3/31/2008 11:55	3-Apr-08	3-Apr-08	WG96035-3, -4, -5, WG96078-1, -2	
WG96078-1	MB	OTHR SOLID		3-Apr-08	3-Apr-08	WG96035-3, -4, -5, WG96078-1, -2	MB1 080403
WG96078-2	SB	OTHR SOLID		3-Apr-08	3-Apr-08	WG96035-3, -4, -5, WG96078-1, -2	WG96078-1
WG96035-3	LD	SALTWTRSED		2-Apr-08	2-Apr-08		L45313-2
WG96035-4	LT	SALTWTRSED		2-Apr-08	2-Apr-08		WG96035-3 L45313-2
WG96035-5	MS	SALTWTRSED		2-Apr-08	2-Apr-08		L45313-2

Workgroup: WG96078 (Denny Way TOTSULFIDE: Day) Run ID: R125269

MB:WG96078-1 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D (330V0) Project: Pkey: SED
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Sulfide	0.5	2	mg/Kg	<MDL	

SB:WG96078-2 MB:WG96078-1 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D (330V0) Project: NONE Pkey: SED
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Total Sulfide	5	20	mg/Kg	<MDL	52.8	49	93		80--120

LT:WG96035-4 LD:WG96035-3 L45313-2 Matrix: SALTWTRSED Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D (330V0) Project: 423368-80 Pkey: SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SampValue	LD Value	LT Value	RSD	Qual	LabLimit
Total Sulfide	0.5	2	mg/Kg	1.9	2.13	1.6	14		20

MS:WG96035-5 L45313-2 Matrix: SALTWTRSED Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D (330V0) Project: 423368-80 Pkey: SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SampValue	TrueValue	MS Value	% Rec.	Qual	LabLimit
Total Sulfide	5	20	mg/Kg	1.9	52.88	25.2	44	G	65--135

^ For the following parameters, the values in RPD column are Absolute Difference:
- pH
- pH, Field
- Salinity
- Salinity, Field
- sample Depth
- sample Temperature, Field

* End of L45313CV_5698Q.xls

Conventionals Data Anomaly Form

Date(s) Occurred: *4/2/08*

WG #(s): *WG96035, WG96078*

☒ **All samples in WKGP(s)** **or** ☐ **Sample #(s):**

Project #(s): *423368-80*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis

☐ Nutrients:
☐ Demands:
☐ Cyanides:
☐ Physicals:
☐ Solids:
☐ Anions:
☐ Chlorophylls:
☒ Others: *TOTSULFIDE (Total Sulfide)*
☐ Subcontracted:

II. Instrument

Ion Chromatography: ☐ Dionex 120
Spectrophotometer: ☒ Hitachi U3000 UV/VIS ☐ Hach DR 890
Fluorometer: ☐ Turner 10-AU
TOC Analyzer: ☐ OI 1020A ☐ OI TOC Analyzer
Autotitrator: ☐ Metrohm 736GP Titrator ☐ Metrohm 712 Conductometer
Turbidimeter: ☐ Hach 2100AN
Autoanalyzers: ☐ Astoria2+2 (freshwater system) ☐ Astoria2+2 (saltwater system)
☐ Astoria2 (total nutrients system) ☐ Astoria2 (cyanide system)
Dissolved Oxygen: ☐ YSI 5100 ☐ CAT Contriburette
Salinometer: ☐ Portosal 8410A
pH: ☐ Metrohm 736GP ☐ Accument XL60
Others:

III. Type of Sample/Analytical Anomaly

☒ Values Outside of Control Limits:

1 ☐ Initial Calibration	4 ☐ MB Anomaly	7 ☐ MS RPD
2 ☐ Continuing Calibration Checks	5 ☐ LCS/SRM Recoveries	8 ☐ Sample/LD RPD
3 ☐ SB Spike Recoveries	6 ☐ Sample/LD/LT RSD	9 ☒ MS Spike Recoveries

10 ☐ Holding time exceeded by:
11 ☐ Insufficient sample amount.
12 ☐ Inappropriate storage, container or preservation.

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☐ Other

Anomaly Description: *The matrix spike percent recovery for L45313-2 was 44%, outside the 65-135% control window for TOTSULFIDE.*

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

☒ Sample(s) re-analyzed ☐ Sample(s) re-prepared and re-analyzed
☐ Sample(s) reported "AS IS"
☒ Data qualified with the following flags: *G*
☐ Other

Corrective Action Description: *The primary matrix spike for sample L45313-2, that was distilled and analyzed on 4/2/08, had a percent recovery of 44% which was outside of the established control limit window. An additional matrix spike prepared in an identical manner was also included in this batch for verification purposes. The matrix spike percent recovery for this sample was 21% which was again, outside of the established control window. No additional reanalyses were performed as the data already collected were consistent in indicating that matrix interference was the likely cause.*

The primary matrix spike value associated with the 44% recovery was reported. The additional matrix spike associated with the 21% recovery was used for informational purposes only in support of the reported data. As a result, as defined in the Denny Way CSO and Elliot West CSO Treatment Facility Post-Operation Sediment Monitoring Year Three - 2008 SAP, all samples included in WG96035 and WG96078 were 'G' qualified in LIMS to note that the recovery of the MS associated with theses batches of samples was less than 65%.

VI. Potential Effects on Data Quality

Based upon the expected performance of this method:

☐ None; corrective action entirely corrected anomaly (explanation optional):

☒ Potential effect explanation (explanation mandatory): *The low matrix spike percent recovery for sample L45313-2 is likely due to matrix interference. Since the percent recovery was below the control window, the TOTSULFIDE data for L45313-2 could be biased low and should be used with caution. However, the extent of any bias is unclear. No other data is affected by this anomaly.*

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	Signatures	Signature Dates
Reported By: *Terry Siebens*		
Reviewer: *Brian Prosch*		
Supervisor: *Brian Prosch*		
QA Officer: *Colin Elliott* (For QA1 only)		
cc: LPM:		

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METAL CHEMISTRY QC DATA

LIMSView Batch Report - run on 10/07/08, 02:05 pm

WG96285 (Total Mercury by CVAA)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-4	423368-80	SALTWTRSED	4/2/2008 9:05	22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	
L45313-7	423368-80	SALTWTRSED	4/2/2008 9:30	22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	
L45313-11	423368-80	SALTWTRSED	4/2/2008 10:40	22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	
L45313-12	423368-80	SALTWTRSED	4/2/2008 8:30	22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	
L45313-15	423368-80	SALTWTRSED	4/1/2008 8:40	22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	
L45313-16	423368-80	SALTWTRSED	4/1/2008 9:20	22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	
L45314-1	423368-80	SALTWTRSED	4/2/2008 11:50	22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	
L45314-2	423368-80	SALTWTRSED	4/2/2008 14:10	22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	
L45314-3	423368-80	SALTWTRSED	4/2/2008 11:30	22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	
L45314-4	423368-80	SALTWTRSED	4/2/2008 11:12	22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	
L45314-5	423368-80	SALTWTRSED	4/2/2008 13:10	22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	
L45314-6	423368-80	SALTWTRSED	4/2/2008 13:40	22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	
L45314-7	423368-80	SALTWTRSED	4/2/2008 12:43	22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	
WG96285-1	SRM	SALTWTRSED		22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	PACS2
WG96285-2	MB	SOLIDBLANK		22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	METHOD BLANK
WG96285-3	SB	SOLIDBLANK		22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	WG96285-2 HG-SMID
WG96285-4	MS	SALTWTRSED		22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	L45314-7 HG-SMID
WG96285-5	MSD	SALTWTRSED		22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	WG96285-4 L45314-7 HG-SMID-MSD
WG96285-6	LD	SALTWTRSED		22-Apr-08	22-Apr-08	WG96285-1, -2, -3, -4, -5, -6	L45314-7 RPD-SOL

LIMSView Analytical QC Report - run on 10/07/08 02:05 pm

Workgroup: WG96285 (Total Mercury by CVAA)

SRM:WG96285-1 Matrix: SALTWTRSED Listtype: MTHG-MIDS Method: CVAA EPA 7471B (604V4) Project: NONE Pkey: SED
(Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.051	0.505	mg/Kg	3.04	2.74	90		80--120

MB:WG96285-2 Matrix: SOLIDBLANK Listtype: MTHG-MIDS Method: CVAA EPA 7471B (604V4) Project: Pkey: SED
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.0048	0.0476	mg/Kg	<MDL	

SB:WG96285-3 MB:WG96285-2 Matrix: SOLIDBLANK Listtype: MTHG-MIDS Method: CVAA EPA 7471B (604V4) Project: NONE Pkey: SED
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	0.0048	0.0476	mg/Kg	<MDL	0.0952	0.0847	89		85--115

MSD:WG96285-5 MS:WG96285-4 L45314-7 Matrix: SALTWTRSED Listtype: MTHG-MIDS Method: CVAA EPA 7471B (604V4) Project: 423368-80 Pkey: SED
(Matrix Spike Duplicate, Matrix Spike) L45314-7

Parameter	MDL	RDL	Units	SampValue	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Mercury, Total, CVAA	0.005	0.0495	mg/Kg	0.0754	0.0959	0.126	53		75--125	0.099	0.144	69	*	26	E	20

LD:WG96285-6 L45314-7 Matrix: SALTWTRSED Listtype: MTHG-MIDS Method: CVAA EPA 7471B (604V4) Project: 423368-80 Pkey: SED
(Lab Duplicate) L45314-7

Parameter	MDL	RDL	Units	SampValue	LD Value	RPD^	Qual	LabLimit
Mercury, Total, CVAA	0.0048	0.0476	mg/Kg	0.0754	0.036	70	E	20

Trace Metals Data Anomaly Form

Date(s) Occurred: *4/22/08*

WG #(s): *WG96285*

☒ **All samples in WKGP(s)** **or** ☐ **Sample #(s):**

Project #(s): *423368*

Matrix: ☐ **Liquid** ☒ **Solid** ☒ **QA1** ☐ **QA2** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Digestion

☒ Total ☐ TCLP ☐ Other:
☐ Dissolved ☐ SEM ☐ Subcontracted:

II. Instrument

CVAA (☐ M-6000A ☒ M-7500) CVAF ☐
ICP (☐ B ☐ E) ICP-MS (☐ PE ☐ X7 ☐ X II)

III. Type of Sample/Analytical Anomaly

☐ Values Outside of Control Limits:
[1] ☐ Blank Contamination
[2] ☐ SB Spike Recoveries
[3] ☐ ISTD Recoveries
[4] ☐ LCS/SRM Recoveries
[5] ☒ MS/MSD Spike Recoveries
[6] ☒ MS/MSD RPD
[7] ☒ Sample/LD RPD
☐ Certified values developed by a method other than that which was used for the analysis.

[8] ☐ Holding time exceeded by:
[9] ☐ Insufficient sample amount.
[10] ☐ Inappropriate storage, container, or preservation.
[11] ☐ Other

Anomaly Description: *Samples for total mercury run on 4/22/08 had MS/MSD outside the recovery acceptance limits of 75-125%. In addition, the RPD between background sample and LD was >20 at 70. Also, the MS/MSD RPD was >20 at 26.*

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

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Anomaly Description:

V. Corrective Action Taken

☐ Sample(s) re-analyzed
☒ Sample(s) reported "AS IS"
☒ Data qualified with the following flags: *E*
☐ Other
☐ Sample(s) re-prepared and re-analyzed
☐ Exposure deleted

Corrective Action Description: *A 5x serial dilution was analyzed of L45314-7, MS (WG96285-4), MSD (WG96285-5), & LD (WG96285-6) on 4/22/08. The results of the post digestion serial dilutions were within 10% of the original concentration of L45314-7, MS, MSD, LD. SB recovery was within control limits ruling out a spiking issue. The low MS recovery, MSD recovery, MS/MSD RPD >20 and sample/LD RPD >20 was most likely due to sample heterogeneity and not interference. Due to the high MS/MSD RPD, sample/LD RPD and low MS & MSD recovery the decision was made to qualify all sample data with an "E".*

VI. Potential Effects on Data Quality:

☐ None; corrective action entirely corrected anomaly (explanation optional):

☒ Potential effect explanation (explanation mandatory): *It is unknown what effect the heterogeneity issues could have on the reported results. The QC results obtained indicate the sample results could be highly variable in subsequent redigestions and reanalysis.*

	Signatures	Signature Dates
Reported By: David Chin	_____	_____
Reviewer: Steve Talbot	_____	_____
Supervisor: *Diane McElhany*	_____	_____
QA Officer: *Colin Elliott* **(For QA1 only)**	_____	_____
cc: LPM: Fritz Grothkopp		

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King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Apr 22 2008, 10:04 am

Work Group: WG96261 (Denny Way) for Department: 6 - Metals, Trace

Created: 17-APR-08 PrepDate: 17-APR-08 Due: Operator: ST

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L45313-1	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA-M	SALTWTRSED	WKGP	U	29-APR-08	01-JUL-08
L45313-14	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA-M	SALTWTRSED	WKGP	U	29-APR-08	01-JUL-08
L45313-17	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA-M	SALTWTRSED	WKGP	U	28-APR-08	01-JUL-08
L45313-2	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA-M	SALTWTRSED	WKGP	U	28-APR-08	01-JUL-08
L45313-3	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA-M	SALTWTRSED	WKGP	U	28-APR-08	01-JUL-08
L45313-6	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA-M	SALTWTRSED	WKGP	U	29-APR-08	01-JUL-08
L45313-8	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA-M	SALTWTRSED	WKGP	U	28-APR-08	01-JUL-08
L45313-9	423368-80	Denny Way Sediment, Post Constru	SED	S	HG-CVAA-M	SALTWTRSED	WKGP	U	28-APR-08	01-JUL-08
WG96261-1	SRM		SED	S	HG-CVAA-M	SALTWTRSED	WKGP	U	22-APR-08	
WG96261-2	MB			S	HG-CVAA-M	SOLIDBLANK	WKGP	U	22-APR-08	
WG96261-3	SB			S	HG-CVAA-M	SOLIDBLANK	WKGP	U	22-APR-08	
WG96261-4	MS		SED	S	HG-CVAA-M	SALTWTRSED	WKGP	U	22-APR-08	
WG96261-5	MSD		SED	S	HG-CVAA-M	SALTWTRSED	WKGP	U	22-APR-08	
WG96261-6	LD		SED	S	HG-CVAA-M	SALTWTRSED	WKGP	U	22-APR-08	

Comments:

L45313-1	0-10 cm, 3 grab COMP
L45313-14	0-10 cm, 3 grab COMP
L45313-17	0-10 cm, 3 grab COMP
L45313-2	0-10 cm, 3 grab COMP
L45313-3	0-10 cm, 3 grab COMP
L45313-6	0-2 cm, 3 grab COMP
L45313-8	0-2 cm, 3 grab COMP
L45313-9	0-2 cm, 3 grab COMP
WG96261-1	PACS2
WG96261-2	METHOD BLANK
WG96261-3	WG96261-2 HG-SMID
WG96261-4	L45313-9 HG-SMID
WG96261-5	WG96261-4 L45313-9 HG-SMID-MSD
WG96261-6	L45313-9 RPD-SOL

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 04/22/08 09:41
Run ID: R125465 Workgroup: WG96261 (Denny Way)

SRM:WG96261-1 Matrix: SALTWTRSED Listtype: MTHG-MIDS Method: CVAA EPA 7471B (604V4) Project: Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	.047	.472	mg/Kg	3.04	2.65	87		80-120

MB:WG96261-2 Matrix: SOLIDBLANK Listtype: MTHG-MIDS Method: CVAA EPA 7471B (604V4) Project: Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Mercury, Total, CVAA	.0048	.0476	mg/Kg	<MDL	

SB:WG96261-3 MB:WG96261-2 Matrix: SOLIDBLANK Listtype: MTHG-MIDS Method: CVAA EPA 7471B (604V4) Project: Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Mercury, Total, CVAA	.0048	.0476	mg/Kg	<MDL	0.0952	.0914	96		85-115

MSD:WG96261-5 MS:WG96261-4 L45313-9 Matrix: SALTWTRSED Listtype: MTHG-MIDS Method: CVAA EPA 7471B (604V4) Project: 423368-80 Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
Mercury, Total, CVAA	.0049	.0491	mg/Kg	.432	0.101	.248			75-125	0.0981	.255			(No MS/MSD	%Rec.	due to 4x rule

LD:WG96261-6 L45313-9 Matrix: SALTWTRSED Listtype: MTHG-MIDS Method: CVAA EPA 7471B (604V4) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimit
Mercury, Total, CVAA	.0049	.0489	mg/Kg	.432	.285	41	E	20

==========

If the following parameters are reported, values in the RPD column are their Absolute Differences:

- pH
- pH, Field
- Salinity
- Salinity, Field
- Sample Depth
- Sample Temperature, Field

Trace Metals Data Anomaly Form

Date(s) Occurred: *4/18/08*

WG #(s): *96261*

☒ **All samples in WKGP(s)** **or** ☐ **Sample #(s):**

Project #(s): *423368*

Matrix: ☐ **Liquid** ☒ **Solid** ☒ **QA1** ☐ **QA2** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Digestion

☒ Total ☐ TCLP ☐ Other:
☐ Dissolved ☐ SEM ☐ Subcontracted:

II. Instrument

CVAA (☐ M-6000A ☒ M-7500) CVAF ☐
ICP (☐ B ☐ E) ICP-MS (☐ PE ☐ X7 ☐ X II)

III. Type of Sample/Analytical Anomaly

☐ Values Outside of Control Limits:
- [1] ☐ Blank Contamination
- [2] ☐ SB Spike Recoveries
- [3] ☐ ISTD Recoveries
- [4] ☐ LCS/SRM Recoveries
- [5] ☒ MS/MSD Spike Recoveries
- [6] ☒ MS/MSD RPD
- [7] ☒ Sample/LD RPD
- ☐ Certified values developed by a method other than that which was used for the analysis.

[8] ☐ Holding time exceeded by:
[9] ☐ Insufficient sample amount.
[10] ☐ Inappropriate storage, container, or preservation.
[11] ☐ Other

Anomaly Description: *5&6)MS/MSD recovery and RPD are not calculated due to the 4X rule for total mercury.*

7)Sample/Lab Duplicate RPD exceeded 20% acceptance limits = 41% for total mercury. A post digestion spike of the sample at a 5x dilution was analyzed as well as a serial dilution of the matrix spike. All post digestion QC was within acceptance limits.

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.

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☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

☐ Sample(s) re-analyzed
☐ Sample(s) reported "AS IS"
☒ Data qualified with the following flags: *E*
☒ Other
☐ Sample(s) re-prepared and re-analyzed
☐ Exposure deleted

Corrective Action Description: *5&6) The background sample results are > 4X the spike concentration, and is not calculated.*

7)The sample/LD results together with the post digestion QC recoveries suggest that the recoveries that exceed acceptance limits are probably due to sample heterogeneity, and not an interference.

All samples in workgroup will be qualified with an "E" to indicate reported results are estimated due to heterogeneity issues with the sample matrix.

VI. Potential Effects on Data Quality:

☐ None; corrective action entirely corrected anomaly (explanation optional):

☒ Potential effect explanation (explanation mandatory): *It is unknown what effect the heterogeneity issues could have on the reported results. The QC results obtained indicate the sample results could be highly variable.*

	Signatures	Signature Dates
Reported By: Steve Talbot	_____	_____
Reviewer: David Chin	_____	_____
Supervisor: *Diane McElhany*	_____	_____
QA Officer: *Colin Elliott* **(For QA1 only)**	_____	_____
cc: LPM: Fritz Grothkopp		

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WG96464 (Total Metals by ICP)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-1	423368-80	SALTWTRSED	4/1/2008 10:48	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
L45313-2	423368-80	SALTWTRSED	3/31/2008 12:30	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
L45313-3	423368-80	SALTWTRSED	3/31/2008 10:20	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
L45313-4	423368-80	SALTWTRSED	4/2/2008 9:05	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
L45313-6	423368-80	SALTWTRSED	4/1/2008 11:25	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
L45313-7	423368-80	SALTWTRSED	4/2/2008 9:30	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
L45313-8	423368-80	SALTWTRSED	3/31/2008 11:10	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
L45313-9	423368-80	SALTWTRSED	3/31/2008 14:50	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
L45313-11	423368-80	SALTWTRSED	4/2/2008 10:40	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
L45313-12	423368-80	SALTWTRSED	4/2/2008 8:30	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
L45313-14	423368-80	SALTWTRSED	4/1/2008 10:07	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
L45313-15	423368-80	SALTWTRSED	4/1/2008 8:40	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
L45313-16	423368-80	SALTWTRSED	4/1/2008 9:20	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
L45313-17	423368-80	SALTWTRSED	3/31/2008 11:55	6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	
WG96464-1	SB	SOLIDBLANK		6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	WG96464-3 ICPMARINE
WG96464-2	LCS	SOIL		6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	ERASOIL
WG96464-3	MB	SOLIDBLANK		6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	METHOD BLANK
WG96464-4	LD	SALTWTRSED		6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	L45313-4 RPD-SOL
WG96464-5	MS	SALTWTRSED		6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	L45313-4 ICPMARINE
WG96464-6	SRM	SALTWTRSED		6-May-08	7-May-08	WG96464-1, -2, -3, -6, -4, -5	PACS2

Workgroup: WG96464 (Total Metals by ICP)

MB:WG96464-3 Matrix: SOLIDBLANK Listtype: MTICP-SED Method: ICP EPA3050B/6010C MOD(612V3) Project: Pkey: SED
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Antimony, Total, ICP	0.71	3.57	mg/Kg	<MDL	
Arsenic, Total, ICP	1.2	5.95	mg/Kg	<MDL	
Cadmium, Total, ICP	0.095	0.476	mg/Kg	<MDL	
Chromium, Total, ICP	0.14	0.714	mg/Kg	<MDL	
Copper, Total, ICP	0.19	0.952	mg/Kg	<MDL	
Lead, Total, ICP	0.95	4.76	mg/Kg	<MDL	
Nickel, Total, ICP	0.24	1.19	mg/Kg	<MDL	
Silver, Total, ICP	0.19	0.952	mg/Kg	<MDL	
Zinc, Total, ICP	0.24	1.19	mg/Kg	<MDL	

SB:WG96464-1 MB:WG96464-3 Matrix: SOLIDBLANK Listtype: MTICP-SED Method: ICP EPA3050B/6010C MOD(612V3) Project: NONE Pkey: SED
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Antimony, Total, ICP	0.71	3.57	mg/Kg	<MDL	47.6	49.4	104		85--115
Arsenic, Total, ICP	1.2	5.95	mg/Kg	<MDL	47.6	49.7	104		85--115
Cadmium, Total, ICP	0.095	0.476	mg/Kg	<MDL	47.6	48.2	101		85--115
Chromium, Total, ICP	0.14	0.714	mg/Kg	<MDL	47.6	48.1	101		85--115
Copper, Total, ICP	0.19	0.952	mg/Kg	<MDL	47.6	46.8	98		85--115
Lead, Total, ICP	0.95	4.76	mg/Kg	<MDL	47.6	47.8	100		85--115
Nickel, Total, ICP	0.24	1.19	mg/Kg	<MDL	47.6	47	99		85--115
Silver, Total, ICP	0.19	0.952	mg/Kg	<MDL	47.6	47.2	99		85--115
Zinc, Total, ICP	0.24	1.19	mg/Kg	<MDL	238	239	100		85--115

LCS:WG96464-2 Matrix: SOIL Listtype: MTICP-SED Method: ICP EPA3050B/6010C MOD(612V3) Project: NONE Pkey: SED
(Lab Control Sample)

Parameter	MDL	RDL	Units	TrueValue	LCS Value	% Rec.	Qual	LabLimit
Antimony, Total, ICP	3.1	15.4	mg/Kg	90.2	95.2	106		10--211
Arsenic, Total, ICP	5.1	25.7	mg/Kg	132	140	106		80--120
Cadmium, Total, ICP	0.41	2.06	mg/Kg	66.5	80.1	120		80--120
Chromium, Total, ICP	0.62	3.08	mg/Kg	72.9	80	110		79--121
Copper, Total, ICP	0.82	4.11	mg/Kg	68.5	67.4	98		80--120
Lead, Total, ICP	4.1	20.6	mg/Kg	130	144	111		80--120
Nickel, Total, ICP	1	5.14	mg/Kg	55.6	58.1	104		80--120
Silver, Total, ICP	0.82	4.11	mg/Kg	101	115	114		66--134
Zinc, Total, ICP	1	5.14	mg/Kg	177	182	103		79--121

LD:WG96464-4 L45313-4 Matrix: SALTWTRSED Listtype: MTICP-SED Method: ICP EPA3050B/6010C MOD(612V3) Project: 423368-80 Pkey: SED
(Lab Duplicate) L45313-4

Parameter	MDL	RDL	Units	SampValue	LD Value	RPD^	Qual	LabLimit
Antimony, Total, ICP	0.75	3.75	mg/Kg	<MDL	<MDL			20
Arsenic, Total, ICP	1.2	6.25	mg/Kg	4.7	4.7			20
Cadmium, Total, ICP	0.1	0.5	mg/Kg	0.17	0.16			20
Chromium, Total, ICP	0.15	0.75	mg/Kg	32	31.7	1		20
Copper, Total, ICP	0.2	1	mg/Kg	28.9	28	3		20
Lead, Total, ICP	1	5	mg/Kg	24.3	24.5	1		20
Nickel, Total, ICP	0.25	1.25	mg/Kg	33.8	33.2	2		20
Silver, Total, ICP	0.2	1	mg/Kg	0.51	0.45			20
Zinc, Total, ICP	0.25	1.25	mg/Kg	56.9	57.2	0		20

MS:WG96464-5 L45313-4 Matrix: SALTWTRSED Listtype: MTICP-SED Method: ICP EPA3050B/6010C MOD(612V3) Project: 423368-80 Pkey: SED
(Matrix Spike) L45313-4

Parameter	MDL	RDL	Units	SampValue	TrueValue	MS Value	% Rec.	Qual	LabLimit
Antimony, Total, ICP	0.77	3.87	mg/Kg	<MDL	51.7	15	29	G	75--125
Arsenic, Total, ICP	1.3	6.46	mg/Kg	4.7	51.7	57.1	101		75--125
Cadmium, Total, ICP	0.1	0.517	mg/Kg	0.17	51.7	51.5	99		75--125
Chromium, Total, ICP	0.15	0.775	mg/Kg	32	51.7	84	101		75--125
Copper, Total, ICP	0.21	1.03	mg/Kg	28.9	51.7	79.8	99		75--125
Lead, Total, ICP	1	5.17	mg/Kg	24.3	51.7	74	96		75--125
Nickel, Total, ICP	0.26	1.29	mg/Kg	33.8	51.7	83	95		75--125
Silver, Total, ICP	0.21	1.03	mg/Kg	0.51	51.7	50.4	97		75--125
Zinc, Total, ICP	0.26	1.29	mg/Kg	56.9	258	309	98		75--125

SRM:WG96464-6 Matrix: SALTWTRSED Listtype: MTICP-SED Method: ICP EPA3050B/6010C MOD(612V3) Project: NONE Pkey: SED
(Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit
Chromium, Total, ICP	0.61	3.07	mg/Kg	90.7	47.3	52		30--70
Copper, Total, ICP	0.82	4.1	mg/Kg	310	297	96		78--118
Lead, Total, ICP	4.1	20.5	mg/Kg	183	175	95		74--114
Nickel, Total, ICP	1	5.12	mg/Kg	39.5	30.4	77		51--91
Zinc, Total, ICP	1	5.12	mg/Kg	364	347	95		73--113

^ For the following parameters, the values in RPD column are Absolute Difference:

pH
pH, Field
Salinity
Salinity, Field
sample Depth
sample Temperature, Field

Trace Metals Data Anomaly Form

Date(s) Occurred: *5/6/08*

WG #(s): *WG96464*

☐ **All samples in WKGP(s)** **or** ☒ **Sample #(s):** *WG96464-(4,5); L45313-(1-4,6-9,11,12,14-17)*

Project #(s): *423368-80*

Matrix: ☐ **Liquid** ☒ **Solid** ☒ **QA1** ☐ **QA2** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Digestion

☒ Total ☐ TCLP ☐ Other:
☐ Dissolved ☐ SEM ☐ Subcontracted:

II. Instrument

CVAA (☐ M-6000A ☐ M-7500) CVAF ☐
ICP (☐ B ☒ E) ICP-MS (☐ PE ☐ X7 ☐ X II)

III. Type of Sample/Analytical Anomaly

☒ Values Outside of Control Limits:
- [1] ☐ Blank Contamination
- [2] ☐ SB Spike Recoveries
- [3] ☐ ISTD Recoveries
- [4] ☐ LCS/SRM Recoveries
- [5] ☒ MS/MSD Spike Recoveries
- [6] ☐ MS/MSD RPD
- [7] ☐ Sample/LD RPD

☐ Certified values developed by a method other than that which was used for the analysis.

[8] ☐ Holding time exceeded by:
[9] ☐ Insufficient sample amount.
[10] ☐ Inappropriate storage, container, or preservation.
[11] ☐ Other

Anomaly Description: *Antimony recovery in the matrix spike was outside the 75-125% acceptance limits at 29%.*

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

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V. Corrective Action Taken

- ☐ Sample(s) re-analyzed
- ☒ Sample(s) reported "AS IS"
- ☒ Data qualified with the following flags: *G*
- ☐ Other
- ☐ Sample(s) re-prepared and re-analyzed
- ☐ Exposure deleted

Corrective Action Description: *The low matrix spike recovery for Antimony is related to the 3050 digestion procedure. The spike blank recovery of 104% indicates that the matrix may be affecting Antimony during digestion. ERA Soil is a solid laboratory control sample with certified reference values determined by the 3050 digestion. Recovery of Antimony in the laboratory control sample for this batch met acceptance limits. All Antimony results in WG96464 with the exception of the spike blank (WG96464-1) and method blank (WG96464-3) are qualified with a "G". No further corrective action is necessary as per the Trace Metals decision dated 8/1/2006.*

VI. Potential Effects on Data Quality:

☐ None; corrective action entirely corrected anomaly (explanation optional):

☒ Potential effect explanation (explanation mandatory): *The reported values for Antimony may be biased low, as indicated by the low matrix spike recovery.*

	Signatures	Signature Dates
Reported By: Erica Prentice		
Reviewer: Steve Talbot		
Supervisor: *Diane McElhany*		
QA Officer: *Colin Elliott* **(For QA1 only)**		
cc: LPM: Fritz Grothkopp		

Created by Neevia Document Converter trial version http://www.neevia.com

ORGANIC CHEMISTRY QC DATA

LIMSView Batch Report - run on 10/07/08, 02:03 pm

WG96077 (Semi Volatile Organics)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-1	423368-80	SALTWTRSED	4/1/2008 10:48	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45313-2	423368-80	SALTWTRSED	3/31/2008 12:30	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45313-3	423368-80	SALTWTRSED	3/31/2008 10:20	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45313-4	423368-80	SALTWTRSED	4/2/2008 9:05	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45313-6	423368-80	SALTWTRSED	4/1/2008 11:25	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45313-7	423368-80	SALTWTRSED	4/2/2008 9:30	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45313-8	423368-80	SALTWTRSED	3/31/2008 11:10	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45313-9	423368-80	SALTWTRSED	3/31/2008 14:50	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45313-11	423368-80	SALTWTRSED	4/2/2008 10:40	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45313-12	423368-80	SALTWTRSED	4/2/2008 8:30	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45313-14	423368-80	SALTWTRSED	4/1/2008 10:07	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45313-15	423368-80	SALTWTRSED	4/1/2008 8:40	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45313-16	423368-80	SALTWTRSED	4/1/2008 9:20	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45313-17	423368-80	SALTWTRSED	3/31/2008 11:55	8-Apr-08	17-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45314-1	423368-80	SALTWTRSED	4/2/2008 11:50	8-Apr-08	15-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45314-2	423368-80	SALTWTRSED	4/2/2008 14:10	8-Apr-08	15-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45314-3	423368-80	SALTWTRSED	4/2/2008 11:30	8-Apr-08	15-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45314-4	423368-80	SALTWTRSED	4/2/2008 11:12	8-Apr-08	16-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45314-5	423368-80	SALTWTRSED	4/2/2008 13:10	8-Apr-08	15-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45314-6	423368-80	SALTWTRSED	4/2/2008 13:40	8-Apr-08	16-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
L45314-7	423368-80	SALTWTRSED	4/2/2008 12:43	8-Apr-08	15-Apr-08	WG96077-1, -2, -3, -4, -5, -6	
WG96077-1	MB	OTHR SOLID		8-Apr-08	15-Apr-08	WG96077-1, -2, -3, -4, -5, -6	MB080408
WG96077-2	SB	OTHR SOLID		8-Apr-08	15-Apr-08	WG96077-1, -2, -3, -4, -5, -6	WG96077-1
WG96077-3	MS	SALTWTRSED		8-Apr-08	15-Apr-08	WG96077-1, -2, -3, -4, -5, -6	L45314-2
WG96077-4	MSD	SALTWTRSED		8-Apr-08	15-Apr-08	WG96077-1, -2, -3, -4, -5, -6	WG96077-3 L45314-2
WG96077-5	SRM	SALTWTRSED		8-Apr-08	15-Apr-08	WG96077-1, -2, -3, -4, -5, -6	1944
WG96077-6	LD	SALTWTRSED		8-Apr-08	15-Apr-08	WG96077-1, -2, -3, -4, -5, -6	L45314-3

A/m
12/2/08
MS

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 12/02/08 07:41
Run ID: R131106 Workgroup: WG96077 (BS#287 BNASMS)

MB:WG96077-1 Matrix: OTHR SOLID Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Phenol	.4	8	ug/Kg	<MDL	
1,3-Dichlorobenzene	.2	.4	ug/Kg	<MDL	
1,4-Dichlorobenzene	.2	.4	ug/Kg	<MDL	
1,2-Dichlorobenzene	.2	.4	ug/Kg	<MDL	
Hexachloroethane	1	2	ug/Kg	<MDL	
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	
1,2,4-Trichlorobenzene	.1	.2	ug/Kg	<MDL	
Naphthalene	2	4	ug/Kg	<MDL	
Hexachlorobutadiene	.5	1	ug/Kg	<MDL	
Acenaphthylene	2	4	ug/Kg	<MDL	
Dimethyl Phthalate	4	8	ug/Kg	<MDL	
Acenaphthene	2	4	ug/Kg	<MDL	
Fluorene	2	4	ug/Kg	<MDL	
Diethyl Phthalate	4	8	ug/Kg	<MDL	
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	
Hexachlorobenzene	.1	.2	ug/Kg	<MDL	
Pentachlorophenol	10	20	ug/Kg	<MDL	
Phenanthrene	2	4	ug/Kg	<MDL	
Anthracene	2	4	ug/Kg	<MDL	
Di-N-Butyl Phthalate	4	8	ug/Kg	5.2	B
Fluoranthene	2	4	ug/Kg	<MDL	
Pyrene	2	4	ug/Kg	<MDL	
Benzyl Butyl Phthalate	1	2	ug/Kg	4.28	B
Benzo(a)anthracene	2	4	ug/Kg	<MDL	
Chrysene	2	4	ug/Kg	<MDL	
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	11.8	B
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	
Benzo(b)fluoranthene	2	4	ug/Kg	<MDL	
Benzo(k)fluoranthene	2	4	ug/Kg	<MDL	
Benzo(a)pyrene	2	4	ug/Kg	<MDL	
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	<MDL	
Dibenzo(a,h)anthracene	2	4	ug/Kg	<MDL	
Benzo(g,h,i)perylene	2	4	ug/Kg	<MDL	
Benzyl Alcohol	2	4	ug/Kg	<MDL	
2-Methylphenol	2	4	ug/Kg	<MDL	
4-Methylphenol	4	8	ug/Kg	<MDL	
Benzoic Acid	10	20	ug/Kg	<MDL	
2-Methylnaphthalene	2	4	ug/Kg	<MDL	
Dibenzofuran	2	4	ug/Kg	<MDL	
Carbazole	2	4	ug/Kg	<MDL	
Coprostanol	40	80	ug/Kg	<MDL	
Caffeine	4	8	ug/Kg	<MDL	
Total 4-Nonylphenol	5	10	ug/Kg	<MDL	
Total LPAHs	2	4	ug/Kg	<MDL	
Total HPAHS	2	4	ug/Kg	<MDL	

SB:WG96077-2 MB:WG96077-1 Matrix: OTHR SOLID Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit
Phenol	4	8	ug/Kg	<MDL	375.	127	34		10-107
1,3-Dichlorobenzene	.2	.4	ug/Kg	<MDL	375.	152	41		18-95
1,4-Dichlorobenzene	.2	.4	ug/Kg	<MDL	375.	145	39		21-99
1,2-Dichlorobenzene	.2	.4	ug/Kg	<MDL	375.	151	40		10-116
Hexachloroethane	1	2	ug/Kg	<MDL	375.	148	39		17-92
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	375.	61	16		10-81
1,2,4-Trichlorobenzene	.1	.2	ug/Kg	<MDL	375.	138	37		13-110
Naphthalene	2	4	ug/Kg	<MDL	375.	133	35		17-94
Hexachlorobutadiene	.5	1	ug/Kg	<MDL	375.	127	34		10-97
Acenaphthylene	2	4	ug/Kg	<MDL	375.	210	56		31-101
Dimethyl Phthalate	4	8	ug/Kg	<MDL	375.	232	62		38-114
Acenaphthene	2	4	ug/Kg	<MDL	375.	212	56		29-102
Fluorene	2	4	ug/Kg	<MDL	375.	242	64		39-106
Diethyl Phthalate	4	8	ug/Kg	<MDL	375.	236	63		51-118
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	375.	202	54		11-148
Hexachlorobenzene	.1	.2	ug/Kg	<MDL	375.	267	71		40-111
Pentachlorophenol	10	20	ug/Kg	<MDL	375.	252	67		38-124
Phenanthrene	2	4	ug/Kg	<MDL	375.	265	71		57-104
Anthracene	2	4	ug/Kg	<MDL	375.	250	67		45-114
Di-N-Butyl Phthalate	4	8	ug/Kg	5.2	375.	264	69		17-180
Fluoranthene	2	4	ug/Kg	<MDL	375.	296	79		55-132
Pyrene	2	4	ug/Kg	<MDL	375.	256	68		48-132
Benzyl Butyl Phthalate	1	2	ug/Kg	4.28	375.	290	76		15-183
Benzo(a)anthracene	2	4	ug/Kg	<MDL	375.	306	82		69-117
Chrysene	2	4	ug/Kg	<MDL	375.	274	73		69-111
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	11.8	375.	299	77		10-182
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	375.	287	77		10-200
Benzo(b)fluoranthene	2	4	ug/Kg	<MDL	375.	268	72		50-121
Benzo(k)fluoranthene	2	4	ug/Kg	<MDL	375.	254	68		58-128
Benzo(a)pyrene	2	4	ug/Kg	<MDL	375.	230	61		15-137
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	<MDL	375.	247	66		51-132
Dibenzo(a,h)anthracene	2	4	ug/Kg	<MDL	375.	246	66		53-129
Benzo(g,h,i)perylene	2	4	ug/Kg	<MDL	375.	194	52		46-126
Benzyl Alcohol	2	4	ug/Kg	<MDL	375.	138	37		10-119
2-Methylphenol	2	4	ug/Kg	<MDL	375.	104	28		16-91
4-Methylphenol	4	8	ug/Kg	<MDL	375.	111	30		10-125
Benzoic Acid	10	20	ug/Kg	<MDL	375.	93	25		10-170
2-Methylnaphthalene	2	4	ug/Kg	<MDL	375.	121	32		22-99
Dibenzofuran	2	4	ug/Kg	<MDL	375.	222	59		37-97
Carbazole	2	4	ug/Kg	<MDL	375.	277	74		44-179
Coprostanol	40	80	ug/Kg	<MDL	3750	2670	71		10-159
Caffeine	4	8	ug/Kg	<MDL	375.	272	72		45-159
Total LPAHs	2	4	ug/Kg	<MDL	2630	1430	55		25-150
Total HPAHS	2	4	ug/Kg	<MDL	3750	2570	69		25-150

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 12/02/08 07:41
Run ID: R131106 Workgroup: WG96077 (BS#287 BNASMS)

MSD:WG96077-4 MS:WG96077-3 L45314-2 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	Mdl	Rdl	Units	SampValue	Truevalue	MS Value	% Rec.	Qual	LabLimit	Truevalue	MSD Value	% Rec.	Qual	RPD	Qual	Lablimit
Phenol	4	8	ug/Kg	8.27	375.	151	38		10-127	375.	121	30		24		35
1,3-Dichlorobenzene	.2	.4	ug/Kg	<MDL	375.	168	45		10-103	375.	147	39		14		35
1,4-Dichlorobenzene	.2	.4	ug/Kg	.39	375.	156	42		10-104	375.	142	38		10		35
1,2-Dichlorobenzene	.2	.4	ug/Kg	<MDL	375.	165	44		10-105	375.	148	39		12		35
Hexachloroethane	1	2	ug/Kg	<MDL	375.	162	43		10-89	375.	141	38		12		35
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	375.	176	47		10-150	375.	144	39		19		35
1,2,4-Trichlorobenzene	.1	.2	ug/Kg	<MDL	375.	152	40		10-115	375.	140	37		8		35
Naphthalene	2	4	ug/Kg	<MDL	375.	144	38		12-97	375.	134	36		5		35
Hexachlorobutadiene	.5	1	ug/Kg	<MDL	375.	141	38		10-97	375.	135	36		5		35
Acenaphthylene	2	4	ug/Kg	<MDL	375.	231	62		27-132	375.	222	59		5		35
Dimethyl Phthalate	4	8	ug/Kg	<MDL	375.	238	63		13-162	375.	221	59		7		35
Acenaphthene	2	4	ug/Kg	2.1	375.	227	60		25-130	375.	216	57		5		35
Fluorene	2	4	ug/Kg	2.7	375.	259	68		22-147	375.	245	65		5		35
Diethyl Phthalate	4	8	ug/Kg	<MDL	375.	247	66		31-150	375.	226	60		10		35
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	375.	206	55		10-169	375.	227	61		10		35
Hexachlorobenzene	.1	.2	ug/Kg	<MDL	375.	286	76		18-151	375.	273	73		4		35
Pentachlorophenol	10	20	ug/Kg	<MDL	375.	344	92		17-170	375.	312	83		10		35
Phenanthrene	2	4	ug/Kg	16.6	375.	301	76		10-200	375.	286	72		5		35
Anthracene	2	4	ug/Kg	9.42	375.	293	76		10-181	375.	282	73		4		35
Di-N-Butyl Phthalate	4	8	ug/Kg	4.8	375.	270	71		10-194	375.	258	68		4		35
Fluoranthene	2	4	ug/Kg	38.9	375.	330	77		12-188	375.	325	76		1		35
Pyrene	2	4	ug/Kg	32.5	375.	329	79		20-174	375.	290	69		14		35
Benzyl Butyl Phthalate	1	2	ug/Kg	4.61	375.	338	89		41-145	375.	283	74		18		35
Benzo(a)anthracene	2	4	ug/Kg	16.2	375.	357	91		32-168	375.	327	83		9		35
Chrysene	2	4	ug/Kg	27.2	375.	333	81		14-184	375.	309	75		8		35
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	33.5	375.	393	96		10-189	375.	386	94		2		35
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	375.	344	92		52-151	375.	283	75		20		35
Benzo(b)fluoranthene	2	4	ug/Kg	20.5	375.	339	85		10-199	375.	272	67		24		35
Benzo(k)fluoranthene	2	4	ug/Kg	18.6	375.	304	76		10-192	375.	285	71		7		35
Benzo(a)pyrene	2	4	ug/Kg	20.7	375.	310	77		10-200	375.	281	69		11		35
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	10.5	375.	282	72		10-177	375.	265	68		6		35
Dibenzo(a,h)anthracene	2	4	ug/Kg	4.28	375.	279	73		10-166	375.	263	69		6		35
Benzo(g,h,i)perylene	2	4	ug/Kg	9.05	375.	227	58		10-173	375.	208	53		9		35
Benzyl Alcohol	2	4	ug/Kg	<MDL	375.	161	43		10-138	375.	146	39		10		35
2-Methylphenol	2	4	ug/Kg	<MDL	375.	133	35		10-142	375.	111	30		15		35
4-Methylphenol	4	8	ug/Kg	<MDL	375.	160	43		10-163	375.	128	34		23		35
Benzoic Acid	10	20	ug/Kg	63.4	375.	248	49		10-158	375.	202	37		28		35
2-Methylnaphthalene	2	4	ug/Kg	2.8	375.	160	42		22-112	375.	140	37		13		35
Dibenzofuran	2	4	ug/Kg	<MDL	375.	231	62		21-134	375.	223	59		5		35
Carbazole	2	4	ug/Kg	2	375.	258	68		16-200	375.	272	72		6		35
Coprostanol	40	80	ug/Kg	<MDL	3750	2270	61		10-183	3750	2090	56		9		35
Caffeine	4	8	ug/Kg	<MDL	375.	229	61		17-195	375.	238	63		3		35
Total LPAHs	2	4	ug/Kg	34.6	2630	1610	60		25-150	2630	1530	57		5		35
Total HPAHS	2	4	ug/Kg	198	3750	3090	77		25-150	3750	2820	70		10		35

SRM:WG96077-5 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Std Reference Material)

Parameter	Mdl	Rdl	Units	Truevalue	SRM Value	% Rec	Qual	LabLimit
Naphthalene	270	533	ug/Kg	1630	290	18		10-29
Phenanthrene	270	533	ug/Kg	5200	3900	75		51-106
Anthracene	270	533	ug/Kg	1750	722	41		28-98
Fluoranthene	270	533	ug/Kg	8800	7160	81		45-126
Pyrene	270	533	ug/Kg	9570	6610	69		36-135
Benzo(a)anthracene	270	533	ug/Kg	4660	3780	81		66-124
Chrysene	270	533	ug/Kg	4800	4530	94		77-136
Benzo(b)fluoranthene	270	533	ug/Kg	3820	3180	83		52-190
Benzo(k)fluoranthene	270	533	ug/Kg	2270	3020	133		60-146
Benzo(a)pyrene	270	533	ug/Kg	4240	3090	73		60-116
Indeno(1,2,3-Cd)Pyrene	270	533	ug/Kg	2740	1940	71		33-121
Dibenzo(a,h)anthracene	270	533	ug/Kg	419.	787	188		10-200
Benzo(g,h,i)perylene	270	533	ug/Kg	2800	1770	63		15-121

LD:WG96077-6 L45314-3 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimi
Phenol	4	8	ug/Kg	5.5	7.6			35
1,3-Dichlorobenzene	.2	.4	ug/Kg	<MDL	<MDL			35
1,4-Dichlorobenzene	.2	.4	ug/Kg	<MDL	<MDL			35
1,2-Dichlorobenzene	.2	.4	ug/Kg	<MDL	<MDL			35
Hexachloroethane	1	2	ug/Kg	<MDL	<MDL			35
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	<MDL			35
1,2,4-Trichlorobenzene	.1	.2	ug/Kg	<MDL	<MDL			35
Naphthalene	2	4	ug/Kg	<MDL	<MDL			35
Hexachlorobutadiene	.5	1	ug/Kg	<MDL	<MDL			35
Acenaphthylene	2	4	ug/Kg	<MDL	<MDL			35
Dimethyl Phthalate	4	8	ug/Kg	<MDL	<MDL			35
Acenaphthene	2	4	ug/Kg	<MDL	<MDL			35
Fluorene	2	4	ug/Kg	<MDL	<MDL			35
Diethyl Phthalate	4	8	ug/Kg	<MDL	<MDL			35
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	<MDL			35
Hexachlorobenzene	.1	.2	ug/Kg	<MDL	<MDL			35
Pentachlorophenol	10	20	ug/Kg	<MDL	<MDL			35
Phenanthrene	2	4	ug/Kg	<MDL	<MDL			35
Anthracene	2	4	ug/Kg	<MDL	<MDL			35
Di-N-Butyl Phthalate	4	8	ug/Kg	4.1	5.1			35
Fluoranthene	2	4	ug/Kg	<MDL	3			35
Pyrene	2	4	ug/Kg	3.4	4.93	38	E	35
Benzyl Butyl Phthalate	1	2	ug/Kg	4.11	4.52	10		35
Benzo(a)anthracene	2	4	ug/Kg	<MDL	2.1			35
Chrysene	2	4	ug/Kg	<MDL	2.8			35
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	7	10.7	41	E	35
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	<MDL			35
Benzo(b)fluoranthene	2	4	ug/Kg	2.8	4			35
Benzo(k)fluoranthene	2	4	ug/Kg	2.4	3.6			35
Benzo(a)pyrene	2	4	ug/Kg	3.8	4.76	22		35
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	<MDL	2.5			35
Dibenzo(a,h)anthracene	2	4	ug/Kg	<MDL	<MDL			35

LD:WG96077-6 L45314-3 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80 Pkey: SED
(Lab Duplicate)

Parameter	Mdl	Rdl	Units	SampValue	LD Value	RPD	Qual	LabLimi
Benzo(g,h,i)perylene	2	4	ug/Kg	<MDL	2.4			35
Benzyl Alcohol	2	4	ug/Kg	<MDL	<MDL			35
2-Methylphenol	2	4	ug/Kg	<MDL	<MDL			35
4-Methylphenol	4	8	ug/Kg	<MDL	<MDL			35
Benzoic Acid	10	20	ug/Kg	59.9	61	2		35
2-Methylnaphthalene	2	4	ug/Kg	<MDL	<MDL			35
Dibenzofuran	2	4	ug/Kg	<MDL	<MDL			35
Carbazole	2	4	ug/Kg	<MDL	<MDL			35
Coprostanol	40	80	ug/Kg	<MDL	<MDL			35
Caffeine	4	8	ug/Kg	<MDL	<MDL			35
Total LPAHs	2	4	ug/Kg	<MDL	<MDL			35
Total HPAHS	2	4	ug/Kg	19.6	31.2	46	E	35

Sample # (Lab Limits)	2-Fluorophenol- 10-112	d5-Phenol 10-106	d5-Nitrobenzen-e 28-94	d4-2-Chlorophe-nol 11-105	d4-1,2-Dichlor-obenzene 24-91	2-Fluorobiphen-yl 31-101	2,4,6-Tribromo-phenol 29-112	d14-Terphenyl 51-130
L45313-1	45	58	47	52	39	62	68	110
L45313-2	45	55	50	52	40	64	76	100
L45313-3	41	44	47	49	42	59	63	88
L45313-4	25	41	31	37	24	51	66	75
L45313-6	45	53	50	56	43	63	84	89
L45313-7	45	53	49	52	41	64	82	83
L45313-8	42	50	53	53	40	62	68	78
L45313-9	46	47	50	50	43	57	67	81
L45313-11	47	55	48	53	41	61	77	81
L45313-12	51	60	54	60	45	68	74	78
L45313-14	46	53	55	55	46	60	64	83
L45313-15	43	46	50	51	44	57	72	78
L45313-16	35	40	38	40	33	47	69	75
L45313-17	39	48	42	46	36	46	51	66
L45314-1	51	59	62	62	49	65	70	83
L45314-2	37	43	41	43	37	51	80	97
L45314-3	37	43	46	45	42	51	75	91
L45314-4	43	54	55	53	40	58	66	80
L45314-5	34	40	40	40	35	49	79	86
L45314-6	43	51	51	51	41	59	67	80
L45314-7	50	60	55	60	50	64	75	87
WG96077-1	25	31	39	33	37	42	34	82
WG96077-2	37	39	38	42	62	40	63	88
WG96077-3	44	42	42	49	69	51	82	101
WG96077-4	37	34	37	40	61	45	74	85
WG96077-5	60	70	65	73	58	65	75	77
WG96077-6	34	34	40	38	38	34	57	78

==========
If the following parameters are reported, values in the RPD column are their Absolute Differences:
- pH
- pH, Field
- Salinity
- Salinity, Field
- Sample Depth
- Sample Temperature, Field

Trace Organics Data Anomaly Form

Date(s) Occurred: *08/04/15, 08/04/16, 08/04/17*

WG #(s): *WG96077*

☒ **All samples in WKGP(s)** **or** ☐ **Sample #(s):**

Project #(s): *423368-080 DENNY WAY POST CONSTRUCTION*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Extraction

☐ BNA	☐ BNALL	☒ EDC	☐ EDC-LVI
☐ CLPESTPCB	☐ PEST	☐ PCB	☐ OPPEST
☐ VOA-GCMS	☐ NWTPH-GX	☐ NWTPH-DX	☐ NWTPH-HCID
☐ BUTYL TIN	☐ AIRTOX	☐ AIR-SULFUR	

☒ Other: *BNASMS*
☐ Subcontracted:

II. Instrument

GC/ICP/MS:	☐ P
GC/MS:	☐ D ☐ E ☒ J ☐ K ☐ L ☐ M ☐ N
GC:	☐ F ECD ☐ G ECD ☐ H FID ☐ H OI4450PID/FID
	☐ I FID
Extraction/Cleanup:	☐ PFE ☐ GPC
	☐ Other:

III. Type of Sample/Analytical Anomaly

☒ Values Outside of Control Limits:

1 ☒ Blank Contamination	8 ☐ Surrogate Spike Recoveries
2 ☐ SB/SBD Spike Recoveries	9 ☐ SB/SBD RPD
3 ☐ MS/MSD Spike Recoveries	10 ☐ MS/MSD RPD
4 ☐ LCS/SRM Recoveries	11 ☒ Sample/LD RPD
5 ☐ Initial Calibration	12 ☐ Continuing Calibration Checks
6 ☐ Performance Checks	13 ☐ Tuning Criteria
7 ☐ ISTD % Differences	

14 ☐ Holding time exceeded by:
15 ☐ Insufficient sample amount.
16 ☐ Inappropriate storage, container or preservation.
17 ☒ Other

Anomaly Description:

1. WG96077-1 MB had quantitatable concentrations of Di-N-Butyl Phthalate (5.2 ug/Kg), Benzyl Butyl Phthalate (4.28 ug/Kg), and Bis (2EH) Phthalate (11.8 ug/Kg)).

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11. WG96077-6 LD and L45314-3 had 3 of 10 reported analytes exceed the lab QC limit of 35%.

17. Samples L45314-1 and L45314-2 were diluted X 5 and re-analyzed due to analytes exceeding the calibration curve.

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

☒ Sample(s) re-analyzed ☐ Sample(s) re-prepared and re-analyzed
☒ Sample(s) reported "AS IS"
☐ Data qualified with the following flags: *B, E*
☐ Other

Corrective Action Description:

VI. Potential Effects on Data Quality:

☒ None; corrective action entirely corrected anomaly (explanation optional):

1. The MB contamination should be considered background for low level soils analyses. The samples were flagged B as per QA/QC protocol.

11. Pyrene, Bis (2EH) Phthalate and Total HPAHs exceeded the 35% RPD lab limit for sample and lab duplicate. The other 10 reported analytes were within QC limits. As the reported values approach the low level MDLs and RDLs, slight differences in the values are calculated higher. The differences can be attributed to sample matrix and homogeneity. As the reported values increase in multiples of the RDL, the confidence in the quantitation increases and the "E" flag is much less biased.

17. All reportable analytes were within calibration range after the dilution and re-analyses of the samples. The text value was noted "value from X 5 dilution".

☐ Potential effect explanation (explanation mandatory):

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	Signatures	Signature Dates
Reported By: *M. Doubrava*		
Reviewer:		
Supervisor: *Dana Walker*		
QA Officer: *Colin Elliott* (For QA1 only)		
cc: LPM:		

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WG96150 (PCB)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-1	423368-80	SALTWTRSED	4/1/2008 10:48	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45313-2	423368-80	SALTWTRSED	3/31/2008 12:30	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45313-3	423368-80	SALTWTRSED	3/31/2008 10:20	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45313-4	423368-80	SALTWTRSED	4/2/2008 9:05	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45313-6	423368-80	SALTWTRSED	4/1/2008 11:25	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45313-7	423368-80	SALTWTRSED	4/2/2008 9:30	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45313-8	423368-80	SALTWTRSED	3/31/2008 11:10	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45313-9	423368-80	SALTWTRSED	3/31/2008 14:50	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45313-11	423368-80	SALTWTRSED	4/2/2008 10:40	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45313-12	423368-80	SALTWTRSED	4/2/2008 8:30	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45313-14	423368-80	SALTWTRSED	4/1/2008 10:07	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45313-15	423368-80	SALTWTRSED	4/1/2008 8:40	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45313-16	423368-80	SALTWTRSED	4/1/2008 9:20	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45313-17	423368-80	SALTWTRSED	3/31/2008 11:55	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45314-1	423368-80	SALTWTRSED	4/2/2008 11:50	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45314-2	423368-80	SALTWTRSED	4/2/2008 14:10	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45314-3	423368-80	SALTWTRSED	4/2/2008 11:30	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45314-4	423368-80	SALTWTRSED	4/2/2008 11:12	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45314-5	423368-80	SALTWTRSED	4/2/2008 13:10	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45314-6	423368-80	SALTWTRSED	4/2/2008 13:40	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
L45314-7	423368-80	SALTWTRSED	4/2/2008 12:43	11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	
WG96150-1	MB	OTHR SOLID		11-Apr-08	12-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	MB080411
WG96150-2	SB	OTHR SOLID		11-Apr-08	12-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	WG96150-1
WG96150-3	MS	SALTWTRSED		11-Apr-08	12-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	L45314-3
WG96150-4	MSD	SALTWTRSED		11-Apr-08	12-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	WG96150-3 L45314-3
WG96150-5	MS	SALTWTRSED		11-Apr-08	12-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	L45314-3
WG96150-6	MSD	SALTWTRSED		11-Apr-08	12-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	WG96150-5 L45314-3
WG96150-7	SRM	SALTWTRSED		11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	HS-2
WG96150-8	LD	SALTWTRSED		11-Apr-08	13-May-08	WG96150-1, -2, -3, -4, -5, -6, -7, -8	L45313-11

Workgroup: WG96150 (PCB)

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Aroclor 1016	1	2	ug/Kg	<MDL	
Aroclor 1221	2	4	ug/Kg	<MDL	
Aroclor 1232	2	4	ug/Kg	<MDL	
Aroclor 1242	1	2	ug/Kg	<MDL	
Aroclor 1248	1	2	ug/Kg	<MDL	
Aroclor 1254	1	2	ug/Kg	<MDL	
Aroclor 1260	1	2	ug/Kg	<MDL	
Total Aroclors	1	2	ug/Kg	<MDL	

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
Aroclor 1016	1	2	ug/Kg	<MDL	7.5	6.1	81		39--121
Aroclor 1260	1	2	ug/Kg	<MDL	7.5	6.56	87		53--140

(Matrix Spike Duplicate, Matrix Spike) L45314-3

Parameter	MDL	RDL	Units	SampValue	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Aroclor 1016	1	2	ug/Kg	<MDL	7.5	6.26	84		32--164	7.5	6.23	83		1		35
Aroclor 1260	1	2	ug/Kg	<MDL	7.5	6.61	88		28--144	7.5	6.97	93		6		35

(Matrix Spike Duplicate, Matrix Spike) L45314-3

Parameter	MDL	RDL	Units	SampValue	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
Aroclor 1016	1	2	ug/Kg	<MDL	100	65.7	66		32--164	100	65.8	66		0		35
Aroclor 1260	1	2	ug/Kg	<MDL	100	72.9	73		28--144	100	73.9	74		1		35

(Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit
Aroclor 1254	2.7	5.33	ug/Kg	55.9	70.4	126		57--139

(Lab Duplicate) L45313-11

Parameter	MDL	RDL	Units	SampValue	LD Value	RPD^	Qual	LabLimit
Aroclor 1016	12	23.8	ug/Kg	<MDL	<MDL			35
Aroclor 1221	2	4	ug/Kg	<MDL	<MDL			35
Aroclor 1232	20	40.2	ug/Kg	<MDL	<MDL			35
Aroclor 1242	27	54.6	ug/Kg	<MDL	<MDL			35
Aroclor 1248	1	2	ug/Kg	21	21.7	3		35
Aroclor 1254	1	2	ug/Kg	48.2	49.1	2		35
Aroclor 1260	1	2	ug/Kg	35.2	33.5	5		35
Total Aroclors	1	2	ug/Kg	104	104	0		35

Surrogate:	2,4,5,6-Tetrachloro-m-xylene	Decachlorobiphenyl
(Lab Limits)	30--134	15--155
L45313-1	84	63
L45313-2	53	75
L45313-3	43	76
L45313-4	46	75
L45313-6	82	72
L45313-7	55	79
L45313-8	83	89
L45313-9	64	75
L45313-11	76	77
L45313-12	73	76
L45313-14	79	82
L45313-15	65	77
L45313-16	73	71
L45313-17	79	79
L45314-1	66	75
L45314-2	63	75
L45314-3	48	78
L45314-4	53	79
L45314-5	55	78
L45314-6	75	70
L45314-7	72	74
WG96150-1	65	89
WG96150-2	65	83
WG96150-3	59	83
WG96150-4	59	77
WG96150-5	59	77
WG96150-6	61	82
WG96150-7	67	81
WG96150-8	67	75

WG96122 (Chlorinated Pesticides)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-1	423368-80	SALTWTRSED	4/1/2008 10:48	10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	
L45313-2	423368-80	SALTWTRSED	3/31/2008 12:30	10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	
L45313-3	423368-80	SALTWTRSED	3/31/2008 10:20	10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	
L45313-4	423368-80	SALTWTRSED	4/2/2008 9:05	10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	
L45313-6	423368-80	SALTWTRSED	4/1/2008 11:25	10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	
L45313-7	423368-80	SALTWTRSED	4/2/2008 9:30	10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	
L45313-8	423368-80	SALTWTRSED	3/31/2008 11:10	10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	
L45313-9	423368-80	SALTWTRSED	3/31/2008 14:50	10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	
L45313-11	423368-80	SALTWTRSED	4/2/2008 10:40	10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	
L45313-12	423368-80	SALTWTRSED	4/2/2008 8:30	10-Apr-08	16-May-08	WG96122-1, -2, -3, -4, -5, -6	
L45313-14	423368-80	SALTWTRSED	4/1/2008 10:07	10-Apr-08	16-May-08	WG96122-1, -2, -3, -4, -5, -6	
L45313-15	423368-80	SALTWTRSED	4/1/2008 8:40	10-Apr-08	16-May-08	WG96122-1, -2, -3, -4, -5, -6	
L45313-16	423368-80	SALTWTRSED	4/1/2008 9:20	10-Apr-08	16-May-08	WG96122-1, -2, -3, -4, -5, -6	
L45313-17	423368-80	SALTWTRSED	3/31/2008 11:55	10-Apr-08	16-May-08	WG96122-1, -2, -3, -4, -5, -6	
WG96122-1	MB	OTHR SOLID		10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	MB080410
WG96122-2	SB	OTHR SOLID		10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	WG96122-1
WG96122-3	MS	SALTWTRSED		10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	L45313-6
WG96122-4	MSD	SALTWTRSED		10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	WG96122-3 L45313-6
WG96122-5	SRM	SALTWTRSED		10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	1944
WG96122-6	LD	SALTWTRSED		10-Apr-08	15-May-08	WG96122-1, -2, -3, -4, -5, -6	L45313-7

Workgroup: WG96122 (Chlorinated Pesticides)

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
4,4'-DDD	1	2	ug/Kg	<MDL	
4,4'-DDE	1	2	ug/Kg	<MDL	
4,4'-DDT	1	2	ug/Kg	<MDL	
Aldrin	1	2	ug/Kg	<MDL	
Alpha-BHC	0.5	1	ug/Kg	<MDL	
Alpha-Chlordane	0.5	1	ug/Kg	<MDL	
Beta-BHC	0.5	1	ug/Kg	<MDL	
Delta-BHC	0.5	1	ug/Kg	<MDL	
Dieldrin	1	2	ug/Kg	<MDL	
Endosulfan I	1	2	ug/Kg	<MDL	
Endosulfan II	1	2	ug/Kg	<MDL	
Endosulfan Sulfate	1	2	ug/Kg	<MDL	
Endrin	1	2	ug/Kg	<MDL	
Endrin Aldehyde	1	2	ug/Kg	<MDL	
Gamma-BHC (Lindane)	0.5	1	ug/Kg	<MDL	
Gamma-Chlordane	0.5	1	ug/Kg	<MDL	
Heptachlor	0.5	1	ug/Kg	<MDL	
Heptachlor Epoxide	0.5	1	ug/Kg	<MDL	
Methoxychlor	5	10	ug/Kg	<MDL	
Toxaphene	10	20	ug/Kg	<MDL	

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
4,4'-DDD	1	2	ug/Kg	<MDL	10	10.6	106		78--121
4,4'-DDE	1	2	ug/Kg	<MDL	10	10.4	104		75--111
4,4'-DDT	1	2	ug/Kg	<MDL	10	10.3	103		57--145
Aldrin	1	2	ug/Kg	<MDL	10	5.42	54		28--113
Alpha-BHC	0.5	1	ug/Kg	<MDL	10	5.53	55		20--99
Beta-BHC	0.5	1	ug/Kg	<MDL	10	9.45	94		66--102
Delta-BHC	0.5	1	ug/Kg	<MDL	10	7.88	79		63--108
Dieldrin	1	2	ug/Kg	<MDL	10	9.54	95		58--139
Endosulfan I	1	2	ug/Kg	<MDL	10	8.4	84		62--104
Endosulfan II	1	2	ug/Kg	<MDL	10	9.36	94		72--109
Endosulfan Sulfate	1	2	ug/Kg	<MDL	10	8.24	82		61--104
Endrin	1	2	ug/Kg	<MDL	10	11	110		60--160
Endrin Aldehyde	1	2	ug/Kg	<MDL	10	4.1	41		10--77
Gamma-BHC (Lindane)	0.5	1	ug/Kg	<MDL	10	6.59	66		27--130
Heptachlor	0.5	1	ug/Kg	<MDL	10	5.94	59		20--137
Heptachlor Epoxide	0.5	1	ug/Kg	<MDL	10	8.42	84		59--107
Methoxychlor	5	10	ug/Kg	<MDL	10	11.6	116		72--131

(Matrix Spike Duplicate, Matrix Spike) L45313-6

Parameter	MDL	RDL	Units	SampValue	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
4,4'-DDD	1	2	ug/Kg	<MDL	10	9.46	95		41--157	10	9.39	94		1		35
4,4'-DDE	1	2	ug/Kg	<MDL	10	9.13	91		59--125	10	9.24	92		1		35
4,4'-DDT	1	2	ug/Kg	<MDL	10	9.94	99		50--144	10	9.52	95		4		35
Aldrin	1	2	ug/Kg	<MDL	10	7.01	70		61--119	10	7.15	72		3		35
Alpha-BHC	0.5	1	ug/Kg	<MDL	10	7.63	76		59--111	10	8.05	81		6		35
Beta-BHC	0.5	1	ug/Kg	<MDL	10	7.77	78		60--119	10	8.37	84		7		35
Delta-BHC	0.5	1	ug/Kg	<MDL	10	5.85	59		54--126	10	6.07	61		3		35
Dieldrin	1	2	ug/Kg	<MDL	10	8.33	83		60--139	10	8.28	83		0		35
Endosulfan I	1	2	ug/Kg	<MDL	10	7.49	75		64--113	10	7.52	75		0		35
Endosulfan II	1	2	ug/Kg	<MDL	10	6.4	64		36--146	10	7.29	73		13		35
Endosulfan Sulfate	1	2	ug/Kg	<MDL	10	6.71	67		46--113	10	7.17	72		7		35
Endrin	1	2	ug/Kg	<MDL	10	9.46	95		62--166	10	9.65	96		1		35
Endrin Aldehyde	1	2	ug/Kg	<MDL	10	3.12	31		10--66	10	3.54	35		12		35
Gamma-BHC (Lindane)	0.5	1	ug/Kg	<MDL	10	7.72	77		61--135	10	8	80		4		35
Heptachlor	0.5	1	ug/Kg	<MDL	10	7.63	76		52--157	10	7.93	79		4		35
Heptachlor Epoxide	0.5	1	ug/Kg	<MDL	10	8.19	82		61--118	10	8.25	82		0		35
Methoxychlor	5	10	ug/Kg	<MDL	10	9.7	97		53--129	10	9.5	95		2		35

(Std Reference Material)

Parameter	MDL	RDL	Units	TrueValue	SRM Value	% Rec.	Qual	LabLimit
4,4'-DDT	5.3	10.7	ug/Kg	119	175	147		10--200
Alpha-Chlordane	2.7	5.33	ug/Kg	16.5	16.4	99		48--144

(Lab Duplicate) L45313-7

Parameter	MDL	RDL	Units	SampValue	LD Value	RPD^	Qual	LabLimit
4,4'-DDD	1	2	ug/Kg	1.9	2.04	7		35
4,4'-DDE	1	2	ug/Kg	<MDL	<MDL			35
4,4'-DDT	1	2	ug/Kg	<MDL	<MDL			35
Aldrin	1	2	ug/Kg	<MDL	<MDL			35
Alpha-BHC	0.5	1	ug/Kg	<MDL	<MDL			35
Alpha-Chlordane	0.5	1	ug/Kg	<MDL	<MDL			35
Beta-BHC	0.5	1	ug/Kg	<MDL	<MDL			35
Delta-BHC	0.5	1	ug/Kg	<MDL	<MDL			35
Dieldrin	1	2	ug/Kg	<MDL	<MDL			35
Endosulfan I	1	2	ug/Kg	<MDL	<MDL			35
Endosulfan II	1	2	ug/Kg	<MDL	<MDL			35
Endosulfan Sulfate	1	2	ug/Kg	<MDL	<MDL			35
Endrin	1	2	ug/Kg	<MDL	<MDL			35
Endrin Aldehyde	1	2	ug/Kg	<MDL	<MDL			35
Gamma-BHC (Lindane)	0.5	1	ug/Kg	<MDL	<MDL			35
Gamma-Chlordane	0.5	1	ug/Kg	<MDL	<MDL			35
Heptachlor	0.5	1	ug/Kg	<MDL	<MDL			35
Heptachlor Epoxide	0.5	1	ug/Kg	<MDL	<MDL			35
Methoxychlor	5	10	ug/Kg	<MDL	<MDL			35
Toxaphene	10	20	ug/Kg	<MDL	<MDL			35

Surrogate:	2,4,5,6-Tetrachloro-m-xylene	Decachlorobiphenyl
(Lab Limits)	**30--134**	**15--155**
L45313-1	86	86
L45313-2	80	77
L45313-3	68	73
L45313-4	69	61
L45313-6	77	67
L45313-7	76	64
L45313-8	78	74
L45313-9	70	63
L45313-11	67	63
L45313-12	74	67
L45313-14	75	72
L45313-15	66	68
L45313-16	55	62
L45313-17	70	71
WG96122-1	25 G	73
WG96122-2	38	77
WG96122-3	68	73
WG96122-4	75	66
WG96122-5	83	97
WG96122-6	71	83

Trace Organics Data Anomaly Form

Date(s) Occurred: *5/15/2008*

WG #(s): *WG96122*

☒ **All samples in WKGP(s)** **or** ☐ **Sample #(s):**

Project #(s): *423368-080-001*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Extraction

☐ BNA	☐ BNALL	☐ EDC	☐ EDC-LVI
☐ CLPESTPCB	☒ PEST	☐ PCB	☐ OPPEST
☐ VOA-GCMS	☐ NWTPH-GX	☐ NWTPH-DX	☐ NWTPH-HCID
☐ BUTYL TIN	☐ AIRTOX	☐ AIR-SULFUR	
☐ Other:			
☐ Subcontracted:			

II. Instrument

GC/ICP/MS:	☐ P
GC/MS:	☐ D ☐ E ☐ J ☐ K ☐ L ☐ M ☐ N
GC:	☐ F ECD ☒ G ECD ☐ H FID ☐ H OI4450PID/FID
	☐ I FID
Extraction/Cleanup:	☐ PFE ☐ GPC
	☐ Other:

III. Type of Sample/Analytical Anomaly

☒ Values Outside of Control Limits:

1 ☐ Blank Contamination	8 ☒ Surrogate Spike Recoveries
2 ☐ SB/SBD Spike Recoveries	9 ☐ SB/SBD RPD
3 ☐ MS/MSD Spike Recoveries	10 ☐ MS/MSD RPD
4 ☐ LCS/SRM Recoveries	11 ☐ Sample/LD RPD
5 ☐ Initial Calibration	12 ☒ Continuing Calibration Checks
6 ☐ Performance Checks	13 ☐ Tuning Criteria
7 ☐ ISTD % Differences	

14 ☐ Holding time exceeded by:
15 ☐ Insufficient sample amount.
16 ☐ Inappropriate storage, container or preservation.
17 ☐ Other

Anomaly Description: *8. The method blank WG96122-1 had a low recovery for one surrogate, TCX. 12. The continuing calibration checks were consistently low for Endrin Aldehyde.*

IV. Type of Project Anomaly

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☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

☐ Sample(s) re-analyzed ☐ Sample(s) re-prepared and re-analyzed
☒ Sample(s) reported "AS IS"
☒ Data qualified with the following flags: *8. G , 12. E -"estimate due to low CCV recovery"*
☐ Other

Corrective Action Description:

VI. Potential Effects on Data Quality:

☒ None; corrective action entirely corrected anomaly (explanation optional): *8. The surrogates are commonly low in the method blanks and spike blanks for solid samples, due to these two samples not having any matrix. The other surrogate, DCB, is within acceptance limits.*

☒ Potential effect explanation (explanation mandatory): *12. The potential effect is that all Endrin Aldehyde values could be higher than what is reported in the samples. All three spike recoveries are within the acceptance limits for Endrin Aldehyde.*

	Signatures	Signature Dates
Reported By: *Gretchen Nerlin*		
Reviewer: *Jim Fiscus*		
Supervisor: *Dana Walker*		
QA Officer: *Colin Elliott* **(For QA1 only)**		
cc: LPM: Fritz Grothkopp		

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WG96028 (Volatile Organics)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-1	423368-80	SALTWTRSED	4/1/2008 10:48	2-Apr-08	15-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	
L45313-2	423368-80	SALTWTRSED	3/31/2008 12:30	2-Apr-08	2-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	
L45313-3	423368-80	SALTWTRSED	3/31/2008 10:20	2-Apr-08	9-Apr-08	WG96028-1, -2, -3, -4, -6, -7, -8, -9	
L45313-6	423368-80	SALTWTRSED	4/1/2008 11:25	2-Apr-08	2-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	
L45313-8	423368-80	SALTWTRSED	3/31/2008 11:10	2-Apr-08	2-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	
L45313-9	423368-80	SALTWTRSED	3/31/2008 14:50	2-Apr-08	2-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	
L45313-14	423368-80	SALTWTRSED	4/1/2008 10:07	2-Apr-08	2-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	
L45313-15	423368-80	SALTWTRSED	4/1/2008 8:40	2-Apr-08	2-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	
L45313-16	423368-80	SALTWTRSED	4/1/2008 9:20	2-Apr-08	2-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	
L45313-17	423368-80	SALTWTRSED	3/31/2008 11:55	2-Apr-08	2-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	
WG96028-1	MB	OTHR SOLID		2-Apr-08	2-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	MB080402
WG96028-2	SB	OTHR SOLID		2-Apr-08	2-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	WG96028-1
WG96028-3	MS	FRSHWTRSED		2-Apr-08	2-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	L45313-1
WG96028-4	MSD	FRSHWTRSED		2-Apr-08	2-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	WG96028-3 L45313-1
WG96028-5	LD	FRSHWTRSED		2-Apr-08	2-Apr-08	WG96028-1, -2, -3, -4, -5, -6, -7, -8, -9	L45313-6
WG96028-6	MB	OTHR SOLID		2-Apr-08	9-Apr-08	WG96028-6, -7, -8, -9	MB080409
WG96028-7	SB	OTHR SOLID		2-Apr-08	9-Apr-08	WG96028-6, -7, -8, -9	WG96028-6
WG96028-8	MB	OTHR SOLID		2-Apr-08	15-Apr-08	WG96028-6, -7, -8, -9	MB080415
WG96028-9	SB	OTHR SOLID		2-Apr-08	15-Apr-08	WG96028-6, -7, -8, -9	WG96028-8

Workgroup: WG96028 (Volatile Organics)

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	
Ethylbenzene	1	2	ug/Kg	<MDL	
Tetrachloroethylene	1	2	ug/Kg	<MDL	
Total Xylenes	1	2	ug/Kg	<MDL	

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	50	49.2	98		35--118
Ethylbenzene	1	2	ug/Kg	<MDL	50	52.2	104		70--130
Tetrachloroethylene	1	2	ug/Kg	<MDL	50	43.6	87		70--130
Total Xylenes	1	2	ug/Kg	<MDL	100	100	100		70--130

(Matrix Spike Duplicate, Matrix Spike) L45313-1

Parameter	MDL	RDL	Units	SampValue	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
1,1,2-Trichloroethylene	5	10	ug/Kg	<MDL	250	233	93		35--118	250	218	87		7		35
Ethylbenzene	5	10	ug/Kg	<MDL	250	221	88		70--130	250	213	85		3		35
Tetrachloroethylene	5	10	ug/Kg	<MDL	250	197	79		70--130	250	178	71		11		35
Total Xylenes	5	10	ug/Kg	<MDL	500	420	84		70--130	500	409	82		2		35

(Lab Duplicate) L45313-6

Parameter	MDL	RDL	Units	SampValue	LD Value	RPD^	Qual	LabLimit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	<MDL			35
Ethylbenzene	1	2	ug/Kg	<MDL	<MDL			35
Tetrachloroethylene	1	2	ug/Kg	<MDL	<MDL			35
Total Xylenes	1	2	ug/Kg	<MDL	<MDL			35

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	
Ethylbenzene	1	2	ug/Kg	<MDL	
Tetrachloroethylene	1	2	ug/Kg	<MDL	
Total Xylenes	1	2	ug/Kg	<MDL	

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	50	54.3	109		35--118
Ethylbenzene	1	2	ug/Kg	<MDL	50	58	116		70--130
Tetrachloroethylene	1	2	ug/Kg	<MDL	50	48.7	97		70--130
Total Xylenes	1	2	ug/Kg	<MDL	100	112	112		70--130

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	
Ethylbenzene	1	2	ug/Kg	<MDL	
Tetrachloroethylene	1	2	ug/Kg	<MDL	
Total Xylenes	1	2	ug/Kg	<MDL	

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	50	50.9	102		35--118
Ethylbenzene	1	2	ug/Kg	<MDL	50	57.9	116		70--130
Tetrachloroethylene	1	2	ug/Kg	<MDL	50	47	94		70--130
Total Xylenes	1	2	ug/Kg	<MDL	100	114	114		70--130

Surrogate:	4-Bromofluorobenzene	d4-1,2-Dichloroethane	d8-Toluene
(Lab Limits)	**78--110**	**76--128**	**84--106**
L45313-1	92	102	100
L45313-2	91	101	97
L45313-3	95	109	100
L45313-6	91	103	99
L45313-8	89	101	98
L45313-9	93	104	100
L45313-14	96	101	98
L45313-15	94	102	97
L45313-16	90	103	98
L45313-17	93	104	99
WG96028-1	90	103	101
WG96028-2	102	97	104
WG96028-3	101	91	103
WG96028-4	105	91	103
WG96028-5	92	102	98
WG96028-6	88	106	102
WG96028-7	103	97	106
WG96028-8	85	103	99
WG96028-9	100	93	105

WG96041 (Volatile Organics)

Sample	Project	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L45313-4	423368-80	SALTWTRSED	4/2/2008 9:05	3-Apr-08	3-Apr-08	WG96028-3, -4, -5, WG96041-1, -2	
L45313-7	423368-80	SALTWTRSED	4/2/2008 9:30	3-Apr-08	3-Apr-08	WG96028-3, -4, -5, WG96041-1, -2	
L45313-11	423368-80	SALTWTRSED	4/2/2008 10:40	3-Apr-08	3-Apr-08	WG96028-3, -4, -5, WG96041-1, -2	
L45313-12	423368-80	SALTWTRSED	4/2/2008 8:30	3-Apr-08	3-Apr-08	WG96028-3, -4, -5, WG96041-1, -2	
WG96041-1	MB	OTHR SOLID		3-Apr-08	3-Apr-08	WG96028-3, -4, -5, WG96041-1, -2	MB080403
WG96041-2	SB	OTHR SOLID		3-Apr-08	3-Apr-08	WG96028-3, -4, -5, WG96041-1, -2	WG96041-1
WG96028-3	MS	FRSHWTRSED		2-Apr-08	2-Apr-08		L45313-1
WG96028-4	MSD	FRSHWTRSED		2-Apr-08	2-Apr-08		WG96028-3 L45313-1
WG96028-5	LD	FRSHWTRSED		2-Apr-08	2-Apr-08		L45313-6

Workgroup: WG96041 (Volatile Organics)

(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	
Ethylbenzene	1	2	ug/Kg	<MDL	
Tetrachloroethylene	1	2	ug/Kg	<MDL	
Total Xylenes	1	2	ug/Kg	<MDL	

(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	TrueValue	SB Value	% Rec.	Qual	LabLimit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	50	47.6	95		35--118
Ethylbenzene	1	2	ug/Kg	<MDL	50	48.4	97		70--130
Tetrachloroethylene	1	2	ug/Kg	<MDL	50	38.9	78		70--130
Total Xylenes	1	2	ug/Kg	<MDL	100	95.2	95		70--130

(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SampValue	TrueValue	MS Value	% Rec.	Qual	LabLimit	TrueValue	MSD Value	% Rec.	Qual	RPD	Qual	LabLimit
1,1,2-Trichloroethylene	5	10	ug/Kg	<MDL	250	233	93		35--118	250	218	87		7		35
Ethylbenzene	5	10	ug/Kg	<MDL	250	221	88		70--130	250	213	85		3		35
Tetrachloroethylene	5	10	ug/Kg	<MDL	250	197	79		70--130	250	178	71		11		35
Total Xylenes	5	10	ug/Kg	<MDL	500	420	84		70--130	500	409	82		2		35

(Lab Duplicate)

Parameter	MDL	RDL	Units	SampValue	LD Value	RPD^	Qual	LabLimit
1,1,2-Trichloroethylene	1	2	ug/Kg	<MDL	<MDL			35
Ethylbenzene	1	2	ug/Kg	<MDL	<MDL			35
Tetrachloroethylene	1	2	ug/Kg	<MDL	<MDL			35
Total Xylenes	1	2	ug/Kg	<MDL	<MDL			35

Surrogate:	4-Bromofluorobenzene	d4-1,2-Dichloroethane	d8-Toluene
(Lab Limits)	**78--110**	**76--128**	**84--106**
L45313-4	97	107	101
L45313-7	94	104	100
L45313-11	94	104	101
L45313-12	86	107	100
WG96041-1	94	103	101
WG96041-2	105	95	104

^ For the following parameters, the values in RPD column are Absolute Difference:

pH
pH, Field
Salinity
Salinity, Field
sample Depth
sample Temperature, Field

Trace Organics Data Anomaly Form

Date(s) Occurred: *3/31/2008*

WG #(s): *WG96028*

☐ **All samples in WKGP(s)** **or** ☒ **Sample #(s):** *L45313-2, -3, -8, -9, 17*

Project #(s): *421196*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Extraction

☐ BNA ☐ BNALL ☐ EDC ☐ EDC-LVI
☐ CLPESTPCB ☐ PEST ☐ PCB ☐ OPPEST
☐ VOA-GCMS ☐ NWTPH-GX ☐ NWTPH-DX ☐ NWTPH-HCID
☐ BUTYL TIN ☐ AIRTOX ☐ AIR-SULFUR
☒ Other: *VOA-GC/MS-LOWSED*
☐ Subcontracted:

II. Instrument

GC/ICP/MS: ☐ P
GC/MS: ☐ D ☐ E ☐ J ☐ K ☒ L ☐ M ☐ N
GC: ☐ F ECD ☐ G ECD ☐ H FID ☐ H OI4450PID/FID
☐ I FID
Extraction/Cleanup: ☐ PFE ☐ GPC
☐ Other:

III. Type of Sample/Analytical Anomaly

☐ Values Outside of Control Limits:

1 ☐ Blank Contamination
2 ☐ SB/SBD Spike Recoveries
3 ☐ MS/MSD Spike Recoveries
4 ☐ LCS/SRM Recoveries
5 ☐ Initial Calibration
6 ☐ Performance Checks
7 ☐ ISTD % Differences
8 ☐ Surrogate Spike Recoveries
9 ☐ SB/SBD RPD
10 ☐ MS/MSD RPD
11 ☐ Sample/LD RPD
12 ☐ Continuing Calibration Checks
13 ☐ Tuning Criteria

14 ☐ Holding time exceeded by:
15 ☐ Insufficient sample amount.
16 ☒ Inappropriate storage, container or preservation.
17 ☐ Other

Anomaly Description: *Samples L45313-2, -3, -8, -9, and -17 were stored in the freezer overnight by sample manager. Three jars of those samples, L45313-2, -3, and -17, broke upon thawing. Mike Doubrava contacted customer(Scott Mickelson) regarding the anomaly. Scott suggested to "H" flagged all of the samples that got stored in the freezer.*

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IV. Type of Project Anomaly

- ☐ SAP/Work Plan specified MDLs not met.
- ☐ SAP/Work Plan specified QC frequency or QC type not met.
- ☐ SAP/Work Plan specified methodology not used.
- ☐ Sample exceeds regulatory and/or hazardous waste limits.
- ☐ Sample data results are unusual or inconsistent with expected results.
- ☐ Other

Anomaly Description:

V. Corrective Action Taken

- ☐ Sample(s) re-analyzed
- ☐ Sample(s) re-prepared and re-analyzed
- ☐ Sample(s) reported "AS IS"
- ☒ Data qualified with the following flags: *Samples L45313-2, -3, -8, -9, and -17 were "H" flagged*
- ☐ Other

Corrective Action Description:

VI. Potential Effects on Data Quality:

- ☒ None; corrective action entirely corrected anomaly (explanation optional):
- ☐ Potential effect explanation (explanation mandatory):

	Signatures	Signature Dates
Reported By: *Lily Kdep*		
Reviewer: *Dave Fada*		
Supervisor: *Dana Walker*		
QA Officer: *Colin Elliott* (For QA1 only)		
cc: LPM:		

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CHAIN OF CUSTODY FORMS

Login Number: P45313 ~~Login. Please delete 5,10,13~~ Page: 1

T_DN.CHEM06

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel:

Sample No. (Type)	P45313-1	P45313-2	P45313-3
Locator	DWMP-01	DWMP-02	DWMP-03
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time	4/1/08 1048	03/31/08 1230	03/31/08 1020
End Date/Time		~~12:45~~	End: 11:00
Time Span			
Sample Depth	8	13	18
Comments	~~0-2 cm~~ 3 grab COMP 0-10 cm	~~0-2 cm~~ 3 grab COMP	~~0-2 cm~~ 3 grab COMP
PERSONNEL	SH, JDD, JB, AF, AF		JB, JD, CB, AF, AF
SAMP METH	20042		
SED DEPTH	14, 14, 15	9, 9, 11 (10)	14, (16), 17
SED SAMP RANGE	0-10 cm	0-9 cm	0-10 cm
SED TYPE	23T21	23N30	23N30
TIDE COND	F	S	F
TIDE HT	6.8	8.1	7.8
Dept., Matrix, Prod			
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	3 SALTWTRSED TVS	3 SALTWTRSED TVS	3 SALTWTRSED TVS
	6 SALTWTRSED HG-CVAA-M	6 SALTWTRSED HG-CVAA-M	6 SALTWTRSED HG-CVAA-M
	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP
	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP
	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS

Data Coords

CHAIN OF CUSTODY

Relinquished by	Date	Time
	3/31/08	1700
Received by	Date	Time
	3/31/08	17:00

Sample Number(s): 2, 3, 8, 9, 17. (All)

CHAIN OF CUSTODY

Relinquished by	Date	Time
	4/1/08	1420
Received by	Date	Time
	4/1/08	14:20

Sample Number(s)

LAS 96388

continue ...

DENNY WAY SEDIMENTS - 2006

Recreated JB 4-15

Project Number: 423368-80 Personnel:

Sample No. (Type)	P45313-4	P45313-5	P45313-6
Locator	DWMP-04	DWMP-05	DWMP-06
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time	2-APR-08 0905-0925	31-MAR-08 1326	4/1/08 1125
End Date/Time			
Time Span			
Sample Depth	23		22
Comments	~~0-2 cm~~ 3 grab COMP 0-10 cm	~~0-2 cm~~ 3 grab COMP	0-2 cm, 3 grab COMP
PERSONNEL	CB, JB, JP	JB, CB, JO, AF	SH, JDD, JB, AF, AC
SAMP METH	20042		20042
SED DEPTH	11, 12, 11		17, 17, 17
SED SAMP RANGE	0-10 cm		0-2 cm
SED TYPE	24N20		23N21
TIDE COND	S	~~E~~ 7.9	F
TIDE HT	5.2	~~SAMP INFO~~	7.2
Dept., Matrix, Prod	S.I.		
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	3 SALTWTRSED TVS	3 SALTWTRSED TVS	3 SALTWTRSED TVS
	6 SALTWTRSED HG-CVAA-M	6 SALTWTRSED HG-CVAA-M	6 SALTWTRSED HG-CVAA-M
	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP
	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP
	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS

SOME ROCKS W/ BARNACLES STICKY LAYER OF GREY CLAY ~4 CM DOWN FROM SURFACE

Tough

RELINQUISHED BY	Date	Time
[illegible]	4/2/08	1650
RECEIVED BY	Date	Time
[illegible]	4/2/08	1653

continue

Number(s) L45313 4, 7, 11, 12

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel: _____

Sample No. (Type)	P45313-7	P45313-8	P45313-9
Locator	DWMP-07	DWMP-08	DWMP-09
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time	2-APR-08 / 930	3/31/08 1110	3/31/08 1450
End Date/Time		1145	1453 / 1520 / 1528
Time Span			
Sample Depth	29	25	30
Comments	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP JB, CB, JD, AF	0-2 cm, 3 grab COMP
PERSONNEL	JB / CB / JP	+ 0-10 cm see pg. 11	
SAMP METH	20042		
SED DEPTH	13 12, 12, 14	17, 17, 17	17, 17, 17
SED SAMP RANGE	0-2 cm	0-2 cm	
SED TYPE	23 N 20	23 W 30	23 N 30
TIDE COND	S	F	E
TIDE HT	5.3	8	6.2
Dept., Matrix, Prod		SI	
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	3 SALTWTRSED TVS	3 SALTWTRSED TVS	3 SALTWTRSED TVS
	6 SALTWTRSED HG-CVAA-M	6 SALTWTRSED HG-CVAA-M	6 SALTWTRSED HG-CVAA-M
	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP
	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP
	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS

lots of organic matter
- leaves, sticks
- trash, rags

continue ...

Login Number: P45313 Recreated SB 4-15 Page: 7

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel:

Sample No. (Type)	P45313-10	P45313-11	P45313-12
Locator	DWMP-10	DWMP-11	DWMP-12
Short Loc. Desc.			
Locator Desc.			JB|CB|JP
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time	4/1/08 1250	2-APR-08/1040	2-APR-08/0830-0850
End Date/Time			
Time Span			
Sample Depth	—	2.2	2.9
Comments	~~0-2 cm~~, 3 grab ~~COMP~~ 0-10 cm	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP
PERSONNEL	SH JDD, JB, AF, ~~AF~~	JB|CB|JP	JB|CB|JP
SAMP METH		20042	
SED DEPTH	~~0-1~~	17, 17, ~~B9~~ 11 15	17, 17, 17, 17
SED SAMP RANGE	~~0-10 cm~~	0-2 cm	0-2 cm
SED TYPE		23P26	23N21
TIDE COND	E	F	E
TIDE HT	STAND INFO	5.8	6
Dept., Matrix, Prod			
	3 |SALTWTRSED|NH3-KCL	3 |SALTWTRSED|NH3-KCL	3 |SALTWTRSED|NH3-KCL
	3 |SALTWTRSED|PSD	3 |SALTWTRSED|PSD	3 |SALTWTRSED|PSD
	3 |SALTWTRSED|TOC	3 |SALTWTRSED|TOC	3 |SALTWTRSED|TOC
	3 |SALTWTRSED|TOTS	3 |SALTWTRSED|TOTS	3 |SALTWTRSED|TOTS
	3 |SALTWTRSED|TOTSULFIDE	3 |SALTWTRSED|TOTSULFIDE	3 |SALTWTRSED|TOTSULFIDE
	3 |SALTWTRSED|TVS	3 |SALTWTRSED|TVS	3 |SALTWTRSED|TVS
	6 |SALTWTRSED|HG-CVAA-M	6 |SALTWTRSED|HG-CVAA-M	6 |SALTWTRSED|HG-CVAA-M
	6 |SALTWTRSED|NPDES ICP	6 |SALTWTRSED|NPDES ICP	6 |SALTWTRSED|NPDES ICP
	6 |SALTWTRSED|SB-ICP	6 |SALTWTRSED|SB-ICP	6 |SALTWTRSED|SB-ICP
	7 |SALTWTRSED|BNASMS	7 |SALTWTRSED|BNASMS	7 |SALTWTRSED|BNASMS

-See comments on benthos E.S. looks like capping material was placed at this location

SILTY + SOMEWHAT FLOC-Y. GREENISH TINT

continue ...

Login Number: P45313 Page: 9

Recreated JB 4-15 Jetset

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel: _____

Sample No. (Type)	P45313-13	P45313-14	P45313-15
Locator	DWMP-13	DWMP-14	DWMP-15
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time	2-APR-08 1015	4/1/08 1007	4/1/08 0840
End Date/Time			
Time Span			
Sample Depth	→	14	~~[illegible]~~ 22
Comments	~~0-2 cm,~~ 3 grab COMP 0-10cm →	~~0-2 cm,~~ 3 grab COMP	~~0-2 cm,~~ 3 grab COMP →
PERSONNEL	JB, JP, GB	SH, JDD, JB, AF, AF	→
SAMP METH	~~2004~~	20042	→
SED DEPTH		15, 13, 16	14, 12, 12 13
SED SAMP RANGE		0-10cm	0-10cm
SED TYPE		23W26	21W31
TIDE COND		F	E
TIDE HT	SAMP INFO	6.6	6.6
Dept., Matrix, Prod		S.I.	
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	3 SALTWTRSED TVS	3 SALTWTRSED TVS	3 SALTWTRSED TVS
	6 SALTWTRSED HG-CVAA-M	6 SALTWTRSED HG-CVAA-M	6 SALTWTRSED HG-CVAA-M
	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP	6 SALTWTRSED NPDES ICP
	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP	6 SALTWTRSED SB-ICP
	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS	7 SALTWTRSED BNASMS

lots of garbage and decayed wood in grabs

tube worms were the 2nd most predominant

continue ...

DENNY WAY SEDIMENTS - 2006

Project Number: 423368-80 Personnel: _____

Sample No. (Type)	P45313-16	-17
Locator	DWMP-16	DWMP-08 1155
Short Loc. Desc.		
Locator Desc.		
Site	SEATTLE WATERFRONT	
Start Date/Time	4/1/08 0920	3/31/08 1155
End Date/Time		
Time Span		
Sample Depth	25	25
Comments	~~10-2 cm~~, 3 grab COMP 0-10 cm	0-10 cm, 3 grab comp
PERSONNEL	SH, JDD, JB, AF, AP	JB, CB, JO, AF
SAMP METH	20042	
SED DEPTH	11 13.8	17, 13, 15
SED SAMP RANGE	0-10 cm	0-10 cm
SED TYPE	23W31	24W30
TIDE COND	S	S
TIDE HT	6.4	7.9
Dept., Matrix, Prod		
	3 SALTWTRSED NH3-KCL	Sacrificed products
	3 SALTWTRSED PSD	
	3 SALTWTRSED TOC	
	3 SALTWTRSED TOTS	
	3 SALTWTRSED TOTSULFIDE	
	3 SALTWTRSED TVS	
	6 SALTWTRSED HG-CVAA-M	
	6 SALTWTRSED NPDES ICP	
	6 SALTWTRSED SB-ICP	
	7 SALTWTRSED BNASMS	

~20 minutes b/w casts 1, 2 - alternator issues

continue ...

LABORATORY WORK ORDER
Chain of Custody

King County Department of Natural Resources
Water and Land Resources Division
Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507

Project Name: Denny Way Post-construction Subtidal Sediments
Project Number: 423368-80
Laboratory Project Manager: Fritz Grothkopp/John Blaine
Telephone Number: 684 2327/2384

Note: Use only one Login No. per sheet. Sample Number	Client Locator	Collect Date		Analyses: TOC/TOTS/TVS	NH3-KCL	TOTSULFIDE	PSD	Metals + HG-CVAA		BNASMS/PESTLL/PCBLL	VOA-GC/MS-LOWSED							Number of Containers	Comments
L45313 - 2	DUMP -02	31 Mar 08		1	1	1	1	1		1	2							8	
L - 3	-03			1	1	1	1	1		1	2							8	
L - 8	-08			1	1	1	1	1		1	2							8	
L - 9	-09			1	1	1	1	1		1	2							8	
L - 17	-08			1	1	1	1	1		1	2							8	
L -																			
L -																			
L -																			
L -																			
L -																			
L -																			

Additional Comments:

Total Number of Containers

Sampled By:

Relinquished By:
Signature
Date 03/31/08
Printed Name Christopher Barnes
Time 1700
Organization King County Environmental Laboratory

Received By:
Signature
Date 3/31/08
Printed Name Jason Kinnard
Time 17:05
Organization King County Environmental Laboratory

LABORATORY WORK ORDER
Chain of Custody

Project Name: Denny Way Post-construction Subtidal Sediments
Project Number: 423368-80
Laboratory Project Manager: Fritz Grothkopp/John Blaine
Telephone Number: 684 2327/2384

King County Department of Natural Resources
Water and Land Resources Division
Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507

Note: Use only one Login No. per sheet. Sample Number	Client Locator	Collect Date		TOC/TOTS/TVS	NH3-KCL	TOTSULFIDE	PSD	Metals + HG-CVAA		BNASMS/PESTLL/PCBLL	VOA-GC/MS-LOWSED							Number of Containers	Comments
L 45313 - 1	DWMP01	01-APR-08		1	1	1	1	1		1	2							8	
L 45313- 6	DWMP06	01-APR-08		1	1	1	2	1		1	2							9	PSD duplicate
L 45313- 14	DWMP14	01-APR-08		1	1	1	1	1		1	1							8	
L 45313- 15	DWMP15	01-APR-08		1	1	1	1	1		1	1							8	
L 45313- 16	DWMP16	01-APR-08		1	1	1	1	1		1	1							8	
L -																			
L -																			
L -																			
L -																			
L -																			
L -																			

Additional Comments:

Total Number of Containers 41

Sampled By: SH, JDD, JB, AF, AF

Relinquished By:
Signature John Blaine
Printed Name John Blaine
Organization King County Environmental Laboratory
Date 4-1-08
Time 1420

Received By:
Signature [illegible]
Printed Name Jason Kinnard
Organization King County Environmental Laboratory
Date 4/1/08
Time 14:20

LABORATORY WORK ORDER
Chain of Custody

Project Name: Denny Way Post-construction Subtidal Sediments
Project Number: 423368-80
Laboratory Project Manager: Fritz Grothkopp/John Blaine
Telephone Number: 684 2327/2384

King County Department of Natural Resources
Water and Land Resources Division
Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507

Note: Use only one Login No. per sheet. Sample Number	Client Locator	Collect Date		TOC/TOTS/TVS	NH3-KCL	TOTSULFIDE	PSD	Metals + HG-CVAA		BNASMS/PESTLL/PCBLL	VOA-GC/MS-LOWSED							Number of Containers	Comments
L45313 - 4	DWMP-04	02-APR-08		1	1	1	1	1		1	1							7	
L45313 - 7	DWMP-07			1	1	1	1	1		1	1							7	
L45313 - 11	DWMP-11			1	1	1	1	1		1	1							7	
L45313 - 12	DWMP-12			1	1	1	1	1		1	1							7	
L45314 - 1	DW-01			1	Ø	Ø	1	1		1	Ø							4	
L45314 - 2	DW-03			1	Ø	Ø	1	1		1	Ø							4	
L45314 - 3	DW-13			1	Ø	Ø	1	1		1	Ø							4	
L45314 - 4	DW-19			1	Ø	Ø	1	1		1	Ø							4	
L45314 - 5	DW-33			1	Ø	Ø	1	1		1	Ø							4	
L45314 - 6	DW-34			1	Ø	Ø	1	1		1	Ø							4	
L45314 - 7	LTBC20			1	Ø	Ø	1	1		1	Ø							4	

Additional Comments:

Total Number of Containers 56

Sampled By: JB/JP/CB

Relinquished By:
Signature Judith Ochs
Printed Name Judith Ochs
Organization King County Environmental Laboratory
Date 4/2/08
Time 1650

Received By:
Signature
Printed Name Jason Kinnard
Organization King County Environmental Laboratory
Date 4/2/08
Time 16:52

KING COUNTY ENVIRONMENTAL LABORATORY
QUALITY ASSURANCE REVIEW

For

Elliott West CSO Treatment Facility and Denny Way CSO
Post-Operation Sediment Monitoring
Year Four - 2009

Denny Way CSO Areas A and B Nearshore Sediment Remediation
Post-Construction Sediment Monitoring
Year One - 2009

Areas C, D and E Monitored Natural Recovery, Year Six

Prepared by:

Fritz Grothkopp
Laboratory Project Manager

Date: 2-22-10

Reviewed by:

Colin Elliott
Quality Assurance Officer

Date: Feb. 22, 2010

King County Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507
(206) 684-2300

INTRODUCTION

This quality assurance (QA) narrative is intended to document the QA review conducted on the chemistry analyses performed for the Elliott West CSO Treatment Facility and Denny Way CSO, Post-Operation Sediment Monitoring, the Denny Way CSO Areas A and B Nearshore Sediment Remediation, Post-Construction Sediment Monitoring and the Areas C, D and E Monitored Natural Recovery. The QA narrative is organized into the five sections listed below.

- General Comments
- Sample Collection
- Conventional Analyses
- Metal Chemistry
- Organic Chemistry

An overview of the approach used for the QA review is detailed in the *General Comments* section. Additional information specific to each analysis is included in the appropriate analytical section.

This QA review and narrative (specifically defined as QA1) have been conducted in accordance with guidelines established through the Puget Sound Dredged Disposal Analysis (PSDDA) program, Sediment Management Standards (WAC 173-204-610) and the Sediment Sampling and Analysis Appendix (SAPA), WDOE 2008. Other approaches incorporated in the QA review have been established through collaboration between the King County Environmental Laboratory (KC Laboratory) and the Washington State Department of Ecology (Ecology) Sediment Management Unit.

GENERAL COMMENTS

Scope of Samples Submitted
This QA review is associated with marine sediment samples collected on May 4 & 6, 2009 as part of the Elliott West CSO Treatment Facility and Denny Way CSO, Post-Operation Sediment Monitoring, the Denny Way CSO Areas A and B Nearshore Sediment Remediation, Post-Construction Sediment Monitoring and the Areas C, D and E Monitored Natural Recovery.

Except where noted in the subcontracting sections of this QA review, all analyses have been conducted by the King County Environmental Laboratory (KCEL). Sediment analytical data are reported with associated data qualifiers and have undergone QA1 review, as summarized in this narrative report.

Completeness
Completeness has been evaluated for this data submission and QA review by considering the following criteria:

- Comparing reported data to the planned project analyses summarized in Table 1.
- Compliance with storage conditions and holding times.
- Frequency of analysis of the complete set of quality control (QC) samples outlined in Table 2.

Subcontracted Analyses
Analyses that have been subcontracted and the issues associated with these subcontracted analyses are noted in this narrative.

Methods
Analytical methods are noted in the applicable analytical sections of this QA review.

Target Lists
The reported target lists have been compared to the target analytes listed in *Table 1 - Marine Sediment Quality Standards Chemical Criteria* and *Table 3 - Puget Sound Marine Sediment Cleanup Screening Levels Chemical Criteria* contained in Chapter 173-204 WAC.

Detection Limits
As part of the QA1 review, the detection limits reported for each parameter have been reviewed against the detection limit requirements defined in the SAP. When sample results have been reported as less than the Method Detection Limit (<MDL) and the associated detection limits are higher than those defined in the SAP, the particular samples and parameters have been identified and the circumstances explained. These summaries are included with each analytical section of this QA review.

The KC Laboratory reports include both the reporting detection limit (RDL) and the method detection limit (MDL) for each sample and parameter, where applicable. The RDL is defined as *the minimum concentration of a chemical constituent that can be reliably quantified while* the MDL is defined as *the minimum concentration of a chemical constituent that can be detected*. Some subcontracted laboratory data are available with an MDL only, in accordance with the subcontracting laboratory policies. For some methods the detection limits reported may vary from sample to sample depending on the amount of sample analyzed and any additional dilutions required.

Storage Conditions and Holding Times
Storage conditions and holding times have been evaluated using guidelines defined in the project SAP. Preparation and analysis holding times for each method are summarized in each analytical section.

Method Blanks
Method blank results have been used to evaluate the possible laboratory contamination of samples. Method blank results have been reviewed for the presence of analytes detected at or greater than the MDL. For analytes where the method blank response was at or above the MDL all associated sample results have been qualified with a B flag based on the rules below.

1. Add a "B" flag to all parameters if the associated blank is ≥ the MDL and the sample result is ≥ MDL but ≤ 5 times the blank.
2. Add a "B2" flag to common organic lab contaminants (Acetone, 2-Butanone, Methylene Chloride, Bis (2-ethylhexyl) Phthalate, Butyl Benzyl Phthalate and Di-n-butyl Phthalate) if the method blank is ≥ the MDL and the sample result is > 5 and ≤ 10 times the blank.
3. Add a "B3" flag to all other parameters if the associated blank is ≥ the MDL and the sample result is > 5 and ≤ 10 times the blank.

Standard Reference Materials
Standard reference material (SRM) recoveries have been used to evaluate possible low or high analytical bias on a batch-specific basis. SRM analysis is included with metals and selected organic and conventional parameters (see Table 2). SRMs are purchased from outside agencies (NIST or NRCC) and must have a certified analyte value in order for a particular parameter to be evaluated. All associated sample results for the certified analytes are flagged if the SRM recoveries are unacceptable. Associated sample results may be flagged with a JL whenever recoveries are measured above the acceptance limits and may be flagged with a JG when recoveries are measured below the acceptance limits.

Matrix Spikes
Matrix spike recoveries have been used to evaluate possible low or high analytical bias on a matrix and batch-specific basis. Matrix spikes are analyzed with metals, organics and selected conventionals parameters (see Table 2). Associated sample results may be flagged with a JL whenever recoveries are measured above the acceptance limits and may be flagged with a JG when recoveries are measured below the acceptance limits (but at or above 10%).

For Metals only, matrix spike recovery results are used to qualify sample data only when the sample levels in the spiked sample are less than 4 times the spiked concentration. High sample levels relative to the spiked concentration can compromise the measurement of accurate spike recoveries.

Laboratory Replicate Samples
Replicate analysis (laboratory duplicates or triplicates) is used as an indicator of method precision and is used to qualify data on an analyte and batch-specific basis. Not all replicate data are used, however, as an indicator for data qualification. Only sets of replicate results which include at least one result greater than the RDL are considered for data qualification. These guidelines have been used to account for the fact that precision obtained near the detection limit is not representative of precision obtained throughout the entire analytical range. Associated results may be flagged with a JK whenever the measured precision is unacceptable (greater than the acceptance limit).

Surrogates
Surrogate recoveries have been used to evaluate possible low or high analytical bias on a sample-specific basis. Surrogates are only analyzed for organic parameters. Individual sample results may be flagged with a JL whenever recoveries are measured above the acceptance limits and may be flagged with a JG when recoveries are measured below the acceptance limits (but at or above 10%).

Data Qualifiers

The data qualification guidelines described above has been summarized in Table 3. This table conforms to the guidelines in the 2008 SAPA and also shows the data qualifiers used for the Washington Dept of Ecology EIM electronic data format.

Units and Significant Figures

Units and the reporting basis vary, depending on the parameter and are explained in the analytical sections below. Data generally have been reported to three significant figures if above the RDL and two significant figures if equal to or below the RDL.

SAMPLE COLLECTION

This section describes sampling activities associated with the collection of 17 marine sediment samples on May 4 & 6, 2009. All sampling activities were conducted following guidance suggested in the Puget Sound Protocols (PSEP, 1996 and 1998).

Sampling Locations and Station Positioning

Sampling locations (stations) were selected and the prescribed coordinates determined prior to field activities. Stations were selected to match existing stations from the Pre-Construction monitoring program. The prescribed station coordinates are presented in the following table. Also presented in the table are the actual coordinates recorded during sampling activities. All station coordinates are recorded in state plane coordinate system North American Datum 1983 (NAD83).

DENNY WAY CHEM. SEDIMENT GRAB SAMPLING POINTS, May 2009

Lab Number	Locator	Cast	# Grabs	Prescribed Northing	Actual Northing	Prescribed Easting	Actual Easting	Offset > 6 m
L47904-1	DWMP-01	1	1	228813	228814	1264047	1264044	
L47904-1	DWMP-01	2	1	228813	228818	1264047	1264041	
L47904-1	DWMP-01	3	1	228813	228813	1264047	1264047	
L47904-2	DWMP-02	1	2	228770	228767	1263919	1263916	
L47904-2	DWMP-02	2	1	228770	228774	1263919	1263916	
L47904-3	DWMP-03	1	1	228638	228634	1263846	1263850	
L47904-3	DWMP-03	2	1	228638	228639	1263846	1263851	
L47904-3	DWMP-03	3	1	228638	228640	1263846	1263854	
L47904-4	DWMP-04	1	2	228546	228552	1263631	1263628	
L47904-4	DWMP-04	2	1	228546	228547	1263631	1263627	
L47904-5	DWMP-05	1	1	229041	229023	1263836	1263831	
L47904-5	DWMP-05	2	1	229041	229027	1263836	1263828	
L47904-5	DWMP-05	3	1	229041	229031	1263836	1263818	6.1
L47904-6	DWMP-06	1	2	228839	228847	1263542	1263541	
L47904-6	DWMP-06	2	1	228839	228838	1263542	1263540	
L47904-7	DWMP-07	1	2	228660	228665	1263350	1263350	
L47904-7	DWMP-07	2	1	228660	228668	1263350	1263348	
L47904-8	DWMP-08, 0-2 cm	1	1	228907	228905	1263341	1263332	
L47904-8	DWMP-08, 0-2 cm	2	1	228907	228899	1263341	1263339	
L47904-8	DWMP-08, 0-2 cm	3	1	228907	228906	1263341	1263337	
L47904-9	DWMP-09	1	1	228806	228812	1263215	1263216	
L47904-9	DWMP-09	2	1	228806	228807	1263215	1263218	
L47904-9	DWMP-09	3	1	228806	228806	1263215	1263224	
L47904-10	DWMP-10	1	2	229326	229249	1263565	1263558	23.6
L47904-10	DWMP-10	2	1	229326	229253	1263565	1263551	22.7
L47904-11	DWMP-11	1	2	229156	229162	1263272	1263274	
L47904-11	DWMP-11	2	1	229156	229159	1263272	1263273	
L47904-12	DWMP-12	1	2	228963	228959	1263055	1263048	
L47904-12	DWMP-12	2	1	228963	228965	1263055	1263058	
L47904-13	DWMP-13	1	1	229640	229642	1263317	1263317	
L47904-13	DWMP-13	2	1	229640	229644	1263317	1263296	6.4
L47904-13	DWMP-13	3	1	229640	229634	1263317	1263313	
L47904-14	DWMP-14	1	1	229553	229557	1263228	1263231	
L47904-14	DWMP-14	2	2	229553	229558	1263228	1263235	
L47904-15	DWMP-15	1	1	229444	229440	1263053	1263049	
L47904-15	DWMP-15	2	1	229444	229447	1263053	1263053	
L47904-15	DWMP-15	3	1	229444	229456	1263053	1263054	
L47904-16	DWMP-16	1	2	229353	229357	1262966	1262960	
L47904-16	DWMP-16	2	1	229353	229362	1262966	1262971	
L47904-17	DWMP-08, 0-10 cm	4	1	228907	228912	1263341	1263343	
L47904-17	DWMP-08, 0-10 cm	5	2	228907	228913	1263341	1263336	

Sediment grab samples were collected from the King County research vessel *Liberty*, which is equipped with a differential global positioning system (DGPS). Field coordinates were recorded using DGPS for each deployment of the tandem grab samplers as they contacted the sediment. All field coordinates for individual casts listed in the above table are within the +/- 6 meter accuracy limits, as defined in the SAP, with the following exceptions: Cast #3 at location DWMP-05, casts #1 and #2 at location DWMP-10 and cast # 2 at location DWMP-13. Insufficient material was available at the prescribed coordinates for these locations.

Sample Description Table

Lab Sample #	Locator	Sample Collection	Sub Sample Depth (cm)	Average Sediment Sampling Depth (cm)	Sample Usage
L47904-1	DWMP-01	Surface Grabs	0 - 10	14	Chemistry
L47904-2	DWMP-02	Surface Grabs	0 - 10	10	Chemistry
L47904-3	DWMP-03	Surface Grabs	0 - 10	16	Chemistry
L47904-4	DWMP-04	Surface Grabs	0 - 10	11	Chemistry
L47904-5	DWMP-05	Surface Grabs	0 - 7	7	Chemistry
L47904-6	DWMP-06	Surface Grabs	0 - 2	17	Chemistry
L47904-7	DWMP-07	Surface Grabs	0 - 2	9	Chemistry
L47904-8	DWMP-08	Surface Grabs	0 - 2	16	Chemistry
L47904-9	DWMP-09	Surface Grabs	0 - 2	17	Chemistry
L47904-10	DWMP-10	Surface Grabs	0 - 10	16	Chemistry
L47904-11	DWMP-11	Surface Grabs	0 - 2	12	Chemistry
L47904-12	DWMP-12	Surface Grabs	0 - 2	17	Chemistry
L47904-13	DWMP-13	Surface Grabs	0 - 7	7	Chemistry
L47904-14	DWMP-14	Surface Grabs	0 - 10	16	Chemistry
L47904-15	DWMP-15	Surface Grabs	0 - 10	16	Chemistry
L47904-16	DWMP-16	Surface Grabs	0 - 10	16	Chemistry
L47904-17	DWMP-08	Surface Grabs	0 - 10	16	Chemistry

Sample Collection

Sediment was collected at each station using two, stainless steel, modified, 0.1 m^2 Van Veen grab samplers deployed in tandem via hydrowire. For each acceptable deployment, between 7-17 cm of sediment was recovered, allowing sub-sampling from the top 2 or 10 cm. Multiple sampler deployments were needed to collect sufficient sample volume to perform all chemistry analyses.

Water depth at the 16 subtidal cap sample stations ranged between 6 and 31 meters (not corrected for tide).

Sample Handling

At each station, approximately equal amounts of sediment from either the top 2 or top 10 cm were subsampled from the separate grabs by using a large stainless steel spoon since it gave more consistent results than the 200 cm^2 "cookie cutter"/spatula method. These aliquots were placed into a stainless steel compositing bowl, covered with foil between grab deployments. After all aliquots had been collected for that station, the sediment within the bowl was thoroughly homogenized and split out into pre-labeled containers. Sample containers were supplied by the King County Environmental Laboratory and were pre-cleaned according to analytical specifications.

Decontamination
Individual sets of the compositing bowls and sub-sampling and mixing equipment were dedicated to each station, precluding the need for decontamination of this field gear. The Van Veen grab samplers were decontaminated between stations by scrubbing with a brush and ambient seawater, followed by a thorough *in situ* rinsing.

Sample Storage and Preservation
All samples were stored in ice-filled coolers from the time of collection until delivery to the King County Environmental Laboratory. They were delivered under chain-of-custody and were maintained as such throughout the analytical process. These samples were stored frozen (-18°C) by the laboratory until analysis with the exception of samples for particle size distribution (PSD) and Total Sulfide analysis. For these 2 methods, samples were stored refrigerated at approximately 4°C. A more complete description of sample handling and storage can be found in each analytical chemistry section of this narrative.

Copies of chain-of-custody forms and field notes are included as an appendix to this QA review narrative. The collect time is defined as that time that sampling commences at each station.

CONVENTIONAL ANALYSES

Completeness
Conventional data are reported for all samples and parameters summarized in Table 1. These samples were analyzed in association with the complete set of QC samples outlined in Table 2.

Subcontracted Analyses
All analyses were performed at the King County Environmental Lab.

Methods
Ammonia analysis was performed in accordance with Standard Method (SM)4500-NH3-G following a KCl extraction (Plumb, 1981). PSD analysis was performed in accordance with ASTM and Puget Sound Protocols methodologies (*Recommended Protocols for Measuring Conventional Sediment Variables in Puget Sound* – page 9 – PSEP, 1986). TOC analysis was performed in accordance with SM5310-B and EPA 9060. Total solids analyses were performed in accordance with SM2540-G. Total sulfide analysis was performed in accordance with EPA 376.2 / SM4500S2-D and Plumb, 1981.

Detection Limits
The detection limits (MDLs) reported for Conventionals parameters are all within the requirements defined in the SAP, except for the following:

Parameter (mg/Kg)	Sample ID#	SAP MDL (dry wt.)	Reported MDL (dry wt.)	Reason for higher MDL Value
Total Sulfide	L47904-1, 5, 8, 9, 12, 13	1.0	(1)	Sample dilutions and totals solids values below 50%.
Total Organic Carbon	L47904-1 to 9, 11 to 17	1000	(1)	Reduced sample size analyzed and totals solids values below 50%.
Ammonia Nitrogen	L47904-1, 3, 5, 6, 8, 9, 12 – 14, 17	0.2	(1)	Sample dilutions and totals solids values below 50%.
PSD	L47904-1, 3, 6, 9, 12	0.1 and 0.5	(1)	Totals solids values below 50%.

(1) See attached SAP MDL Comparison table
In all cases where the reported MDL was higher than the SAP MDL, a detectable level was measured, therefore project objectives were met.

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied. This may not apply to subcontracted data.

In the Comprehensive Report attached, Conventionals parameters are reported in mg/Kg, dry weight basis, for TOC, ammonia, Total Sulfide and Total Volatile Solids. Particle Size Distribution (PSD) and Total Solids are reported in percent, wet weight basis. For all parameters, the MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times

Sample storage conditions and holding times have been evaluated using guidelines established in the SAP. The dates and holding time criteria for the actual storage conditions used for conventional analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Prep Date	Date Analyzed	Sample Holding Time	Extract Holding Time
Ammonia Nitrogen	L47904-1,3,5,8,9,10,13,14,15,16,17	04-May-09	26-May-09	27-May-09	6 months at -18°C	14 days at -18°C
	L47904-2,4,6,7,11,12	06-May-09				
Particle Size Distribution	L47904-1,9,10,13,14,15,17	04-May-09	29-Jun-09	30-Jun-09	6 months at ≤6°C	NA
	L47904-11,12	06-May-09				
	L47904-3,5,8	04-May-09	22-Jun-09	23-Jun-09		
	L47904-2,4,6,7	06-May-09				
	L47904-16	04-May-09	13-Jul-09	14-Jul-09		
Total Organic Carbon	L47904-1,3,5	04-May-09	20-Jul-09	28-Jul-09	6 months at -18°C	6 months at -18°C
	L47904-2,4,6,7	06-May-09				
	L47904-8,9,10,13,14,15,16,17	04-May-09	20-Jul-09	29-Jul-09		
	L47904-11,12	06-May-09				
Total Solids	L47904-1,3,5,8,9,10,13,14,15,16,17	04-May-09	20-Jul-09	21-Jul-09	6 months at -18°C	NA
	L47904-2,4,6,7,11,12	06-May-09				
Total Sulfide	L47904-1,3,5,8,9,10	04-May-09	07-May-09	07-May-09	7 days at ≤6°C	NA
	L47904-2,4,6,7,11	06-May-09	08-May-09	08-May-09		
	L47904-13,14,15,16,17	04-May-09				
	L47904-12	06-May-09	12-May-09	12-May-09		

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks

Method blanks were analyzed in connection with ammonia nitrogen/solids/total sulfides/total organic carbon analyses. All method blanks results were less than the MDL.

Standard Reference Materials

An SRM (Buffalo River Sediment) was analyzed in connection with TOC analysis. The percent recovery for the SRM analysis was within the 80 to 120% QC limits.

Matrix Spikes

The matrix spike recovery for ammonia nitrogen, total sulfide and TOC were within the 75 to 125% acceptance limits (65% to 135% for total sulfide).

Laboratory Replicate Samples

A set of laboratory triplicates was analyzed for each of the conventional parameters. The percent relative standard deviation (%RSD) for each triplicate set was less than or equal to the 20% acceptance limit. Note: For gravel, all 3 of the triplicate results were <RDL, therefore the %RSD was not determined.

METALS CHEMISTRY

Completeness
Metal chemistry data are reported for all samples and parameters summarized in Table 1. These samples were analyzed for mercury and other metals in association with the complete set of QC samples outlined in Table 2.

Subcontracted Analyses
Metals analysis was not subcontracted for these sets of samples.

Methods
Mercury analysis was performed in accordance with EPA Method 7471B. Analysis for other metals was performed in accordance with EPA method 3050B/6010C.

Target List
The reported target list includes all metals specified in Table 1.

Detection Limits
The detection limits (MDLs) reported for Metals parameters are all within the requirements defined by the SAP with the exception of those noted on the SAP MDL comparison table. All element MDLs that did not meet the SAP MDL limits in Appendix A were due to total solids being less than 50 % in the sample. All wet weight MDLs met the SAP MDL limits or sample results were reported above the MDL so project objectives were not compromised.

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied.

In the Comprehensive Report attached, Metals parameters are reported in mg/Kg, dry weight basis, for all elements. The MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times
Sample storage conditions and holding times have been evaluated using guidelines established during the Third Annual PSDDA Review Meeting. The dates and holding time criteria for the actual storage conditions used for metals analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Date Digested/ Extracted	Date Analyzed	Sample Holding Time	Digestate/Extract Holding Time
Total Metals	L47904-1 to 17	04-May-09 06-May-09	01-Jun-09	02-Jun-09	2 Years at -18°C	6 months
Total Mercury	L47904-1 to 17	04-May-09 06-May-09	27-May-09	28-May-09	28 days at -18°C	NA

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks
All metals method blanks results were less than the MDL

Standard Reference Materials

The SRM analyzed in association with samples included in this data submission is National Research Council of Canada PACS-2. This SRM is not certified for Silver, Arsenic or Cadmium. Acceptance limits for the certified elements have been developed using historical lab data since the certified SRM values and limits were determined with different analysis techniques. SRM recoveries outside these lab-defined limits indicate the method has not performed as expected and the sample data have been qualified to indicate the expected bias.

All metals SRM recoveries were within the lab defined limits indicated in the SAP.

A laboratory control sample (LCS) ERA Soil was also analyzed with the total metals digestion. All recoveries were within the certified limits of the sample. The LCS is used as a secondary check for the total metals digestion procedure because the certified values for the elements are determined using the same methodology. No results from the LCS are used to qualify data.

Matrix Spikes

All matrix spike recoveries were within the 75% to 125% of the QC limits.

Laboratory Replicate Samples

The relative percent differences (RPDs) for laboratory duplicate results for all metals were less than or equal to the QC limit of 20%. Note: for lab duplicates with results <RDL, no RPD is calculated.

ORGANIC CHEMISTRY

Completeness
Organics data are reported for all samples and parameters summarized in Table 1. These samples were analyzed in association with the complete set of QC samples outlined in Table 2.

Methods
BNA analysis was performed in accordance with EPA method 8270C. PCB and chlorinated pesticides analysis was performed in accordance with EPA methods 8082 and 8081A.

Target List
The reported BNA target list includes all compounds specified in *Table 1 - Marine Sediment Quality Standards Chemical Criteria* and *Table 3 - Puget Sound Marine Sediment Cleanup Screening Levels Chemical Criteria* contained in Chapter 173-204 WAC with the exception of benzo(j)fluoranthene. The KC Laboratory has verified that analytical conditions are sufficient to calculate a total benzofluoranthene result using the reported *b* and *k* isomers.

Reported PCB data include Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.

Detection Limits, Units and Significant Figures
The sample detection limits (MDLs), as reported on a wet weight basis for Organics parameters, generally met the requirements defined in the SAP. When converted to a dry weight basis, some samples and parameters did not meet dry weight SAP MDLs. These are noted below:

BNA
The reported MDLs for selected semi volatile compounds were above the SAP MDL (See SAP MDL Comparison table) for samples L47904-1, -3, -6, -9, -12 due to total solids being below 50%.

Pesticides
The reported MDLs for selected pesticides compounds were above the SAP MDL (See SAP MDL Comparison table) for samples L47904-1, -3, -6, -9 and -12 due to total solids being below 50%.

PCBs
The reported MDLs for selected Aroclors in some samples were greater than the SAP MDLs. The reported MDLs for Aroclors 1016, 1221, 1232 and 1242 were elevated to compensate for overlap of PCB congeners from other Aroclors detected in certain samples (see Additional QA Issues below). The reported MDLs for Aroclors 1248, 1254 and 1260 in samples L47904-1, -3, -12 and -14 were greater than the SAP MDLs due to additional dilutions required to get the levels within the calibration range. In all cases where elevated MDLs were reported, Total PCB values were reported above the MDL, therefore project objectives were not compromised.

For Non-ionizable Organic parameters, MDL values were also converted to an Organic Carbon (OC) basis, using the TOC values determined for each sample. The attached SMS OC and Dry Weight Comparison tables show the reported MDL values for each sample converted to an OC or dry weight basis. All target compounds met the SAP SMS OC and Dry Weight MDL levels.

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied.

In the Comprehensive Report attached, Organics parameters are reported in ug/Kg, dry weight basis. In this report format, non-ionizable organic parameters have not been converted to mg/Kg TOC. For all parameters, the MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less

than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times

Sample storage conditions and holding times have been evaluated using guidelines established in the SAPA (WDOE, 2003). The dates and holding time criteria for the actual storage conditions used for organics analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Date Extracted	Date Analyzed	Sample Holding Time	Extract Holding Time
BNAs	L47904-1 to 17	04-May-09 06-May-09	14-May-09	04, 05-Jun-09	1 year at -18°C	40 days at 4°C
Chlorinated Pesticides	L47904-1, 3, 4, 8 - 9, 13 - 17	04-May-09	18-May-09	09-Jun-09	1 year at -18°C	40 days at 4°C
	L47904-10	04-May-09	21-May-09	09-Jun-09		
	L47904-2, 4, 6, 7, 11 ,12	06-May-09	16-Nov-09	18-Nov-09		
PCBs	L47904-2, 4-13, 15, 16	04-May-09 06-May-09	18-May-09	25-June-09	1 year at -18°C	40 days at 4°C
	L47904-1, 3, 14, 17	04-May-09 06-May-09	18-May-09	1-Jul-09		

Sample storage conditions and holding times were met for all samples in this data submission, except for the analysis of PCBs for Samples L47904-1, 3, 14 and 17. These 4 samples missed the 40-day extract holding time by 3 days. It is not expected that this small deviation has biased the results.

Method Blanks

Method blanks were analyzed for all Organics parameters and all method blank results were less than the MDL, except as noted below:

1. BNAs

The method blank analyzed with BNAs for L47904 had a result above the MDL for Bis (2-Ethylhexyl) Phthalate (9.59 ug/Kg). Sample L47904-10, where the sample to method blank ratio is 5 or less, has been qualified with a "B" flag. Sample L47904-4, with a sample to blank ratio above 5 but </= 10, has been qualified with a "B2" flag. Sample results qualified with the B or B2 flag should be treated as estimated values. All other samples had a ratio >10, therefore have no flag added and can be considered unbiased by lab contamination.

Surrogate Recoveries

Surrogate recovery acceptance limits for sediment samples have been developed based on historical lab performance using the current analytical methods. Recoveries measured above the acceptance limits may be flagged with a JL. Recoveries measured below the acceptance limits (but at or above 10%) may be flagged with a JG. Surrogate recovery summaries for each method are shown below.

1. BNAs

For BNA sample data, surrogate recoveries are evaluated separately for the acid and base/neutral fractions. Within each fraction, 2 or more surrogates must be outside the acceptance limits in order to qualify the associated sample data. All BNA surrogate recoveries for samples were within the lab-specific acceptance limits.

2. PCBs

Sample data are qualified when individual surrogate recoveries are outside lab-specific acceptance limits. All PCB surrogate recoveries were within the lab-specific acceptance limits for all samples in this data submission.

3. Chlorinated Pesticides
Sample data are qualified when individual surrogate recoveries are outside lab-specific acceptance limits. All pesticide surrogate recoveries were within the lab-specific acceptance limits for all samples in this data submission.

Standard Reference Materials (SRMs)
The SRM results associated with these samples are summarized below, according to the analysis method. Acceptance limits for the certified parameters reported in this data set have been developed using historical lab data. SRM recoveries outside these lab-defined limits indicate the method has not performed as expected and the associated sample data should be flagged.

1. BNAs
The sediment SRM analyzed in association with the reported BNA results is 1944, certified by the National Institute of Standards and Technology (NIST). The certified organics parameters in SRM 1944 are only a partial list of all the BNA compounds reported in this analysis. All measured recoveries for this SRM were within acceptance limits for this data set.

2. PCBs and Chlorinated Pesticides
The sediment SRM analyzed in association with the reported Chlorinated Pesticides results is 1944, certified by the NIST. SRM 1944 contains certified levels of DDT. The sediment SRM analyzed in association with the reported PCB results is HS-2, certified by the National Research Council of Canada. SRM HS-2 contains Aroclor 1254. All measured recoveries for both SRMs were within acceptance limits.

Matrix Spikes
Matrix Spikes have been analyzed for each method. Recovery acceptance limits for each parameter in sediment have been developed based on historical lab performance using the current analytical methods. The acceptance limits are not applicable when the unspiked sample level was 4 times or greater than the spiked concentration. When applicable, matrix spike recoveries outside these lab-defined limits indicate the method has not performed as expected and the associated sample data have been flagged.

1. BNAs
Each of the reported BNA compounds was included in the matrix spike and measured recoveries for each were within their acceptance limits.

2. PCBs and Chlorinated Pesticides
Each of the reported Pesticide compounds was included in the Chlorinated Pesticide matrix spike. Aroclor 1260 and 1016 only are used as the spiking parameters for PCB matrix spike. The measured recovery for each spiked parameter was within their acceptance limits.

Laboratory Replicate Samples
A laboratory duplicate sample(s) was analyzed for each Organics parameter. The relative percent differences (RPDs) for laboratory duplicate for all parameters at or above the RDL were less than or equal to the acceptance limit of 35% with the following exceptions.
1) The duplicate RPD for 4,4'-DDD and 4,4'-DDT failed at 70 and 200% for workgroup WG102321 (samples L47904-1, -3, -5, -8, -9, -10, -13 to -17). The 4,4'-DDD and 4,4'-DDT results for the Sample L47904-13 were flagged with a JK to indicate an unknown bias.
2) The duplicate RPD for Aroclor 1260 failed at 38% for workgroup WG102320. The Aroclor 1260 results for the Sample L47904-11 were flagged with a JK to indicate an unknown bias.

Additional QA Issues:

PCB Analysis:
PCB data reported for this set of samples include numeric values for only those Aroclors that could be positively identified in each sample and were measured above the detection limit.

Identification of Aroclors 1016, 1221, 1232 and 1242 was not possible for all samples (L47904-1 through –17) due to the overlap of the congeners from Aroclors 1248, 1254 and 1260. For those Aroclors where this overlap has occurred, the result is reported as <MDL with elevated MDL and RDL values. The elevated MDL represents the maximum amount that would have been reported for that Aroclor had it been positively identified. The RDL value has also been elevated by the same proportion.

The table below lists the samples and affected Aroclors.

Lab Sample Number	**PCB 1016**	**PCB 1221**	**PCB 1232**	**PCB 1242**
L47904-1	X		X	X
L47904-2	X		X	
L47904-3	X		X	X
L47904-4	X		X	X
L47904-5	X		X	
L47904-6	X			
L47904-7	X			
L47904-8	X		X	X
L47904-9	X		X	X
L47904-11	X		X	X
L47904-12	X	X	X	X
L47904-13	X		X	
L47904-14	X		X	X
L47904-15	X		X	X
L47904-16	X		X	X
L47904-17	X		X	X

TABLE 1
SEDIMENT SAMPLE INVENTORY

Sample	Locator / Description (see SAP)	Sulfides	PSD	Nutrients[1]	Solids	TOC	Metals[2]	BNAs[3]	Pest/ PCBs	Comments
L47904-1	DWMP-01	X	X	X	X	X	X	X	X	
L47904-2	DWMP-02	X	X	X	X	X	X	X	X	
L47904-3	DWMP-03	X	X	X	X	X	X	X	X	
L47904-4	DWMP-04	X	X	X	X	X	X	X	X	
L47904-5	DWMP-05	X	X	X	X	X	X	X	X	
L47904-6	DWMP-06	X	X	X	X	X	X	X	X	
L47904-7	DWMP-07	X	X	X	X	X	X	X	X	
L47904-8	DWMP-08 0-2 cm	X	X	X	X	X	X	X	X	
L47904-9	DWMP-09	X	X	X	X	X	X	X	X	
L47904-10	DWMP-10	X	X	X	X	X	X	X	X	
L47904-11	DWMP-11	X	X	X	X	X	X	X	X	
L47904-12	DWMP-12	X	X	X	X	X	X	X	X	
L47904-13	DWMP-13	X	X	X	X	X	X	X	X	
L47904-14	DWMP-14	X	X	X	X	X	X	X	X	
L47904-15	DWMP-15	X	X	X	X	X	X	X	X	
L47904-16	DWMP-16	X	X	X	X	X	X	X	X	
L47904-17	DWMP-08 0-10cm	X	X	X	X	X	X	X	X	

1 Nutrients = Ammonia
2 Metals = Hg, As, Cd, Cr, Cu, Pb, Ag, Zn
3 BNAs = includes Chlorobenzenes

TABLE 2
QC SAMPLE FREQUENCY FOR SEDIMENT CHEMICAL AND PHYSICAL PARAMETERS

Parameter	Method Blank	Duplicate	Triplicate	Matrix Spike	SRM	Surrogates
Ammonia Nitrogen	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	As Available	No
PSD	No	See Triplicate	5% minimum, 1 per QC batch	No	No	No
Total Solids & Volatile Solids	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	No	No	No
TOC	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	1 per QC batch	No
Sulfides	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	No	No
Metals	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	No
BNAs	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	Yes
PCBs/Chlorinated Pesticides	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	Yes
VOA	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	No	Yes

TABLE 3 - SUMMARY OF SEDIMENT DATA QUALIFIERS

Condition to Qualify	King County Data Qualifier	Possible EIM Data Qualifier	Organic QC Limits	Metal QC Limits	Conventional QC Limits	Comment
low matrix spike recovery	JG	JG	Compound specific	< 75%	< 75%	
high matrix spike recovery	JL	JL	Compound specific	>125%	>125%	
low standard reference material recovery	JG	JG	Compound and SRM specific	Element and SRM specific	< 80%	
high standard reference material recovery	JL	JL	Compound and SRM specific	Element and SRM specific	>120%	
high duplicate relative percent difference	JK or J	JK	>35 %	>20%	NA	for organics and metals
high triplicate relative standard deviation	JK or J	JK	NA	NA	> 20%	for conventionals
less than the reporting detection limit	<RDL**	JT	NA	NA	NA	
less than the method detection limit	<MDL	U	NA	NA	NA	
contamination detected in method blank	B	B	MB >/=MDL & Result </= 5x Blank	MB >/=MDL & Result </= 5x Blank	MB >/=MDL & Result </= 5x Blank	
contamination detected in method blank	B2	B	MB >/=MDL & Result > 5x but >/= 10x Blank	MB >/=MDL & Result > 5x but >/= 10x Blank	MB >/=MDL & Result > 5x but >/= 10x Blank	Common Lab Contaminants*
contamination detected in method blank	B3	B	MB >/=MDL & Result > 5x but >/= 10x Blank	MB >/=MDL & Result > 5x but >/= 10x Blank	MB >/=MDL & Result > 5x but >/= 10x Blank	All other parameters
biased data based on low surrogate recoveries	JG	JG	Surrogate specific	NA	NA	At least 2 surrogates < limit for BNAs
biased data based on high surrogate recoveries	JL	JL	Surrogate specific	NA	NA	At least 2 surrogates > limit for BNAs
rejected - unusable for all purposes	R	J or Q	NA	NA	NA	
a sample handling criteria has not been met	SH	JK or J	NA	NA	NA	container, preservation
Holding time not met	H	JK or J				

*COMMON LAB CONTAMINANTS: ACETONE, 2-BUTANONE, METHYLENE CHLORIDE, BIS(2-ETHYLHEXYL) PHTHALATE, BUTYL BENZYL PHTHALATE AND DI-N-BUTYL PHTHALATE

Sample Results Tables

King County Environmental Lab Analytical Report

	Project:	423368-80					Project:	423368-80					Project:	423368-80							
	Locator:	DWMP-01					Locator:	DWMP-02					Locator:	DWMP-03							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L47904-1					Sample:	L47904-2					Sample:	L47904-3							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	5/4/09 9:40					ColDate:	5/6/09 9:56					ColDate:	5/4/09 9:10							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	46.6					TotalSolid:	63.9					TotalSolid:	47.2							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	9					SampDepth:	13					SampDepth:	17							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**				
CV ASTM D422																					
Clay*	14.1		1.1	2.17	%		12		0.75	1.5	%		13.5		1.1	2.25	%				
Fines*	61.7		1.1	2.17	%		37.6		0.75	1.5	%		56.2		1.1	2.25	%				
Gravel*	8		0.22	2.17	%		11.1		0.15	1.5	%		1.6	<RDL	0.22	2.25	%				
Sand*	27.6		0.22	2.17	%		45.6		0.15	1.5	%		33.9		0.22	2.25	%				
Silt*	47.7		1.1	2.17	%		25.6		0.75	1.5	%		42.7		1.1	2.25	%				
p+0.00*	0.9	<RDL	0.22	2.17	%		3.4		0.15	1.5	%		0.8	<RDL	0.22	2.25	%				
p+1.00*	1.1		0.22	2.17	%		6.5		0.15	1.5	%		2.3		0.22	2.25	%				
p+10.0(equal/more than)*	9.7		1.1	2.17	%		7.5		0.75	1.5	%		6.7		1.1	2.25	%				
p+2.00*	2.3		0.22	2.17	%		12.7		0.15	1.5	%		9.1		0.22	2.25	%				
p+3.00*	7.5		0.22	2.17	%		10.7		0.15	1.5	%		9.8		0.22	2.25	%				
p+4.00*	15.9		0.22	2.17	%		12.2		0.15	1.5	%		11.8		0.22	2.25	%				
p+5.00*	24.9		1.1	2.17	%		10.5		0.75	1.5	%		20.2		1.1	2.25	%				
p+6.00*	9.7		1.1	2.17	%		6		0.75	1.5	%		6.7		1.1	2.25	%				
p+7.00*	8.7		1.1	2.17	%		4.5		0.75	1.5	%		9		1.1	2.25	%				
p+8.00*	4.3		1.1	2.17	%		4.5		0.75	1.5	%		6.7		1.1	2.25	%				
p+9.00*	4.3		1.1	2.17	%		4.5		0.75	1.5	%		6.7		1.1	2.25	%				
p-1.00*	1.3		0.22	2.17	%		2.2		0.15	1.5	%		0.8	<RDL	0.22	2.25	%				
p-2.00*	0.6	<RDL	0.22	2.17	%		0.5	<RDL	0.15	1.5	%		0.4	<RDL	0.22	2.25	%				
p-2.00(less than)*	6		0.22	2.17	%		8.4		0.15	1.5	%		0.4	<RDL	0.22	2.25	%				
CV EPA 9030B/SM4500-S2-D																					
Total Sulfide	51.3		5.2	20.9	mg/Kg		0.8	<RDL	0.77	3.07	mg/Kg		7.9		1	4.17	mg/Kg				
CV SM2540-G																					
Total Solids*	46.6		0.005	0.01	%		63.9		0.005	0.01	%		47.2		0.005	0.01	%				
CV SM4500-NH3-G KCL																					
Ammonia Nitrogen	6.52		1.1	2.11	mg/Kg		2.33		0.15	0.307	mg/Kg		2.39		0.21	0.419	mg/Kg				
CV SW846 9060-PSEP96																					
Total Organic Carbon	27500		2600	5060	mg/Kg		10600		2000	4230	mg/Kg		20200		2800	5340	mg/Kg				
ES NONE																					
Field Personnel*	JB,JD,DR,AF				none		BK,JD,MP				none		JB,JD,DR,AF				none				
Sampcoordx1*	1264044				ft		1264041				ft		1263850				ft				
Sampcoordy1*	228814				ft		228818				ft		228634				ft				
Sampcoordx2*							1263916				ft		1263851				ft				
Sampcoordy2*							228767				ft		228639				ft				
Sampcoordx3*							1263916				ft		1263854				ft				
Sampcoordy3*							228774				ft		228640				ft				
Sample Information*																					
Sample Depth*	9				m		13				m		17				m				
Sampling Method*	20143				none		20143				none		20143				none				
Sediment Sampling Depth*	14				cm		10				cm		16				cm				
Sediment Sampling Range*					cm						cm						cm				

King County Environmental Lab Analytical Report

Project:	423368-80					Project:	423368-80					Project:	423368-80								
Locator:	DWMP-01					Locator:	DWMP-02					Locator:	DWMP-03								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L47904-1					Sample:	L47904-2					Sample:	L47904-3								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	5/4/09 9:40					ColDate:	5/6/09 9:56					ColDate:	5/4/09 9:10								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	46.6					TotalSolid:	63.9					TotalSolid:	47.2								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	9					SampDepth:	13					SampDepth:	17								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**						
Sediment Type*	20P20				none	21N20				none	32N20				none						
Tidal Condition*	F				none	S				none	S				none						
Tide Height*	3.3				ft	0.1				ft	3.1				ft						
MT SW846 3050B*SW846 6010C																					
Arsenic, Total, ICP	13	<RDL	2.6	13.4	mg/Kg	6.4	<RDL	1.9	9.77	mg/Kg	9.1	<RDL	2.5	13.2	mg/Kg						
Cadmium, Total, ICP	1.07	<RDL	0.21	1.07	mg/Kg	0.39	<RDL	0.16	0.781	mg/Kg	0.89	<RDL	0.21	1.06	mg/Kg						
Chromium, Total, ICP	50.4		0.32	1.61	mg/Kg	40.5		0.23	1.17	mg/Kg	47.7		0.32	1.58	mg/Kg						
Copper, Total, ICP	80.5		0.43	2.14	mg/Kg	44.8		0.31	1.56	mg/Kg	57.6		0.42	2.11	mg/Kg						
Lead, Total, ICP	117		2.1	10.7	mg/Kg	50.2		1.6	7.81	mg/Kg	78.8		2.1	10.6	mg/Kg						
Silver, Total, ICP	3.8		0.43	2.14	mg/Kg	0.95	<RDL	0.31	1.56	mg/Kg	2.18		0.42	2.11	mg/Kg						
Zinc, Total, ICP	153		0.54	2.68	mg/Kg	87.2		0.39	1.96	mg/Kg	112		0.53	2.65	mg/Kg						
MT SW846 7471B																					
Mercury, Total, CVAA	0.794		0.011	0.108	mg/Kg	0.282		0.0077	0.0768	mg/Kg	0.487		0.01	0.104	mg/Kg						
OR EPA 3550B/8270C (7-3-01-004)																					
1,2,4-Trichlorobenzene		<MDL	0.21	0.429	ug/Kg		<MDL	0.16	0.313	ug/Kg		<MDL	0.21	0.424	ug/Kg						
1,2-Dichlorobenzene		<MDL	0.43	0.858	ug/Kg		<MDL	0.31	0.626	ug/Kg		<MDL	0.42	0.847	ug/Kg						
1,3-Dichlorobenzene		<MDL	0.43	0.858	ug/Kg		<MDL	0.31	0.626	ug/Kg		<MDL	0.42	0.847	ug/Kg						
1,4-Dichlorobenzene	5.45		0.43	0.858	ug/Kg	1.94		0.31	0.626	ug/Kg	2.52		0.42	0.847	ug/Kg						
2,4-Dimethylphenol		<MDL	2.1	4.29	ug/Kg		<MDL	1.6	3.13	ug/Kg		<MDL	2.1	4.24	ug/Kg						
2-Methylnaphthalene	64.6		4.3	8.58	ug/Kg	15.8		3.1	6.26	ug/Kg	16.1		4.2	8.47	ug/Kg						
2-Methylphenol		<MDL	4.3	8.58	ug/Kg		<MDL	3.1	6.26	ug/Kg		<MDL	4.2	8.47	ug/Kg						
4-Methylphenol	97.9		8.6	17.2	ug/Kg		<MDL	6.3	12.5	ug/Kg		<MDL	8.5	16.9	ug/Kg						
Acenaphthene	89.9		4.3	8.58	ug/Kg	23.5		3.1	6.26	ug/Kg	38.3		4.2	8.47	ug/Kg						
Acenaphthylene	156		4.3	8.58	ug/Kg	21.3		3.1	6.26	ug/Kg	31.1		4.2	8.47	ug/Kg						
Anthracene	697		4.3	8.58	ug/Kg	103		3.1	6.26	ug/Kg	231		4.2	8.47	ug/Kg						
Benzo(a)anthracene	1590		4.3	8.58	ug/Kg	260		3.1	6.26	ug/Kg	498		4.2	8.47	ug/Kg						
Benzo(a)pyrene	2790		4.3	8.58	ug/Kg	291		3.1	6.26	ug/Kg	532		4.2	8.47	ug/Kg						
Benzo(b)fluoranthene	3300		4.3	8.58	ug/Kg	324		3.1	6.26	ug/Kg	504		4.2	8.47	ug/Kg						
Benzo(g,h,i)perylene	1320		4.3	8.58	ug/Kg	213		3.1	6.26	ug/Kg	386		4.2	8.47	ug/Kg						
Benzo(k)fluoranthene	2360		4.3	8.58	ug/Kg	263		3.1	6.26	ug/Kg	417		4.2	8.47	ug/Kg						
Benzoic Acid	197		21	42.9	ug/Kg	263		16	31.3	ug/Kg	244		21	42.4	ug/Kg						
Benzyl Alcohol		<MDL	4.3	8.58	ug/Kg		<MDL	3.1	6.26	ug/Kg		<MDL	4.2	8.47	ug/Kg						
Benzyl Butyl Phthalate	147		2.1	4.29	ug/Kg	49.9		1.6	3.13	ug/Kg	61.7		2.1	4.24	ug/Kg						
Bis(2-Ethylhexyl)Phthalate	1170		8.6	17.2	ug/Kg	338		6.3	12.5	ug/Kg	771		8.5	16.9	ug/Kg						
Caffeine		<MDL	8.6	17.2	ug/Kg		<MDL	6.3	12.5	ug/Kg		<MDL	8.5	16.9	ug/Kg						
Carbazole	212		4.3	8.58	ug/Kg	45.5		3.1	6.26	ug/Kg	58.7		4.2	8.47	ug/Kg						
Chrysene	2470		4.3	8.58	ug/Kg	305		3.1	6.26	ug/Kg	540		4.2	8.47	ug/Kg						
Coprostanol		<MDL	86	172	ug/Kg		<MDL	63	125	ug/Kg		<MDL	85	169	ug/Kg						
Di-N-Butyl Phthalate		<MDL	8.6	17.2	ug/Kg	15.3		6.3	12.5	ug/Kg	50		8.5	16.9	ug/Kg						
Di-N-Octyl Phthalate		<MDL	8.6	17.2	ug/Kg		<MDL	6.3	12.5	ug/Kg		<MDL	8.5	16.9	ug/Kg						
Dibenzo(a,h)anthracene	760		4.3	8.58	ug/Kg	102		3.1	6.26	ug/Kg	168		4.2	8.47	ug/Kg						

King County Environmental Lab Analytical Report

Project:	423368-80					Project:	423368-80					Project:	423368-80								
Locator:	DWMP-01					Locator:	DWMP-02					Locator:	DWMP-03								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L47904-1					Sample:	L47904-2					Sample:	L47904-3								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	5/4/09 9:40					ColDate:	5/6/09 9:56					ColDate:	5/4/09 9:10								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	46.6					TotalSolid:	63.9					TotalSolid:	47.2								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	9					SampDepth:	13					SampDepth:	17								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**						
Dibenzofuran	48.5		4.3	8.58	ug/Kg	12.6		3.1	6.26	ug/Kg	18.5		4.2	8.47	ug/Kg						
Diethyl Phthalate		<MDL	8.6	17.2	ug/Kg		<MDL	6.3	12.5	ug/Kg		<MDL	8.5	16.9	ug/Kg						
Dimethyl Phthalate		<MDL	8.6	17.2	ug/Kg		<MDL	6.3	12.5	ug/Kg		<MDL	8.5	16.9	ug/Kg						
Fluoranthene	2000		4.3	8.58	ug/Kg	407		3.1	6.26	ug/Kg	839		4.2	8.47	ug/Kg						
Fluorene	132		4.3	8.58	ug/Kg	25.8		3.1	6.26	ug/Kg	42.8		4.2	8.47	ug/Kg						
Hexachlorobenzene		<MDL	0.21	0.429	ug/Kg		<MDL	0.16	0.313	ug/Kg		<MDL	0.21	0.424	ug/Kg						
Hexachlorobutadiene		<MDL	1.1	2.15	ug/Kg		<MDL	0.78	1.56	ug/Kg		<MDL	1.1	2.12	ug/Kg						
Hexachloroethane		<MDL	2.1	4.29	ug/Kg		<MDL	1.6	3.13	ug/Kg		<MDL	2.1	4.24	ug/Kg						
Indeno(1,2,3-Cd)Pyrene	1370		4.3	8.58	ug/Kg	197		3.1	6.26	ug/Kg	352		4.2	8.47	ug/Kg						
N-Nitrosodiphenylamine		<MDL	8.6	17.2	ug/Kg		<MDL	6.3	12.5	ug/Kg		<MDL	8.5	16.9	ug/Kg						
Naphthalene	59		4.3	8.58	ug/Kg	14.9		3.1	6.26	ug/Kg	17		4.2	8.47	ug/Kg						
Pentachlorophenol		<MDL	21	42.9	ug/Kg		<MDL	16	31.3	ug/Kg		<MDL	21	42.4	ug/Kg						
Phenanthrene	1140		4.3	8.58	ug/Kg	258		3.1	6.26	ug/Kg	570		4.2	8.47	ug/Kg						
Phenol		<MDL	8.6	17.2	ug/Kg		<MDL	6.3	12.5	ug/Kg		<MDL	8.5	16.9	ug/Kg						
Pyrene	3820		4.3	8.58	ug/Kg	593		3.1	6.26	ug/Kg	1270		4.2	8.47	ug/Kg						
Total 4-Nonylphenol		<MDL	11	21.5	ug/Kg	127		7.8	15.6	ug/Kg		<MDL	11	21.2	ug/Kg						
Total HPAHS	18700		4.3	8.58	ug/Kg	2960		3.1	6.26	ug/Kg	5510		4.2	8.47	ug/Kg						
Total LPAHs	2060		4.3	8.58	ug/Kg	463		3.1	6.26	ug/Kg	947		4.2	8.47	ug/Kg						
OR SW846 3550B*SW846 8081B																					
4,4'-DDD		<MDL	2.1	4.29	ug/Kg	3.96		1.6	3.13	ug/Kg		<MDL	2.1	4.24	ug/Kg						
4,4'-DDE		<MDL	2.1	4.29	ug/Kg	1.6	<RDL	1.6	3.13	ug/Kg		<MDL	2.1	4.24	ug/Kg						
4,4'-DDT		<MDL	2.1	4.29	ug/Kg		<MDL	1.6	3.13	ug/Kg		<MDL	2.1	4.24	ug/Kg						
OR SW846 3550B*SW846 8082A																					
Aroclor 1016		<MDL,TA	64	130	ug/Kg		<MDL,TA	10	21	ug/Kg		<MDL,TA	51	103	ug/Kg						
Aroclor 1221		<MDL	17	34.3	ug/Kg		<MDL	3.1	6.26	ug/Kg		<MDL	8.5	16.9	ug/Kg						
Aroclor 1232		<MDL,TA	130	260	ug/Kg		<MDL,TA	25	48.8	ug/Kg		<MDL,TA	95	192	ug/Kg						
Aroclor 1242		<MDL,TA	170	335	ug/Kg		<MDL	1.6	3.13	ug/Kg		<MDL,TA	110	212	ug/Kg						
Aroclor 1248	158		8.6	17.2	ug/Kg	31.6		1.6	3.13	ug/Kg	97.2		4.2	8.47	ug/Kg						
Aroclor 1254	294		8.6	17.2	ug/Kg	112		1.6	3.13	ug/Kg	187		4.2	8.47	ug/Kg						
Aroclor 1260	167		8.6	17.2	ug/Kg	68.9		1.6	3.13	ug/Kg	122		4.2	8.47	ug/Kg						
Total Aroclors	618		8.6	17.2	ug/Kg	213		1.6	3.13	ug/Kg	407		4.2	8.47	ug/Kg						
* Not converted to dry weight basis																					

King County Environmental Lab Analytical Report

	Project:	423368-80					Project:	423368-80					Project:	423368-80							
	Locator:	DWMP-04					Locator:	DWMP-05					Locator:	DWMP-06							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L47904-4					Sample:	L47904-5					Sample:	L47904-6							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	5/6/09 9:37					ColDate:	5/4/09 10:12					ColDate:	5/6/09 9:02							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	50.9					TotalSolid:	71.3					TotalSolid:	47.4							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	23					SampDepth:	6					SampDepth:	19							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**				
CV ASTM D422																					
Clay*	13.9		0.99	1.98	%		3.7		0.61	1.23	%		8.4		1	2.09	%				
Fines*	53.5		0.99	1.98	%		7.4		0.61	1.23	%		31.3		1	2.09	%				
Gravel*	15.9		0.2	1.98	%		53.5		0.12	1.23	%		4.2		0.21	2.09	%				
Sand*	29.3		0.2	1.98	%		36.4		0.12	1.23	%		59.5		0.21	2.09	%				
Silt*	39.7		0.99	1.98	%		3.7		0.61	1.23	%		23		1	2.09	%				
p+0.00*	2.8		0.2	1.98	%		9.9		0.12	1.23	%		1.5		0.21	2.09	%				
p+1.00*	3.8		0.2	1.98	%		8		0.12	1.23	%		10.2		0.21	2.09	%				
p+10.0(equal/more than)*	9.9		0.99	1.98	%		2.5		0.61	1.23	%		6.3		1	2.09	%				
p+2.00*	7.9		0.2	1.98	%		9.5		0.12	1.23	%		32.3		0.21	2.09	%				
p+3.00*	7.2		0.2	1.98	%		5.8		0.12	1.23	%		11.6		0.21	2.09	%				
p+4.00*	7.7		0.2	1.98	%		3.1		0.12	1.23	%		4.1		0.21	2.09	%				
p+5.00*	7.9		0.99	1.98	%		0.6	<RDL	0.61	1.23	%		10.4		1	2.09	%				
p+6.00*	15.9		0.99	1.98	%		0.6	<RDL	0.61	1.23	%		2.1		1	2.09	%				
p+7.00*	9.9		0.99	1.98	%		1.2		0.61	1.23	%		4.2		1	2.09	%				
p+8.00*	5.9		0.99	1.98	%		1.2		0.61	1.23	%		6.3		1	2.09	%				
p+9.00*	4		0.99	1.98	%		1.2		0.61	1.23	%		2.1		1	2.09	%				
p-1.00*	3		0.2	1.98	%		19.1		0.12	1.23	%		1.6		0.21	2.09	%				
p-2.00*	0.3	<RDL	0.2	1.98	%		7.1		0.12	1.23	%		0.4	<RDL	0.21	2.09	%				
p-2.00(less than)*	12.5		0.2	1.98	%		27.3		0.12	1.23	%		2.2		0.21	2.09	%				
CV EPA 9030B/SM4500-S2-D																					
Total Sulfide	4.22		0.96	3.83	mg/Kg		45.9		3.4	13.3	mg/Kg		16.6		1	4.11	mg/Kg				
CV SM2540-G																					
Total Solids*	50.9		0.005	0.01	%		71.3		0.005	0.01	%		47.4		0.005	0.01	%				
CV SM4500-NH3-G KCL																					
Ammonia Nitrogen	1.81		0.2	0.393	mg/Kg		6.58		0.7	1.39	mg/Kg		2.55		0.21	0.414	mg/Kg				
CV SW846 9060-PSEP96																					
Total Organic Carbon	12900		2000	4010	mg/Kg		15400		3100	6210	mg/Kg		16600		2000	4050	mg/Kg				
ES NONE																					
Field Personnel*	BK,JD,MP				none		JB,JD,DR,AF				none		BK,JD,MP				none				
Sampcoordx1*	1263628				ft		1263831				ft		1263541				ft				
Sampcoordy1*	228552				ft		229023				ft		228847				ft				
Sampcoordx2*	1263627				ft		1263828				ft		1263540				ft				
Sampcoordy2*	228547				ft		229027				ft		228838				ft				
Sampcoordx3*							1263818				ft										
Sampcoordy3*							229031				ft										
Sample Information*							Mostly rocks & bull kelp; inferior sample.				none										
Sample Depth*	23				m		6				m		19				m				
Sampling Method*	20143				none		20143				none		20143				none				
Sediment Sampling Depth*	11				cm		7				cm		17				cm				
Sediment Sampling Range*					cm						cm						cm				

King County Environmental Lab Analytical Report

	Project:	423368-80					Project:	423368-80					Project:	423368-80							
	Locator:	DWMP-04					Locator:	DWMP-05					Locator:	DWMP-06							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L47904-4					Sample:	L47904-5					Sample:	L47904-6							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	5/6/09 9:37					ColDate:	5/4/09 10:12					ColDate:	5/6/09 9:02							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	50.9					TotalSolid:	71.3					TotalSolid:	47.4							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	23					SampDepth:	6					SampDepth:	19							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**				
Sediment Type*	23S20				none		43P21				none		23N20				none				
Tidal Condition*	S				none		F				none		E				none				
Tide Height*	0.5				ft		3.8				ft		2				ft				
MT SW846 3050B*SW846 6010C																					
Arsenic, Total, ICP	11	<RDL	2.4	12.2	mg/Kg		5	<RDL	1.7	8.74	mg/Kg		7.4	<RDL	2.5	13.2	mg/Kg				
Cadmium, Total, ICP	0.49	<RDL	0.2	0.98	mg/Kg		0.35	<RDL	0.14	0.7	mg/Kg		0.34	<RDL	0.21	1.05	mg/Kg				
Chromium, Total, ICP	48.7		0.29	1.47	mg/Kg		17		0.21	1.05	mg/Kg		33.5		0.32	1.58	mg/Kg				
Copper, Total, ICP	48.1		0.39	1.96	mg/Kg		32.4		0.28	1.4	mg/Kg		37.6		0.42	2.11	mg/Kg				
Lead, Total, ICP	44.8		2	9.8	mg/Kg		28.5		1.4	7	mg/Kg		30.8		2.1	10.5	mg/Kg				
Silver, Total, ICP	0.79	<RDL	0.39	1.96	mg/Kg			<MDL	0.28	1.4	mg/Kg		0.53	<RDL	0.42	2.11	mg/Kg				
Zinc, Total, ICP	94.1		0.49	2.46	mg/Kg		62.4		0.35	1.75	mg/Kg		82.9		0.53	2.64	mg/Kg				
MT SW846 7471B																					
Mercury, Total, CVAA	0.318		0.0094	0.0951	mg/Kg		0.133		0.007	0.0705	mg/Kg		0.189		0.01	0.101	mg/Kg				
OR EPA 3550B/8270C (7-3-01-004)																					
1,2,4-Trichlorobenzene		<MDL	0.2	0.393	ug/Kg			<MDL	0.14	0.281	ug/Kg			<MDL	0.21	0.422	ug/Kg				
1,2-Dichlorobenzene		<MDL	0.39	0.786	ug/Kg			<MDL	0.28	0.561	ug/Kg			<MDL	0.42	0.844	ug/Kg				
1,3-Dichlorobenzene		<MDL	0.39	0.786	ug/Kg			<MDL	0.28	0.561	ug/Kg			<MDL	0.42	0.844	ug/Kg				
1,4-Dichlorobenzene		<MDL	0.39	0.786	ug/Kg		1.78		0.28	0.561	ug/Kg		3.99		0.42	0.844	ug/Kg				
2,4-Dimethylphenol		<MDL	2	3.93	ug/Kg			<MDL	1.4	2.81	ug/Kg			<MDL	2.1	4.22	ug/Kg				
2-Methylnaphthalene	14.8		3.9	7.86	ug/Kg		10.9		2.8	5.61	ug/Kg		7.6	<RDL	4.2	8.44	ug/Kg				
2-Methylphenol		<MDL	3.9	7.86	ug/Kg			<MDL	2.8	5.61	ug/Kg			<MDL	4.2	8.44	ug/Kg				
4-Methylphenol		<MDL	7.9	15.7	ug/Kg		20.3		5.6	11.2	ug/Kg			<MDL	8.4	16.9	ug/Kg				
Acenaphthene	12.4		3.9	7.86	ug/Kg		12.6		2.8	5.61	ug/Kg		10.1		4.2	8.44	ug/Kg				
Acenaphthylene	18.4		3.9	7.86	ug/Kg		42.5		2.8	5.61	ug/Kg		14.3		4.2	8.44	ug/Kg				
Anthracene	71.1		3.9	7.86	ug/Kg		394		2.8	5.61	ug/Kg		68.8		4.2	8.44	ug/Kg				
Benzo(a)anthracene	180		3.9	7.86	ug/Kg		2080		2.8	5.61	ug/Kg		174		4.2	8.44	ug/Kg				
Benzo(a)pyrene	218		3.9	7.86	ug/Kg		1630		2.8	5.61	ug/Kg		192		4.2	8.44	ug/Kg				
Benzo(b)fluoranthene	216		3.9	7.86	ug/Kg		1810		2.8	5.61	ug/Kg		177		4.2	8.44	ug/Kg				
Benzo(g,h,i)perylene	166		3.9	7.86	ug/Kg		558		2.8	5.61	ug/Kg		136		4.2	8.44	ug/Kg				
Benzo(k)fluoranthene	202		3.9	7.86	ug/Kg		1430		2.8	5.61	ug/Kg		188		4.2	8.44	ug/Kg				
Benzoic Acid	224		20	39.3	ug/Kg		99		14	28.1	ug/Kg		127		21	42.2	ug/Kg				
Benzyl Alcohol		<MDL	3.9	7.86	ug/Kg			<MDL	2.8	5.61	ug/Kg			<MDL	4.2	8.44	ug/Kg				
Benzyl Butyl Phthalate	21.6		2	3.93	ug/Kg		27.2		1.4	2.81	ug/Kg		40.5		2.1	4.22	ug/Kg				
Bis(2-Ethylhexyl)Phthalate	184	B2	7.9	15.7	ug/Kg		247		5.6	11.2	ug/Kg		1420		8.4	16.9	ug/Kg				
Caffeine		<MDL	7.9	15.7	ug/Kg			<MDL	5.6	11.2	ug/Kg			<MDL	8.4	16.9	ug/Kg				
Carbazole	29.7		3.9	7.86	ug/Kg		71.5		2.8	5.61	ug/Kg		21.9		4.2	8.44	ug/Kg				
Chrysene	200		3.9	7.86	ug/Kg		2160		2.8	5.61	ug/Kg		215		4.2	8.44	ug/Kg				
Coprostanol		<MDL	79	157	ug/Kg			<MDL	56	112	ug/Kg			<MDL	84	169	ug/Kg				
Di-N-Butyl Phthalate	18.4		7.9	15.7	ug/Kg		21.6		5.6	11.2	ug/Kg		19.9		8.4	16.9	ug/Kg				
Di-N-Octyl Phthalate		<MDL	7.9	15.7	ug/Kg			<MDL	5.6	11.2	ug/Kg			<MDL	8.4	16.9	ug/Kg				
Dibenzo(a,h)anthracene	66.6		3.9	7.86	ug/Kg		318		2.8	5.61	ug/Kg		50.6		4.2	8.44	ug/Kg				

King County Environmental Lab Analytical Report

Project:	423368-80					Project:	423368-80					Project:	423368-80								
Locator:	DWMP-04					Locator:	DWMP-05					Locator:	DWMP-06								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L47904-4					Sample:	L47904-5					Sample:	L47904-6								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	5/6/09 9:37					ColDate:	5/4/09 10:12					ColDate:	5/6/09 9:02								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	50.9					TotalSolid:	71.3					TotalSolid:	47.4								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	23					SampDepth:	6					SampDepth:	19								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**						
Dibenzofuran	8.43		3.9	7.86	ug/Kg	13.5		2.8	5.61	ug/Kg	7	<RDL	4.2	8.44	ug/Kg						
Diethyl Phthalate		<MDL	7.9	15.7	ug/Kg		<MDL	5.6	11.2	ug/Kg		<MDL	8.4	16.9	ug/Kg						
Dimethyl Phthalate		<MDL	7.9	15.7	ug/Kg		<MDL	5.6	11.2	ug/Kg		<MDL	8.4	16.9	ug/Kg						
Fluoranthene	253		3.9	7.86	ug/Kg	3410		2.8	5.61	ug/Kg	217		4.2	8.44	ug/Kg						
Fluorene	18.4		3.9	7.86	ug/Kg	47.8		2.8	5.61	ug/Kg	16.6		4.2	8.44	ug/Kg						
Hexachlorobenzene		<MDL	0.2	0.393	ug/Kg		<MDL	0.14	0.281	ug/Kg		<MDL	0.21	0.422	ug/Kg						
Hexachlorobutadiene		<MDL	0.98	1.96	ug/Kg		<MDL	0.7	1.4	ug/Kg		<MDL	1.1	2.11	ug/Kg						
Hexachloroethane		<MDL	2	3.93	ug/Kg		<MDL	1.4	2.81	ug/Kg		<MDL	2.1	4.22	ug/Kg						
Indeno(1,2,3-Cd)Pyrene	147		3.9	7.86	ug/Kg	586		2.8	5.61	ug/Kg	121		4.2	8.44	ug/Kg						
N-Nitrosodiphenylamine		<MDL	7.9	15.7	ug/Kg		<MDL	5.6	11.2	ug/Kg		<MDL	8.4	16.9	ug/Kg						
Naphthalene	11.5		3.9	7.86	ug/Kg	11.1		2.8	5.61	ug/Kg	8.46		4.2	8.44	ug/Kg						
Pentachlorophenol		<MDL	20	39.3	ug/Kg	32.3		14	28.1	ug/Kg		<MDL	21	42.2	ug/Kg						
Phenanthrene	141		3.9	7.86	ug/Kg	307		2.8	5.61	ug/Kg	121		4.2	8.44	ug/Kg						
Phenol		<MDL	7.9	15.7	ug/Kg		<MDL	5.6	11.2	ug/Kg		<MDL	8.4	16.9	ug/Kg						
Pyrene	342		3.9	7.86	ug/Kg	2380		2.8	5.61	ug/Kg	287		4.2	8.44	ug/Kg						
Total 4-Nonylphenol	112		9.8	19.6	ug/Kg		<MDL	7	14	ug/Kg	96.2		11	21.1	ug/Kg						
Total HPAHS	1980		3.9	7.86	ug/Kg	16500		2.8	5.61	ug/Kg	1760		4.2	8.44	ug/Kg						
Total LPAHs	287		3.9	7.86	ug/Kg	1140		2.8	5.61	ug/Kg	247		4.2	8.44	ug/Kg						
OR SW846 3550B*SW846 8081B																					
4,4'-DDD	2	<RDL	2	3.93	ug/Kg		<MDL	1.4	2.81	ug/Kg		<MDL	2.1	4.22	ug/Kg						
4,4'-DDE		<MDL	2	3.93	ug/Kg		<MDL	1.4	2.81	ug/Kg		<MDL	2.1	4.22	ug/Kg						
4,4'-DDT		<MDL	2	3.93	ug/Kg		<MDL	1.4	2.81	ug/Kg		<MDL	2.1	4.22	ug/Kg						
OR SW846 3550B*SW846 8082A																					
Aroclor 1016		<MDL,TA	12	24.8	ug/Kg		<MDL,TA	14	29.5	ug/Kg		<MDL,TA	5.1	10.1	ug/Kg						
Aroclor 1221		<MDL	3.9	7.86	ug/Kg		<MDL	2.8	5.61	ug/Kg		<MDL	4.2	8.44	ug/Kg						
Aroclor 1232		<MDL	22	44.4	ug/Kg		<MDL,TA	24	46.8	ug/Kg		<MDL	4.2	8.44	ug/Kg						
Aroclor 1242		<MDL	18	35.2	ug/Kg		<MDL	1.4	2.81	ug/Kg		<MDL	2.1	4.22	ug/Kg						
Aroclor 1248	25		2	3.93	ug/Kg	28.3		1.4	2.81	ug/Kg	12.1		2.1	4.22	ug/Kg						
Aroclor 1254	66.4		2	3.93	ug/Kg	58.1		1.4	2.81	ug/Kg	30.8		2.1	4.22	ug/Kg						
Aroclor 1260	56		2	3.93	ug/Kg	19.2		1.4	2.81	ug/Kg	26.4		2.1	4.22	ug/Kg						
Total Aroclors	147		2	3.93	ug/Kg	106		1.4	2.81	ug/Kg	69.4		2.1	4.22	ug/Kg						

* Not converted to dry weight basis

King County Environmental Lab Analytical Report

Project:	423368-80	423368-80	423368-80
Locator:	DWMP-07	DWMP-08	DWMP-09
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sample:	L47904-7	L47904-8	L47904-9
Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
ColDate:	5/6/09 9:20	5/4/09 13:00	5/4/09 13:55
TimeSpan:			
TotalSolid:	59.3	51.7	43.7
ClientLoc:			
SampDepth:	23	26	31
	DRY Weight Basis	**DRY Weight Basis**	**DRY Weight Basis**

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
CV ASTM D422															
Clay*	7.6		0.76	1.51	%	11.6		1.1	2.1	%	16		1.1	2.13	%
Fines*	21.2		0.76	1.51	%	44.1		1.1	2.1	%	62.9		1.1	2.13	%
Gravel*	18		0.15	1.51	%	5.7		0.21	2.1	%	1.9		0.21	2.13	%
Sand*	52.2		0.15	1.51	%	48.2		0.21	2.1	%	27.8		0.21	2.13	%
Silt*	13.6		0.76	1.51	%	32.6		1.1	2.1	%	46.9		1.1	2.13	%
p+0.00*	4.2		0.15	1.51	%	3.4		0.21	2.1	%	1.2		0.21	2.13	%
p+1.00*	7.5		0.15	1.51	%	6.6		0.21	2.1	%	2.1		0.21	2.13	%
p+10.0(equal/more than)*	4.5		0.76	1.51	%	8.4		1.1	2.1	%	11.7		1.1	2.13	%
p+2.00*	20.3		0.15	1.51	%	16.7		0.21	2.1	%	4.7		0.21	2.13	%
p+3.00*	13.2		0.15	1.51	%	12		0.21	2.1	%	9.1		0.21	2.13	%
p+4.00*	7		0.15	1.51	%	9.6		0.21	2.1	%	10.8		0.21	2.13	%
p+5.00*	6		0.76	1.51	%	18.9		1.1	2.1	%	12.8		1.1	2.13	%
p+6.00*	3		0.76	1.51	%	4.2		1.1	2.1	%	17.1		1.1	2.13	%
p+7.00*	1.5		0.76	1.51	%	4.2		1.1	2.1	%	12.8		1.1	2.13	%
p+8.00*	3		0.76	1.51	%	5.3		1.1	2.1	%	4.3		1.1	2.13	%
p+9.00*	3		0.76	1.51	%	3.2		1.1	2.1	%	4.3		1.1	2.13	%
p-1.00*	5.4		0.15	1.51	%	3.3		0.21	2.1	%	1.6		0.21	2.13	%
p-2.00*	1.3		0.15	1.51	%	0.3	<RDL	0.21	2.1	%	0.21	<RDL	0.21	2.13	%
p-2.00(less than)*	11.3		0.15	1.51	%	2.1		0.21	2.1	%		<MDL	0.21	2.13	%
CV EPA 9030B/SM4500-S2-D															
Total Sulfide	2	<RDL	0.81	3.25	mg/Kg	103		4.8	19	mg/Kg	13.6		1.1	4.39	mg/Kg
CV SM2540-G															
Total Solids*	59.3		0.005	0.01	%	51.7	SH	0.005	0.01	%	43.7		0.005	0.01	%
CV SM4500-NH3-G KCL															
Ammonia Nitrogen	2.16		0.17	0.337	mg/Kg	4.66		0.95	1.91	mg/Kg	2.1		0.22	0.449	mg/Kg
CV SW846 9060-PSEP96															
Total Organic Carbon	14600		1900	3690	mg/Kg	28200	SH	2300	4740	mg/Kg	18800		2000	3960	mg/Kg
ES NONE															
Field Personnel*	BK,JD,MP				none	JB,JD,DR,AF				none	JB,JD,DR,AF				none
Sampcoordx1*	1263350				ft	1263332				ft	1263216				ft
Sampcoordy1*	228665				ft	228905				ft	228812				ft
Sampcoordx2*	1263348				ft	1263339				ft	1263218				ft
Sampcoordy2*	228668				ft	228899				ft	228807				ft
Sampcoordx3*						1263337				ft	1263224				ft
Sampcoordy3*						228906				ft	228806				ft
Sample Information*															
Sample Depth*	23				m	26				m	31				m
Sampling Method*	20143				none	20143				none	20143				none
Sediment Sampling Depth*	9				cm	16				cm	17				cm
Sediment Sampling Range*					cm					cm					cm

King County Environmental Lab Analytical Report

	Project:	423368-80					Project:	423368-80					Project:	423368-80							
	Locator:	DWMP-07					Locator:	DWMP-08					Locator:	DWMP-09							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L47904-7					Sample:	L47904-8					Sample:	L47904-9							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	5/6/09 9:20					ColDate:	5/4/09 13:00					ColDate:	5/4/09 13:55							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	59.3					TotalSolid:	51.7					TotalSolid:	43.7							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	23					SampDepth:	26					SampDepth:	31							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**				
Sediment Type*	23N20				none		20D37				none		20S20				none				
Tidal Condition*	E				none		F				none		S				none				
Tide Height*	1				ft		7.5				ft		8.3				ft				
MT SW846 3050B*SW846 6010C																					
Arsenic, Total, ICP	6.7	<RDL	2	10.5	mg/Kg		7.9	<RDL	2.3	12.1	mg/Kg		11	<RDL	2.7	14.3	mg/Kg				
Cadmium, Total, ICP	0.29	<RDL	0.17	0.841	mg/Kg		0.85	<RDL	0.19	0.963	mg/Kg		0.92	<RDL	0.23	1.14	mg/Kg				
Chromium, Total, ICP	31.2		0.25	1.26	mg/Kg		33.7		0.29	1.45	mg/Kg		63.2		0.34	1.71	mg/Kg				
Copper, Total, ICP	33.4		0.34	1.68	mg/Kg		66.2		0.39	1.93	mg/Kg		109		0.46	2.29	mg/Kg				
Lead, Total, ICP	29.3		1.7	8.41	mg/Kg		68.7		1.9	9.63	mg/Kg		88.3		2.3	11.4	mg/Kg				
Silver, Total, ICP	0.81	<RDL	0.34	1.68	mg/Kg		2.07		0.39	1.93	mg/Kg		3.14		0.46	2.29	mg/Kg				
Zinc, Total, ICP	66.3		0.42	2.11	mg/Kg		100		0.48	2.42	mg/Kg		121		0.57	2.86	mg/Kg				
MT SW846 7471B																					
Mercury, Total, CVAA	0.29		0.0083	0.0833	mg/Kg		0.47		0.0093	0.0936	mg/Kg		1.7		0.023	0.225	mg/Kg				
OR EPA 3550B/8270C (7-3-01-004)																					
1,2,4-Trichlorobenzene		<MDL	0.17	0.337	ug/Kg			<MDL	0.19	0.387	ug/Kg			<MDL	0.23	0.458	ug/Kg				
1,2-Dichlorobenzene		<MDL	0.34	0.675	ug/Kg			<MDL	0.39	0.774	ug/Kg			<MDL	0.46	0.915	ug/Kg				
1,3-Dichlorobenzene		<MDL	0.34	0.675	ug/Kg			<MDL	0.39	0.774	ug/Kg			<MDL	0.46	0.915	ug/Kg				
1,4-Dichlorobenzene	1.69		0.34	0.675	ug/Kg		8.78		0.39	0.774	ug/Kg			<MDL	0.46	0.915	ug/Kg				
2,4-Dimethylphenol		<MDL	1.7	3.37	ug/Kg			<MDL	1.9	3.87	ug/Kg			<MDL	2.3	4.58	ug/Kg				
2-Methylnaphthalene	6.6	<RDL	3.4	6.75	ug/Kg		17.4		3.9	7.74	ug/Kg		22.9		4.6	9.15	ug/Kg				
2-Methylphenol		<MDL	3.4	6.75	ug/Kg			<MDL	3.9	7.74	ug/Kg			<MDL	4.6	9.15	ug/Kg				
4-Methylphenol		<MDL	6.7	13.5	ug/Kg		18.2		7.7	15.5	ug/Kg			<MDL	9.2	18.3	ug/Kg				
Acenaphthene	8.65		3.4	6.75	ug/Kg		23.6		3.9	7.74	ug/Kg		26.3		4.6	9.15	ug/Kg				
Acenaphthylene	13.9		3.4	6.75	ug/Kg		35.4		3.9	7.74	ug/Kg		26.5		4.6	9.15	ug/Kg				
Anthracene	77.7		3.4	6.75	ug/Kg		146		3.9	7.74	ug/Kg		120		4.6	9.15	ug/Kg				
Benzo(a)anthracene	166		3.4	6.75	ug/Kg		503		3.9	7.74	ug/Kg		295		4.6	9.15	ug/Kg				
Benzo(a)pyrene	162		3.4	6.75	ug/Kg		511		3.9	7.74	ug/Kg		373		4.6	9.15	ug/Kg				
Benzo(b)fluoranthene	170		3.4	6.75	ug/Kg		404		3.9	7.74	ug/Kg		352		4.6	9.15	ug/Kg				
Benzo(g,h,i)perylene	117		3.4	6.75	ug/Kg		348		3.9	7.74	ug/Kg		270		4.6	9.15	ug/Kg				
Benzo(k)fluoranthene	160		3.4	6.75	ug/Kg		348		3.9	7.74	ug/Kg		357		4.6	9.15	ug/Kg				
Benzoic Acid	113		17	33.7	ug/Kg		167		19	38.7	ug/Kg		228		23	45.8	ug/Kg				
Benzyl Alcohol		<MDL	3.4	6.75	ug/Kg			<MDL	3.9	7.74	ug/Kg			<MDL	4.6	9.15	ug/Kg				
Benzyl Butyl Phthalate	18		1.7	3.37	ug/Kg		40.8		1.9	3.87	ug/Kg		83.3		2.3	4.58	ug/Kg				
Bis(2-Ethylhexyl)Phthalate	207		6.7	13.5	ug/Kg		660		7.7	15.5	ug/Kg		890		9.2	18.3	ug/Kg				
Caffeine		<MDL	6.7	13.5	ug/Kg			<MDL	7.7	15.5	ug/Kg			<MDL	9.2	18.3	ug/Kg				
Carbazole	30		3.4	6.75	ug/Kg		47.6		3.9	7.74	ug/Kg		46.7		4.6	9.15	ug/Kg				
Chrysene	218		3.4	6.75	ug/Kg		466		3.9	7.74	ug/Kg		330		4.6	9.15	ug/Kg				
Coprostanol		<MDL	67	135	ug/Kg			<MDL	77	155	ug/Kg			<MDL	92	183	ug/Kg				
Di-N-Butyl Phthalate	12	<RDL	6.7	13.5	ug/Kg		42.6		7.7	15.5	ug/Kg		314		9.2	18.3	ug/Kg				
Di-N-Octyl Phthalate		<MDL	6.7	13.5	ug/Kg			<MDL	7.7	15.5	ug/Kg			<MDL	9.2	18.3	ug/Kg				
Dibenzo(a,h)anthracene	45.4		3.4	6.75	ug/Kg		136		3.9	7.74	ug/Kg		124		4.6	9.15	ug/Kg				

King County Environmental Lab Analytical Report

Project:	423368-80					Project:	423368-80					Project:	423368-80			
Locator:	DWMP-07					Locator:	DWMP-08					Locator:	DWMP-09			
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI			
Sample:	L47904-7					Sample:	L47904-8					Sample:	L47904-9			
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED			
ColDate:	5/6/09 9:20					ColDate:	5/4/09 13:00					ColDate:	5/4/09 13:55			
TimeSpan:						TimeSpan:						TimeSpan:				
TotalSolid:	59.3					TotalSolid:	51.7					TotalSolid:	43.7			
ClientLoc:						ClientLoc:						ClientLoc:				
SampDepth:	23					SampDepth:	26					SampDepth:	31			
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
Dibenzofuran	6.6	<RDL	3.4	6.75	ug/Kg	17.4		3.9	7.74	ug/Kg	14.3		4.6	9.15	ug/Kg
Diethyl Phthalate		<MDL	6.7	13.5	ug/Kg		<MDL	7.7	15.5	ug/Kg		<MDL	9.2	18.3	ug/Kg
Dimethyl Phthalate		<MDL	6.7	13.5	ug/Kg		<MDL	7.7	15.5	ug/Kg		<MDL	9.2	18.3	ug/Kg
Fluoranthene	287		3.4	6.75	ug/Kg	646		3.9	7.74	ug/Kg	430		4.6	9.15	ug/Kg
Fluorene	18.9		3.4	6.75	ug/Kg	36		3.9	7.74	ug/Kg	30.9		4.6	9.15	ug/Kg
Hexachlorobenzene		<MDL	0.17	0.337	ug/Kg		<MDL	0.19	0.387	ug/Kg		<MDL	0.23	0.458	ug/Kg
Hexachlorobutadiene		<MDL	0.84	1.69	ug/Kg		<MDL	0.97	1.93	ug/Kg		<MDL	1.1	2.29	ug/Kg
Hexachloroethane		<MDL	1.7	3.37	ug/Kg		<MDL	1.9	3.87	ug/Kg		<MDL	2.3	4.58	ug/Kg
Indeno(1,2,3-Cd)Pyrene	105		3.4	6.75	ug/Kg	279		3.9	7.74	ug/Kg	245		4.6	9.15	ug/Kg
N-Nitrosodiphenylamine		<MDL	6.7	13.5	ug/Kg		<MDL	7.7	15.5	ug/Kg		<MDL	9.2	18.3	ug/Kg
Naphthalene	7.44		3.4	6.75	ug/Kg	16.3		3.9	7.74	ug/Kg	19.3		4.6	9.15	ug/Kg
Pentachlorophenol		<MDL	17	33.7	ug/Kg		<MDL	19	38.7	ug/Kg		<MDL	23	45.8	ug/Kg
Phenanthrene	146		3.4	6.75	ug/Kg	358		3.9	7.74	ug/Kg	288		4.6	9.15	ug/Kg
Phenol		<MDL	6.7	13.5	ug/Kg		<MDL	7.7	15.5	ug/Kg		<MDL	9.2	18.3	ug/Kg
Pyrene	327		3.4	6.75	ug/Kg	905		3.9	7.74	ug/Kg	735		4.6	9.15	ug/Kg
Total 4-Nonylphenol		<MDL	8.4	16.9	ug/Kg	350		9.7	19.3	ug/Kg		<MDL	11	22.9	ug/Kg
Total HPAHS	1750		3.4	6.75	ug/Kg	4550		3.9	7.74	ug/Kg	3500		4.6	9.15	ug/Kg
Total LPAHs	278		3.4	6.75	ug/Kg	632		3.9	7.74	ug/Kg	533		4.6	9.15	ug/Kg
OR SW846 3550B*SW846 8081B															
4,4'-DDD	2.5	<RDL	1.7	3.37	ug/Kg		<MDL	1.9	3.87	ug/Kg		<MDL	2.3	4.58	ug/Kg
4,4'-DDE		<MDL	1.7	3.37	ug/Kg		<MDL	1.9	3.87	ug/Kg		<MDL	2.3	4.58	ug/Kg
4,4'-DDT		<MDL	1.7	3.37	ug/Kg		<MDL	1.9	3.87	ug/Kg		<MDL	2.3	4.58	ug/Kg
OR SW846 3550B*SW846 8082A															
Aroclor 1016		<MDL,TA	5.1	10.1	ug/Kg		<MDL,TA	27	53.8	ug/Kg		<MDL,TA	34	70.9	ug/Kg
Aroclor 1221		<MDL	3.4	6.75	ug/Kg		<MDL	3.9	7.74	ug/Kg		<MDL	4.6	9.15	ug/Kg
Aroclor 1232		<MDL	3.4	6.75	ug/Kg		<MDL,TA	58	115	ug/Kg		<MDL,TA	71	140	ug/Kg
Aroclor 1242		<MDL	1.7	3.37	ug/Kg		<MDL,TA	52	106	ug/Kg		<MDL,TA	66	133	ug/Kg
Aroclor 1248	15.2		1.7	3.37	ug/Kg	57.1		1.9	3.87	ug/Kg	83.8		2.3	4.58	ug/Kg
Aroclor 1254	49.7		1.7	3.37	ug/Kg	112		1.9	3.87	ug/Kg	179		2.3	4.58	ug/Kg
Aroclor 1260	28		1.7	3.37	ug/Kg	71		1.9	3.87	ug/Kg	143		2.3	4.58	ug/Kg
Total Aroclors	92.9		1.7	3.37	ug/Kg	240		1.9	3.87	ug/Kg	405		2.3	4.58	ug/Kg

* Not converted to dry weight basis

King County Environmental Lab Analytical Report

	Project:	423368-80					Project:	423368-80					Project:	423368-80							
	Locator:	DWMP-10					Locator:	DWMP-11					Locator:	DWMP-12							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L47904-10					Sample:	L47904-11					Sample:	L47904-12							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	5/4/09 11:20					ColDate:	5/6/09 8:42					ColDate:	5/6/09 8:27							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	92.7					TotalSolid:	52.2					TotalSolid:	27.3							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	8					SampDepth:	21					SampDepth:	29							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**				
CV ASTM D422																					
Clay*	1.1		0.55	1.1	%		7		0.89	1.78	%		14.3		1.8	3.56	%				
Fines*	1.6		0.55	1.1	%		31		0.89	1.78	%		80.2		1.8	3.56	%				
Gravel*	27.2		0.11	1.1	%		2.6		0.18	1.78	%		0.6	<RDL	0.36	3.56	%				
Sand*	72.4		0.11	1.1	%		63.3		0.18	1.78	%		20.4		0.36	3.56	%				
Silt*	0.55	<RDL	0.55	1.1	%		24		0.89	1.78	%		65.9		1.8	3.56	%				
p+0.00*	35.8		0.11	1.1	%		1.5		0.18	1.78	%			<MDL	0.36	3.56	%				
p+1.00*	25.9		0.11	1.1	%		12.8		0.18	1.78	%		0.4	<RDL	0.36	3.56	%				
p+10.0(equal/more than)*	0.55	<RDL	0.55	1.1	%		6.2		0.89	1.78	%		12.5		1.8	3.56	%				
p+2.00*	9.2		0.11	1.1	%		31.3		0.18	1.78	%		1.5		0.36	3.56	%				
p+3.00*	1.3		0.11	1.1	%		11.5		0.18	1.78	%		8.2		0.36	3.56	%				
p+4.00*	0.2	<RDL	0.11	1.1	%		6.3		0.18	1.78	%		10.3		0.36	3.56	%				
p+5.00*		<MDL	0.55	1.1	%		12.4		0.89	1.78	%		28.5		1.8	3.56	%				
p+6.00*	0.55	<RDL	0.55	1.1	%		3.6		0.89	1.78	%		14.3		1.8	3.56	%				
p+7.00*		<MDL	0.55	1.1	%		3.6		0.89	1.78	%		17.8		1.8	3.56	%				
p+8.00*		<MDL	0.55	1.1	%		4.4		0.89	1.78	%		5.3		1.8	3.56	%				
p+9.00*	0.55	<RDL	0.55	1.1	%		0.83	<RDL	0.89	1.78	%		1.8		1.8	3.56	%				
p-1.00*	24.8		0.11	1.1	%		1	<RDL	0.18	1.78	%		0.6	<RDL	0.36	3.56	%				
p-2.00*	2		0.11	1.1	%		0.4	<RDL	0.18	1.78	%			<MDL	0.36	3.56	%				
p-2.00(less than)*	0.4	<RDL	0.11	1.1	%		1.2		0.18	1.78	%			<MDL	0.36	3.56	%				
CV EPA 9030B/SM4500-S2-D																					
Total Sulfide		<MDL	0.53	2.1	mg/Kg		2.7	<RDL	0.94	3.75	mg/Kg		65.2		8.8	35.7	mg/Kg				
CV SM2540-G																					
Total Solids*	92.7		0.005	0.01	%		52.2		0.005	0.01	%		27.3		0.005	0.01	%				
CV SM4500-NH3-G KCL																					
Ammonia Nitrogen	0.438		0.11	0.214	mg/Kg		1.99		0.19	0.379	mg/Kg		2.99		0.37	0.733	mg/Kg				
CV SW846 9060-PSEP96																					
Total Organic Carbon		<MDL	490	977	mg/Kg		18800		2100	4410	mg/Kg		30000		2900	5860	mg/Kg				
ES NONE																					
Field Personnel*	JB,JD,DR,AF				none		BK,JD,MP				none		BK,JD,MP				none				
Sampcoordx1*	1263558				ft		1263274				ft		1263048				ft				
Sampcoordy1*	229249				ft		229162				ft		228959				ft				
Sampcoordx2*	1263551				ft		1263273				ft		1263058				ft				
Sampcoordy2*	229253				ft		229159				ft		228965				ft				
Sampcoordx3*																					
Sampcoordy3*																					
Sample Information*	Due to rocks & bull kelp, had to sample off-site.				none																
Sample Depth*	8				m		21				m		29				m				
Sampling Method*	20143				none		20143				none		20143				none				
Sediment Sampling Depth*	16				cm		12				cm		17				cm				
Sediment Sampling Range*					cm						cm						cm				

King County Environmental Lab Analytical Report

	Project:	423368-80					Project:	423368-80					Project:	423368-80							
	Locator:	DWMP-10					Locator:	DWMP-11					Locator:	DWMP-12							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L47904-10					Sample:	L47904-11					Sample:	L47904-12							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	5/4/09 11:20					ColDate:	5/6/09 8:42					ColDate:	5/6/09 8:27							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	92.7					TotalSolid:	52.2					TotalSolid:	27.3							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	8					SampDepth:	21					SampDepth:	29							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**				
Sediment Type*	30N20				none		23W20				none		20N20				none				
Tidal Condition*	F				none		E				none		E				none				
Tide Height*	5.2				ft		2				ft		2.5				ft				
MT SW846 3050B*SW846 6010C																					
Arsenic, Total, ICP	2.6	<RDL	1.3	6.72	mg/Kg		7.1	<RDL	2.3	12	mg/Kg		13	<RDL	4.4	22.9	mg/Kg				
Cadmium, Total, ICP		<MDL	0.11	0.538	mg/Kg		0.65	<RDL	0.19	0.958	mg/Kg		0.88	<RDL	0.37	1.83	mg/Kg				
Chromium, Total, ICP	14.8		0.16	0.807	mg/Kg		28.9		0.29	1.43	mg/Kg		54.2		0.55	2.75	mg/Kg				
Copper, Total, ICP	11.9		0.22	1.08	mg/Kg		41.2		0.38	1.91	mg/Kg		62.6		0.73	3.66	mg/Kg				
Lead, Total, ICP	2.2	<RDL	1.1	5.38	mg/Kg		44.4		1.9	9.58	mg/Kg		90.5		3.7	18.3	mg/Kg				
Silver, Total, ICP		<MDL	0.22	1.08	mg/Kg		1.2	<RDL	0.38	1.91	mg/Kg		2.5	<RDL	0.73	3.66	mg/Kg				
Zinc, Total, ICP	24.6		0.27	1.35	mg/Kg		84.7		0.48	2.39	mg/Kg		108		0.92	4.58	mg/Kg				
MT SW846 7471B																					
Mercury, Total, CVAA	0.013	<RDL	0.0053	0.053	mg/Kg		0.297		0.0096	0.0964	mg/Kg		0.403		0.018	0.183	mg/Kg				
OR EPA 3550B/8270C (7-3-01-004)																					
1,2,4-Trichlorobenzene		<MDL	0.11	0.216	ug/Kg			<MDL	0.19	0.383	ug/Kg			<MDL	0.37	0.733	ug/Kg				
1,2-Dichlorobenzene		<MDL	0.22	0.431	ug/Kg			<MDL	0.38	0.766	ug/Kg			<MDL	0.73	1.47	ug/Kg				
1,3-Dichlorobenzene		<MDL	0.22	0.431	ug/Kg			<MDL	0.38	0.766	ug/Kg			<MDL	0.73	1.47	ug/Kg				
1,4-Dichlorobenzene		<MDL	0.22	0.431	ug/Kg		4.94		0.38	0.766	ug/Kg			<MDL	0.73	1.47	ug/Kg				
2,4-Dimethylphenol		<MDL	1.1	2.16	ug/Kg			<MDL	1.9	3.83	ug/Kg			<MDL	3.7	7.33	ug/Kg				
2-Methylnaphthalene		<MDL	2.2	4.31	ug/Kg		13		3.8	7.66	ug/Kg		12	<RDL	7.3	14.7	ug/Kg				
2-Methylphenol		<MDL	2.2	4.31	ug/Kg			<MDL	3.8	7.66	ug/Kg			<MDL	7.3	14.7	ug/Kg				
4-Methylphenol		<MDL	4.3	8.63	ug/Kg			<MDL	7.7	15.3	ug/Kg			<MDL	15	29.3	ug/Kg				
Acenaphthene		<MDL	2.2	4.31	ug/Kg		17.1		3.8	7.66	ug/Kg		15.8		7.3	14.7	ug/Kg				
Acenaphthylene		<MDL	2.2	4.31	ug/Kg		17.2		3.8	7.66	ug/Kg		22.8		7.3	14.7	ug/Kg				
Anthracene		<MDL	2.2	4.31	ug/Kg		82.8		3.8	7.66	ug/Kg		91.9		7.3	14.7	ug/Kg				
Benzo(a)anthracene	3.7	<RDL	2.2	4.31	ug/Kg		172		3.8	7.66	ug/Kg		222		7.3	14.7	ug/Kg				
Benzo(a)pyrene	5.23		2.2	4.31	ug/Kg		220		3.8	7.66	ug/Kg		283		7.3	14.7	ug/Kg				
Benzo(b)fluoranthene	5.69		2.2	4.31	ug/Kg		199		3.8	7.66	ug/Kg		275		7.3	14.7	ug/Kg				
Benzo(g,h,i)perylene	2.3	<RDL	2.2	4.31	ug/Kg		153		3.8	7.66	ug/Kg		203		7.3	14.7	ug/Kg				
Benzo(k)fluoranthene	6.69		2.2	4.31	ug/Kg		220		3.8	7.66	ug/Kg		261		7.3	14.7	ug/Kg				
Benzoic Acid		<MDL	11	21.6	ug/Kg		185		19	38.3	ug/Kg		370		37	73.3	ug/Kg				
Benzyl Alcohol		<MDL	2.2	4.31	ug/Kg			<MDL	3.8	7.66	ug/Kg			<MDL	7.3	14.7	ug/Kg				
Benzyl Butyl Phthalate		<MDL	1.1	2.16	ug/Kg		28.5		1.9	3.83	ug/Kg		38.1		3.7	7.33	ug/Kg				
Bis(2-Ethylhexyl)Phthalate	18.3	B	4.3	8.63	ug/Kg		303		7.7	15.3	ug/Kg		513		15	29.3	ug/Kg				
Caffeine		<MDL	4.3	8.63	ug/Kg			<MDL	7.7	15.3	ug/Kg			<MDL	15	29.3	ug/Kg				
Carbazole		<MDL	2.2	4.31	ug/Kg		29.7		3.8	7.66	ug/Kg		31.3		7.3	14.7	ug/Kg				
Chrysene	5.33		2.2	4.31	ug/Kg		234		3.8	7.66	ug/Kg		276		7.3	14.7	ug/Kg				
Coprostanol		<MDL	43	86.3	ug/Kg			<MDL	77	153	ug/Kg			<MDL	150	293	ug/Kg				
Di-N-Butyl Phthalate		<MDL	4.3	8.63	ug/Kg		15.3	<RDL	7.7	15.3	ug/Kg		29	<RDL	15	29.3	ug/Kg				
Di-N-Octyl Phthalate		<MDL	4.3	8.63	ug/Kg			<MDL	7.7	15.3	ug/Kg			<MDL	15	29.3	ug/Kg				
Dibenzo(a,h)anthracene		<MDL	2.2	4.31	ug/Kg		58.6		3.8	7.66	ug/Kg		86.4		7.3	14.7	ug/Kg				

King County Environmental Lab Analytical Report

Project:	423368-80					Project:	423368-80					Project:	423368-80								
Locator:	DWMP-10					Locator:	DWMP-11					Locator:	DWMP-12								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L47904-10					Sample:	L47904-11					Sample:	L47904-12								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	5/4/09 11:20					ColDate:	5/6/09 8:42					ColDate:	5/6/09 8:27								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	92.7					TotalSolid:	52.2					TotalSolid:	27.3								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	8					SampDepth:	21					SampDepth:	29								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**						
Dibenzofuran		<MDL	2.2	4.31	ug/Kg	13.3		3.8	7.66	ug/Kg	9.9	<RDL	7.3	14.7	ug/Kg						
Diethyl Phthalate		<MDL	4.3	8.63	ug/Kg		<MDL	7.7	15.3	ug/Kg		<MDL	15	29.3	ug/Kg						
Dimethyl Phthalate		<MDL	4.3	8.63	ug/Kg		<MDL	7.7	15.3	ug/Kg		<MDL	15	29.3	ug/Kg						
Fluoranthene	4.85		2.2	4.31	ug/Kg	291		3.8	7.66	ug/Kg	297		7.3	14.7	ug/Kg						
Fluorene		<MDL	2.2	4.31	ug/Kg	22.8		3.8	7.66	ug/Kg	23.4		7.3	14.7	ug/Kg						
Hexachlorobenzene		<MDL	0.11	0.216	ug/Kg		<MDL	0.19	0.383	ug/Kg		<MDL	0.37	0.733	ug/Kg						
Hexachlorobutadiene		<MDL	0.54	1.08	ug/Kg		<MDL	0.96	1.92	ug/Kg		<MDL	1.8	3.66	ug/Kg						
Hexachloroethane		<MDL	1.1	2.16	ug/Kg		<MDL	1.9	3.83	ug/Kg		<MDL	3.7	7.33	ug/Kg						
Indeno(1,2,3-Cd)Pyrene		<MDL	2.2	4.31	ug/Kg	140		3.8	7.66	ug/Kg	174		7.3	14.7	ug/Kg						
N-Nitrosodiphenylamine		<MDL	4.3	8.63	ug/Kg		<MDL	7.7	15.3	ug/Kg		<MDL	15	29.3	ug/Kg						
Naphthalene		<MDL	2.2	4.31	ug/Kg	20.5		3.8	7.66	ug/Kg	12	<RDL	7.3	14.7	ug/Kg						
Pentachlorophenol		<MDL	11	21.6	ug/Kg		<MDL	19	38.3	ug/Kg		<MDL	37	73.3	ug/Kg						
Phenanthrene		<MDL	2.2	4.31	ug/Kg	166		3.8	7.66	ug/Kg	182		7.3	14.7	ug/Kg						
Phenol		<MDL	4.3	8.63	ug/Kg		<MDL	7.7	15.3	ug/Kg		<MDL	15	29.3	ug/Kg						
Pyrene	4.41		2.2	4.31	ug/Kg	398		3.8	7.66	ug/Kg	476		7.3	14.7	ug/Kg						
Total 4-Nonylphenol		<MDL	5.4	10.8	ug/Kg		<MDL	9.6	19.2	ug/Kg		<MDL	18	36.6	ug/Kg						
Total HPAHS	38.1		2.2	4.31	ug/Kg	2090		3.8	7.66	ug/Kg	2550		7.3	14.7	ug/Kg						
Total LPAHs	4.57		2.2	4.31	ug/Kg	339		3.8	7.66	ug/Kg	360		7.3	14.7	ug/Kg						
OR SW846 3550B*SW846 8081B																					
4,4'-DDD		<MDL	1.1	2.16	ug/Kg	3.98		1.9	3.83	ug/Kg		<MDL	3.7	7.33	ug/Kg						
4,4'-DDE		<MDL	1.1	2.16	ug/Kg		<MDL	1.9	3.83	ug/Kg		<MDL	3.7	7.33	ug/Kg						
4,4'-DDT		<MDL	1.1	2.16	ug/Kg		<MDL	1.9	3.83	ug/Kg		<MDL	3.7	7.33	ug/Kg						
OR SW846 3550B*SW846 8082A																					
Aroclor 1016		<MDL	1.1	2.16	ug/Kg		<MDL,TA	17	34.9	ug/Kg		<MDL,TA	13	26.7	ug/Kg						
Aroclor 1221		<MDL	2.2	4.31	ug/Kg		<MDL	3.8	7.66	ug/Kg		<MDL,TA	7.3	14.7	ug/Kg						
Aroclor 1232		<MDL	2.2	4.31	ug/Kg		<MDL,TA	40	82.4	ug/Kg		<MDL	33	66.7	ug/Kg						
Aroclor 1242		<MDL	1.1	2.16	ug/Kg		<MDL,TA	34	70.9	ug/Kg		<MDL,TA	28	56.4	ug/Kg						
Aroclor 1248		<MDL	1.1	2.16	ug/Kg	37.9		1.9	3.83	ug/Kg	32.9		3.7	7.33	ug/Kg						
Aroclor 1254		<MDL	1.1	2.16	ug/Kg	80.3		1.9	3.83	ug/Kg	75.8		3.7	7.33	ug/Kg						
Aroclor 1260		<MDL	1.1	2.16	ug/Kg	49		1.9	3.83	ug/Kg	59		3.7	7.33	ug/Kg						
Total Aroclors		<MDL	1.1	2.16	ug/Kg	167		1.9	3.83	ug/Kg	167		3.7	7.33	ug/Kg						
* Not converted to dry weight basis																					

King County Environmental Lab Analytical Report

	Project:	423368-80					Project:	423368-80					Project:	423368-80							
	Locator:	DWMP-13					Locator:	DWMP-14					Locator:	DWMP-15							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L47904-13					Sample:	L47904-14					Sample:	L47904-15							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	5/4/09 15:00					ColDate:	5/4/09 14:20					ColDate:	5/4/09 15:35							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	72					TotalSolid:	50.4					TotalSolid:	58.4							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	8					SampDepth:	14					SampDepth:	22							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**				
CV ASTM D422																					
Clay*	3.3		0.66	1.31	%		12.9		0.99	1.98	%		17.2		0.82	1.64	%				
Fines*	7.2		0.66	1.31	%		58.5		0.99	1.98	%		53.3		0.82	1.64	%				
Gravel*	53.1		0.13	1.31	%		0.5	<RDL	0.2	1.98	%		10.9		0.16	1.64	%				
Sand*	37.7		0.13	1.31	%		30.6		0.2	1.98	%		29.5		0.16	1.64	%				
Silt*	3.9		0.66	1.31	%		45.6		0.99	1.98	%		36.1		0.82	1.64	%				
p+0.00*	6.6		0.13	1.31	%		0.2	<RDL	0.2	1.98	%		2.6		0.16	1.64	%				
p+1.00*	6.9		0.13	1.31	%		0.6	<RDL	0.2	1.98	%		3.3		0.16	1.64	%				
p+10.0(equal/more than)*	3.3		0.66	1.31	%		9.9		0.99	1.98	%		10.7		0.82	1.64	%				
p+2.00*	11.9		0.13	1.31	%		1.5		0.2	1.98	%		6.7		0.16	1.64	%				
p+3.00*	8.2		0.13	1.31	%		7.1		0.2	1.98	%		7.4		0.16	1.64	%				
p+4.00*	4		0.13	1.31	%		21.1		0.2	1.98	%		9.5		0.16	1.64	%				
p+5.00*	2.6		0.66	1.31	%		11.9		0.99	1.98	%		8.2		0.82	1.64	%				
p+6.00*		<MDL	0.66	1.31	%		20.8		0.99	1.98	%		14.7		0.82	1.64	%				
p+7.00*		<MDL	0.66	1.31	%		8.9		0.99	1.98	%		6.6		0.82	1.64	%				
p+8.00*	1.3		0.66	1.31	%		4		0.99	1.98	%		6.6		0.82	1.64	%				
p+9.00*		<MDL	0.66	1.31	%		3		0.99	1.98	%		6.6		0.82	1.64	%				
p-1.00*	15.4		0.13	1.31	%		0.2	<RDL	0.2	1.98	%		3.2		0.16	1.64	%				
p-2.00*	6.8		0.13	1.31	%			<MDL	0.2	1.98	%		1.6		0.16	1.64	%				
p-2.00(less than)*	30.8		0.13	1.31	%		0.3	<RDL	0.2	1.98	%		6.1		0.16	1.64	%				
CV EPA 9030B/SM4500-S2-D																					
Total Sulfide	65.1		3.3	13.5	mg/Kg		20.8		0.97	3.85	mg/Kg		13.7		0.86	3.41	mg/Kg				
CV SM2540-G																					
Total Solids*	72		0.005	0.01	%		50.4		0.005	0.01	%		58.4		0.005	0.01	%				
CV SM4500-NH3-G KCL																					
Ammonia Nitrogen	5.78		0.68	1.36	mg/Kg		2.52		0.97	1.96	mg/Kg		1.3		0.17	0.336	mg/Kg				
CV SW846 9060-PSEP96																					
Total Organic Carbon	16100		1900	4000	mg/Kg		17800		2800	5380	mg/Kg		9250		1700	3480	mg/Kg				
ES NONE																					
Field Personnel*	JB,JD,DR,AF				none		JB,JD,DR,AF				none		JB,JD,DR,AF				none				
Sampcoordx1*	1263317				ft		1263231				ft		1263049				ft				
Sampcoordy1*	229642				ft		229557				ft		229440				ft				
Sampcoordx2*	1263296				ft		1263235				ft		1263053				ft				
Sampcoordy2*	229644				ft		229558				ft		229447				ft				
Sampcoordx3*	1263313				ft								1263054				ft				
Sampcoordy3*	229634				ft								229456				ft				
Sample Information*																					
Sample Depth*	8				m		14				m		22				m				
Sampling Method*	20143				none		20143				none		20143				none				
Sediment Sampling Depth*	7				cm		16				cm		16				cm				
Sediment Sampling Range*					cm						cm						cm				

King County Environmental Lab Analytical Report

Project:	423368-80					Project:	423368-80					Project:	423368-80								
Locator:	DWMP-13					Locator:	DWMP-14					Locator:	DWMP-15								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L47904-13					Sample:	L47904-14					Sample:	L47904-15								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	5/4/09 15:00					ColDate:	5/4/09 14:20					ColDate:	5/4/09 15:35								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	72					TotalSolid:	50.4					TotalSolid:	58.4								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	8					SampDepth:	14					SampDepth:	22								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**						
Sediment Type*	34S20				none	21T21				none	10S30				none						
Tidal Condition*	S				none	S				none	E				none						
Tide Height*	8.2				ft	8.4				ft	8				ft						
MT SW846 3050B*SW846 6010C																					
Arsenic, Total, ICP	4.7	<RDL	1.7	8.68	mg/Kg	8.9	<RDL	2.4	12.4	mg/Kg	8	<RDL	2.1	10.7	mg/Kg						
Cadmium, Total, ICP	0.33	<RDL	0.14	0.694	mg/Kg	0.91	<RDL	0.2	0.99	mg/Kg	0.6	<RDL	0.17	0.853	mg/Kg						
Chromium, Total, ICP	19.7		0.21	1.04	mg/Kg	51.6		0.3	1.48	mg/Kg	56.8		0.26	1.28	mg/Kg						
Copper, Total, ICP	24.7		0.28	1.39	mg/Kg	73		0.4	1.98	mg/Kg	54.6		0.34	1.71	mg/Kg						
Lead, Total, ICP	23.2		1.4	6.94	mg/Kg	102		2	9.9	mg/Kg	52.6		1.7	8.53	mg/Kg						
Silver, Total, ICP	0.38	<RDL	0.28	1.39	mg/Kg	4.23		0.4	1.98	mg/Kg	1.82		0.34	1.71	mg/Kg						
Zinc, Total, ICP	50.1		0.35	1.74	mg/Kg	117		0.5	2.48	mg/Kg	101		0.43	2.14	mg/Kg						
MT SW846 7471B																					
Mercury, Total, CVAA	0.124		0.0069	0.0699	mg/Kg	0.688		0.0099	0.0998	mg/Kg	0.61		0.0084	0.0834	mg/Kg						
OR EPA 3550B/8270C (7-3-01-004)																					
1,2,4-Trichlorobenzene		<MDL	0.14	0.278	ug/Kg		<MDL	0.2	0.397	ug/Kg		<MDL	0.17	0.342	ug/Kg						
1,2-Dichlorobenzene		<MDL	0.28	0.556	ug/Kg		<MDL	0.4	0.794	ug/Kg		<MDL	0.34	0.685	ug/Kg						
1,3-Dichlorobenzene		<MDL	0.28	0.556	ug/Kg		<MDL	0.4	0.794	ug/Kg		<MDL	0.34	0.685	ug/Kg						
1,4-Dichlorobenzene	2.43		0.28	0.556	ug/Kg	4.76		0.4	0.794	ug/Kg	1.93		0.34	0.685	ug/Kg						
2,4-Dimethylphenol		<MDL	1.4	2.78	ug/Kg		<MDL	2	3.97	ug/Kg		<MDL	1.7	3.42	ug/Kg						
2-Methylnaphthalene	22.1		2.8	5.56	ug/Kg	24.2		4	7.94	ug/Kg	7.31		3.4	6.85	ug/Kg						
2-Methylphenol		<MDL	2.8	5.56	ug/Kg		<MDL	4	7.94	ug/Kg		<MDL	3.4	6.85	ug/Kg						
4-Methylphenol	100		5.6	11.1	ug/Kg		<MDL	7.9	15.9	ug/Kg		<MDL	6.8	13.7	ug/Kg						
Acenaphthene	17.5		2.8	5.56	ug/Kg	41.3		4	7.94	ug/Kg	7.81		3.4	6.85	ug/Kg						
Acenaphthylene	17.9		2.8	5.56	ug/Kg	38.5		4	7.94	ug/Kg	10.7		3.4	6.85	ug/Kg						
Anthracene	497		2.8	5.56	ug/Kg	186		4	7.94	ug/Kg	50.5		3.4	6.85	ug/Kg						
Benzo(a)anthracene	346		2.8	5.56	ug/Kg	407		4	7.94	ug/Kg	122		3.4	6.85	ug/Kg						
Benzo(a)pyrene	299		2.8	5.56	ug/Kg	520		4	7.94	ug/Kg	154		3.4	6.85	ug/Kg						
Benzo(b)fluoranthene	363		2.8	5.56	ug/Kg	548		4	7.94	ug/Kg	134		3.4	6.85	ug/Kg						
Benzo(g,h,i)perylene	153		2.8	5.56	ug/Kg	329		4	7.94	ug/Kg	98.5		3.4	6.85	ug/Kg						
Benzo(k)fluoranthene	274		2.8	5.56	ug/Kg	429		4	7.94	ug/Kg	144		3.4	6.85	ug/Kg						
Benzoic Acid	196		14	27.8	ug/Kg	176		20	39.7	ug/Kg	100		17	34.2	ug/Kg						
Benzyl Alcohol		<MDL	2.8	5.56	ug/Kg		<MDL	4	7.94	ug/Kg		<MDL	3.4	6.85	ug/Kg						
Benzyl Butyl Phthalate	32.2		1.4	2.78	ug/Kg	111		2	3.97	ug/Kg	38.4		1.7	3.42	ug/Kg						
Bis(2-Ethylhexyl)Phthalate	390		5.6	11.1	ug/Kg	845		7.9	15.9	ug/Kg	507		6.8	13.7	ug/Kg						
Caffeine		<MDL	5.6	11.1	ug/Kg		<MDL	7.9	15.9	ug/Kg		<MDL	6.8	13.7	ug/Kg						
Carbazole	140		2.8	5.56	ug/Kg	78.4		4	7.94	ug/Kg	19.2		3.4	6.85	ug/Kg						
Chrysene	518		2.8	5.56	ug/Kg	484		4	7.94	ug/Kg	154		3.4	6.85	ug/Kg						
Coprostanol		<MDL	56	111	ug/Kg		<MDL	79	159	ug/Kg		<MDL	68	137	ug/Kg						
Di-N-Butyl Phthalate	13.8		5.6	11.1	ug/Kg	41.5		7.9	15.9	ug/Kg	21.9		6.8	13.7	ug/Kg						
Di-N-Octyl Phthalate		<MDL	5.6	11.1	ug/Kg		<MDL	7.9	15.9	ug/Kg		<MDL	6.8	13.7	ug/Kg						
Dibenzo(a,h)anthracene	85.6		2.8	5.56	ug/Kg	152		4	7.94	ug/Kg	48.3		3.4	6.85	ug/Kg						

King County Environmental Lab Analytical Report

Project:	423368-80					Project:	423368-80					Project:	423368-80								
Locator:	DWMP-13					Locator:	DWMP-14					Locator:	DWMP-15								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L47904-13					Sample:	L47904-14					Sample:	L47904-15								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	5/4/09 15:00					ColDate:	5/4/09 14:20					ColDate:	5/4/09 15:35								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	72					TotalSolid:	50.4					TotalSolid:	58.4								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	8					SampDepth:	14					SampDepth:	22								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**						
Dibenzofuran	22.1		2.8	5.56	ug/Kg	22.2		4	7.94	ug/Kg	4.6	<RDL	3.4	6.85	ug/Kg						
Diethyl Phthalate		<MDL	5.6	11.1	ug/Kg		<MDL	7.9	15.9	ug/Kg		<MDL	6.8	13.7	ug/Kg						
Dimethyl Phthalate		<MDL	5.6	11.1	ug/Kg		<MDL	7.9	15.9	ug/Kg		<MDL	6.8	13.7	ug/Kg						
Fluoranthene	632		2.8	5.56	ug/Kg	696		4	7.94	ug/Kg	178		3.4	6.85	ug/Kg						
Fluorene	55.6		2.8	5.56	ug/Kg	44.8		4	7.94	ug/Kg	10.5		3.4	6.85	ug/Kg						
Hexachlorobenzene		<MDL	0.14	0.278	ug/Kg		<MDL	0.2	0.397	ug/Kg		<MDL	0.17	0.342	ug/Kg						
Hexachlorobutadiene		<MDL	0.69	1.39	ug/Kg		<MDL	0.99	1.98	ug/Kg		<MDL	0.86	1.71	ug/Kg						
Hexachloroethane		<MDL	1.4	2.78	ug/Kg		<MDL	2	3.97	ug/Kg		<MDL	1.7	3.42	ug/Kg						
Indeno(1,2,3-Cd)Pyrene	160		2.8	5.56	ug/Kg	313		4	7.94	ug/Kg	86.8		3.4	6.85	ug/Kg						
N-Nitrosodiphenylamine		<MDL	5.6	11.1	ug/Kg		<MDL	7.9	15.9	ug/Kg		<MDL	6.8	13.7	ug/Kg						
Naphthalene	10.5		2.8	5.56	ug/Kg	21.8		4	7.94	ug/Kg	5.7	<RDL	3.4	6.85	ug/Kg						
Pentachlorophenol		<MDL	14	27.8	ug/Kg		<MDL	20	39.7	ug/Kg		<MDL	17	34.2	ug/Kg						
Phenanthrene	374		2.8	5.56	ug/Kg	415		4	7.94	ug/Kg	102		3.4	6.85	ug/Kg						
Phenol		<MDL	5.6	11.1	ug/Kg		<MDL	7.9	15.9	ug/Kg		<MDL	6.8	13.7	ug/Kg						
Pyrene	700		2.8	5.56	ug/Kg	1040		4	7.94	ug/Kg	336		3.4	6.85	ug/Kg						
Total 4-Nonylphenol		<MDL	6.9	13.9	ug/Kg		<MDL	9.9	19.8	ug/Kg		<MDL	8.6	17.1	ug/Kg						
Total HPAHS	3530		2.8	5.56	ug/Kg	4920		4	7.94	ug/Kg	1460		3.4	6.85	ug/Kg						
Total LPAHs	994		2.8	5.56	ug/Kg	770		4	7.94	ug/Kg	193		3.4	6.85	ug/Kg						
OR SW846 3550B*SW846 8081B																					
4,4'-DDD	3.08	JK	1.4	2.78	ug/Kg		<MDL	2	3.97	ug/Kg		<MDL	1.7	3.42	ug/Kg						
4,4'-DDE		<MDL	1.4	2.78	ug/Kg	2	<RDL	2	3.97	ug/Kg		<MDL	1.7	3.42	ug/Kg						
4,4'-DDT	31.3	JK	1.4	2.78	ug/Kg		<MDL	2	3.97	ug/Kg		<MDL	1.7	3.42	ug/Kg						
OR SW846 3550B*SW846 8082A																					
Aroclor 1016		<MDL,TA	5.1	10.3	ug/Kg		<MDL,TA	38	74.6	ug/Kg		<MDL,TA	38	74.3	ug/Kg						
Aroclor 1221		<MDL	2.8	5.56	ug/Kg		<MDL	7.9	15.9	ug/Kg		<MDL	3.4	6.85	ug/Kg						
Aroclor 1232		<MDL,TA	11	21.9	ug/Kg		<MDL,TA	65	133	ug/Kg		<MDL,TA	50	99.5	ug/Kg						
Aroclor 1242		<MDL	1.4	2.78	ug/Kg		<MDL,TA	91	183	ug/Kg		<MDL,TA	55	110	ug/Kg						
Aroclor 1248	11.9		1.4	2.78	ug/Kg	87.7		4	7.94	ug/Kg	68.3		1.7	3.42	ug/Kg						
Aroclor 1254	27.2		1.4	2.78	ug/Kg	187		4	7.94	ug/Kg	150		1.7	3.42	ug/Kg						
Aroclor 1260	12.9		1.4	2.78	ug/Kg	109		4	7.94	ug/Kg	97.6		1.7	3.42	ug/Kg						
Total Aroclors	51.9		1.4	2.78	ug/Kg	383		4	7.94	ug/Kg	315		1.7	3.42	ug/Kg						
* Not converted to dry weight basis																					

King County Environmental Lab Analytical Report

	Project:	423368-80					Project:	423368-80			
	Locator:	DWMP-16					Locator:	DWMP-08			
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI			
	Sample:	L47904-16					Sample:	L47904-17			
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED			
	ColDate:	5/4/09 16:17					ColDate:	5/4/09 13:35			
	TimeSpan:						TimeSpan:				
	TotalSolid:	54.8					TotalSolid:	50.2			
	ClientLoc:						ClientLoc:				
	SampDepth:	27					SampDepth:	26			
	DRY Weight Basis						**DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**
CV ASTM D422											
Clay*	27.1		0.9	1.81	%		13.2		0.94	1.88	%
Fines*	67.8		0.9	1.81	%		49.8		0.94	1.88	%
Gravel*	10.2		0.18	1.81	%		8		0.19	1.88	%
Sand*	20.7		0.18	1.81	%		40.4		0.19	1.88	%
Silt*	40.7		0.9	1.81	%		36.7		0.94	1.88	%
p+0.00*	1.5		0.18	1.81	%		3.2		0.19	1.88	%
p+1.00*	2.2		0.18	1.81	%		5.7		0.19	1.88	%
p+10.0(equal/more than)*	14.5		0.9	1.81	%		8.5		0.94	1.88	%
p+2.00*	3.8		0.18	1.81	%		12.1		0.19	1.88	%
p+3.00*	5.4		0.18	1.81	%		10.6		0.19	1.88	%
p+4.00*	7.8		0.18	1.81	%		8.7		0.19	1.88	%
p+5.00*	14.5		0.9	1.81	%		16.9		0.94	1.88	%
p+6.00*	9		0.9	1.81	%		5.6		0.94	1.88	%
p+7.00*	7.2		0.9	1.81	%		9.4		0.94	1.88	%
p+8.00*	9.9		0.9	1.81	%		4.7		0.94	1.88	%
p+9.00*	12.7		0.9	1.81	%		4.7		0.94	1.88	%
p-1.00*	2.5		0.18	1.81	%		2.9		0.19	1.88	%
p-2.00*	0.7	<RDL	0.18	1.81	%		1	<RDL	0.19	1.88	%
p-2.00(less than)*	7		0.18	1.81	%		4.2		0.19	1.88	%
CV EPA 9030B/SM4500-S2-D											
Total Sulfide	1.4	<RDL	0.89	3.59	mg/Kg		8.57		1	3.98	mg/Kg
CV SM2540-G											
Total Solids*	54.8		0.005	0.01	%		50.2		0.005	0.01	%
CV SM4500-NH3-G KCL											
Ammonia Nitrogen	1.44		0.18	0.361	mg/Kg		2.55		0.98	1.97	mg/Kg
CV SW846 9060-PSEP96											
Total Organic Carbon	8940		1700	3300	mg/Kg		20100		2400	4840	mg/Kg
ES NONE											
Field Personnel*	JB,JD,DR,AF				none		JB,JD,DR,AF				none
Sampcoordx1*	1262960				ft		1263343				ft
Sampcoordy1*	229357				ft		228912				ft
Sampcoordx2*	1262971				ft		1263336				ft
Sampcoordy2*	229362				ft		228913				ft
Sampcoordx3*											
Sampcoordy3*											
Sample Information*											
Sample Depth*	27				m		26				m
Sampling Method*	20143				none		20143				none
Sediment Sampling Depth*	16				cm		16				cm
Sediment Sampling Range*					cm						cm

King County Environmental Lab Analytical Report

	Project:	423368-80					Project:	423368-80			
	Locator:	DWMP-16					Locator:	DWMP-08			
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI			
	Sample:	L47904-16					Sample:	L47904-17			
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED			
	ColDate:	5/4/09 16:17					ColDate:	5/4/09 13:35			
	TimeSpan:						TimeSpan:				
	TotalSolid:	54.8					TotalSolid:	50.2			
	ClientLoc:						ClientLoc:				
	SampDepth:	27					SampDepth:	26			
	DRY Weight Basis						**DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**
Sediment Type*	12N20				none		20D37				none
Tidal Condition*	E				none		F				none
Tide Height*	7				ft		8				ft
MT SW846 3050B*SW846 6010C											
Arsenic, Total, ICP	9.1	<RDL	2.2	11.4	mg/Kg		9.2	<RDL	2.4	12.4	mg/Kg
Cadmium, Total, ICP	0.47	<RDL	0.18	0.912	mg/Kg		1.07		0.2	0.994	mg/Kg
Chromium, Total, ICP	60.6		0.27	1.37	mg/Kg		43.6		0.3	1.49	mg/Kg
Copper, Total, ICP	55.7		0.36	1.82	mg/Kg		56.8		0.4	1.99	mg/Kg
Lead, Total, ICP	42.9		1.8	9.12	mg/Kg		78.5		2	9.94	mg/Kg
Silver, Total, ICP	1	<RDL	0.36	1.82	mg/Kg		3.49		0.4	1.99	mg/Kg
Zinc, Total, ICP	104		0.46	2.28	mg/Kg		114		0.5	2.49	mg/Kg
MT SW846 7471B											
Mercury, Total, CVAA	0.252		0.0091	0.0916	mg/Kg		0.562		0.0098	0.0968	mg/Kg
OR EPA 3550B/8270C (7-3-01-004)											
1,2,4-Trichlorobenzene		<MDL	0.18	0.365	ug/Kg			<MDL	0.2	0.398	ug/Kg
1,2-Dichlorobenzene		<MDL	0.36	0.73	ug/Kg			<MDL	0.4	0.797	ug/Kg
1,3-Dichlorobenzene		<MDL	0.36	0.73	ug/Kg			<MDL	0.4	0.797	ug/Kg
1,4-Dichlorobenzene		<MDL	0.36	0.73	ug/Kg		24.5		0.4	0.797	ug/Kg
2,4-Dimethylphenol		<MDL	1.8	3.65	ug/Kg			<MDL	2	3.98	ug/Kg
2-Methylnaphthalene	5.8	<RDL	3.6	7.3	ug/Kg		20.9		4	7.97	ug/Kg
2-Methylphenol		<MDL	3.6	7.3	ug/Kg			<MDL	4	7.97	ug/Kg
4-Methylphenol		<MDL	7.3	14.6	ug/Kg		146		8	15.9	ug/Kg
Acenaphthene	10		3.6	7.3	ug/Kg		14.3		4	7.97	ug/Kg
Acenaphthylene	12.1		3.6	7.3	ug/Kg		14.4		4	7.97	ug/Kg
Anthracene	64.6		3.6	7.3	ug/Kg		72.9		4	7.97	ug/Kg
Benzo(a)anthracene	132		3.6	7.3	ug/Kg		148		4	7.97	ug/Kg
Benzo(a)pyrene	170		3.6	7.3	ug/Kg		201		4	7.97	ug/Kg
Benzo(b)fluoranthene	141		3.6	7.3	ug/Kg		175		4	7.97	ug/Kg
Benzo(g,h,i)perylene	105		3.6	7.3	ug/Kg		128		4	7.97	ug/Kg
Benzo(k)fluoranthene	195		3.6	7.3	ug/Kg		193		4	7.97	ug/Kg
Benzoic Acid	156		18	36.5	ug/Kg		182		20	39.8	ug/Kg
Benzyl Alcohol		<MDL	3.6	7.3	ug/Kg			<MDL	4	7.97	ug/Kg
Benzyl Butyl Phthalate	29.2		1.8	3.65	ug/Kg		40		2	3.98	ug/Kg
Bis(2-Ethylhexyl)Phthalate	394		7.3	14.6	ug/Kg		1010		8	15.9	ug/Kg
Caffeine		<MDL	7.3	14.6	ug/Kg			<MDL	8	15.9	ug/Kg
Carbazole	19.9		3.6	7.3	ug/Kg		27.5		4	7.97	ug/Kg
Chrysene	171		3.6	7.3	ug/Kg		170		4	7.97	ug/Kg
Coprostanol		<MDL	73	146	ug/Kg			<MDL	80	159	ug/Kg
Di-N-Butyl Phthalate	31.4		7.3	14.6	ug/Kg		28.1		8	15.9	ug/Kg
Di-N-Octyl Phthalate		<MDL	7.3	14.6	ug/Kg			<MDL	8	15.9	ug/Kg
Dibenzo(a,h)anthracene	48.2		3.6	7.3	ug/Kg		59.6		4	7.97	ug/Kg

King County Environmental Lab Analytical Report

Project:	423368-80					Project:	423368-80				
Locator:	DWMP-16					Locator:	DWMP-08				
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
Sample:	L47904-16					Sample:	L47904-17				
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED				
ColDate:	5/4/09 16:17					ColDate:	5/4/09 13:35				
TimeSpan:						TimeSpan:					
TotalSolid:	54.8					TotalSolid:	50.2				
ClientLoc:						ClientLoc:					
SampDepth:	27					SampDepth:	26				
DRY Weight Basis						**DRY Weight Basis**					
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
Dibenzofuran	6.2	<RDL	3.6	7.3	ug/Kg	12.5		4	7.97	ug/Kg
Diethyl Phthalate		<MDL	7.3	14.6	ug/Kg		<MDL	8	15.9	ug/Kg
Dimethyl Phthalate		<MDL	7.3	14.6	ug/Kg		<MDL	8	15.9	ug/Kg
Fluoranthene	192		3.6	7.3	ug/Kg	233		4	7.97	ug/Kg
Fluorene	15.8		3.6	7.3	ug/Kg	20.7		4	7.97	ug/Kg
Hexachlorobenzene		<MDL	0.18	0.365	ug/Kg		<MDL	0.2	0.398	ug/Kg
Hexachlorobutadiene		<MDL	0.91	1.82	ug/Kg		<MDL	1	1.99	ug/Kg
Hexachloroethane		<MDL	1.8	3.65	ug/Kg		<MDL	2	3.98	ug/Kg
Indeno(1,2,3-Cd)Pyrene	94.3		3.6	7.3	ug/Kg	112		4	7.97	ug/Kg
N-Nitrosodiphenylamine		<MDL	7.3	14.6	ug/Kg		<MDL	8	15.9	ug/Kg
Naphthalene	6.8	<RDL	3.6	7.3	ug/Kg	19.1		4	7.97	ug/Kg
Pentachlorophenol		<MDL	18	36.5	ug/Kg		<MDL	20	39.8	ug/Kg
Phenanthrene	115		3.6	7.3	ug/Kg	149		4	7.97	ug/Kg
Phenol		<MDL	7.3	14.6	ug/Kg		<MDL	8	15.9	ug/Kg
Pyrene	288		3.6	7.3	ug/Kg	665		4	7.97	ug/Kg
Total 4-Nonylphenol		<MDL	9.1	18.2	ug/Kg		<MDL	10	19.9	ug/Kg
Total HPAHS	1540		3.6	7.3	ug/Kg	2090		4	7.97	ug/Kg
Total LPAHs	230		3.6	7.3	ug/Kg	311		4	7.97	ug/Kg
OR SW846 3550B*SW846 8081B										
4,4'-DDD		<MDL	1.8	3.65	ug/Kg		<MDL	2	3.98	ug/Kg
4,4'-DDE		<MDL	1.8	3.65	ug/Kg		<MDL	2	3.98	ug/Kg
4,4'-DDT		<MDL	1.8	3.65	ug/Kg		<MDL	2	3.98	ug/Kg
OR SW846 3550B*SW846 8082A										
Aroclor 1016		<MDL,TA	13	25.2	ug/Kg		<MDL,TA	66	131	ug/Kg
Aroclor 1221		<MDL	3.6	7.3	ug/Kg		<MDL	8	15.9	ug/Kg
Aroclor 1232		<MDL,TA	26	50	ug/Kg		<MDL,TA	140	279	ug/Kg
Aroclor 1242		<MDL,TA	29	57.3	ug/Kg		<MDL,TA	140	287	ug/Kg
Aroclor 1248	33.8		1.8	3.65	ug/Kg	136		4	7.97	ug/Kg
Aroclor 1254	81.8		1.8	3.65	ug/Kg	243		4	7.97	ug/Kg
Aroclor 1260	60.2		1.8	3.65	ug/Kg	156		4	7.97	ug/Kg
Total Aroclors	176		1.8	3.65	ug/Kg	536		4	7.97	ug/Kg

* Not converted to dry weight basis

SAP & SMS OC and Dry Weight Normalization MDL Check Tables

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.01	0.81
1,2-Dichlorobenzene	0.2	0.02	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1
2-Methylnaphthalene	2	0.16	38
2,4-Dimethylphenol	1	2.15	29
2-Methylphenol	2	4.29	63
4-Methylphenol	4	8.58	670
Acenaphthene	2	0.16	16
Acenaphthylene	2	0.16	66
Anthracene	2	0.16	220
Benzo(a)anthracene	2	0.16	110
Benzo(a)pyrene	2	0.16	99
Benzo(b)fluoranthene	2	0.16	115
Benzo(g,h,i)perylene	2	0.16	31
Benzo(k)fluoranthene	2	0.16	115
Benzoic Acid	10	21.46	650
Benzyl Alcohol	2	4.29	57
Benzyl Butyl Phthalate	1	0.08	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.31	47
Chrysene	2	0.16	110
Dibenzo(a,h)anthracene	2	0.16	12
Dibenzofuran	2	0.16	15
Diethyl Phthalate	4	0.31	61
Dimethyl Phthalate	4	0.31	53
Di-N-Butyl Phthalate	4	0.31	220
Di-N-Octyl Phthalate	4	0.31	58
Fluorene	2	0.16	23
Fluoranthene	2	0.16	160
Hexachlorobenzene	0.1	0.01	0.38
Hexachlorobutadiene	0.5	0.04	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.16	34
N-Nitrosodiphenylamine	4	0.31	11
Naphthalene	2	0.16	99
Pentachlorophenol	10	21.46	360
Phenanthrene	2	0.16	100
Phenol	4	8.58	420
Pyrene	2	0.16	1000
Aroclor 1016	30	2.34	
Aroclor 1221	8	0.63	
Aroclor 1232	60	4.69	
Aroclor 1242	78	6.09	
Aroclor 1248	4	0.31	
Aroclor 1254	4	0.31	
Aroclor 1260	4	0.31	
Total Organic Carbon (dry)	27467.81116		
Total Solids	46.6		
HPAH	20	1.56	960
LPAH	14	1.09	370
Total PCB	78	6.09	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.01	0.81
1,2-Dichlorobenzene	0.2	0.03	2.3
1,4-Dichlorobenzene	0.2	0.03	3.1
2-Methylnaphthalene	2	0.30	38
2,4-Dimethylphenol	1	1.56	29
2-Methylphenol	2	3.13	63
4-Methylphenol	4	6.26	670
Acenaphthene	2	0.30	16
Acenaphthylene	2	0.30	66
Anthracene	2	0.30	220
Benzo(a)anthracene	2	0.30	110
Benzo(a)pyrene	2	0.30	99
Benzo(b)fluoranthene	2	0.30	115
Benzo(g,h,i)perylene	2	0.30	31
Benzo(k)fluoranthene	2	0.30	115
Benzoic Acid	10	15.65	650
Benzyl Alcohol	2	3.13	57
Benzyl Butyl Phthalate	1	0.15	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.59	47
Chrysene	2	0.30	110
Dibenzo(a,h)anthracene	2	0.30	12
Dibenzofuran	2	0.30	15
Diethyl Phthalate	4	0.59	61
Dimethyl Phthalate	4	0.59	53
Di-N-Butyl Phthalate	4	0.59	220
Di-N-Octyl Phthalate	4	0.59	58
Fluorene	2	0.30	23
Fluoranthene	2	0.30	160
Hexachlorobenzene	0.1	0.01	0.38
Hexachlorobutadiene	0.5	0.07	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.30	34
N-Nitrosodiphenylamine	4	0.59	11
Naphthalene	2	0.30	99
Pentachlorophenol	10	15.65	360
Phenanthrene	2	0.30	100
Phenol	4	6.26	420
Pyrene	2	0.30	1000
Aroclor 1016	6.7	0.99	
Aroclor 1221	2	0.30	
Aroclor 1232	16	2.36	
Aroclor 1242	1	0.15	
Aroclor 1248	1	0.15	
Aroclor 1254	1	0.15	
Aroclor 1260	1	0.15	
Total Organic Carbon (dry)	10594.67919		
Total Solids	63.9		
HPAH	20	2.95	960
LPAH	14	2.07	370
Total PCB	16	2.36	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.01	0.81
1,2-Dichlorobenzene	0.2	0.02	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1
2-Methylnaphthalene	2	0.21	38
2,4-Dimethylphenol	1	2.12	29
2-Methylphenol	2	4.24	63
4-Methylphenol	4	8.47	670
Acenaphthene	2	0.21	16
Acenaphthylene	2	0.21	66
Anthracene	2	0.21	220
Benzo(a)anthracene	2	0.21	110
Benzo(a)pyrene	2	0.21	99
Benzo(b)fluoranthene	2	0.21	115
Benzo(g,h,i)perylene	2	0.21	31
Benzo(k)fluoranthene	2	0.21	115
Benzoic Acid	10	21.19	650
Benzyl Alcohol	2	4.24	57
Benzyl Butyl Phthalate	1	0.10	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.42	47
Chrysene	2	0.21	110
Dibenzo(a,h)anthracene	2	0.21	12
Dibenzofuran	2	0.21	15
Diethyl Phthalate	4	0.42	61
Dimethyl Phthalate	4	0.42	53
Di-N-Butyl Phthalate	4	0.42	220
Di-N-Octyl Phthalate	4	0.42	58
Fluorene	2	0.21	23
Fluoranthene	2	0.21	160
Hexachlorobenzene	0.1	0.01	0.38
Hexachlorobutadiene	0.5	0.05	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.21	34
N-Nitrosodiphenylamine	4	0.42	11
Naphthalene	2	0.21	99
Pentachlorophenol	10	21.19	360
Phenanthrene	2	0.21	100
Phenol	4	8.47	420
Pyrene	2	0.21	1000
Aroclor 1016	24	2.51	
Aroclor 1221	4	0.42	
Aroclor 1232	45	4.71	
Aroclor 1242	50	5.24	
Aroclor 1248	2	0.21	
Aroclor 1254	2	0.21	
Aroclor 1260	2	0.21	
Total Organic Carbon (dry)	20233.05085		
Total Solids	47.2		
HPAH	20	2.09	960
LPAH	14	1.47	370
Total PCB	50	5.24	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.02	0.81
1,2-Dichlorobenzene	0.2	0.03	2.3
1,4-Dichlorobenzene	0.2	0.03	3.1
2-Methylnaphthalene	2	0.30	38
2,4-Dimethylphenol	1	1.96	29
2-Methylphenol	2	3.93	63
4-Methylphenol	4	7.86	670
Acenaphthene	2	0.30	16
Acenaphthylene	2	0.30	66
Anthracene	2	0.30	220
Benzo(a)anthracene	2	0.30	110
Benzo(a)pyrene	2	0.30	99
Benzo(b)fluoranthene	2	0.30	115
Benzo(g,h,i)perylene	2	0.30	31
Benzo(k)fluoranthene	2	0.30	115
Benzoic Acid	10	19.65	650
Benzyl Alcohol	2	3.93	57
Benzyl Butyl Phthalate	1	0.15	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.61	47
Chrysene	2	0.30	110
Dibenzo(a,h)anthracene	2	0.30	12
Dibenzofuran	2	0.30	15
Diethyl Phthalate	4	0.61	61
Dimethyl Phthalate	4	0.61	53
Di-N-Butyl Phthalate	4	0.61	220
Di-N-Octyl Phthalate	4	0.61	58
Fluorene	2	0.30	23
Fluoranthene	2	0.30	160
Hexachlorobenzene	0.1	0.02	0.38
Hexachlorobutadiene	0.5	0.08	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.30	34
N-Nitrosodiphenylamine	4	0.61	11
Naphthalene	2	0.30	99
Pentachlorophenol	10	19.65	360
Phenanthrene	2	0.30	100
Phenol	4	7.86	420
Pyrene	2	0.30	1000
Aroclor 1016	6.3	0.96	
Aroclor 1221	2	0.30	
Aroclor 1232	11	1.68	
Aroclor 1242	9	1.37	
Aroclor 1248	1	0.15	
Aroclor 1254	1	0.15	
Aroclor 1260	1	0.15	
Total Organic Carbon (dry)	12888.01572		
Total Solids	50.9		
HPAH	20	3.05	960
LPAH	14	2.13	370
Total PCB	11	1.68	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.01	0.81
1,2-Dichlorobenzene	0.2	0.02	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1
2-Methylnaphthalene	2	0.18	38
2,4-Dimethylphenol	1	1.40	29
2-Methylphenol	2	2.81	63
4-Methylphenol	4	5.61	670
Acenaphthene	2	0.18	16
Acenaphthylene	2	0.18	66
Anthracene	2	0.18	220
Benzo(a)anthracene	2	0.18	110
Benzo(a)pyrene	2	0.18	99
Benzo(b)fluoranthene	2	0.18	115
Benzo(g,h,i)perylene	2	0.18	31
Benzo(k)fluoranthene	2	0.18	115
Benzoic Acid	10	14.03	650
Benzyl Alcohol	2	2.81	57
Benzyl Butyl Phthalate	1	0.09	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.36	47
Chrysene	2	0.18	110
Dibenzo(a,h)anthracene	2	0.18	12
Dibenzofuran	2	0.18	15
Diethyl Phthalate	4	0.36	61
Dimethyl Phthalate	4	0.36	53
Di-N-Butyl Phthalate	4	0.36	220
Di-N-Octyl Phthalate	4	0.36	58
Fluorene	2	0.18	23
Fluoranthene	2	0.18	160
Hexachlorobenzene	0.1	0.01	0.38
Hexachlorobutadiene	0.5	0.05	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.18	34
N-Nitrosodiphenylamine	4	0.36	11
Naphthalene	2	0.18	99
Pentachlorophenol	10	14.03	360
Phenanthrene	2	0.18	100
Phenol	4	5.61	420
Pyrene	2	0.18	1000
Aroclor 1016	10	0.91	
Aroclor 1221	2	0.18	
Aroclor 1232	17	1.55	
Aroclor 1242	1	0.09	
Aroclor 1248	1	0.09	
Aroclor 1254	1	0.09	
Aroclor 1260	1	0.09	
Total Organic Carbon (dry)	15427.76999		
Total Solids	71.3		
HPAH	20	1.82	960
LPAH	14	1.27	370
Total PCB	17	1.55	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.01	0.81
1,2-Dichlorobenzene	0.2	0.03	2.3
1,4-Dichlorobenzene	0.2	0.03	3.1
2-Methylnaphthalene	2	0.25	38
2,4-Dimethylphenol	1	2.11	29
2-Methylphenol	2	4.22	63
4-Methylphenol	4	8.44	670
Acenaphthene	2	0.25	16
Acenaphthylene	2	0.25	66
Anthracene	2	0.25	220
Benzo(a)anthracene	2	0.25	110
Benzo(a)pyrene	2	0.25	99
Benzo(b)fluoranthene	2	0.25	115
Benzo(g,h,i)perylene	2	0.25	31
Benzo(k)fluoranthene	2	0.25	115
Benzoic Acid	10	21.10	650
Benzyl Alcohol	2	4.22	57
Benzyl Butyl Phthalate	1	0.13	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.51	47
Chrysene	2	0.25	110
Dibenzo(a,h)anthracene	2	0.25	12
Dibenzofuran	2	0.25	15
Diethyl Phthalate	4	0.51	61
Dimethyl Phthalate	4	0.51	53
Di-N-Butyl Phthalate	4	0.51	220
Di-N-Octyl Phthalate	4	0.51	58
Fluorene	2	0.25	23
Fluoranthene	2	0.25	160
Hexachlorobenzene	0.1	0.01	0.38
Hexachlorobutadiene	0.5	0.06	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.25	34
N-Nitrosodiphenylamine	4	0.51	11
Naphthalene	2	0.25	99
Pentachlorophenol	10	21.10	360
Phenanthrene	2	0.25	100
Phenol	4	8.44	420
Pyrene	2	0.25	1000
Aroclor 1016	2.4	0.30	
Aroclor 1221	2	0.25	
Aroclor 1232	2	0.25	
Aroclor 1242	1	0.13	
Aroclor 1248	1	0.13	
Aroclor 1254	1	0.13	
Aroclor 1260	1	0.13	
Total Organic Carbon (dry)	16624.47257		
Total Solids	47.4		
HPAH	20	2.54	960
LPAH	14	1.78	370
Total PCB	2.4	0.30	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.01	0.81
1,2-Dichlorobenzene	0.2	0.02	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1
2-Methylnaphthalene	2	0.23	38
2,4-Dimethylphenol	1	1.69	29
2-Methylphenol	2	3.37	63
4-Methylphenol	4	6.75	670
Acenaphthene	2	0.23	16
Acenaphthylene	2	0.23	66
Anthracene	2	0.23	220
Benzo(a)anthracene	2	0.23	110
Benzo(a)pyrene	2	0.23	99
Benzo(b)fluoranthene	2	0.23	115
Benzo(g,h,i)perylene	2	0.23	31
Benzo(k)fluoranthene	2	0.23	115
Benzoic Acid	10	16.86	650
Benzyl Alcohol	2	3.37	57
Benzyl Butyl Phthalate	1	0.12	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.46	47
Chrysene	2	0.23	110
Dibenzo(a,h)anthracene	2	0.23	12
Dibenzofuran	2	0.23	15
Diethyl Phthalate	4	0.46	61
Dimethyl Phthalate	4	0.46	53
Di-N-Butyl Phthalate	4	0.46	220
Di-N-Octyl Phthalate	4	0.46	58
Fluorene	2	0.23	23
Fluoranthene	2	0.23	160
Hexachlorobenzene	0.1	0.01	0.38
Hexachlorobutadiene	0.5	0.06	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.23	34
N-Nitrosodiphenylamine	4	0.46	11
Naphthalene	2	0.23	99
Pentachlorophenol	10	16.86	360
Phenanthrene	2	0.23	100
Phenol	4	6.75	420
Pyrene	2	0.23	1000
Aroclor 1016	3	0.35	
Aroclor 1221	2	0.23	
Aroclor 1232	2	0.23	
Aroclor 1242	1	0.12	
Aroclor 1248	1	0.12	
Aroclor 1254	1	0.12	
Aroclor 1260	1	0.12	
Total Organic Carbon (dry)	14637.43676		
Total Solids	59.3		
HPAH	20	2.30	960
LPAH	14	1.61	370
Total PCB	3	0.35	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.01	0.81
1,2-Dichlorobenzene	0.2	0.01	2.3
1,4-Dichlorobenzene	0.2	0.01	3.1
2-Methylnaphthalene	2	0.14	38
2,4-Dimethylphenol	1	1.93	29
2-Methylphenol	2	3.87	63
4-Methylphenol	4	7.74	670
Acenaphthene	2	0.14	16
Acenaphthylene	2	0.14	66
Anthracene	2	0.14	220
Benzo(a)anthracene	2	0.14	110
Benzo(a)pyrene	2	0.14	99
Benzo(b)fluoranthene	2	0.14	115
Benzo(g,h,i)perylene	2	0.14	31
Benzo(k)fluoranthene	2	0.14	115
Benzoic Acid	10	19.34	650
Benzyl Alcohol	2	3.87	57
Benzyl Butyl Phthalate	1	0.07	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.27	47
Chrysene	2	0.14	110
Dibenzo(a,h)anthracene	2	0.14	12
Dibenzofuran	2	0.14	15
Diethyl Phthalate	4	0.27	61
Dimethyl Phthalate	4	0.27	53
Di-N-Butyl Phthalate	4	0.27	220
Di-N-Octyl Phthalate	4	0.27	58
Fluorene	2	0.14	23
Fluoranthene	2	0.14	160
Hexachlorobenzene	0.1	0.01	0.38
Hexachlorobutadiene	0.5	0.03	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.14	34
N-Nitrosodiphenylamine	4	0.27	11
Naphthalene	2	0.14	99
Pentachlorophenol	10	19.34	360
Phenanthrene	2	0.14	100
Phenol	4	7.74	420
Pyrene	2	0.14	1000
Aroclor 1016	14	0.96	
Aroclor 1221	2	0.14	
Aroclor 1232	30	2.05	
Aroclor 1242	27	1.85	
Aroclor 1248	1	0.07	
Aroclor 1254	1	0.07	
Aroclor 1260	1	0.07	
Total Organic Carbon (dry)	28239.84526		
Total Solids	51.7		
HPAH	20	1.37	960
LPAH	14	0.96	370
Total PCB	30	2.05	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.01	0.81
1,2-Dichlorobenzene	0.2	0.02	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1
2-Methylnaphthalene	2	0.24	38
2,4-Dimethylphenol	1	2.29	29
2-Methylphenol	2	4.58	63
4-Methylphenol	4	9.15	670
Acenaphthene	2	0.24	16
Acenaphthylene	2	0.24	66
Anthracene	2	0.24	220
Benzo(a)anthracene	2	0.24	110
Benzo(a)pyrene	2	0.24	99
Benzo(b)fluoranthene	2	0.24	115
Benzo(g,h,i)perylene	2	0.24	31
Benzo(k)fluoranthene	2	0.24	115
Benzoic Acid	10	22.88	650
Benzyl Alcohol	2	4.58	57
Benzyl Butyl Phthalate	1	0.12	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.49	47
Chrysene	2	0.24	110
Dibenzo(a,h)anthracene	2	0.24	12
Dibenzofuran	2	0.24	15
Diethyl Phthalate	4	0.49	61
Dimethyl Phthalate	4	0.49	53
Di-N-Butyl Phthalate	4	0.49	220
Di-N-Octyl Phthalate	4	0.49	58
Fluorene	2	0.24	23
Fluoranthene	2	0.24	160
Hexachlorobenzene	0.1	0.01	0.38
Hexachlorobutadiene	0.5	0.06	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.24	34
N-Nitrosodiphenylamine	4	0.49	11
Naphthalene	2	0.24	99
Pentachlorophenol	10	22.88	360
Phenanthrene	2	0.24	100
Phenol	4	9.15	420
Pyrene	2	0.24	1000
Aroclor 1016	15	1.83	
Aroclor 1221	2	0.24	
Aroclor 1232	31	3.78	
Aroclor 1242	29	3.53	
Aroclor 1248	1	0.12	
Aroclor 1254	1	0.12	
Aroclor 1260	1	0.12	
Total Organic Carbon (dry)	18787.18535		
Total Solids	43.7		
HPAH	20	2.44	960
LPAH	14	1.71	370
Total PCB	31	3.78	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.11	0.81
1,2-Dichlorobenzene	0.2	0.22	2.3
1,4-Dichlorobenzene	0.2	0.22	3.1
2-Methylnaphthalene	2	2.22	38
2,4-Dimethylphenol	1	1.08	29
2-Methylphenol	2	2.16	63
4-Methylphenol	4	4.31	670
Acenaphthene	2	2.22	16
Acenaphthylene	2	2.22	66
Anthracene	2	2.22	220
Benzo(a)anthracene	2	2.22	110
Benzo(a)pyrene	2	2.22	99
Benzo(b)fluoranthene	2	2.22	115
Benzo(g,h,i)perylene	2	2.22	31
Benzo(k)fluoranthene	2	2.22	115
Benzoic Acid	10	10.79	650
Benzyl Alcohol	2	2.16	57
Benzyl Butyl Phthalate	1	1.11	4.9
Bis(2-Ethylhexyl)Phthalate	4	4.44	47
Chrysene	2	2.22	110
Dibenzo(a,h)anthracene	2	2.22	12
Dibenzofuran	2	2.22	15
Diethyl Phthalate	4	4.44	61
Dimethyl Phthalate	4	4.44	53
Di-N-Butyl Phthalate	4	4.44	220
Di-N-Octyl Phthalate	4	4.44	58
Fluorene	2	2.22	23
Fluoranthene	2	2.22	160
Hexachlorobenzene	0.1	0.11	0.38
Hexachlorobutadiene	0.5	0.56	3.9
Indeno(1,2,3-Cd)Pyrene	2	2.22	34
N-Nitrosodiphenylamine	4	4.44	11
Naphthalene	2	2.22	99
Pentachlorophenol	10	10.79	360
Phenanthrene	2	2.22	100
Phenol	4	4.31	420
Pyrene	2	2.22	1000
Aroclor 1016	1	1.11	
Aroclor 1221	2	2.22	
Aroclor 1232	2	2.22	
Aroclor 1242	1	1.11	
Aroclor 1248	1	1.11	
Aroclor 1254	1	1.11	
Aroclor 1260	1	1.11	
Total Organic Carbon (dry)	970.8737864		
Total Solids	92.7		
HPAH	20	22.22	960
LPAH	14	15.56	370
Total PCB	2	2.22	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.01	0.81
1,2-Dichlorobenzene	0.2	0.02	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1
2-Methylnaphthalene	2	0.20	38
2,4-Dimethylphenol	1	1.92	29
2-Methylphenol	2	3.83	63
4-Methylphenol	4	7.66	670
Acenaphthene	2	0.20	16
Acenaphthylene	2	0.20	66
Anthracene	2	0.20	220
Benzo(a)anthracene	2	0.20	110
Benzo(a)pyrene	2	0.20	99
Benzo(b)fluoranthene	2	0.20	115
Benzo(g,h,i)perylene	2	0.20	31
Benzo(k)fluoranthene	2	0.20	115
Benzoic Acid	10	19.16	650
Benzyl Alcohol	2	3.83	57
Benzyl Butyl Phthalate	1	0.10	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.41	47
Chrysene	2	0.20	110
Dibenzo(a,h)anthracene	2	0.20	12
Dibenzofuran	2	0.20	15
Diethyl Phthalate	4	0.41	61
Dimethyl Phthalate	4	0.41	53
Di-N-Butyl Phthalate	4	0.41	220
Di-N-Octyl Phthalate	4	0.41	58
Fluorene	2	0.20	23
Fluoranthene	2	0.20	160
Hexachlorobenzene	0.1	0.01	0.38
Hexachlorobutadiene	0.5	0.05	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.20	34
N-Nitrosodiphenylamine	4	0.41	11
Naphthalene	2	0.20	99
Pentachlorophenol	10	19.16	360
Phenanthrene	2	0.20	100
Phenol	4	7.66	420
Pyrene	2	0.20	1000
Aroclor 1016	9.1	0.93	
Aroclor 1221	2	0.20	
Aroclor 1232	21	2.14	
Aroclor 1242	18	1.84	
Aroclor 1248	1	0.10	
Aroclor 1254	1	0.10	
Aroclor 1260	1	0.10	
Total Organic Carbon (dry)	18773.94636		
Total Solids	52.2		
HPAH	20	2.04	960
LPAH	14	1.43	370
Total PCB	21	2.14	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.01	0.81
1,2-Dichlorobenzene	0.2	0.02	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1
2-Methylnaphthalene	2	0.24	38
2,4-Dimethylphenol	1	3.66	29
2-Methylphenol	2	7.33	63
4-Methylphenol	4	14.65	670
Acenaphthene	2	0.24	16
Acenaphthylene	2	0.24	66
Anthracene	2	0.24	220
Benzo(a)anthracene	2	0.24	110
Benzo(a)pyrene	2	0.24	99
Benzo(b)fluoranthene	2	0.24	115
Benzo(g,h,i)perylene	2	0.24	31
Benzo(k)fluoranthene	2	0.24	115
Benzoic Acid	10	36.63	650
Benzyl Alcohol	2	7.33	57
Benzyl Butyl Phthalate	1	0.12	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.49	47
Chrysene	2	0.24	110
Dibenzo(a,h)anthracene	2	0.24	12
Dibenzofuran	2	0.24	15
Diethyl Phthalate	4	0.49	61
Dimethyl Phthalate	4	0.49	53
Di-N-Butyl Phthalate	4	0.49	220
Di-N-Octyl Phthalate	4	0.49	58
Fluorene	2	0.24	23
Fluoranthene	2	0.24	160
Hexachlorobenzene	0.1	0.01	0.38
Hexachlorobutadiene	0.5	0.06	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.24	34
N-Nitrosodiphenylamine	4	0.49	11
Naphthalene	2	0.24	99
Pentachlorophenol	10	36.63	360
Phenanthrene	2	0.24	100
Phenol	4	14.65	420
Pyrene	2	0.24	1000
Aroclor 1016	3.6	0.44	
Aroclor 1221	2	0.24	
Aroclor 1232	9.1	1.11	
Aroclor 1242	7.7	0.94	
Aroclor 1248	1	0.12	
Aroclor 1254	1	0.12	
Aroclor 1260	1	0.12	
Total Organic Carbon (dry)	29963.36996		
Total Solids	27.3		
HPAH	20	2.44	960
LPAH	14	1.71	370
Total PCB	9.1	1.11	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.01	0.81
1,2-Dichlorobenzene	0.2	0.02	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1
2-Methylnaphthalene	2	0.17	38
2,4-Dimethylphenol	1	1.39	29
2-Methylphenol	2	2.78	63
4-Methylphenol	4	5.56	670
Acenaphthene	2	0.17	16
Acenaphthylene	2	0.17	66
Anthracene	2	0.17	220
Benzo(a)anthracene	2	0.17	110
Benzo(a)pyrene	2	0.17	99
Benzo(b)fluoranthene	2	0.17	115
Benzo(g,h,i)perylene	2	0.17	31
Benzo(k)fluoranthene	2	0.17	115
Benzoic Acid	10	13.89	650
Benzyl Alcohol	2	2.78	57
Benzyl Butyl Phthalate	1	0.09	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.34	47
Chrysene	2	0.17	110
Dibenzo(a,h)anthracene	2	0.17	12
Dibenzofuran	2	0.17	15
Diethyl Phthalate	4	0.34	61
Dimethyl Phthalate	4	0.34	53
Di-N-Butyl Phthalate	4	0.34	220
Di-N-Octyl Phthalate	4	0.34	58
Fluorene	2	0.17	23
Fluoranthene	2	0.17	160
Hexachlorobenzene	0.1	0.01	0.38
Hexachlorobutadiene	0.5	0.04	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.17	34
N-Nitrosodiphenylamine	4	0.34	11
Naphthalene	2	0.17	99
Pentachlorophenol	10	13.89	360
Phenanthrene	2	0.17	100
Phenol	4	5.56	420
Pyrene	2	0.17	1000
Aroclor 1016	3.7	0.32	
Aroclor 1221	2	0.17	
Aroclor 1232	7.9	0.68	
Aroclor 1242	1	0.09	
Aroclor 1248	1	0.09	
Aroclor 1254	1	0.09	
Aroclor 1260	1	0.09	
Total Organic Carbon (dry)	16111.11111		
Total Solids	72		
HPAH	20	1.72	960
LPAH	14	1.21	370
Total PCB	7.9	0.68	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.01	0.81
1,2-Dichlorobenzene	0.2	0.02	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1
2-Methylnaphthalene	2	0.22	38
2,4-Dimethylphenol	1	1.98	29
2-Methylphenol	2	3.97	63
4-Methylphenol	4	7.94	670
Acenaphthene	2	0.22	16
Acenaphthylene	2	0.22	66
Anthracene	2	0.22	220
Benzo(a)anthracene	2	0.22	110
Benzo(a)pyrene	2	0.22	99
Benzo(b)fluoranthene	2	0.22	115
Benzo(g,h,i)perylene	2	0.22	31
Benzo(k)fluoranthene	2	0.22	115
Benzoic Acid	10	19.84	650
Benzyl Alcohol	2	3.97	57
Benzyl Butyl Phthalate	1	0.11	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.45	47
Chrysene	2	0.22	110
Dibenzo(a,h)anthracene	2	0.22	12
Dibenzofuran	2	0.22	15
Diethyl Phthalate	4	0.45	61
Dimethyl Phthalate	4	0.45	53
Di-N-Butyl Phthalate	4	0.45	220
Di-N-Octyl Phthalate	4	0.45	58
Fluorene	2	0.22	23
Fluoranthene	2	0.22	160
Hexachlorobenzene	0.1	0.01	0.38
Hexachlorobutadiene	0.5	0.06	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.22	34
N-Nitrosodiphenylamine	4	0.45	11
Naphthalene	2	0.22	99
Pentachlorophenol	10	19.84	360
Phenanthrene	2	0.22	100
Phenol	4	7.94	420
Pyrene	2	0.22	1000
Aroclor 1016	19	2.12	
Aroclor 1221	4	0.45	
Aroclor 1232	33	3.67	
Aroclor 1242	46	5.12	
Aroclor 1248	2	0.22	
Aroclor 1254	2	0.22	
Aroclor 1260	2	0.22	
Total Organic Carbon (dry)	17817.46032		
Total Solids	50.4		
HPAH	20	2.23	960
LPAH	14	1.56	370
Total PCB	46	5.12	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.02	0.81
1,2-Dichlorobenzene	0.2	0.04	2.3
1,4-Dichlorobenzene	0.2	0.04	3.1
2-Methylnaphthalene	2	0.37	38
2,4-Dimethylphenol	1	1.71	29
2-Methylphenol	2	3.42	63
4-Methylphenol	4	6.85	670
Acenaphthene	2	0.37	16
Acenaphthylene	2	0.37	66
Anthracene	2	0.37	220
Benzo(a)anthracene	2	0.37	110
Benzo(a)pyrene	2	0.37	99
Benzo(b)fluoranthene	2	0.37	115
Benzo(g,h,i)perylene	2	0.37	31
Benzo(k)fluoranthene	2	0.37	115
Benzoic Acid	10	17.12	650
Benzyl Alcohol	2	3.42	57
Benzyl Butyl Phthalate	1	0.19	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.74	47
Chrysene	2	0.37	110
Dibenzo(a,h)anthracene	2	0.37	12
Dibenzofuran	2	0.37	15
Diethyl Phthalate	4	0.74	61
Dimethyl Phthalate	4	0.74	53
Di-N-Butyl Phthalate	4	0.74	220
Di-N-Octyl Phthalate	4	0.74	58
Fluorene	2	0.37	23
Fluoranthene	2	0.37	160
Hexachlorobenzene	0.1	0.02	0.38
Hexachlorobutadiene	0.5	0.09	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.37	34
N-Nitrosodiphenylamine	4	0.74	11
Naphthalene	2	0.37	99
Pentachlorophenol	10	17.12	360
Phenanthrene	2	0.37	100
Phenol	4	6.85	420
Pyrene	2	0.37	1000
Aroclor 1016	22	4.07	
Aroclor 1221	2	0.37	
Aroclor 1232	29	5.37	
Aroclor 1242	32	5.93	
Aroclor 1248	1	0.19	
Aroclor 1254	1	0.19	
Aroclor 1260	1	0.19	
Total Organic Carbon (dry)	9246.575342		
Total Solids	58.4		
HPAH	20	3.70	960
LPAH	14	2.59	370
Total PCB	32	5.93	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.02	0.81
1,2-Dichlorobenzene	0.2	0.04	2.3
1,4-Dichlorobenzene	0.2	0.04	3.1
2-Methylnaphthalene	2	0.41	38
2,4-Dimethylphenol	1	1.82	29
2-Methylphenol	2	3.65	63
4-Methylphenol	4	7.30	670
Acenaphthene	2	0.41	16
Acenaphthylene	2	0.41	66
Anthracene	2	0.41	220
Benzo(a)anthracene	2	0.41	110
Benzo(a)pyrene	2	0.41	99
Benzo(b)fluoranthene	2	0.41	115
Benzo(g,h,i)perylene	2	0.41	31
Benzo(k)fluoranthene	2	0.41	115
Benzoic Acid	10	18.25	650
Benzyl Alcohol	2	3.65	57
Benzyl Butyl Phthalate	1	0.20	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.82	47
Chrysene	2	0.41	110
Dibenzo(a,h)anthracene	2	0.41	12
Dibenzofuran	2	0.41	15
Diethyl Phthalate	4	0.82	61
Dimethyl Phthalate	4	0.82	53
Di-N-Butyl Phthalate	4	0.82	220
Di-N-Octyl Phthalate	4	0.82	58
Fluorene	2	0.41	23
Fluoranthene	2	0.41	160
Hexachlorobenzene	0.1	0.02	0.38
Hexachlorobutadiene	0.5	0.10	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.41	34
N-Nitrosodiphenylamine	4	0.82	11
Naphthalene	2	0.41	99
Pentachlorophenol	10	18.25	360
Phenanthrene	2	0.41	100
Phenol	4	7.30	420
Pyrene	2	0.41	1000
Aroclor 1016	6.9	1.41	
Aroclor 1221	2	0.41	
Aroclor 1232	14	2.86	
Aroclor 1242	16	3.27	
Aroclor 1248	1	0.20	
Aroclor 1254	1	0.20	
Aroclor 1260	1	0.20	
Total Organic Carbon (dry)	8941.605839		
Total Solids	54.8		
HPAH	20	4.08	960
LPAH	14	2.86	370
Total PCB	16	3.27	12

SMS OC and Dry Weight Normalization Detection Limit Check

	MDL (ug/Kg, ww)	MDL (mg/Kg, dw, oc)	SMS-SQS (mg/Kg, dw,oc)
1,2,4-Trichlorobenzene	0.1	0.01	0.81
1,2-Dichlorobenzene	0.2	0.02	2.3
1,4-Dichlorobenzene	0.2	0.02	3.1
2-Methylnaphthalene	2	0.20	38
2,4-Dimethylphenol	1	1.99	29
2-Methylphenol	2	3.98	63
4-Methylphenol	4	7.97	670
Acenaphthene	2	0.20	16
Acenaphthylene	2	0.20	66
Anthracene	2	0.20	220
Benzo(a)anthracene	2	0.20	110
Benzo(a)pyrene	2	0.20	99
Benzo(b)fluoranthene	2	0.20	115
Benzo(g,h,i)perylene	2	0.20	31
Benzo(k)fluoranthene	2	0.20	115
Benzoic Acid	10	19.92	650
Benzyl Alcohol	2	3.98	57
Benzyl Butyl Phthalate	1	0.10	4.9
Bis(2-Ethylhexyl)Phthalate	4	0.40	47
Chrysene	2	0.20	110
Dibenzo(a,h)anthracene	2	0.20	12
Dibenzofuran	2	0.20	15
Diethyl Phthalate	4	0.40	61
Dimethyl Phthalate	4	0.40	53
Di-N-Butyl Phthalate	4	0.40	220
Di-N-Octyl Phthalate	4	0.40	58
Fluorene	2	0.20	23
Fluoranthene	2	0.20	160
Hexachlorobenzene	0.1	0.01	0.38
Hexachlorobutadiene	0.5	0.05	3.9
Indeno(1,2,3-Cd)Pyrene	2	0.20	34
N-Nitrosodiphenylamine	4	0.40	11
Naphthalene	2	0.20	99
Pentachlorophenol	10	19.92	360
Phenanthrene	2	0.20	100
Phenol	4	7.97	420
Pyrene	2	0.20	1000
Aroclor 1016	33	3.27	
Aroclor 1221	4	0.40	
Aroclor 1232	70	6.93	
Aroclor 1242	72	7.13	
Aroclor 1248	2	0.20	
Aroclor 1254	2	0.20	
Aroclor 1260	2	0.20	
Total Organic Carbon (dry)	20119.52191		
Total Solids	50.2		
HPAH	20	1.98	960
LPAH	14	1.39	370
Total PCB	72	7.13	12

SAP MDL Comparison Table

King County Environmental Lab
Denny Way SAP MDL Comparison Report

Exceeds SAP MDL

		Project:	423368-80	423368-80	423368-80	423368-80	423368-80
		Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sample:	L47904-1	L47904-2	L47904-3	L47904-4	L47904-5
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		ColDate:	5/4/09 9:40	5/6/09 9:56	5/4/09 9:10	5/6/09 9:37	5/4/09 10:12
		TotalSolid:	46.6	63.9	47.2	50.9	71.3
			DRY Weight Basis	DRY Weight Basis	DRY Weight Basis	DRY Weight Basis	DRY Weight Basis
Parameters	Units	SAP MDLs (@ 50% TS)	MDL	MDL	MDL	MDL	MDL
CV ASTM D422							
Fines*	%	0.5	1.1	0.75	1.1	0.99	0.61
Gravel*	%	0.1	0.22	0.15	0.22	0.2	0.12
Sand*	%	0.1	0.22	0.15	0.22	0.2	0.12
Silt*	%	0.5	1.1	0.75	1.1	0.99	0.61
Clay*	%	0.5	1.1	0.75	1.1	0.99	0.61
p+0.00*	%	0.1	0.22	0.15	0.22	0.2	0.12
p+1.00*	%	0.1	0.22	0.15	0.22	0.2	0.12
p+10.0(equal/more than)*	%	0.5	1.1	0.75	1.1	0.99	0.61
p+2.00*	%	0.1	0.22	0.15	0.22	0.2	0.12
p+3.00*	%	0.1	0.22	0.15	0.22	0.2	0.12
p+4.00*	%	0.1	0.22	0.15	0.22	0.2	0.12
p+5.00*	%	0.5	1.1	0.75	1.1	0.99	0.61
p+6.00*	%	0.5	1.1	0.75	1.1	0.99	0.61
p+7.00*	%	0.5	1.1	0.75	1.1	0.99	0.61
p+8.00*	%	0.5	1.1	0.75	1.1	0.99	0.61
p+9.00*	%	0.5	1.1	0.75	1.1	0.99	0.61
p-1.00*	%	0.1	0.22	0.15	0.22	0.2	0.12
p-2.00*	%	0.1	0.22	0.15	0.22	0.2	0.12
p-2.00(less than)*	%	0.1	0.22	0.15	0.22	0.2	0.12
CV EPA 9030B/SM4500-S2-D							
Total Sulfide	mg/Kg	1.0	5.2	0.77	1	0.96	3.4
CV SW846 9060-PSEP96							
Total Organic Carbon	mg/Kg	1000	2600	2000	2800	2000	3100
CV SM2540-G							
Total Solids*	%	0.005	0.005	0.005	0.005	0.005	0.005
CV SM4500-NH3-G KCL							
Ammonia Nitrogen	mg/Kg	0.2	1.1	0.15	0.21	0.2	0.7
MT SW846 7471B							
Mercury, Total, CVAA	mg/Kg	0.01	0.011	0.0077	0.01	0.0094	0.007
MT SW846 3050B*SW846 6010C							
Arsenic, Total, ICP	mg/Kg	2.5	2.6	1.9	2.5	2.4	1.7
Cadmium, Total, ICP	mg/Kg	0.20	0.21	0.16	0.21	0.2	0.14
Chromium, Total, ICP	mg/Kg	0.30	0.32	0.23	0.32	0.29	0.21
Copper, Total, ICP	mg/Kg	0.40	0.43	0.31	0.42	0.39	0.28
Lead, Total, ICP	mg/Kg	2.0	2.1	1.6	2.1	2	1.4
Silver, Total, ICP	mg/Kg	0.40	0.43	0.31	0.42	0.39	0.28
Zinc, Total, ICP	mg/Kg	0.50	0.54	0.39	0.53	0.49	0.35
OR EPA 3550B/8270C (7-3-01-004)							
1,2,4-Trichlorobenzene	ug/Kg	0.54	0.21	0.16	0.21	0.2	0.14
1,2-Dichlorobenzene	ug/Kg	0.54	0.43	0.31	0.42	0.39	0.28
1,4-Dichlorobenzene	ug/Kg	0.54	0.43	0.31	0.42	0.39	0.28
2,4-Dimethylphenol	ug/Kg	5.4	2.1	1.6	2.1	2	1.4

King County Environmental Lab
Denny Way SAP MDL Comparison Report

Exceeds SAP MDL

		Project:	423368-80	423368-80	423368-80	423368-80	423368-80
		Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sample:	L47904-1	L47904-2	L47904-3	L47904-4	L47904-5
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		ColDate:	5/4/09 9:40	5/6/09 9:56	5/4/09 9:10	5/6/09 9:37	5/4/09 10:12
		TotalSolid:	46.6	63.9	47.2	50.9	71.3
			DRY Weight Basis	DRY Weight Basis	DRY Weight Basis	DRY Weight Basis	DRY Weight Basis
Parameters	Units	SAP MDLs (@ 50% TS)	MDL	MDL	MDL	MDL	MDL
2-Methylnaphthalene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
2-Methylphenol	ug/Kg	11	4.3	3.1	4.2	3.9	2.8
4-Methylphenol	ug/Kg	11	8.6	6.3	8.5	7.9	5.6
Acenaphthene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Acenaphthylene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Anthracene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Benzo(a)anthracene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Benzo(a)pyrene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Benzo(b)fluoranthene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Benzo(g,h,i)perylene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Benzo(k)fluoranthene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Benzoic Acid	ug/Kg	26	21	16	21	20	14
Benzyl Alcohol	ug/Kg	11	4.3	3.1	4.2	3.9	2.8
Benzyl Butyl Phthalate	ug/Kg	11	2.1	1.6	2.1	2	1.4
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	8.6	6.3	8.5	7.9	5.6
Caffeine	ug/Kg	8	8.6	6.3	8.5	7.9	5.6
Carbazole	ug/Kg	4	4.3	3.1	4.2	3.9	2.8
Chrysene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Coprostanol	ug/Kg	110	86	63	85	79	56
Di-N-Butyl Phthalate	ug/Kg	11	8.6	6.3	8.5	7.9	5.6
Di-N-Octyl Phthalate	ug/Kg	11	8.6	6.3	8.5	7.9	5.6
Dibenzo(a,h)anthracene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Dibenzofuran	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Diethyl Phthalate	ug/Kg	11	8.6	6.3	8.5	7.9	5.6
Dimethyl Phthalate	ug/Kg	11	8.6	6.3	8.5	7.9	5.6
Fluoranthene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Fluorene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Hexachlorobenzene	ug/Kg	1.1	0.21	0.16	0.21	0.2	0.14
Hexachlorobutadiene	ug/Kg	2.6	1.1	0.78	1.1	0.98	0.7
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
N-Nitrosodiphenylamine	ug/Kg	11	8.6	6.3	8.5	7.9	5.6
Naphthalene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Pentachlorophenol	ug/Kg	26	21	16	21	20	14
Phenanthrene	ug/Kg	5.4	4.3	3.1	4.2	3.9	2.8
Phenol	ug/Kg	11	8.6	6.3	8.5	7.9	5.6
Pyrene	ug/Kg	11	4.3	3.1	4.2	3.9	2.8
Total 4-Nonylphenol	ug/Kg	10	11	7.8	11	9.8	7
Total HPAHS	ug/Kg	NA	4.3	3.1	4.2	3.9	2.8
Total LPAHs	ug/Kg	NA	4.3	3.1	4.2	3.9	2.8
OR SW846 3550B*SW846 8081B							
4,4'-DDD	ug/Kg	2	2.1	1.6	2.1	2	1.4
4,4'-DDE	ug/Kg	2	2.1	1.6	2.1	2	1.4
4,4'-DDT	ug/Kg	2	2.1	1.6	2.1	2	1.4

King County Environmental Lab
Denny Way SAP MDL Comparison Report

Exceeds SAP MDL

		Project:	423368-80	423368-80	423368-80	423368-80	423368-80
		Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sample:	L47904-1	L47904-2	L47904-3	L47904-4	L47904-5
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		ColDate:	5/4/09 9:40	5/6/09 9:56	5/4/09 9:10	5/6/09 9:37	5/4/09 10:12
		TotalSolid:	46.6	63.9	47.2	50.9	71.3
			DRY Weight Basis	**DRY Weight Basis**	**DRY Weight Basis**	**DRY Weight Basis**	**DRY Weight Basis**
Parameters	Units	SAP MDLs (@ 50% TS)	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**
OR SW846 3550B*SW846 8082A							
Aroclor 1016	ug/Kg	2.6	64	10	51	12	14
Aroclor 1221	ug/Kg	6.6	17	3.1	8.5	3.9	2.8
Aroclor 1232	ug/Kg	6.6	130	25	95	22	24
Aroclor 1242	ug/Kg	2.6	170	1.6	110	18	1.4
Aroclor 1248	ug/Kg	2.6	8.6	1.6	4.2	2	1.4
Aroclor 1254	ug/Kg	2.6	8.6	1.6	4.2	2	1.4
Aroclor 1260	ug/Kg	2.6	8.6	1.6	4.2	2	1.4
* Not converted to dry weight basis							

King County Environmental Lab
Denny Way SAP MDL Comparison Report

Exceeds SAP MDL

		Project:	423368-80	423368-80	423368-80	423368-80	423368-80
		Locator:	DWMP-06	DWMP-07	DWMP-08	DWMP-09	DWMP-10
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sample:	L47904-6	L47904-7	L47904-8	L47904-9	L47904-10
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		ColDate:	5/6/09 9:02	5/6/09 9:20	5/4/09 13:00	5/4/09 13:55	5/4/09 11:20
		TotalSolid:	47.4	59.3	51.7	43.7	92.7
			DRY Weight Basis	DRY Weight Basis	DRY Weight Basis	DRY Weight Basis	DRY Weight Basis
Parameters	Units	SAP MDLs (@ 50% TS)	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**
CV ASTM D422							
Fines*	%	0.5	1	0.76	1.1	1.1	0.55
Gravel*	%	0.1	0.21	0.15	0.21	0.21	0.11
Sand*	%	0.1	0.21	0.15	0.21	0.21	0.11
Silt*	%	0.5	1	0.76	1.1	1.1	0.55
Clay*	%	0.5	1	0.76	1.1	1.1	0.55
p+0.00*	%	0.1	0.21	0.15	0.21	0.21	0.11
p+1.00*	%	0.1	0.21	0.15	0.21	0.21	0.11
p+10.0(equal/more than)*	%	0.5	1	0.76	1.1	1.1	0.55
p+2.00*	%	0.1	0.21	0.15	0.21	0.21	0.11
p+3.00*	%	0.1	0.21	0.15	0.21	0.21	0.11
p+4.00*	%	0.1	0.21	0.15	0.21	0.21	0.11
p+5.00*	%	0.5	1	0.76	1.1	1.1	0.55
p+6.00*	%	0.5	1	0.76	1.1	1.1	0.55
p+7.00*	%	0.5	1	0.76	1.1	1.1	0.55
p+8.00*	%	0.5	1	0.76	1.1	1.1	0.55
p+9.00*	%	0.5	1	0.76	1.1	1.1	0.55
p-1.00*	%	0.1	0.21	0.15	0.21	0.21	0.11
p-2.00*	%	0.1	0.21	0.15	0.21	0.21	0.11
p-2.00(less than)*	%	0.1	0.21	0.15	0.21	0.21	0.11
CV EPA 9030B/SM4500-S2-D							
Total Sulfide	mg/Kg	1.0	1	0.81	4.8	1.1	0.53
CV SW846 9060-PSEP96							
Total Organic Carbon	mg/Kg	1000	2000	1900	2300	2000	490
CV SM2540-G							
Total Solids*	%	0.005	0.005	0.005	0.005	0.005	0.005
CV SM4500-NH3-G KCL							
Ammonia Nitrogen	mg/Kg	0.2	0.21	0.17	0.95	0.22	0.11
MT SW846 7471B							
Mercury, Total, CVAA	mg/Kg	0.01	0.01	0.0083	0.0093	0.023	0.0053
MT SW846 3050B*SW846 6010C							
Arsenic, Total, ICP	mg/Kg	2.5	2.5	2	2.3	2.7	1.3
Cadmium, Total, ICP	mg/Kg	0.20	0.21	0.17	0.19	0.23	0.11
Chromium, Total, ICP	mg/Kg	0.30	0.32	0.25	0.29	0.34	0.16
Copper, Total, ICP	mg/Kg	0.40	0.42	0.34	0.39	0.46	0.22
Lead, Total, ICP	mg/Kg	2.0	2.1	1.7	1.9	2.3	1.1
Silver, Total, ICP	mg/Kg	0.40	0.42	0.34	0.39	0.46	0.22
Zinc, Total, ICP	mg/Kg	0.50	0.53	0.42	0.48	0.57	0.27
OR EPA 3550B/8270C (7-3-01-004)							
1,2,4-Trichlorobenzene	ug/Kg	0.54	0.21	0.17	0.19	0.23	0.11
1,2-Dichlorobenzene	ug/Kg	0.54	0.42	0.34	0.39	0.46	0.22
1,4-Dichlorobenzene	ug/Kg	0.54	0.42	0.34	0.39	0.46	0.22
2,4-Dimethylphenol	ug/Kg	5.4	2.1	1.7	1.9	2.3	1.1

King County Environmental Lab
Denny Way SAP MDL Comparison Report

Exceeds SAP MDL

		Project:	423368-80	423368-80	423368-80	423368-80	423368-80
		Locator:	DWMP-06	DWMP-07	DWMP-08	DWMP-09	DWMP-10
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sample:	L47904-6	L47904-7	L47904-8	L47904-9	L47904-10
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		ColDate:	5/6/09 9:02	5/6/09 9:20	5/4/09 13:00	5/4/09 13:55	5/4/09 11:20
		TotalSolid:	47.4	59.3	51.7	43.7	92.7
			DRY Weight Basis	**DRY Weight Basis**	**DRY Weight Basis**	**DRY Weight Basis**	**DRY Weight Basis**
Parameters	Units	SAP MDLs (@ 50% TS)	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**
2-Methylnaphthalene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
2-Methylphenol	ug/Kg	11	4.2	3.4	3.9	4.6	2.2
4-Methylphenol	ug/Kg	11	8.4	6.7	7.7	9.2	4.3
Acenaphthene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Acenaphthylene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Anthracene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Benzo(a)anthracene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Benzo(a)pyrene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Benzo(b)fluoranthene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Benzo(g,h,i)perylene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Benzo(k)fluoranthene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Benzoic Acid	ug/Kg	26	21	17	19	23	11
Benzyl Alcohol	ug/Kg	11	4.2	3.4	3.9	4.6	2.2
Benzyl Butyl Phthalate	ug/Kg	11	2.1	1.7	1.9	2.3	1.1
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	8.4	6.7	7.7	9.2	4.3
Caffeine	ug/Kg	8	8.4	6.7	7.7	9.2	4.3
Carbazole	ug/Kg	4	4.2	3.4	3.9	4.6	2.2
Chrysene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Coprostanol	ug/Kg	110	84	67	77	92	43
Di-N-Butyl Phthalate	ug/Kg	11	8.4	6.7	7.7	9.2	4.3
Di-N-Octyl Phthalate	ug/Kg	11	8.4	6.7	7.7	9.2	4.3
Dibenzo(a,h)anthracene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Dibenzofuran	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Diethyl Phthalate	ug/Kg	11	8.4	6.7	7.7	9.2	4.3
Dimethyl Phthalate	ug/Kg	11	8.4	6.7	7.7	9.2	4.3
Fluoranthene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Fluorene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Hexachlorobenzene	ug/Kg	1.1	0.21	0.17	0.19	0.23	0.11
Hexachlorobutadiene	ug/Kg	2.6	1.1	0.84	0.97	1.1	0.54
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
N-Nitrosodiphenylamine	ug/Kg	11	8.4	6.7	7.7	9.2	4.3
Naphthalene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Pentachlorophenol	ug/Kg	26	21	17	19	23	11
Phenanthrene	ug/Kg	5.4	4.2	3.4	3.9	4.6	2.2
Phenol	ug/Kg	11	8.4	6.7	7.7	9.2	4.3
Pyrene	ug/Kg	11	4.2	3.4	3.9	4.6	2.2
Total 4-Nonylphenol	ug/Kg	10	11	8.4	9.7	11	5.4
Total HPAHS	ug/Kg	NA	4.2	3.4	3.9	4.6	2.2
Total LPAHs	ug/Kg	NA	4.2	3.4	3.9	4.6	2.2
OR SW846 3550B*SW846 8081B							
4,4'-DDD	ug/Kg	2	2.1	1.7	1.9	2.3	1.1
4,4'-DDE	ug/Kg	2	2.1	1.7	1.9	2.3	1.1
4,4'-DDT	ug/Kg	2	2.1	1.7	1.9	2.3	1.1

King County Environmental Lab
Denny Way SAP MDL Comparison Report

Exceeds SAP MDL

		Project:	423368-80	423368-80	423368-80	423368-80	423368-80
		Locator:	DWMP-06	DWMP-07	DWMP-08	DWMP-09	DWMP-10
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sample:	L47904-6	L47904-7	L47904-8	L47904-9	L47904-10
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		ColDate:	5/6/09 9:02	5/6/09 9:20	5/4/09 13:00	5/4/09 13:55	5/4/09 11:20
		TotalSolid:	47.4	59.3	51.7	43.7	92.7
			DRY Weight Basis	**DRY Weight Basis**	**DRY Weight Basis**	**DRY Weight Basis**	**DRY Weight Basis**
Parameters	Units	SAP MDLs (@ 50% TS)	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**
OR SW846 3550B*SW846 8082A							
Aroclor 1016	ug/Kg	2.6	5.1	5.1	27	34	1.1
Aroclor 1221	ug/Kg	6.6	4.2	3.4	3.9	4.6	2.2
Aroclor 1232	ug/Kg	6.6	4.2	3.4	58	71	2.2
Aroclor 1242	ug/Kg	2.6	2.1	1.7	52	66	1.1
Aroclor 1248	ug/Kg	2.6	2.1	1.7	1.9	2.3	1.1
Aroclor 1254	ug/Kg	2.6	2.1	1.7	1.9	2.3	1.1
Aroclor 1260	ug/Kg	2.6	2.1	1.7	1.9	2.3	1.1
* Not converted to dry weight basis							

King County Environmental Lab
Denny Way SAP MDL Comparison Report

Exceeds SAP MDL

		Project:	423368-80	423368-80	423368-80	423368-80	423368-80
		Locator:	DWMP-11	DWMP-12	DWMP-13	DWMP-14	DWMP-15
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sample:	L47904-11	L47904-12	L47904-13	L47904-14	L47904-15
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		ColDate:	5/6/09 8:42	5/6/09 8:27	5/4/09 15:00	5/4/09 14:20	5/4/09 15:35
		TotalSolid:	52.2	27.3	72	50.4	58.4
			DRY Weight Basis	DRY Weight Basis	DRY Weight Basis	DRY Weight Basis	DRY Weight Basis
Parameters	Units	SAP MDLs (@ 50% TS)	MDL	MDL	MDL	MDL	MDL
CV ASTM D422							
Fines*	%	0.5	0.89	1.8	0.66	0.99	0.82
Gravel*	%	0.1	0.18	0.36	0.13	0.2	0.16
Sand*	%	0.1	0.18	0.36	0.13	0.2	0.16
Silt*	%	0.5	0.89	1.8	0.66	0.99	0.82
Clay*	%	0.5	0.89	1.8	0.66	0.99	0.82
p+0.00*	%	0.1	0.18	0.36	0.13	0.2	0.16
p+1.00*	%	0.1	0.18	0.36	0.13	0.2	0.16
p+10.0(equal/more than)*	%	0.5	0.89	1.8	0.66	0.99	0.82
p+2.00*	%	0.1	0.18	0.36	0.13	0.2	0.16
p+3.00*	%	0.1	0.18	0.36	0.13	0.2	0.16
p+4.00*	%	0.1	0.18	0.36	0.13	0.2	0.16
p+5.00*	%	0.5	0.89	1.8	0.66	0.99	0.82
p+6.00*	%	0.5	0.89	1.8	0.66	0.99	0.82
p+7.00*	%	0.5	0.89	1.8	0.66	0.99	0.82
p+8.00*	%	0.5	0.89	1.8	0.66	0.99	0.82
p+9.00*	%	0.5	0.89	1.8	0.66	0.99	0.82
p-1.00*	%	0.1	0.18	0.36	0.13	0.2	0.16
p-2.00*	%	0.1	0.18	0.36	0.13	0.2	0.16
p-2.00(less than)*	%	0.1	0.18	0.36	0.13	0.2	0.16
CV EPA 9030B/SM4500-S2-D							
Total Sulfide	mg/Kg	1.0	0.94	8.8	3.3	0.97	0.86
CV SW846 9060-PSEP96							
Total Organic Carbon	mg/Kg	1000	2100	2900	1900	2800	1700
CV SM2540-G							
Total Solids*	%	0.005	0.005	0.005	0.005	0.005	0.005
CV SM4500-NH3-G KCL							
Ammonia Nitrogen	mg/Kg	0.2	0.19	0.37	0.68	0.97	0.17
MT SW846 7471B							
Mercury, Total, CVAA	mg/Kg	0.01	0.0096	0.018	0.0069	0.0099	0.0084
MT SW846 3050B*SW846 6010C							
Arsenic, Total, ICP	mg/Kg	2.5	2.3	4.4	1.7	2.4	2.1
Cadmium, Total, ICP	mg/Kg	0.20	0.19	0.37	0.14	0.2	0.17
Chromium, Total, ICP	mg/Kg	0.30	0.29	0.55	0.21	0.3	0.26
Copper, Total, ICP	mg/Kg	0.40	0.38	0.73	0.28	0.4	0.34
Lead, Total, ICP	mg/Kg	2.0	1.9	3.7	1.4	2	1.7
Silver, Total, ICP	mg/Kg	0.40	0.38	0.73	0.28	0.4	0.34
Zinc, Total, ICP	mg/Kg	0.50	0.48	0.92	0.35	0.5	0.43
OR EPA 3550B/8270C (7-3-01-004)							
1,2,4-Trichlorobenzene	ug/Kg	0.54	0.19	0.37	0.14	0.2	0.17
1,2-Dichlorobenzene	ug/Kg	0.54	0.38	0.73	0.28	0.4	0.34
1,4-Dichlorobenzene	ug/Kg	0.54	0.38	0.73	0.28	0.4	0.34
2,4-Dimethylphenol	ug/Kg	5.4	1.9	3.7	1.4	2	1.7

King County Environmental Lab
Denny Way SAP MDL Comparison Report

Exceeds SAP MDL

		Project:	423368-80	423368-80	423368-80	423368-80	423368-80
		Locator:	DWMP-11	DWMP-12	DWMP-13	DWMP-14	DWMP-15
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sample:	L47904-11	L47904-12	L47904-13	L47904-14	L47904-15
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		ColDate:	5/6/09 8:42	5/6/09 8:27	5/4/09 15:00	5/4/09 14:20	5/4/09 15:35
		TotalSolid:	52.2	27.3	72	50.4	58.4
			DRY Weight Basis	DRY Weight Basis	DRY Weight Basis	DRY Weight Basis	DRY Weight Basis
Parameters	Units	SAP MDLs (@ 50% TS)	MDL	MDL	MDL	MDL	MDL
2-Methylnaphthalene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
2-Methylphenol	ug/Kg	11	3.8	7.3	2.8	4	3.4
4-Methylphenol	ug/Kg	11	7.7	15	5.6	7.9	6.8
Acenaphthene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Acenaphthylene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Anthracene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Benzo(a)anthracene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Benzo(a)pyrene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Benzo(b)fluoranthene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Benzo(g,h,i)perylene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Benzo(k)fluoranthene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Benzoic Acid	ug/Kg	26	19	37	14	20	17
Benzyl Alcohol	ug/Kg	11	3.8	7.3	2.8	4	3.4
Benzyl Butyl Phthalate	ug/Kg	11	1.9	3.7	1.4	2	1.7
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	7.7	15	5.6	7.9	6.8
Caffeine	ug/Kg	8	7.7	15	5.6	7.9	6.8
Carbazole	ug/Kg	4	3.8	7.3	2.8	4	3.4
Chrysene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Coprostanol	ug/Kg	110	77	150	56	79	68
Di-N-Butyl Phthalate	ug/Kg	11	7.7	15	5.6	7.9	6.8
Di-N-Octyl Phthalate	ug/Kg	11	7.7	15	5.6	7.9	6.8
Dibenzo(a,h)anthracene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Dibenzofuran	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Diethyl Phthalate	ug/Kg	11	7.7	15	5.6	7.9	6.8
Dimethyl Phthalate	ug/Kg	11	7.7	15	5.6	7.9	6.8
Fluoranthene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Fluorene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Hexachlorobenzene	ug/Kg	1.1	0.19	0.37	0.14	0.2	0.17
Hexachlorobutadiene	ug/Kg	2.6	0.96	1.8	0.69	0.99	0.86
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
N-Nitrosodiphenylamine	ug/Kg	11	7.7	15	5.6	7.9	6.8
Naphthalene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Pentachlorophenol	ug/Kg	26	19	37	14	20	17
Phenanthrene	ug/Kg	5.4	3.8	7.3	2.8	4	3.4
Phenol	ug/Kg	11	7.7	15	5.6	7.9	6.8
Pyrene	ug/Kg	11	3.8	7.3	2.8	4	3.4
Total 4-Nonylphenol	ug/Kg	10	9.6	18	6.9	9.9	8.6
Total HPAHS	ug/Kg	NA	3.8	7.3	2.8	4	3.4
Total LPAHs	ug/Kg	NA	3.8	7.3	2.8	4	3.4
OR SW846 3550B*SW846 8081B							
4,4'-DDD	ug/Kg	2	1.9	3.7	1.4	2	1.7
4,4'-DDE	ug/Kg	2	1.9	3.7	1.4	2	1.7
4,4'-DDT	ug/Kg	2	1.9	3.7	1.4	2	1.7

King County Environmental Lab
Denny Way SAP MDL Comparison Report

Exceeds SAP MDL

		Project:	423368-80	423368-80	423368-80	423368-80	423368-80
		Locator:	DWMP-11	DWMP-12	DWMP-13	DWMP-14	DWMP-15
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sample:	L47904-11	L47904-12	L47904-13	L47904-14	L47904-15
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		ColDate:	5/6/09 8:42	5/6/09 8:27	5/4/09 15:00	5/4/09 14:20	5/4/09 15:35
		TotalSolid:	52.2	27.3	72	50.4	58.4
			DRY Weight Basis	**DRY Weight Basis**	**DRY Weight Basis**	**DRY Weight Basis**	**DRY Weight Basis**
Parameters	Units	SAP MDLs (@ 50% TS)	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**
OR SW846 3550B*SW846 8082A							
Aroclor 1016	ug/Kg	2.6	17	13	5.1	38	38
Aroclor 1221	ug/Kg	6.6	3.8	7.3	2.8	7.9	3.4
Aroclor 1232	ug/Kg	6.6	40	33	11	65	50
Aroclor 1242	ug/Kg	2.6	34	28	1.4	91	55
Aroclor 1248	ug/Kg	2.6	1.9	3.7	1.4	4	1.7
Aroclor 1254	ug/Kg	2.6	1.9	3.7	1.4	4	1.7
Aroclor 1260	ug/Kg	2.6	1.9	3.7	1.4	4	1.7
* Not converted to dry weight basis							

King County Environmental Lab
Denny Way SAP MDL Comparison Report

Exceeds SAP MDL

		Project:	423368-80	423368-80
		Locator:	DWMP-16	DWMP-08
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sample:	L47904-16	L47904-17
		Matrix:	SF SALTWTRSED	SF SALTWTRSED
		ColDate:	5/4/09 16:17	5/4/09 13:35
		TotalSolid:	54.8	50.2
			DRY Weight Basis	**DRY Weight Basis**
Parameters	Units	SAP MDLs (@ 50% TS)	**MDL**	**MDL**
CV ASTM D422				
Fines*	%	0.5	0.9	0.94
Gravel*	%	0.1	0.18	0.19
Sand*	%	0.1	0.18	0.19
Silt*	%	0.5	0.9	0.94
Clay*	%	0.5	0.9	0.94
p+0.00*	%	0.1	0.18	0.19
p+1.00*	%	0.1	0.18	0.19
p+10.0(equal/more than)*	%	0.5	0.9	0.94
p+2.00*	%	0.1	0.18	0.19
p+3.00*	%	0.1	0.18	0.19
p+4.00*	%	0.1	0.18	0.19
p+5.00*	%	0.5	0.9	0.94
p+6.00*	%	0.5	0.9	0.94
p+7.00*	%	0.5	0.9	0.94
p+8.00*	%	0.5	0.9	0.94
p+9.00*	%	0.5	0.9	0.94
p-1.00*	%	0.1	0.18	0.19
p-2.00*	%	0.1	0.18	0.19
p-2.00(less than)*	%	0.1	0.18	0.19
CV EPA 9030B/SM4500-S2-D				
Total Sulfide	mg/Kg	1.0	0.89	1
CV SW846 9060-PSEP96				
Total Organic Carbon	mg/Kg	1000	1700	2400
CV SM2540-G				
Total Solids*	%	0.005	0.005	0.005
CV SM4500-NH3-G KCL				
Ammonia Nitrogen	mg/Kg	0.2	0.18	0.98
MT SW846 7471B				
Mercury, Total, CVAA	mg/Kg	0.01	0.0091	0.0098
MT SW846 3050B*SW846 6010C				
Arsenic, Total, ICP	mg/Kg	2.5	2.2	2.4
Cadmium, Total, ICP	mg/Kg	0.20	0.18	0.2
Chromium, Total, ICP	mg/Kg	0.30	0.27	0.3
Copper, Total, ICP	mg/Kg	0.40	0.36	0.4
Lead, Total, ICP	mg/Kg	2.0	1.8	2
Silver, Total, ICP	mg/Kg	0.40	0.36	0.4
Zinc, Total, ICP	mg/Kg	0.50	0.46	0.5
OR EPA 3550B/8270C (7-3-01-004)				
1,2,4-Trichlorobenzene	ug/Kg	0.54	0.18	0.2
1,2-Dichlorobenzene	ug/Kg	0.54	0.36	0.4
1,4-Dichlorobenzene	ug/Kg	0.54	0.36	0.4
2,4-Dimethylphenol	ug/Kg	5.4	1.8	2

King County Environmental Lab
Denny Way SAP MDL Comparison Report

Exceeds SAP MDL

		Project:	423368-80	423368-80
		Locator:	DWMP-16	DWMP-08
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sample:	L47904-16	L47904-17
		Matrix:	SF SALTWTRSED	SF SALTWTRSED
		ColDate:	5/4/09 16:17	5/4/09 13:35
		TotalSolid:	54.8	50.2
			DRY Weight Basis	**DRY Weight Basis**
Parameters	Units	SAP MDLs (@ 50% TS)	**MDL**	**MDL**
2-Methylnaphthalene	ug/Kg	5.4	3.6	4
2-Methylphenol	ug/Kg	11	3.6	4
4-Methylphenol	ug/Kg	11	7.3	8
Acenaphthene	ug/Kg	5.4	3.6	4
Acenaphthylene	ug/Kg	5.4	3.6	4
Anthracene	ug/Kg	5.4	3.6	4
Benzo(a)anthracene	ug/Kg	5.4	3.6	4
Benzo(a)pyrene	ug/Kg	5.4	3.6	4
Benzo(b)fluoranthene	ug/Kg	5.4	3.6	4
Benzo(g,h,i)perylene	ug/Kg	5.4	3.6	4
Benzo(k)fluoranthene	ug/Kg	5.4	3.6	4
Benzoic Acid	ug/Kg	26	18	20
Benzyl Alcohol	ug/Kg	11	3.6	4
Benzyl Butyl Phthalate	ug/Kg	11	1.8	2
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	7.3	8
Caffeine	ug/Kg	8	7.3	8
Carbazole	ug/Kg	4	3.6	4
Chrysene	ug/Kg	5.4	3.6	4
Coprostanol	ug/Kg	110	73	80
Di-N-Butyl Phthalate	ug/Kg	11	7.3	8
Di-N-Octyl Phthalate	ug/Kg	11	7.3	8
Dibenzo(a,h)anthracene	ug/Kg	5.4	3.6	4
Dibenzofuran	ug/Kg	5.4	3.6	4
Diethyl Phthalate	ug/Kg	11	7.3	8
Dimethyl Phthalate	ug/Kg	11	7.3	8
Fluoranthene	ug/Kg	5.4	3.6	4
Fluorene	ug/Kg	5.4	3.6	4
Hexachlorobenzene	ug/Kg	1.1	0.18	0.2
Hexachlorobutadiene	ug/Kg	2.6	0.91	1
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	3.6	4
N-Nitrosodiphenylamine	ug/Kg	11	7.3	8
Naphthalene	ug/Kg	5.4	3.6	4
Pentachlorophenol	ug/Kg	26	18	20
Phenanthrene	ug/Kg	5.4	3.6	4
Phenol	ug/Kg	11	7.3	8
Pyrene	ug/Kg	11	3.6	4
Total 4-Nonylphenol	ug/Kg	10	9.1	10
Total HPAHS	ug/Kg	NA	3.6	4
Total LPAHs	ug/Kg	NA	3.6	4
OR SW846 3550B*SW846 8081B				
4,4'-DDD	ug/Kg	2	1.8	2
4,4'-DDE	ug/Kg	2	1.8	2
4,4'-DDT	ug/Kg	2	1.8	2

King County Environmental Lab
Denny Way SAP MDL Comparison Report

Exceeds SAP MDL

		Project:	423368-80	423368-80
		Locator:	DWMP-16	DWMP-08
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sample:	L47904-16	L47904-17
		Matrix:	SF SALTWTRSED	SF SALTWTRSED
		ColDate:	5/4/09 16:17	5/4/09 13:35
		TotalSolid:	54.8	50.2
			DRY Weight Basis	**DRY Weight Basis**
Parameters	Units	SAP MDLs (@ 50% TS)	**MDL**	**MDL**
OR SW846 3550B*SW846 8082A				
Aroclor 1016	ug/Kg	2.6	13	66
Aroclor 1221	ug/Kg	6.6	3.6	8
Aroclor 1232	ug/Kg	6.6	26	140
Aroclor 1242	ug/Kg	2.6	29	140
Aroclor 1248	ug/Kg	2.6	1.8	4
Aroclor 1254	ug/Kg	2.6	1.8	4
Aroclor 1260	ug/Kg	2.6	1.8	4
* Not converted to dry weight basis				

CONVENTIONAL ANALYSES QC DATA

WG102657 Ammonia Nitrogen

Sample	Project	Project Descriptio	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L47904-1	423368-80	Denny Way Sediment, Post Construction Monitoring	CVNH3-KCL	SALTWTRSED	5/4/2009 9:40	5/26/2009 9:30	5/27/2009 11:44	WG102657-1, -2, -3, -4, -5, -6	
L47904-2	423368-80		CVNH3-KCL	SALTWTRSED	5/6/2009 9:56	5/26/2009 9:30	5/27/2009 11:46		
L47904-3	423368-80		CVNH3-KCL	SALTWTRSED	5/4/2009 9:10	5/26/2009 9:30	5/27/2009 12:59		
L47904-4	423368-80		CVNH3-KCL	SALTWTRSED	5/6/2009 9:37	5/26/2009 9:30	5/27/2009 11:50		
L47904-5	423368-80		CVNH3-KCL	SALTWTRSED	5/4/2009 10:12	5/26/2009 9:30	5/27/2009 11:52		
L47904-6	423368-80		CVNH3-KCL	SALTWTRSED	5/6/2009 9:02	5/26/2009 9:30	5/27/2009 11:54		
L47904-7	423368-80		CVNH3-KCL	SALTWTRSED	5/6/2009 9:20	5/26/2009 9:30	5/27/2009 12:13		
L47904-8	423368-80		CVNH3-KCL	SALTWTRSED	5/4/2009 13:00	5/26/2009 9:30	5/27/2009 12:15		
L47904-9	423368-80		CVNH3-KCL	SALTWTRSED	5/4/2009 13:55	5/26/2009 9:30	5/27/2009 11:56		
L47904-10	423368-80		CVNH3-KCL	SALTWTRSED	5/4/2009 11:20	5/26/2009 9:30	5/27/2009 13:01		
L47904-11	423368-80		CVNH3-KCL	SALTWTRSED	5/6/2009 8:42	5/26/2009 9:30	5/27/2009 12:19		
L47904-12	423368-80		CVNH3-KCL	SALTWTRSED	5/6/2009 8:27	5/26/2009 9:30	5/27/2009 12:21		
L47904-13	423368-80		CVNH3-KCL	SALTWTRSED	5/4/2009 15:00	5/26/2009 9:30	5/27/2009 12:23		
L47904-14	423368-80		CVNH3-KCL	SALTWTRSED	5/4/2009 14:20	5/26/2009 9:30	5/27/2009 12:25		
L47904-15	423368-80		CVNH3-KCL	SALTWTRSED	5/4/2009 15:35	5/26/2009 9:30	5/27/2009 12:27		
L47904-16	423368-80		CVNH3-KCL	SALTWTRSED	5/4/2009 16:17	5/26/2009 9:30	5/27/2009 12:29		
L47904-17	423368-80		CVNH3-KCL	SALTWTRSED	5/4/2009 13:35	5/26/2009 9:30	5/27/2009 12:31		
WG102657-1	MB		CVNH3-KCL	OTHR SOLID		5/26/2009 9:30	5/27/2009 10:51		MB1 05/26/09
WG102657-2	SB		CVNH3-KCL	OTHR SOLID		5/26/2009 9:30	5/27/2009 10:54		WG102657-1
WG102657-3	LCS		CVNH3-KCL	OTHR SOLID		5/27/2009 10:58	5/27/2009 10:58		LEVEL1
WG102657-4	LD		CVNH3-KCL	SALTWTRSED		5/26/2009 9:30	5/27/2009 11:58		L47904-9
WG102657-5	LT		CVNH3-KCL	SALTWTRSED		5/26/2009 9:30	5/27/2009 12:00		WG102657-4 L47904-9
WG102657-6	MS		CVNH3-KCL	SALTWTRSED		5/26/2009 9:30	5/27/2009 12:02		L47904-9

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

Workgroup: WG102657 Ammonia Nitrogen

MB:WG102657-1 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G KCL Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Ammonia Nitrogen	0.1	0.2	mg/Kg	<MDL	

SB:WG102657-2 MB:WG102657-1 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G KCL Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Ammonia Nitrogen	0.1	0.2	mg/Kg	<MDL	1	1.1	110		80--120

LCS:WG102657-3 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G KCL Project: NONE
(Lab Control Sample)

Parameter	MDL	RDL	Units	True Value	LCS Value	% Rec.	Qual	Lab Limit
Ammonia Nitrogen	0.1	0.2	mg/Kg	1	1.08	108		80--120

LT:WG102657-5 LD:WG102657-4 L47904-9 Matrix: SALTWTRSED Listtype: CVNH3-KCL Method: SM4500-NH3-G KCL Project: 423368-80
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	Samp Value	LD Value	LT Value	RSD	Qual	Lab Limit
Ammonia Nitrogen	0.1	0.2	mg/Kg	0.916	0.931	0.926	1		20

MS:WG102657-6 L47904-9 Matrix: SALTWTRSED Listtype: CVNH3-KCL Method: SM4500-NH3-G KCL Project: 423368-80
(Matrix Spike)

Parameter	MDL	RDL	Units	Samp Value	True Value	MS Value	% Rec.	Qual	Lab Limit
Ammonia Nitrogen	0.099	0.198	mg/Kg	0.916	0.9936	2.07	116		75--125

WG103041 Particle Size Distribution

Sample	Project	Project Descriptio	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L47904-1	423368-80	Denny Way Sediment, Post Construction Monitoring	CVPSD	SALTWTRSED	5/4/2009 9:40	6/29/2009 0:00	6/30/2009 0:00	WG103041-1, -2	
L47904-2	423368-80		CVPSD	SALTWTRSED	5/6/2009 9:56	6/22/2009 0:00	6/23/2009 0:00		
L47904-3	423368-80		CVPSD	SALTWTRSED	5/4/2009 9:10	6/22/2009 0:00	6/23/2009 0:00		
L47904-4	423368-80		CVPSD	SALTWTRSED	5/6/2009 9:37	6/22/2009 0:00	6/23/2009 0:00		
L47904-5	423368-80		CVPSD	SALTWTRSED	5/4/2009 10:12	6/22/2009 0:00	6/23/2009 0:00		
L47904-6	423368-80		CVPSD	SALTWTRSED	5/6/2009 9:02	6/22/2009 0:00	6/23/2009 0:00		
L47904-7	423368-80		CVPSD	SALTWTRSED	5/6/2009 9:20	6/22/2009 0:00	6/23/2009 0:00		
L47904-8	423368-80		CVPSD	SALTWTRSED	5/4/2009 13:00	6/22/2009 0:00	6/23/2009 0:00		
L47904-9	423368-80		CVPSD	SALTWTRSED	5/4/2009 13:55	6/29/2009 0:00	6/30/2009 0:00		
L47904-10	423368-80		CVPSD	SALTWTRSED	5/4/2009 11:20	6/29/2009 0:00	6/30/2009 0:00		
L47904-11	423368-80		CVPSD	SALTWTRSED	5/6/2009 8:42	6/29/2009 0:00	6/30/2009 0:00		
L47904-12	423368-80		CVPSD	SALTWTRSED	5/6/2009 8:27	6/29/2009 0:00	6/30/2009 0:00		
L47904-13	423368-80		CVPSD	SALTWTRSED	5/4/2009 15:00	6/29/2009 0:00	6/30/2009 0:00		
L47904-14	423368-80		CVPSD	SALTWTRSED	5/4/2009 14:20	6/29/2009 0:00	6/30/2009 0:00		
L47904-15	423368-80		CVPSD	SALTWTRSED	5/4/2009 15:35	6/29/2009 0:00	6/30/2009 0:00		
L47904-16	423368-80		CVPSD	SALTWTRSED	5/4/2009 16:17	7/13/2009 0:00	7/14/2009 0:00		
L47904-17	423368-80		CVPSD	SALTWTRSED	5/4/2009 13:35	6/29/2009 0:00	6/30/2009 0:00		
WG103041-1	LD		CVPSD	SALTWTRSED		6/22/2009 0:00	6/23/2009 0:00		L47904-3
WG103041-2	LT		CVPSD	SALTWTRSED		6/22/2009 0:00	6/23/2009 0:00		WG103041-1 L47904-3

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

Workgroup: WG103041 Particle Size Distribution

LT:WG103041-2 LD:WG103041-1 L47904-3 Matrix: SALTWTRSED Listtype: CVPSD Method: ASTM D422 Project: 423368-80
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	Samp Value	LD Value	LT Value	RSD	Qual	Lab Limit
Clay	1	2.04	%	13.5	15.8	14.3	8		20
Gravel	0.2	2.04	%	1.6	0.6	1.8			20
Sand	0.2	2.04	%	33.9	36.3	36	4		20
Silt	1	2.04	%	42.7	41.6	42.9	2		20

WG103559 Total Organic Carbon

Sample	Project	Project Descriptio	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L47904-1	423368-80	Denny Way Sediment, Post Construction Monitoring	CVTOC	SALTWTRSED	5/4/2009 9:40	7/20/2009 15:30	7/28/2009 11:51	WG103559-1, -2, -3, -4, -5, -6	
L47904-2	423368-80		CVTOC	SALTWTRSED	5/6/2009 9:56	7/20/2009 15:30	7/28/2009 12:15		
L47904-3	423368-80		CVTOC	SALTWTRSED	5/4/2009 9:10	7/20/2009 15:30	7/28/2009 13:44		
L47904-4	423368-80		CVTOC	SALTWTRSED	5/6/2009 9:37	7/20/2009 15:30	7/28/2009 14:37		
L47904-5	423368-80		CVTOC	SALTWTRSED	5/4/2009 10:12	7/20/2009 15:30	7/28/2009 14:58		
L47904-6	423368-80		CVTOC	SALTWTRSED	5/6/2009 9:02	7/20/2009 15:30	7/28/2009 15:22		
L47904-7	423368-80		CVTOC	SALTWTRSED	5/6/2009 9:20	7/20/2009 15:30	7/28/2009 15:47		
L47904-8	423368-80		CVTOC	SALTWTRSED	5/4/2009 13:00	7/20/2009 15:30	7/29/2009 9:50		
L47904-9	423368-80		CVTOC	SALTWTRSED	5/4/2009 13:55	7/20/2009 15:30	7/29/2009 10:11		
L47904-10	423368-80		CVTOC	SALTWTRSED	5/4/2009 11:20	7/20/2009 15:30	7/29/2009 10:40		
L47904-11	423368-80		CVTOC	SALTWTRSED	5/6/2009 8:42	7/20/2009 15:30	7/29/2009 11:14		
L47904-12	423368-80		CVTOC	SALTWTRSED	5/6/2009 8:27	7/20/2009 15:30	7/29/2009 11:37		
L47904-13	423368-80		CVTOC	SALTWTRSED	5/4/2009 15:00	7/20/2009 15:30	7/29/2009 11:58		
L47904-14	423368-80		CVTOC	SALTWTRSED	5/4/2009 14:20	7/20/2009 15:30	7/29/2009 12:23		
L47904-15	423368-80		CVTOC	SALTWTRSED	5/4/2009 15:35	7/20/2009 15:30	7/29/2009 12:46		
L47904-16	423368-80		CVTOC	SALTWTRSED	5/4/2009 16:17	7/20/2009 15:30	7/29/2009 13:08		
L47904-17	423368-80		CVTOC	SALTWTRSED	5/4/2009 13:35	7/20/2009 15:30	7/29/2009 13:32		
WG103559-1	MB		CVTOC	OTHR SOLID		7/28/2009 10:55	7/28/2009 10:55		MB1 07/20/09 15:30
WG103559-2	SRM		CVTOC	OTHR SOLID		7/28/2009 11:11	7/28/2009 11:11		HICONC
WG103559-3	SB		CVTOC	OTHR SOLID		7/28/2009 11:31	7/28/2009 11:31		WG103559-1
WG103559-4	LD		CVTOC	SALTWTRSED		7/20/2009 15:30	7/28/2009 12:36		L47904-2
WG103559-5	LT		CVTOC	SALTWTRSED		7/20/2009 15:30	7/28/2009 12:58		WG103559-4 L47904-2
WG103559-6	MS		CVTOC	SALTWTRSED		7/20/2009 15:30	7/28/2009 13:19		L47904-2

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

Workgroup: WG103559 Total Organic Carbon

MB:WG103559-1 Matrix: OTHR SOLID Listtype: CVTOC Method: SW846 9060-PSEP96 Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

SRM:WG103559-2 Matrix: OTHR SOLID Listtype: CVTOC Method: SW846 9060-PSEP96 Project: NONE
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
Total Organic Carbon	1600	3130	mg/Kg	21900	19200	88		80--120

SB:WG103559-3 MB:WG103559-1 Matrix: OTHR SOLID Listtype: CVTOC Method: SW846 9060-PSEP96 Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Total Organic Carbon	500	1000	mg/Kg	<MDL	2500	2240	90		80--120

LT:WG103559-5 LD:WG103559-4 L47904-2 Matrix: SALTWTRSED Listtype: CVTOC Method: SW846 9060-PSEP96 Project: 423368-80
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	Samp Value	LD Value	LT Value	RSD	Qual	Lab Limit
Total Organic Carbon	1200	2320	mg/Kg	6770	5670	6850	10		20

MS:WG103559-6 L47904-2 Matrix: SALTWTRSED Listtype: CVTOC Method: SW846 9060-PSEP96 Project: 423368-80
(Matrix Spike)

Parameter	MDL	RDL	Units	Samp Value	True Value	MS Value	% Rec.	Qual	Lab Limit
Total Organic Carbon	1100	2200	mg/Kg	6770	5510	11700	89		75--125

Conventionals Data Anomaly Form

Date(s) Occurred: *07/20/09*

WG #(s): *WG103559*

☐ **All samples in WKGP(s)** **or** ☒ **Sample #(s):** *L47904-8*

Project #(s): *423368-80*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis

☐ Anions:
☐ Chlorophylls:
☐ Cyanides:
☒ Demands: *Total Organic Carbon (TOC)*
☐ Nutrients:
☐ Physicals:
☐ Solids:
☐ Subcontract:
☐ Other:

II. Instrument

Analytical Balance:	☐ Mettler Toledo XP205	☐ Ohaus Voyager Pro
	☐ Mettler Toledo AT201	
Autoanalyzer:	☐ Astoria2+2 (freshwater system)	☐ Astoria2+2 (saltwater system)
	☐ Astoria2 (total nutrients system)	☐ Astoria2 (cyanide system)
Autotitrator:	☐ Brinkmann Tiamo 855 Autotitrator with integrated 712 Conductometer	
Dissolved Oxygen:	☐ YSI 5100	☐ Brinkmann Bottletop Buret 25
Fluorometer:	☐ Turner 10-AU	
Ion Chromatography:	☐ Dionex 120	
pH Probe:	☐ Metrohm 736GP	☐ Accument XL60
Salinometer:	☐ Portosal 8410A	
Spectrophotometer:	☐ Hitachi U3000 UV/VIS	☐ Hitachi U3000 UV/VIS
	☐ Hach DR 890	
TOC Analyzer:	☐ OI 1020A	☒ OI TOC Analyzer
Turbidimeter:	☐ Hach 2100AN	
Other:	☐ Description:	

III. Type of Sample/Analytical Anomaly

☐ Values Outside of Control Limits:

1 ☐ Initial Calibration
2 ☐ Continuing Calibration Checks
3 ☐ SB Spike Recoveries
4 ☐ MB Anomaly
5 ☐ LCS/SRM Recoveries
6 ☐ Sample/LD/LT RSD
7 ☐ MS RPD
8 ☐ Sample/LD RPD
9 ☐ MS Spike Recoveries

10 ☐ Holding time exceeded by:
11 ☐ Insufficient sample amount.
12 ☐ Inappropriate storage, container or preservation.
☒ Other

Anomaly Description: *The 4 oz glass TOC container for sample L47904-8 cracked during freezer storage (-20 degree Celsius).*

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

☐ Sample(s) re-analyzed
☐ Sample(s) re-prepared and re-analyzed
☐ Sample(s) reported "AS IS"
☒ Data qualified with the following flags: *"SH"*
☐ Text added: *"Sample container cracked during freezer storage."*
☐ Other

Corrective Action Description: *The occurrence was documented. The contents of sample L47904-8 was transferred into a new 16 oz glass jar, and the sample was prepared for TOC analysis as normal. The TOC data was qualified with an 'SH' qualifier to indicate that standard sample handling criteria were not met. In addition, the following text has been added to the textfield, "Sample container cracked during freezer storage."*

VI. Potential Effects on Data Quality

Based upon the expected performance of this method:

☐ None; corrective action entirely corrected anomaly (explanation optional):

☒ Potential effect explanation (explanation mandatory): *The crack in the container for sample L47904-8 could have caused a potential bias in the TOC data. However the amount of bias in*

the TOC data would most likely be negligible compared to the concentration of TOC present for sample L47904-8.

	Signatures	Signature Dates
Reported By: *Duc Nguyen*	_____	_____
Reviewer: *Debbie Osada*	_____	_____
Supervisor: *Brian Prosch*	_____	_____
QA Officer: *Colin Elliott* **(For QA1 only)**	_____	_____
cc: LPM: *Fritz Grothkopp*		

WG103558 Total Solids

Sample	Project	Project Descriptio	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L47904-1	423368-80	Denny Way Sediment, Post Construction Monitoring	CVTOTS	SALTWTRSED	5/4/2009 9:40	7/20/2009 13:24	7/21/2009 13:32	WG103558-1, -2, -3, -4, -5, -6	
L47904-2	423368-80		CVTOTS	SALTWTRSED	5/6/2009 9:56	7/20/2009 13:24	7/21/2009 13:32		
L47904-3	423368-80		CVTOTS	SALTWTRSED	5/4/2009 9:10	7/20/2009 13:24	7/21/2009 13:32		
L47904-4	423368-80		CVTOTS	SALTWTRSED	5/6/2009 9:37	7/20/2009 13:24	7/21/2009 13:33		
L47904-5	423368-80		CVTOTS	SALTWTRSED	5/4/2009 10:12	7/20/2009 13:24	7/21/2009 13:35		
L47904-6	423368-80		CVTOTS	SALTWTRSED	5/6/2009 9:02	7/20/2009 13:24	7/21/2009 13:35		
L47904-7	423368-80		CVTOTS	SALTWTRSED	5/6/2009 9:20	7/20/2009 13:24	7/21/2009 13:36		
L47904-8	423368-80		CVTOTS	SALTWTRSED	5/4/2009 13:00	7/20/2009 13:24	7/21/2009 13:36		
L47904-9	423368-80		CVTOTS	SALTWTRSED	5/4/2009 13:55	7/20/2009 13:24	7/21/2009 13:37		
L47904-10	423368-80		CVTOTS	SALTWTRSED	5/4/2009 11:20	7/20/2009 13:24	7/21/2009 13:37		
L47904-11	423368-80		CVTOTS	SALTWTRSED	5/6/2009 8:42	7/20/2009 13:24	7/21/2009 13:37		
L47904-12	423368-80		CVTOTS	SALTWTRSED	5/6/2009 8:27	7/20/2009 13:24	7/21/2009 13:38		
L47904-13	423368-80		CVTOTS	SALTWTRSED	5/4/2009 15:00	7/20/2009 13:24	7/21/2009 13:38		
L47904-14	423368-80		CVTOTS	SALTWTRSED	5/4/2009 14:20	7/20/2009 13:24	7/21/2009 13:39		
L47904-15	423368-80		CVTOTS	SALTWTRSED	5/4/2009 15:35	7/20/2009 13:24	7/21/2009 13:39		
L47904-16	423368-80		CVTOTS	SALTWTRSED	5/4/2009 16:17	7/20/2009 13:24	7/21/2009 13:40		
L47904-17	423368-80		CVTOTS	SALTWTRSED	5/4/2009 13:35	7/20/2009 13:24	7/21/2009 13:40		
L48440-1	421250U	AMBIENT SUBTIDAL SEDS.	CVTOTS	SALTWTRSED	6/29/2009 13:00	7/20/2009 13:24	7/21/2009 13:44		
L48440-2	421250U		CVTOTS	SALTWTRSED	6/29/2009 12:45	7/20/2009 13:24	7/21/2009 13:44		
L48440-3	421250U		CVTOTS	SALTWTRSED	6/29/2009 9:51	7/20/2009 13:24	7/21/2009 13:44		
L48440-4	421250U		CVTOTS	SALTWTRSED	6/29/2009 10:20	7/20/2009 13:24	7/21/2009 13:45		
L48440-5	421250U		CVTOTS	SALTWTRSED	6/29/2009 11:25	7/20/2009 13:24	7/21/2009 13:45		
L48440-6	421250U		CVTOTS	SALTWTRSED	6/29/2009 11:07	7/20/2009 13:24	7/21/2009 13:46		
L48440-7	421250U		CVTOTS	SALTWTRSED	6/29/2009 11:45	7/20/2009 13:24	7/21/2009 13:47		
L48440-8	421250U		CVTOTS	SALTWTRSED	6/29/2009 12:07	7/20/2009 13:24	7/21/2009 13:47		
WG103558-1	MB		CVTOTS	OTHR SOLID		7/20/2009 13:24	7/21/2009 13:31		MB1 090720 13:24
WG103558-2	LD		CVTOTS	SALTWTRSED		7/20/2009 13:24	7/21/2009 13:34		L47904-4
WG103558-3	LT		CVTOTS	SALTWTRSED		7/20/2009 13:24	7/21/2009 13:34		WG103558-2 L47904-4
WG103558-4	MB		CVTOTS	OTHR SOLID		7/20/2009 13:24	7/21/2009 13:41		MB2 090720 13:24
WG103558-5	LD		CVTOTS	SALTWTRSED		7/20/2009 13:24	7/21/2009 13:46		L48440-6
WG103558-6	LT		CVTOTS	SALTWTRSED		7/20/2009 13:24	7/21/2009 13:47		WG103558-5 L48440-6

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

Workgroup: WG103558 Total Solids

MB:WG103558-1 Matrix: OTHR SOLID Listtype: CVTOTS Method: SM2540-G Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Solids	0.005	0.01	%	<MDL	

LT:WG103558-3 LD:WG103558-2 L47904-4 Matrix: SALTWTRSED Listtype: CVTOTS Method: SM2540-G Project: 423368-80
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	Samp Value	LD Value	LT Value	RSD	Qual	Lab Limit
Total Solids	0.005	0.01	%	50.9	51.6	51	1		20

MB:WG103558-4 Matrix: OTHR SOLID Listtype: CVTOTS Method: SM2540-G Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Solids	0.005	0.01	%	<MDL	

LT:WG103558-6 LD:WG103558-5 L48440-6 Matrix: SALTWTRSED Listtype: CVTOTS Method: SM2540-G Project: 421250U
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	Samp Value	LD Value	LT Value	RSD	Qual	Lab Limit
Total Solids	0.005	0.01	%	37	37.3	37.5	1		20

Conventionals Data Anomaly Form

Date(s) Occurred: *07/20/09*

WG #(s): *WG103558*

☐ **All samples in WKGP(s)** **or** ☒ **Sample #(s):** *L47904-8*

Project #(s): *423368-80*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis

☐ Anions:
☐ Chlorophylls:
☐ Cyanides:
☐ Demands:
☐ Nutrients:
☐ Physicals:
☐ Solids: *Total Solids (TOTS)*
☐ Subcontract:
☐ Other:

II. Instrument

Analytical Balance:	☒ Mettler Toledo XP205	☐ Ohaus Voyager Pro
	☐ Mettler Toledo AT201	
Autoanalyzer:	☐ Astoria2+2 (freshwater system)	☐ Astoria2+2 (saltwater system)
	☐ Astoria2 (total nutrients system)	☐ Astoria2 (cyanide system)
Autotitrator:	☐ Brinkmann Tiamo 855 Autotitrator with integrated 712 Conductometer	
Dissolved Oxygen:	☐ YSI 5100	☐ Brinkmann Bottletop Buret 25
Fluorometer:	☐ Turner 10-AU	
Ion Chromatography:	☐ Dionex 120	
pH Probe:	☐ Metrohm 736GP	☐ Accument XL60
Salinometer:	☐ Portosal 8410A	
Spectrophotometer:	☐ Hitachi U3000 UV/VIS	☐ Hitachi U3000 UV/VIS
	☐ Hach DR 890	
TOC Analyzer:	☐ OI 1020A	☐ OI TOC Analyzer
Turbidimeter:	☐ Hach 2100AN	
Other:	☐ Description:	

III. Type of Sample/Analytical Anomaly

☐ Values Outside of Control Limits:

1 ☐ Initial Calibration	4 ☐ MB Anomaly	7 ☐ MS RPD
2 ☐ Continuing Calibration Checks	5 ☐ LCS/SRM Recoveries	8 ☐ Sample/LD RPD
3 ☐ SB Spike Recoveries	6 ☐ Sample/LD/LT RSD	9 ☐ MS Spike Recoveries

10 ☐ Holding time exceeded by:
11 ☐ Insufficient sample amount.
12 ☐ Inappropriate storage, container or preservation.
☒ Other

Anomaly Description: *The 4 oz glass TOC container for sample L47904-8 cracked during freezer storage (-20 degree Celsius).*

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

☐ Sample(s) re-analyzed
☐ Sample(s) re-prepared and re-analyzed
☐ Sample(s) reported "AS IS"
☒ Data qualified with the following flags: *"SH"*
☐ Text added: *"Sample container cracked during freezer storage."*
☐ Other

Corrective Action Description: *The occurrence was documented. The contents of sample L47904-8 was transferred into a new 16 oz glass jar, and the sample was prepared for TOTS analysis as normal. The affected TOTS data was qualified with an 'SH' qualifier to indicate that standard sample handling criteria were not met. In addition, the following text has been added to the textfield, "Sample container cracked during freezer storage."*

VI. Potential Effects on Data Quality

Based upon the expected performance of this method:

☐ None; corrective action entirely corrected anomaly (explanation optional):

☒ Potential effect explanation (explanation mandatory): *The crack in the container for sample L47904-8 could have caused a potential bias in the TOTS data. However the amount of bias in*

the TOTS data would most likely be negligible, since the data is comparable with other samples from this project.

	Signatures	Signature Dates
Reported By: *Duc Nguyen*	_____	_____
Reviewer: *Brian Prosch*	_____	_____
Supervisor: *Brian Prosch*	_____	_____
QA Officer: *Colin Elliott* **(For QA1 only)**	_____	_____
cc: LPM: *Fritz Grothkopp*		

WG102107 Total Sulfide

Sample	Project	Project Descriptio	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L47904-1	423368-80	Denny Way Sediment, Post Construction Monitoring	CVTOTSULFIDE	SALTWTRSED	5/4/2009 9:40	5/7/2009 11:00	5/7/2009 13:52	WG102107-1, -2, -3, -4, -5, -8, -9, -6, -7	
L47904-2	423368-80		CVTOTSULFIDE	SALTWTRSED	5/6/2009 9:56	5/8/2009 10:50	5/8/2009 12:58	WG102107-8, -9, -6, -7	
L47904-3	423368-80		CVTOTSULFIDE	SALTWTRSED	5/4/2009 9:10	5/7/2009 11:00	5/7/2009 13:52	WG102107-1, -2, -3, -4, -5, -8, -9, -6, -7	
L47904-4	423368-80		CVTOTSULFIDE	SALTWTRSED	5/6/2009 9:37	5/8/2009 10:50	5/8/2009 12:58	WG102107-8, -9, -6, -7	
L47904-5	423368-80		CVTOTSULFIDE	SALTWTRSED	5/4/2009 10:12	5/7/2009 11:00	5/7/2009 13:52	WG102107-1, -2, -3, -4, -5, -8, -9, -6, -7	
L47904-6	423368-80		CVTOTSULFIDE	SALTWTRSED	5/6/2009 9:02	5/8/2009 10:50	5/8/2009 12:58	WG102107-8, -9, -6, -7	
L47904-7	423368-80		CVTOTSULFIDE	SALTWTRSED	5/6/2009 9:20	5/8/2009 10:50	5/8/2009 12:58		
L47904-8	423368-80		CVTOTSULFIDE	SALTWTRSED	5/4/2009 13:00	5/7/2009 11:00	5/7/2009 13:52	WG102107-1, -2, -3, -4, -5, -8, -9, -6, -7	
L47904-9	423368-80		CVTOTSULFIDE	SALTWTRSED	5/4/2009 13:55	5/7/2009 11:00	5/7/2009 13:52		
L47904-10	423368-80		CVTOTSULFIDE	SALTWTRSED	5/4/2009 11:20	5/7/2009 11:00	5/7/2009 13:52		
L47904-11	423368-80		CVTOTSULFIDE	SALTWTRSED	5/6/2009 8:42	5/8/2009 10:50	5/8/2009 12:58	WG102107-8, -9, -6, -7	
L47904-12	423368-80		CVTOTSULFIDE	SALTWTRSED	5/6/2009 8:27	5/12/2009 11:30	5/12/2009 14:33		
L47904-13	423368-80		CVTOTSULFIDE	SALTWTRSED	5/4/2009 15:00	5/8/2009 10:50	5/8/2009 12:58		
L47904-14	423368-80		CVTOTSULFIDE	SALTWTRSED	5/4/2009 14:20	5/8/2009 10:50	5/8/2009 12:58		
L47904-15	423368-80		CVTOTSULFIDE	SALTWTRSED	5/4/2009 15:35	5/8/2009 10:50	5/8/2009 12:58		
L47904-16	423368-80		CVTOTSULFIDE	SALTWTRSED	5/4/2009 16:17	5/8/2009 10:50	5/8/2009 12:58		
L47904-17	423368-80		CVTOTSULFIDE	SALTWTRSED	5/4/2009 13:35	5/8/2009 10:50	5/8/2009 12:58		
WG102107-1	MB		CVTOTSULFIDE	OTHR SOLID		5/7/2009 11:00	5/7/2009 13:52	WG102107-1, -2, -3, -4, -5, -8, -9, -6, -7	MB1 5/7/09
WG102107-2	SB		CVTOTSULFIDE	OTHR SOLID		5/7/2009 11:00	5/7/2009 13:52		WG102107-1
WG102107-3	LD		CVTOTSULFIDE	SALTWTRSED		5/7/2009 11:00	5/7/2009 13:52		L47904-10
WG102107-4	LT		CVTOTSULFIDE	SALTWTRSED		5/7/2009 11:00	5/7/2009 13:52		WG102107-3 L47904-10
WG102107-5	MS		CVTOTSULFIDE	SALTWTRSED		5/7/2009 11:00	5/7/2009 13:52		L47904-10
WG102107-6	MB		CVTOTSULFIDE	OTHR SOLID		5/8/2009 10:50	5/8/2009 12:58	WG102107-8, -9, -6, -7	MB1 5/8/09
WG102107-7	SB		CVTOTSULFIDE	OTHR SOLID		5/8/2009 10:50	5/8/2009 12:58		WG102107-6
WG102107-8	MB		CVTOTSULFIDE	OTHR SOLID		5/12/2009 11:30	5/12/2009 14:33		MB1 5/12/09
WG102107-9	SB		CVTOTSULFIDE	OTHR SOLID		5/12/2009 11:30	5/12/2009 14:33		WG102107-8

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

Workgroup: WG102107 Total Sulfide

MB:WG102107-1 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Sulfide	0.5	2	mg/Kg	<MDL	

SB:WG102107-2 MB:WG102107-1 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Total Sulfide	5	20	mg/Kg	<MDL	51.7	54.5	106		80--120

LT:WG102107-4 LD:WG102107-3 L47904-10 Matrix: SALTWTRSED Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project: 423368-80
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	Samp Value	LD Value	LT Value	RSD	Qual	Lab Limit
Total Sulfide	0.49	1.98	mg/Kg	<MDL	<MDL	<MDL			20

MS:WG102107-5 L47904-10 Matrix: SALTWTRSED Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project: 423368-80
(Matrix Spike)

Parameter	MDL	RDL	Units	Samp Value	True Value	MS Value	% Rec.	Qual	Lab Limit
Total Sulfide	4.9	19.6	mg/Kg	<MDL	50.6	51.6	102		65--135

MB:WG102107-6 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Sulfide	0.5	2	mg/Kg	<MDL	

SB:WG102107-7 MB:WG102107-6 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Total Sulfide	5	20	mg/Kg	<MDL	49.9	47.2	95		80--120

MB:WG102107-8 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Sulfide	0.5	2	mg/Kg	<MDL	

SB:WG102107-9 MB:WG102107-8 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Total Sulfide	5	20	mg/Kg	<MDL	52.3	54.4	104		80--120

METAL CHEMISTRY QC DATA

WG102518 Total Mercury by CVAA

Sample	Project	Project Descriptio	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L47904-1	423368-80	Denny Way Sediment, Post Construction Monitoring	MTHG-MIDS	SALTWTRSED	5/4/2009 9:40	5/27/2009 8:15	5/28/2009 9:29	WG102518-1, -2, -3, -4, -5, -6	
L47904-2	423368-80		MTHG-MIDS	SALTWTRSED	5/6/2009 9:56	5/27/2009 8:15	5/28/2009 9:36		
L47904-3	423368-80		MTHG-MIDS	SALTWTRSED	5/4/2009 9:10	5/27/2009 8:15	5/28/2009 9:38		
L47904-4	423368-80		MTHG-MIDS	SALTWTRSED	5/6/2009 9:37	5/27/2009 8:15	5/28/2009 9:44		
L47904-5	423368-80		MTHG-MIDS	SALTWTRSED	5/4/2009 10:12	5/27/2009 8:15	5/28/2009 9:45		
L47904-6	423368-80		MTHG-MIDS	SALTWTRSED	5/6/2009 9:02	5/27/2009 8:15	5/28/2009 9:47		
L47904-7	423368-80		MTHG-MIDS	SALTWTRSED	5/6/2009 9:20	5/27/2009 8:15	5/28/2009 9:49		
L47904-8	423368-80		MTHG-MIDS	SALTWTRSED	5/4/2009 13:00	5/27/2009 8:15	5/28/2009 9:51		
L47904-9	423368-80		MTHG-MIDS	SALTWTRSED	5/4/2009 13:55	5/27/2009 8:15	5/28/2009 10:36		
L47904-10	423368-80		MTHG-MIDS	SALTWTRSED	5/4/2009 11:20	5/27/2009 8:15	5/28/2009 9:22		
L47904-11	423368-80		MTHG-MIDS	SALTWTRSED	5/6/2009 8:42	5/27/2009 8:15	5/28/2009 9:56		
L47904-12	423368-80		MTHG-MIDS	SALTWTRSED	5/6/2009 8:27	5/27/2009 8:15	5/28/2009 9:58		
L47904-13	423368-80		MTHG-MIDS	SALTWTRSED	5/4/2009 15:00	5/27/2009 8:15	5/28/2009 10:00		
L47904-14	423368-80		MTHG-MIDS	SALTWTRSED	5/4/2009 14:20	5/27/2009 8:15	5/28/2009 10:02		
L47904-15	423368-80		MTHG-MIDS	SALTWTRSED	5/4/2009 15:35	5/27/2009 8:15	5/28/2009 10:09		
L47904-16	423368-80		MTHG-MIDS	SALTWTRSED	5/4/2009 16:17	5/27/2009 8:15	5/28/2009 10:12		
L47904-17	423368-80		MTHG-MIDS	SALTWTRSED	5/4/2009 13:35	5/27/2009 8:15	5/28/2009 10:14		
WG102518-1	SRM		MTHG-MIDS	SALTWTRSED		5/27/2009 8:15	5/28/2009 9:17		PACS2
WG102518-2	MB		MTHG-MIDS	SOLIDBLANK		5/27/2009 8:15	5/28/2009 9:18		METHOD BLANK
WG102518-3	SB		MTHG-MIDS	SOLIDBLANK		5/27/2009 8:15	5/28/2009 9:20		WG102518-2 HG-SMID
WG102518-4	MS		MTHG-MIDS	SALTWTRSED		5/27/2009 8:15	5/28/2009 9:24		L47904-10 HG-SMID
WG102518-5	MSD		MTHG-MIDS	SALTWTRSED		5/27/2009 8:15	5/28/2009 9:26		WG102518-4 L47904-10 HG-SMID-MSD
WG102518-6	LD		MTHG-MIDS	SALTWTRSED		5/27/2009 8:15	5/28/2009 9:27		L47904-10 RPD-SOL

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

Workgroup: WG102518 Total Mercury by CVAA

SRM:WG102518-1 Matrix: SALTWTRSED Listtype: MTHG-MIDS Method: SW846 7471B Project: NONE
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
Mercury, Total, CVAA	0.051	0.513	mg/Kg	3.04	3.05	100		80--120

MB:WG102518-2 Matrix: SOLIDBLANK Listtype: MTHG-MIDS Method: SW846 7471B Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.0048	0.0476	mg/Kg	<MDL	

SB:WG102518-3 MB:WG102518-2 Matrix: SOLIDBLANK Listtype: MTHG-MIDS Method: SW846 7471B Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Mercury, Total, CVAA	0.0048	0.0476	mg/Kg	<MDL	0.0952	0.0936	98		85--115

MSD:WG102518-5 MS:WG102518-4 L47904-10 Matrix: SALTWTRSED Listtype: MTHG-MIDS Method: SW846 7471B Project: 423368-80
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	Samp Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Mercury, Total, CVAA	0.0049	0.0494	mg/Kg	0.012	0.0982	0.107	97		75--125	0.0988	0.112	102		5		20

LD:WG102518-6 L47904-10 Matrix: SALTWTRSED Listtype: MTHG-MIDS Method: SW846 7471B Project: 423368-80
(Lab Duplicate)

Parameter	MDL	RDL	Units	Samp Value	LD Value	RPD^	Qual	Lab Limit
Mercury, Total, CVAA	0.0049	0.0495	mg/Kg	0.012	0.008			20

WG102579 Total Metals by ICP

Sample	Project	Project Descriptio	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L47904-1	423368-80	Denny Way Sediment, Post Construction Monitoring	MTICP-SED	SALTWTRSED	5/4/2009 9:40	6/1/2009 8:00	6/2/2009 9:46	WG102579-1, -3, -2, -6, -4, -5	
L47904-2	423368-80		MTICP-SED	SALTWTRSED	5/6/2009 9:56	6/1/2009 8:00	6/2/2009 9:52		
L47904-3	423368-80		MTICP-SED	SALTWTRSED	5/4/2009 9:10	6/1/2009 8:00	6/2/2009 9:59		
L47904-4	423368-80		MTICP-SED	SALTWTRSED	5/6/2009 9:37	6/1/2009 8:00	6/2/2009 10:17		
L47904-5	423368-80		MTICP-SED	SALTWTRSED	5/4/2009 10:12	6/1/2009 8:00	6/2/2009 10:35		
L47904-6	423368-80		MTICP-SED	SALTWTRSED	5/6/2009 9:02	6/1/2009 8:00	6/2/2009 10:41		
L47904-7	423368-80		MTICP-SED	SALTWTRSED	5/6/2009 9:20	6/1/2009 8:00	6/2/2009 10:48		
L47904-8	423368-80		MTICP-SED	SALTWTRSED	5/4/2009 13:00	6/1/2009 8:00	6/2/2009 10:54		
L47904-9	423368-80		MTICP-SED	SALTWTRSED	5/4/2009 13:55	6/1/2009 8:00	6/2/2009 11:00		
L47904-10	423368-80		MTICP-SED	SALTWTRSED	5/4/2009 11:20	6/1/2009 8:00	6/2/2009 11:06		
L47904-11	423368-80		MTICP-SED	SALTWTRSED	5/6/2009 8:42	6/1/2009 8:00	6/2/2009 11:12		
L47904-12	423368-80		MTICP-SED	SALTWTRSED	5/6/2009 8:27	6/1/2009 8:00	6/2/2009 11:18		
L47904-13	423368-80		MTICP-SED	SALTWTRSED	5/4/2009 15:00	6/1/2009 8:00	6/2/2009 11:24		
L47904-14	423368-80		MTICP-SED	SALTWTRSED	5/4/2009 14:20	6/1/2009 8:00	6/2/2009 11:30		
L47904-15	423368-80		MTICP-SED	SALTWTRSED	5/4/2009 15:35	6/1/2009 8:00	6/2/2009 11:49		
L47904-16	423368-80		MTICP-SED	SALTWTRSED	5/4/2009 16:17	6/1/2009 8:00	6/2/2009 11:55		
L47904-17	423368-80		MTICP-SED	SALTWTRSED	5/4/2009 13:35	6/1/2009 8:00	6/2/2009 12:01		
WG102579-1	SB		MTICP-SED	SOLIDBLANK		6/1/2009 8:00	6/2/2009 9:22		WG102579-3 ICPMARINE SPIKE BLANK
WG102579-2	SRM		MTICP-SED	SALTWTRSED		6/1/2009 8:00	6/2/2009 9:34		PACS2 M1-11-30
WG102579-3	MB		MTICP-SED	SOLIDBLANK		6/1/2009 8:00	6/2/2009 9:28		DIGESTED METHOD BLANK
WG102579-4	LD		MTICP-SED	SALTWTRSED		6/1/2009 8:00	6/2/2009 10:05		L47904-3 RPD-SOL LAB DUPLICATE
WG102579-5	MS		MTICP-SED	SALTWTRSED		6/1/2009 8:00	6/2/2009 10:11		L47904-3 ICPMARINE MATRIX SPIKE
WG102579-6	LCS		MTICP-SED	SOIL		6/1/2009 8:00	6/2/2009 9:40		ERASOIL M-07-023

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

Workgroup: WG102579 Total Metals by ICP

MB:WG102579-3 Matrix: SOLIDBLANK Listtype: MTICP-SED Method: SW846 3050B*SW846 6010C Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Arsenic, Total, ICP	1.2	5.95	mg/Kg	<MDL	
Cadmium, Total, ICP	0.095	0.476	mg/Kg	<MDL	
Chromium, Total, ICP	0.14	0.714	mg/Kg	<MDL	
Copper, Total, ICP	0.19	0.952	mg/Kg	<MDL	
Lead, Total, ICP	0.95	4.76	mg/Kg	<MDL	
Silver, Total, ICP	0.19	0.952	mg/Kg	<MDL	
Zinc, Total, ICP	0.24	1.19	mg/Kg	<MDL	

SB:WG102579-1 MB:WG102579-3 Matrix: SOLIDBLANK Listtype: MTICP-SED Method: SW846 3050B*SW846 6010C Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Arsenic, Total, ICP	1.2	5.95	mg/Kg	<MDL	47.6	47.3	99		85--115
Cadmium, Total, ICP	0.095	0.476	mg/Kg	<MDL	47.6	46.4	98		85--115
Chromium, Total, ICP	0.14	0.714	mg/Kg	<MDL	47.6	46.7	98		85--115
Copper, Total, ICP	0.19	0.952	mg/Kg	<MDL	47.6	48.3	101		85--115
Lead, Total, ICP	0.95	4.76	mg/Kg	<MDL	47.6	45.7	96		85--115
Silver, Total, ICP	0.19	0.952	mg/Kg	<MDL	47.6	48.7	102		85--115
Zinc, Total, ICP	0.24	1.19	mg/Kg	<MDL	238	225	95		85--115

SRM:WG102579-2 Matrix: SALTWTRSED Listtype: MTICP-SED Method: SW846 3050B*SW846 6010C Project: NONE
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
Chromium, Total, ICP	0.6	3	mg/Kg	90.7	46.7	52		30--70
Copper, Total, ICP	0.8	4	mg/Kg	310	307	99		78--118
Lead, Total, ICP	4	20	mg/Kg	183	175	95		74--114
Zinc, Total, ICP	1	4.99	mg/Kg	364	336	92		73--113

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

LD:WG102579-4 L47904-3 Matrix: SALTWTRSED Listtype: MTICP-SED Method: SW846 3050B*SW846 6010C Project: 423368-80
(Lab Duplicate)

Parameter	MDL	RDL	Units	Samp Value	LD Value	RPD^	Qual	Lab Limit
Arsenic, Total, ICP	1.2	6.24	mg/Kg	4.3	4.4			20
Cadmium, Total, ICP	0.1	0.499	mg/Kg	0.42	0.41			20
Chromium, Total, ICP	0.15	0.749	mg/Kg	22.5	22.2	1		20
Copper, Total, ICP	0.2	0.999	mg/Kg	27.2	27.8	2		20
Lead, Total, ICP	1	4.99	mg/Kg	37.2	36.3	3		20
Silver, Total, ICP	0.2	0.999	mg/Kg	1.03	1.08	4		20
Zinc, Total, ICP	0.25	1.25	mg/Kg	52.7	51.7	2		20

MS:WG102579-5 L47904-3 Matrix: SALTWTRSED Listtype: MTICP-SED Method: SW846 3050B*SW846 6010C Project: 423368-80
(Matrix Spike)

Parameter	MDL	RDL	Units	Samp Value	True Value	MS Value	% Rec.	Qual	Lab Limit
Arsenic, Total, ICP	1.2	6.25	mg/Kg	4.3	50	51.3	94		75--125
Cadmium, Total, ICP	0.1	0.5	mg/Kg	0.42	50	49.2	98		75--125
Chromium, Total, ICP	0.15	0.749	mg/Kg	22.5	50	71.5	98		75--125
Copper, Total, ICP	0.2	0.999	mg/Kg	27.2	50	77.8	101		75--125
Lead, Total, ICP	1	5	mg/Kg	37.2	50	82.1	90		75--125
Silver, Total, ICP	0.2	0.999	mg/Kg	1.03	50	53.1	104		75--125
Zinc, Total, ICP	0.25	1.25	mg/Kg	52.7	250	279	91		75--125

LCS:WG102579-6 Matrix: SOIL Listtype: MTICP-SED Method: SW846 3050B*SW846 6010C Project: NONE
(Lab Control Sample)

Parameter	MDL	RDL	Units	True Value	LCS Value	% Rec.	Qual	Lab Limit
Arsenic, Total, ICP	5.1	25.5	mg/Kg	132	143	108		80--120
Cadmium, Total, ICP	0.41	2.04	mg/Kg	66.5	75	113		80--120
Chromium, Total, ICP	0.61	3.06	mg/Kg	72.9	74.2	102		79--121
Copper, Total, ICP	0.82	4.08	mg/Kg	68.5	72.3	106		80--120
Lead, Total, ICP	4.1	20.4	mg/Kg	130	131	100		80--120
Silver, Total, ICP	0.82	4.08	mg/Kg	101	111	110		66--134
Zinc, Total, ICP	1	5.1	mg/Kg	177	186	105		79--121

ORGANIC CHEMISTRY QC DATA

WG102239 Semi Volatile Organics

Sample	Project	Project Descriptio	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L47904-1	423368-80	Denny Way Sediment, Post Construction Monitoring	ORBNASMS	SALTWTRSED	5/4/2009 9:40	5/14/2009 7:00	6/4/2009 14:35	WG102239-1, -2, -3, -4, -5, -6	
L47904-2	423368-80		ORBNASMS	SALTWTRSED	5/6/2009 9:56	5/14/2009 7:00	6/4/2009 15:21		
L47904-3	423368-80		ORBNASMS	SALTWTRSED	5/4/2009 9:10	5/14/2009 7:00	6/4/2009 16:07		
L47904-4	423368-80		ORBNASMS	SALTWTRSED	5/6/2009 9:37	5/14/2009 7:00	6/4/2009 16:53		
L47904-5	423368-80		ORBNASMS	SALTWTRSED	5/4/2009 10:12	5/14/2009 7:00	6/4/2009 17:39		
L47904-6	423368-80		ORBNASMS	SALTWTRSED	5/6/2009 9:02	5/14/2009 7:00	6/4/2009 18:25		
L47904-7	423368-80		ORBNASMS	SALTWTRSED	5/6/2009 9:20	5/14/2009 7:00	6/4/2009 19:11		
L47904-8	423368-80		ORBNASMS	SALTWTRSED	5/4/2009 13:00	5/14/2009 7:00	6/4/2009 19:57		
L47904-9	423368-80		ORBNASMS	SALTWTRSED	5/4/2009 13:55	5/14/2009 7:00	6/4/2009 20:43		
L47904-10	423368-80		ORBNASMS	SALTWTRSED	5/4/2009 11:20	5/14/2009 7:00	6/4/2009 21:28		
L47904-11	423368-80		ORBNASMS	SALTWTRSED	5/6/2009 8:42	5/14/2009 7:00	6/4/2009 22:14		
L47904-12	423368-80		ORBNASMS	SALTWTRSED	5/6/2009 8:27	5/14/2009 7:00	6/4/2009 23:00		
L47904-13	423368-80		ORBNASMS	SALTWTRSED	5/4/2009 15:00	5/14/2009 7:00	6/4/2009 23:45		
L47904-14	423368-80		ORBNASMS	SALTWTRSED	5/4/2009 14:20	5/14/2009 7:00	6/5/2009 0:31		
L47904-15	423368-80		ORBNASMS	SALTWTRSED	5/4/2009 15:35	5/14/2009 7:00	6/5/2009 1:17		
L47904-16	423368-80		ORBNASMS	SALTWTRSED	5/4/2009 16:17	5/14/2009 7:00	6/5/2009 2:02		
L47904-17	423368-80		ORBNASMS	SALTWTRSED	5/4/2009 13:35	5/14/2009 7:00	6/5/2009 2:49		
WG102239-1	MB		ORBNASMS	SOLIDBLANK		5/14/2009 7:00	6/4/2009 9:59		MB090514
WG102239-2	SB		ORBNASMS	SOLIDBLANK		5/14/2009 7:00	6/4/2009 10:44		WG102239-1
WG102239-3	MS		ORBNASMS	SALTWTRSED		5/14/2009 7:00	6/4/2009 12:16		L47904-1
WG102239-4	MSD		ORBNASMS	SALTWTRSED		5/14/2009 7:00	6/4/2009 13:03		WG102239-3 L47904-1
WG102239-5	SRM		ORBNASMS	SALTWTRSED		5/14/2009 7:00	6/4/2009 11:30		#1944
WG102239-6	LD		ORBNASMS	SALTWTRSED		5/14/2009 7:00	6/4/2009 13:49		L47904-2

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

Workgroup: WG102239 Semi Volatile Organics

MB:WG102239-1 Matrix: SOLIDBLANK Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
1,2,4-Trichlorobenzene	0.1	0.2	ug/Kg	<MDL	
1,2-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	
1,3-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	
1,4-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	
2-Methylnaphthalene	2	4	ug/Kg	<MDL	
2-Methylphenol	2	4	ug/Kg	<MDL	
4-Methylphenol	4	8	ug/Kg	<MDL	
Acenaphthene	2	4	ug/Kg	<MDL	
Acenaphthylene	2	4	ug/Kg	<MDL	
Anthracene	2	4	ug/Kg	<MDL	
Benzo(a)anthracene	2	4	ug/Kg	<MDL	
Benzo(a)pyrene	2	4	ug/Kg	<MDL	
Benzo(b)fluoranthene	2	4	ug/Kg	<MDL	
Benzo(g,h,i)perylene	2	4	ug/Kg	<MDL	
Benzo(k)fluoranthene	2	4	ug/Kg	<MDL	
Benzoic Acid	10	20	ug/Kg	<MDL	
Benzyl Alcohol	2	4	ug/Kg	<MDL	
Benzyl Butyl Phthalate	1	2	ug/Kg	<MDL	
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	9.59	B
Caffeine	4	8	ug/Kg	<MDL	
Carbazole	2	4	ug/Kg	<MDL	
Chrysene	2	4	ug/Kg	<MDL	
Coprostanol	40	80	ug/Kg	<MDL	
Di-N-Butyl Phthalate	4	8	ug/Kg	<MDL	
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	
Dibenzo(a,h)anthracene	2	4	ug/Kg	<MDL	
Dibenzofuran	2	4	ug/Kg	<MDL	
Diethyl Phthalate	4	8	ug/Kg	<MDL	
Dimethyl Phthalate	4	8	ug/Kg	<MDL	
Fluoranthene	2	4	ug/Kg	<MDL	
Fluorene	2	4	ug/Kg	<MDL	
Hexachlorobenzene	0.1	0.2	ug/Kg	<MDL	
Hexachlorobutadiene	0.5	1	ug/Kg	<MDL	
Hexachloroethane	1	2	ug/Kg	<MDL	
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	<MDL	

N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL
Naphthalene	2	4	ug/Kg	<MDL
Pentachlorophenol	10	20	ug/Kg	<MDL
Phenanthrene	2	4	ug/Kg	<MDL
Phenol	4	8	ug/Kg	<MDL
Pyrene	2	4	ug/Kg	<MDL
Total 4-Nonylphenol	5	10	ug/Kg	<MDL
Total HPAHS	2	4	ug/Kg	<MDL
Total LPAHs	2	4	ug/Kg	<MDL

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

SB:WG102239-2 MB:WG102239-1 Matrix: SOLIDBLANK Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
1,2,4-Trichlorobenzene	0.1	0.2	ug/Kg	<MDL	375	212	56		13--110
1,2-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	375	226	60		10--116
1,3-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	375	229	61		18--95
1,4-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	375	228	61		21--99
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	375	64.7	17		10--81
2-Methylnaphthalene	2	4	ug/Kg	<MDL	375	229	61		22--99
2-Methylphenol	2	4	ug/Kg	<MDL	375	122	33		16--91
4-Methylphenol	4	8	ug/Kg	<MDL	375	134	36		10--125
Acenaphthene	2	4	ug/Kg	<MDL	375	264	70		29--102
Acenaphthylene	2	4	ug/Kg	<MDL	375	295	79		31--101
Anthracene	2	4	ug/Kg	<MDL	375	328	87		45--114
Benzo(a)anthracene	2	4	ug/Kg	<MDL	375	381	102		69--117
Benzo(a)pyrene	2	4	ug/Kg	<MDL	375	319	85		15--137
Benzo(b)fluoranthene	2	4	ug/Kg	<MDL	375	346	92		50--121
Benzo(g,h,i)perylene	2	4	ug/Kg	<MDL	375	384	102		46--126
Benzo(k)fluoranthene	2	4	ug/Kg	<MDL	375	341	91		58--128
Benzoic Acid	10	20	ug/Kg	<MDL	375	158	42		10--170
Benzyl Alcohol	2	4	ug/Kg	<MDL	375	189	50		10--119
Benzyl Butyl Phthalate	1	2	ug/Kg	<MDL	375	347	93		15--183
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	9.59	375	293	76		10--182
Caffeine	4	8	ug/Kg	<MDL	375	330	88		45--159
Carbazole	2	4	ug/Kg	<MDL	375	380	101		44--179
Chrysene	2	4	ug/Kg	<MDL	375	300	80		69--111
Coprostanol	40	80	ug/Kg	<MDL	3750	1160	31		10--159
Di-N-Butyl Phthalate	4	8	ug/Kg	<MDL	375	354	94		17--180
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	375	355	95		10--200
Dibenzo(a,h)anthracene	2	4	ug/Kg	<MDL	375	430	115		53--129
Dibenzofuran	2	4	ug/Kg	<MDL	375	300	80		37--97
Diethyl Phthalate	4	8	ug/Kg	<MDL	375	307	82		51--118
Dimethyl Phthalate	4	8	ug/Kg	<MDL	375	313	84		38--114
Fluoranthene	2	4	ug/Kg	<MDL	375	343	91		55--132
Fluorene	2	4	ug/Kg	<MDL	375	269	72		39--106
Hexachlorobenzene	0.1	0.2	ug/Kg	<MDL	375	280	75		40--111
Hexachlorobutadiene	0.5	1	ug/Kg	<MDL	375	208	56		10--97
Hexachloroethane	1	2	ug/Kg	<MDL	375	227	61		17--92
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	<MDL	375	401	107		51--132
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	375	245	65		11--148
Naphthalene	2	4	ug/Kg	<MDL	375	198	53		17--94

Pentachlorophenol	10	20	ug/Kg	<MDL	375	306	81	38--124
Phenanthrene	2	4	ug/Kg	<MDL	375	321	86	57--104
Phenol	4	8	ug/Kg	<MDL	375	176	47	10--107
Pyrene	2	4	ug/Kg	<MDL	375	360	96	48--132
Total HPAHS	2	4	ug/Kg	<MDL	3750	3610	96	25--150
Total LPAHs	2	4	ug/Kg	<MDL	2630	1900	73	25--150

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

MSD:WG102239-4 MS:WG102239-3 L47904-1 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	Samp Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
1,2,4-Trichlorobenzene	0.1	0.2	ug/Kg	<MDL	375	184	49		10--115	375	192	51		4		35
1,2-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	375	216	58		10--105	375	240	64		10		35
1,3-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	375	219	58		10--103	375	238	63		8		35
1,4-Dichlorobenzene	0.2	0.4	ug/Kg	2.54	375	228	60		10--104	375	244	64		6		35
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	375	219	58		10--150	375	239	64		10		35
2-Methylnaphthalene	2	4	ug/Kg	30.1	375	342	83		22--112	375	341	83		0		35
2-Methylphenol	2	4	ug/Kg	<MDL	375	220	59		10--142	375	241	64		8		35
4-Methylphenol	4	8	ug/Kg	45.6	375	307	70		10--163	375	326	75		7		35
Acenaphthene	2	4	ug/Kg	41.9	375	314	72		25--130	375	318	74		3		35
Acenaphthylene	2	4	ug/Kg	72.7	375	350	74		27--132	375	385	83		11		35
Anthracene	2	4	ug/Kg	325	375	497	46		10--181	375	529	55		18		35
Benzo(a)anthracene	2	4	ug/Kg	739	375	1110	98		32--168	375	1190	121		21		35
Benzo(a)pyrene	2	4	ug/Kg	1300	375	1430	35		10--200	375	1590	78		76	*	35
Benzo(b)fluoranthene	2	4	ug/Kg	1540	375	1760	58		10--199	375	1830	78		29		35
Benzo(g,h,i)perylene	2	4	ug/Kg	617	375	778	43		10--173	375	820	54		23		35
Benzo(k)fluoranthene	2	4	ug/Kg	1100	375	1350	67		10--192	375	1300	54		21		35
Benzoic Acid	10	20	ug/Kg	92	375	240	39		10--158	375	216	33		17		35
Benzyl Alcohol	2	4	ug/Kg	<MDL	375	258	69		10--138	375	270	72		4		35
Benzyl Butyl Phthalate	1	2	ug/Kg	68.6	375	449	101		41--145	375	431	97		4		35
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	544	375	618	20		10--189	375	634	24		18		35
Caffeine	4	8	ug/Kg	<MDL	375	308	82		17--195	375	327	87		6		35
Carbazole	2	4	ug/Kg	98.6	375	410	83		16--200	375	458	96		15		35
Chrysene	2	4	ug/Kg	1150	375	1460	81		14--184	375	1470	85		5		35
Coprostanol	40	80	ug/Kg	<MDL	3750	1180	32		10--183	3750	1010	27		17		35
Di-N-Butyl Phthalate	4	8	ug/Kg	<MDL	375	284	76		10--194	375	303	81		6		35
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	375	464	124		52--151	375	482	129		4		35
Dibenzo(a,h)anthracene	2	4	ug/Kg	354	375	538	49		10--166	375	605	67		31		35
Dibenzofuran	2	4	ug/Kg	22.6	375	319	79		21--134	375	326	81		3		35
Diethyl Phthalate	4	8	ug/Kg	<MDL	375	254	68		31--150	375	236	63		8		35
Dimethyl Phthalate	4	8	ug/Kg	<MDL	375	273	73		13--162	375	322	86		16		35
Fluoranthene	2	4	ug/Kg	934	375	1490	148		12--188	375	1590	176		17		35
Fluorene	2	4	ug/Kg	61.6	375	300	64		22--147	375	307	65		2		35
Hexachlorobenzene	0.1	0.2	ug/Kg	<MDL	375	320	85		18--151	375	310	83		2		35
Hexachlorobutadiene	0.5	1	ug/Kg	<MDL	375	182	49		10--97	375	195	52		6		35
Hexachloroethane	1	2	ug/Kg	<MDL	375	218	58		10--89	375	228	61		5		35
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	637	375	914	74		10--177	375	844	55		29		35
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	375	324	86		10--169	375	335	89		3		35
Naphthalene	2	4	ug/Kg	27.5	375	193	44		12--97	375	206	48		9		35

Pentachlorophenol	10	20	ug/Kg	<MDL	375	343	91	17--170	375	342	91	0		35
Phenanthrene	2	4	ug/Kg	533	375	720	50	10--200	375	826	78	44	*	35
Phenol	4	8	ug/Kg	<MDL	375	236	63	10--127	375	245	65	3		35
Pyrene	2	4	ug/Kg	1780	375	1870	23	20--174	375	1930	40	54	*	35
Total HPAHS	2	4	ug/Kg	8720	3750	12700	107	25--150	3750	13500	128	18		35
Total LPAHs	2	4	ug/Kg	958	2630	3110	82	25--150	2630	3350	91	10		35

SRM:WG102239-5 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
Anthracene	270	533	ug/Kg	1750	663	38		28--98
Benzo(a)anthracene	270	533	ug/Kg	4660	4430	95		66--124
Benzo(a)pyrene	270	533	ug/Kg	4240	3300	78		60--116
Benzo(b)fluoranthene	270	533	ug/Kg	3820	3590	94		52--190
Benzo(g,h,i)perylene	270	533	ug/Kg	2800	2870	102		15--121
Benzo(k)fluoranthene	270	533	ug/Kg	2270	2850	125		60--146
Chrysene	270	533	ug/Kg	4800	4680	98		77--136
Dibenzo(a,h)anthracene	270	533	ug/Kg	419	754	180		10--200
Fluoranthene	270	533	ug/Kg	8800	8410	95		45--126
Indeno(1,2,3-Cd)Pyrene	270	533	ug/Kg	2740	2110	77		33--121
Naphthalene	270	533	ug/Kg	1630	270	17		10--29
Phenanthrene	270	533	ug/Kg	5200	4350	84		51--106
Pyrene	270	533	ug/Kg	9570	9290	97		36--135

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

LD:WG102239-6 L47904-2 Matrix: SALTWTRSED Listtype: ORBNASMS Method: EPA 3550B/8270C (7-3-01-004) Project: 423368-80
(Lab Duplicate)

Parameter	MDL	RDL	Units	Samp Value	LD Value	RPD^	Qual	Lab Limit
1,2,4-Trichlorobenzene	0.1	0.2	ug/Kg	<MDL	<MDL			35
1,2-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	<MDL			35
1,3-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	<MDL			35
1,4-Dichlorobenzene	0.2	0.4	ug/Kg	1.24	1.31	5		35
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	<MDL			35
2-Methylnaphthalene	2	4	ug/Kg	10.1	9.87	2		35
2-Methylphenol	2	4	ug/Kg	<MDL	<MDL			35
4-Methylphenol	4	8	ug/Kg	<MDL	<MDL			35
Acenaphthene	2	4	ug/Kg	15	16.4	9		35
Acenaphthylene	2	4	ug/Kg	13.6	12.9	5		35
Anthracene	2	4	ug/Kg	65.6	72.4	10		35
Benzo(a)anthracene	2	4	ug/Kg	166	175	5		35
Benzo(a)pyrene	2	4	ug/Kg	186	196	5		35
Benzo(b)fluoranthene	2	4	ug/Kg	207	205	1		35
Benzo(g,h,i)perylene	2	4	ug/Kg	136	131	4		35
Benzo(k)fluoranthene	2	4	ug/Kg	168	208	21		35
Benzoic Acid	10	20	ug/Kg	168	212	23		35
Benzyl Alcohol	2	4	ug/Kg	<MDL	<MDL			35
Benzyl Butyl Phthalate	1	2	ug/Kg	31.9	24.8	25		35
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	216	194	10		35
Caffeine	4	8	ug/Kg	<MDL	<MDL			35
Carbazole	2	4	ug/Kg	29.1	27.5	6		35
Chrysene	2	4	ug/Kg	195	220	12		35
Coprostanol	40	80	ug/Kg	<MDL	<MDL			35
Di-N-Butyl Phthalate	4	8	ug/Kg	9.8	10.9	11		35
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	<MDL			35
Dibenzo(a,h)anthracene	2	4	ug/Kg	65.4	60	9		35
Dibenzofuran	2	4	ug/Kg	8.04	8.21	2		35
Diethyl Phthalate	4	8	ug/Kg	<MDL	<MDL			35
Dimethyl Phthalate	4	8	ug/Kg	<MDL	<MDL			35
Fluoranthene	2	4	ug/Kg	260	279	7		35
Fluorene	2	4	ug/Kg	16.5	20.4	21		35
Hexachlorobenzene	0.1	0.2	ug/Kg	<MDL	<MDL			35
Hexachlorobutadiene	0.5	1	ug/Kg	<MDL	<MDL			35
Hexachloroethane	1	2	ug/Kg	<MDL	<MDL			35
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	126	117	7		35
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	<MDL			35
Naphthalene	2	4	ug/Kg	9.55	8.92	7		35

Pentachlorophenol	10	20	ug/Kg	<MDL	<MDL		35
Phenanthrene	2	4	ug/Kg	165	185	11	35
Phenol	4	8	ug/Kg	<MDL	<MDL		35
Pyrene	2	4	ug/Kg	379	321	17	35
Total 4-Nonylphenol	5	10	ug/Kg	81.4	69.1	16	35
Total HPAHS	2	4	ug/Kg	1890	1910	1	35
Total LPAHs	2	4	ug/Kg	296	326	10	35

Surrogate: (Lab Limits)	2,4,6-Tribromo phenol 29--112	2-Fluorobiphenyl 31--101	2-Fluorophenol 10--112	d14-Terphenyl 51--130	d4-1,2-Dichlorobenzene 24--91	d4-2-Chlorophenol 11--105	d5-Nitrobenzene 28--94	d5-Phenol 10--106
L47904-1	101	85	77	98	63	70	83	73
L47904-2	100	73	66	124	55	52	72	51
L47904-3	99	69	58	116	46	56	66	59
L47904-4	98	68	57	110	47	53	68	54
L47904-5	72	54	48	94	40	42	56	38
L47904-6	107	69	67	125	53	58	80	58
L47904-7	105	66	59	118	49	55	76	52
L47904-8	104	72	58	130	49	53	71	56
L47904-9	97	71	63	127	40	44	59	50
L47904-10	93	69	51	123	57	50	66	44
L47904-11	89	58	47	118	52	54	84	56
L47904-12	97	70	51	122	51	54	64	56
L47904-13	104	76	62	123	54	57	71	61
L47904-14	102	81	58	117	55	55	64	55
L47904-15	71	64	47	116	49	52	62	50
L47904-16	75	61	43	114	52	50	61	43
L47904-17	78	76	41	123	51	45	72	51
WG102239-1	52	70	46	94	52	50	60	60
WG102239-2	90	50	85	102	85	53	55	49
WG102239-3	96	72	93	129	85	57	44	63
WG102239-4	100	79	67	126	95 *	65	50	75
WG102239-5	105	80	79	102	59	73	78	90
WG102239-6	106	73	71	104	59	63	78	61

King County Environmental Lab Batch Report

Denny Way Sediment Cap 2009, L47904

WG102320 PCB

Sample	Project	Project Descriptio	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L47904-1	423368-80	Denny Way Sediment, Post Construction Monitoring	ORPCBLL	SALTWTRSED	5/4/2009 9:40	5/18/2009 7:00	7/1/2009 17:42	WG102320-1, -2, -3, -4, -5, -6, -7, -8	
L47904-2	423368-80		ORPCBLL	SALTWTRSED	5/6/2009 9:56	5/18/2009 7:00	6/25/2009 0:13		
L47904-3	423368-80		ORPCBLL	SALTWTRSED	5/4/2009 9:10	5/18/2009 7:00	7/1/2009 18:20		
L47904-4	423368-80		ORPCBLL	SALTWTRSED	5/6/2009 9:37	5/18/2009 7:00	6/25/2009 1:28		
L47904-5	423368-80		ORPCBLL	SALTWTRSED	5/4/2009 10:12	5/18/2009 7:00	6/25/2009 2:05		
L47904-6	423368-80		ORPCBLL	SALTWTRSED	5/6/2009 9:02	5/18/2009 7:00	6/25/2009 2:42		
L47904-7	423368-80		ORPCBLL	SALTWTRSED	5/6/2009 9:20	5/18/2009 7:00	6/25/2009 3:19		
L47904-8	423368-80		ORPCBLL	SALTWTRSED	5/4/2009 13:00	5/18/2009 7:00	6/25/2009 3:56		
L47904-9	423368-80		ORPCBLL	SALTWTRSED	5/4/2009 13:55	5/18/2009 7:00	6/25/2009 4:33		
L47904-10	423368-80		ORPCBLL	SALTWTRSED	5/4/2009 11:20	5/18/2009 7:00	6/25/2009 7:02		
L47904-11	423368-80		ORPCBLL	SALTWTRSED	5/6/2009 8:42	5/18/2009 7:00	6/25/2009 7:39		
L47904-12	423368-80		ORPCBLL	SALTWTRSED	5/6/2009 8:27	5/18/2009 7:00	6/25/2009 8:16		
L47904-13	423368-80		ORPCBLL	SALTWTRSED	5/4/2009 15:00	5/18/2009 7:00	6/25/2009 8:53		
L47904-14	423368-80		ORPCBLL	SALTWTRSED	5/4/2009 14:20	5/18/2009 7:00	7/1/2009 18:57		
L47904-15	423368-80		ORPCBLL	SALTWTRSED	5/4/2009 15:35	5/18/2009 7:00	6/25/2009 10:07		
L47904-16	423368-80		ORPCBLL	SALTWTRSED	5/4/2009 16:17	5/18/2009 7:00	6/25/2009 10:45		
L47904-17	423368-80		ORPCBLL	SALTWTRSED	5/4/2009 13:35	5/18/2009 7:00	7/1/2009 19:34		
WG102320-1	MB		ORPCBLL	SOLIDBLANK		5/18/2009 7:00	6/24/2009 16:47		MB090518
WG102320-2	SB		ORPCBLL	SOLIDBLANK		5/18/2009 7:00	6/24/2009 17:25		WG102320-1
WG102320-3	MS		ORPCBLL	SALTWTRSED		5/18/2009 7:00	6/24/2009 18:02		L47904-10
WG102320-4	MSD		ORPCBLL	SALTWTRSED		5/18/2009 7:00	6/24/2009 18:39		WG102320-3 L47904-10
WG102320-5	MS		ORPCBLL	SALTWTRSED		5/18/2009 7:00	6/24/2009 19:16		L47904-10
WG102320-6	MSD		ORPCBLL	SALTWTRSED		5/18/2009 7:00	6/24/2009 19:53		WG102320-5 L47904-10
WG102320-7	SRM		ORPCBLL	SALTWTRSED		5/18/2009 7:00	6/24/2009 20:30		HS-2
WG102320-8	LD		ORPCBLL	SALTWTRSED		5/18/2009 7:00	6/24/2009 21:08		L47904-11

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

Workgroup: WG102320 PCB

MB:WG102320-1 Matrix: SOLIDBLANK Listtype: ORPCBLL Method: SW846 3550B*SW846 8082A Project: NONE
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Aroclor 1016	1	2	ug/Kg	<MDL	
Aroclor 1221	2	4	ug/Kg	<MDL	
Aroclor 1232	2	4	ug/Kg	<MDL	
Aroclor 1242	1	2	ug/Kg	<MDL	
Aroclor 1248	1	2	ug/Kg	<MDL	
Aroclor 1254	1	2	ug/Kg	<MDL	
Aroclor 1260	1	2	ug/Kg	<MDL	
Total Aroclors	1	2	ug/Kg	<MDL	

SB:WG102320-2 MB:WG102320-1 Matrix: SOLIDBLANK Listtype: ORPCBLL Method: SW846 3550B*SW846 8082A Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Aroclor 1016	1	2	ug/Kg	<MDL	7.5	7.17	96		39--121
Aroclor 1260	1	2	ug/Kg	<MDL	7.5	8.71	116		53--140

MSD:WG102320-4 MS:WG102320-3 L47904-10 Matrix: SALTWTRSED Listtype: ORPCBLL Method: SW846 3550B*SW846 8082A Project: 423368-80
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	Samp Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Aroclor 1016	1	2	ug/Kg	<MDL	7.5	6.19	83		32--164	7.5	6.39	85		2		50
Aroclor 1260	1	2	ug/Kg	<MDL	7.5	7.34	98		28--144	7.5	7.3	97		1		50

MSD:WG102320-6 MS:WG102320-5 L47904-10 Matrix: SALTWTRSED Listtype: ORPCBLL Method: SW846 3550B*SW846 8082A Project: 423368-80
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	Samp Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Aroclor 1016	1	2	ug/Kg	<MDL	100	69.6	70		32--164	100	66	66		6		50
Aroclor 1260	1	2	ug/Kg	<MDL	100	82.2	82		28--144	100	76.4	76		8		50

SRM:WG102320-7 Matrix: SALTWTRSED Listtype: ORPCBLL Method: SW846 3550B*SW846 8082A Project: NONE
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
Aroclor 1254	2.7	5.33	ug/Kg	112	119	107		57--139

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

LD:WG102320-8 L47904-11 Matrix: SALTWTRSED Listtype: ORPCBLL Method: SW846 3550B*SW846 8082A Project: 423368-80
(Lab Duplicate)

Parameter	MDL	RDL	Units	Samp Value	LD Value	RPD^	Qual	Lab Limit
Aroclor 1016	12	23.4	ug/Kg	<MDL	<MDL			100
Aroclor 1221	2	4	ug/Kg	<MDL	<MDL			100
Aroclor 1232	27	53.9	ug/Kg	<MDL	<MDL			100
Aroclor 1242	21	42.7	ug/Kg	<MDL	<MDL			100
Aroclor 1248	1	2	ug/Kg	19.8	26.1	27		100
Aroclor 1254	1	2	ug/Kg	41.9	58.9	34		100
Aroclor 1260	1	2	ug/Kg	25.6	37.7	38		100
Total Aroclors	1	2	ug/Kg	87.3	123	34		100

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

Surrogate: (Lab Limits)	2,4,5,6-Tetra chloro m xylene 10--118	Decachl oro biphenyl 12--158
L47904-1	72	100
L47904-2	68	108
L47904-3	71	100
L47904-4	67	108
L47904-5	74	100
L47904-6	63	89
L47904-7	68	99
L47904-8	63	92
L47904-9	67	117
L47904-10	61	92
L47904-11	68	94
L47904-12	60	87
L47904-13	68	90
L47904-14	63	90
L47904-15	63	100
L47904-16	65	100
L47904-17	66	97
WG102320-1	51	108
WG102320-2	59	122
WG102320-3	52	96
WG102320-4	49	94
WG102320-5	51	102
WG102320-6	49	94
WG102320-7	72	114
WG102320-8	76	117

Trace Organics Data Anomaly Form

Date(s) Occurred: *06/24/2009*

WG #(s): *102320*

☒ **All samples in WKGP(s)** **or** ☐ **Sample #(s):**

Project #(s): *423062 Denny Way*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Extraction

☐ BNA	☐ BNALL	☐ EDC	☐ EDC-LVI
☐ CLPESTPCB	☐ PEST	☒ PCB	☐ OPPEST
☐ VOA-GCMS	☐ NWTPH-GX	☐ NWTPH-DX	☐ NWTPH-HCID
☐ BUTYL TIN	☐ VOA-SULFUR		
☐ Other:			
☐ Subcontracted:			

II. Instrument

GC/ICP/MS: ☐ P

GC/MS: ☐ A ☐ J ☐ K ☐ L ☐ M ☐ N

GC: ☒ F ECD ☐ G ECD ☐ H FID ☐ H OI4450PID/FID ☐ I FID

Extraction/Cleanup: ☐ PFE ☐ GPC ☐ Other:

III. Type of Sample/Analytical Anomaly

☐ Values Outside of Control Limits:

1 ☐ Blank Contamination	8 ☐ Surrogate Spike Recoveries
2 ☐ SB/SBD Spike Recoveries	9 ☐ SB/SBD RPD
3 ☐ MS/MSD Spike Recoveries	10 ☐ MS/MSD RPD
4 ☐ LCS/SRM Recoveries	11 ☐ Sample/LD RPD
5 ☐ Initial Calibration	12 ☐ Continuing Calibration Checks
6 ☐ Performance Checks	13 ☐ Tuning Criteria
7 ☐ ISTD % Differences	

14 ☐ Holding time exceeded by:
15 ☐ Insufficient sample amount.
16 ☐ Inappropriate storage, container or preservation.
17 ☒ Other

Anomaly Description: *17. Several MDL/RDLs were raised due to overlapping PCB congeners.*

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

☐ Sample(s) re-analyzed
☐ Sample(s) re-prepared and re-analyzed
☐ Sample(s) reported "AS IS"
☒ Data qualified with the following flags: *TA*
☐ Other

Corrective Action Description:

VI. Potential Effects on Data Quality:

☒ None; corrective action entirely corrected anomaly (explanation optional):

☐ Potential effect explanation (explanation mandatory):

	Signatures	Signature Dates
Reported By: *Gretchen Nerlin*		
Reviewer: *Jim Fiscus*		
Supervisor: *Mike Doubrava*		
QA Officer: *Colin Elliott* (For QA1 only)		
cc: LPM: Fritz Grothkopp		

King County Environmental Lab Batch Report

Denny Way Sediment Cap 2009, L47904

WG102321 Chlorinated Pesticides

Sample	Project	Project Descriptic	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L47904-1	423368-80	Denny Way Sediment, Post Construction Monitoring	ORPESTSMS	SALTWTRSED	5/4/2009 9:40	5/18/2009 8:00	6/9/2009 13:19	WG102321-1, -2, -3, -4, -5, -6, -7	
L47904-3	423368-80		ORPESTSMS	SALTWTRSED	5/4/2009 9:10	5/18/2009 8:00	6/9/2009 13:57		
L47904-5	423368-80		ORPESTSMS	SALTWTRSED	5/4/2009 10:12	5/18/2009 8:00	6/9/2009 14:34		
L47904-8	423368-80		ORPESTSMS	SALTWTRSED	5/4/2009 13:00	5/18/2009 8:00	6/9/2009 15:11		
L47904-9	423368-80		ORPESTSMS	SALTWTRSED	5/4/2009 13:55	5/18/2009 8:00	6/9/2009 15:48		
L47904-10	423368-80		ORPESTSMS	SALTWTRSED	5/4/2009 11:20	5/21/2009 8:00	6/9/2009 10:51		
L47904-13	423368-80		ORPESTSMS	SALTWTRSED	5/4/2009 15:00	5/18/2009 8:00	6/9/2009 10:13		
L47904-14	423368-80		ORPESTSMS	SALTWTRSED	5/4/2009 14:20	5/18/2009 8:00	6/9/2009 16:25		
L47904-15	423368-80		ORPESTSMS	SALTWTRSED	5/4/2009 15:35	5/18/2009 8:00	6/9/2009 17:03		
L47904-16	423368-80		ORPESTSMS	SALTWTRSED	5/4/2009 16:17	5/18/2009 8:00	6/9/2009 17:40		
L47904-17	423368-80		ORPESTSMS	SALTWTRSED	5/4/2009 13:35	5/18/2009 8:00	6/9/2009 18:17		
WG102321-1	MB		ORPESTSMS	OTHR SOLID		5/18/2009 8:00	6/9/2009 5:53		MB090518
WG102321-2	SB		ORPESTSMS	OTHR SOLID		5/18/2009 8:00	6/9/2009 7:07		WG102321-1
WG102321-3	MS		ORPESTSMS	SALTWTRSED		5/18/2009 8:00	6/9/2009 7:45		L47904-10
WG102321-4	MSD		ORPESTSMS	SALTWTRSED		5/18/2009 8:00	6/9/2009 8:22		WG102321-3 L47904-10
WG102321-5	SRM		ORPESTSMS	SALTWTRSED		5/18/2009 8:00	6/9/2009 8:59		1944
WG102321-6	LD		ORPESTSMS	SALTWTRSED		5/18/2009 8:00	6/9/2009 9:36		L47904-13
WG102321-7	MB		ORPESTSMS	OTHR SOLID		5/21/2009 8:00	6/9/2009 6:30		MB090521

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

Workgroup: WG102321 Chlorinated Pesticides

MB:WG102321-1 Matrix: OTHR SOLID Listtype: ORPESTSMS Method: SW846 3550B*SW846 8081B Project: NONE
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
4,4'-DDD	1	2	ug/Kg	<MDL	
4,4'-DDE	1	2	ug/Kg	<MDL	
4,4'-DDT	1	2	ug/Kg	<MDL	

SB:WG102321-2 MB:WG102321-1 Matrix: OTHR SOLID Listtype: ORPESTSMS Method: SW846 3550B*SW846 8081B Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
4,4'-DDD	1	2	ug/Kg	<MDL	10	9.64	96		78--121
4,4'-DDE	1	2	ug/Kg	<MDL	10	9.44	94		75--111
4,4'-DDT	1	2	ug/Kg	<MDL	10	9.06	91		57--145

MSD:WG102321-4 MS:WG102321-3 L47904-10 Matrix: SALTWTRSED Listtype: ORPESTSMS Method: SW846 3550B*SW846 8081B Project: 423368-80
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	Samp Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
4,4'-DDD	1	2	ug/Kg	<MDL	10	9.71	97		41--157	10	8.68	87		11		50
4,4'-DDE	1	2	ug/Kg	<MDL	10	9.64	96		59--125	10	8.83	88		9		50
4,4'-DDT	1	2	ug/Kg	<MDL	10	9.54	95		50--144	10	8.6	86		10		50

SRM:WG102321-5 Matrix: SALTWTRSED Listtype: ORPESTSMS Method: SW846 3550B*SW846 8081B Project: NONE
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
4,4'-DDT	5.3	10.7	ug/Kg	119	159	134		10--200

LD:WG102321-6 L47904-13 Matrix: SALTWTRSED Listtype: ORPESTSMS Method: SW846 3550B*SW846 8081B Project: 423368-80
(Lab Duplicate)

Parameter	MDL	RDL	Units	Samp Value	LD Value	RPD^	Qual	Lab Limit
4,4'-DDD	1	2	ug/Kg	2.22	1.1	70	*	35
4,4'-DDE	1	2	ug/Kg	<MDL	<MDL			35
4,4'-DDT	1	2	ug/Kg	22.5	<MDL	200	*	35

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

MB:WG102321-7 Matrix: OTHR SOLID Listtype: ORPESTSMS Method: SW846 3550B*SW846 8081B Project: NONE
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
4,4'-DDD	1	2	ug/Kg	<MDL	
4,4'-DDE	1	2	ug/Kg	<MDL	
4,4'-DDT	1	2	ug/Kg	<MDL	

Surrogate: (Lab Limits)	2,4,5,6-Tetra chloro m xylene 10--118	Decachl oro biphenyl 12--158
L47904-1	55	83
L47904-3	52	77
L47904-5	61	79
L47904-8	60	81
L47904-9	58	85
L47904-10	26	77
L47904-13	62	87
L47904-14	55	83
L47904-15	61	96
L47904-16	60	85
L47904-17	59	97
WG102321-1	37	100
WG102321-2	49	96
WG102321-3	36	100
WG102321-4	33	89
WG102321-5	60	100
WG102321-6	60	71
WG102321-7	23	84

Trace Organics Data Anomaly Form

Date(s) Occurred: *6/9/2009*

WG #(s): *102321*

☐ **All samples in WKGP(s)** **or** ☒ **Sample #(s):** *WG102321-6 LD & L47904-13*

Project #(s): *423368-80*

Matrix: ☐ **Liquid** ☒ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Extraction

☐ BNA	☐ BNALL	☐ EDC	☐ EDC-LVI
☐ CLPESTPCB	☒ PEST	☐ PCB	☐ OPPEST
☐ VOA-GCMS	☐ NWTPH-GX	☐ NWTPH-DX	☐ NWTPH-HCID
☐ BUTYL TIN	☐ VOA-SULFUR		
☐ Other:			
☐ Subcontracted:			

II. Instrument

GC/ICP/MS: ☐ P

GC/MS: ☐ A ☐ J ☐ K ☐ L ☐ M ☐ N

GC: ☒ F ECD ☐ G ECD ☐ H FID ☐ H OI4450PID/FID ☐ I FID

Extraction/Cleanup: ☐ PFE ☐ GPC ☐ Other:

III. Type of Sample/Analytical Anomaly

☒ Values Outside of Control Limits:

1 ☐ Blank Contamination	8 ☐ Surrogate Spike Recoveries
2 ☐ SB/SBD Spike Recoveries	9 ☐ SB/SBD RPD
3 ☐ MS/MSD Spike Recoveries	10 ☐ MS/MSD RPD
4 ☐ LCS/SRM Recoveries	11 ☒ Sample/LD RPD
5 ☐ Initial Calibration	12 ☐ Continuing Calibration Checks
6 ☐ Performance Checks	13 ☐ Tuning Criteria
7 ☐ ISTD % Differences	

14 ☐ Holding time exceeded by:
15 ☐ Insufficient sample amount.
16 ☐ Inappropriate storage, container or preservation.
17 ☐ Other

Anomaly Description: *11. The sample and corresponding lab duplicate had over the limit RPDs for DDD and DDT. The -13 sample had much higher values than the LD sample.*

IV. Type of Project Anomaly

☐ SAP/Work Plan specified MDLs not met.
☐ SAP/Work Plan specified QC frequency or QC type not met.
☐ SAP/Work Plan specified methodology not used.
☐ Sample exceeds regulatory and/or hazardous waste limits.
☐ Sample data results are unusual or inconsistent with expected results.
☐ Other

Anomaly Description:

V. Corrective Action Taken

☐ Sample(s) re-analyzed ☐ Sample(s) re-prepared and re-analyzed
☒ Sample(s) reported "AS IS"
☒ Data qualified with the following flags: *JK*
☐ Other

Corrective Action Description: *The sample and corresponding LD were JK flagged for DDD & DDT.*

VI. Potential Effects on Data Quality:

☐ None; corrective action entirely corrected anomaly (explanation optional):

☒ Potential effect explanation (explanation mandatory): *The sample was a non-homogeneous matrix, thus separately extracted aliquots displayed varied recoveries. This is not an uncommon occurrence, especially with watery sediment matrix. Unknown bias to sample results.*

	Signatures	Signature Dates
Reported By: *Gretchen Nerlin*		
Reviewer: *Jim Fiscus*		
Supervisor: *Dana Walker*		
QA Officer: *Colin Elliott* **(For QA1 only)**		
cc: LPM:		

WG106121 Chlorinated Pesticides

Sample	Project	Project Descriptio	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L47904-2	423368-80	Denny Way Sediment, Post Construction Monitoring	ORPESTSMS	SALTWTRSED	5/6/2009 9:56	11/16/2009 7:00	11/18/2009 3:25	WG106121-1, -2, -3, -4, -5, -6	
L47904-4	423368-80		ORPESTSMS	SALTWTRSED	5/6/2009 9:37	11/16/2009 7:00	11/18/2009 0:56		
L47904-6	423368-80		ORPESTSMS	SALTWTRSED	5/6/2009 9:02	11/16/2009 7:00	11/18/2009 4:03		
L47904-7	423368-80		ORPESTSMS	SALTWTRSED	5/6/2009 9:20	11/16/2009 7:00	11/18/2009 4:40		
L47904-11	423368-80		ORPESTSMS	SALTWTRSED	5/6/2009 8:42	11/16/2009 7:00	11/18/2009 0:19		
L47904-12	423368-80		ORPESTSMS	SALTWTRSED	5/6/2009 8:27	11/16/2009 7:00	11/18/2009 5:17		
WG106121-1	MB		ORPESTSMS	OTHR SOLID		11/16/2009 7:00	11/17/2009 19:58		MB091116
WG106121-2	SB		ORPESTSMS	OTHR SOLID		11/16/2009 7:00	11/17/2009 20:36		WG106121-1
WG106121-3	MS		ORPESTSMS	SALTWTRSED		11/16/2009 7:00	11/17/2009 21:13		L47904-4
WG106121-4	MSD		ORPESTSMS	SALTWTRSED		11/16/2009 7:00	11/17/2009 21:50		WG106121-3 L47904-4
WG106121-5	SRM		ORPESTSMS	SALTWTRSED		11/16/2009 7:00	11/17/2009 22:27		1944
WG106121-6	LD		ORPESTSMS	SALTWTRSED		11/16/2009 7:00	11/17/2009 23:42		L47904-11

King County Environmental Lab Analytical QC Report

Denny Way Sediment Cap 2009, L47904

Workgroup: WG106121 Chlorinated Pesticides

MB:WG106121-1 Matrix: OTHR SOLID Listtype: ORPESTSMS Method: SW846 3550B*SW846 8081B Project: NONE
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
4,4'-DDD	1	2	ug/Kg	<MDL	
4,4'-DDE	1	2	ug/Kg	<MDL	
4,4'-DDT	1	2	ug/Kg	<MDL	

SB:WG106121-2 MB:WG106121-1 Matrix: OTHR SOLID Listtype: ORPESTSMS Method: SW846 3550B*SW846 8081B Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
4,4'-DDD	1	2	ug/Kg	<MDL	10	9.73	97		78--121
4,4'-DDE	1	2	ug/Kg	<MDL	10	10.9	109		75--111
4,4'-DDT	1	2	ug/Kg	<MDL	10	9.28	93		57--145

MSD:WG106121-4 MS:WG106121-3 L47904-4 Matrix: SALTWTRSED Listtype: ORPESTSMS Method: SW846 3550B*SW846 8081B Project: 423368-80
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	Samp Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
4,4'-DDD	1	2	ug/Kg	1	10	8.62	76		41--157	10	7.98	69		10		35
4,4'-DDE	1	2	ug/Kg	<MDL	10	8.27	83		59--125	10	8.37	84		1		35
4,4'-DDT	1	2	ug/Kg	<MDL	10	8.99	90		50--144	10	8.45	85		6		35

SRM:WG106121-5 Matrix: SALTWTRSED Listtype: ORPESTSMS Method: SW846 3550B*SW846 8081B Project: NONE
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
4,4'-DDT	5.3	10.7	ug/Kg	119	138	116		10--200

LD:WG106121-6 L47904-11 Matrix: SALTWTRSED Listtype: ORPESTSMS Method: SW846 3550B*SW846 8081B Project: 423368-80
(Lab Duplicate)

Parameter	MDL	RDL	Units	Samp Value	LD Value	RPD^	Qual	Lab Limit
4,4'-DDD	1	2	ug/Kg	2.08	2.56	21		35
4,4'-DDE	1	2	ug/Kg	<MDL	<MDL			35
4,4'-DDT	1	2	ug/Kg	<MDL	<MDL			35

Surrogate:	2,4,5,6-Tetra chloro m xylene	Decachl oro biphenyl
(Lab Limits)	10--118	12--158
L47904-2	71	72
L47904-4	64	68
L47904-6	50	53
L47904-7	63	79
L47904-11	63	80
L47904-12	60	73
WG106121-1	53	88
WG106121-2	59	98
WG106121-3	67	71
WG106121-4	65	71
WG106121-5	63	105
WG106121-6	56	72

CHAIN OF CUSTODY FORMS

Login Number: P47904

T_DN.CHEM06

DENNY WAY SEDIMENTS - 2009

Project Number: 423368-80

Personnel: _____

Sample No. (Type)	P47904-1	P47904-2	P47904-3
Locator	DWMP-01	DWMP-02	DWMP-03
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time	5/4/09 0940	5/6/09 956	5/4/09 0910
End Date/Time			
Time Span			
Sample Depth	9	13	17
Comments	0-10 cm, 3 grab COMP	0-10 cm, 3 grab COMP	0-10 cm, 3 grab COMP
PERSONNEL	JB, JD, DR, Allen F.	JD MF BK	JB, JD, DR, Allen
SAMP METH	20143		
SED DEPTH	14, 13, 16	10, 10	16, 15, 17, 17
SED SAMP RANGE			
SED TYPE	20P20	21N20	32N20
TIDE COND	F	~~F~~ S	S
TIDE HT	3.3	~~3.5~~ 0.1	3.1
Dept., Matrix, Prod			
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	6 SALTWTRSED AG-ICP	6 SALTWTRSED AG-ICP	6 SALTWTRSED AG-ICP
	6 SALTWTRSED AS-ICP	6 SALTWTRSED AS-ICP	6 SALTWTRSED AS-ICP
	6 SALTWTRSED CD-ICP	6 SALTWTRSED CD-ICP	6 SALTWTRSED CD-ICP
	6 SALTWTRSED CR-ICP	6 SALTWTRSED CR-ICP	6 SALTWTRSED CR-ICP
	6 SALTWTRSED CU-ICP	6 SALTWTRSED CU-ICP	6 SALTWTRSED CU-ICP

Goods
WG102268
A+W JB 5/8

F. Data
WG102292
A+W JB 5/8

CHAIN OF CUSTODY

RELINQUISHED BY: Marc Patton	Date: 5/6/09	Time: 1130
RECEIVED BY: [signature]	Date: 5-6-09	Time: 1130
2, 4, 6, 7, 11, 12		

continue ...

DENNY WAY SEDIMENTS - 2009

Project Number: 423368-80

Personnel: _____

Sample No. (Type)	P47904-4	P47904-5	P47904-6
Locator	DWMP-04	DWMP-05	DWMP-06
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time	5/6/09 937	5/4/09 1012	5/6/09 902
End Date/Time			
Time Span			
Sample Depth	23	6	19
Comments	0-10 cm, 3 grab COMP	0-10 cm, 3 grab COMP	0-2 cm, 3 grab COMP
PERSONNEL			
SAMP METH	JD MP BK	JB, JD, DR, AF	JD MP BK
SED DEPTH	11, 11, 12	8, 6, 6 7	17, 16, 17
SED SAMP RANGE			
SED TYPE	23S20	43P21	23N20
TIDE COND	S	F	E
TIDE HT	0.5	3.8	2

Dept., Matrix, Prod									
	3	SALTWTRSED	NH3-KCL	3	SALTWTRSED	NH3-KCL	3	SALTWTRSED	NH3-KCL
	3	SALTWTRSED	PSD	3	SALTWTRSED	PSD	3	SALTWTRSED	PSD
	3	SALTWTRSED	TOC	3	SALTWTRSED	TOC	3	SALTWTRSED	TOC
	3	SALTWTRSED	TOTS	3	SALTWTRSED	TOTS	3	SALTWTRSED	TOTS
	3	SALTWTRSED	TOTSULFIDE	3	SALTWTRSED	TOTSULFIDE	3	SALTWTRSED	TOTSULFIDE
	6	SALTWTRSED	AG-ICP	6	SALTWTRSED	AG-ICP	6	SALTWTRSED	AG-ICP
	6	SALTWTRSED	AS-ICP	6	SALTWTRSED	AS-ICP	6	SALTWTRSED	AS-ICP
	6	SALTWTRSED	CD-ICP	6	SALTWTRSED	CD-ICP	6	SALTWTRSED	CD-ICP
	6	SALTWTRSED	CR-ICP	6	SALTWTRSED	CR-ICP	6	SALTWTRSED	CR-ICP
	6	SALTWTRSED	CU-ICP	6	SALTWTRSED	CU-ICP	6	SALTWTRSED	CU-ICP

continue ...

DENNY WAY SEDIMENTS - 2009

Project Number: 423368-80

Personnel: _____

Sample No. (Type)	P47904-7	P47904-8 -8 / -17	P47904-9
Locator	DWMP-07	DWMP-08 →	DWMP-09
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time	5/6/09 920	5/4/09 0-2 1300	5/4/09 1355
End Date/Time		" D-10 1335	
Time Span			
Sample Depth	23	26	31
Comments	0-2 cm, 3 grab COMP	0-2 & 0-10 cm, 3 grab COMP	0-2 cm, 3 grab COMP
PERSONNEL	JD MP BK	JB, JD, PR, AF	←
SAMP METH	3		
SED DEPTH	7, 9, 12	17, 14, 16 / 17, 15, 16	17, 17, 17
SED SAMP RANGE			
SED TYPE	23N20	20D37 →	20S20
TIDE COND	E	F / F	S
TIDE HT	1	8.5 / 8	8.3
Dept., Matrix, Prod			
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	6 SALTWTRSED AG-ICP	6 SALTWTRSED AG-ICP	6 SALTWTRSED AG-ICP
	6 SALTWTRSED AS-ICP	6 SALTWTRSED AS-ICP	6 SALTWTRSED AS-ICP
	6 SALTWTRSED CD-ICP	6 SALTWTRSED CD-ICP	6 SALTWTRSED CD-ICP
	6 SALTWTRSED CR-ICP	6 SALTWTRSED CR-ICP	6 SALTWTRSED CR-ICP
	6 SALTWTRSED CU-ICP	6 SALTWTRSED CU-ICP	6 SALTWTRSED CU-ICP

continue ...

DENNY WAY SEDIMENTS - 2009

Project Number: 423368-80

Personnel: _____

Sample No. (Type)	P47904-10	P47904-11	P47904-12
Locator	DWMP-10	DWMP-11	DWMP-12
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time	5/4/09 1120	5/6/09 0842	5/6/09 0827
End Date/Time			
Time Span			
Sample Depth	6-11 (8)	21	29
Comments	0-10 cm, 3 grab COMP	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP
PERSONNEL	VB, VP, DR, AK	JD MP BK	JD MP BK
SAMP METH			
SED DEPTH	(16), 16, 17	10, 11, 15 (12)	17, 17, 17
SED SAMP RANGE			
SED TYPE	30N70	23W20	20N20
TIDE COND	F	E	E
TIDE HT	5.2	2	2.5
Dept., Matrix, Prod			
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	6 SALTWTRSED AG-ICP	6 SALTWTRSED AG-ICP	6 SALTWTRSED AG-ICP
	6 SALTWTRSED AS-ICP	6 SALTWTRSED AS-ICP	6 SALTWTRSED AS-ICP
	6 SALTWTRSED CD-ICP	6 SALTWTRSED CD-ICP	6 SALTWTRSED CD-ICP
	6 SALTWTRSED CR-ICP	6 SALTWTRSED CR-ICP	6 SALTWTRSED CR-ICP
	6 SALTWTRSED CU-ICP	6 SALTWTRSED CU-ICP	6 SALTWTRSED CU-ICP

continue ...

DENNY WAY SEDIMENTS - 2009

Project Number: 423368-80

Personnel: _____

Sample No. (Type)	P47904-13	P47904-14	P47904-15
Locator	DWMP-13	DWMP-14	DWMP-15
Short Loc. Desc.			
Locator Desc.			
Site	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
Start Date/Time	5/4/09 1500	5/4/09 1420	5/4/09 1535
End Date/Time			
Time Span			
Sample Depth	8	14	22
Comments	0-10 cm, 3 grab COMP	0-10 cm, 3 grab COMP	0-10 cm, 3 grab COMP
PERSONNEL	JR, JP, FR, AF		
SAMP METH			
SED DEPTH	6, 6, 8 (7)	(16), 17, 16	17, 15, (16)
SED SAMP RANGE			
SED TYPE	34S20	21T21	10S30
TIDE COND	S	S	E
TIDE HT	8.2	8.4	8
Dept., Matrix, Prod			
	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL	3 SALTWTRSED NH3-KCL
	3 SALTWTRSED PSD	3 SALTWTRSED PSD	3 SALTWTRSED PSD
	3 SALTWTRSED TOC	3 SALTWTRSED TOC	3 SALTWTRSED TOC
	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS	3 SALTWTRSED TOTS
	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE	3 SALTWTRSED TOTSULFIDE
	6 SALTWTRSED AG-ICP	6 SALTWTRSED AG-ICP	6 SALTWTRSED AG-ICP
	6 SALTWTRSED AS-ICP	6 SALTWTRSED AS-ICP	6 SALTWTRSED AS-ICP
	6 SALTWTRSED CD-ICP	6 SALTWTRSED CD-ICP	6 SALTWTRSED CD-ICP
	6 SALTWTRSED CR-ICP	6 SALTWTRSED CR-ICP	6 SALTWTRSED CR-ICP
	6 SALTWTRSED CU-ICP	6 SALTWTRSED CU-ICP	6 SALTWTRSED CU-ICP

continue ...

DENNY WAY SEDIMENTS - 2009

Project Number: 423368-80 Personnel: _____

Sample No. (Type)	P47904-16	
Locator	DWMP-16	
Short Loc. Desc.		
Locator Desc.		
Site	SEATTLE WATERFRONT	
Start Date/Time	5/4/09 1617	
End Date/Time		
Time Span		
Sample Depth	27	
Comments	0-10 cm, 3 grab COMP	
PERSONNEL	JB, JP, DK, AF	
SAMP METH		
SED DEPTH	15, 16, 16	
SED SAMP RANGE		
SED TYPE	12 N 20	
TIDE COND	E	
TIDE HT	7	
Dept., Matrix, Prod		
	3 SALTWTRSED NH3-KCL	
	3 SALTWTRSED PSD	
	3 SALTWTRSED TOC	
	3 SALTWTRSED TOTS	
	3 SALTWTRSED TOTSULFIDE	
	6 SALTWTRSED AG-ICP	
	6 SALTWTRSED AS-ICP	
	6 SALTWTRSED CD-ICP	
	6 SALTWTRSED CR-ICP	
	6 SALTWTRSED CU-ICP	

continue ...

KING COUNTY ENVIRONMENTAL LABORATORY
QUALITY ASSURANCE REVIEW

For

Elliott West CSO Treatment Facility and Denny Way CSO
Post-Operation Sediment Monitoring
Year Five

Denny Way CSO Areas A and B Nearshore Sediment Remediation
Post-Construction Sediment Monitoring
Year Two

Areas C, D and E Monitored Natural Recovery
Year Seven

April 2010

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INTRODUCTION

This quality assurance (QA) narrative is intended to document the QA review conducted on the chemistry analyses performed for the Elliott West CSO Treatment Facility and Denny Way CSO, Post-Operation Sediment Monitoring, the Denny Way CSO Areas A and B Nearshore Sediment Remediation, Post-Construction Sediment Monitoring and the Areas C, D and E Monitored Natural Recovery. The QA narrative is organized into the five sections listed below.

- General Comments
- Sample Collection
- Conventional Analyses
- Metal Chemistry
- Organic Chemistry

An overview of the approach used for the QA review is detailed in the *General Comments* section. Additional information specific to each analysis is included in the appropriate analytical section.

This QA review and narrative (specifically defined as QA1) have been conducted in accordance with guidelines established through the Puget Sound Dredged Disposal Analysis (PSDDA) program, Sediment Management Standards (WAC 173-204-610) and the Sediment Sampling and Analysis Appendix (SAPA), WDOE 2008. Other approaches incorporated in the QA review have been established through collaboration between the King County Environmental Laboratory (KC Laboratory) and the Washington State Department of Ecology (Ecology) Sediment Management Unit.

GENERAL COMMENTS

Scope of Samples Submitted

This QA review is associated with marine sediment samples collected on April 5 & 6, 2010 as part of the Elliott West CSO Treatment Facility and Denny Way CSO, Post-Operation Sediment Monitoring, the Denny Way CSO Areas A and B Nearshore Sediment Remediation, Post-Construction Sediment Monitoring and the Areas C, D and E Monitored Natural Recovery.

Except where noted in the subcontracting sections of this QA review, all analyses have been conducted by the King County Environmental Laboratory (KCEL). Sediment analytical data are reported with associated data qualifiers and have undergone QA1 review, as summarized in this narrative report.

Completeness

Completeness has been evaluated for this data submission and QA review by considering the following criteria:

- Comparing reported data to the planned project analyses summarized in Table 1.
- Compliance with storage conditions and holding times.
- Frequency of analysis of the complete set of quality control (QC) samples outlined in Table 2.

Subcontracted Analyses

Analyses that have been subcontracted and the issues associated with these subcontracted analyses are noted in this narrative.

Methods

Analytical methods are noted in the applicable analytical sections of this QA review.

Target Lists

The reported target lists have been compared to the target analytes listed in *Table 1 - Marine Sediment Quality Standards Chemical Criteria* and *Table 3 - Puget Sound Marine Sediment Cleanup Screening Levels Chemical Criteria* contained in Chapter 173-204 WAC.

Detection Limits

As part of the QA1 review, the detection limits reported for each parameter have been reviewed against the detection limit requirements defined in the SAP. When sample results have been reported as less than the Method Detection Limit (<MDL) and the associated detection limits are higher than those defined in the SAP, the particular samples and parameters have been identified and the circumstances explained. These summaries are included with each analytical section of this QA review.

The KC Laboratory reports include both the reporting detection limit (RDL) and the method detection limit (MDL) for each sample and parameter, where applicable. The RDL is defined as *the minimum concentration of a chemical constituent that can be reliably quantified while t*he MDL is defined as *the minimum concentration of a chemical constituent that can be detected.* Some subcontracted laboratory data are available with an MDL only, in accordance with the subcontracting laboratory policies. For some methods the detection limits reported may vary from sample to sample depending on the amount of sample analyzed and any additional dilutions required.

Storage Conditions and Holding Times

Storage conditions and holding times have been evaluated using guidelines defined in the project SAP. Preparation and analysis holding times for each method are summarized in each analytical section.

Method Blanks

Method blank results have been used to evaluate the possible laboratory contamination of samples. Method blank results have been reviewed for the presence of analytes detected at or greater than the MDL. For analytes where the method blank response was at or above the MDL all associated sample results have been qualified with a B flag based on the rules below.

1. Add a "B" flag to all parameters if the associated blank is ≥ the MDL and the sample result is ≥ MDL but ≤ 5 times the blank.
2. Add a "B2" flag to common organic lab contaminants (Acetone, 2-Butanone, Methylene Chloride, Bis (2-ethylhexyl) Phthalate, Butyl Benzyl Phthalate and Di-n-butyl Phthalate) if the method blank is ≥ the MDL and the sample result is > 5 and ≤ 10 times the blank.
3. Add a "B3" flag to all other parameters if the associated blank is ≥ the MDL and the sample result is > 5 and ≤ 10 times the blank.

Standard Reference Materials

Standard reference material (SRM) recoveries have been used to evaluate possible low or high analytical bias on a batch-specific basis. SRM analysis is included with metals and selected organic and conventional parameters (see Table 2). SRMs are purchased from outside agencies (NIST or NRCC) and must have a certified analyte value in order for a particular parameter to be evaluated. All associated sample results for the certified analytes are flagged if the SRM recoveries are unacceptable. Associated sample results may be flagged with a JL whenever recoveries are measured above the acceptance limits and may be flagged with a JG when recoveries are measured below the acceptance limits.

Matrix Spikes

Matrix spike recoveries have been used to evaluate possible low or high analytical bias on a matrix and batch-specific basis. Matrix spikes are analyzed with metals, organics and selected conventionals parameters (see Table 2). Associated sample results may be flagged with a JL whenever recoveries are measured above the acceptance limits and may be flagged with a JG when recoveries are measured below the acceptance limits (but at or above 10%).

For Metals only, matrix spike recovery results are used to qualify sample data only when the sample levels in the spiked sample are less than 4 times the spiked concentration. High sample levels relative to the spiked concentration can compromise the measurement of accurate spike recoveries.

Laboratory Replicate Samples

Replicate analysis (laboratory duplicates or triplicates) is used as an indicator of method precision and is used to qualify data on an analyte and batch-specific basis. Not all replicate data are used, however, as an indicator for data qualification. Only sets of replicate results which include at least one result greater than the RDL are considered for data qualification. These guidelines have been used to account for the fact that precision obtained near the detection limit is not representative of precision obtained throughout the entire analytical range. Associated results may be flagged with a JK whenever the measured precision is unacceptable (greater than the acceptance limit).

Surrogates

Surrogate recoveries have been used to evaluate possible low or high analytical bias on a sample-specific basis. Surrogates are only analyzed for organic parameters. Individual sample results may be flagged with a JL whenever recoveries are measured above the acceptance limits and may be flagged with a JG when recoveries are measured below the acceptance limits (but at or above 10%).

Data Qualifiers

The data qualification guidelines described above has been summarized in Table 3. This table conforms to the guidelines in the 2008 SAPA and also shows the data qualifiers used for the Washington Dept of Ecology EIM electronic data format.

Units and Significant Figures

Units and the reporting basis vary, depending on the parameter and are explained in the analytical sections below. Data generally have been reported to three significant figures if above the RDL and two significant figures if equal to or below the RDL.

SAMPLE COLLECTION

This section describes sampling activities associated with the collection of 17 marine sediment samples on April 5 & 6, 2010. All sampling activities were conducted following guidance suggested in the Puget Sound Protocols (PSEP, 1996 and 1998).

Sampling Locations and Station Positioning

Sampling locations (stations) were selected and the prescribed coordinates determined prior to field activities. Stations were selected to match existing stations from the Pre-Construction monitoring program. The prescribed station coordinates are presented in the following table. Also presented in the table are the actual coordinates recorded during sampling activities. All station coordinates are recorded in state plane coordinate system North American Datum 1983 (NAD83).

DENNY WAY CHEM. SEDIMENT GRAB SAMPLING POINTS, April 2010

Lab Number	Locator	Cast #	# Grabs	Prescribed Northing	Actual Northing	Prescribed Easting	Actual Easting	Offset > 6 m
L50382-1	DWMP-01	1	2	228813	228815	1264047	1264052	
L50382-1	DWMP-01	2	1	228813	228815	1264047	1264050	
L50382-2	DWMP-02	1	2	228770	228770	1263919	1263923	
L50382-2	DWMP-02	2	1	228770	228772	1263919	1263919	
L50382-3	DWMP-03	1	2	228638	228637	1263846	1263847	
L50382-3	DWMP-03	2	1	228638	228638	1263846	1263845	
L50382-4	DWMP-04	1	2	228546	228555	1263631	1263630	
L50382-4	DWMP-04	2	1	228546	228543	1263631	1263630	
L50382-5	DWMP-05	1	2	229041	229035	1263836	1263827	
L50382-5	DWMP-05	2	1	229041	229034	1263836	1263841	
L50382-6	DWMP-06	1	2	228839	228843	1263542	1263539	
L50382-6	DWMP-06	2	1	228839	228845	1263542	1263542	
L50382-7	DWMP-07	1	2	228660	228672	1263350	1263354	
L50382-7	DWMP-07	2	1	228660	228663	1263350	1263357	
L50382-8	DWMP-08, 0-2cm	1	1	228907	228911	1263341	1263339	
L50382-8	DWMP-08, 0-2cm	2	2	228907	228905	1263341	1263338	
L50382-9	DWMP-08, 0-10cm	3	2	228907	228908	1263341	1263344	
L50382-9	DWMP-08, 0-10cm	4	1	228907	228914	1263341	1263340	
L50382-10	DWMP-09	1	1	228806	228812	1263215	1263217	
L50382-10	DWMP-09	2	1	228806	228810	1263215	1263225	
L50382-10	DWMP-09	3	1	228806	228809	1263215	1263219	
L50382-11	DWMP-10	1	1	229326	229335	1263565	1263564	
L50382-11	DWMP-10	2	1	229326	229329	1263565	1263563	
L50382-11	DWMP-10	3	1	229326	229338	1263565	1263563	
L50382-12	DWMP-11	1	2	229156	229158	1263272	1263275	
L50382-12	DWMP-11	2	1	229156	229160	1263272	1263273	
L50382-13	DWMP-12	1	2	228963	228967	1263055	1263059	
L50382-13	DWMP-12	2	1	228963	228962	1263055	1263057	
L50382-14	DWMP-13	1	1	229640	229643	1263317	1263320	
L50382-14	DWMP-13	2	1	229640	229641	1263317	1263314	
L50382-14	DWMP-13	3	1	229640	229642	1263317	1263319	
L50382-15	DWMP-14	1	1	229553	229556	1263228	1263225	
L50382-15	DWMP-14	2	2	229553	229552	1263228	1263228	
L50382-16	DWMP-15	1	1	229444	229454	1263053	1263064	
L50382-16	DWMP-15	2	2	229444	229444	1263053	1263053	
L50382-17	DWMP-16	1	2	229353	229350	1262966	1262971	
L50382-17	DWMP-16	2	1	229353	229353	1262966	1262969	

Sediment grab samples were collected from the King County research vessel *Liberty*, which is equipped with a differential global positioning system (DGPS). Field coordinates were recorded using DGPS for each deployment of the tandem grab samplers as they contacted the sediment. All field coordinates for individual casts listed in the above table are within the +/- 6 meter accuracy limits as defined in the SAP.

Sample Description Table

Lab Sample #	Locator	Sample Collection	Sub Sample Depth (cm)	Average Sediment Sampling Depth (cm)	Sample Usage
L50382-1	DWMP-01	Surface Grabs	0 - 10	14	Chemistry
L50382-2	DWMP-02	Surface Grabs	0 - 10	11	Chemistry
L50382-3	DWMP-03	Surface Grabs	0 - 10	17	Chemistry
L50382-4	DWMP-04	Surface Grabs	0 - 10	14	Chemistry
L50382-5	DWMP-05	Surface Grabs	0 - 6	6	Chemistry
L50382-6	DWMP-06	Surface Grabs	0 - 2	17	Chemistry
L50382-7	DWMP-07	Surface Grabs	0 - 2	11	Chemistry
L50382-8	DWMP-08	Surface Grabs	0 - 2	13	Chemistry
L50382-9	DWMP-08	Surface Grabs	0 - 10	15	Chemistry
L50382-10	DWMP-09	Surface Grabs	0 - 2	17	Chemistry
L50382-11	DWMP-10	Surface Grabs	0 - 9	9	Chemistry
L50382-12	DWMP-11	Surface Grabs	0 - 2	15	Chemistry
L50382-13	DWMP-12	Surface Grabs	0 - 2	17	Chemistry
L50382-14	DWMP-13	Surface Grabs	0 - 8	8	Chemistry
L50382-15	DWMP-14	Surface Grabs	0 - 10	15	Chemistry
L50382-16	DWMP-15	Surface Grabs	0 - 10	12	Chemistry
L50382-17	DWMP-16	Surface Grabs	0 - 10	17	Chemistry

Sample Collection

Sediment was collected at each station using two, stainless steel, modified, 0.1 m^2 Van Veen grab samplers deployed in tandem via hydrowire. For each acceptable deployment, between 6-17 cm of sediment was recovered, allowing sub-sampling from the top 2 or 10 cm. For samples L50382-5, -11 and -14, less than 10 cm was collected in the Van Veens, therefore less than 10 cm was subsampled for analysis. Multiple sampler deployments were needed to collect sufficient sample volume to perform all chemistry analyses.

Water depth at the 16 subtidal cap sample stations ranged between 6 and 31 meters (not corrected for tide).

Sample Handling

At each station, approximately equal amounts of sediment from either the top 2 or top 10 cm were subsampled from the separate grabs by using a large stainless steel spoon since it gave more consistent results than the 200 cm^2 “cookie cutter”/spatula method. These aliquots were placed into a stainless steel compositing bowl, covered with foil between grab deployments. After all aliquots had been collected for that station, the sediment within the bowl was thoroughly homogenized and split out into pre-labeled containers. Sample containers were supplied by the King County Environmental Laboratory and were pre-cleaned according to analytical specifications.

Decontamination

Individual sets of the compositing bowls and sub-sampling and mixing equipment were dedicated to each station, precluding the need for decontamination of this field gear. The Van Veen grab samplers were decontaminated between stations by scrubbing with a brush, Detergent 8 and ambient seawater, followed by a thorough *in situ* rinsing.

Sample Storage and Preservation

All samples were stored in ice-filled coolers from the time of collection until delivery to the King County Environmental Laboratory. They were delivered under chain-of-custody and were maintained as such throughout the analytical process. These samples were stored frozen (-18°C) by the laboratory until analysis with the exception of samples for particle size distribution (PSD) and Total Sulfide analysis. For these 2 methods, samples were stored refrigerated at approximately 4°C. Total Sulfide samples were preserved in the field using Zinc Acetate. A more complete description of sample handling and storage can be found in each analytical chemistry section of this narrative.

Copies of chain-of-custody forms and field notes are included as an appendix to this QA review narrative. The collect time is defined as that time that sampling commences at each station.

CONVENTIONAL ANALYSES

Completeness
Conventional data are reported for all samples and parameters summarized in Table 1. These samples were analyzed in association with the complete set of QC samples outlined in Table 2.

Subcontracted Analyses
All analyses were performed at the King County Environmental Lab.

Methods
Ammonia analysis was performed in accordance with Standard Method (SM)4500-NH3-G following a KCl extraction (Plumb, 1981). PSD analysis was performed in accordance with ASTM D422 and Puget Sound Protocols methodologies (*Recommended Protocols for Measuring Conventional Sediment Variables in Puget Sound* – page 9 – PSEP, 1986). TOC analysis was performed in accordance with EPA 9060 and PSEP 1996. Total solids analyses were performed in accordance with SM2540-G. Total sulfide analysis was performed in accordance with EPA 9030B / SM4500S2-D and Plumb, 1981.

Detection Limits
The detection limits (MDLs) reported for Conventionals parameters are all within the requirements defined in the SAP, except for the following:

Parameter (mg/Kg)	Sample ID#	SAP MDL (dry wt.)	Reported MDL (dry wt.)	Reason for higher MDL Value
Total Sulfide	L50382-1, 3-6, 10, 13-15, 17	1.0	(1)	Sample dilutions and totals solids values below 50%.
Total Organic Carbon	L50382-1-3, 6-10, 12-13, 15-17	1000	(1)	Reduced sample size analyzed and totals solids values below 50%.
Ammonia Nitrogen	L50382-1, 6, 8, 10, 13	0.2	(1)	Sample dilutions and totals solids values below 50%.
PSD	L50382-1 - 17	0.1 and 0.5	(1)	Reduced mass amounts and Totals solids values below 50%.

(1) See attached SAP MDL Comparison table
In all cases where the reported MDL was higher than the SAP MDL, a detectable level was measured, therefore project objectives were met.

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied. This may not apply to subcontracted data.

In the Comprehensive Report attached, Conventionals parameters are reported in mg/Kg, dry weight basis, for TOC, ammonia, Total Sulfide and Total Volatile Solids. Particle Size Distribution (PSD) and Total Solids are reported in percent, wet weight basis. For all parameters, the MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times

Sample storage conditions and holding times have been evaluated using guidelines established in the SAP. The dates and holding time criteria for the actual storage conditions used for conventional analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Prep Date	Date Analyzed	Sample Holding Time	Extract Holding Time
Ammonia Nitrogen	L50382-3,8,9,10,11,15,16	05-Apr-10	08-June-10	21-Jun-10	6 months at -18°C	14 days at -18°C
	L50382-1,2,4,5,6,7,12,13,14,17	06-Apr-10				
Particle Size Distribution	L50382-3,8,9,10	05-Apr-10	17-May-10	18-May-10	6 months at ≤6°C	NA
	L50382-1,2,4,7	06-Apr-20				
	L50382-11,16	05-Apr-10	25-Jun-10	28-Jun-10		
	L50382-5,6	06-Apr-10				
	L50382-15	05-Apr-10	08-Jun-10	14-Jun-10		
	L50382-12,13,14, 17	06-Apr-10				
Total Organic Carbon	L50382-3,8,9,10,11,15,16	05-Apr-10	17-Jun-10	22 to 24-Jun-10	6 months at -18°C	6 months at -18°C
	L50382-1,2,4,5,6,7,12,13,14,17	06-Apr-10				
Total Solids	L50382-3,8,9,10,11,15,16	05-Apr-10	22-Jun-10	23-Jun-10	6 months at -18°C	NA
	L50382-1,2,4,5,6,7,12,13,14,17	06-Apr-10				
Total Sulfide	L50382-16	05-Apr-10	07-Apr-10	07-Apr-10	7 days at ≤6°C	NA
	L50382-1,2,4	06-Apr-10				
	L50382-3,8,9,10,11,15	05-Apr-10	06-Apr-10	06-Apr-10		
	L50382-5,6,7,12,13,14,17	06-Apr-10	13-Apr-10	13-Apr-10		

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks

Method blanks were analyzed in connection with ammonia nitrogen/solids/total sulfides/total organic carbon analyses. All method blanks results were less than the MDL.

Standard Reference Materials

An SRM (Buffalo River Sediment) was analyzed in connection with TOC analysis. The percent recovery for the SRM analysis was within the 80 to 120% QC limits.

Matrix Spikes

The matrix spike recovery for ammonia nitrogen, total sulfide and TOC were within the 75 to 125% acceptance limits (65% to 135% for total sulfide).

Laboratory Replicate Samples

A set of laboratory triplicates was analyzed for each of the conventional parameters. The percent relative standard deviation (%RSD) for each triplicate set was less than or equal to the 20% acceptance limit.

METALS CHEMISTRY

Completeness
Metal chemistry data are reported for all samples and parameters summarized in Table 1. These samples were analyzed for mercury and other metals in association with the complete set of QC samples outlined in Table 2.

Subcontracted Analyses
Metals analysis was not subcontracted for these sets of samples.

Methods
Mercury analysis was performed in accordance with EPA Method SW846, 7471B. Analysis for other metals was performed in accordance with EPA method SW846, 3050B/6010C.

Target List
The reported target list includes all metals specified in Table 1.

Detection Limits
The wet weight detection limits (MDLs) reported for Metals parameters are all within the requirements defined by the SAP.

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied.

In the Comprehensive Report attached, Metals parameters are reported in mg/Kg, dry weight basis, for all elements. The MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times
Sample storage conditions and holding times have been evaluated using guidelines established during the Third Annual PSDDA Review Meeting. The dates and holding time criteria for the actual storage conditions used for metals analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Date Digested/ Extracted	Date Analyzed	Sample Holding Time	Digestate/Extract Holding Time
Total Metals	L50382-1 - 17	4/5/2010 4/6/2010	5/4/2010	5/5/2010	2 Years at -18°C	6 months
Total Mercury	L50382-1 -10, 12-17	4/5/2010 4/6/2010	4/26/2010	4/27/2010	28 days at -18°C	NA
	L50382-11	4/5/2010	4/26/2010	4/28/2010		

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks
All metals method blanks results were less than the MDL.

Standard Reference Materials
The SRM analyzed in association with samples included in this data submission is National Research Council of Canada PACS-2. This SRM is not certified for Silver, Arsenic or Cadmium. Acceptance limits for the certified elements have been developed using historical lab data since

the certified SRM values and limits were determined with different analysis techniques. SRM recoveries outside these lab-defined limits indicate the method has not performed as expected and the sample data have been qualified to indicate the expected bias.

All metals SRM recoveries were within the lab defined limits indicated in the SAP.

A laboratory control sample (LCS) ERA Soil was also analyzed with the total metals digestion. All recoveries were within the certified limits of the sample. The LCS is used as a secondary check for the total metals digestion procedure because the certified values for the elements are determined using the same methodology. No results from the LCS are used to qualify data.

Matrix Spikes

All matrix spike recoveries were within the 75% to 125% QC limits.

Laboratory Replicate Samples

The relative percent differences (RPDs) for laboratory duplicate results for all metals were less than or equal to the QC limit of 20%.

ORGANIC CHEMISTRY

Completeness

Organics data are reported for all samples and parameters summarized in Table 1. These samples were analyzed in association with the complete set of QC samples outlined in Table 2.

Methods

BNA analysis was performed in accordance with EPA method 3550B / 8270D. PCB and chlorinated pesticides analysis was performed in accordance with EPA methods 3550B / 8082A and 8081B. Note: Newer versions of methods 8081 and 8082 were used compared to the methods specified in the SAP. This update had no impact on data quality.

Target List

The reported BNA target list includes all compounds specified in *Table 1 - Marine Sediment Quality Standards Chemical Criteria* and *Table 3 - Puget Sound Marine Sediment Cleanup Screening Levels Chemical Criteria* contained in Chapter 173-204 WAC with the exception of benzo(j)fluoranthene. The KC Laboratory has verified that analytical conditions are sufficient to calculate a total benzofluoranthene result using the reported *b* and *k* isomers.

Reported PCB data include Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.

Detection Limits, Units and Significant Figures

The sample detection limits (MDLs), as reported on a wet weight basis for Organics parameters, generally met the requirements defined in the SAP. When converted to a dry weight basis, some samples and parameters did not meet dry weight SAP MDLs. These are noted below:

BNA

The reported MDLs for selected semi volatile compounds were above the SAP MDL (See SAP MDL Comparison table) for samples L50382-6, -10, -12 and -17 due to total solids being below 50%. The reported MDLs for selected semi volatile compounds were above the SAP MDL (See SAP MDL Comparison table) for samples L50382-1, -3, -5, -8 and -14 due to high concentrations of organic co-extractives requiring dilution for analysis.

Pesticides

The reported MDLs for selected pesticides compounds were above the SAP MDL (See SAP MDL Comparison table) for samples L50382-1, -3, -6, -9 and -12 due to total solids being below 50%.

PCBs

The reported MDLs for selected Aroclors in some samples were greater than the SAP MDLs. The reported MDLs for Aroclors 1016, 1221, 1232 and 1242 were elevated to compensate for overlap of PCB congeners from other Aroclors detected in certain samples (see Additional QA Issues below). The reported MDLs for Aroclors 1248, 1254 and 1260 in samples L50382-13,was greater than the SAP MDLs due to total solids being less than 30%.. In all cases where elevated MDLs were reported, Total PCB values were reported above the MDL, therefore project objectives were not compromised.

For Non-ionizable Organic parameters, MDL values were also converted to an Organic Carbon (OC) basis, using the TOC values determined for each sample. The attached SMS OC and Dry Weight Comparison tables show the reported MDL values for each sample converted to an OC or dry weight basis. All target compounds met the SAP SMS OC and Dry Weight MDL levels.

Reporting Requirements (significant figures, units, basis and qualifiers)

For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for

results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied.

In the Comprehensive Report attached, Organics parameters are reported in ug/Kg, dry weight basis. In this report format, non-ionizable organic parameters have not been converted to mg/Kg TOC. For all parameters, the MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times

Sample storage conditions and holding times have been evaluated using guidelines established in the SAPA (WDOE, 2008). The dates and holding time criteria for the actual storage conditions used for organics analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Date Extracted	Date Analyzed	Sample Holding Time	Extract Holding Time
BNAs	L50382-1 to 17	05, 06-Apr-10	25-Aug-10	02, 04, 08, 15-Sep-10	1 year at -18°C	40 days at 4°C
PCBs	L50382-1 to 17	05, 06-Apr-10	23-Aug-10	01, 02-Sep-10	1 year at -18°C	40 days at 4°C
Chlorinated Pesticides	L50382-1 to 17	05, 06-Apr-10	10-Jun-10	29-Jun-10, 01, 09-Jul-10	1 year at -18°C	40 days at 4°C

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks

Method blanks were analyzed for all Organics parameters and all method blank results were less then the MDL, except as noted below:

1. BNAs

The method blank (MB) analyzed with BNAs for L50382 had a result above the MDL for Benzyl Butyl Phthalate (1.1 ug/Kg) and Benzoic Acid (30 ug/Kg). All of the sample results for Benzyl Butyl Phthalate were greater than 10 times the concentration in the MB so a “B” flag was not applied, except for samples L50382-11, -13. L50382-11 was flagged with “B” and L50382-13 was flagged with “B2”, Benzoic acid in samples L50382-2, 4, 6, 7, 9 - 13, 15 - 17 where the sample to method blank ratio is 5 or less, have been qualified with a “B” flag. Benzoic acid in sample L50382-5, with a sample to blank ratio above 5 but </= 10, has been qualified with a “B3” flag. Sample results qualified with the B or B3 flag should be treated as estimated values.

Surrogate Recoveries

Surrogate recovery acceptance limits for sediment samples have been developed based on historical lab performance using the current analytical methods. Recoveries measured above the acceptance limits may be flagged with a JL. Recoveries measured below the acceptance limits (but at or above 10%) may be flagged with a JG. Surrogate recovery summaries for each method are shown below.

1. BNAs

For BNA sample data, surrogate recoveries are evaluated separately for the acid and base/neutral fractions. Within each fraction, 2 or more surrogates must be outside the acceptance limits in order to qualify the associated sample data. All BNA surrogate recoveries for samples were within this criteria thus no sample data was qualified.

2. PCBs
Sample data are qualified when individual surrogate recoveries are outside lab-specific acceptance limits. All PCB surrogate recoveries were within the lab-specific acceptance limits for all samples in this data submission.

3. Chlorinated Pesticides
Sample data are qualified when individual surrogate recoveries are outside lab-specific acceptance limits. All pesticide surrogate recoveries were within the lab-specific acceptance limits for all samples in this data submission.

Standard Reference Materials (SRMs)
The SRM results associated with these samples are summarized below, according to the analysis method. Acceptance limits for the certified parameters reported in this data set have been developed using historical lab data. SRM recoveries outside these lab-defined limits indicate the method has not performed as expected and the associated sample data should be flagged.

1. BNAs
The sediment SRM analyzed in association with the reported BNA results is 1944, certified by the National Institute of Standards and Technology (NIST). The certified organics parameters in SRM 1944 are only a partial list of all the BNA compounds reported in this analysis. All measured recoveries for this SRM were within acceptance limits for this data set with the exception of benzo(k)fluoranthene with a recovery of 160%. It is not expected this exceedance indicates the sample data is significantly biased.

2. PCBs and Chlorinated Pesticides
The sediment SRM analyzed in association with the reported Chlorinated Pesticides results is 1944, certified by the NIST. SRM 1944 contains certified levels of DDT. The sediment SRM analyzed in association with the reported PCB results is HS-2, certified by the National Research Council of Canada. SRM HS-2 contains Aroclor 1254. All measured recoveries for both SRMs were within acceptance limits.

Matrix Spikes
Matrix Spikes have been analyzed for each method. Recovery acceptance limits for each parameter in sediment have been developed based on historical lab performance using the current analytical methods. When applicable, matrix spike recoveries outside these lab-defined limits indicate the method has not performed as expected and the associated sample data have been flagged.

1. BNAs
Each of the reported BNA compounds was included in the matrix spike and measured recoveries for each were within their acceptance limits with the following exceptions.

Benzoic Acid failed recovery in the matrix spike and matrix spike duplicate at -2 and 8% respectively. The Relative Percent Difference (RPD) for phenol, 2-methyl phenol and benzoic acid failed the upper control limit of 40% at 59, 59 and 333% respectively. All benzoic acid results for the sample set have been flagged with a “JG” qualifier. The phenol and 2-methyl phenol results have been qualified with a “J” flag for sample L50382-6 since the MS/MSD results showed poor precision.

2. PCBs and Chlorinated Pesticides
Each of the reported Pesticide compounds was included in the Chlorinated Pesticide matrix spike. Aroclor 1260 and 1016 only are used as the spiking parameters for PCB matrix spike. The measured recovery for each spiked parameter was within their acceptance limits.

Laboratory Replicate Samples

A laboratory duplicate sample(s) was analyzed for each Organics parameter. The relative percent differences (RPDs) for laboratory duplicate for all parameters at or above the RDL were less than or equal to the acceptance limit of 35% with the following exceptions.

Naphthalene, phenanthrene, anthracene, fluoranthene, pyrene, benzyl butyl phthalate, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene, 4-methyl phenol and carbazole failed the upper control limit for RPD in the laboratory duplicate for semivolatile organic analysis. The results for these compounds in the sample used for laboratory duplicate, L50382-1, have been flagged with a "J" qualifier to indicate an estimated result.

Additional QA Issues:

PCB Analysis:

PCB data reported for this set of samples include numeric values for only those Aroclors that could be positively identified in each sample and were measured above the detection limit. Identification of Aroclors 1016, 1221, 1232 and 1242 was not possible for all samples (L50382-1 through –17) due to the overlap of the congeners from Aroclors 1248, 1254 and 1260. For those Aroclors where this overlap has occurred, the result is reported as <MDL with elevated MDL and RDL values. The elevated MDL represents the maximum amount that would have been reported for that Aroclor had it been positively identified. The RDL value has also been elevated by the same proportion.

The table below lists the samples and affected Aroclors.

Lab Sample Number	PCB 1016	PCB 1221	PCB 1232	PCB 1242
L50382-1	X		X	X
L50382-2	X		X	X
L50382-3	X	X	X	X
L50382-4	X		X	X
L50382-5	X	X	X	X
L50382-6	X		X	X
L50382-7	X	X	X	X
L50382-8	X	X	X	X
L50382-9	X	X	X	X
L50382-10	X	X	X	X
L50382-12	X	X	X	X
L50382-13	X		X	X
L50382-14	X	X	X	X
L50382-15	X	X	X	X
L50382-16	X	X	X	X
L50382-17	X		X	X

TABLE 1
SEDIMENT SAMPLE INVENTORY

Sample	Locator / Description (see SAP)	Sulfides	PSD	Nutrients[1]	Solids	TOC	Metals[2]	BNAs[3]	Pest/ PCBs	Comments
L50382-1	DWMP-01	X	X	X	X	X	X	X	X	0-10cm
L50382-2	DWMP-02	X	X	X	X	X	X	X	X	0-10cm
L50382-3	DWMP-03	X	X	X	X	X	X	X	X	0-10cm
L50382-4	DWMP-04	X	X	X	X	X	X	X	X	0-10cm
L50382-5	DWMP-05	X	X	X	X	X	X	X	X	0-10cm
L50382-6	DWMP-06	X	X	X	X	X	X	X	X	0-2 cm
L50382-7	DWMP-07	X	X	X	X	X	X	X	X	0-2 cm
L50382-8	DWMP-08	X	X	X	X	X	X	X	X	0-2 cm
L50382-9	DWMP-08	X	X	X	X	X	X	X	X	0-10 cm
L50382-10	DWMP-09	X	X	X	X	X	X	X	X	0-2 cm
L50382-11	DWMP-10	X	X	X	X	X	X	X	X	0-10 cm
L50382-12	DWMP-11	X	X	X	X	X	X	X	X	0-2 cm
L50382-13	DWMP-12	X	X	X	X	X	X	X	X	0-2 cm
L50382-14	DWMP-13	X	X	X	X	X	X	X	X	0-10 cm
L50382-15	DWMP-14	X	X	X	X	X	X	X	X	0-10 cm
L50382-16	DWMP-15	X	X	X	X	X	X	X	X	0-10 cm
L50382-17	DWMP-16	X	X	X	X	X	X	X	X	0-10 cm

1 Nutrients = Ammonia
2 Metals = Hg, As, Cd, Cr, Cu, Pb, Ag, Zn
3 BNAs = includes Chlorobenzenes

TABLE 2
QC SAMPLE FREQUENCY FOR SEDIMENT CHEMICAL AND PHYSICAL PARAMETERS

Parameter	Method Blank	Duplicate	Triplicate	Matrix Spike	SRM	Surrogates
Ammonia Nitrogen	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	As Available	No
PSD	No	See Triplicate	5% minimum, 1 per QC batch	No	No	No
Total Solids & Volatile Solids	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	No	No	No
TOC	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	1 per QC batch	No
Sulfides	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	No	No
Metals	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	No
BNAs	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	Yes
PCBs/Chlorinated Pesticides	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	Yes
VOA	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	No	Yes

TABLE 3 - SUMMARY OF SEDIMENT DATA QUALIFIERS

Condition to Qualify	King County Data Qualifier	Possible EIM Data Qualifier	Organic QC Limits	Metal QC Limits	Conventional QC Limits	Comment
low matrix spike recovery	JG	JG	Compound specific	< 75%	< 75%	
high matrix spike recovery	JL	JL	Compound specific	>125%	>125%	
low standard reference material recovery	JG	JG	Compound and SRM specific	Element and SRM specific	< 80%	
high standard reference material recovery	JL	JL	Compound and SRM specific	Element and SRM specific	>120%	
high duplicate relative percent difference	JK or J	JK	>35 %	>20%	NA	for organics and metals
high triplicate relative standard deviation	JK or J	JK	NA	NA	> 20%	for conventionals
less than the reporting detection limit	<RDL**	JT	NA	NA	NA	
less than the method detection limit	<MDL	U	NA	NA	NA	
contamination detected in method blank	B	B	MB >/=MDL & Result </= 5x Blank	MB >/=MDL & Result </= 5x Blank	MB >/=MDL & Result </= 5x Blank	
contamination detected in method blank	B2	B	MB >/=MDL & Result > 5x but >/= 10x Blank	MB >/=MDL & Result > 5x but >/= 10x Blank	MB >/=MDL & Result > 5x but >/= 10x Blank	Common Lab Contaminants*
contamination detected in method blank	B3	B	MB >/=MDL & Result > 5x but >/= 10x Blank	MB >/=MDL & Result > 5x but >/= 10x Blank	MB >/=MDL & Result > 5x but >/= 10x Blank	All other parameters
biased data based on low surrogate recoveries	JG	JG	Surrogate specific	NA	NA	At least 2 surrogates < limit for BNAs
biased data based on high surrogate recoveries	JL	JL	Surrogate specific	NA	NA	At least 2 surrogates > limit for BNAs
rejected - unusable for all purposes	R	J or Q	NA	NA	NA	
a sample handling criteria has not been met	SH	JK or J	NA	NA	NA	container, preservation
Holding time not met	H	JK or J				

*COMMON LAB CONTAMINANTS: ACETONE, 2-BUTANONE, METHYLENE CHLORIDE, BIS(2-ETHYLHEXYL) PHTHALATE, BUTYL BENZYL PHTHALATE AND DI-N-BUTYL PHTHALATE

Sample Results Tables

King County Environmental Lab Analytical Report

	Project:	423062-020					Project:	423062-020					Project:	423062-020							
	Locator:	DWMP-01					Locator:	DWMP-02					Locator:	DWMP-03							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L50382-1					Sample:	L50382-2					Sample:	L50382-3							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	4/6/10 9:00					ColDate:	4/6/10 11:15					ColDate:	4/5/10 13:55							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	46.1					TotalSolid:	65.2					TotalSolid:	52.3							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	9					SampDepth:	13					SampDepth:	17							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**				
CV ASTM D422																					
Fines*	51.2		1.2	2.33	%		19.9		0.74	1.48	%		63.9		1	2	%				
Gravel*	13		0.23	2.33	%		38.8		0.15	1.48	%		4.3		0.2	2	%				
Sand*	34.4		0.23	2.33	%		46.1		0.15	1.48	%		40.8		0.2	2	%				
Silt*	46.5		1.2	2.33	%		17		0.74	1.48	%		51.9		1	2	%				
Clay*	4.7		1.2	2.33	%		3		0.74	1.48	%		12		1	2	%				
p+0.00*		<MDL	0.23	2.33	%		4		0.15	1.48	%		1	<RDL	0.2	2	%				
p+1.00*		<MDL	0.23	2.33	%		7.4		0.15	1.48	%		4		0.2	2	%				
p+10.0(equal/more than)*		<MDL	1.2	2.33	%		0.7	<RDL	0.74	1.48	%		5		1	2	%				
p+2.00*	3.7		0.23	2.33	%		8.2		0.15	1.48	%		11		0.2	2	%				
p+3.00*	15.5		0.23	2.33	%		20.4		0.15	1.48	%		20.7		0.2	2	%				
p+4.00*	15.2		0.23	2.33	%		6.1		0.15	1.48	%		4.1		0.2	2	%				
p+5.00*	26.7		1.2	2.33	%		9.6		0.74	1.48	%		14		1	2	%				
p+6.00*	7		1.2	2.33	%		3		0.74	1.48	%		20		1	2	%				
p+7.00*	10.5		1.2	2.33	%		3		0.74	1.48	%		14		1	2	%				
p+8.00*	2.3	RDL	1.2	2.33	%		1.5	RDL	0.74	1.48	%		4		1	2	%				
p+9.00*	3.5		1.2	2.33	%		2.2		0.74	1.48	%		7		1	2	%				
p-1.00*	1.2	<RDL	0.23	2.33	%		29.6		0.15	1.48	%		0.7	<RDL	0.2	2	%				
p-2.00(less than)*	11.6		0.23	2.33	%		7.2		0.15	1.48	%		2.8		0.2	2	%				
p-2.00*		<MDL	0.23	2.33	%		1.9		0.15	1.48	%		0.8	<RDL	0.2	2	%				
CV EPA 9030B/SM4500-S2-D																					
Total Sulfide	241		11	43.4	mg/Kg		2.3	<RDL	0.77	3.04	mg/Kg		40.3		4.8	18.8	mg/Kg				
CV SM2540-G																					
Total Solids*	46.1		0.005	0.01	%		65.2		0.005	0.01	%		52.3		0.005	0.01	%				
CV SM4500-NH3-G KCL																					
Ammonia Nitrogen	3.41		0.21	0.412	mg/Kg		0.954		0.15	0.307	mg/Kg		1.55		0.19	0.375	mg/Kg				
CV SW846 9060-PSEP96																					
Total Organic Carbon	65900		4600	9240	mg/Kg		13200		2000	3910	mg/Kg		19700		1900	3920	mg/Kg				
MT SW846 3050B*SW846 6010C																					
Arsenic, Total, ICP	13.2	<RDL	2.6	13.2	mg/Kg		5.7	<RDL	1.8	9.48	mg/Kg		9.2	<RDL	2.5	12.1	mg/Kg				
Cadmium, Total, ICP	1.22		0.21	1.06	mg/Kg		0.18	<RDL	0.15	0.758	mg/Kg		1.19		0.19	0.966	mg/Kg				
Chromium, Total, ICP	50.8		0.33	1.59	mg/Kg		38.8		0.23	1.14	mg/Kg		54.5		0.29	1.45	mg/Kg				
Copper, Total, ICP	80.7		0.43	2.11	mg/Kg		35.4		0.31	1.52	mg/Kg		66.2		0.38	1.93	mg/Kg				
Lead, Total, ICP	120		2.1	10.6	mg/Kg		50.5		1.5	7.58	mg/Kg		107		1.9	9.66	mg/Kg				
Silver, Total, ICP	5.03		0.43	2.11	mg/Kg		2.1		0.31	1.52	mg/Kg		5.6		0.38	1.93	mg/Kg				
Zinc, Total, ICP	136		0.52	2.65	mg/Kg		69.8		0.38	1.9	mg/Kg		125		0.48	2.41	mg/Kg				
MT SW846 7471B																					
Mercury, Total, CVAA	0.974		0.043	0.432	mg/Kg		0.23	<RDL	0.031	0.299	mg/Kg		0.862		0.038	0.377	mg/Kg				
OR SW846 3550B*SW846 8081B																					
4,4'-DDD	9.67		2.2	4.34	ug/Kg		2.6	<RDL	1.5	3.07	ug/Kg		14.8		1.9	3.82	ug/Kg				
4,4'-DDE	4.82		2.2	4.34	ug/Kg			<MDL	1.5	3.07	ug/Kg		7.51		1.9	3.82	ug/Kg				

King County Environmental Lab Analytical Report

Project:	423062-020					Project:	423062-020					Project:	423062-020								
Locator:	DWMP-01					Locator:	DWMP-02					Locator:	DWMP-03								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L50382-1					Sample:	L50382-2					Sample:	L50382-3								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	4/6/10 9:00					ColDate:	4/6/10 11:15					ColDate:	4/5/10 13:55								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	46.1					TotalSolid:	65.2					TotalSolid:	52.3								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	9					SampDepth:	13					SampDepth:	17								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**					
4,4'-DDT	5.01		2.2	4.34	ug/Kg	1.7	<RDL	1.5	3.07	ug/Kg		7.88		1.9	3.82	ug/Kg					
OR SW846 3550B*SW846 8082A																					
Aroclor 1016		<MDL,TA	43	86.8	ug/Kg		<MDL,TA	4.3	8.59	ug/Kg			<MDL,TA	110	229	ug/Kg					
Aroclor 1221		<MDL	4.3	8.68	ug/Kg		<MDL	3.1	6.13	ug/Kg			<MDL,TA	15	30.6	ug/Kg					
Aroclor 1232		<MDL,TA	52	104	ug/Kg		<MDL,TA	18	36.8	ug/Kg			<MDL,TA	180	352	ug/Kg					
Aroclor 1242		<MDL,TA	69	139	ug/Kg		<MDL,TA	18	36.8	ug/Kg			<MDL,TA	230	459	ug/Kg					
Aroclor 1248	77.2		2.2	4.34	ug/Kg	12.4		1.5	3.07	ug/Kg		205	TA	1.9	3.82	ug/Kg					
Aroclor 1254	284	TA	2.2	4.34	ug/Kg	48.2		1.5	3.07	ug/Kg		367	TA	1.9	3.82	ug/Kg					
Aroclor 1260	113		2.2	4.34	ug/Kg	35.3		1.5	3.07	ug/Kg		228	TA	1.9	3.82	ug/Kg					
Total Aroclors	473		2.2	4.34	ug/Kg	96		1.5	3.07	ug/Kg		799		1.9	3.82	ug/Kg					
OR SW846 3550B*SW846 8270D																					
1,2,4-Trichlorobenzene		<MDL	2.2	4.34	ug/Kg		<MDL	0.15	0.307	ug/Kg			<MDL	1.9	3.82	ug/Kg					
1,2-Dichlorobenzene		<MDL	4.3	8.68	ug/Kg		<MDL	0.31	0.613	ug/Kg			<MDL	3.8	7.65	ug/Kg					
1,3-Dichlorobenzene		<MDL	4.3	8.68	ug/Kg		<MDL	0.31	0.613	ug/Kg			<MDL	3.8	7.65	ug/Kg					
1,4-Dichlorobenzene		<MDL	4.3	8.68	ug/Kg	1.26		0.31	0.613	ug/Kg			<MDL	3.8	7.65	ug/Kg					
2,4-Dimethylphenol		<MDL	22	43.4	ug/Kg		<MDL	1.5	3.07	ug/Kg			<MDL	19	38.2	ug/Kg					
2-Methylnaphthalene	52	<RDL	43	86.8	ug/Kg	7.61		3.1	6.13	ug/Kg			<MDL	38	76.5	ug/Kg					
2-Methylphenol		<MDL	43	86.8	ug/Kg		<MDL	3.1	6.13	ug/Kg			<MDL	38	76.5	ug/Kg					
4-Methylphenol	214	J	87	174	ug/Kg	112		6.1	12.3	ug/Kg			<MDL	76	153	ug/Kg					
Acenaphthene	148		43	86.8	ug/Kg	19.6		3.1	6.13	ug/Kg			<MDL	38	76.5	ug/Kg					
Acenaphthylene	234		43	86.8	ug/Kg	14.8		3.1	6.13	ug/Kg			<MDL	38	76.5	ug/Kg					
Anthracene	1970	J	43	86.8	ug/Kg	128		3.1	6.13	ug/Kg		87.4		38	76.5	ug/Kg					
Benzo(a)anthracene	6250	J	43	86.8	ug/Kg	224		3.1	6.13	ug/Kg		239		38	76.5	ug/Kg					
Benzo(a)pyrene	9500	J	43	86.8	ug/Kg	248		3.1	6.13	ug/Kg		308		38	76.5	ug/Kg					
Benzo(b)fluoranthene	11400	J	43	86.8	ug/Kg	296		3.1	6.13	ug/Kg		434		38	76.5	ug/Kg					
Benzo(g,h,i)perylene	4340	J	43	86.8	ug/Kg	153		3.1	6.13	ug/Kg		241		38	76.5	ug/Kg					
Benzo(k)fluoranthene	10700	J	43	86.8	ug/Kg	241		3.1	6.13	ug/Kg		367		38	76.5	ug/Kg					
Benzoic Acid		<MDL,JG	220	434	ug/Kg	152	B,JG	15	30.7	ug/Kg			<MDL,JG	190	382	ug/Kg					
Benzyl Alcohol		<MDL	43	86.8	ug/Kg		<MDL	3.1	6.13	ug/Kg			<MDL	38	76.5	ug/Kg					
Benzyl Butyl Phthalate	226	J	22	43.4	ug/Kg	74.2		1.5	3.07	ug/Kg		91.4		19	38.2	ug/Kg					
Bis(2-Ethylhexyl)Phthalate	1510		87	174	ug/Kg	248		6.1	12.3	ug/Kg		2240		76	153	ug/Kg					
Caffeine		<MDL	87	174	ug/Kg		<MDL	6.1	12.3	ug/Kg			<MDL	76	153	ug/Kg					
Carbazole	423	J	43	86.8	ug/Kg	38.8		3.1	6.13	ug/Kg			<MDL	38	76.5	ug/Kg					
Chrysene	9670	J	43	86.8	ug/Kg	291		3.1	6.13	ug/Kg		321		38	76.5	ug/Kg					
Coprostanol		<MDL	870	1740	ug/Kg		<MDL	61	123	ug/Kg			<MDL	760	1530	ug/Kg					
Dibenzo(a,h)anthracene	2050	J	43	86.8	ug/Kg	68.4		3.1	6.13	ug/Kg		83.9		38	76.5	ug/Kg					
Dibenzofuran	72	<RDL	43	86.8	ug/Kg	8.57		3.1	6.13	ug/Kg			<MDL	38	76.5	ug/Kg					
Diethyl Phthalate		<MDL	87	174	ug/Kg		<MDL	6.1	12.3	ug/Kg			<MDL	76	153	ug/Kg					
Dimethyl Phthalate		<MDL	87	174	ug/Kg		<MDL	6.1	12.3	ug/Kg			<MDL	76	153	ug/Kg					
Di-N-Butyl Phthalate	91	<RDL	87	174	ug/Kg	14.3		6.1	12.3	ug/Kg			<MDL	76	153	ug/Kg					
Di-N-Octyl Phthalate		<MDL	87	174	ug/Kg		<MDL	6.1	12.3	ug/Kg			<MDL	76	153	ug/Kg					

King County Environmental Lab Analytical Report

Project:	423062-020					Project:	423062-020					Project:	423062-020								
Locator:	DWMP-01					Locator:	DWMP-02					Locator:	DWMP-03								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L50382-1					Sample:	L50382-2					Sample:	L50382-3								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	4/6/10 9:00					ColDate:	4/6/10 11:15					ColDate:	4/5/10 13:55								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	46.1					TotalSolid:	65.2					TotalSolid:	52.3								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	9					SampDepth:	13					SampDepth:	17								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**					
Fluoranthene	5140	J	43	86.8	ug/Kg	380		3.1	6.13	ug/Kg		491		38	76.5	ug/Kg					
Fluorene	297		43	86.8	ug/Kg	24.7		3.1	6.13	ug/Kg			<MDL	38	76.5	ug/Kg					
Hexachlorobenzene		<MDL	2.2	4.34	ug/Kg		<MDL	0.15	0.307	ug/Kg			<MDL	1.9	3.82	ug/Kg					
Hexachlorobutadiene		<MDL	11	21.7	ug/Kg		<MDL	0.77	1.53	ug/Kg			<MDL	9.6	19.1	ug/Kg					
Hexachloroethane		<MDL	22	43.4	ug/Kg		<MDL	1.5	3.07	ug/Kg			<MDL	19	38.2	ug/Kg					
Indeno(1,2,3-Cd)Pyrene	4380	J	43	86.8	ug/Kg	133		3.1	6.13	ug/Kg		208		38	76.5	ug/Kg					
Naphthalene	85	<RDL,J	43	86.8	ug/Kg	10.9		3.1	6.13	ug/Kg			<MDL	38	76.5	ug/Kg					
N-Nitrosodiphenylamine		<MDL	87	174	ug/Kg		<MDL	6.1	12.3	ug/Kg			<MDL	76	153	ug/Kg					
Pentachlorophenol		<MDL	220	434	ug/Kg		<MDL	15	30.7	ug/Kg			<MDL	190	382	ug/Kg					
Phenanthrene	1990	J	43	86.8	ug/Kg	212		3.1	6.13	ug/Kg		237		38	76.5	ug/Kg					
Phenol	120	<RDL	87	174	ug/Kg	133		6.1	12.3	ug/Kg		110	<RDL	76	153	ug/Kg					
Pyrene	11200	J	43	86.8	ug/Kg	485		3.1	6.13	ug/Kg		1090		38	76.5	ug/Kg					
Total HPAHS	74600	J	43	86.8	ug/Kg	2520		3.1	6.13	ug/Kg		3790		38	76.5	ug/Kg					
Total LPAHs	4770	J	43	86.8	ug/Kg	416		3.1	6.13	ug/Kg		325		38	76.5	ug/Kg					
* Not converted to dry weight basis																					

King County Environmental Lab Analytical Report

	Project:	423062-020					Project:	423062-020					Project:	423062-020							
	Locator:	DWMP-04					Locator:	DWMP-05					Locator:	DWMP-06							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L50382-4					Sample:	L50382-5					Sample:	L50382-6							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	4/6/10 11:30					ColDate:	4/6/10 8:50					ColDate:	4/6/10 11:00							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	58.6					TotalSolid:	77.4					TotalSolid:	45.8							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	25					SampDepth:	5					SampDepth:	21							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**				
CV ASTM D422																					
Fines*	37.9		0.88	1.76	%		5.3		0.76	1.52	%		29.8		0.99	1.99	%				
Gravel*	34.2		0.18	1.76	%		27.4		0.15	1.52	%		3.7		0.2	1.99	%				
Sand*	32.4		0.18	1.76	%		67.9		0.15	1.52	%		61.5		0.2	1.99	%				
Silt*	30.8		0.88	1.76	%		3.8		0.76	1.52	%		18.9		0.99	1.99	%				
Clay*	7		0.88	1.76	%		1.5	RDL	0.76	1.52	%		10.9		0.99	1.99	%				
p+0.00*	3.8		0.18	1.76	%		9.9		0.15	1.52	%		2	RDL	0.2	1.99	%				
p+1.00*	4.5		0.18	1.76	%		11.6		0.15	1.52	%		13.8		0.2	1.99	%				
p+10.0(equal/more than)*	3.5		0.88	1.76	%		1.5	RDL	0.76	1.52	%		5		0.99	1.99	%				
p+2.00*	10.3		0.18	1.76	%		23.1		0.15	1.52	%		30.6		0.2	1.99	%				
p+3.00*	7.7		0.18	1.76	%		19		0.15	1.52	%		9.5		0.2	1.99	%				
p+4.00*	6		0.18	1.76	%		4.2		0.15	1.52	%		5.6		0.2	1.99	%				
p+5.00*	16.7		0.88	1.76	%		0.8	<RDL	0.76	1.52	%		8.9		0.99	1.99	%				
p+6.00*	1.8	RDL	0.88	1.76	%		0.8	<RDL	0.76	1.52	%		2	RDL	0.99	1.99	%				
p+7.00*	8.8		0.88	1.76	%		0.8	<RDL	0.76	1.52	%		6		0.99	1.99	%				
p+8.00*	3.5		0.88	1.76	%		1.5	RDL	0.76	1.52	%		2	RDL	0.99	1.99	%				
p+9.00*	3.5		0.88	1.76	%			<MDL	0.76	1.52	%		6		0.99	1.99	%				
p-1.00*	3.5		0.18	1.76	%		9.7		0.15	1.52	%		1.1	<RDL	0.2	1.99	%				
p-2.00(less than)*	29.7		0.18	1.76	%		16.2		0.15	1.52	%		0.8	<RDL	0.2	1.99	%				
p-2.00*	0.9	<RDL	0.18	1.76	%		1.5		0.15	1.52	%		1.8	<RDL	0.2	1.99	%				
CV EPA 9030B/SM4500-S2-D																					
Total Sulfide	38.6		4.3	17	mg/Kg		56.7		3.2	12.9	mg/Kg		306		11	43.7	mg/Kg				
CV SM2540-G																					
Total Solids*	58.6		0.005	0.01	%		77.4		0.005	0.01	%		45.8		0.005	0.01	%				
CV SM4500-NH3-G KCL																					
Ammonia Nitrogen	1.34		0.17	0.331	mg/Kg		1.28		0.12	0.243	mg/Kg		2.64		0.21	0.415	mg/Kg				
CV SW846 9060-PSEP96																					
Total Organic Carbon	12000		1000	2010	mg/Kg		8460		980	1980	mg/Kg		23100		2100	4100	mg/Kg				
MT SW846 3050B*SW846 6010C																					
Arsenic, Total, ICP	9.2	<RDL	2.2	10.7	mg/Kg		4	<RDL	1.7	8.14	mg/Kg		7.6	<RDL	2.6	13.3	mg/Kg				
Cadmium, Total, ICP	0.29	<RDL	0.17	0.857	mg/Kg		0.22	<RDL	0.13	0.651	mg/Kg		0.31	<RDL	0.21	1.06	mg/Kg				
Chromium, Total, ICP	47.4		0.26	1.28	mg/Kg		23		0.19	0.977	mg/Kg		33.2		0.33	1.59	mg/Kg				
Copper, Total, ICP	48		0.34	1.71	mg/Kg		24.3		0.26	1.3	mg/Kg		39.1		0.41	2.12	mg/Kg				
Lead, Total, ICP	36.5		1.7	8.57	mg/Kg		29.7		1.3	6.51	mg/Kg		50.2		2.1	10.6	mg/Kg				
Silver, Total, ICP	2.25		0.34	1.71	mg/Kg		0.96	<RDL	0.26	1.3	mg/Kg		2.34		0.41	2.12	mg/Kg				
Zinc, Total, ICP	84		0.43	2.13	mg/Kg		76.9		0.32	1.63	mg/Kg		78.8		0.52	2.64	mg/Kg				
MT SW846 7471B																					
Mercury, Total, CVAA	0.362		0.034	0.336	mg/Kg		0.057	<RDL	0.026	0.258	mg/Kg		0.19	<RDL	0.041	0.421	mg/Kg				
OR SW846 3550B*SW846 8081B																					
4,4'-DDD	3.2	<RDL	1.7	3.41	ug/Kg		2.3	<RDL	1.3	2.58	ug/Kg		2.2	<RDL	2.2	4.37	ug/Kg				
4,4'-DDE		<MDL	1.7	3.41	ug/Kg			<MDL	1.3	2.58	ug/Kg			<MDL	2.2	4.37	ug/Kg				

King County Environmental Lab Analytical Report

Project:	423062-020					Project:	423062-020					Project:	423062-020								
Locator:	DWMP-04					Locator:	DWMP-05					Locator:	DWMP-06								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L50382-4					Sample:	L50382-5					Sample:	L50382-6								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	4/6/10 11:30					ColDate:	4/6/10 8:50					ColDate:	4/6/10 11:00								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	58.6					TotalSolid:	77.4					TotalSolid:	45.8								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	25					SampDepth:	5					SampDepth:	21								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**					
4,4'-DDT	2.2	<RDL	1.7	3.41	ug/Kg	1.4	<RDL	1.3	2.58	ug/Kg		2.4	<RDL	2.2	4.37	ug/Kg					
OR SW846 3550B*SW846 8082A																					
Aroclor 1016		<MDL,TA	6.8	13.7	ug/Kg		<MDL,TA	7.8	15.5	ug/Kg			<MDL,TA	5.2	10.5	ug/Kg					
Aroclor 1221		<MDL	3.4	6.83	ug/Kg		<MDL,TA	3.1	6.2	ug/Kg			<MDL	4.4	8.73	ug/Kg					
Aroclor 1232		<MDL,TA	17	34.1	ug/Kg		<MDL,TA	10	20.7	ug/Kg			<MDL,TA	17	34.9	ug/Kg					
Aroclor 1242		<MDL,TA	17	34.1	ug/Kg		<MDL,TA	23	46.5	ug/Kg			<MDL,TA	17	34.9	ug/Kg					
Aroclor 1248	15.5		1.7	3.41	ug/Kg	18.3		1.3	2.58	ug/Kg		13.1		2.2	4.37	ug/Kg					
Aroclor 1254	61.8		1.7	3.41	ug/Kg	46.9		1.3	2.58	ug/Kg		31.9		2.2	4.37	ug/Kg					
Aroclor 1260	47.6		1.7	3.41	ug/Kg	16.3		1.3	2.58	ug/Kg		24.5		2.2	4.37	ug/Kg					
Total Aroclors	125		1.7	3.41	ug/Kg	81.5		1.3	2.58	ug/Kg		69.2		2.2	4.37	ug/Kg					
OR SW846 3550B*SW846 8270D																					
1,2,4-Trichlorobenzene		<MDL	0.17	0.341	ug/Kg		<MDL	0.65	1.29	ug/Kg			<MDL	0.22	0.437	ug/Kg					
1,2-Dichlorobenzene	0.77		0.34	0.683	ug/Kg		<MDL	1.3	2.58	ug/Kg		0.74	<RDL	0.44	0.873	ug/Kg					
1,3-Dichlorobenzene		<MDL	0.34	0.683	ug/Kg		<MDL	1.3	2.58	ug/Kg			<MDL	0.44	0.873	ug/Kg					
1,4-Dichlorobenzene	1.38		0.34	0.683	ug/Kg		<MDL	1.3	2.58	ug/Kg		3.08		0.44	0.873	ug/Kg					
2,4-Dimethylphenol		<MDL	1.7	3.41	ug/Kg		<MDL	6.5	12.9	ug/Kg			<MDL	2.2	4.37	ug/Kg					
2-Methylnaphthalene	9.8		3.4	6.83	ug/Kg		<MDL	13	25.8	ug/Kg		5.5	<RDL	4.4	8.73	ug/Kg					
2-Methylphenol		<MDL	3.4	6.83	ug/Kg		<MDL	13	25.8	ug/Kg			<MDL,J	4.4	8.73	ug/Kg					
4-Methylphenol	106		6.8	13.7	ug/Kg		<MDL	26	51.7	ug/Kg		158		8.7	17.5	ug/Kg					
Acenaphthene	12.5		3.4	6.83	ug/Kg	14	<RDL	13	25.8	ug/Kg		11.4		4.4	8.73	ug/Kg					
Acenaphthylene	13		3.4	6.83	ug/Kg	13	<RDL	13	25.8	ug/Kg		18.4		4.4	8.73	ug/Kg					
Anthracene	61.6		3.4	6.83	ug/Kg	87.1		13	25.8	ug/Kg		94.5		4.4	8.73	ug/Kg					
Benzo(a)anthracene	208		3.4	6.83	ug/Kg	216		13	25.8	ug/Kg		225		4.4	8.73	ug/Kg					
Benzo(a)pyrene	205		3.4	6.83	ug/Kg	266		13	25.8	ug/Kg		247		4.4	8.73	ug/Kg					
Benzo(b)fluoranthene	271		3.4	6.83	ug/Kg	275		13	25.8	ug/Kg		303		4.4	8.73	ug/Kg					
Benzo(g,h,i)perylene	87		3.4	6.83	ug/Kg	134		13	25.8	ug/Kg		161		4.4	8.73	ug/Kg					
Benzo(k)fluoranthene	224		3.4	6.83	ug/Kg	376		13	25.8	ug/Kg		218		4.4	8.73	ug/Kg					
Benzoic Acid	75.6	B,JG	17	34.1	ug/Kg	198	B3,JG	65	129	ug/Kg		147	B,JG	22	43.7	ug/Kg					
Benzyl Alcohol		<MDL	3.4	6.83	ug/Kg		<MDL	13	25.8	ug/Kg			<MDL	4.4	8.73	ug/Kg					
Benzyl Butyl Phthalate	20.1		1.7	3.41	ug/Kg	168		6.5	12.9	ug/Kg		64.2		2.2	4.37	ug/Kg					
Bis(2-Ethylhexyl)Phthalate	227		6.8	13.7	ug/Kg	289		26	51.7	ug/Kg		349		8.7	17.5	ug/Kg					
Caffeine		<MDL	6.8	13.7	ug/Kg		<MDL	26	51.7	ug/Kg			<MDL	8.7	17.5	ug/Kg					
Carbazole	24.9		3.4	6.83	ug/Kg	32.2		13	25.8	ug/Kg		29		4.4	8.73	ug/Kg					
Chrysene	195		3.4	6.83	ug/Kg	331		13	25.8	ug/Kg		279		4.4	8.73	ug/Kg					
Coprostanol		<MDL	68	137	ug/Kg		<MDL	260	517	ug/Kg			<MDL	87	175	ug/Kg					
Dibenzo(a,h)anthracene	36		3.4	6.83	ug/Kg	58.8		13	25.8	ug/Kg		72.7		4.4	8.73	ug/Kg					
Dibenzofuran	7.42		3.4	6.83	ug/Kg		<MDL	13	25.8	ug/Kg		7.4	<RDL	4.4	8.73	ug/Kg					
Diethyl Phthalate		<MDL	6.8	13.7	ug/Kg		<MDL	26	51.7	ug/Kg			<MDL	8.7	17.5	ug/Kg					
Dimethyl Phthalate		<MDL	6.8	13.7	ug/Kg		<MDL	26	51.7	ug/Kg			<MDL	8.7	17.5	ug/Kg					
Di-N-Butyl Phthalate	65		6.8	13.7	ug/Kg		<MDL	26	51.7	ug/Kg		25.5		8.7	17.5	ug/Kg					
Di-N-Octyl Phthalate		<MDL	6.8	13.7	ug/Kg		<MDL	26	51.7	ug/Kg			<MDL	8.7	17.5	ug/Kg					

King County Environmental Lab Analytical Report

Project:	423062-020					Project:	423062-020					Project:	423062-020								
Locator:	DWMP-04					Locator:	DWMP-05					Locator:	DWMP-06								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L50382-4					Sample:	L50382-5					Sample:	L50382-6								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	4/6/10 11:30					ColDate:	4/6/10 8:50					ColDate:	4/6/10 11:00								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	58.6					TotalSolid:	77.4					TotalSolid:	45.8								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	25					SampDepth:	5					SampDepth:	21								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**					
Fluoranthene	377		3.4	6.83	ug/Kg	544		13	25.8	ug/Kg		352		4.4	8.73	ug/Kg					
Fluorene	16.3		3.4	6.83	ug/Kg	23	<RDL	13	25.8	ug/Kg		19.4		4.4	8.73	ug/Kg					
Hexachlorobenzene		<MDL	0.17	0.341	ug/Kg		<MDL	0.65	1.29	ug/Kg		3.62		0.22	0.437	ug/Kg					
Hexachlorobutadiene		<MDL	0.85	1.71	ug/Kg		<MDL	3.2	6.46	ug/Kg			<MDL	1.1	2.18	ug/Kg					
Hexachloroethane		<MDL	1.7	3.41	ug/Kg		<MDL	6.5	12.9	ug/Kg			<MDL	2.2	4.37	ug/Kg					
Indeno(1,2,3-Cd)Pyrene	79.5		3.4	6.83	ug/Kg	120		13	25.8	ug/Kg		138		4.4	8.73	ug/Kg					
Naphthalene	10.9		3.4	6.83	ug/Kg	16	<RDL	13	25.8	ug/Kg		6.8	<RDL	4.4	8.73	ug/Kg					
N-Nitrosodiphenylamine		<MDL	6.8	13.7	ug/Kg		<MDL	26	51.7	ug/Kg			<MDL	8.7	17.5	ug/Kg					
Pentachlorophenol		<MDL	17	34.1	ug/Kg		<MDL	65	129	ug/Kg			<MDL	22	43.7	ug/Kg					
Phenanthrene	128		3.4	6.83	ug/Kg	195		13	25.8	ug/Kg		158		4.4	8.73	ug/Kg					
Phenol	51		6.8	13.7	ug/Kg	258		26	51.7	ug/Kg		89.7	J	8.7	17.5	ug/Kg					
Pyrene	462		3.4	6.83	ug/Kg	690		13	25.8	ug/Kg		389		4.4	8.73	ug/Kg					
Total HPAHS	2150		3.4	6.83	ug/Kg	3010		13	25.8	ug/Kg		2380		4.4	8.73	ug/Kg					
Total LPAHs	253		3.4	6.83	ug/Kg	350		13	25.8	ug/Kg		312		4.4	8.73	ug/Kg					
* Not converted to dry weight basis																					

King County Environmental Lab Analytical Report

	Project:	423062-020					Project:	423062-020					Project:	423062-020							
	Locator:	DWMP-07					Locator:	DWMP-08					Locator:	DWMP-08							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L50382-7					Sample:	L50382-8					Sample:	L50382-9							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	4/6/10 10:38					ColDate:	4/5/10 12:30					ColDate:	4/5/10 12:13							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	59.3					TotalSolid:	47					TotalSolid:	54.6							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	29					SampDepth:	26					SampDepth:	26							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**						
CV ASTM D422																					
Fines*	32		0.84	1.69	%	46.1		1.1	2.14	%	43.1		0.86	1.72	%						
Gravel*	16.2		0.17	1.69	%	9.7		0.21	2.14	%	11.9		0.17	1.72	%						
Sand*	53.9		0.17	1.69	%	39.5		0.21	2.14	%	45.2		0.17	1.72	%						
Silt*	26.1		0.84	1.69	%	35.4		1.1	2.14	%	34.5		0.86	1.72	%						
Clay*	5.9		0.84	1.69	%	10.7		1.1	2.14	%	8.6		0.86	1.72	%						
p+0.00*	2.8		0.17	1.69	%	3.9		0.21	2.14	%	7.1		0.17	1.72	%						
p+1.00*		<MDL	0.17	1.69	%	7.9		0.21	2.14	%	12		0.17	1.72	%						
p+10.0(equal/more than)*	4.2		0.84	1.69	%	5.4		1.1	2.14	%	5.2		0.86	1.72	%						
p+2.00*	34.7		0.17	1.69	%	10.4		0.21	2.14	%	20.2		0.17	1.72	%						
p+3.00*	12.9		0.17	1.69	%	13.7		0.21	2.14	%	0.7	<RDL	0.17	1.72	%						
p+4.00*	3.6		0.17	1.69	%	3.5		0.21	2.14	%	5.2		0.17	1.72	%						
p+5.00*	15.2		0.84	1.69	%	8.6		1.1	2.14	%	9.5		0.86	1.72	%						
p+6.00*	4.2		0.84	1.69	%	16.1		1.1	2.14	%	13.8		0.86	1.72	%						
p+7.00*	3.4		0.84	1.69	%	5.4		1.1	2.14	%	6.9		0.86	1.72	%						
p+8.00*	3.4		0.84	1.69	%	5.4		1.1	2.14	%	4.3		0.86	1.72	%						
p+9.00*	1.7	RDL	0.84	1.69	%	5.4		1.1	2.14	%	3.4		0.86	1.72	%						
p-1.00*	4.7		0.17	1.69	%		<MDL	0.21	2.14	%	6.6		0.17	1.72	%						
p-2.00(less than)*	9.8		0.17	1.69	%	6.2		0.21	2.14	%	3.4		0.17	1.72	%						
p-2.00*	1.6	<RDL	0.17	1.69	%	3.5		0.21	2.14	%	2		0.17	1.72	%						
CV EPA 9030B/SM4500-S2-D																					
Total Sulfide	1.6	<RDL	0.83	3.29	mg/Kg	16		1	4.17	mg/Kg	32.4		0.92	3.66	mg/Kg						
CV SM2540-G																					
Total Solids*	59.3		0.005	0.01	%	47		0.005	0.01	%	54.6		0.005	0.01	%						
CV SM4500-NH3-G KCL																					
Ammonia Nitrogen	1.19		0.17	0.331	mg/Kg	2.19		0.21	0.413	mg/Kg	2.12		0.18	0.355	mg/Kg						
CV SW846 9060-PSEP96																					
Total Organic Carbon	10400		1900	3740	mg/Kg	24500		2000	4000	mg/Kg	20000		2000	4050	mg/Kg						
MT SW846 3050B*SW846 6010C																					
Arsenic, Total, ICP	7.1	<RDL	2.2	10.8	mg/Kg	9.6	<RDL	2.8	13.4	mg/Kg	7	<RDL	2.2	11.3	mg/Kg						
Cadmium, Total, ICP	0.19	<RDL	0.17	0.863	mg/Kg	1.13		0.21	1.08	mg/Kg	0.68	<RDL	0.18	0.907	mg/Kg						
Chromium, Total, ICP	30		0.25	1.29	mg/Kg	47		0.32	1.61	mg/Kg	39		0.27	1.36	mg/Kg						
Copper, Total, ICP	33.6		0.34	1.72	mg/Kg	226		0.43	2.15	mg/Kg	48.9		0.37	1.81	mg/Kg						
Lead, Total, ICP	25.5		1.7	8.63	mg/Kg	99.1		2.1	10.8	mg/Kg	61.7		1.8	9.07	mg/Kg						
Silver, Total, ICP	1.96		0.34	1.72	mg/Kg	7.17		0.43	2.15	mg/Kg	4.23		0.37	1.81	mg/Kg						
Zinc, Total, ICP	58.5		0.44	2.16	mg/Kg	131		0.53	2.68	mg/Kg	86.6		0.46	2.27	mg/Kg						
MT SW846 7471B																					
Mercury, Total, CVAA	0.24	<RDL	0.034	0.337	mg/Kg	0.632		0.043	0.417	mg/Kg	0.619		0.037	0.364	mg/Kg						
OR SW846 3550B*SW846 8081B																					
4,4'-DDD	3	<RDL	1.7	3.37	ug/Kg	16		2.1	4.26	ug/Kg	11.3		1.8	3.66	ug/Kg						
4,4'-DDE		<MDL	1.7	3.37	ug/Kg	6.81		2.1	4.26	ug/Kg	4.45		1.8	3.66	ug/Kg						

King County Environmental Lab Analytical Report

Project:	423062-020					Project:	423062-020					Project:	423062-020								
Locator:	DWMP-07					Locator:	DWMP-08					Locator:	DWMP-08								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L50382-7					Sample:	L50382-8					Sample:	L50382-9								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	4/6/10 10:38					ColDate:	4/5/10 12:30					ColDate:	4/5/10 12:13								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	59.3					TotalSolid:	47					TotalSolid:	54.6								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	29					SampDepth:	26					SampDepth:	26								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**					
4,4'-DDT	4.4		1.7	3.37	ug/Kg	7.3		2.1	4.26	ug/Kg		5.33		1.8	3.66	ug/Kg					
OR SW846 3550B*SW846 8082A																					
Aroclor 1016		<MDL,TA	5.4	10.8	ug/Kg		<MDL,TA	51	102	ug/Kg			<MDL,TA	44	87.9	ug/Kg					
Aroclor 1221		<MDL,TA	6.7	13.5	ug/Kg		<MDL,TA	17	34	ug/Kg			<MDL,TA	15	29.3	ug/Kg					
Aroclor 1232		<MDL,TA	10	20.2	ug/Kg		<MDL,TA	130	255	ug/Kg			<MDL,TA	88	176	ug/Kg					
Aroclor 1242		<MDL,TA	20	40.5	ug/Kg		<MDL,TA	130	255	ug/Kg			<MDL,TA	88	176	ug/Kg					
Aroclor 1248	14.7		1.7	3.37	ug/Kg	98.9		2.1	4.26	ug/Kg		87.7		1.8	3.66	ug/Kg					
Aroclor 1254	48.9		1.7	3.37	ug/Kg	228	TA	2.1	4.26	ug/Kg		178	TA	1.8	3.66	ug/Kg					
Aroclor 1260	38.1		1.7	3.37	ug/Kg	105		2.1	4.26	ug/Kg		98.2		1.8	3.66	ug/Kg					
Total Aroclors	102		1.7	3.37	ug/Kg	413		2.1	4.26	ug/Kg		364		1.8	3.66	ug/Kg					
OR SW846 3550B*SW846 8270D																					
1,2,4-Trichlorobenzene		<MDL	0.17	0.337	ug/Kg		<MDL	1.1	2.13	ug/Kg			<MDL	0.18	0.366	ug/Kg					
1,2-Dichlorobenzene	0.62	<RDL	0.34	0.675	ug/Kg		<MDL	2.1	4.26	ug/Kg		1.98		0.37	0.733	ug/Kg					
1,3-Dichlorobenzene		<MDL	0.34	0.675	ug/Kg		<MDL	2.1	4.26	ug/Kg			<MDL	0.37	0.733	ug/Kg					
1,4-Dichlorobenzene	2.93		0.34	0.675	ug/Kg	10.7		2.1	4.26	ug/Kg		7.62		0.37	0.733	ug/Kg					
2,4-Dimethylphenol		<MDL	1.7	3.37	ug/Kg		<MDL	11	21.3	ug/Kg			<MDL	1.8	3.66	ug/Kg					
2-Methylnaphthalene	4.2	<RDL	3.4	6.75	ug/Kg		<MDL	21	42.6	ug/Kg		21.6		3.7	7.33	ug/Kg					
2-Methylphenol		<MDL	3.4	6.75	ug/Kg		<MDL	21	42.6	ug/Kg			<MDL	3.7	7.33	ug/Kg					
4-Methylphenol	43		6.7	13.5	ug/Kg	72	<RDL	43	85.1	ug/Kg		131		7.3	14.7	ug/Kg					
Acenaphthene	7.05		3.4	6.75	ug/Kg		<MDL	21	42.6	ug/Kg		14.8		3.7	7.33	ug/Kg					
Acenaphthylene	7.3		3.4	6.75	ug/Kg		<MDL	21	42.6	ug/Kg		59.3		3.7	7.33	ug/Kg					
Anthracene	46.2		3.4	6.75	ug/Kg	88.1		21	42.6	ug/Kg		1130		3.7	7.33	ug/Kg					
Benzo(a)anthracene	134		3.4	6.75	ug/Kg	202		21	42.6	ug/Kg		4450		3.7	7.33	ug/Kg					
Benzo(a)pyrene	125		3.4	6.75	ug/Kg	257		21	42.6	ug/Kg		3410		3.7	7.33	ug/Kg					
Benzo(b)fluoranthene	155		3.4	6.75	ug/Kg	300		21	42.6	ug/Kg		4030		3.7	7.33	ug/Kg					
Benzo(g,h,i)perylene	85.2		3.4	6.75	ug/Kg	164		21	42.6	ug/Kg		828		3.7	7.33	ug/Kg					
Benzo(k)fluoranthene	139		3.4	6.75	ug/Kg	347		21	42.6	ug/Kg		3190		3.7	7.33	ug/Kg					
Benzoic Acid	89.7	B,JG	17	33.7	ug/Kg		<MDL,JG	110	213	ug/Kg		122	B,JG	18	36.6	ug/Kg					
Benzyl Alcohol		<MDL	3.4	6.75	ug/Kg		<MDL	21	42.6	ug/Kg			<MDL	3.7	7.33	ug/Kg					
Benzyl Butyl Phthalate	20.6		1.7	3.37	ug/Kg	88.9		11	21.3	ug/Kg		156		1.8	3.66	ug/Kg					
Bis(2-Ethylhexyl)Phthalate	251		6.7	13.5	ug/Kg	1450		43	85.1	ug/Kg		1220		7.3	14.7	ug/Kg					
Caffeine		<MDL	6.7	13.5	ug/Kg		<MDL	43	85.1	ug/Kg			<MDL	7.3	14.7	ug/Kg					
Carbazole	15.1		3.4	6.75	ug/Kg	30	<RDL	21	42.6	ug/Kg		89		3.7	7.33	ug/Kg					
Chrysene	145		3.4	6.75	ug/Kg	296		21	42.6	ug/Kg		4010		3.7	7.33	ug/Kg					
Coprostanol		<MDL	67	135	ug/Kg		<MDL	430	851	ug/Kg			<MDL	73	147	ug/Kg					
Dibenzo(a,h)anthracene	34.2		3.4	6.75	ug/Kg	74.3		21	42.6	ug/Kg		625		3.7	7.33	ug/Kg					
Dibenzofuran	5.1	<RDL	3.4	6.75	ug/Kg		<MDL	21	42.6	ug/Kg		25.1		3.7	7.33	ug/Kg					
Diethyl Phthalate		<MDL	6.7	13.5	ug/Kg		<MDL	43	85.1	ug/Kg			<MDL	7.3	14.7	ug/Kg					
Dimethyl Phthalate		<MDL	6.7	13.5	ug/Kg		<MDL	43	85.1	ug/Kg			<MDL	7.3	14.7	ug/Kg					
Di-N-Butyl Phthalate	13.8		6.7	13.5	ug/Kg		<MDL	43	85.1	ug/Kg			<MDL	7.3	14.7	ug/Kg					
Di-N-Octyl Phthalate		<MDL	6.7	13.5	ug/Kg		<MDL	43	85.1	ug/Kg			<MDL	7.3	14.7	ug/Kg					

King County Environmental Lab Analytical Report

Project:	423062-020					Project:	423062-020					Project:	423062-020								
Locator:	DWMP-07					Locator:	DWMP-08					Locator:	DWMP-08								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L50382-7					Sample:	L50382-8					Sample:	L50382-9								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	4/6/10 10:38					ColDate:	4/5/10 12:30					ColDate:	4/5/10 12:13								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	59.3					TotalSolid:	47					TotalSolid:	54.6								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	29					SampDepth:	26					SampDepth:	26								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**					
Fluoranthene	202		3.4	6.75	ug/Kg	349		21	42.6	ug/Kg		5550		3.7	7.33	ug/Kg					
Fluorene	11.8		3.4	6.75	ug/Kg	23	<RDL	21	42.6	ug/Kg		119		3.7	7.33	ug/Kg					
Hexachlorobenzene		<MDL	0.17	0.337	ug/Kg		<MDL	1.1	2.13	ug/Kg			<MDL	0.18	0.366	ug/Kg					
Hexachlorobutadiene		<MDL	0.84	1.69	ug/Kg		<MDL	5.3	10.6	ug/Kg			<MDL	0.92	1.83	ug/Kg					
Hexachloroethane		<MDL	1.7	3.37	ug/Kg		<MDL	11	21.3	ug/Kg			<MDL	1.8	3.66	ug/Kg					
Indeno(1,2,3-Cd)Pyrene	73.4		3.4	6.75	ug/Kg	144		21	42.6	ug/Kg		1140		3.7	7.33	ug/Kg					
Naphthalene	5.7	<RDL	3.4	6.75	ug/Kg		<MDL	21	42.6	ug/Kg		12.7		3.7	7.33	ug/Kg					
N-Nitrosodiphenylamine		<MDL	6.7	13.5	ug/Kg		<MDL	43	85.1	ug/Kg			<MDL	7.3	14.7	ug/Kg					
Pentachlorophenol		<MDL	17	33.7	ug/Kg		<MDL	110	213	ug/Kg			<MDL	18	36.6	ug/Kg					
Phenanthrene	95.4		3.4	6.75	ug/Kg	144		21	42.6	ug/Kg		690		3.7	7.33	ug/Kg					
Phenol		<MDL	6.7	13.5	ug/Kg	97.2		43	85.1	ug/Kg			<MDL	7.3	14.7	ug/Kg					
Pyrene	218		3.4	6.75	ug/Kg	1100		21	42.6	ug/Kg		7070		3.7	7.33	ug/Kg					
Total HPAHS	1310		3.4	6.75	ug/Kg	3230		21	42.6	ug/Kg		34200		3.7	7.33	ug/Kg					
Total LPAHs	177		3.4	6.75	ug/Kg	306		21	42.6	ug/Kg		2030		3.7	7.33	ug/Kg					
* Not converted to dry weight basis																					

King County Environmental Lab Analytical Report

	Project:	423062-020					Project:	423062-030				Project:	423062-020			
	Locator:	DWMP-09					Locator:	DWMP-10				Locator:	DWMP-11			
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI			
	Sample:	L50382-10					Sample:	L50382-11				Sample:	L50382-12			
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED				Matrix:	SF SALTWTRSED			
	ColDate:	4/5/10 12:50					ColDate:	4/5/10 13:15				ColDate:	4/6/10 10:20			
	TimeSpan:						TimeSpan:					TimeSpan:				
	TotalSolid:	39					TotalSolid:	86.7				TotalSolid:	58.2			
	ClientLoc:						ClientLoc:					ClientLoc:				
	SampDepth:	30					SampDepth:	6				SampDepth:	22			
	DRY Weight Basis						**DRY Weight Basis**					**DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	
CV ASTM D422																
Fines*	91.7		1.4	2.87	%	1.2	RDL	0.6	1.2	%	26		1	2	%	
Gravel*	1.6	<RDL	0.29	2.87	%	41.1		0.12	1.2	%	3.6		0.2	2	%	
Sand*	16.4		0.29	2.87	%	57.3		0.12	1.2	%	61.1		0.2	2	%	
Silt*	57.3		1.4	2.87	%	0.6	<RDL	0.6	1.2	%	16		1	2	%	
Clay*	34.4		1.4	2.87	%	0.6	<RDL	0.6	1.2	%	10		1	2	%	
p+0.00*	1.3	<RDL	0.29	2.87	%	14.5		0.12	1.2	%	1.9	<RDL	0.2	2	%	
p+1.00*	4.1		0.29	2.87	%	21.2		0.12	1.2	%	11.1		0.2	2	%	
p+10.0(equal/more than)*	31.5		1.4	2.87	%	0.6	<RDL	0.6	1.2	%	7		1	2	%	
p+2.00*	3.5		0.29	2.87	%	17.5		0.12	1.2	%	35.9		0.2	2	%	
p+3.00*	4.4		0.29	2.87	%	3.4		0.12	1.2	%	8.6		0.2	2	%	
p+4.00*	3.1		0.29	2.87	%	0.7	<RDL	0.12	1.2	%	3.7		0.2	2	%	
p+5.00*	28.7		1.4	2.87	%		<MDL	0.6	1.2	%	7		1	2	%	
p+6.00*	12.9		1.4	2.87	%		<MDL	0.6	1.2	%		<MDL	1	2	%	
p+7.00*	10		1.4	2.87	%		<MDL	0.6	1.2	%	6		1	2	%	
p+8.00*	5.7		1.4	2.87	%	0.6	<RDL	0.6	1.2	%	2	RDL	1	2	%	
p+9.00*	2.9	RDL	1.4	2.87	%		<MDL	0.6	1.2	%	3		1	2	%	
p-1.00*		<MDL	0.29	2.87	%	15.3		0.12	1.2	%	1.1	<RDL	0.2	2	%	
p-2.00(less than)*	0.9	<RDL	0.29	2.87	%	20.7		0.12	1.2	%	1.6	<RDL	0.2	2	%	
p-2.00*	0.7	<RDL	0.29	2.87	%	5.1		0.12	1.2	%	0.9	<RDL	0.2	2	%	
CV EPA 9030B/SM4500-S2-D																
Total Sulfide	10.8		1.3	5.13	mg/Kg	0.85	<RDL	0.57	2.26	mg/Kg	23.5		0.84	3.37	mg/Kg	
CV SM2540-G																
Total Solids*	39		0.005	0.01	%	86.7		0.005	0.01	%	58.2		0.005	0.01	%	
CV SM4500-NH3-G KCL																
Ammonia Nitrogen	2.37		0.25	0.503	mg/Kg	1.55		0.11	0.228	mg/Kg	1.16		0.17	0.333	mg/Kg	
CV SW846 9060-PSEP96																
Total Organic Carbon	30800		3800	7590	mg/Kg	1420		480	975	mg/Kg	16400		1900	3930	mg/Kg	
MT SW846 3050B*SW846 6010C																
Arsenic, Total, ICP	9	<RDL	3.1	15.5	mg/Kg	1.8	<RDL	1.4	7.01	mg/Kg	5.2	<RDL	2.1	10.7	mg/Kg	
Cadmium, Total, ICP	0.56	<RDL	0.25	1.24	mg/Kg		<MDL	0.11	0.561	mg/Kg	0.24	<RDL	0.17	0.852	mg/Kg	
Chromium, Total, ICP	45.9		0.38	1.86	mg/Kg	12.1		0.17	0.841	mg/Kg	24.6		0.26	1.28	mg/Kg	
Copper, Total, ICP	63.8		0.49	2.48	mg/Kg	11.5		0.22	1.12	mg/Kg	28.9		0.34	1.71	mg/Kg	
Lead, Total, ICP	69.2		2.5	12.4	mg/Kg	3.3	<RDL	1.1	5.61	mg/Kg	26.5		1.7	8.52	mg/Kg	
Silver, Total, ICP	3.85		0.49	2.48	mg/Kg	0.78	<RDL	0.22	1.12	mg/Kg	2.13		0.34	1.71	mg/Kg	
Zinc, Total, ICP	97.9		0.62	3.1	mg/Kg	24.6		0.28	1.41	mg/Kg	69.1		0.43	2.13	mg/Kg	
MT SW846 7471B																
Mercury, Total, CVAA	0.528		0.051	0.5	mg/Kg	0.02	<RDL	0.0057	0.0565	mg/Kg	0.17	<RDL	0.034	0.342	mg/Kg	
OR SW846 3550B*SW846 8081B																
4,4'-DDD	5.18		2.6	5.13	ug/Kg		<MDL	1.2	2.31	ug/Kg	2.2	<RDL	1.7	3.44	ug/Kg	
4,4'-DDE		<MDL	2.6	5.13	ug/Kg		<MDL	1.2	2.31	ug/Kg		<MDL	1.7	3.44	ug/Kg	

King County Environmental Lab Analytical Report

	Project:	423062-020					Project:	423062-030					Project:	423062-020							
	Locator:	DWMP-09					Locator:	DWMP-10					Locator:	DWMP-11							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L50382-10					Sample:	L50382-11					Sample:	L50382-12							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	4/5/10 12:50					ColDate:	4/5/10 13:15					ColDate:	4/6/10 10:20							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	39					TotalSolid:	86.7					TotalSolid:	58.2							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	30					SampDepth:	6					SampDepth:	22							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**						
4,4'-DDT	3.1	<RDL	2.6	5.13	ug/Kg		<MDL	1.2	2.31	ug/Kg		<MDL	1.7	3.44	ug/Kg						
OR SW846 3550B*SW846 8082A																					
Aroclor 1016		<MDL,TA	21	41	ug/Kg		<MDL	1.2	2.31	ug/Kg		<MDL,TA	6.9	13.7	ug/Kg						
Aroclor 1221		<MDL,TA	10	20.5	ug/Kg		<MDL	2.3	4.61	ug/Kg		<MDL,TA	6.9	13.7	ug/Kg						
Aroclor 1232		<MDL,TA	51	103	ug/Kg		<MDL	2.3	4.61	ug/Kg		<MDL,TA	17	34.4	ug/Kg						
Aroclor 1242		<MDL,TA	62	123	ug/Kg		<MDL	1.2	2.31	ug/Kg		<MDL,TA	27	55	ug/Kg						
Aroclor 1248	74.9		2.6	5.13	ug/Kg		<MDL	1.2	2.31	ug/Kg	17.9		1.7	3.44	ug/Kg						
Aroclor 1254	238	TA	2.6	5.13	ug/Kg	2.3	<RDL	1.2	2.31	ug/Kg	51.5		1.7	3.44	ug/Kg						
Aroclor 1260	123		2.6	5.13	ug/Kg	1.5	<RDL	1.2	2.31	ug/Kg	37.3		1.7	3.44	ug/Kg						
Total Aroclors	436		2.6	5.13	ug/Kg	2.3	<RDL	1.2	2.31	ug/Kg	107		1.7	3.44	ug/Kg						
OR SW846 3550B*SW846 8270D																					
1,2,4-Trichlorobenzene		<MDL	0.26	0.513	ug/Kg		<MDL	0.12	0.231	ug/Kg		<MDL	0.17	0.344	ug/Kg						
1,2-Dichlorobenzene	1.34		0.51	1.03	ug/Kg	0.36	<RDL	0.23	0.461	ug/Kg	0.759		0.34	0.687	ug/Kg						
1,3-Dichlorobenzene		<MDL	0.51	1.03	ug/Kg		<MDL	0.23	0.461	ug/Kg		<MDL	0.34	0.687	ug/Kg						
1,4-Dichlorobenzene	3.13		0.51	1.03	ug/Kg	0.689		0.23	0.461	ug/Kg	1.98		0.34	0.687	ug/Kg						
2,4-Dimethylphenol		<MDL	2.6	5.13	ug/Kg		<MDL	1.2	2.31	ug/Kg		<MDL	1.7	3.44	ug/Kg						
2-Methylnaphthalene	9.7	<RDL	5.1	10.3	ug/Kg		<MDL	2.3	4.61	ug/Kg		<MDL	3.4	6.87	ug/Kg						
2-Methylphenol		<MDL	5.1	10.3	ug/Kg		<MDL	2.3	4.61	ug/Kg		<MDL	3.4	6.87	ug/Kg						
4-Methylphenol	164		10	20.5	ug/Kg		<MDL	4.6	9.23	ug/Kg	64.9		6.9	13.7	ug/Kg						
Acenaphthene	22.6		5.1	10.3	ug/Kg		<MDL	2.3	4.61	ug/Kg	13.6		3.4	6.87	ug/Kg						
Acenaphthylene	19.1		5.1	10.3	ug/Kg		<MDL	2.3	4.61	ug/Kg	7.06		3.4	6.87	ug/Kg						
Anthracene	92.6		5.1	10.3	ug/Kg	23.1		2.3	4.61	ug/Kg	73.2		3.4	6.87	ug/Kg						
Benzo(a)anthracene	227		5.1	10.3	ug/Kg	20.2		2.3	4.61	ug/Kg	140		3.4	6.87	ug/Kg						
Benzo(a)pyrene	297		5.1	10.3	ug/Kg	18.5		2.3	4.61	ug/Kg	148		3.4	6.87	ug/Kg						
Benzo(b)fluoranthene	292		5.1	10.3	ug/Kg	24.6		2.3	4.61	ug/Kg	164		3.4	6.87	ug/Kg						
Benzo(g,h,i)perylene	186		5.1	10.3	ug/Kg	11.1		2.3	4.61	ug/Kg	92.4		3.4	6.87	ug/Kg						
Benzo(k)fluoranthene	323		5.1	10.3	ug/Kg	28.8		2.3	4.61	ug/Kg	153		3.4	6.87	ug/Kg						
Benzoic Acid	128	B,JG	26	51.3	ug/Kg	145	B,JG	12	23.1	ug/Kg	94.3	B,JG	17	34.4	ug/Kg						
Benzyl Alcohol		<MDL	5.1	10.3	ug/Kg		<MDL	2.3	4.61	ug/Kg		<MDL	3.4	6.87	ug/Kg						
Benzyl Butyl Phthalate	40.3		2.6	5.13	ug/Kg	4.31	B	1.2	2.31	ug/Kg	21		1.7	3.44	ug/Kg						
Bis(2-Ethylhexyl)Phthalate	556		10	20.5	ug/Kg	23.6		4.6	9.23	ug/Kg	206		6.9	13.7	ug/Kg						
Caffeine		<MDL	10	20.5	ug/Kg		<MDL	4.6	9.23	ug/Kg		<MDL	6.9	13.7	ug/Kg						
Carbazole	39.2		5.1	10.3	ug/Kg	7.3		2.3	4.61	ug/Kg	19.1		3.4	6.87	ug/Kg						
Chrysene	338		5.1	10.3	ug/Kg	37.5		2.3	4.61	ug/Kg	166		3.4	6.87	ug/Kg						
Coprostanol		<MDL	100	205	ug/Kg		<MDL	46	92.3	ug/Kg		<MDL	69	137	ug/Kg						
Dibenzo(a,h)anthracene	72.1		5.1	10.3	ug/Kg	4.88		2.3	4.61	ug/Kg	37.6		3.4	6.87	ug/Kg						
Dibenzofuran	11.4		5.1	10.3	ug/Kg		<MDL	2.3	4.61	ug/Kg	7.65		3.4	6.87	ug/Kg						
Diethyl Phthalate		<MDL	10	20.5	ug/Kg		<MDL	4.6	9.23	ug/Kg		<MDL	6.9	13.7	ug/Kg						
Dimethyl Phthalate		<MDL	10	20.5	ug/Kg		<MDL	4.6	9.23	ug/Kg		<MDL	6.9	13.7	ug/Kg						
Di-N-Butyl Phthalate	23.1		10	20.5	ug/Kg	7.3	<RDL	4.6	9.23	ug/Kg	15.9		6.9	13.7	ug/Kg						
Di-N-Octyl Phthalate		<MDL	10	20.5	ug/Kg		<MDL	4.6	9.23	ug/Kg		<MDL	6.9	13.7	ug/Kg						

King County Environmental Lab Analytical Report

	Project:	423062-020					Project:	423062-030					Project:	423062-020							
	Locator:	DWMP-09					Locator:	DWMP-10					Locator:	DWMP-11							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L50382-10					Sample:	L50382-11					Sample:	L50382-12							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	4/5/10 12:50					ColDate:	4/5/10 13:15					ColDate:	4/6/10 10:20							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	39					TotalSolid:	86.7					TotalSolid:	58.2							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	30					SampDepth:	6					SampDepth:	22							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**						
Fluoranthene	449		5.1	10.3	ug/Kg	40.8		2.3	4.61	ug/Kg	256		3.4	6.87	ug/Kg						
Fluorene	26.4		5.1	10.3	ug/Kg	3.2	<RDL	2.3	4.61	ug/Kg	16.9		3.4	6.87	ug/Kg						
Hexachlorobenzene		<MDL	0.26	0.513	ug/Kg		<MDL	0.12	0.231	ug/Kg		<MDL	0.17	0.344	ug/Kg						
Hexachlorobutadiene		<MDL	1.3	2.56	ug/Kg		<MDL	0.58	1.15	ug/Kg		<MDL	0.86	1.72	ug/Kg						
Hexachloroethane		<MDL	2.6	5.13	ug/Kg		<MDL	1.2	2.31	ug/Kg		<MDL	1.7	3.44	ug/Kg						
Indeno(1,2,3-Cd)Pyrene	156		5.1	10.3	ug/Kg	10.6		2.3	4.61	ug/Kg	78.7		3.4	6.87	ug/Kg						
Naphthalene	15.1		5.1	10.3	ug/Kg		<MDL	2.3	4.61	ug/Kg	4	<RDL	3.4	6.87	ug/Kg						
N-Nitrosodiphenylamine		<MDL	10	20.5	ug/Kg		<MDL	4.6	9.23	ug/Kg		<MDL	6.9	13.7	ug/Kg						
Pentachlorophenol		<MDL	26	51.3	ug/Kg		<MDL	12	23.1	ug/Kg		<MDL	17	34.4	ug/Kg						
Phenanthrene	228		5.1	10.3	ug/Kg	16.6		2.3	4.61	ug/Kg	140		3.4	6.87	ug/Kg						
Phenol		<MDL	10	20.5	ug/Kg	113		4.6	9.23	ug/Kg	52.9		6.9	13.7	ug/Kg						
Pyrene	528		5.1	10.3	ug/Kg	30.8		2.3	4.61	ug/Kg	277		3.4	6.87	ug/Kg						
Total HPAHS	2870		5.1	10.3	ug/Kg	227		2.3	4.61	ug/Kg	1510		3.4	6.87	ug/Kg						
Total LPAHs	415		5.1	10.3	ug/Kg	45.7		2.3	4.61	ug/Kg	258		3.4	6.87	ug/Kg						
* Not converted to dry weight basis																					

King County Environmental Lab Analytical Report

	Project:	423062-020					Project:	423062-020					Project:	423062-020							
	Locator:	DWMP-12					Locator:	DWMP-13					Locator:	DWMP-14							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L50382-13					Sample:	L50382-14					Sample:	L50382-15							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	4/6/10 10:05					ColDate:	4/6/10 9:18					ColDate:	4/5/10 10:10							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	29.1					TotalSolid:	82.9					TotalSolid:	53.8							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	30					SampDepth:	5					SampDepth:	15							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**				
CV ASTM D422																					
Fines*	79		1.7	3.44	%		10.4		0.65	1.31	%		45.8		0.97	1.95	%				
Gravel*	3	<RDL	0.34	3.44	%		42.3		0.13	1.31	%		1.6	<RDL	0.19	1.95	%				
Sand*	24.6		0.34	3.44	%		56.4		0.13	1.31	%		42.7		0.19	1.95	%				
Silt*	58.4		1.7	3.44	%		3.9		0.65	1.31	%		43.8		0.97	1.95	%				
Clay*	20.6		1.7	3.44	%		6.5		0.65	1.31	%		1.9	RDL	0.97	1.95	%				
p+0.00*	0.9	<RDL	0.34	3.44	%		8.5		0.13	1.31	%		0.8	<RDL	0.19	1.95	%				
p+1.00*	3.1	<RDL	0.34	3.44	%		11.3		0.13	1.31	%		1.7	<RDL	0.19	1.95	%				
p+10.0(equal/more than)*	17.2		1.7	3.44	%		5.2		0.65	1.31	%			<MDL	0.97	1.95	%				
p+2.00*	9.7		0.34	3.44	%		23.8		0.13	1.31	%		7.7		0.19	1.95	%				
p+3.00*	10.2		0.34	3.44	%		10.8		0.13	1.31	%		19.8		0.19	1.95	%				
p+4.00*	0.7	<RDL	0.34	3.44	%		2.1		0.13	1.31	%		12.6		0.19	1.95	%				
p+5.00*	34.4		1.7	3.44	%			<MDL	0.65	1.31	%		9.7		0.97	1.95	%				
p+6.00*	8.6		1.7	3.44	%			<MDL	0.65	1.31	%		21.4		0.97	1.95	%				
p+7.00*	10.3		1.7	3.44	%		2.6		0.65	1.31	%		9.7		0.97	1.95	%				
p+8.00*	5.2		1.7	3.44	%		1.3	RDL	0.65	1.31	%		2.9		0.97	1.95	%				
p+9.00*	3.4	RDL	1.7	3.44	%		1.3	RDL	0.65	1.31	%		1.9	RDL	0.97	1.95	%				
p-1.00*	1.3	<RDL	0.34	3.44	%		11.7		0.13	1.31	%		0.6	<RDL	0.19	1.95	%				
p-2.00(less than)*	0.7	<RDL	0.34	3.44	%		28.3		0.13	1.31	%		0.4	<RDL	0.19	1.95	%				
p-2.00*	1	<RDL	0.34	3.44	%		2.2		0.13	1.31	%		0.6	<RDL	0.19	1.95	%				
CV EPA 9030B/SM4500-S2-D																					
Total Sulfide	143		8.2	33.7	mg/Kg		35.5		3	12.1	mg/Kg		87.7		4.6	18.4	mg/Kg				
CV SM2540-G																					
Total Solids*	29.1		0.005	0.01	%		82.9		0.005	0.01	%		53.8		0.005	0.01	%				
CV SM4500-NH3-G KCL																					
Ammonia Nitrogen	2.82		0.34	0.68	mg/Kg		2.26		0.12	0.234	mg/Kg		1.75		0.18	0.353	mg/Kg				
CV SW846 9060-PSEP96																					
Total Organic Carbon	43300		3800	7490	mg/Kg		7490		470	938	mg/Kg		22700		2000	4070	mg/Kg				
MT SW846 3050B*SW846 6010C																					
Arsenic, Total, ICP	10	<RDL	4.5	21.8	mg/Kg		2.3	<RDL	1.6	7.77	mg/Kg		8.7	<RDL	2.4	11.8	mg/Kg				
Cadmium, Total, ICP	0.55	<RDL	0.34	1.74	mg/Kg			<MDL	0.12	0.621	mg/Kg		0.91	<RDL	0.19	0.942	mg/Kg				
Chromium, Total, ICP	47.1		0.52	2.62	mg/Kg		13.9		0.18	0.932	mg/Kg		50		0.28	1.41	mg/Kg				
Copper, Total, ICP	58.8		0.69	3.47	mg/Kg		15.3		0.25	1.24	mg/Kg		69.9		0.37	1.88	mg/Kg				
Lead, Total, ICP	51.5		3.4	17.4	mg/Kg		12.2		1.2	6.21	mg/Kg		104		1.9	9.42	mg/Kg				
Silver, Total, ICP	3.75		0.69	3.47	mg/Kg		0.8	<RDL	0.25	1.24	mg/Kg		5.61		0.37	1.88	mg/Kg				
Zinc, Total, ICP	94.8		0.86	4.36	mg/Kg		33.8		0.31	1.56	mg/Kg		115		0.46	2.36	mg/Kg				
MT SW846 7471B																					
Mercury, Total, CVAA	0.38	<RDL	0.069	0.687	mg/Kg		0.035	<RDL	0.024	0.24	mg/Kg		0.606		0.037	0.372	mg/Kg				
OR SW846 3550B*SW846 8081B																					
4,4'-DDD		<MDL	3.4	6.87	ug/Kg		1.3	<RDL	1.2	2.41	ug/Kg		17.4		1.9	3.72	ug/Kg				
4,4'-DDE		<MDL	3.4	6.87	ug/Kg			<MDL	1.2	2.41	ug/Kg		5.72		1.9	3.72	ug/Kg				

King County Environmental Lab Analytical Report

Project:	423062-020					Project:	423062-020					Project:	423062-020								
Locator:	DWMP-12					Locator:	DWMP-13					Locator:	DWMP-14								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L50382-13					Sample:	L50382-14					Sample:	L50382-15								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	4/6/10 10:05					ColDate:	4/6/10 9:18					ColDate:	4/5/10 10:10								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	29.1					TotalSolid:	82.9					TotalSolid:	53.8								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	30					SampDepth:	5					SampDepth:	15								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**						
4,4'-DDT		<MDL	3.4	6.87	ug/Kg		<MDL	1.2	2.41	ug/Kg	14.6		1.9	3.72	ug/Kg						
OR SW846 3550B*SW846 8082A																					
Aroclor 1016		<MDL,TA	14	27.5	ug/Kg		<MDL,TA	3.4	6.76	ug/Kg		<MDL,TA	52	104	ug/Kg						
Aroclor 1221		<MDL	6.9	13.7	ug/Kg		<MDL,TA	4.8	9.65	ug/Kg		<MDL,TA	15	29.7	ug/Kg						
Aroclor 1232		<MDL,TA	34	68.7	ug/Kg		<MDL,TA	9.7	19.3	ug/Kg		<MDL,TA	110	223	ug/Kg						
Aroclor 1242		<MDL,TA	41	82.5	ug/Kg		<MDL,TA	9.7	19.3	ug/Kg		<MDL,TA	150	297	ug/Kg						
Aroclor 1248	34.7		3.4	6.87	ug/Kg	8.18		1.2	2.41	ug/Kg	116		1.9	3.72	ug/Kg						
Aroclor 1254	100		3.4	6.87	ug/Kg	17.1		1.2	2.41	ug/Kg	216	TA	1.9	3.72	ug/Kg						
Aroclor 1260	82.5		3.4	6.87	ug/Kg	6.26		1.2	2.41	ug/Kg	148		1.9	3.72	ug/Kg						
Total Aroclors	217		3.4	6.87	ug/Kg	31.6		1.2	2.41	ug/Kg	481		1.9	3.72	ug/Kg						
OR SW846 3550B*SW846 8270D																					
1,2,4-Trichlorobenzene		<MDL	0.34	0.687	ug/Kg		<MDL	1.2	2.41	ug/Kg		<MDL	0.19	0.372	ug/Kg						
1,2-Dichlorobenzene	1.75		0.69	1.37	ug/Kg		<MDL	2.4	4.83	ug/Kg		<MDL	0.37	0.743	ug/Kg						
1,3-Dichlorobenzene		<MDL	0.69	1.37	ug/Kg		<MDL	2.4	4.83	ug/Kg		<MDL	0.37	0.743	ug/Kg						
1,4-Dichlorobenzene	2.85		0.69	1.37	ug/Kg		<MDL	2.4	4.83	ug/Kg		<MDL	0.37	0.743	ug/Kg						
2,4-Dimethylphenol		<MDL	3.4	6.87	ug/Kg		<MDL	12	24.1	ug/Kg		<MDL	1.9	3.72	ug/Kg						
2-Methylnaphthalene		<MDL	6.9	13.7	ug/Kg		<MDL	24	48.3	ug/Kg	19.9		3.7	7.43	ug/Kg						
2-Methylphenol		<MDL	6.9	13.7	ug/Kg		<MDL	24	48.3	ug/Kg		<MDL	3.7	7.43	ug/Kg						
4-Methylphenol	193		14	27.5	ug/Kg		<MDL	48	96.5	ug/Kg	84.9		7.4	14.9	ug/Kg						
Acenaphthene	16.7		6.9	13.7	ug/Kg		<MDL	24	48.3	ug/Kg	44.4		3.7	7.43	ug/Kg						
Acenaphthylene	25.8		6.9	13.7	ug/Kg		<MDL	24	48.3	ug/Kg	23.4		3.7	7.43	ug/Kg						
Anthracene	132		6.9	13.7	ug/Kg	312		24	48.3	ug/Kg	118		3.7	7.43	ug/Kg						
Benzo(a)anthracene	253		6.9	13.7	ug/Kg	245		24	48.3	ug/Kg	388		3.7	7.43	ug/Kg						
Benzo(a)pyrene	357		6.9	13.7	ug/Kg	179		24	48.3	ug/Kg	491		3.7	7.43	ug/Kg						
Benzo(b)fluoranthene	361		6.9	13.7	ug/Kg	181		24	48.3	ug/Kg	494		3.7	7.43	ug/Kg						
Benzo(g,h,i)perylene	229		6.9	13.7	ug/Kg	110		24	48.3	ug/Kg	271		3.7	7.43	ug/Kg						
Benzo(k)fluoranthene	334		6.9	13.7	ug/Kg	216		24	48.3	ug/Kg	487		3.7	7.43	ug/Kg						
Benzoic Acid	191	B,JG	34	68.7	ug/Kg	390	JG	120	241	ug/Kg	84.8	B,JG	19	37.2	ug/Kg						
Benzyl Alcohol		<MDL	6.9	13.7	ug/Kg		<MDL	24	48.3	ug/Kg		<MDL	3.7	7.43	ug/Kg						
Benzyl Butyl Phthalate	34.4	B2	3.4	6.87	ug/Kg		<MDL	12	24.1	ug/Kg	103		1.9	3.72	ug/Kg						
Bis(2-Ethylhexyl)Phthalate	512		14	27.5	ug/Kg	164		48	96.5	ug/Kg	1420		7.4	14.9	ug/Kg						
Caffeine		<MDL	14	27.5	ug/Kg		<MDL	48	96.5	ug/Kg		<MDL	7.4	14.9	ug/Kg						
Carbazole	34.2		6.9	13.7	ug/Kg	81.4		24	48.3	ug/Kg	42.6		3.7	7.43	ug/Kg						
Chrysene	364		6.9	13.7	ug/Kg	361		24	48.3	ug/Kg	413		3.7	7.43	ug/Kg						
Coprostanol		<MDL	140	275	ug/Kg		<MDL	480	965	ug/Kg		<MDL	74	149	ug/Kg						
Dibenzo(a,h)anthracene	84.9		6.9	13.7	ug/Kg	58.4		24	48.3	ug/Kg	78.8		3.7	7.43	ug/Kg						
Dibenzofuran	11	<RDL	6.9	13.7	ug/Kg		<MDL	24	48.3	ug/Kg	27.9		3.7	7.43	ug/Kg						
Diethyl Phthalate		<MDL	14	27.5	ug/Kg		<MDL	48	96.5	ug/Kg		<MDL	7.4	14.9	ug/Kg						
Dimethyl Phthalate	27.8		14	27.5	ug/Kg		<MDL	48	96.5	ug/Kg		<MDL	7.4	14.9	ug/Kg						
Di-N-Butyl Phthalate	35.1		14	27.5	ug/Kg		<MDL	48	96.5	ug/Kg	48		7.4	14.9	ug/Kg						
Di-N-Octyl Phthalate		<MDL	14	27.5	ug/Kg		<MDL	48	96.5	ug/Kg		<MDL	7.4	14.9	ug/Kg						

King County Environmental Lab Analytical Report

Project:	423062-020					Project:	423062-020					Project:	423062-020								
Locator:	DWMP-12					Locator:	DWMP-13					Locator:	DWMP-14								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L50382-13					Sample:	L50382-14					Sample:	L50382-15								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	4/6/10 10:05					ColDate:	4/6/10 9:18					ColDate:	4/5/10 10:10								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	29.1					TotalSolid:	82.9					TotalSolid:	53.8								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	30					SampDepth:	5					SampDepth:	15								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**					
Fluoranthene	433		6.9	13.7	ug/Kg	415		24	48.3	ug/Kg		582		3.7	7.43	ug/Kg					
Fluorene	28		6.9	13.7	ug/Kg	55.7		24	48.3	ug/Kg		48		3.7	7.43	ug/Kg					
Hexachlorobenzene		<MDL	0.34	0.687	ug/Kg		<MDL	1.2	2.41	ug/Kg			<MDL	0.19	0.372	ug/Kg					
Hexachlorobutadiene		<MDL	1.7	3.44	ug/Kg		<MDL	6	12.1	ug/Kg			<MDL	0.93	1.86	ug/Kg					
Hexachloroethane		<MDL	3.4	6.87	ug/Kg		<MDL	12	24.1	ug/Kg			<MDL	1.9	3.72	ug/Kg					
Indeno(1,2,3-Cd)Pyrene	187		6.9	13.7	ug/Kg	76.8		24	48.3	ug/Kg		227		3.7	7.43	ug/Kg					
Naphthalene	7.2	<RDL	6.9	13.7	ug/Kg		<MDL	24	48.3	ug/Kg		27.9		3.7	7.43	ug/Kg					
N-Nitrosodiphenylamine		<MDL	14	27.5	ug/Kg		<MDL	48	96.5	ug/Kg			<MDL	7.4	14.9	ug/Kg					
Pentachlorophenol		<MDL	34	68.7	ug/Kg		<MDL	120	241	ug/Kg			<MDL	19	37.2	ug/Kg					
Phenanthrene	215		6.9	13.7	ug/Kg	195		24	48.3	ug/Kg		318		3.7	7.43	ug/Kg					
Phenol	40.2		14	27.5	ug/Kg	274		48	96.5	ug/Kg		30.9		7.4	14.9	ug/Kg					
Pyrene	491		6.9	13.7	ug/Kg	427		24	48.3	ug/Kg		941		3.7	7.43	ug/Kg					
Total HPAHS	3090		6.9	13.7	ug/Kg	2270		24	48.3	ug/Kg		4370		3.7	7.43	ug/Kg					
Total LPAHs	423		6.9	13.7	ug/Kg	563		24	48.3	ug/Kg		600		3.7	7.43	ug/Kg					
* Not converted to dry weight basis																					

King County Environmental Lab Analytical Report

Project:	423062-020	Project:	423062-020
Locator:	DWMP-15	Locator:	DWMP-16
Descrip:	DENNY WAY MONITORI	Descrip:	DENNY WAY MONITORI
Sample:	L50382-16	Sample:	L50382-17
Matrix:	SF SALTWTRSED	Matrix:	SF SALTWTRSED
ColDate:	4/5/10 9:45	ColDate:	4/6/10 9:50
TimeSpan:		TimeSpan:	
TotalSolid:	60.8	TotalSolid:	47.6
ClientLoc:		ClientLoc:	
SampDepth:	24	SampDepth:	28
DRY Weight Basis		**DRY Weight Basis**	

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
CV ASTM D422										
Fines*	47.5		0.85	1.7	%	68.8		1.1	2.29	%
Gravel*	19.9		0.17	1.7	%	6.6		0.23	2.29	%
Sand*	24.4		0.17	1.7	%	34.1		0.23	2.29	%
Silt*	28.9		0.85	1.7	%	50.5		1.1	2.29	%
Clay*	18.7		0.85	1.7	%	18.4		1.1	2.29	%
p+0.00*		<MDL	0.17	1.7	%	1.7	<RDL	0.23	2.29	%
p+1.00*	2.1		0.17	1.7	%	1.8	<RDL	0.23	2.29	%
p+10.0(equal/more than)*	11.9		0.85	1.7	%	12.6		1.1	2.29	%
p+2.00*	12.8		0.17	1.7	%	7.1		0.23	2.29	%
p+3.00*	9.5		0.17	1.7	%	12		0.23	2.29	%
p+4.00*		<MDL	0.17	1.7	%	11.5		0.23	2.29	%
p+5.00*	6.8		0.85	1.7	%	18.4		1.1	2.29	%
p+6.00*	10.2		0.85	1.7	%	13.8		1.1	2.29	%
p+7.00*	7.6		0.85	1.7	%	9.2		1.1	2.29	%
p+8.00*	4.2		0.85	1.7	%	9.2		1.1	2.29	%
p+9.00*	6.8		0.85	1.7	%	5.7		1.1	2.29	%
p-1.00*		<MDL	0.17	1.7	%	2.7		0.23	2.29	%
p-2.00(less than)*	19.9		0.17	1.7	%	2.8		0.23	2.29	%
p-2.00*		<MDL	0.17	1.7	%	1.1	<RDL	0.23	2.29	%
CV EPA 9030B/SM4500-S2-D										
Total Sulfide	9.34		0.82	3.27	mg/Kg	51.5		5.3	20.9	mg/Kg
CV SM2540-G										
Total Solids*	60.8		0.005	0.01	%	47.6		0.005	0.01	%
CV SM4500-NH3-G KCL										
Ammonia Nitrogen	1.4		0.16	0.322	mg/Kg	1.77		0.2	0.408	mg/Kg
CV SW846 9060-PSEP96										
Total Organic Carbon	10100		2000	3830	mg/Kg	18800		2000	3970	mg/Kg
MT SW846 3050B*SW846 6010C										
Arsenic, Total, ICP	9.4	<RDL	2.1	10.4	mg/Kg	9	<RDL	2.5	13.1	mg/Kg
Cadmium, Total, ICP	0.44	<RDL	0.16	0.831	mg/Kg	0.48	<RDL	0.21	1.05	mg/Kg
Chromium, Total, ICP	59.7		0.25	1.25	mg/Kg	61.1		0.32	1.57	mg/Kg
Copper, Total, ICP	51.8		0.33	1.66	mg/Kg	59		0.42	2.1	mg/Kg
Lead, Total, ICP	47.4		1.6	8.31	mg/Kg	53.8		2.1	10.5	mg/Kg
Silver, Total, ICP	3.54		0.33	1.66	mg/Kg	3.45		0.42	2.1	mg/Kg
Zinc, Total, ICP	95.1		0.41	2.07	mg/Kg	101		0.53	2.63	mg/Kg
MT SW846 7471B										
Mercury, Total, CVAA	0.35		0.033	0.322	mg/Kg	0.4	<RDL	0.042	0.41	mg/Kg
OR SW846 3550B*SW846 8081B										
4,4'-DDD	5.25		1.6	3.29	ug/Kg	4.87		2.1	4.2	ug/Kg
4,4'-DDE	1.8	<RDL	1.6	3.29	ug/Kg	2.1	<RDL	2.1	4.2	ug/Kg

King County Environmental Lab Analytical Report

Project:	423062-020					Project:	423062-020				
Locator:	DWMP-15					Locator:	DWMP-16				
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI				
Sample:	L50382-16					Sample:	L50382-17				
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED				
ColDate:	4/5/10 9:45					ColDate:	4/6/10 9:50				
TimeSpan:						TimeSpan:					
TotalSolid:	60.8					TotalSolid:	47.6				
ClientLoc:						ClientLoc:					
SampDepth:	24					SampDepth:	28				
DRY Weight Basis						**DRY Weight Basis**					
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
4,4'-DDT	3.1	<RDL	1.6	3.29	ug/Kg	3.8	<RDL	2.1	4.2	ug/Kg
OR SW846 3550B*SW846 8082A										
Aroclor 1016		<MDL,TA	20	39.5	ug/Kg		<MDL,TA	21	42	ug/Kg
Aroclor 1221		<MDL,TA	6.6	13.2	ug/Kg		<MDL	4.2	8.4	ug/Kg
Aroclor 1232		<MDL,TA	46	92.1	ug/Kg		<MDL,TA	46	92.4	ug/Kg
Aroclor 1242		<MDL,TA	59	118	ug/Kg		<MDL,TA	63	126	ug/Kg
Aroclor 1248	51.2		1.6	3.29	ug/Kg	45.4		2.1	4.2	ug/Kg
Aroclor 1254	127		1.6	3.29	ug/Kg	139		2.1	4.2	ug/Kg
Aroclor 1260	88.3		1.6	3.29	ug/Kg	103		2.1	4.2	ug/Kg
Total Aroclors	266		1.6	3.29	ug/Kg	288		2.1	4.2	ug/Kg
OR SW846 3550B*SW846 8270D										
1,2,4-Trichlorobenzene		<MDL	0.16	0.329	ug/Kg		<MDL	0.21	0.42	ug/Kg
1,2-Dichlorobenzene	0.972		0.33	0.658	ug/Kg	1.38		0.42	0.84	ug/Kg
1,3-Dichlorobenzene		<MDL	0.33	0.658	ug/Kg		<MDL	0.42	0.84	ug/Kg
1,4-Dichlorobenzene	1.99		0.33	0.658	ug/Kg	3.09		0.42	0.84	ug/Kg
2,4-Dimethylphenol		<MDL	1.6	3.29	ug/Kg		<MDL	2.1	4.2	ug/Kg
2-Methylnaphthalene	5.1	<RDL	3.3	6.58	ug/Kg	8.2	<RDL	4.2	8.4	ug/Kg
2-Methylphenol		<MDL	3.3	6.58	ug/Kg		<MDL	4.2	8.4	ug/Kg
4-Methylphenol	70.6		6.6	13.2	ug/Kg	54.2		8.4	16.8	ug/Kg
Acenaphthene	7.71		3.3	6.58	ug/Kg	12.2		4.2	8.4	ug/Kg
Acenaphthylene	8.9		3.3	6.58	ug/Kg	13.6		4.2	8.4	ug/Kg
Anthracene	41.1		3.3	6.58	ug/Kg	73.5		4.2	8.4	ug/Kg
Benzo(a)anthracene	106		3.3	6.58	ug/Kg	178		4.2	8.4	ug/Kg
Benzo(a)pyrene	132		3.3	6.58	ug/Kg	206		4.2	8.4	ug/Kg
Benzo(b)fluoranthene	142		3.3	6.58	ug/Kg	216		4.2	8.4	ug/Kg
Benzo(g,h,i)perylene	90.8		3.3	6.58	ug/Kg	129		4.2	8.4	ug/Kg
Benzo(k)fluoranthene	151		3.3	6.58	ug/Kg	244		4.2	8.4	ug/Kg
Benzoic Acid	77	B,JG	16	32.9	ug/Kg	81.9	B,JG	21	42	ug/Kg
Benzyl Alcohol		<MDL	3.3	6.58	ug/Kg		<MDL	4.2	8.4	ug/Kg
Benzyl Butyl Phthalate	27		1.6	3.29	ug/Kg	56.1		2.1	4.2	ug/Kg
Bis(2-Ethylhexyl)Phthalate	393		6.6	13.2	ug/Kg	466		8.4	16.8	ug/Kg
Caffeine		<MDL	6.6	13.2	ug/Kg		<MDL	8.4	16.8	ug/Kg
Carbazole	15.3		3.3	6.58	ug/Kg	24.6		4.2	8.4	ug/Kg
Chrysene	136		3.3	6.58	ug/Kg	192		4.2	8.4	ug/Kg
Coprostanol		<MDL	66	132	ug/Kg		<MDL	84	168	ug/Kg
Dibenzo(a,h)anthracene	37.3		3.3	6.58	ug/Kg	49.2		4.2	8.4	ug/Kg
Dibenzofuran	4.4	<RDL	3.3	6.58	ug/Kg	7.6	<RDL	4.2	8.4	ug/Kg
Diethyl Phthalate		<MDL	6.6	13.2	ug/Kg		<MDL	8.4	16.8	ug/Kg
Dimethyl Phthalate		<MDL	6.6	13.2	ug/Kg		<MDL	8.4	16.8	ug/Kg
Di-N-Butyl Phthalate	17.1		6.6	13.2	ug/Kg	27.3		8.4	16.8	ug/Kg
Di-N-Octyl Phthalate		<MDL	6.6	13.2	ug/Kg		<MDL	8.4	16.8	ug/Kg

King County Environmental Lab Analytical Report

Project:	423062-020	Project:	423062-020
Locator:	DWMP-15	Locator:	DWMP-16
Descrip:	DENNY WAY MONITORI	Descrip:	DENNY WAY MONITORI
Sample:	L50382-16	Sample:	L50382-17
Matrix:	SF SALTWTRSED	Matrix:	SF SALTWTRSED
ColDate:	4/5/10 9:45	ColDate:	4/6/10 9:50
TimeSpan:		TimeSpan:	
TotalSolid:	60.8	TotalSolid:	47.6
ClientLoc:		ClientLoc:	
SampDepth:	24	SampDepth:	28
DRY Weight Basis		**DRY Weight Basis**	

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
Fluoranthene	183		3.3	6.58	ug/Kg	279		4.2	8.4	ug/Kg
Fluorene	11.3		3.3	6.58	ug/Kg	16.8		4.2	8.4	ug/Kg
Hexachlorobenzene		<MDL	0.16	0.329	ug/Kg		<MDL	0.21	0.42	ug/Kg
Hexachlorobutadiene		<MDL	0.82	1.64	ug/Kg		<MDL	1.1	2.1	ug/Kg
Hexachloroethane		<MDL	1.6	3.29	ug/Kg		<MDL	2.1	4.2	ug/Kg
Indeno(1,2,3-Cd)Pyrene	80.6		3.3	6.58	ug/Kg	105		4.2	8.4	ug/Kg
Naphthalene	5.1	<RDL	3.3	6.58	ug/Kg	15		4.2	8.4	ug/Kg
N-Nitrosodiphenylamine		<MDL	6.6	13.2	ug/Kg		<MDL	8.4	16.8	ug/Kg
Pentachlorophenol		<MDL	16	32.9	ug/Kg		<MDL	21	42	ug/Kg
Phenanthrene	88		3.3	6.58	ug/Kg	134		4.2	8.4	ug/Kg
Phenol		<MDL	6.6	13.2	ug/Kg	28.4		8.4	16.8	ug/Kg
Pyrene	227		3.3	6.58	ug/Kg	317		4.2	8.4	ug/Kg
Total HPAHS	1280		3.3	6.58	ug/Kg	1910		4.2	8.4	ug/Kg
Total LPAHs	168		3.3	6.58	ug/Kg	273		4.2	8.4	ug/Kg
* Not converted to dry weight basis										

SAP MDL Comparison Table

King County Environmental Lab Analytical Report

Exceeded SAP MDL

	Project:	423062-020	423062-020	423062-020	423062-020	423062-020	423062-020	423062-020	423062-020
	Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05	DWMP-06	DWMP-07	DWMP-08
	Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
	Sample:	L50382-1	L50382-2	L50382-3	L50382-4	L50382-5	L50382-6	L50382-7	L50382-8
	Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
	ColDate:	4/6/10 9:00	4/6/10 11:15	4/5/10 13:55	4/6/10 11:30	4/6/10 8:50	4/6/10 11:00	4/6/10 10:38	4/5/10 12:30
	TotalSolid:	46.1	65.2	52.3	58.6	77.4	45.8	59.3	47
	DRY Weight Basis								
Parameters	**Units**	**SAP MDLs (@ 50% TS)**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**
CV ASTM D422									
Fines*	%	0.5	1.2	0.74	1	0.88	0.76	0.99	0.84	1.1
Gravel*	%	0.1	0.23	0.15	0.2	0.18	0.15	0.2	0.17	0.21
Sand*	%	0.1	0.23	0.15	0.2	0.18	0.15	0.2	0.17	0.21
Silt*	%	0.5	1.2	0.74	1	0.88	0.76	0.99	0.84	1.1
Clay*	%	0.5	1.2	0.74	1	0.88	0.76	0.99	0.84	1.1
p+0.00*	%	0.1	0.23	0.15	0.2	0.18	0.15	0.2	0.17	0.21
p+1.00*	%	0.1	0.23	0.15	0.2	0.18	0.15	0.2	0.17	0.21
p+10.0(equal/more than)*	%	0.5	1.2	0.74	1	0.88	0.76	0.99	0.84	1.1
p+2.00*	%	0.1	0.23	0.15	0.2	0.18	0.15	0.2	0.17	0.21
p+3.00*	%	0.1	0.23	0.15	0.2	0.18	0.15	0.2	0.17	0.21
p+4.00*	%	0.1	0.23	0.15	0.2	0.18	0.15	0.2	0.17	0.21
p+5.00*	%	0.5	1.2	0.74	1	0.88	0.76	0.99	0.84	1.1
p+6.00*	%	0.5	1.2	0.74	1	0.88	0.76	0.99	0.84	1.1
p+7.00*	%	0.5	1.2	0.74	1	0.88	0.76	0.99	0.84	1.1
p+8.00*	%	0.5	1.2	0.74	1	0.88	0.76	0.99	0.84	1.1
p+9.00*	%	0.5	1.2	0.74	1	0.88	0.76	0.99	0.84	1.1
p-1.00*	%	0.1	0.23	0.15	0.2	0.18	0.15	0.2	0.17	0.21
p-2.00(less than)*	%	0.1	0.23	0.15	0.2	0.18	0.15	0.2	0.17	0.21
p-2.00*	%	0.1	0.23	0.15	0.2	0.18	0.15	0.2	0.17	0.21
CV EPA 9030B/SM4500-S2-D									
Total Sulfide	mg/Kg	1	11	0.77	4.8	4.3	3.2	11	0.83	1
CV SM2540-G									
Total Solids*	%	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
CV SM4500-NH3-G KCL									
Ammonia Nitrogen	mg/Kg	0.2	0.21	0.15	0.19	0.17	0.12	0.21	0.17	0.21
CV SW846 9060-PSEP96									
Total Organic Carbon	mg/Kg	1000	4600	2000	1900	1000	980	2100	1900	2000
MT SW846 3050B*SW846 6010C									
Arsenic, Total, ICP	mg/Kg	2.5	2.6	1.8	2.5	2.2	1.7	2.6	2.2	2.8
Cadmium, Total, ICP	mg/Kg	0.2	0.21	0.15	0.19	0.17	0.13	0.21	0.17	0.21
Chromium, Total, ICP	mg/Kg	0.3	0.33	0.23	0.29	0.26	0.19	0.33	0.25	0.32
Copper, Total, ICP	mg/Kg	0.4	0.43	0.31	0.38	0.34	0.26	0.41	0.34	0.43
Lead, Total, ICP	mg/Kg	2	2.1	1.5	1.9	1.7	1.3	2.1	1.7	2.1
Silver, Total, ICP	mg/Kg	0.4	0.43	0.31	0.38	0.34	0.26	0.41	0.34	0.43
Zinc, Total, ICP	mg/Kg	0.5	0.52	0.38	0.48	0.43	0.32	0.52	0.44	0.53
MT SW846 7471B									
Mercury, Total, CVAA	mg/Kg	0.01	0.043	0.031	0.038	0.034	0.026	0.041	0.034	0.043
OR SW846 3550B*SW846 8270D									
1,2,4-Trichlorobenzene	ug/Kg	0.54	2.2	0.15	1.9	0.17	0.65	0.22	0.17	1.1
1,2-Dichlorobenzene	ug/Kg	0.54	4.3	0.31	3.8	0.34	1.3	0.44	0.34	2.1
1,3-Dichlorobenzene	ug/Kg	0.54	4.3	0.31	3.8	0.34	1.3	0.44	0.34	2.1
1,4-Dichlorobenzene	ug/Kg	0.54	4.3	0.31	3.8	0.34	1.3	0.44	0.34	2.1
2,4-Dimethylphenol	ug/Kg	5.4	22	1.5	19	1.7	6.5	2.2	1.7	11
2-Methylnaphthalene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
2-Methylphenol	ug/Kg	11	43	3.1	38	3.4	13	4.4	3.4	21
4-Methylphenol	ug/Kg	11	87	6.1	76	6.8	26	8.7	6.7	43
Acenaphthene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Acenaphthylene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Anthracene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Benzo(a)anthracene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Benzo(a)pyrene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Benzo(b)fluoranthene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Benzo(g,h,i)perylene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Benzo(k)fluoranthene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Benzoic Acid	ug/Kg	26	220	15	190	17	65	22	17	110
Benzyl Alcohol	ug/Kg	11	43	3.1	38	3.4	13	4.4	3.4	21
Benzyl Butyl Phthalate	ug/Kg	11	22	1.5	19	1.7	6.5	2.2	1.7	11
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	87	6.1	76	6.8	26	8.7	6.7	43
Carbazole	ug/Kg	4	43	3.1	38	3.4	13	4.4	3.4	21
Chrysene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21

King County Environmental Lab Analytical Report

Exceeded SAP MDL

	Project:	423062-020	423062-020	423062-020	423062-020	423062-020	423062-020	423062-020	423062-020
	Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05	DWMP-06	DWMP-07	DWMP-08
	Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
	Sample:	L50382-1	L50382-2	L50382-3	L50382-4	L50382-5	L50382-6	L50382-7	L50382-8
	Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
	ColDate:	4/6/10 9:00	4/6/10 11:15	4/5/10 13:55	4/6/10 11:30	4/6/10 8:50	4/6/10 11:00	4/6/10 10:38	4/5/10 12:30
	TotalSolid:	46.1	65.2	52.3	58.6	77.4	45.8	59.3	47
	DRY Weight Basis								
Parameters	**Units**	**SAP MDLs**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**
Coprostanol	ug/Kg	110	870	61	760	68	260	87	67	430
Dibenzo(a,h)anthracene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Dibenzofuran	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Diethyl Phthalate	ug/Kg	11	87	6.1	76	6.8	26	8.7	6.7	43
Dimethyl Phthalate	ug/Kg	11	87	6.1	76	6.8	26	8.7	6.7	43
Di-N-Butyl Phthalate	ug/Kg	11	87	6.1	76	6.8	26	8.7	6.7	43
Di-N-Octyl Phthalate	ug/Kg	11	87	6.1	76	6.8	26	8.7	6.7	43
Fluoranthene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Fluorene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Hexachlorobenzene	ug/Kg	1.1	2.2	0.15	1.9	0.17	0.65	0.22	0.17	1.1
Hexachlorobutadiene	ug/Kg	2.6	11	0.77	9.6	0.85	3.2	1.1	0.84	5.3
Hexachloroethane	ug/Kg	5.4	22	1.5	19	1.7	6.5	2.2	1.7	11
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Naphthalene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
N-Nitrosodiphenylamine	ug/Kg	11	87	6.1	76	6.8	26	8.7	6.7	43
Pentachlorophenol	ug/Kg	27	220	15	190	17	65	22	17	110
Phenanthrene	ug/Kg	5.4	43	3.1	38	3.4	13	4.4	3.4	21
Phenol	ug/Kg	11	87	6.1	76	6.8	26	8.7	6.7	43
Pyrene	ug/Kg	11	43	3.1	38	3.4	13	4.4	3.4	21
OR SW846 3550B*SW846 8081B										
4,4'-DDD	ug/Kg	2	2.2	1.5	1.9	1.7	1.3	2.2	1.7	2.1
4,4'-DDE	ug/Kg	2	2.2	1.5	1.9	1.7	1.3	2.2	1.7	2.1
4,4'-DDT	ug/Kg	2	2.2	1.5	1.9	1.7	1.3	2.2	1.7	2.1
OR SW846 3550B*SW846 8082A										
Aroclor 1016	ug/Kg	2.6	43	4.3	110	6.8	7.8	5.2	5.4	51
Aroclor 1221	ug/Kg	6.6	4.3	3.1	15	3.4	3.1	4.4	6.7	17
Aroclor 1232	ug/Kg	6.6	52	18	180	17	10	17	10	130
Aroclor 1242	ug/Kg	6.6	69	18	230	17	23	17	20	130
Aroclor 1248	ug/Kg	2.6	2.2	1.5	1.9	1.7	1.3	2.2	1.7	2.1
Aroclor 1254	ug/Kg	2.6	2.2	1.5	1.9	1.7	1.3	2.2	1.7	2.1
Aroclor 1260	ug/Kg	2.6	2.2	1.5	1.9	1.7	1.3	2.2	1.7	2.1

* Not converted to dry weight basis

King County Environmental Lab Analytical Report

Exceeded SAP MDL

	Project:	423062-020	423062-020	423062-030	423062-020	423062-020	423062-020	423062-020	423062-020
	Locator:	DWMP-08	DWMP-09	DWMP-10	DWMP-11	DWMP-12	DWMP-13	DWMP-14	DWMP-15
	Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
	Sample:	L50382-9	L50382-10	L50382-11	L50382-12	L50382-13	L50382-14	L50382-15	L50382-16
	Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
	ColDate:	4/5/10 12:13	4/5/10 12:50	4/5/10 13:15	4/6/10 10:20	4/6/10 10:05	4/6/10 9:18	4/5/10 10:10	4/5/10 9:45
	TotalSolid:	54.6	39	86.7	58.2	29.1	82.9	53.8	60.8
	DRY Weight Ba								
Parameters	**Units**	**SAP MDLs (@ 50% TS)**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**
CV ASTM D422										
Fines*	%	0.5	0.86	1.4	0.6	1	1.7	0.65	0.97	0.85
Gravel*	%	0.1	0.17	0.29	0.12	0.2	0.34	0.13	0.19	0.17
Sand*	%	0.1	0.17	0.29	0.12	0.2	0.34	0.13	0.19	0.17
Silt*	%	0.5	0.86	1.4	0.6	1	1.7	0.65	0.97	0.85
Clay*	%	0.5	0.86	1.4	0.6	1	1.7	0.65	0.97	0.85
p+0.00*	%	0.1	0.17	0.29	0.12	0.2	0.34	0.13	0.19	0.17
p+1.00*	%	0.1	0.17	0.29	0.12	0.2	0.34	0.13	0.19	0.17
p+10.0(equal/more than)*	%	0.5	0.86	1.4	0.6	1	1.7	0.65	0.97	0.85
p+2.00*	%	0.1	0.17	0.29	0.12	0.2	0.34	0.13	0.19	0.17
p+3.00*	%	0.1	0.17	0.29	0.12	0.2	0.34	0.13	0.19	0.17
p+4.00*	%	0.1	0.17	0.29	0.12	0.2	0.34	0.13	0.19	0.17
p+5.00*	%	0.5	0.86	1.4	0.6	1	1.7	0.65	0.97	0.85
p+6.00*	%	0.5	0.86	1.4	0.6	1	1.7	0.65	0.97	0.85
p+7.00*	%	0.5	0.86	1.4	0.6	1	1.7	0.65	0.97	0.85
p+8.00*	%	0.5	0.86	1.4	0.6	1	1.7	0.65	0.97	0.85
p+9.00*	%	0.5	0.86	1.4	0.6	1	1.7	0.65	0.97	0.85
p-1.00*	%	0.1	0.17	0.29	0.12	0.2	0.34	0.13	0.19	0.17
p-2.00(less than)*	%	0.1	0.17	0.29	0.12	0.2	0.34	0.13	0.19	0.17
p-2.00*	%	0.1	0.17	0.29	0.12	0.2	0.34	0.13	0.19	0.17
CV EPA 9030B/SM4500-S2-D										
Total Sulfide	mg/Kg	1	0.92	1.3	0.57	0.84	8.2	3	4.6	0.82
CV SM2540-G										
Total Solids*	%	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
CV SM4500-NH3-G KCL										
Ammonia Nitrogen	mg/Kg	0.2	0.18	0.25	0.11	0.17	0.34	0.12	0.18	0.16
CV SW846 9060-PSEP96										
Total Organic Carbon	mg/Kg	1000	2000	3800	480	1900	3800	470	2000	2000
MT SW846 3050B*SW846 6010C										
Arsenic, Total, ICP	mg/Kg	2.5	2.2	3.1	1.4	2.1	4.5	1.6	2.4	2.1
Cadmium, Total, ICP	mg/Kg	0.2	0.18	0.25	0.11	0.17	0.34	0.12	0.19	0.16
Chromium, Total, ICP	mg/Kg	0.3	0.27	0.38	0.17	0.26	0.52	0.18	0.28	0.25
Copper, Total, ICP	mg/Kg	0.4	0.37	0.49	0.22	0.34	0.69	0.25	0.37	0.33
Lead, Total, ICP	mg/Kg	2	1.8	2.5	1.1	1.7	3.4	1.2	1.9	1.6
Silver, Total, ICP	mg/Kg	0.4	0.37	0.49	0.22	0.34	0.69	0.25	0.37	0.33
Zinc, Total, ICP	mg/Kg	0.5	0.46	0.62	0.28	0.43	0.86	0.31	0.46	0.41
MT SW846 7471B										
Mercury, Total, CVAA	mg/Kg	0.01	0.037	0.051	0.0057	0.034	0.069	0.024	0.037	0.033
OR SW846 3550B*SW846 8270D										
1,2,4-Trichlorobenzene	ug/Kg	0.54	0.18	0.26	0.12	0.17	0.34	1.2	0.19	0.16
1,2-Dichlorobenzene	ug/Kg	0.54	0.37	0.51	0.23	0.34	0.69	2.4	0.37	0.33
1,3-Dichlorobenzene	ug/Kg	0.54	0.37	0.51	0.23	0.34	0.69	2.4	0.37	0.33
1,4-Dichlorobenzene	ug/Kg	0.54	0.37	0.51	0.23	0.34	0.69	2.4	0.37	0.33
2,4-Dimethylphenol	ug/Kg	5.4	1.8	2.6	1.2	1.7	3.4	12	1.9	1.6
2-Methylnaphthalene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
2-Methylphenol	ug/Kg	11	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
4-Methylphenol	ug/Kg	11	7.3	10	4.6	6.9	14	48	7.4	6.6
Acenaphthene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Acenaphthylene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Anthracene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Benzo(a)anthracene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Benzo(a)pyrene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Benzo(b)fluoranthene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Benzo(g,h,i)perylene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Benzo(k)fluoranthene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Benzoic Acid	ug/Kg	26	18	26	12	17	34	120	19	16
Benzyl Alcohol	ug/Kg	11	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Benzyl Butyl Phthalate	ug/Kg	11	1.8	2.6	1.2	1.7	3.4	12	1.9	1.6
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	7.3	10	4.6	6.9	14	48	7.4	6.6
Carbazole	ug/Kg	4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Chrysene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3

King County Environmental Lab Analytical Report

Exceeded SAP MDL

Project:	423062-020	423062-020	423062-030	423062-020	423062-020	423062-020	423062-020	423062-020
Locator:	DWMP-08	DWMP-09	DWMP-10	DWMP-11	DWMP-12	DWMP-13	DWMP-14	DWMP-15
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sample:	L50382-9	L50382-10	L50382-11	L50382-12	L50382-13	L50382-14	L50382-15	L50382-16
Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
ColDate:	4/5/10 12:13	4/5/10 12:50	4/5/10 13:15	4/6/10 10:20	4/6/10 10:05	4/6/10 9:18	4/5/10 10:10	4/5/10 9:45
TotalSolid:	54.6	39	86.7	58.2	29.1	82.9	53.8	60.8
DRY Weight Ba								

Parameters	**Units**	**SAP MDLs**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**	**MDL**
Coprostanol	ug/Kg	110	73	100	46	69	140	480	74	66
Dibenzo(a,h)anthracene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Dibenzofuran	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Diethyl Phthalate	ug/Kg	11	7.3	10	4.6	6.9	14	48	7.4	6.6
Dimethyl Phthalate	ug/Kg	11	7.3	10	4.6	6.9	14	48	7.4	6.6
Di-N-Butyl Phthalate	ug/Kg	11	7.3	10	4.6	6.9	14	48	7.4	6.6
Di-N-Octyl Phthalate	ug/Kg	11	7.3	10	4.6	6.9	14	48	7.4	6.6
Fluoranthene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Fluorene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Hexachlorobenzene	ug/Kg	1.1	0.18	0.26	0.12	0.17	0.34	1.2	0.19	0.16
Hexachlorobutadiene	ug/Kg	2.6	0.92	1.3	0.58	0.86	1.7	6	0.93	0.82
Hexachloroethane	ug/Kg	5.4	1.8	2.6	1.2	1.7	3.4	12	1.9	1.6
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Naphthalene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
N-Nitrosodiphenylamine	ug/Kg	11	7.3	10	4.6	6.9	14	48	7.4	6.6
Pentachlorophenol	ug/Kg	27	18	26	12	17	34	120	19	16
Phenanthrene	ug/Kg	5.4	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
Phenol	ug/Kg	11	7.3	10	4.6	6.9	14	48	7.4	6.6
Pyrene	ug/Kg	11	3.7	5.1	2.3	3.4	6.9	24	3.7	3.3
OR SW846 3550B*SW846 8081B										
4,4'-DDD	ug/Kg	2	1.8	2.6	1.2	1.7	3.4	1.2	1.9	1.6
4,4'-DDE	ug/Kg	2	1.8	2.6	1.2	1.7	3.4	1.2	1.9	1.6
4,4'-DDT	ug/Kg	2	1.8	2.6	1.2	1.7	3.4	1.2	1.9	1.6
OR SW846 3550B*SW846 8082A										
Aroclor 1016	ug/Kg	2.6	44	21	1.2	6.9	14	3.4	52	20
Aroclor 1221	ug/Kg	6.6	15	10	2.3	6.9	6.9	4.8	15	6.6
Aroclor 1232	ug/Kg	6.6	88	51	2.3	17	34	9.7	110	46
Aroclor 1242	ug/Kg	6.6	88	62	1.2	27	41	9.7	150	59
Aroclor 1248	ug/Kg	2.6	1.8	2.6	1.2	1.7	3.4	1.2	1.9	1.6
Aroclor 1254	ug/Kg	2.6	1.8	2.6	1.2	1.7	3.4	1.2	1.9	1.6
Aroclor 1260	ug/Kg	2.6	1.8	2.6	1.2	1.7	3.4	1.2	1.9	1.6

* Not converted to dry weight basis

Mott MacDonald Systems And Data Analysis

King County Environmental Lab Analytical Report

Exceeded SAP MDL

Project:	423062-020
Locator:	DWMP-16
Descrip:	DENNY WAY MONITORI
Sample:	L50382-17
Matrix:	SF SALTWTRSED
ColDate:	4/6/10 9:50
TotalSolid:	47.6
DRY Weight Ba	

Parameters	Units	SAP MDLs (@ 50% TS)	MDL
CV ASTM D422			
Fines*	%	0.5	1.1
Gravel*	%	0.1	0.23
Sand*	%	0.1	0.23
Silt*	%	0.5	1.1
Clay*	%	0.5	1.1
p+0.00*	%	0.1	0.23
p+1.00*	%	0.1	0.23
p+10.0(equal/more than)*	%	0.5	1.1
p+2.00*	%	0.1	0.23
p+3.00*	%	0.1	0.23
p+4.00*	%	0.1	0.23
p+5.00*	%	0.5	1.1
p+6.00*	%	0.5	1.1
p+7.00*	%	0.5	1.1
p+8.00*	%	0.5	1.1
p+9.00*	%	0.5	1.1
p-1.00*	%	0.1	0.23
p-2.00(less than)*	%	0.1	0.23
p-2.00*	%	0.1	0.23
CV EPA 9030B/SM4500-S2-D			
Total Sulfide	mg/Kg	1	5.3
CV SM2540-G			
Total Solids*	%	0.005	0.005
CV SM4500-NH3-G KCL			
Ammonia Nitrogen	mg/Kg	0.2	0.2
CV SW846 9060-PSEP96			
Total Organic Carbon	mg/Kg	1000	2000
MT SW846 3050B*SW846 6010C			
Arsenic, Total, ICP	mg/Kg	2.5	2.5
Cadmium, Total, ICP	mg/Kg	0.2	0.21
Chromium, Total, ICP	mg/Kg	0.3	0.32
Copper, Total, ICP	mg/Kg	0.4	0.42
Lead, Total, ICP	mg/Kg	2	2.1
Silver, Total, ICP	mg/Kg	0.4	0.42
Zinc, Total, ICP	mg/Kg	0.5	0.53
MT SW846 7471B			
Mercury, Total, CVAA	mg/Kg	0.01	0.042
OR SW846 3550B*SW846 8270D			
1,2,4-Trichlorobenzene	ug/Kg	0.54	0.21
1,2-Dichlorobenzene	ug/Kg	0.54	0.42
1,3-Dichlorobenzene	ug/Kg	0.54	0.42
1,4-Dichlorobenzene	ug/Kg	0.54	0.42
2,4-Dimethylphenol	ug/Kg	5.4	2.1
2-Methylnaphthalene	ug/Kg	5.4	4.2
2-Methylphenol	ug/Kg	11	4.2
4-Methylphenol	ug/Kg	11	8.4
Acenaphthene	ug/Kg	5.4	4.2
Acenaphthylene	ug/Kg	5.4	4.2
Anthracene	ug/Kg	5.4	4.2
Benzo(a)anthracene	ug/Kg	5.4	4.2
Benzo(a)pyrene	ug/Kg	5.4	4.2
Benzo(b)fluoranthene	ug/Kg	5.4	4.2
Benzo(g,h,i)perylene	ug/Kg	5.4	4.2
Benzo(k)fluoranthene	ug/Kg	5.4	4.2
Benzoic Acid	ug/Kg	26	21
Benzyl Alcohol	ug/Kg	11	4.2
Benzyl Butyl Phthalate	ug/Kg	11	2.1
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	8.4
Carbazole	ug/Kg	4	4.2
Chrysene	ug/Kg	5.4	4.2

Mott MacDonald Systems And Data Analysis

King County Environmental Lab Analytical Report

Exceeded SAP MDL

Project:	423062-020
Locator:	DWMP-16
Descrip:	DENNY WAY MONITORI
Sample:	L50382-17
Matrix:	SF SALTWTRSED
ColDate:	4/6/10 9:50
TotalSolid:	47.6
DRY Weight Ba	

Parameters	Units	SAP MDLs	MDL
Coprostanol	ug/Kg	110	84
Dibenzo(a,h)anthracene	ug/Kg	5.4	4.2
Dibenzofuran	ug/Kg	5.4	4.2
Diethyl Phthalate	ug/Kg	11	8.4
Dimethyl Phthalate	ug/Kg	11	8.4
Di-N-Butyl Phthalate	ug/Kg	11	8.4
Di-N-Octyl Phthalate	ug/Kg	11	8.4
Fluoranthene	ug/Kg	5.4	4.2
Fluorene	ug/Kg	5.4	4.2
Hexachlorobenzene	ug/Kg	1.1	0.21
Hexachlorobutadiene	ug/Kg	2.6	1.1
Hexachloroethane	ug/Kg	5.4	2.1
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.4	4.2
Naphthalene	ug/Kg	5.4	4.2
N-Nitrosodiphenylamine	ug/Kg	11	8.4
Pentachlorophenol	ug/Kg	27	21
Phenanthrene	ug/Kg	5.4	4.2
Phenol	ug/Kg	11	8.4
Pyrene	ug/Kg	11	4.2
OR SW846 3550B*SW846 8081B			
4,4'-DDD	ug/Kg	2	2.1
4,4'-DDE	ug/Kg	2	2.1
4,4'-DDT	ug/Kg	2	2.1
OR SW846 3550B*SW846 8082A			
Aroclor 1016	ug/Kg	2.6	21
Aroclor 1221	ug/Kg	6.6	4.2
Aroclor 1232	ug/Kg	6.6	46
Aroclor 1242	ug/Kg	6.6	63
Aroclor 1248	ug/Kg	2.6	2.1
Aroclor 1254	ug/Kg	2.6	2.1
Aroclor 1260	ug/Kg	2.6	2.1

* Not converted to dry weight basis

SAP & SMS OC and Dry Weight Normalization MDL Check Tables

	Sample	L50382-1	L50382-2	L50382-3	L50382-4	L50382-5	L50382-6	L50382-7	L50382-8	L50382-9	L50382-10	L50382-11	L50382-12
	SMS (mg/Kg, dw,oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)
Arsenic*	57	2.60	1.84	2.49	2.22	1.68	2.62	2.19	2.77	2.20	3.08	1.38	2.06
Cadmium*	5.1	0.21	0.15	0.19	0.17	0.13	0.21	0.17	0.21	0.18	0.25	0.11	0.17
Chromium*	260	0.33	0.23	0.29	0.26	0.19	0.33	0.25	0.32	0.27	0.38	0.17	0.26
Copper*	390	0.43	0.31	0.38	0.34	0.26	0.41	0.34	0.43	0.37	0.49	0.22	0.34
Lead*	450	2.13	1.52	1.91	1.71	1.29	2.12	1.69	2.13	1.81	2.49	1.12	1.70
Mercury*	0.41	0.04	0.03	0.04	0.03	0.03	0.04	0.03	0.04	0.04	0.05	0.01	0.03
Silver*	6.1	0.43	0.31	0.38	0.34	0.26	0.41	0.34	0.43	0.37	0.49	0.22	0.34
Zinc*	410	0.52	0.38	0.48	0.43	0.32	0.52	0.44	0.53	0.46	0.62	0.28	0.43
1,2,4-Trichlorobenzene	0.81	0.03	0.01	0.10	0.01	0.08	0.01	0.02	0.04	0.01	0.01	0.08	0.01
1,2-Dichlorobenzene	2.3	0.07	0.02	0.19	0.03	0.15	0.02	0.03	0.09	0.02	0.02	0.16	0.02
1,4-Dichlorobenzene	3.1	0.07	0.02	0.19	0.03	0.15	0.02	0.03	0.09	0.02	0.02	0.16	0.02
2-Methylnaphthalene	38	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
2,4-Dimethylphenol*	29	0.02	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00
2-Methylphenol*	63	0.04	0.00	0.04	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00
4-Methylphenol*	670	0.09	0.01	0.08	0.01	0.03	0.01	0.01	0.04	0.01	0.01	0.00	0.01
Acenaphthene	16	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Acenaphthylene	66	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Anthracene	220	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Benzo(a)anthracene	110	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Benzo(a)pyrene	99	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Benzo(b)fluoranthene	115	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Benzo(g,h,i)perylene	31	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Benzo(k)fluoranthene	115	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Benzoic Acid*	650	0.22	0.02	0.19	0.02	0.06	0.02	0.02	0.11	0.02	0.03	0.01	0.02
Benzyl Alcohol*	57	0.04	0.00	0.04	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00
Benzyl Butyl Phthalate	4.9	0.33	0.12	0.97	0.14	0.76	0.09	0.16	0.43	0.09	0.08	0.81	0.10
Bis(2-Ethylhexyl)Phthalate	47	1.32	0.46	3.88	0.57	3.05	0.38	0.65	1.74	0.37	0.33	3.25	0.42
Chrysene	110	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Dibenzo(a,h)anthracene	12	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Dibenzofuran	15	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Diethyl Phthalate	61	1.32	0.46	3.88	0.57	3.05	0.38	0.65	1.74	0.37	0.33	3.25	0.42
Dimethyl Phthalate	53	1.32	0.46	3.88	0.57	3.05	0.38	0.65	1.74	0.37	0.33	3.25	0.42
Di-N-Butyl Phthalate	220	1.32	0.46	3.88	0.57	3.05	0.38	0.65	1.74	0.37	0.33	3.25	0.42
Di-N-Octyl Phthalate	58	1.32	0.46	3.88	0.57	3.05	0.38	0.65	1.74	0.37	0.33	3.25	0.42
Fluorene	23	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Fluoranthene	160	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Hexachlorobenzene	0.38	0.03	0.01	0.10	0.01	0.08	0.01	0.02	0.04	0.01	0.01	0.08	0.01
Hexachlorobutadiene	3.9	0.16	0.06	0.49	0.07	0.38	0.05	0.08	0.22	0.05	0.04	0.41	0.05
Indeno(1,2,3-Cd)Pyrene	34	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
N-Nitrosodiphenylamine	11	1.32	0.46	3.88	0.57	3.05	0.38	0.65	1.74	0.37	0.33	3.25	0.42
Naphthalene	99	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Pentachlorophenol*	360	0.22	0.02	0.19	0.02	0.06	0.02	0.02	0.11	0.02	0.03	0.01	0.02
Phenanthrene	100	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Phenol*	420	0.09	0.01	0.08	0.01	0.03	0.01	0.01	0.04	0.01	0.01	0.00	0.01
Pyrene	1000	0.66	0.23	1.94	0.28	1.53	0.19	0.32	0.87	0.18	0.17	1.63	0.21
Total Organic Carbon (dry)		65944	13221	19694	12014	8463	23144	10422	24468	19963	30769	1419	16409
Total Solids		46.1	65.2	52.3	58.6	77.4	45.8	59.3	47	54.6	39	86.7	58.2
HPAH	960	6.58	2.32	19.42	2.84	15.27	1.89	3.24	8.70	1.83	1.67	16.26	2.09
LPAH	370	4.61	1.62	13.59	1.99	10.69	1.32	2.27	6.09	1.28	1.17	11.38	1.47
Total PCB	12	1.05	1.39	11.65	1.42	2.75	0.75	1.94	5.22	4.40	2.00	1.63	1.68

* = dry weight correction only

	Sample	L50382-13	L50382-14	L50382-15	L50382-16	L50382-17
	SMS (mg/Kg, dw,oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)	MDL (mg/Kg, dw, oc)
Arsenic*	57	4.47	1.57	2.42	2.14	2.52
Cadmium*	5.1	0.34	0.12	0.19	0.16	0.21
Chromium*	260	0.52	0.18	0.28	0.25	0.32
Copper*	390	0.69	0.25	0.37	0.33	0.42
Lead*	450	3.44	1.21	1.86	1.64	2.10
Mercury*	0.41	0.07	0.02	0.04	0.03	0.04
Silver*	6.1	0.69	0.25	0.37	0.33	0.42
Zinc*	410	0.86	0.31	0.46	0.41	0.53
1,2,4-Trichlorobenzene	0.81	0.01	0.16	0.01	0.02	0.01
1,2-Dichlorobenzene	2.3	0.02	0.32	0.02	0.03	0.02
1,4-Dichlorobenzene	3.1	0.02	0.32	0.02	0.03	0.02
2-Methylnaphthalene	38	0.16	3.22	0.16	0.33	0.22
2,4-Dimethylphenol*	29	0.00	0.01	0.00	0.00	0.00
2-Methylphenol*	63	0.01	0.02	0.00	0.00	0.00
4-Methylphenol*	670	0.01	0.05	0.01	0.01	0.01
Acenaphthene	16	0.16	3.22	0.16	0.33	0.22
Acenaphthylene	66	0.16	3.22	0.16	0.33	0.22
Anthracene	220	0.16	3.22	0.16	0.33	0.22
Benzo(a)anthracene	110	0.16	3.22	0.16	0.33	0.22
Benzo(a)pyrene	99	0.16	3.22	0.16	0.33	0.22
Benzo(b)fluoranthene	115	0.16	3.22	0.16	0.33	0.22
Benzo(g,h,i)perylene	31	0.16	3.22	0.16	0.33	0.22
Benzo(k)fluoranthene	115	0.16	3.22	0.16	0.33	0.22
Benzoic Acid*	650	0.03	0.12	0.02	0.02	0.02
Benzyl Alcohol*	57	0.01	0.02	0.00	0.00	0.00
Benzyl Butyl Phthalate	4.9	0.08	1.61	0.08	0.16	0.11
Bis(2-Ethylhexyl)Phthalate	47	0.32	6.44	0.33	0.65	0.45
Chrysene	110	0.16	3.22	0.16	0.33	0.22
Dibenzo(a,h)anthracene	12	0.16	3.22	0.16	0.33	0.22
Dibenzofuran	15	0.16	3.22	0.16	0.33	0.22
Diethyl Phthalate	61	0.32	6.44	0.33	0.65	0.45
Dimethyl Phthalate	53	0.32	6.44	0.33	0.65	0.45
Di-N-Butyl Phthalate	220	0.32	6.44	0.33	0.65	0.45
Di-N-Octyl Phthalate	58	0.32	6.44	0.33	0.65	0.45
Fluorene	23	0.16	3.22	0.16	0.33	0.22
Fluoranthene	160	0.16	3.22	0.16	0.33	0.22
Hexachlorobenzene	0.38	0.01	0.16	0.01	0.02	0.01
Hexachlorobutadiene	3.9	0.04	0.81	0.04	0.08	0.06
Indeno(1,2,3-Cd)Pyrene	34	0.16	3.22	0.16	0.33	0.22
N-Nitrosodiphenylamine	11	0.32	6.44	0.33	0.65	0.45
Naphthalene	99	0.16	3.22	0.16	0.33	0.22
Pentachlorophenol*	360	0.03	0.12	0.02	0.02	0.02
Phenanthrene	100	0.16	3.22	0.16	0.33	0.22
Phenol*	420	0.01	0.05	0.01	0.01	0.01
Pyrene	1000	0.16	3.22	0.16	0.33	0.22
Total Organic Carbon (dry)		43299	7491	22677	10066	18803
Total Solids		29.1	82.9	53.8	60.8	47.6
HPAH	960	1.59	32.21	1.64	3.27	2.23
LPAH	370	1.11	22.54	1.15	2.29	1.56
Total PCB	12	0.95	1.29	6.56	5.88	3.35

* = dry weight correction only

CONVENTIONAL ANALYSES QC DATA

King County Environmental Laboratory Batch Report

Denny Way Sediment Remediation
L50382

WG109668 Ammonia

Sample	Project	Project Description	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L50382-1	423062-020	Denny Way BO monitoring	CVNH3-KCL	SALTWTRSED	4/6/2010 9:00	6/8/2010 12:40	6/21/2010 14:20	WG109668-1, -2, -3, -4, -5, -6	
L50382-2	423062-020		CVNH3-KCL	SALTWTRSED	4/6/2010 11:15	6/8/2010 12:40	6/21/2010 14:22		
L50382-3	423062-020		CVNH3-KCL	SALTWTRSED	4/5/2010 13:55	6/8/2010 12:40	6/21/2010 14:24		
L50382-4	423062-020		CVNH3-KCL	SALTWTRSED	4/6/2010 11:30	6/8/2010 12:40	6/21/2010 14:27		
L50382-5	423062-020		CVNH3-KCL	SALTWTRSED	4/6/2010 8:50	6/8/2010 12:40	6/21/2010 14:37		
L50382-6	423062-020		CVNH3-KCL	SALTWTRSED	4/6/2010 11:00	6/8/2010 12:40	6/21/2010 14:39		
L50382-7	423062-020		CVNH3-KCL	SALTWTRSED	4/6/2010 10:38	6/8/2010 12:40	6/21/2010 14:41		
L50382-8	423062-020		CVNH3-KCL	SALTWTRSED	4/5/2010 12:30	6/8/2010 12:40	6/21/2010 14:43		
L50382-9	423062-020		CVNH3-KCL	SALTWTRSED	4/5/2010 12:13	6/8/2010 12:40	6/21/2010 14:45		
L50382-10	423062-020		CVNH3-KCL	SALTWTRSED	4/5/2010 12:50	6/8/2010 12:40	6/21/2010 14:47		
L50382-11	423062-030	Denny Way Remediation Monitoring	CVNH3-KCL	SALTWTRSED	4/5/2010 13:15	6/8/2010 12:40	6/21/2010 14:49		
L50382-12	423062-020	Denny Way BO monitoring	CVNH3-KCL	SALTWTRSED	4/6/2010 10:20	6/8/2010 12:40	6/21/2010 16:13		
L50382-13	423062-020		CVNH3-KCL	SALTWTRSED	4/6/2010 10:05	6/8/2010 12:40	6/21/2010 15:39		
L50382-14	423062-020		CVNH3-KCL	SALTWTRSED	4/6/2010 9:18	6/8/2010 12:40	6/21/2010 15:41		
L50382-15	423062-020		CVNH3-KCL	SALTWTRSED	4/5/2010 10:10	6/8/2010 12:40	6/21/2010 15:43		
L50382-16	423062-020		CVNH3-KCL	SALTWTRSED	4/5/2010 9:45	6/8/2010 12:40	6/21/2010 15:45		
L50382-17	423062-020		CVNH3-KCL	SALTWTRSED	4/6/2010 9:50	6/8/2010 12:40	6/21/2010 15:47		
WG109668-1	MB		CVNH3-KCL	OTHR SOLID		6/8/2010 12:40	6/21/2010 14:14		CONNUTS3
WG109668-2	SB		CVNH3-KCL	OTHR SOLID		6/8/2010 12:40	6/21/2010 14:16		WG109668-1
WG109668-3	LCS		CVNH3-KCL	OTHR SOLID		6/8/2010 12:40	6/21/2010 14:18		LEVEL1
WG109668-4	LD		CVNH3-KCL	SALTWTRSED		6/8/2010 12:40	6/21/2010 14:52		L50382-11
WG109668-5	LT		CVNH3-KCL	SALTWTRSED		6/8/2010 12:40	6/21/2010 14:54		WG109668-4 L50382-11
WG109668-6	MS		CVNH3-KCL	SALTWTRSED		6/8/2010 12:40	6/21/2010 14:56		L50382-11

King County Environmental Laboratory Batch Report

Denny Way Sediment Remediation
L50382

WG109258 PSD

Sample	Project	Project Description	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L50382-1	423062-020	Denny Way BO monitoring	CVPSD	SALTWTRSED	4/6/2010 9:00	5/17/2010 0:00	5/18/2010 0:00	WG109258-1, -2	
L50382-2	423062-020		CVPSD	SALTWTRSED	4/6/2010 11:15	5/17/2010 0:00	5/18/2010 0:00		
L50382-3	423062-020		CVPSD	SALTWTRSED	4/5/2010 13:55	5/17/2010 0:00	5/18/2010 0:00		
L50382-4	423062-020		CVPSD	SALTWTRSED	4/6/2010 11:30	5/17/2010 0:00	5/18/2010 0:00		
L50382-5	423062-020		CVPSD	SALTWTRSED	4/6/2010 8:50	6/25/2010 0:00	6/28/2010 0:00		
L50382-6	423062-020		CVPSD	SALTWTRSED	4/6/2010 11:00	6/25/2010 0:00	6/28/2010 0:00		
L50382-7	423062-020		CVPSD	SALTWTRSED	4/6/2010 10:38	5/17/2010 0:00	5/18/2010 0:00		
L50382-8	423062-020		CVPSD	SALTWTRSED	4/5/2010 12:30	5/17/2010 0:00	5/18/2010 0:00		
L50382-9	423062-020		CVPSD	SALTWTRSED	4/5/2010 12:13	5/17/2010 0:00	5/18/2010 0:00		
L50382-10	423062-020		CVPSD	SALTWTRSED	4/5/2010 12:50	5/17/2010 0:00	5/18/2010 0:00		
WG109258-1	LD		CVPSD	SALTWTRSED		5/17/2010 0:00	5/18/2010 0:00		L50382-3
WG109258-2	LT		CVPSD	SALTWTRSED		5/17/2010 0:00	5/18/2010 0:00		WG109258-1 L50382-3

King County Environmental Laboratory Batch Report

Denny Way Sediment Remediation
L50382

WG109583 PSD

Sample	Project	Project Description	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L50382-11	423062-030	Denny Way Remediation Monitoring	CVPSD	SALTWTRSED	4/5/2010 13:15	6/25/2010 0:00	6/28/2010 0:00	WG109258-1, -2	
L50382-12	423062-020	Denny Way BO monitoring	CVPSD	SALTWTRSED	4/6/2010 10:20	6/8/2010 0:00	6/14/2010 0:00		
L50382-13	423062-020		CVPSD	SALTWTRSED	4/6/2010 10:05	6/8/2010 0:00	6/14/2010 0:00		
L50382-14	423062-020		CVPSD	SALTWTRSED	4/6/2010 9:18	6/8/2010 0:00	6/14/2010 0:00		
L50382-15	423062-020		CVPSD	SALTWTRSED	4/5/2010 10:10	6/8/2010 0:00	6/14/2010 0:00		
L50382-16	423062-020		CVPSD	SALTWTRSED	4/5/2010 9:45	6/25/2010 0:00	6/28/2010 0:00		
L50382-17	423062-020		CVPSD	SALTWTRSED	4/6/2010 9:50	6/8/2010 0:00	6/14/2010 0:00		

King County Environmental Laboratory Batch Report

Denny Way Sediment Remediation
L50382

WG109786 TOC

Sample	Project	Project Description	List Type	Matrix	Col. Date	Prep Date	Anal Date		Comments
L50382-1	423062-020	Denny Way BO monitoring	CVTOC	SALTWTRSED	4/6/2010 9:00	6/17/2010 14:00	6/22/2010 13:22	WG109786-2, -3, -4, -5, -6, -1, -7, -8, -9	
L50382-2	423062-020		CVTOC	SALTWTRSED	4/6/2010 11:15	6/17/2010 14:00	6/23/2010 9:35		
L50382-3	423062-020		CVTOC	SALTWTRSED	4/5/2010 13:55	6/17/2010 14:00	6/23/2010 9:56		
L50382-4	423062-020		CVTOC	SALTWTRSED	4/6/2010 11:30	6/17/2010 14:00	6/23/2010 10:17		
L50382-5	423062-020		CVTOC	SALTWTRSED	4/6/2010 8:50	6/17/2010 14:00	6/23/2010 10:46		
L50382-6	423062-020		CVTOC	SALTWTRSED	4/6/2010 11:00	6/17/2010 14:00	6/23/2010 11:09		
L50382-7	423062-020		CVTOC	SALTWTRSED	4/6/2010 10:38	6/17/2010 14:00	6/23/2010 11:30		
L50382-8	423062-020		CVTOC	SALTWTRSED	4/5/2010 12:30	6/17/2010 14:00	6/23/2010 11:51		
L50382-9	423062-020		CVTOC	SALTWTRSED	4/5/2010 12:13	6/17/2010 14:00	6/23/2010 12:12		
L50382-10	423062-020		CVTOC	SALTWTRSED	4/5/2010 12:50	6/17/2010 14:00	6/22/2010 11:56		
L50382-11	423062-030	Denny Way Remediation Monitoring	CVTOC	SALTWTRSED	4/5/2010 13:15	6/17/2010 14:00	6/24/2010 8:58		
L50382-12	423062-020	Denny Way BO monitoring	CVTOC	SALTWTRSED	4/6/2010 10:20	6/17/2010 14:00	6/24/2010 9:20		
L50382-13	423062-020		CVTOC	SALTWTRSED	4/6/2010 10:05	6/17/2010 14:00	6/24/2010 9:52		
L50382-14	423062-020		CVTOC	SALTWTRSED	4/6/2010 9:18	6/17/2010 14:00	6/24/2010 10:13		
L50382-15	423062-020		CVTOC	SALTWTRSED	4/5/2010 10:10	6/17/2010 14:00	6/24/2010 10:37		
L50382-16	423062-020		CVTOC	SALTWTRSED	4/5/2010 9:45	6/17/2010 14:00	6/24/2010 11:00		
L50382-17	423062-020		CVTOC	SALTWTRSED	4/6/2010 9:50	6/17/2010 14:00	6/24/2010 11:21		
WG109786-1	MB		CVTOC	OTHR SOLID		6/22/2010 10:42	6/22/2010 10:42		MB1 100622
WG109786-2	SB		CVTOC	OTHR SOLID		6/22/2010 10:56	6/22/2010 10:56		WG109786-1
WG109786-3	SRM		CVTOC	OTHR SOLID		6/22/2010 11:34	6/22/2010 11:34		HICONC
WG109786-4	LD		CVTOC	SALTWTRSED		6/17/2010 14:00	6/22/2010 12:17		L50382-10
WG109786-5	LT		CVTOC	SALTWTRSED		6/17/2010 14:00	6/22/2010 12:39		WG109786-4 L50382-10
WG109786-6	MS		CVTOC	SALTWTRSED		6/17/2010 14:00	6/22/2010 13:01		L50382-10
WG109786-7	MB		CVTOC	OTHR SOLID		6/23/2010 8:59	6/23/2010 8:59		MB1 100623
WG109786-8	SRM		CVTOC	OTHR SOLID		6/23/2010 9:14	6/23/2010 9:14		HICONC
WG109786-9	MB		CVTOC	OTHR SOLID		6/24/2010 8:43	6/24/2010 8:43		MB1 100624

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Denny Way Sediment Remediation
L50382

WG109864 Total Solids

Sample	Project	Project Description	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L50382-1	423062-020	Denny Way BO monitoring	CVTOTS	SALTWTRSED	4/6/2010 9:00	6/22/2010 15:10	6/23/2010 12:21	WG109864-2, -3, -1	
L50382-2	423062-020		CVTOTS	SALTWTRSED	4/6/2010 11:15	6/22/2010 15:10	6/23/2010 12:21		
L50382-3	423062-020		CVTOTS	SALTWTRSED	4/5/2010 13:55	6/22/2010 15:10	6/23/2010 12:25		
L50382-4	423062-020		CVTOTS	SALTWTRSED	4/6/2010 11:30	6/22/2010 15:10	6/23/2010 12:26		
L50382-5	423062-020		CVTOTS	SALTWTRSED	4/6/2010 8:50	6/22/2010 15:10	6/23/2010 12:22		
L50382-6	423062-020		CVTOTS	SALTWTRSED	4/6/2010 11:00	6/22/2010 15:10	6/23/2010 12:27		
L50382-7	423062-020		CVTOTS	SALTWTRSED	4/6/2010 10:38	6/22/2010 15:10	6/23/2010 12:27		
L50382-8	423062-020		CVTOTS	SALTWTRSED	4/5/2010 12:30	6/22/2010 15:10	6/23/2010 12:28		
L50382-9	423062-020		CVTOTS	SALTWTRSED	4/5/2010 12:13	6/22/2010 15:10	6/23/2010 12:28		
L50382-10	423062-020		CVTOTS	SALTWTRSED	4/5/2010 12:50	6/22/2010 15:10	6/23/2010 12:29		
L50382-11	423062-030	Denny Way Remediation Monitoring	CVTOTS	SALTWTRSED	4/5/2010 13:15	6/22/2010 15:10	6/23/2010 12:29		
L50382-12	423062-020	Denny Way BO monitoring	CVTOTS	SALTWTRSED	4/6/2010 10:20	6/22/2010 15:10	6/23/2010 12:30		
L50382-13	423062-020		CVTOTS	SALTWTRSED	4/6/2010 10:05	6/22/2010 15:10	6/23/2010 12:23		
L50382-14	423062-020		CVTOTS	SALTWTRSED	4/6/2010 9:18	6/22/2010 15:10	6/23/2010 12:24		
L50382-15	423062-020		CVTOTS	SALTWTRSED	4/5/2010 10:10	6/22/2010 15:10	6/23/2010 12:24		
L50382-16	423062-020		CVTOTS	SALTWTRSED	4/5/2010 9:45	6/22/2010 15:10	6/23/2010 12:25		
L50382-17	423062-020		CVTOTS	SALTWTRSED	4/6/2010 9:50	6/22/2010 15:10	6/23/2010 12:25		
WG109864-1	MB		CVTOTS	OTHR SOLID		6/22/2010 15:10	6/23/2010 12:20		MB1 6/22/10
WG109864-2	LD		CVTOTS	SALTWTRSED		6/22/2010 15:10	6/23/2010 12:22		L50382-2
WG109864-3	LT		CVTOTS	SALTWTRSED		6/22/2010 15:10	6/23/2010 12:22		WG109864-2 L50382-2

King County Environmental Laboratory Batch Report

Denny Way Sediment Remediation
L50382

WG108397 Total Sulfide

Sample	Project	Project Description	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L50382-1	423062-020	Denny Way BO monitoring	CVTOTSULFIDE	SALTWTRSED	4/6/2010 9:00	4/7/2010 11:45	4/7/2010 14:20	WG108397-1, -2, -3, -4, -5, -6, -7, -8, -9	
L50382-2	423062-020		CVTOTSULFIDE	SALTWTRSED	4/6/2010 11:15	4/7/2010 11:45	4/7/2010 14:20		
L50382-3	423062-020		CVTOTSULFIDE	SALTWTRSED	4/5/2010 13:55	4/6/2010 11:55	4/6/2010 14:55		
L50382-4	423062-020		CVTOTSULFIDE	SALTWTRSED	4/6/2010 11:30	4/7/2010 11:45	4/7/2010 14:20		
L50382-5	423062-020		CVTOTSULFIDE	SALTWTRSED	4/6/2010 8:50	4/13/2010 10:50	4/13/2010 13:41		
L50382-6	423062-020		CVTOTSULFIDE	SALTWTRSED	4/6/2010 11:00	4/13/2010 10:50	4/13/2010 13:41		
L50382-7	423062-020		CVTOTSULFIDE	SALTWTRSED	4/6/2010 10:38	4/13/2010 10:50	4/13/2010 13:41		
L50382-8	423062-020		CVTOTSULFIDE	SALTWTRSED	4/5/2010 12:30	4/6/2010 11:55	4/6/2010 14:55		
L50382-9	423062-020		CVTOTSULFIDE	SALTWTRSED	4/5/2010 12:13	4/6/2010 11:55	4/6/2010 14:55		
L50382-10	423062-020		CVTOTSULFIDE	SALTWTRSED	4/5/2010 12:50	4/6/2010 11:55	4/6/2010 14:55		
L50382-11	423062-030	Denny Way Remediation Monitoring	CVTOTSULFIDE	SALTWTRSED	4/5/2010 13:15	4/6/2010 11:55	4/6/2010 14:55		
L50382-12	423062-020	Denny Way BO monitoring	CVTOTSULFIDE	SALTWTRSED	4/6/2010 10:20	4/13/2010 10:50	4/13/2010 13:41		
L50382-13	423062-020		CVTOTSULFIDE	SALTWTRSED	4/6/2010 10:05	4/13/2010 10:50	4/13/2010 13:41		
L50382-14	423062-020		CVTOTSULFIDE	SALTWTRSED	4/6/2010 9:18	4/13/2010 10:50	4/13/2010 13:41		
L50382-15	423062-020		CVTOTSULFIDE	SALTWTRSED	4/5/2010 10:10	4/6/2010 11:55	4/6/2010 14:55		
L50382-16	423062-020		CVTOTSULFIDE	SALTWTRSED	4/5/2010 9:45	4/7/2010 11:45	4/7/2010 14:20		
L50382-17	423062-020		CVTOTSULFIDE	SALTWTRSED	4/6/2010 9:50	4/13/2010 10:50	4/13/2010 13:41		
WG108397-1	MB		CVTOTSULFIDE	OTHR SOLID		4/6/2010 11:55	4/6/2010 14:55		MB1 4/6/10
WG108397-2	SB		CVTOTSULFIDE	OTHR SOLID		4/6/2010 11:55	4/6/2010 14:55		WG108397-1
WG108397-3	LD		CVTOTSULFIDE	SALTWTRSED		4/6/2010 11:55	4/6/2010 14:55		L50382-3
WG108397-4	LT		CVTOTSULFIDE	SALTWTRSED		4/6/2010 11:55	4/6/2010 14:55		WG108397-3 L50382-3
WG108397-5	MS		CVTOTSULFIDE	SALTWTRSED		4/6/2010 11:55	4/6/2010 14:55		L50382-3
WG108397-6	MB		CVTOTSULFIDE	OTHR SOLID		4/7/2010 11:45	4/7/2010 14:20		MB1 4/7/10
WG108397-7	SB		CVTOTSULFIDE	OTHR SOLID		4/7/2010 11:45	4/7/2010 14:20		WG108397-6
WG108397-8	MB		CVTOTSULFIDE	OTHR SOLID		4/13/2010 10:50	4/13/2010 13:41		MB1 4/13/10
WG108397-9	SB		CVTOTSULFIDE	OTHR SOLID		4/13/2010 10:50	4/13/2010 13:41		WG108397-8

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

Workgroup: WG109668 Ammonia

MB:WG109668-1 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G KCL Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Ammonia Nitrogen	0.1	0.2	mg/Kg	<MDL	

SB:WG109668-2 MB:WG109668-1 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G KCL Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Ammonia Nitrogen	0.1	0.2	mg/Kg	<MDL	1	1.02	102		80--120

LCS:WG109668-3 Matrix: OTHR SOLID Listtype: CVNH3-KCL Method: SM4500-NH3-G KCL Project: NONE
(Lab Control Sample)

Parameter	MDL	RDL	Units	True Value	LCS Value	% Rec.	Qual	Lab Limit
Ammonia Nitrogen	0.1	0.2	mg/Kg	1	0.994	99		80--120

LT:WG109668-5 LD:WG109668-4 L50382-11 Matrix: SALTWTRSED Listtype: CVNH3-KCL Method: SM4500-NH3-G KCL Project: 423062-030
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	Lab Limit
Ammonia Nitrogen	0.099	0.198	mg/Kg	1.34	1.21	1.25	5		20

MS:WG109668-6 L50382-11 Matrix: SALTWTRSED Listtype: CVNH3-KCL Method: SM4500-NH3-G KCL Project: 423062-030
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit
Ammonia Nitrogen	0.097	0.194	mg/Kg	1.34	0.966	2.18	87		75--125

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

Workgroup: WG109258 PSD

LT:WG109258-2 LD:WG109258-1 L50382-3 Matrix: SALTWTRSED Listtype: CVPSD Method: ASTM D422 Project: 423062-020
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	Lab Limit
Clay	1	2	%	12	11.4	11	4		20
Gravel	0.2	2	%	4.3	4.7	6	18		20
Sand	0.2	2	%	40.8	39.2	32.4	12		20
Silt	1	2	%	51.9	53.7	52.9	2		20

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

Workgroup: WG109786 TOC

MB:WG109786-1 Matrix: OTHR SOLID Listtype: CVTOC Method: SW846 9060-PSEP96 Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

SB:WG109786-2 MB:WG109786-1 Matrix: OTHR SOLID Listtype: CVTOC Method: SW846 9060-PSEP96 Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Total Organic Carbon	500	1000	mg/Kg	<MDL	2500	2600	104		80--120

SRM:WG109786-3 Matrix: OTHR SOLID Listtype: CVTOC Method: SW846 9060-PSEP96 Project: NONE
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
Total Organic Carbon	2000	3970	mg/Kg	21900	20500	93		80--120

LT:WG109786-5 LD:WG109786-4 L50382-10 Matrix: SALTWTRSED Listtype: CVTOC Method: SW846 9060-PSEP96 Project: 423062-020
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	Lab Limit
Total Organic Carbon	1500	3030	mg/Kg	12000	12300	11700	2		20

MS:WG109786-6 L50382-10 Matrix: SALTWTRSED Listtype: CVTOC Method: SW846 9060-PSEP96 Project: 423062-020
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit
Total Organic Carbon	1500	2970	mg/Kg	12000	7416	18800	92		75--125

MB:WG109786-7 Matrix: OTHR SOLID Listtype: CVTOC Method: SW846 9060-PSEP96 Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

SRM:WG109786-8 Matrix: OTHR SOLID Listtype: CVTOC Method: SW846 9060-PSEP96 Project: NONE
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
Total Organic Carbon	2000	3970	mg/Kg	21900	20700	95		80--120

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

MB:WG109786-9 Matrix: OTHR SOLID Listtype: CVTOC Method: SW846 9060-PSEP96 Project: (Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

Workgroup: WG109864 Total Solids

MB:WG109864-1 Matrix: OTHR SOLID Listtype: CVTOTS Method: SM2540-G Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Solids	0.005	0.01	%	<MDL	

LT:WG109864-3 LD:WG109864-2 L50382-2 Matrix: SALTWTRSED Listtype: CVTOTS Method: SM2540-G Project: 423062-020
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	Lab Limit
Total Solids	0.005	0.01	%	65.2	66.2	66.6	1		20

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

Workgroup: WG108397 Total Sulfide

MB:WG108397-1 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Sulfide	0.5	2	mg/Kg	<MDL	

SB:WG108397-2 MB:WG108397-1 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Total Sulfide	5	20	mg/Kg	<MDL	50.4	52.7	105		80--120

LT:WG108397-4 LD:WG108397-3 L50382-3 Matrix: SALTWTRSED Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project: 423062-020
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	Lab Limit
Total Sulfide	2.5	9.96	mg/Kg	21.1	26.9	23.9	12		20

MS:WG108397-5 L50382-3 Matrix: SALTWTRSED Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project: 423062-020
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit
Total Sulfide	2.5	9.96	mg/Kg	21.1	50.2	54.8	67		65--135

MB:WG108397-6 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Sulfide	0.5	2	mg/Kg	<MDL	

SB:WG108397-7 MB:WG108397-6 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Total Sulfide	5	20	mg/Kg	<MDL	48	50.2	105		80--120

MB:WG108397-8 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Sulfide	0.5	2	mg/Kg	<MDL	

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

SB:WG108397-9 MB:WG108397-8 Matrix: OTHR SOLID Listtype: CVTOTSULFIDE Method: EPA 9030B/SM4500-S2-D Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Total Sulfide	5	20	mg/Kg	<MDL	48.8	48.6	100		80--120

METAL CHEMISTRY QC DATA

King County Environmental Laboratory Batch Report

Denny Way Sediment Remediation
L50382

WG108766 Total Mercury

Sample	Project	Project Description	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L50382-1	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/6/2010 9:00	4/26/2010 13:00	4/27/2010 14:00		
L50382-2	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/6/2010 11:15	4/26/2010 13:00	4/27/2010 14:01		
L50382-3	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/5/2010 13:55	4/26/2010 13:00	4/27/2010 13:53		
L50382-4	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/6/2010 11:30	4/26/2010 13:00	4/27/2010 14:06		
L50382-5	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/6/2010 8:50	4/26/2010 13:00	4/27/2010 14:08		
L50382-6	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/6/2010 11:00	4/26/2010 13:00	4/27/2010 14:09		
L50382-7	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/6/2010 10:38	4/26/2010 13:00	4/27/2010 14:11		
L50382-8	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/5/2010 12:30	4/26/2010 13:00	4/27/2010 14:12		
L50382-9	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/5/2010 12:13	4/26/2010 13:00	4/27/2010 14:14		
L50382-10	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/5/2010 12:50	4/26/2010 13:00	4/27/2010 14:15		
L50382-11	423062-030	Denny Way Remediation M	MTHG-SED	SALTWTRSED	4/5/2010 13:15	4/26/2010 13:00	4/28/2010 8:58		
L50382-12	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/6/2010 10:20	4/26/2010 13:00	4/27/2010 14:18		
L50382-13	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/6/2010 10:05	4/26/2010 13:00	4/27/2010 14:20		
L50382-14	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/6/2010 9:18	4/26/2010 13:00	4/27/2010 14:25	WG108766-1, -2, -3, -4, -5, -6, -7	
L50382-15	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/5/2010 10:10	4/26/2010 13:00	4/27/2010 14:26		
L50382-16	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/5/2010 9:45	4/26/2010 13:00	4/27/2010 14:28		
L50382-17	423062-020	Denny Way BO monitoring	MTHG-SED	SALTWTRSED	4/6/2010 9:50	4/26/2010 13:00	4/27/2010 14:29		
WG108766-1	SRM		MTHG-SED	SALTWTRSED		4/26/2010 13:00	4/27/2010 13:47		PACS2
WG108766-2	SRM		MTHG-SED	SALTWTRSED		4/26/2010 13:00	4/27/2010 13:49		PACS2
WG108766-3	MB		MTHG-SED	SOLIDBLANK		4/26/2010 13:00	4/28/2010 8:56		METHOD BLANK
WG108766-4	SB		MTHG-SED	SOLIDBLANK		4/26/2010 13:00	4/27/2010 13:52		WG108766-3 HG-SOL
WG108766-5	MS		MTHG-SED	SALTWTRSED		4/26/2010 13:00	4/27/2010 13:55		L50382-3 HG-SOL
WG108766-6	MSD		MTHG-SED	SALTWTRSED		4/26/2010 13:00	4/27/2010 13:57		WG108766-5 L50382-3 HG-SOL-MSD
WG108766-7	LD		MTHG-SED	SALTWTRSED		4/26/2010 13:00	4/27/2010 13:58		L50382-3 RPD-SOL

King County Environmental Laboratory Batch Report

Denny Way Sediment Remediation
L50382

WG108958 total Metals

Sample	Project	Project Description	List Type	Matrix	Col. Date	Prep Date	Anal Date	QC Association	Comments
L50382-1	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/6/2010 9:00	5/4/2010 10:30	5/5/2010 9:30		
L50382-2	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/6/2010 11:15	5/4/2010 10:30	5/5/2010 9:35		
L50382-3	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/5/2010 13:55	5/4/2010 10:30	5/5/2010 9:41		
L50382-4	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/6/2010 11:30	5/4/2010 10:30	5/5/2010 10:08		
L50382-5	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/6/2010 8:50	5/4/2010 10:30	5/5/2010 10:14		
L50382-6	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/6/2010 11:00	5/4/2010 10:30	5/5/2010 10:19		
L50382-7	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/6/2010 10:38	5/4/2010 10:30	5/5/2010 10:25		
L50382-8	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/5/2010 12:30	5/4/2010 10:30	5/5/2010 10:30		
L50382-9	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/5/2010 12:13	5/4/2010 10:30	5/5/2010 11:14		
L50382-10	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/5/2010 12:50	5/4/2010 10:30	5/5/2010 11:19		
L50382-11	423062-030	Denny Way Remediation M	MTICP-SED	SALTWTRSED	4/5/2010 13:15	5/4/2010 10:30	5/5/2010 11:25		
L50382-12	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/6/2010 10:20	5/4/2010 10:30	5/5/2010 11:30		
L50382-13	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/6/2010 10:05	5/4/2010 10:30	5/5/2010 11:36	WG108958-1, -2, -3, -4, -5, -6, -7	
L50382-14	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/6/2010 9:18	5/4/2010 10:30	5/5/2010 10:47		
L50382-15	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/5/2010 10:10	5/4/2010 10:30	5/5/2010 10:53		
L50382-16	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/5/2010 9:45	5/4/2010 10:30	5/5/2010 10:58		
L50382-17	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/6/2010 9:50	5/4/2010 10:30	5/5/2010 11:04		
									WG108958-2
WG108958-1	SB		MTICP-SED	SOLIDBLANK		5/4/2010 10:30	5/5/2010 9:02		ICPMARINE
WG108958-2	MB		MTICP-SED	SOLIDBLANK		5/4/2010 10:30	5/5/2010 9:07		METHOD BLANK
WG108958-3	LD		MTICP-SED	SALTWTRSED		5/4/2010 10:30	5/5/2010 9:46		L50382-3 RPD-SOL
									L50382-3
WG108958-4	MS		MTICP-SED	SALTWTRSED		5/4/2010 10:30	5/5/2010 9:52		ICPMARINE
WG108958-5	LCS		MTICP-SED	SOIL		5/4/2010 10:30	5/5/2010 9:13		ERASOIL
WG108958-6	LCS		MTICP-SED	SOIL		5/4/2010 10:30	5/5/2010 9:19		ERASOIL
WG108958-7	SRM		MTICP-SED	SALTWTRSED		5/4/2010 10:30	5/5/2010 9:24		PACS2

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

Workgroup: WG108766 Total Mercury

SRM:WG108766-1 Matrix: SALTWTRSED Listtype: MTHG-SED Method: SW846 7471B Project: NONE
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
Mercury, Total, CVAA	0.1	1.03	mg/Kg	3.04	3.3	109		80--120

SRM:WG108766-2 Matrix: SALTWTRSED Listtype: MTHG-SED Method: SW846 7471B Project: NONE
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
Mercury, Total, CVAA	0.1	1.02	mg/Kg	3.04	3.33	110		80--120

MB:WG108766-3 Matrix: SOLIDBLANK Listtype: MTHG-SED Method: SW846 7471B Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.0048	0.0476	mg/Kg	<MDL	

SB:WG108766-4 MB:WG108766-3 Matrix: SOLIDBLANK Listtype: MTHG-SED Method: SW846 7471B Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Mercury, Total, CVAA	0.019	0.19	mg/Kg	<MDL	0.476	0.497	104		85--115

MSD:WG108766-6 MS:WG108766-5 L50382-3 Matrix: SALTWTRSED Listtype: MTHG-SED Method: SW846 7471B Project: 423062-020
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Mercury, Total, CVAA	0.02	0.198	mg/Kg	0.451	0.496	1.03	117		75--125	0.495	1.04	119		2		20

LD:WG108766-7 L50382-3 Matrix: SALTWTRSED Listtype: MTHG-SED Method: SW846 7471B Project: 423062-020
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD^	Qual	Lab Limit
Mercury, Total, CVAA	0.02	0.197	mg/Kg	0.451	0.458	2		20

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Denny Way Sediment Remediation
L50382

Workgroup: WG108958 Total Metals

SB:WG108958-1 MB:WG108958-2 Matrix: SOLIDBLANK Listtype: MTICP-SED Method: SW846 3050B*SW846 6010C Project: NONE
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Arsenic, Total, ICP	1.2	5.95	mg/Kg	<MDL	47.6	47.1	99		85--115
Cadmium, Total, ICP	0.095	0.476	mg/Kg	<MDL	47.6	45.6	96		85--115
Chromium, Total, ICP	0.14	0.714	mg/Kg	<MDL	47.6	48	101		85--115
Copper, Total, ICP	0.19	0.952	mg/Kg	<MDL	47.6	46.5	98		85--115
Lead, Total, ICP	0.95	4.76	mg/Kg	<MDL	47.6	46.5	98		85--115
Silver, Total, ICP	0.19	0.952	mg/Kg	<MDL	47.6	47.8	100		85--115
Zinc, Total, ICP	0.24	1.19	mg/Kg	<MDL	238	219	92		85--115

MB:WG108958-2 Matrix: SOLIDBLANK Listtype: MTICP-SED Method: SW846 3050B*SW846 6010C Project:
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Arsenic, Total, ICP	1.2	5.95	mg/Kg	<MDL	
Cadmium, Total, ICP	0.095	0.476	mg/Kg	<MDL	
Chromium, Total, ICP	0.14	0.714	mg/Kg	<MDL	
Copper, Total, ICP	0.19	0.952	mg/Kg	<MDL	
Lead, Total, ICP	0.95	4.76	mg/Kg	<MDL	
Silver, Total, ICP	0.19	0.952	mg/Kg	<MDL	
Zinc, Total, ICP	0.24	1.19	mg/Kg	<MDL	

LD:WG108958-3 L50382-3 Matrix: SALTWTRSED Listtype: MTICP-SED Method: SW846 3050B*SW846 6010C Project: 423062-020
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD^	Qual	Lab Limit
Arsenic, Total, ICP	1.3	6.29	mg/Kg	4.8	5			20
Cadmium, Total, ICP	0.1	0.503	mg/Kg	0.62	0.566	9		20
Chromium, Total, ICP	0.15	0.754	mg/Kg	28.5	28.9	1		20
Copper, Total, ICP	0.2	1.01	mg/Kg	34.6	34.7	0		20
Lead, Total, ICP	1	5.03	mg/Kg	55.7	53.9	3		20
Silver, Total, ICP	0.2	1.01	mg/Kg	2.93	2.94	0		20
Zinc, Total, ICP	0.25	1.26	mg/Kg	65.3	63.9	2		20

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MS:WG108958-4 L50382-3 Matrix: SALTWTRSED Listtype: MTICP-SED Method: SW846 3050B*SW846 6010C Project: 423062-020
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit
Arsenic, Total, ICP	1.3	6.29	mg/Kg	4.8	50.3	51.6	93		75--125
Cadmium, Total, ICP	0.1	0.503	mg/Kg	0.62	50.3	45.8	90		75--125
Chromium, Total, ICP	0.15	0.755	mg/Kg	28.5	50.3	79.4	101		75--125
Copper, Total, ICP	0.2	1.01	mg/Kg	34.6	50.3	86	102		75--125
Lead, Total, ICP	1	5.03	mg/Kg	55.7	50.3	103	94		75--125
Silver, Total, ICP	0.2	1.01	mg/Kg	2.93	50.3	51.2	96		75--125
Zinc, Total, ICP	0.25	1.26	mg/Kg	65.3	252	279	85		75--125

LCS:WG108958-5 Matrix: SOIL Listtype: MTICP-SED Method: SW846 3050B*SW846 6010C Project: NONE
(Lab Control Sample)

Parameter	MDL	RDL	Units	True Value	LCS Value	% Rec.	Qual	Lab Limit
Arsenic, Total, ICP	5.3	26.3	mg/Kg	132	130	99		80--120
Cadmium, Total, ICP	0.42	2.11	mg/Kg	66.5	70.2	106		80--120
Chromium, Total, ICP	0.63	3.16	mg/Kg	72.9	72	99		79--121
Copper, Total, ICP	0.84	4.22	mg/Kg	68.5	66.3	97		80--120
Lead, Total, ICP	4.2	21.1	mg/Kg	130	133	103		80--120
Silver, Total, ICP	0.84	4.22	mg/Kg	101	104	103		66--134
Zinc, Total, ICP	1.1	5.27	mg/Kg	177	166	94		79--121

LCS:WG108958-6 Matrix: SOIL Listtype: MTICP-SED Method: SW846 3050B*SW846 6010C Project: NONE
(Lab Control Sample)

Parameter	MDL	RDL	Units	True Value	LCS Value	% Rec.	Qual	Lab Limit
Arsenic, Total, ICP	5.2	26	mg/Kg	132	134	102		80--120
Cadmium, Total, ICP	0.42	2.08	mg/Kg	66.5	79.3	119		80--120
Chromium, Total, ICP	0.62	3.12	mg/Kg	72.9	77.7	107		79--121
Copper, Total, ICP	0.83	4.16	mg/Kg	68.5	68.3	100		80--120
Lead, Total, ICP	4.2	20.8	mg/Kg	130	144	111		80--120
Silver, Total, ICP	0.83	4.16	mg/Kg	101	113	112		66--134
Zinc, Total, ICP	1	5.2	mg/Kg	177	175	99		79--121

SRM:WG108958-7 Matrix: SALTWTRSED Listtype: MTICP-SED Method: SW846 3050B*SW846 6010C Project: NONE
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
Chromium, Total, ICP	0.65	3.24	mg/Kg	90.7	48.6	54		30--70
Copper, Total, ICP	0.86	4.32	mg/Kg	310	312	101		78--118
Lead, Total, ICP	4.3	21.6	mg/Kg	183	173	95		74--114
Zinc, Total, ICP	1.1	5.4	mg/Kg	364	330	91		73--113

ORGANIC CHEMISTRY QC DATA

King County Environmental Laboratory Batch Report

Denny Way Sediment Remediation
L50382

WG109638 Semi Volatile Organics

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L50382-1	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/6/2010 9:00	8/25/2010 7:00	9/4/2010 14:38		
L50382-2	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/6/2010 11:15	8/25/2010 7:00	9/4/2010 17:48		
L50382-3	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/5/2010 13:55	8/25/2010 7:00	9/8/2010 10:27		
L50382-4	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/6/2010 11:30	8/25/2010 7:00	9/8/2010 11:05		
L50382-5	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/6/2010 8:50	8/25/2010 7:00	9/15/2010 19:27		
L50382-6	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/6/2010 11:00	8/25/2010 7:00	9/2/2010 13:46		
L50382-7	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/6/2010 10:38	8/25/2010 7:00	9/8/2010 11:43		
L50382-8	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/5/2010 12:30	8/25/2010 7:00	9/15/2010 20:05		
L50382-9	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/5/2010 12:13	8/25/2010 7:00	9/8/2010 15:32		
L50382-10	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/5/2010 12:50	8/25/2010 7:00	9/15/2010 18:11		
L50382-11	423062-030	Denny Way Remediation	ORBNASMS	SALTWTRSED	4/5/2010 13:15	8/25/2010 7:00	9/15/2010 18:49		
L50382-12	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/6/2010 10:20	8/25/2010 7:00	9/2/2010 14:24	WG109638-6,-1,-2,-3,-	
L50382-13	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/6/2010 10:05	8/25/2010 7:00	9/2/2010 15:02	4,-5	
L50382-14	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/6/2010 9:18	8/25/2010 7:00	9/4/2010 15:16		
L50382-15	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/5/2010 10:10	8/25/2010 7:00	9/4/2010 15:54		
L50382-16	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/5/2010 9:45	8/25/2010 7:00	9/4/2010 16:32		
L50382-17	423062-020	Denny Way BO monitorin	ORBNASMS	SALTWTRSED	4/6/2010 9:50	8/25/2010 7:00	9/4/2010 17:10		
WG109638-1	MB		ORBNASMS	OTHR SOLID		8/25/2010 7:00	9/2/2010 10:35		MB100825
WG109638-2	SB		ORBNASMS	OTHR SOLID		8/25/2010 7:00	9/2/2010 11:13		WG109638-1
WG109638-3	MS		ORBNASMS	SALTWTRSED		8/25/2010 7:00	9/2/2010 12:30		L50382-6
WG109638-4	MSD		ORBNASMS	SALTWTRSED		8/25/2010 7:00	9/2/2010 13:08		WG109638-3 L50382-
									6
WG109638-5	LD		ORBNASMS	SALTWTRSED		8/25/2010 7:00	9/4/2010 14:01		L50382-1
WG109638-6	SRM		ORBNASMS	SALTWTRSED		8/25/2010 7:00	9/2/2010 11:51		1944

King County Environmental Laboratory Batch Report

Denny Way Sediment Remediation
L50382

WG109588 PCB

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L50382-1	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/6/2010 9:00	8/23/2010 7:00	9/1/2010 19:09		
L50382-2	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/6/2010 11:15	8/23/2010 7:00	9/1/2010 21:37		
L50382-3	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/5/2010 13:55	8/23/2010 7:00	9/1/2010 22:14		
L50382-4	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/6/2010 11:30	8/23/2010 7:00	9/1/2010 22:51		
L50382-5	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/6/2010 8:50	8/23/2010 7:00	9/1/2010 23:28		
L50382-6	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/6/2010 11:00	8/23/2010 7:00	9/2/2010 0:05		
L50382-7	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/6/2010 10:38	8/23/2010 7:00	9/2/2010 0:42		
L50382-8	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/5/2010 12:30	8/23/2010 7:00	9/1/2010 17:54		
L50382-9	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/5/2010 12:13	8/23/2010 7:00	9/2/2010 1:20		
L50382-10	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/5/2010 12:50	8/23/2010 7:00	9/2/2010 1:57		
L50382-11	423062-030	Denny Way Remediation	ORPCBLL	SALTWTRSED	4/5/2010 13:15	8/23/2010 7:00	9/1/2010 16:40		
L50382-12	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/6/2010 10:20	8/23/2010 7:00	9/2/2010 2:34	WG109588-9,-8,-7,-6,-	
L50382-13	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/6/2010 10:05	8/23/2010 7:00	9/2/2010 3:11	5,-1	
L50382-14	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/6/2010 9:18	8/23/2010 7:00	9/2/2010 5:39		
L50382-15	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/5/2010 10:10	8/23/2010 7:00	9/2/2010 6:17		
L50382-16	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/5/2010 9:45	8/23/2010 7:00	9/2/2010 6:54		
L50382-17	423062-020	Denny Way BO monitorin	ORPCBLL	SALTWTRSED	4/6/2010 9:50	8/23/2010 7:00	9/2/2010 7:31		
WG109588-1	MB		ORPCBLL	OTHR SOLID		8/23/2010 7:00	9/1/2010 14:12		MB100809
WG109588-5	SB		ORPCBLL	OTHR SOLID		8/23/2010 7:00	9/1/2010 14:49		WG109588-1
WG109588-6	MS		ORPCBLL	SALTWTRSED		8/23/2010 7:00	9/1/2010 15:26		L50382-11
WG109588-7	MSD		ORPCBLL	SALTWTRSED		8/23/2010 7:00	9/1/2010 16:03		WG109588-6 L50382-11
WG109588-8	LD		ORPCBLL	SALTWTRSED		8/23/2010 7:00	9/1/2010 17:17		L50382-8
WG109588-9	SRM		ORPCBLL	OTHR SOLID		8/23/2010 7:00	9/1/2010 18:32		HS-2

King County Environmental Laboratory Batch Report

Denny Way Sediment Remediation
L50382

WG109608 Pesticides

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L50382-1	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/6/2010 9:00	6/10/2010 7:00	6/29/2010 23:04		
L50382-2	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/6/2010 11:15	6/10/2010 7:00	6/29/2010 23:41		
L50382-3	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/5/2010 13:55	6/10/2010 7:00	7/1/2010 13:16		
L50382-4	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/6/2010 11:30	6/10/2010 7:00	7/1/2010 13:53		
L50382-5	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/6/2010 8:50	6/10/2010 7:00	6/29/2010 20:36		
L50382-6	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/6/2010 11:00	6/10/2010 7:00	7/1/2010 14:30		
L50382-7	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/6/2010 10:38	6/10/2010 7:00	7/1/2010 15:07		
L50382-8	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/5/2010 12:30	6/10/2010 7:00	6/29/2010 21:50		
L50382-9	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/5/2010 12:13	6/10/2010 7:00	7/1/2010 15:45		
L50382-10	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/5/2010 12:50	6/10/2010 7:00	7/1/2010 16:22		
L50382-11	423062-030	Denny Way Remediation	ORPESTSMS	SALTWTRSED	4/5/2010 13:15	6/10/2010 7:00	7/1/2010 16:59		
L50382-12	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/6/2010 10:20	6/10/2010 7:00	7/1/2010 17:36		
L50382-13	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/6/2010 10:05	6/10/2010 7:00	7/9/2010 19:49	WG109608-8,-7,-6,-5,-	
L50382-14	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/6/2010 9:18	6/10/2010 7:00	7/1/2010 18:50	4,-3,-2,-1	
L50382-15	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/5/2010 10:10	6/10/2010 7:00	7/1/2010 21:19		
L50382-16	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/5/2010 9:45	6/10/2010 7:00	7/1/2010 21:56		
L50382-17	423062-020	Denny Way BO monitorin	ORPESTSMS	SALTWTRSED	4/6/2010 9:50	6/10/2010 7:00	7/1/2010 22:33		
WG109608-1	MB		ORPESTSMS	OTHR SOLID		6/10/2010 7:00	6/29/2010 18:07		MB100610
WG109608-2	SB		ORPESTSMS	OTHR SOLID		6/10/2010 7:00	6/29/2010 18:44		WG109608-1
WG109608-3	MS		ORPESTSMS	SALTWTRSED		6/10/2010 7:00	6/29/2010 19:21		L50382-5
WG109608-4	MSD		ORPESTSMS	SALTWTRSED		6/10/2010 7:00	6/29/2010 19:59		WG109608-3 L50382-5
WG109608-5	LD		ORPESTSMS	SALTWTRSED		6/10/2010 7:00	6/29/2010 21:13		L50382-8
WG109608-6	SRM		ORPESTSMS	OTHR SOLID		6/10/2010 7:00	6/29/2010 22:27		1944
WG109608-7	MB		ORPESTSMS	OTHR SOLID		6/10/2010 7:00	7/9/2010 18:35		MB100706
WG109608-8	SB		ORPESTSMS	OTHR SOLID		6/10/2010 7:00	7/9/2010 19:12		WG109608-7

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

Workgroup: WG109638 Semi Volatile Organics

MB:WG109638-1 Matrix: OTHR SOLID Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Phenol	4	8	ug/Kg	<MDL	
1,3-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	
1,4-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	
1,2-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	
Hexachloroethane	1	2	ug/Kg	<MDL	
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	
1,2,4-Trichlorobenzene	0.1	0.2	ug/Kg	<MDL	
Naphthalene	2	4	ug/Kg	<MDL	
Hexachlorobutadiene	0.5	1	ug/Kg	<MDL	
Acenaphthylene	2	4	ug/Kg	<MDL	
Dimethyl Phthalate	4	8	ug/Kg	<MDL	
Acenaphthene	2	4	ug/Kg	<MDL	
Fluorene	2	4	ug/Kg	<MDL	
Diethyl Phthalate	4	8	ug/Kg	<MDL	
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	
Hexachlorobenzene	0.1	0.2	ug/Kg	<MDL	
Pentachlorophenol	10	20	ug/Kg	<MDL	
Phenanthrene	2	4	ug/Kg	<MDL	
Anthracene	2	4	ug/Kg	<MDL	
Di-N-Butyl Phthalate	4	8	ug/Kg	<MDL	
Fluoranthene	2	4	ug/Kg	<MDL	
Pyrene	2	4	ug/Kg	<MDL	
Benzyl Butyl Phthalate	1	2	ug/Kg	1.1	B
Benzo(a)anthracene	2	4	ug/Kg	<MDL	
Chrysene	2	4	ug/Kg	<MDL	
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	<MDL	
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	
Benzo(b)fluoranthene	2	4	ug/Kg	<MDL	
Benzo(k)fluoranthene	2	4	ug/Kg	<MDL	
Benzo(a)pyrene	2	4	ug/Kg	<MDL	
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	<MDL	
Dibenzo(a,h)anthracene	2	4	ug/Kg	<MDL	
Benzo(g,h,i)perylene	2	4	ug/Kg	<MDL	
Benzyl Alcohol	2	4	ug/Kg	<MDL	
2-Methylphenol	2	4	ug/Kg	<MDL	
4-Methylphenol	4	8	ug/Kg	<MDL	
Benzoic Acid	10	20	ug/Kg	30	B
2-Methylnaphthalene	2	4	ug/Kg	<MDL	
Dibenzofuran	2	4	ug/Kg	<MDL	
Carbazole	2	4	ug/Kg	<MDL	

Coprostanol	40	80	ug/Kg	<MDL
Caffeine	4	8	ug/Kg	<MDL
Total LPAHs	2	4	ug/Kg	<MDL
Total HPAHS	2	4	ug/Kg	<MDL

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

SB:WG109638-2 MB:WG109638-1 Matrix: OTHR SOLID Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Phenol	4	8	ug/Kg	<MDL	375	125	33		10--107
1,3-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	375	190	51		18--95
1,4-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	375	173	46		21--99
1,2-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	375	181	48		10--116
Hexachloroethane	1	2	ug/Kg	<MDL	375	169	45		17--92
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	375	62.7	17		10--81
1,2,4-Trichlorobenzene	0.1	0.2	ug/Kg	<MDL	375	143	38		30--110
Naphthalene	2	4	ug/Kg	<MDL	375	145	39		17--94
Hexachlorobutadiene	0.5	1	ug/Kg	<MDL	375	117	31		10--97
Acenaphthylene	2	4	ug/Kg	<MDL	375	256	68		31--101
Dimethyl Phthalate	4	8	ug/Kg	<MDL	375	345	92		38--114
Acenaphthene	2	4	ug/Kg	<MDL	375	261	70		29--102
Fluorene	2	4	ug/Kg	<MDL	375	310	83		39--106
Diethyl Phthalate	4	8	ug/Kg	<MDL	375	382	102		51--118
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	375	356	95		11--148
Hexachlorobenzene	0.1	0.2	ug/Kg	<MDL	375	282	75		40--111
Pentachlorophenol	10	20	ug/Kg	<MDL	375	240	64		38--124
Phenanthrene	2	4	ug/Kg	<MDL	375	276	74		57--104
Anthracene	2	4	ug/Kg	<MDL	375	305	81		45--114
Di-N-Butyl Phthalate	4	8	ug/Kg	<MDL	375	318	85		17--180
Fluoranthene	2	4	ug/Kg	<MDL	375	337	90		55--132
Pyrene	2	4	ug/Kg	<MDL	375	344	92		48--132
Benzyl Butyl Phthalate	1	2	ug/Kg	1.1	375	409	109		15--183
Benzo(a)anthracene	2	4	ug/Kg	<MDL	375	345	92		69--117
Chrysene	2	4	ug/Kg	<MDL	375	317	85		69--111
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	<MDL	375	374	100		10--182
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	375	363	97		10--200
Benzo(b)fluoranthene	2	4	ug/Kg	<MDL	375	354	94		50--121
Benzo(k)fluoranthene	2	4	ug/Kg	<MDL	375	360	96		58--128
Benzo(a)pyrene	2	4	ug/Kg	<MDL	375	345	92		15--137
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	<MDL	375	316	84		51--132
Dibenzo(a,h)anthracene	2	4	ug/Kg	<MDL	375	306	82		53--129
Benzo(g,h,i)perylene	2	4	ug/Kg	<MDL	375	304	81		46--126
Benzyl Alcohol	2	4	ug/Kg	<MDL	375	132	35		10--119
2-Methylphenol	2	4	ug/Kg	<MDL	375	155	41		16--91
4-Methylphenol	4	8	ug/Kg	<MDL	375	190	51		10--125
Benzoic Acid	10	20	ug/Kg	30	375	165	36		10--170
2-Methylnaphthalene	2	4	ug/Kg	<MDL	375	191	51		22--99
Dibenzofuran	2	4	ug/Kg	<MDL	375	264	70		37--97
Carbazole	2	4	ug/Kg	<MDL	375	339	90		44--179
Coprostanol	40	80	ug/Kg	<MDL	3750	2630	70		10--159
Caffeine	4	8	ug/Kg	<MDL	375	343	91		45--159

Total LPAHs	2	4	ug/Kg	<MDL	2630	1740	66	50--150
Total HPAHS	2	4	ug/Kg	<MDL	3750	3330	89	50--150

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

MSD:WG109638-4 MS:WG109638-3 L50382-6 Matrix: SALTWTRSED Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project:423062-020 Pkey:SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Phenol	4	8	ug/Kg	41.1	375	322	75		10--127	375	196	41		59	*	0--40
1,3-Dichlorobenzene	0.2	0.4	ug/Kg	<MDL	375	146	39		10--103	375	126	34		14		0--40
1,4-Dichlorobenzene	0.2	0.4	ug/Kg	1.41	375	142	38		10--104	375	121	32		17		0--40
1,2-Dichlorobenzene	0.2	0.4	ug/Kg	0.34	375	154	41		10--105	375	137	36		13		0--40
Hexachloroethane	1	2	ug/Kg	<MDL	375	124	33		10--89	375	101	27		20		0--40
2,4-Dimethylphenol	1	2	ug/Kg	<MDL	375	271	72		10--150	375	296	79		9		0--40
1,2,4-Trichlorobenzene	0.1	0.2	ug/Kg	<MDL	375	138	37		10--115	375	125	33		11		0--40
Naphthalene	2	4	ug/Kg	3.1	375	154	40		12--97	375	152	40		0		0--40
Hexachlorobutadiene	0.5	1	ug/Kg	<MDL	375	121	32		10--97	375	120	32		0		0--40
Acenaphthylene	2	4	ug/Kg	8.43	375	302	78		27--132	375	295	76		3		0--40
Dimethyl Phthalate	4	8	ug/Kg	<MDL	375	327	87		13--162	375	322	86		1		0--40
Acenaphthene	2	4	ug/Kg	5.24	375	294	77		25--130	375	277	72		7		0--40
Fluorene	2	4	ug/Kg	8.9	375	318	82		22--147	375	317	82		0		0--40
Diethyl Phthalate	4	8	ug/Kg	<MDL	375	378	101		31--150	375	380	101		0		0--40
N-Nitrosodiphenylamine	4	8	ug/Kg	<MDL	375	370	99		10--169	375	384	102		3		0--40
Hexachlorobenzene	0.1	0.2	ug/Kg	1.66	375	291	77		18--151	375	289	77		0		0--40
Pentachlorophenol	10	20	ug/Kg	<MDL	375	315	84		17--170	375	303	81		4		0--40
Phenanthrene	2	4	ug/Kg	72.5	375	498	113		10--200	375	385	83		31		0--40
Anthracene	2	4	ug/Kg	43.3	375	293	67		10--181	375	392	93		33		0--40
Di-N-Butyl Phthalate	4	8	ug/Kg	11.7	375	389	101		10--194	375	372	96		5		0--40
Fluoranthene	2	4	ug/Kg	161	375	518	95		12--188	375	474	83		13		0--40
Pyrene	2	4	ug/Kg	178	375	690	137		20--174	375	556	101		30		0--40
Benzyl Butyl Phthalate	1	2	ug/Kg	29.4	375	432	107		41--145	375	488	122		13		0--40
Benzo(a)anthracene	2	4	ug/Kg	103	375	595	131		32--168	375	484	102		25		0--40
Chrysene	2	4	ug/Kg	128	375	350	59		14--184	375	417	77		26		0--40
Bis(2-Ethylhexyl)Phthalate	4	8	ug/Kg	160	375	798	170		10--189	375	681	139		20		0--40
Di-N-Octyl Phthalate	4	8	ug/Kg	<MDL	375	486	130		52--151	375	486	129		1		0--40
Benzo(b)fluoranthene	2	4	ug/Kg	139	375	566	114		10--199	375	521	102		11		0--40
Benzo(k)fluoranthene	2	4	ug/Kg	99.8	375	495	105		10--192	375	457	95		10		0--40
Benzo(a)pyrene	2	4	ug/Kg	113	375	408	79		10--200	375	466	94		17		0--40
Indeno(1,2,3-Cd)Pyrene	2	4	ug/Kg	63.3	375	375	83		10--177	375	398	89		7		0--40
Dibenzo(a,h)anthracene	2	4	ug/Kg	33.3	375	337	81		10--166	375	368	89		9		0--40
Benzo(g,h,i)perylene	2	4	ug/Kg	73.8	375	393	85		10--173	375	393	85		0		0--40
Benzyl Alcohol	2	4	ug/Kg	<MDL	375	251	67		10--138	375	189	50		29		0--40
2-Methylphenol	2	4	ug/Kg	<MDL	375	331	88		10--142	375	178	48		59	*	0--40
4-Methylphenol	4	8	ug/Kg	72.5	375	477	108		10--163	375	355	75		36		0--40
Benzoic Acid	10	20	ug/Kg	67.4	375	60.5	-2	*	10--158	375	97.1	8	*	333	*	0--40
2-Methylnaphthalene	2	4	ug/Kg	2.5	375	217	57		22--112	375	194	51		11		0--40
Dibenzofuran	2	4	ug/Kg	3.4	375	282	74		21--134	375	277	73		1		0--40
Carbazole	2	4	ug/Kg	13.3	375	328	84		16--200	375	338	86		2		0--40
Coprostanol	40	80	ug/Kg	<MDL	3750	756	20		10--183	3750	765	20		0		0--40
Caffeine	4	8	ug/Kg	<MDL	375	312	83		17--195	375	306	82		1		0--40

Total LPAHs	2	4	ug/Kg	143	2630	2080	74	50--150	2630	2010	71	4	0--40
Total HPAHS	2	4	ug/Kg	1090	3750	4730	97	50--150	3750	4530	92	5	0--40

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

LD:WG109638-5 L50382-1 Matrix: SALTWTRSED Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project:423062-020 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	Lab Limit
Phenol	40	80	ug/Kg	57	65			0--35
1,3-Dichlorobenzene	2	4	ug/Kg	<MDL	<MDL			0--35
1,4-Dichlorobenzene	2	4	ug/Kg	<MDL	<MDL			0--35
1,2-Dichlorobenzene	2	4	ug/Kg	<MDL	<MDL			0--35
Hexachloroethane	10	20	ug/Kg	<MDL	<MDL			0--35
2,4-Dimethylphenol	10	20	ug/Kg	<MDL	<MDL			0--35
1,2,4-Trichlorobenzene	1	2	ug/Kg	<MDL	<MDL			0--35
Naphthalene	20	40	ug/Kg	39	55.9	36	*	0--35
Hexachlorobutadiene	5	10	ug/Kg	<MDL	<MDL			0--35
Acenaphthylene	20	40	ug/Kg	108	78.5	32		0--35
Dimethyl Phthalate	40	80	ug/Kg	<MDL	<MDL			0--35
Acenaphthene	20	40	ug/Kg	68.2	48.2	34		0--35
Fluorene	20	40	ug/Kg	137	106	26		0--35
Diethyl Phthalate	40	80	ug/Kg	<MDL	<MDL			0--35
N-Nitrosodiphenylamine	40	80	ug/Kg	<MDL	<MDL			0--35
Hexachlorobenzene	1	2	ug/Kg	<MDL	<MDL			0--35
Pentachlorophenol	100	200	ug/Kg	<MDL	<MDL			0--35
Phenanthrene	20	40	ug/Kg	917	611	40	*	0--35
Anthracene	20	40	ug/Kg	910	481	62	*	0--35
Di-N-Butyl Phthalate	40	80	ug/Kg	42	<MDL			0--35
Fluoranthene	20	40	ug/Kg	2370	1290	59	*	0--35
Pyrene	20	40	ug/Kg	5160	3490	38	*	0--35
Benzyl Butyl Phthalate	10	20	ug/Kg	104	269	88	*	0--35
Benzo(a)anthracene	20	40	ug/Kg	2880	1160	85	*	0--35
Chrysene	20	40	ug/Kg	4460	2320	63	*	0--35
Bis(2-Ethylhexyl)Phthalate	40	80	ug/Kg	694	520	29		0--35
Di-N-Octyl Phthalate	40	80	ug/Kg	<MDL	<MDL			0--35
Benzo(b)fluoranthene	20	40	ug/Kg	5240	3150	50	*	0--35
Benzo(k)fluoranthene	20	40	ug/Kg	4940	2940	51	*	0--35
Benzo(a)pyrene	20	40	ug/Kg	4380	2930	40	*	0--35
Indeno(1,2,3-Cd)Pyrene	20	40	ug/Kg	2020	1200	51	*	0--35
Dibenzo(a,h)anthracene	20	40	ug/Kg	943	581	48	*	0--35
Benzo(g,h,i)perylene	20	40	ug/Kg	2000	1180	52	*	0--35
Benzyl Alcohol	20	40	ug/Kg	<MDL	<MDL			0--35
2-Methylphenol	20	40	ug/Kg	<MDL	<MDL			0--35
4-Methylphenol	40	80	ug/Kg	98.5	57	53	*	0--35
Benzoic Acid	100	200	ug/Kg	<MDL	<MDL			0--35
2-Methylnaphthalene	20	40	ug/Kg	24	25			0--35
Dibenzofuran	20	40	ug/Kg	33	25			0--35
Carbazole	20	40	ug/Kg	195	133	38	*	0--35
Coprostanol	400	800	ug/Kg	<MDL	<MDL			0--35
Caffeine	40	80	ug/Kg	<MDL	<MDL			0--35

Total LPAHs	20	40	ug/Kg	2200	1410	44	* 0--35
Total HPAHS	20	40	ug/Kg	34400	20200	52	* 0--35

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

SRM:WG109638-6 Matrix: SALTWTRSED Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:SED
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
Naphthalene	130	533	ug/Kg	1630	260	16		10--29
Phenanthrene	270	533	ug/Kg	5200	4040	78		51--106
Anthracene	270	533	ug/Kg	1750	711	41		28--98
Fluoranthene	270	533	ug/Kg	8800	8430	96		45--126
Pyrene	270	533	ug/Kg	9570	9020	94		36--135
Benzo(a)anthracene	270	533	ug/Kg	4660	4010	86		66--124
Chrysene	270	533	ug/Kg	4800	4980	104		77--136
Benzo(b)fluoranthene	270	533	ug/Kg	3820	3590	94		52--190
Benzo(k)fluoranthene	270	533	ug/Kg	2270	3620	160	*	60--146
Benzo(a)pyrene	270	533	ug/Kg	4240	2650	63		60--116
Indeno(1,2,3-Cd)Pyrene	270	533	ug/Kg	2740	2040	74		33--121
Dibenzo(a,h)anthracene	130	533	ug/Kg	419	240	57		10--200
Benzo(g,h,i)perylene	270	533	ug/Kg	2800	2330	83		15--120

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

Surrogate: (Lab Limits)	2,4,6-Tribromo phenol 29--112	2-Fluoro biphenyl 31--101	2-Fluoro phenol 10--112	d14-Ter phenyl 51--130	d4-1,2-Dichloro benzene 24--91	d4-2-Chloro phenol 11--105	d5-Nitro benzene 28--94	d5-Phenol 10--106
L50382-1	84	62	35	110	55	45	56	41
L50382-2	68	61	42	90	43	32	40	32
L50382-3	71	67	57	125	51	63	104 *	67
L50382-4	69	66	76	111	44	48	58	52
L50382-5	83	60	53	92	52	59	70	54
L50382-6	80	60	41	90	37	34	43	36
L50382-7	72	59	38	83	40	42	50	46
L50382-8	82	61	70	97	56	62	81	64
L50382-9	73	61	51	88	52	43	56	40
L50382-10	71	60	80	84	45	50	65	48
L50382-11	83	53	47	91	43	50	60	47
L50382-12	81	53	38	86	36	28	33	27
L50382-13	77	58	41	89	36	29	28	27
L50382-14	84	57	48	97	59	53	77	43
L50382-15	72	64	42	93	49	47	50	50
L50382-16	78	65	56	90	54	45	55	39
L50382-17	71	57	45	79	47	37	42	38
WG109638-1	25 *	43	18	81	36	20	36	23
WG109638-2	78	56	42	86	74	38	41	37
WG109638-3	75	64	43	83	62	47	30	59
WG109638-4	79	61	40	86	55	40	32	42
WG109638-5	75	40	44	88	48	46	68	42
WG109638-6	87	75	50	105	49	64	74	71

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

Workgroup: WG109588 PCB

MB:WG109588-1 Matrix: OTHR SOLID Listtype:ORPCBLL Method:SW846 3550B*SW846 8082A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Aroclor 1016	1	2	ug/Kg	<MDL	
Aroclor 1221	2	4	ug/Kg	<MDL	
Aroclor 1232	2	4	ug/Kg	<MDL	
Aroclor 1242	1	2	ug/Kg	<MDL	
Aroclor 1248	1	2	ug/Kg	<MDL	
Aroclor 1254	1	2	ug/Kg	<MDL	
Aroclor 1260	1	2	ug/Kg	<MDL	
Total Aroclors	1	2	ug/Kg	<MDL	

SB:WG109588-5 MB:WG109588-1 Matrix: OTHR SOLID Listtype:ORPCBLL Method:SW846 3550B*SW846 8082A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Aroclor 1016	1	2	ug/Kg	<MDL	30	20	67		39--121
Aroclor 1260	1	2	ug/Kg	<MDL	30	27.8	93		53--140

MSD:WG109588-7 MS:WG109588-6 L50382-11 Matrix: SALTWTRSED Listtype:ORPCBLL Method:SW846 3550B*SW846 8082A Project:423062-030 Pkey:SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Aroclor 1016	1	2	ug/Kg	<MDL	30	19.5	65		32--164	30	19.7	66		2		0--35
Aroclor 1260	1	2	ug/Kg	1.3	30	22.5	71		28--144	30	24.3	77		8		0--35

LD:WG109588-8 L50382-8 Matrix: SALTWTRSED Listtype:ORPCBLL Method:SW846 3550B*SW846 8082A Project:423062-020 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	Lab Limit
Aroclor 1016	28	56	ug/Kg	<MDL	<MDL			0--35
Aroclor 1221	8	16	ug/Kg	<MDL	<MDL			0--35
Aroclor 1232	60	120	ug/Kg	<MDL	<MDL			0--35
Aroclor 1242	80	160	ug/Kg	<MDL	<MDL			0--35
Aroclor 1248	1	2	ug/Kg	46.5	56	18		0--35
Aroclor 1254	1	2	ug/Kg	107	129	18		0--35
Aroclor 1260	1	2	ug/Kg	49.3	63.3	25		0--35
Total Aroclors	1	2	ug/Kg	194	248	24		0--35

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

SRM:WG109588-9 Matrix: OTHR SOLID Listtype:ORPCBLL Method:SW846 3550B*SW846 8082A Project: Pkey:STD
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
Aroclor 1254	2.7	5.33	ug/Kg	112	99	89		57--139

Surrogate: (Lab Limits)	2,4,5,6-Tetra chloro m-xylene 10--118	Decachlor o biphenyl 12--158
L50382-1	66	59
L50382-2	59	73
L50382-3	59	93
L50382-4	62	88
L50382-5	62	71
L50382-6	55	76
L50382-7	59	80
L50382-8	56	97
L50382-9	56	79
L50382-10	67	105
L50382-11	52	72
L50382-12	56	82
L50382-13	58	81
L50382-14	68	71
L50382-15	57	80
L50382-16	56	81
L50382-17	61	85
WG109588-1	37	88
WG109588-5	48	83
WG109588-6	52	70
WG109588-7	49	79
WG109588-8	58	81
WG109588-9	60	89

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

Workgroup: WG109608 Pesticides

MB:WG109608-1 Matrix: OTHR SOLID Listtype:ORPESTSMS Method:SW846 3550B*SW846 8081B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
4,4'-DDD	1	2	ug/Kg	<MDL	
4,4'-DDE	1	2	ug/Kg	<MDL	
4,4'-DDT	1	2	ug/Kg	<MDL	

SB:WG109608-2 MB:WG109608-1 Matrix: OTHR SOLID Listtype:ORPESTSMS Method:SW846 3550B*SW846 8081B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
4,4'-DDD	1	2	ug/Kg	<MDL	10	10.5	105		78--121
4,4'-DDE	1	2	ug/Kg	<MDL	10	10.3	103		75--111
4,4'-DDT	1	2	ug/Kg	<MDL	10	12.4	124		57--145

MSD:WG109608-4 MS:WG109608-3 L50382-5 Matrix: SALTWTRSED Listtype:ORPESTSMS Method:SW846 3550B*SW846 8081B Project:423062-020 Pkey:SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
4,4'-DDD	1	2	ug/Kg	1.8	10	10.8	90		41--157	10	9.48	77		16		0--35
4,4'-DDE	1	2	ug/Kg	<MDL	10	10.3	103		59--125	10	8.33	83		22		0--35
4,4'-DDT	1	2	ug/Kg	1.1	10	11.5	104		50--144	10	8.63	75		32		0--35

LD:WG109608-5 L50382-8 Matrix: SALTWTRSED Listtype:ORPESTSMS Method:SW846 3550B*SW846 8081B Project:423062-020 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	Lab Limit
4,4'-DDD	1	2	ug/Kg	7.54	6.03	22		0--35
4,4'-DDE	1	2	ug/Kg	3.2	2.47	26		0--35
4,4'-DDT	1	2	ug/Kg	3.43	2.77	21		0--35

SRM:WG109608-6 Matrix: OTHR SOLID Listtype:ORPESTSMS Method:SW846 3550B*SW846 8081B Project: Pkey:STD
(Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit
4,4'-DDT	5.3	10.7	ug/Kg	119	138	116		10--200

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

MB:WG109608-7 Matrix: OTHR SOLID Listtype:ORPESTSMS Method:SW846 3550B*SW846 8081B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
4,4'-DDD	1	2	ug/Kg	<MDL	
4,4'-DDE	1	2	ug/Kg	<MDL	
4,4'-DDT	1	2	ug/Kg	<MDL	

SB:WG109608-8 MB:WG109608-7 Matrix: OTHR SOLID Listtype:ORPESTSMS Method:SW846 3550B*SW846 8081B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
4,4'-DDD	1	2	ug/Kg	<MDL	10	8.63	86		78--121
4,4'-DDE	1	2	ug/Kg	<MDL	10	9.09	91		75--111
4,4'-DDT	1	2	ug/Kg	<MDL	10	9.41	94		57--145

King County Environmental Laboratory Analytical QC Report

Denny Way Sediment Remediation
L50382

Surrogate: (Lab Limits)	2,4,5,6-Tetra chloro m-xylene 10--118	Decachlor o biphenyl 12--168
L50382-1	86	83
L50382-2	73	113
L50382-3	82	111
L50382-4	80	101
L50382-5	85	110
L50382-6	84	96
L50382-7	87	106
L50382-8	83	113
L50382-9	87	104
L50382-10	91	95
L50382-11	76	96
L50382-12	84	91
L50382-13	82	86
L50382-14	95	90
L50382-15	79	89
L50382-16	85	87
L50382-17	88	91
WG109608-1	56	108
WG109608-2	99	184 *
WG109608-3	89	110
WG109608-4	73	85
WG109608-5	72	107
WG109608-6	68	177 *
WG109608-7	63	87
WG109608-8	64	95

CHAIN OF CUSTODY FORMS

Login: P50382

DENNY WAY SEDIMENTS - 2010

Personnel: MP, BK, CB, JDD, Alan, Valerie

Project: 423062-020

CHAIN OF CUSTODY

RELINQUISHED BY	Date	Time
	4/5/10	1615
RECEIVED BY	Date	Time
	4-5-10	1615
Sample Number(s)		(All)
50382 3,8-11,15-16		

SAMPLENUM	P50382-1	P50382-2	P50382-3
QC LINK			
LOCATOR	DWMP-01	DWMP-02	DWMP-03
Short Loc. Desc.	T_DN_CHEM06-1	T_DN_CHEM06-2	T_DN_CHEM06-3
Locator Desc	DENNY WAY MONITORING PROJECT 01	DENNY WAY MONITORING PROJECT 02	DENNY WAY MONITORING PROJECT 03
SITE	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
COMMENTS	0-10 cm, 3 grab COMP	0-10 cm, 3 grab COMP	0-10 cm, 3 grab COMP
Start Date/Time	4/6/10 0900	→ 1115	4/5/10 / 1355
End Date/Time			
Time Span			
Sample Depth	9	13	17
PERSONNEL	SH, AF, BK, JDD	→	MP, CB, JDD, BK, Allen, Val
SAMP METH	20143	→	→
SED DEPTH	~~12~~, 12, 17, 12	~~0-10~~ 10, 10 11, 11	17, 17, 17
SED SAMP RANGE	0-10	0-10	
SED TYPE	~~25W21~~ 23W36	~~23~~ 21S31	23W21
TIDE COND	F	S	E
TIDE HT	7.8	8.2	3.5
Dept. Matrix Prod	3 SF NH3-KCL 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS	3 SF NH3-KCL 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS	3 SF NH3-KCL 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS

Add'l Samp -10 -11 -14

FS=WG-108459

CHEM COORD - WG-108779

CHAIN OF CUSTODY

RELINQUISHED BY	Date	Time
	4/6/10	1405
RECEIVED BY	Date	Time
	4/6/10	1405
Sample Number(s)		(All)
1, 2, 4-7, 11, 12, 13, ~~16~~ 17		

CHAIN OF CUSTODY

RELINQUISHED BY	Date	Time
RECEIVED BY	Date	Time
Sample Number(s)		(All)

Login: P50382 DENNY WAY SEDIMENTS - 2010 Personnel:_____

Project: 423062-020

SAMPLENUM	P50382-4	P50382-5	P50382-6
QC LINK			
LOCATOR	DWMP-04	DWMP-05	DWMP-06
Short Loc. Desc.	T_DN_CHEM06-4	T_DN_CHEM06-5	T_DN_CHEM06-6
Locator Desc	DENNY WAY MONITORING PROJECT 04	DENNY WAY MONITORING PROJECT 05	DENNY WAY MONITORING PROJECT 06
SITE	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
COMMENTS	0-10 cm, 3 grab COMP	0-10 cm, 3 grab COMP	0-2 cm, 3 grab COMP
Start Date/Time	4/6/10 1130	4/6/10 0850	→ 1100
End Date/Time		difficult to sample. accepted <11cm grabs	
Time Span			
Sample Depth	25	5	21
PERSONNEL	←	SH, AF, BK, JDD	→
SAMP METH	20143 (SH)	→	→
SED DEPTH	17, 15, ~~10~~ 11	6, 7, 6	17, 17, 17
SED SAMP RANGE	0-10	0-10	0-2
SED TYPE	21N31	32S21	23D21
TIDE COND	S	F	S
TIDE HT	8.1	7.8	8.3
Dept. Matrix Prod	3 SF NH3-KCL 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS	3 SF NH3-KCL 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS	3 SF NH3-KCL D - decaying leaves 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS

decaying leaves on surface - black streaks in grabs - some clay in bottom portion of one

SAMPLENUM	P50382-7	P50382-8	P50382-9
QC LINK			
LOCATOR	DWMP-07	DWMP-08	DWMP-08
Short Loc. Desc.	T_DN_CHEM06-7	T_DN_CHEM06-8	T_DN_CHEM06-9
Locator Desc	DENNY WAY MONITORING PROJECT 07	DENNY WAY MONITORING PROJECT 08	DENNY WAY MONITORING PROJECT 08
SITE	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
COMMENTS	0-2 cm, 3 grab COMP	0-2 cm, 3 grab COMP	0-10 cm, 3 grab COMP
Start Date/Time	4/6/10 1038	4/5/10 / 1230	4/5/10 / 1213
End Date/Time			
Time Span			
Sample Depth	29	26	26
PERSONNEL	SH, BK, AF, JDD	MP, CD, JDD, BG, Mlcon, Val	→
SAMP METH	20(Y3)	→	→
SED DEPTH	0-2 cm	12,13,17	15,13,17
SED SAMP RANGE	11,11,12	0-2	0-10
SED TYPE	23N21	23W21	21W21
TIDE COND	S	E	E
TIDE HT	8.3	6.1	6.8
Dept. Matrix Prod			
	3 SF NH3-KCL	3 SF NH3-KCL	3 SF NH3-KCL
	3 SF PSD	3 SF PSD	3 SF PSD
	3 SF TOC	3 SF TOC	3 SF TOC
	3 SF TOTS	3 SF TOTS	3 SF TOTS
	3 SF TOTSULFIDE	3 SF TOTSULFIDE	3 SF TOTSULFIDE
	6 SF AG-ICP	6 SF AG-ICP	6 SF AG-ICP
	6 SF AS-ICP	6 SF AS-ICP	6 SF AS-ICP
	6 SF CD-ICP	6 SF CD-ICP	6 SF CD-ICP
	6 SF CR-ICP	6 SF CR-ICP	6 SF CR-ICP
	6 SF CU-ICP	6 SF CU-ICP	6 SF CU-ICP
	6 SF HG-CVAA-H	6 SF HG-CVAA-H	6 SF HG-CVAA-H
	6 SF PB-ICP	6 SF PB-ICP	6 SF PB-ICP
	6 SF ZN-ICP	6 SF ZN-ICP	6 SF ZN-ICP
	7 SF BNASMS	7 SF BNASMS	7 SF BNASMS
	7 SF PCBLL	7 SF PCBLL	7 SF PCBLL
	7 SF PESTSMS	7 SF PESTSMS	7 SF PESTSMS

Login: P50382 DENNY WAY SEDIMENTS - 2010 Personnel:_____

Project: 423062-020

SAMPLENUM	P50382-10	P50382-11	P50382-12
QC LINK			
LOCATOR	DWMP-09	DWMP-10	DWMP-11
Short Loc. Desc.	T_DN_CHEM06-10	T_DN_CHEM06-11	T_DN_CHEM06-12
Locator Desc	DENNY WAY MONITORING PROJECT 09	DENNY WAY MONITORING PROJECT 10	DENNY WAY MONITORING PROJECT 11
SITE	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
COMMENTS	0-2 cm, 3 grab COMP	0-10 cm, 3 grab COMP	0-2 cm, 3 grab COMP
Start Date/Time	4/5/10 / 1250	4/5/10 / 1315	4/6/10 1020
End Date/Time			
Time Span			
Sample Depth	30	6	22
PERSONNEL	MP, CB, JDD, RM, Allen, Val	→	SH, AF, BK, JDD
SAMP METH	20143	→	→
SED DEPTH	17, 17, 17	9, 7, 9	17, 14, 15
SED SAMP RANGE	0-2	0-10	0-20cm
SED TYPE	~~20~~ 21N21	35P21	23N21
TIDE COND	E	E	F
TIDE HT	5.6	4.9	8.3
Dept. Matrix Prod	3 SF NH3-KCL 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS	3 SF NH3-KCL 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS	3 SF NH3-KCL 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS

very difficult site- Rocky many washouts

Login: P50382 DENNY WAY SEDIMENTS - 2010 Personnel:_____

Project: 423062-020

SAMPLENUM	P50382-13	P50382-14	P50382-15
QC LINK			
LOCATOR	DWMP-12	DWMP-13	DWMP-14
Short Loc. Desc.	T_DN_CHEM06-13	T_DN_CHEM06-14	T_DN_CHEM06-15
Locator Desc	DENNY WAY MONITORING PROJECT 12	DENNY WAY MONITORING PROJECT 13	DENNY WAY MONITORING PROJECT 14
SITE	SEATTLE WATERFRONT	SEATTLE WATERFRONT	SEATTLE WATERFRONT
COMMENTS	0-2 cm, 3 grab COMP	0-10 cm, 3 grab COMP	0-10 cm, 3 grab COMP
Start Date/Time	4/6/10 1005	4/6/10 0918	4/5/10 / ~~0945~~ 1010
End Date/Time			
Time Span		Difficult to sample 05m accepted <11cm	
Sample Depth	30		15
PERSONNEL	←	SH, AF, BK, JPD	
SAMP METH	20[4]	→	→
SED DEPTH	17, 17, 17	8, 9, 8	~~12.5, 13, 12~~ 14, 17, 15
SED SAMP RANGE	0-2cm	0-10	0-10
SED TYPE	23N21	23S21	~~14, N5~~ 20W21
TIDE COND	S	F	S
TIDE HT	8.2	7.9	8.8
Dept. Matrix Prod	3 SF NH3-KCL 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS	3 SF NH3-KCL 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS	3 SF NH3-KCL 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS

Project: 423062-020

SAMPLENUM	P50382-16	P50382-17	
QC LINK			
LOCATOR	DWMP-15	DWMP-16	
Short Loc. Desc.	T_DN_CHEM06-16	T_DN_CHEM06-17	
Locator Desc	DENNY WAY MONITORING PROJECT 15	DENNY WAY MONITORING PROJECT 16	
SITE	SEATTLE WATERFRONT	SEATTLE WATERFRONT	
COMMENTS	0-10 cm, 3 grab COMP	0-10 cm, 3 grab COMP	
Start Date/Time	4/5/10 / 0945	4/6/10 0950	
End Date/Time			
Time Span			
Sample Depth	24	28	
PERSONNEL	MP, CB, JOD, DM, Alex, Val	SH, AF, BK, JDD	
SAMP METH	20143	(SH) →	
SED DEPTH	12.5, 13, 12	~~15~~, 15 17, 17, 17	
SED SAMP RANGE	0-10	0-10 cm	
SED TYPE	14N31	12N31	
TIDE COND	S	S	
TIDE HT	9.0	8.1	
Dept. Matrix Prod	3 SF NH3-KCL 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS	3 SF NH3-KCL 3 SF PSD 3 SF TOC 3 SF TOTS 3 SF TOTSULFIDE 6 SF AG-ICP 6 SF AS-ICP 6 SF CD-ICP 6 SF CR-ICP 6 SF CU-ICP 6 SF HG-CVAA-H 6 SF PB-ICP 6 SF ZN-ICP 7 SF BNASMS 7 SF PCBLL 7 SF PESTSMS	

LABORATORY WORK ORDER
Chain of Custody

King County Department of Natural Resources
Water and Land Resources Division
Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507

Project Name: Denny Way Post-construction Subtidal Sediments
Project Number: 423062 020 and 030
Laboratory Project Manager: Fritz Grothkopp/Bob Kruger
Telephone Number: 684 2327/2323

Note: Use only one Login No. per sheet. Sample Number	Client Locator	Collect Date		TOC/TOTS/TVS	NH3-KCL	TOTSULFIDE	PSD	Metals + HG-CVAA-H		BNASMS/PESTSMS/PCBLL	VOA-GC/MS-LOWSED							Number of Containers	Comments
L 50382 - 3	Dump-03	4/5/10		X	X	X	X	X		X	X							7	
L 50382 - 8	Dump-08	4/5/10		X	X	X	X	X		X	X							6	
L 50382 - 9	Dump-08	4/5/10		X	X	X	X	X		X	X							6	
L 50382 - 10	Dump-09	4/5/10		X	X	X	X	X		X	X							6	
L 50382 - 11	Dump-10	4/5/10		X	X	X	X	X		X	X							6	
L 50382 - 15	Dump-14	4/5/10		X	X	X	X	X		X	X							6	
L 50382 - 16	Dump-15	4/5/10		X	X	X	X	X		X	X							6	
L -																			
L -																			
L -																			
L -																			

Analyses

Additional Comments:

Total Number of Containers 43

Sampled By:

Relinquished By:
Signature
Printed Name Bob Kruger
Organization King County Environmental Laboratory
Date 4/5/10
Time 1615

Received By:
Signature
Printed Name Jason Kinnard
Organization King County Environmental Laboratory
Date 4-5-10
Time 1615

LABORATORY WORK ORDER
Chain of Custody

King County Department of Natural Resources
Water and Land Resources Division
Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507

Project Name: Denny Way Post-construction Subtidal Sediments
Project Number: 423062 020 and 030
Laboratory Project Manager: Fritz Grothkopp/Bob Kruger
Telephone Number: 684 2327/2323

Note: Use only one Login No. per sheet. Sample Number	Client Locator	Collect Date		TOC/TOTS/TVS	NH3-KCL	TOTSULFIDE	PSD	Metals + HG-CVAA-H		BNASMS/PESTSMS/PCBLL	VOA-GC/MS-LOWSED							Number of Containers	Comments
L 50382-1	DWMP-01	4/6/10		X	X	X	X	X		X								6	
L 50382-2	DWMP-02	4/6/10		X	X	X	X	X		X								6	
L 50382-4	DWMP-04	4/6/10		X	X	X	X	X		X								6	
L 50382-5	DWMP-05	4/6/10		X	X	X	X	X		X								6	
L 50382-6	DWMP-06	4/6/10		X	X	X	X	X		X								6	
L 50382-7	DWMP-07	4/6/10		X	X	X	X	X		X								6	
L 50382-12	DWMP-11	4/6/10		X	X	X	X	X		X								6	
L 50382-13	DWMP-12	4/6/10		X	X	X	X	X		X								6	
L 50382-14	DWMP-13	4/6/10		X	X	X	X	X		X								6	
L 50382-17	DWMP-16	4/6/10		X	X	X	X	X		X								6	
L 50382-DU																			

Analyses

Additional Comments:

Total Number of Containers 68

Sampled By:

Relinquished By:		Received By:	
Signature	Date 4/6/10	Signature	Date 4-6-10
Printed Name Stephanie Hess	Time 1405	Printed Name Jason Kinnard	Time 1405
Organization King County Environmental Laboratory		Organization King County Environmental Laboratory	

KING COUNTY ENVIRONMENTAL LABORATORY
QUALITY ASSURANCE REVIEW

For

Elliott West CSO Treatment Facility and Denny Way CSO
Post-Operation Sediment Monitoring
Year Ten

Areas C, D and E Monitored Natural Recovery
Year Twelve

April 2015

Prepared by:

Fritz Grothkopp
Laboratory Project Manager

Date: Sept 11, 2015

Reviewed by:

Colin Elliott
Quality Assurance Officer

Date: Sept. 16, 2015

King County Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507
(206) 684-2300

INTRODUCTION

This quality assurance (QA) narrative is intended to document the QA review conducted on the chemistry analyses performed for the Elliott West CSO Treatment Facility and Denny Way CSO, Post-Operation Sediment Monitoring and the Areas C, D and E Monitored Natural Recovery. The QA narrative is organized into the five sections listed below.

- General Comments
- Sample Collection
- Conventional Analyses
- Metal Chemistry
- Organic Chemistry

An overview of the approach used for the QA review is detailed in the *General Comments* section. Additional information specific to each analysis is included in the appropriate analytical section.

This QA review and narrative (specifically defined as QA1) have been conducted in accordance with guidelines established through the Puget Sound Dredged Disposal Analysis (PSDDA) program, Sediment Management Standards (WAC 173-204-610) and the Sediment Sampling and Analysis Appendix (SAPA), WDOE 2008. Other approaches incorporated in the QA review have been established through collaboration between the King County Environmental Laboratory (KC Laboratory) and the Washington State Department of Ecology (Ecology) Sediment Management Unit.

GENERAL COMMENTS

Scope of Samples Submitted
This QA review is associated with marine sediment samples collected on April 8 & 9, 2015 as part of the Elliott West CSO Treatment Facility and Denny Way CSO, Post-Operation Sediment Monitoring and the Areas C, D and E Monitored Natural Recovery.

Except where noted in the subcontracting sections of this QA review, all analyses have been conducted by the King County Environmental Laboratory (KCEL). Sediment analytical data are reported with associated data qualifiers and have undergone QA1 review, as summarized in this narrative report.

Completeness
Completeness has been evaluated for this data submission and QA review by considering the following criteria:

- Comparing reported data to the planned project analyses summarized in Table 1.
- Compliance with storage conditions and holding times.
- Frequency of analysis of the complete set of quality control (QC) samples outlined in Table 2.

Subcontracted Analyses
Analyses that have been subcontracted and the issues associated with these subcontracted analyses are noted in this narrative.

Methods
Analytical methods are noted in the applicable analytical sections of this QA review.

Target Lists
The reported target lists have been compared to the target analytes listed in *Table III - Marine Sediment Cleanup Objectives and Cleanup Screening Levels Chemical Criteria* contained in Chapter 173-204 WAC (February 2013).

Detection Limits
As part of the QA1 review, the detection limits reported for each parameter have been reviewed against the detection limit requirements defined in the SAP. When sample results have been reported as less than the Method Detection Limit (<MDL) and the associated detection limits are higher than those defined in the SAP, the particular samples and parameters have been identified and the circumstances explained. These summaries are included with each analytical section of this QA review.

The KC Laboratory reports include both the reporting detection limit (RDL) and the method detection limit (MDL) for each sample and parameter, where applicable. The RDL is defined as *the minimum concentration of a chemical constituent that can be reliably quantified while t*he MDL is defined as *the minimum concentration of a chemical constituent that can be detected*. Some subcontracted laboratory data are available with an MDL only, in accordance with the subcontracting laboratory policies. For some methods the detection limits reported may vary from sample to sample depending on the amount of sample analyzed and any additional dilutions required.

Storage Conditions and Holding Times
Storage conditions and holding times have been evaluated using guidelines defined in the project SAP. Preparation and analysis holding times for each method are summarized in each analytical section.

Method Blanks

Method blank results have been used to evaluate the possible laboratory contamination of samples. Method blank results have been reviewed for the presence of analytes detected at or greater than the MDL. For analytes where the method blank response was at or above the MDL all associated sample results have been qualified with a B flag based on the rules below.

1. Add a "B" flag to all parameters if the associated blank is ≥ the MDL and the sample result is ≥ MDL but ≤ 5 times the blank.
2. Add a "B2" flag to common organic lab contaminants (Acetone, 2-Butanone, Methylene Chloride, Bis (2-ethylhexyl) Phthalate, Butyl Benzyl Phthalate and Di-n-butyl Phthalate) if the method blank is ≥ the MDL and the sample result is > 5 and ≤ 10 times the blank.
3. Add a "B3" flag to all other parameters if the associated blank is ≥ the MDL and the sample result is > 5 and ≤ 10 times the blank.

Standard Reference Materials

Standard reference material (SRM) recoveries have been used to evaluate possible low or high analytical bias on a batch-specific basis. SRM analysis is included with metals and selected organic and conventional parameters (see Table 2). SRMs are purchased from outside agencies (NIST or NRCC) and must have a certified analyte value in order for a particular parameter to be evaluated. All associated sample results for the certified analytes are flagged if the SRM recoveries are unacceptable. Associated sample results may be flagged with a JL whenever recoveries are measured above the acceptance limits and may be flagged with a JG when recoveries are measured below the acceptance limits.

Matrix Spikes

Matrix spike recoveries have been used to evaluate possible low or high analytical bias on a matrix and batch-specific basis. Matrix spikes are analyzed with metals, organics and selected conventionals parameters (see Table 2). Associated sample results may be flagged with a JL whenever recoveries are measured above the acceptance limits and may be flagged with a JG when recoveries are measured below the acceptance limits (but at or above 10%).

For Metals only, matrix spike recovery results are used to qualify sample data only when the sample levels in the spiked sample are less than 4 times the spiked concentration. High sample levels relative to the spiked concentration can compromise the measurement of accurate spike recoveries.

Laboratory Replicate Samples

Replicate analysis (laboratory duplicates or triplicates) is used as an indicator of method precision and is used to qualify data on an analyte and batch-specific basis. Not all replicate data are used, however, as an indicator for data qualification. Only sets of replicate results which include at least one result greater than the RDL are considered for data qualification. These guidelines have been used to account for the fact that precision obtained near the detection limit is not representative of precision obtained throughout the entire analytical range. Associated results may be flagged with a J whenever the measured precision is unacceptable (greater than the acceptance limit).

Surrogates

Surrogate recoveries have been used to evaluate possible low or high analytical bias on a sample-specific basis. Surrogates are only analyzed for organic parameters. Individual sample results may be flagged with a JL whenever recoveries are measured above the acceptance limits and may be flagged with a JG when recoveries are measured below the acceptance limits (but at or above 10%).

Data Qualifiers

The data qualification guidelines described above has been summarized in Table 3. This table conforms to the guidelines in the 2008 SAPA and also shows the data qualifiers used for the Washington Dept of Ecology EIM electronic data format.

Units and Significant Figures

Units and the reporting basis vary, depending on the parameter and are explained in the analytical sections below. Data generally have been reported to three significant figures if above the RDL and two significant figures if equal to or below the RDL.

SAMPLE COLLECTION

This section describes sampling activities associated with the collection of 16 marine sediment samples on April 8 & 9, 2015. All sampling activities were conducted following guidance suggested in the Puget Sound Protocols (PSEP, 1996 and 1998).

Sampling Locations and Station Positioning

Sampling locations (stations) were selected and the prescribed coordinates determined prior to field activities. Stations were selected to match existing stations from the Pre-Construction monitoring program. The prescribed station coordinates are presented in the following table. Also presented in the table are the actual coordinates recorded during sampling activities. All station coordinates are recorded in state plane coordinate system North American Datum 1983 (NAD83).

DENNY WAY CHEM. SEDIMENT GRAB SAMPLING POINTS, April 2015

Lab Number	Locator	Cast #	# Grabs	Prescribed Northing	Actual Northing	Prescribed Easting	Actual Easting	Offset (m)
L62484-1	DWMP-01	2	1	228813	228812	1264047	1264047	0.3
L62484-1	DWMP-01	3	2	228813	228810	1264047	1264049	1.1
L62484-2	DWMP-02	1	2	228770	228770	1263919	1263919	0.0
L62484-2	DWMP-02	2	1	228770	228765	1263919	1263918	1.6
L62484-3	DWMP-03	1	2	228638	228643	1263846	1263841	2.2
L62484-3	DWMP-03	2	1	228638	228632	1263846	1263838	3.0
L62484-4	DWMP-04	1	1	228546	228543	1263631	1263636	1.8
L62484-4	DWMP-04	2	1	228546	228539	1263631	1263631	2.1
L62484-4	DWMP-04	3	1	228546	228546	1263631	1263630	0.3
L62484-5	DWMP-05	1	1	229041	229047	1263836	1263835	1.9
L62484-5	DWMP-05	5	1	229041	229041	1263836	1263834	0.6
L62484-5	DWMP-05	6	1	229041	229039	1263836	1263843	2.2
L62484-6	DWMP-06	1	2	228839	228834	1263542	1263550	2.9
L62484-6	DWMP-06	2	1	228839	228834	1263542	1263552	3.4
L62484-7	DWMP-07	1	2	228660	228662	1263350	1263345	1.6
L62484-7	DWMP-07	2	1	228660	228661	1263350	1263340	3.1
L62484-8	DWMP-08	2	1	228907	228910	1263341	1263339	1.1
L62484-8	DWMP-08	3	2	228907	228907	1263341	1263332	2.7
L62484-9	DWMP-09	1	1	228806	228804	1263215	1263221	1.9
L62484-9	DWMP-09	2	1	228806	228806	1263215	1263217	0.6
L62484-9	DWMP-09	3	1	228806	228810	1263215	1263216	1.3
L62484-10	DWMP-10	1	1	229326	229322	1263565	1263572	2.5
L62484-10	DWMP-10	2	2	229326	229325	1263565	1263556	2.8
L62484-11	DWMP-11	1	2	229156	229161	1263272	1263279	2.6
L62484-11	DWMP-11	2	1	229156	229150	1263272	1263279	2.8
L62484-12	DWMP-12	1	2	228963	228974	1263055	1263063	4.1
L62484-12	DWMP-12	2	2	228963	228967	1263055	1263048	2.5
L62484-13	DWMP-13	1	1	229640	229638	1263317	1263326	2.8
L62484-13	DWMP-13	2	1	229640	229641	1263317	1263314	1.0
L62484-13	DWMP-13	3	1	229640	229642	1263317	1263315	0.9
L62484-14	DWMP-14	2	1	229553	229555	1263228	1263230	0.9
L62484-14	DWMP-14	3	2	229553	229542	1263228	1263234	3.8
L62484-15	DWMP-15	2	1	229444	229452	1263053	1263055	2.5
L62484-15	DWMP-15	3	2	229444	229451	1263053	1263054	2.2
L62484-16	DWMP-16	1	2	229353	229349	1262966	1262966	1.2
L62484-16	DWMP-16	2	1	229353	229353	1262966	1262976	3.0

Sediment grab samples were collected from the King County research vessel *Liberty*, which is equipped with a differential global positioning system (DGPS). Field coordinates were recorded using DGPS for each deployment of the tandem grab samplers as they contacted the sediment.

All field coordinates for individual casts listed in the above table are within the +/- 6 meter accuracy limits as defined in the SAP.

Sample Description Table

Lab Sample #	Locator	Sample Collection	Sub Sample Depth (cm)	Average Sediment Sampling Depth (cm)	Sample Usage
L62484-1	DWMP-01	Surface Grabs	0 - 10	15	Chemistry
L62484-2	DWMP-02	Surface Grabs	0 - 10	11	Chemistry
L62484-3	DWMP-03	Surface Grabs	0 - 10	15	Chemistry
L62484-4	DWMP-04	Surface Grabs	0 - 10	14	Chemistry
L62484-5	DWMP-05	Surface Grabs	0 - 6	7	Chemistry
L62484-6	DWMP-06	Surface Grabs	0 - 10	17	Chemistry
L62484-7	DWMP-07	Surface Grabs	0 - 10	17	Chemistry
L62484-8	DWMP-08	Surface Grabs	0 - 10	17	Chemistry
L62484-9	DWMP-09	Surface Grabs	0 - 10	17	Chemistry
L62484-10	DWMP-10	Surface Grabs	0 - 5	6	Chemistry
L62484-11	DWMP-11	Surface Grabs	0 - 10	14	Chemistry
L62484-12	DWMP-12	Surface Grabs	0 - 10	17	Chemistry
L62484-13	DWMP-13	Surface Grabs	0 - 6	7	Chemistry
L62484-14	DWMP-14	Surface Grabs	0 - 10	16	Chemistry
L62484-15	DWMP-15	Surface Grabs	0 - 10	13	Chemistry
L62484-16	DWMP-16	Surface Grabs	0 - 10	17	Chemistry

Sample Collection

Sediment was collected at each station using two, stainless steel, modified, 0.1 m^2 Van Veen grab samplers deployed in tandem via hydrowire. For each acceptable deployment, between 6-17 cm of sediment was recovered, allowing sub-sampling from the top 10 cm. For samples L62484-5, -10 and -13, less than 10 cm was collected in the Van Veen, therefore less than 10 cm was subsampled for analysis. Multiple sampler deployments were needed to collect sufficient sample volume to perform all chemistry analyses.

Water depth at the 16 subtidal cap sample stations ranged between 4 and 31 meters (not corrected for tide).

Sample Handling

At each station, approximately equal amounts of sediment from top 10 cm were subsampled from the separate grabs by using a large stainless steel spoon. These aliquots were placed into a stainless steel compositing bowl, covered with foil between grab deployments. After all aliquots had been collected for that station, the sediment within the bowl was thoroughly homogenized and split out into pre-labeled containers. Sample containers were supplied by the King County Environmental Laboratory and were pre-cleaned according to analytical specifications.

Decontamination

Individual sets of the compositing bowls and sub-sampling and mixing equipment were dedicated to each station, precluding the need for decontamination of this field gear. The Van Veen grab samplers were decontaminated between stations by scrubbing with a brush, and ambient seawater, followed by a thorough *in situ* rinsing.

Sample Storage and Preservation

All samples were stored in ice-filled coolers from the time of collection until delivery to the King County Environmental Laboratory. They were delivered under chain-of-custody and were maintained as such throughout the analytical process. These samples were stored frozen (-18°C) by the laboratory until analysis with the exception of samples for particle size distribution (PSD) and Total Sulfide analysis. For these two methods, samples were stored refrigerated at approximately 4°C. Total Sulfide samples were preserved in the field using Zinc Acetate. A more complete description of sample handling and storage can be found in each analytical chemistry section of this narrative.

Copies of chain-of-custody forms and field notes are included as an appendix to this QA review narrative. The collect time is defined as that time that sampling commences at each station.

CONVENTIONAL ANALYSES

Completeness
Conventional data are reported for all samples and parameters summarized in Table 1. These samples were analyzed in association with the complete set of QC samples outlined in Table 2.

Subcontracted Analyses
All analyses were performed at the King County Environmental Lab.

Methods
Ammonia analysis was performed in accordance with Kerouel and Aminot 1997 following a KCl extraction (Plumb, 1981). PSD analysis was performed in accordance with ASTM D422 and Puget Sound Protocols methodologies (*Recommended Protocols for Measuring Conventional Sediment Variables in Puget Sound* – page 9 – PSEP, 1986). TOC analysis was performed in accordance with EPA 9060 and PSEP 1996. Total solids analyses were performed in accordance with SM2540-G. Total sulfide analysis was performed in accordance with EPA 9030B / SM4500S2-D and Plumb, 1981.

Detection Limits
The detection limits (MDLs) reported for Conventionals parameters are all within the requirements defined in the SAP, except for the following:

Parameter (mg/Kg)	Sample ID#	SAP MDL (wet wt.)	Reported MDL (wet wt.)	Reason for higher MDL Value
Total Sulfide	L62484-1, 4, 5, 8-16	0.5	(1)	Sample dilutions and totals solids values below 50%.
Total Organic Carbon	L62484-1 – 16	500	(1)	Reduced sample size analyzed and totals solids values below 50%.
PSD	L62484-1 - 17	0.1 and 0.5	(1)	Reduced mass amounts and Totals solids values below 50%.

(1) See attached SAP MDL Comparison table
In all cases where the reported MDL was higher than the SAP MDL, a detectable level was measured, therefore project objectives were met.

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied. This may not apply to subcontracted data.

In the Comprehensive Report attached, Conventionals parameters are reported in mg/Kg, dry weight basis, for TOC, ammonia, Total Sulfide and Total Volatile Solids. Particle Size Distribution (PSD) and Total Solids are reported in percent, wet weight basis. For all parameters, the MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times
Sample storage conditions and holding times have been evaluated using guidelines established in the SAP. The dates and holding time criteria for the actual storage conditions used for conventional analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Prep Date	Date Analyzed	Sample Holding Time	Extract Holding Time
Ammonia Nitrogen	L62484-1,2,3,4,5,7,8,9,10,13	08-Apr-15	10-Apr-15	10-Apr-15	6 months at -18°C	14 days at -18°C
	L62484-6,11,12,14,15,16	09-Apr-15				
Particle Size Distribution	L62484-1,2,3,4,5,7,8,9,10	08-Apr-15	22-Jun-15	23-Jun-15	6 months at ≤6°C	NA
	L62484-6	09-Apr-15				
	L62484-13	08-Apr-15	29-Jun-15	30-Jun-15		
	L62484-11,12,14,15,16	09-Apr-15				
Total Organic Carbon	L62484-1,2,3,4,5,7,8,9,10,13	08-Apr-15	20-Apr-15	14, 15-May-15	6 months at -18°C	6 months at -18°C
	L62484-6,11,12,14,15,16	09-Apr-15				
Total Solids	L62484-1,2,3,4,5,7,8,9,10,13	08-Apr-15	15-Apr-15	16-Apr-15	6 months at -18°C	NA
	L62484-6,11,12,14,15,16	09-Apr-15				
Total Sulfide	L62484-1,2,3,4,5	08-Apr-15	13-Apr-15	13-Apr-15	7 days at ≤6°C	NA
	L62484-6	09-Apr-15				
	L62484-7,8,9,10,13	08-Apr-15	14-Apr-15	14-Apr-15		
	L62484-11,12,14,15,16	09-Apr-15				

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks

Method blanks were analyzed in connection with ammonia nitrogen/solids/total sulfides/total organic carbon analyses. All method blanks results were less than the MDL.

Standard Reference Materials

An SRM was not analyzed in connection with TOC analysis. The material normally analyzed as an SRM is labeled as a Lab Control Sample (LCS) since it has exceeded the official certification period. Results of the analysis of this LCS were within the 80 to 120% acceptance limits.

Matrix Spikes

The matrix spike recovery for ammonia nitrogen and TOC were within the 75 to 125% acceptance limits (65% to 135% for total sulfide). The recovery of the matrix spike for total sulfide was outside the lower control limit at 60%. The spike blank analyzed with the batch was within control limits at 104%. The sample used for the matrix spike, L62484-3, has been flagged with a JG qualifier to indicate possible low bias for that sample.

Laboratory Replicate Samples

A set of laboratory triplicates was analyzed for each of the conventional parameters. The percent relative standard deviation (%RSD) for each triplicate set was less than or equal to the 20% acceptance limit for all analyses with the exception of the Gravel category for PSD. The %RSD for that category was 77%. The result has been flagged with an "*" in the QC report. All gravel results have been flagged with a "J" qualifier.

The gravel category represented less than 10% of the overall sample mass for all samples in the workgroup. Failed % RSD of the gravel category on QC sample L62484-3 and resulting J qualification of the gravel category for all samples do not affect the quality of the data. Inherent variability at low levels can be expected in the method. In these instances, a high % RSD does not necessarily indicate poor precision or poor method performance. In the case of this sample, the QC data suggest that the gravel category represents too small a fraction of the overall sample constituency to be considered appropriate for evaluation against a 20% control window.

METALS CHEMISTRY

Completeness
Metal chemistry data are reported for all samples and parameters summarized in Table 1. These samples were analyzed for mercury and other metals in association with the complete set of QC samples outlined in Table 2.

Subcontracted Analyses
Metals analysis was not subcontracted for these sets of samples.

Methods
Mercury analysis was performed in accordance with EPA Method SW846, 7471B. Analysis for other metals was performed in accordance with EPA method SW846, 3050B/6010C.

Target List
The reported target list includes all metals specified in Table 1.

Detection Limits
The wet weight detection limits (MDLs) reported for Metals parameters are all within the requirements defined by the SAP. There were small exceptions due to small variations in the amount of sample used for analysis.

Reporting Requirements (significant figures, units, basis and qualifiers)
For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied.

In the Comprehensive Report attached, Metals parameters are reported in mg/Kg, dry weight basis, for all elements. The MDL and RDL values for each individual sample are reported in the same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times
Sample storage conditions and holding times have been evaluated using guidelines established during the Third Annual PSDDA Review Meeting. The dates and holding time criteria for the actual storage conditions used for metals analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Date Digested/ Extracted	Date Analyzed	Sample Holding Time	Digestate/Extract Holding Time
Total Metals	L62484-1,2,3,4,5,7,8,9,10,13	08-Apr-15	15-July-15	16-July-15	2 Years at -18°C	6 months
	L62484-6,11,12,14,15,16	09-Apr-15				
Total Mercury	L62484-1,2,3,4,5,7,8,9,10,13	08-Apr-15	23-Apr-15	24-Apr-15	28 days at -18°C	NA
	L62484-6,11,12,14,15,16	09-Apr-15				

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks
All metals method blanks results were less than the MDL.

Standard Reference Materials
The SRM analyzed in association with samples for Total Mercury analysis included in this data submission is National Research Council of Canada PACS-2. The SRM analyzed in association with samples for Total Metals analysis included in this data submission is National Research

Council of Canada PACS-3. This SRM is not certified for Silver, Arsenic or Cadmium. Acceptance limits for the certified elements have been developed using historical lab data since the certified SRM values and limits were determined with different analysis techniques. SRM recoveries outside these lab-defined limits indicate the method has not performed as expected and the sample data may have been qualified to indicate the expected bias.

SRM PACS-3 is a new SRM for which KCEL has not yet prepared control limits. The chromium recoveries were 50 and 48% for the SRM and its duplicate. This is within the control limits calculated for the previous SRM PACS-2. It is expected that the new limits will be similar since the SRM material is from the same source. Data have not been qualified as a result of the SRM recoveries. All other method and batch QC for total metals was within control limits.

Matrix Spikes

All matrix spike recoveries were within the 75% to 125% QC limits.

Laboratory Replicate Samples

The relative percent differences (RPDs) for laboratory duplicate results for all metals were less than or equal to the QC limit of 20%.

ORGANIC CHEMISTRY

Completeness

Organics data are reported for all samples and parameters summarized in Table 1. These samples were analyzed in association with the complete set of QC samples outlined in Table 2.

Methods

BNA analysis was performed in accordance with EPA method 3550B / 8270D. PCB and chlorinated pesticides analysis was performed in accordance with EPA methods 3550B / 8082A and 8081B.

Target List

The reported BNA target list includes all compounds specified in *Table III - Marine Sediment Cleanup Objectives and Cleanup Screening Levels Chemical Criteria* contained in Chapter 173-204 WAC (February 2013).

Reported PCB data include Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260 and Total Aroclors.

Detection Limits, Units and Significant Figures

The sample detection limits (MDLs), as reported on a wet weight basis for Organics parameters, generally met the requirements defined in the SAP. These are noted below:

BNA

The reported MDLs for selected semi volatile compounds were above the SAP MDL (See SAP MDL Comparison table) due to total solids being below 50% or high concentrations of organic co-extractives requiring dilution for analysis.

Pesticides

The reported MDLs for pesticides compounds were above the SAP MDL (See SAP MDL Comparison table) for all samples due to a communication error between the LPM and lab staff. The final volume of extract was brought to a volume of 2ml instead of the SAP requested 1ml. However, the dry weight MDLs for pesticides were all below the screening level concentrations required for US Army Corp of Engineers Dredge Material Management Program (US ACE DMMP User Manual, 2014).

PCB

The reported MDLs for Aroclors were greater than the SAP MDLs. Except for sample L62484-10, where elevated MDLs were reported, Total Aroclor values were reported above the MDL, therefore project objectives were not compromised.

For Non-ionizable Organic parameters, MDL values were also converted to an Organic Carbon (OC) basis, using the TOC values determined for each sample. The attached SMS OC and Dry Weight Comparison tables show the reported MDL values for each sample converted to an OC or dry weight basis. All target compounds met the SAP SMS OC and Dry Weight MDL levels.

Reporting Requirements (significant figures, units, basis and qualifiers)

For analyses performed at the KC Laboratory, data are reported in accordance with laboratory policy at the time the data were generated. Data are reported to three significant figures for results greater than the RDL and two significant figures for results equal to or less than the RDL. For results reported with less than two or three significant figures, significant zeroes are implied.

In the Comprehensive Report attached, Organics parameters are reported in ug/Kg, dry weight basis. In this report format, non-ionizable organic parameters have not been converted to mg/Kg TOC. For all parameters, the MDL and RDL values for each individual sample are reported in the

same units and basis as the sample result. Any result measured at less than the MDL or less than the RDL, a <MDL or <RDL qualifier is added, respectively. Other qualifiers added are based on QA/QC failures and are individually explained in this narrative.

Storage Conditions and Holding Times

Sample storage conditions and holding times have been evaluated using guidelines established in the SAPA (WDOE, 2008). The dates and holding time criteria for the actual storage conditions used for organics analyses are listed in the table below.

Parameter	Lab ID#	Date Collected	Date Extracted	Date Analyzed	Sample Holding Time	Extract Holding Time
BNA	L62484-1 to 16	08, 09-Apr-15	05-Jun-15	25, 30-Jun-15, 01-Jul-15	1 year at -18°C	40 days at 4°C
PCB	L62484-1 to 16	08, 09-Apr-15	04-Jun-15	10-Jun-15	1 year at -18°C	40 days at 4°C
Chlorinated Pesticides	L62484-1 to 16	08, 09-Apr-15	04-Jun-15	10-Jun-15	1 year at -18°C	40 days at 4°C

Sample storage conditions and holding times were met for all samples in this data submission.

Method Blanks

Method blanks were analyzed for all Organics parameters and all method blank results were less than the MDL.

Surrogate Recoveries

Surrogate recovery acceptance limits for sediment samples have been developed based on historical lab performance using the current analytical methods. Recoveries measured above the acceptance limits may be flagged with a JL. Recoveries measured below the acceptance limits (but at or above 10%) may be flagged with a JG. Surrogate recovery summaries for each method are shown below.

1. BNA

For BNA sample data, surrogate recoveries are evaluated separately for the acid and base/neutral fractions. Within each fraction, 2 or more surrogates must be outside the acceptance limits in order to qualify the associated sample data. All BNA surrogate recoveries for samples were within this criterion thus no sample data was qualified.

2. PCB

Sample data are qualified when individual surrogate recoveries are outside lab-specific acceptance limits. All PCB surrogate recoveries were within the lab-specific acceptance limits for all samples in this data submission.

3. Chlorinated Pesticides

Sample data are qualified when individual surrogate recoveries are outside lab-specific acceptance limits. All pesticide surrogate recoveries were within the lab-specific acceptance limits for all samples in this data submission.

Standard Reference Materials (SRMs)

The SRM results associated with these samples are summarized below, according to the analysis method. No SRM was available for DDD, DDE and DDT. Acceptance limits for the certified parameters reported in this data set have been developed using historical lab data. SRM recoveries outside these lab-defined limits indicate the method has not performed as expected and the associated sample data should be flagged.

1. BNA

The sediment SRM analyzed in association with the reported BNA results is 1944, certified by the National Institute of Standards and Technology (NIST). The certified organics parameters in SRM 1944 are only a partial list of all the BNA compounds reported in this analysis. All measured recoveries for this SRM were within acceptance limits for this data set.

2. PCB
The sediment SRM analyzed in association with the reported PCB results is PSRM0024, certified by Seattle District Corps of Engineers and the US EPA Region 10. Aroclor 1260 is the only PCB parameter certified for this SRM. The recovery for Aroclor 1260 was was within the acceptance limits currently defined for this SRM.

Matrix Spikes
Matrix Spikes have been analyzed for each method. Recovery acceptance limits for each parameter in sediment have been developed based on historical lab performance using the current analytical methods. When applicable, matrix spike recoveries outside these lab-defined limits indicate the method has not performed as expected and the associated sample data have been flagged.

1. BNA
Each of the reported BNA compounds was included in the matrix spike and measured recoveries for each were within their acceptance limits.

2. PCB and Chlorinated Pesticides
Each of the reported Pesticide compounds was included in the Chlorinated Pesticide matrix spike. Aroclor 1260 and 1242 only are used as the spiking parameters for PCB matrix spike. The measured recovery for each spiked parameter was within their acceptance limits.

Laboratory Replicate Samples
A laboratory duplicate sample(s) was analyzed for each Organics parameter. The relative percent differences (RPDs) for laboratory duplicate for all parameters at or above the RDL were less than or equal to the acceptance limit of 35% with the following exceptions.

Phenanthrene, Carbazole, Fluoranthene and Benzyl butyl phthalate failed the upper control limit for RPD in the laboratory duplicate for semivolatile organic analysis. The results for these compounds in the sample used for laboratory duplicate, L62484-6, have been flagged with a “J” qualifier to indicate an estimated result.

Additional QA Issues:

Chlorinated Pesticide Analysis:

The confirmation column RPD for 4,4’-DDE was greater than 40% for the following samples: L62484-1, -3, -7, -8, -9, -11, -14, -15 and -16. The results for 4,4’-DDE have been flagged with a “J” qualifier for these samples to indicate an estimated value.

The presence of Aroclor 1254 interfered with the proper identification and/or quantification of 4,4’-DDT. The following samples have elevated MDL/RDL values due to interference from Aroclor 1254: L62484-3, -9, -11, -13, -15 and -16. The following samples have had their 4,4’-DDT results flagged with a “JL” qualifier to indicate possible high bias due to the presence of Aroclor 1254: L-62484-1, -2, -4 to -8, -12 and -14.

TABLE 1
SEDIMENT SAMPLE INVENTORY

Sample	Locator / Description (see SAP)	Sulfides	PSD	Nutrients[1]	Solids	TOC	Metals[2]	BNA[3]	Pest/ PCB	Comments
L62484-1	DWMP-01	X	X	X	X	X	X	X	X	0-10cm
L62484-2	DWMP-02	X	X	X	X	X	X	X	X	0-10cm
L62484-3	DWMP-03	X	X	X	X	X	X	X	X	0-10cm
L62484-4	DWMP-04	X	X	X	X	X	X	X	X	0-10cm
L62484-5	DWMP-05	X	X	X	X	X	X	X	X	0-10cm
L62484-6	DWMP-06	X	X	X	X	X	X	X	X	0-10cm
L62484-7	DWMP-07	X	X	X	X	X	X	X	X	0-10cm
L62484-8	DWMP-08	X	X	X	X	X	X	X	X	0-10cm
L62484-9	DWMP-09	X	X	X	X	X	X	X	X	0-10 cm
L62484-10	DWMP-10	X	X	X	X	X	X	X	X	0-10cm
L62484-11	DWMP-11	X	X	X	X	X	X	X	X	0-10 cm
L62484-12	DWMP-12	X	X	X	X	X	X	X	X	0-10cm
L62484-13	DWMP-13	X	X	X	X	X	X	X	X	0-10cm
L62484-14	DWMP-14	X	X	X	X	X	X	X	X	0-10 cm
L62484-15	DWMP-15	X	X	X	X	X	X	X	X	0-10 cm
L62484-16	DWMP-16	X	X	X	X	X	X	X	X	0-10 cm

1 Nutrients = Ammonia
2 Metals = Hg, As, Cd, Cr, Cu, Pb, Ag, Zn
3 BNA = includes Chlorobenzenes

TABLE 2
QC SAMPLE FREQUENCY FOR SEDIMENT CHEMICAL AND PHYSICAL PARAMETERS

Parameter	Method Blank	Duplicate	Triplicate	Matrix Spike	SRM	Surrogates
Ammonia Nitrogen	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	As Available	No
PSD	No	See Triplicate	5% minimum, 1 per QC batch	No	No	No
Total Solids & Volatile Solids	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	No	No	No
TOC	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	1 per QC batch	No
Sulfides	1 per QC batch	See Triplicate	5% minimum, 1 per QC batch	5% minimum, 1 per QC batch	No	No
Metals	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	No
BNA	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	Yes
PCB/Chlorinated Pesticides	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	1 per QC batch	Yes
VOA	1 per QC batch	5% minimum, 1 per QC batch	No	5% minimum, 1 per QC batch	No	Yes

TABLE 3 - SUMMARY OF SEDIMENT DATA QUALIFIERS

Condition to Qualify	King County Data Qualifier	Possible EIM Data Qualifier	Organic QC Limits	Metal QC Limits	Conventional QC Limits	Comment
low matrix spike recovery	JG	JG	Compound specific	< 75%	< 75%	
high matrix spike recovery	JL	JL	Compound specific	>125%	>125%	
low standard reference material recovery	JG	JG	Compound and SRM specific	Element and SRM specific	< 80%	
high standard reference material recovery	JL	JL	Compound and SRM specific	Element and SRM specific	>120%	
high duplicate relative percent difference	JK or J	JK	>35 %	>20%	NA	for organics and metals
high triplicate relative standard deviation	JK or J	JK	NA	NA	> 20%	for conventionals
less than the reporting detection limit	<RDL**	JT	NA	NA	NA	
less than the method detection limit	<MDL	U	NA	NA	NA	
contamination detected in method blank	B	B	MB >/=MDL & Result </= 5x Blank	MB >/=MDL & Result </= 5x Blank	MB >/=MDL & Result </= 5x Blank	
contamination detected in method blank	B2	B	MB >/=MDL & Result > 5x but >/= 10x Blank	MB >/=MDL & Result > 5x but >/= 10x Blank	MB >/=MDL & Result > 5x but >/= 10x Blank	Common Lab Contaminants*
contamination detected in method blank	B3	B	MB >/=MDL & Result > 5x but >/= 10x Blank	MB >/=MDL & Result > 5x but >/= 10x Blank	MB >/=MDL & Result > 5x but >/= 10x Blank	All other parameters
biased data based on low surrogate recoveries	JG	JG	Surrogate specific	NA	NA	At least 2 surrogates < limit for BNA
biased data based on high surrogate recoveries	JL	JL	Surrogate specific	NA	NA	At least 2 surrogates > limit for BNA
rejected - unusable for all purposes	R	J or Q	NA	NA	NA	
a sample handling criteria has not been met	SH	JK or J	NA	NA	NA	container, preservation
Holding time not met	H	JK or J				

*COMMON LAB CONTAMINANTS: ACETONE, 2-BUTANONE, METHYLENE CHLORIDE, BIS(2-ETHYLHEXYL) PHTHALATE, BUTYL BENZYL PHTHALATE AND DI-N-BUTYL PHTHALATE

Sample Results Tables

King County Environmental Lab Analytical Report

	Project:	423062-020					Project:	423062-020					Project:	423062-020							
	Locator:	DWMP-01					Locator:	DWMP-02					Locator:	DWMP-03							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L62484-1					Sample:	L62484-2					Sample:	L62484-3							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	4/8/15 9:26					ColDate:	4/8/15 10:52					ColDate:	4/8/15 9:54							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	40.6					TotalSolid:	65.8					TotalSolid:	51.6							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	10					SampDepth:	14					SampDepth:	18							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**				
CV ASTM D422																					
Clay*	11.9		1.2	2.4	%		10.7		0.8	1.5	%		14.1		1.3	2.6	%				
Fines*	61.7		1.2	2.4	%		38.1		0.8	1.5	%		64		1.3	2.6	%				
Gravel*	10.8	J	0.2	2.4	%		5.6	J	0.2	1.5	%		9.2	J	0.3	2.6	%				
p+0.00*	1.6	<RDL	0.2	2.4	%		4.6		0.2	1.5	%		0.8	<RDL	0.3	2.6	%				
p+1.00*	1.4	<RDL	0.2	2.4	%		9.8		0.2	1.5	%		2.6		0.3	2.6	%				
p+10.0(equal/more than)*	7.1		1.2	2.4	%		6.1		0.8	1.5	%		5.1		1.3	2.6	%				
p+2.00*	2.2	<RDL	0.2	2.4	%		19.4		0.2	1.5	%		9.3		0.3	2.6	%				
p+3.00*	6.5		0.2	2.4	%		15		0.2	1.5	%		8.7		0.3	2.6	%				
p+4.00*	13.9		0.2	2.4	%		11.9		0.2	1.5	%		13.4		0.3	2.6	%				
p+5.00*	29.7		1.2	2.4	%		16.8		0.8	1.5	%		28.2		1.3	2.6	%				
p+6.00*	5.9		1.2	2.4	%		3.8		0.8	1.5	%		7.7		1.3	2.6	%				
p+7.00*	7.1		1.2	2.4	%		2.3		0.8	1.5	%		7.7		1.3	2.6	%				
p+8.00*	7.1		1.2	2.4	%		4.6		0.8	1.5	%		6.4		1.3	2.6	%				
p+9.00*	4.7		1.2	2.4	%		4.6		0.8	1.5	%		9		1.3	2.6	%				
p-1.00*	2.4		0.2	2.4	%		4.2		0.2	1.5	%		1	<RDL	0.3	2.6	%				
p-2.00(less than)*	7.8		0.2	2.4	%		1.4	<RDL	0.2	1.5	%		8.1		0.3	2.6	%				
p-2.00*	0.6	<RDL	0.2	2.4	%			<MDL	0.2	1.5	%			<MDL	0.3	2.6	%				
Sand*	25.5		0.2	2.4	%		60.7		0.2	1.5	%		34.7		0.3	2.6	%				
Silt*	49.8		1.2	2.4	%		27.4		0.8	1.5	%		49.9		1.3	2.6	%				
CV EPA 9030B/SM4500-S2-D																					
Total Sulfide	419		30	116	mg/Kg			<MDL	0.76	3.02	mg/Kg		14.7	JG	0.91	3.62	mg/Kg				
CV KEROUEL & AMINOT 1997 KCL																					
Ammonia Nitrogen	3.62		0.049	0.249	mg/Kg		2.45		0.061	0.304	mg/Kg		1.55		0.039	0.193	mg/Kg				
CV SM2540-G																					
Total Solids*	40.6		0.005	0.01	%		65.8		0.005	0.01	%		51.6		0.005	0.01	%				
CV SW846 9060 PSEP96																					
Total Organic Carbon	65500		7400	15000	mg/Kg		8750		2400	4800	mg/Kg		20500		2500	4840	mg/Kg				
ES NONE																					
Field Personnel*	JDD, BK, CB, DH, AF, KF				none		JDD, BK, CB, DH, AF, KF				none		JDD, BK, CB, DH, AF, KF				none				
Sampcoordx1*	1264047				ft		1263919				ft		1263841				ft				
Sampcoordx2*	1264049				ft		1263918				ft		1263838				ft				
Sampcoordx3*																					
Sampcoordy1*	228812				ft		228770				ft		228643				ft				
Sampcoordy2*	228810				ft		228765				ft		228632				ft				
Sampcoordy3*																					
Sample Depth*	10				m		14				m		18				m				
Sampling Method*	20143,				none		20143,				none		20143,				none				
Sediment Sampling Depth*	15				cm		11				cm		15				cm				
Sediment Sampling Range*	10	TA			cm		10	TA			cm		10	TA			cm				
Sediment Type*	12W31				none		23S21				none		21N31				none				

King County Environmental Lab Analytical Report

Project:	423062-020	423062-020	423062-020
Locator:	DWMP-01	DWMP-02	DWMP-03
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sample:	L62484-1	L62484-2	L62484-3
Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
ColDate:	4/8/15 9:26	4/8/15 10:52	4/8/15 9:54
TimeSpan:			
TotalSolid:	40.6	65.8	51.6
ClientLoc:			
SampDepth:	10	14	18
	DRY Weight Basis	**DRY Weight Basis**	**DRY Weight Basis**

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
Tidal Condition*	E				none	E				none	E				none
Tide Height*	8.7				ft	5.8				ft	8				ft
MT SW846 3050B*SW846 6010C															
Arsenic, Total, ICP	12	<RDL	3.2	16	mg/Kg	5	<RDL	2	9.54	mg/Kg	8.3	<RDL	2.5	12.3	mg/Kg
Cadmium, Total, ICP	0.74	<RDL	0.25	1.28	mg/Kg	0.17	<RDL	0.15	0.763	mg/Kg	0.76	<RDL	0.19	0.986	mg/Kg
Chromium, Total, ICP	42.4		0.39	1.91	mg/Kg	31.6		0.23	1.14	mg/Kg	38.4		0.29	1.48	mg/Kg
Copper, Total, ICP	70.2		0.52	2.56	mg/Kg	29.8		0.3	1.52	mg/Kg	48.6		0.39	1.98	mg/Kg
Lead, Total, ICP	103		2.5	12.8	mg/Kg	36		1.5	7.63	mg/Kg	73.3		1.9	9.86	mg/Kg
Silver, Total, ICP	3.23		0.52	2.56	mg/Kg	0.33	<RDL	0.3	1.52	mg/Kg	2.73		0.39	1.98	mg/Kg
Zinc, Total, ICP	134		0.64	3.2	mg/Kg	70.2		0.38	1.91	mg/Kg	105		0.48	2.46	mg/Kg
MT SW846 7471B															
Mercury, Total, CVAA	0.771		0.012	0.122	mg/Kg	0.267		0.0073	0.0731	mg/Kg	0.583		0.0097	0.0959	mg/Kg
OR SW846 3550B*SW846 8081B															
4,4'-DDD	11.5		2	3.94	ug/Kg	2.43		1.2	2.43	ug/Kg	10.9		1.6	3.1	ug/Kg
4,4'-DDE	5.07	J	2	3.94	ug/Kg		<MDL	1.2	2.43	ug/Kg	5.14	J	1.6	3.1	ug/Kg
4,4'-DDT	8.77	JL	2	3.94	ug/Kg	2.84	JL	1.2	2.43	ug/Kg		<MDL	7.4	7.44	ug/Kg
OR SW846 3550B*SW846 8082A															
Aroclor 1016		<MDL	9.9	39.4	ug/Kg		<MDL	6.1	24.3	ug/Kg		<MDL	7.8	31	ug/Kg
Aroclor 1221		<MDL	30	39.4	ug/Kg		<MDL	18	24.3	ug/Kg		<MDL	23	31	ug/Kg
Aroclor 1232		<MDL	30	39.4	ug/Kg		<MDL	18	24.3	ug/Kg		<MDL	23	31	ug/Kg
Aroclor 1242	101		9.9	39.4	ug/Kg	11	<RDL	6.1	24.3	ug/Kg	124		7.8	31	ug/Kg
Aroclor 1248		<MDL	9.9	39.4	ug/Kg		<MDL	6.1	24.3	ug/Kg		<MDL	7.8	31	ug/Kg
Aroclor 1254	259		9.9	39.4	ug/Kg	50.2		6.1	24.3	ug/Kg	293		7.8	31	ug/Kg
Aroclor 1260	171		9.9	39.4	ug/Kg	41		6.1	24.3	ug/Kg	167		7.8	31	ug/Kg
Total Aroclors	531		9.9	39.4	ug/Kg	102		6.1	24.3	ug/Kg	584		7.8	31	ug/Kg
OR SW846 3550B*SW846 8270D															
1,2,4-Trichlorobenzene		<MDL	0.89	1.79	ug/Kg		<MDL	0.55	1.1	ug/Kg		<MDL	0.7	1.41	ug/Kg
1,2-Dichlorobenzene		<MDL	8.97	8.97	ug/Kg		<MDL	5.53	5.53	ug/Kg		<MDL	7.05	7.05	ug/Kg
1,4-Dichlorobenzene		<MDL	13.4	13.4	ug/Kg		<MDL	8.28	8.28	ug/Kg		<MDL	10.6	10.6	ug/Kg
1-Methylnaphthalene	59.4		8.9	17.9	ug/Kg	7.9	<RDL	5.5	11	ug/Kg	16.3		7	14.1	ug/Kg
2,4-Dimethylphenol	29.6		8.9	17.9	ug/Kg		<MDL	5.5	11	ug/Kg		<MDL	7	14.1	ug/Kg
2-Methylnaphthalene	75.6		8.9	17.9	ug/Kg	9.7	<RDL	5.5	11	ug/Kg	20		7	14.1	ug/Kg
2-Methylphenol	13	<RDL	8.9	17.9	ug/Kg		<MDL	5.5	11	ug/Kg		<MDL	7	14.1	ug/Kg
3-,4-Methylphenol		<MDL	44	89.7	ug/Kg		<MDL	27	55.3	ug/Kg		<MDL	35	70.5	ug/Kg
Acenaphthene	133		8.9	17.9	ug/Kg	18.4		5.5	11	ug/Kg	40.5		7	14.1	ug/Kg
Acenaphthylene	510		8.9	17.9	ug/Kg	20.7		5.5	11	ug/Kg	39.1		7	14.1	ug/Kg
Anthracene	2040		8.9	17.9	ug/Kg	87.4		5.5	11	ug/Kg	166		7	14.1	ug/Kg
Benzo(a)anthracene	5170		44	89.7	ug/Kg	220		5.5	11	ug/Kg	343		7	14.1	ug/Kg
Benzo(a)pyrene	9750		44	89.7	ug/Kg	261		5.5	11	ug/Kg	496		35	70.5	ug/Kg
Benzo(b,j,k)fluoranthene	23400		44	89.7	ug/Kg	731		5.5	11	ug/Kg	1070		35	70.5	ug/Kg
Benzo(g,h,i)perylene	2510		44	89.7	ug/Kg	71.7		5.5	11	ug/Kg	302		35	70.5	ug/Kg

King County Environmental Lab Analytical Report

Project:	423062-020	423062-020	423062-020
Locator:	DWMP-01	DWMP-02	DWMP-03
Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
Sample:	L62484-1	L62484-2	L62484-3
Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
ColDate:	4/8/15 9:26	4/8/15 10:52	4/8/15 9:54
TimeSpan:			
TotalSolid:	40.6	65.8	51.6
ClientLoc:			
SampDepth:	10	14	18
	DRY Weight Basis	**DRY Weight Basis**	**DRY Weight Basis**

Parameters	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units	Value	Qual	MDL	RDL	Units
Benzoic Acid	183		179	179	ug/Kg		<MDL	110	110	ug/Kg		<MDL	141	141	ug/Kg
Benzyl Alcohol		<MDL	22.4	22.4	ug/Kg		<MDL	13.8	13.8	ug/Kg		<MDL	17.6	17.6	ug/Kg
Benzyl Butyl Phthalate	249		13.4	13.4	ug/Kg	17		8.28	8.28	ug/Kg		<MDL	10.6	10.6	ug/Kg
Bis(2-Ethylhexyl)Phthalate	897		18	35.7	ug/Kg	181		11	22	ug/Kg	1270		14	28.1	ug/Kg
Carbazole	458		8.9	17.9	ug/Kg	31.2		5.5	11	ug/Kg	51.9		7	14.1	ug/Kg
Chrysene	10400		44	89.7	ug/Kg	372		5.5	11	ug/Kg	463		7	14.1	ug/Kg
Dibenzo(a,h)anthracene	1030		44	89.7	ug/Kg	25.8		5.5	11	ug/Kg	79.3		35	70.5	ug/Kg
Dibenzofuran	79.1		8.9	17.9	ug/Kg	11.2		5.5	11	ug/Kg	24.4		7	14.1	ug/Kg
Diethyl Phthalate	20	<RDL	18	35.7	ug/Kg		<MDL	11	22	ug/Kg		<MDL	14	28.1	ug/Kg
Dimethyl Phthalate		<MDL	17.9	17.9	ug/Kg		<MDL	11	11	ug/Kg		<MDL	14.1	14.1	ug/Kg
Di-N-Butyl Phthalate		<MDL	18	35.7	ug/Kg	20	<RDL	11	22	ug/Kg		<MDL	14	28.1	ug/Kg
Di-N-Octyl Phthalate		<MDL	89.7	89.7	ug/Kg		<MDL	11	11	ug/Kg		<MDL	70.5	70.5	ug/Kg
Fluoranthene	2910		8.9	17.9	ug/Kg	342		5.5	11	ug/Kg	576		7	14.1	ug/Kg
Fluorene	318		8.9	17.9	ug/Kg	29.5		5.5	11	ug/Kg	53.3		7	14.1	ug/Kg
Hexachlorobenzene		<MDL	0.89	1.79	ug/Kg		<MDL	0.55	1.1	ug/Kg		<MDL	0.7	1.41	ug/Kg
Hexachlorobutadiene		<MDL	4.4	8.97	ug/Kg		<MDL	2.7	5.53	ug/Kg		<MDL	3.5	7.05	ug/Kg
Indeno(1,2,3-Cd)Pyrene	3670		44	89.7	ug/Kg	102		5.5	11	ug/Kg	351		35	70.5	ug/Kg
Naphthalene	113		8.9	17.9	ug/Kg	11.1	<RDL	5.5	11	ug/Kg	25.8		7	14.1	ug/Kg
N-Nitrosodiphenylamine		<MDL	22.4	22.4	ug/Kg		<MDL	13.8	13.8	ug/Kg		<MDL	17.6	17.6	ug/Kg
Pentachlorophenol		<MDL	134	134	ug/Kg		<MDL	82.8	82.8	ug/Kg		<MDL	106	106	ug/Kg
Phenanthrene	1940		8.9	17.9	ug/Kg	219		5.5	11	ug/Kg	339		7	14.1	ug/Kg
Phenol		<MDL	44	134	ug/Kg		<MDL	27	82.8	ug/Kg		<MDL	35	106	ug/Kg
Pyrene	6650		44	89.7	ug/Kg	388		5.5	11	ug/Kg	795		7	14.1	ug/Kg

* Not converted to dry weight basis

King County Environmental Lab Analytical Report

	Project:	423062-020				Project:	423062-020				Project:	423062-020			
	Locator:	DWMP-04				Locator:	DWMP-05				Locator:	DWMP-06			
	Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI			
	Sample:	L62484-4				Sample:	L62484-5				Sample:	L62484-6			
	Matrix:	SF SALTWTRSED				Matrix:	SF SALTWTRSED				Matrix:	SF SALTWTRSED			
	ColDate:	4/8/15 11:11				ColDate:	4/8/15 11:59				ColDate:	4/9/15 8:48			
	TimeSpan:					TimeSpan:					TimeSpan:				
	TotalSolid:	57.2				TotalSolid:	76				TotalSolid:	56.7			
	ClientLoc:					ClientLoc:					ClientLoc:				
	SampDepth:	26				SampDepth:	4				SampDepth:	23			
	DRY Weight Basis					**DRY Weight Basis**					**DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
CV ASTM D422															
Clay*	12.4		0.9	1.8	%	5.1		0.6	1.3	%	11.4		1	1.9	%
Fines*	52.9		0.9	1.8	%	8.3		0.6	1.3	%	47.6		1	1.9	%
Gravel*	7.7	J	0.2	1.8	%	39	J	0.1	1.3	%	3	J	0.2	1.9	%
p+0.00*	3.7		0.2	1.8	%	15.2		0.1	1.3	%	1.9	<RDL	0.2	1.9	%
p+1.00*	5.5		0.2	1.8	%	11.5		0.1	1.3	%	10.1		0.2	1.9	%
p+10.0(equal/more than)*	7.1		0.9	1.8	%	3.8		0.6	1.3	%	3.8		1	1.9	%
p+2.00*	10.6		0.2	1.8	%	13.5		0.1	1.3	%	28.4		0.2	1.9	%
p+3.00*	9.3		0.2	1.8	%	9.7		0.1	1.3	%	10.6		0.2	1.9	%
p+4.00*	8.1		0.2	1.8	%	4.7		0.1	1.3	%	5.2		0.2	1.9	%
p+5.00*	12.4		0.9	1.8	%	1.3	RDL	0.6	1.3	%	17.1		1	1.9	%
p+6.00*	12.4		0.9	1.8	%	0.6	<RDL	0.6	1.3	%	5.7		1	1.9	%
p+7.00*	10.6		0.9	1.8	%		<MDL	0.6	1.3	%	7.6		1	1.9	%
p+8.00*	5.3		0.9	1.8	%	1.3	RDL	0.6	1.3	%	5.7		1	1.9	%
p+9.00*	5.3		0.9	1.8	%	1.3	RDL	0.6	1.3	%	7.6		1	1.9	%
p-1.00*	4.5		0.2	1.8	%	15.1		0.1	1.3	%	1.8	<RDL	0.2	1.9	%
p-2.00(less than)*	2		0.2	1.8	%	20.6		0.1	1.3	%	0.9	<RDL	0.2	1.9	%
p-2.00*	1.2	<RDL	0.2	1.8	%	3.3		0.1	1.3	%	0.3	<RDL	0.2	1.9	%
Sand*	37.2		0.2	1.8	%	54.6		0.1	1.3	%	56.1		0.2	1.9	%
Silt*	40.6		0.9	1.8	%	3.2		0.6	1.3	%	36.2		1	1.9	%
CV EPA 9030B/SM4500-S2-D															
Total Sulfide	234		21	81.3	mg/Kg	42.2		3.3	12.9	mg/Kg	18.9		0.79	3.17	mg/Kg
CV KEROUEL & AMINOT 1997 KCL															
Ammonia Nitrogen	1.56		0.033	0.168	mg/Kg	6.68		0.26	1.32	mg/Kg	1.11		0.034	0.169	mg/Kg
CV SM2540-G															
Total Solids*	57.2		0.005	0.01	%	76		0.005	0.01	%	56.7		0.005	0.01	%
CV SW846 9060 PSEP96															
Total Organic Carbon	13700		3000	5860	mg/Kg	6870		990	1970	mg/Kg	15000		2500	4970	mg/Kg
ES NONE															
Field Personnel*	JDD, BK, CB, DH, AF, KF				none	JDD, BK, CB, DH, AF, KF				none	BK, JDD, CB, HF, AF, KF				none
Sampcoordx1*	1263636				ft	1263835				ft	1263550				ft
Sampcoordx2*	1263631				ft	1263834				ft	1263552				ft
Sampcoordx3*	1263630				ft	1263843				ft					
Sampcoordy1*	228543				ft	229047				ft	228834				ft
Sampcoordy2*	228539				ft	229041				ft	228834				ft
Sampcoordy3*	228546				ft	229039				ft					
Sample Depth*	26				m	4				m	23				m
Sampling Method*	20143,				none	20143,				none	20143,				none
Sediment Sampling Depth*	14				cm	7	TA			cm	17				cm
Sediment Sampling Range*	10	TA			cm	10	TA			cm	10	TA			cm
Sediment Type*	25N31				none	34S31				none	21N31				none

King County Environmental Lab Analytical Report

	Project:	423062-020					Project:	423062-020					Project:	423062-020		
	Locator:	DWMP-04					Locator:	DWMP-05					Locator:	DWMP-06		
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI		
	Sample:	L62484-4					Sample:	L62484-5					Sample:	L62484-6		
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED		
	ColDate:	4/8/15 11:11					ColDate:	4/8/15 11:59					ColDate:	4/9/15 8:48		
	TimeSpan:						TimeSpan:						TimeSpan:			
	TotalSolid:	57.2					TotalSolid:	76					TotalSolid:	56.7		
	ClientLoc:						ClientLoc:						ClientLoc:			
	SampDepth:	26					SampDepth:	4					SampDepth:	23		
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**			
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
Tidal Condition*	E				none	E				none	S				none
Tide Height*	5.1				ft	3.2				ft	9.8				ft
MT SW846 3050B*SW846 6010C															
Arsenic, Total, ICP	7.7	<RDL	2.3	11	mg/Kg	3.6	<RDL	1.7	8.39	mg/Kg	7.4	<RDL	2.3	11.5	mg/Kg
Cadmium, Total, ICP	0.28	<RDL	0.17	0.881	mg/Kg	0.17	<RDL	0.13	0.671	mg/Kg	0.23	<RDL	0.18	0.919	mg/Kg
Chromium, Total, ICP	42.5		0.26	1.32	mg/Kg	16.8		0.2	1.01	mg/Kg	36.3		0.28	1.38	mg/Kg
Copper, Total, ICP	41.1		0.35	1.77	mg/Kg	17.9		0.26	1.34	mg/Kg	34.2		0.37	1.83	mg/Kg
Lead, Total, ICP	33.4		1.7	8.81	mg/Kg	23.8		1.3	6.71	mg/Kg	27		1.8	9.19	mg/Kg
Silver, Total, ICP		<MDL	0.35	1.77	mg/Kg		<MDL	0.26	1.34	mg/Kg		<MDL	0.37	1.83	mg/Kg
Zinc, Total, ICP	84.3		0.44	2.2	mg/Kg	56.6		0.34	1.68	mg/Kg	76.4		0.46	2.29	mg/Kg
MT SW846 7471B															
Mercury, Total, CVAA	0.287		0.0086	0.0864	mg/Kg	0.0867		0.0064	0.0641	mg/Kg	0.166		0.0085	0.085	mg/Kg
OR SW846 3550B*SW846 8081B															
4,4'-DDD	2.3	<RDL	1.4	2.8	ug/Kg	1.3	<RDL	1.1	2.11	ug/Kg		<MDL	1.4	2.82	ug/Kg
4,4'-DDE		<MDL	1.4	2.8	ug/Kg		<MDL	1.1	2.11	ug/Kg		<MDL	1.4	2.82	ug/Kg
4,4'-DDT	3.08	JL	1.4	2.8	ug/Kg	1.4	<RDL,JL	1.1	2.11	ug/Kg	1.9	<RDL,JL	1.4	2.82	ug/Kg
OR SW846 3550B*SW846 8082A															
Aroclor 1016		<MDL	7	28	ug/Kg		<MDL	5.3	21.1	ug/Kg		<MDL	7.1	28.2	ug/Kg
Aroclor 1221		<MDL	21	28	ug/Kg		<MDL	16	21.1	ug/Kg		<MDL	21	28.2	ug/Kg
Aroclor 1232		<MDL	21	28	ug/Kg		<MDL	16	21.1	ug/Kg		<MDL	21	28.2	ug/Kg
Aroclor 1242	13	<RDL	7	28	ug/Kg	13	<RDL	5.3	21.1	ug/Kg	11	<RDL	7.1	28.2	ug/Kg
Aroclor 1248		<MDL	7	28	ug/Kg		<MDL	5.3	21.1	ug/Kg		<MDL	7.1	28.2	ug/Kg
Aroclor 1254	93.2		7	28	ug/Kg	38.3		5.3	21.1	ug/Kg	40.4		7.1	28.2	ug/Kg
Aroclor 1260	57.2		7	28	ug/Kg	16	<RDL	5.3	21.1	ug/Kg	35.6		7.1	28.2	ug/Kg
Total Aroclors	163		7	28	ug/Kg	66.7		5.3	21.1	ug/Kg	86.9		7.1	28.2	ug/Kg
OR SW846 3550B*SW846 8270D															
1,2,4-Trichlorobenzene		<MDL	0.63	1.27	ug/Kg		<MDL	0.47	0.957	ug/Kg		<MDL	0.63	1.28	ug/Kg
1,2-Dichlorobenzene		<MDL	6.36	6.36	ug/Kg		<MDL	4.79	4.79	ug/Kg		<MDL	6.42	6.42	ug/Kg
1,4-Dichlorobenzene		<MDL	9.53	9.53	ug/Kg		<MDL	7.17	7.17	ug/Kg		<MDL	9.61	9.61	ug/Kg
1-Methylnaphthalene	14.4		6.3	12.7	ug/Kg	7.6	<RDL	4.7	9.57	ug/Kg	7.6	<RDL	6.3	12.8	ug/Kg
2,4-Dimethylphenol		<MDL	6.3	12.7	ug/Kg		<MDL	4.7	9.57	ug/Kg		<MDL	6.3	12.8	ug/Kg
2-Methylnaphthalene	19.4		6.3	12.7	ug/Kg	8.9	<RDL	4.7	9.57	ug/Kg	9.9	<RDL	6.3	12.8	ug/Kg
2-Methylphenol		<MDL	6.3	12.7	ug/Kg		<MDL	4.7	9.57	ug/Kg		<MDL	6.3	12.8	ug/Kg
3-,4-Methylphenol		<MDL	31	63.6	ug/Kg		<MDL	24	47.9	ug/Kg		<MDL	32	64.2	ug/Kg
Acenaphthene	15.3		6.3	12.7	ug/Kg	13.8		4.7	9.57	ug/Kg	7.4	<RDL	6.3	12.8	ug/Kg
Acenaphthylene	23.4		6.3	12.7	ug/Kg	23.2		4.7	9.57	ug/Kg	9.7	<RDL	6.3	12.8	ug/Kg
Anthracene	80.4		6.3	12.7	ug/Kg	84.1		4.7	9.57	ug/Kg	39.5		6.3	12.8	ug/Kg
Benzo(a)anthracene	185		6.3	12.7	ug/Kg	314		4.7	9.57	ug/Kg	101		6.3	12.8	ug/Kg
Benzo(a)pyrene	264		31	63.6	ug/Kg	413		4.7	9.57	ug/Kg	150		6.3	12.8	ug/Kg
Benzo(b,j,k)fluoranthene	565		31	63.6	ug/Kg	1220		4.7	9.57	ug/Kg	342		6.3	12.8	ug/Kg
Benzo(g,h,i)perylene	184		31	63.6	ug/Kg	91.8		4.7	9.57	ug/Kg	66.7		6.3	12.8	ug/Kg

King County Environmental Lab Analytical Report

Project:	423062-020					Project:	423062-020					Project:	423062-020								
Locator:	DWMP-04					Locator:	DWMP-05					Locator:	DWMP-06								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L62484-4					Sample:	L62484-5					Sample:	L62484-6								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	4/8/15 11:11					ColDate:	4/8/15 11:59					ColDate:	4/9/15 8:48								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	57.2					TotalSolid:	76					TotalSolid:	56.7								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	26					SampDepth:	4					SampDepth:	23								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**					
Benzoic Acid		<MDL	127	127	ug/Kg	250		95.7	95.7	ug/Kg			<MDL	128	128	ug/Kg					
Benzyl Alcohol		<MDL	15.9	15.9	ug/Kg		<MDL	12	12	ug/Kg			<MDL	16	16	ug/Kg					
Benzyl Butyl Phthalate		<MDL	9.53	9.53	ug/Kg	51.6		7.17	7.17	ug/Kg		15.5	J	9.61	9.61	ug/Kg					
Bis(2-Ethylhexyl)Phthalate	177		13	25.3	ug/Kg	153		9.6	19.1	ug/Kg		127		13	25.6	ug/Kg					
Carbazole	29		6.3	12.7	ug/Kg	32.1		4.7	9.57	ug/Kg		13.6	J	6.3	12.8	ug/Kg					
Chrysene	281		6.3	12.7	ug/Kg	630		4.7	9.57	ug/Kg		158		6.3	12.8	ug/Kg					
Dibenzo(a,h)anthracene	59	<RDL	31	63.6	ug/Kg	27.8		4.7	9.57	ug/Kg		19.6		6.3	12.8	ug/Kg					
Dibenzofuran	11	<RDL	6.3	12.7	ug/Kg	8.7	<RDL	4.7	9.57	ug/Kg			<MDL	6.3	12.8	ug/Kg					
Diethyl Phthalate		<MDL	13	25.3	ug/Kg		<MDL	9.6	19.1	ug/Kg			<MDL	13	25.6	ug/Kg					
Dimethyl Phthalate		<MDL	12.7	12.7	ug/Kg		<MDL	9.57	9.57	ug/Kg			<MDL	12.8	12.8	ug/Kg					
Di-N-Butyl Phthalate		<MDL	13	25.3	ug/Kg		<MDL	9.6	19.1	ug/Kg		21	<RDL	13	25.6	ug/Kg					
Di-N-Octyl Phthalate		<MDL	63.6	63.6	ug/Kg		<MDL	9.57	9.57	ug/Kg			<MDL	12.8	12.8	ug/Kg					
Fluoranthene	309		6.3	12.7	ug/Kg	495		4.7	9.57	ug/Kg		170	J	6.3	12.8	ug/Kg					
Fluorene	26.9		6.3	12.7	ug/Kg	25.8		4.7	9.57	ug/Kg		11	<RDL	6.3	12.8	ug/Kg					
Hexachlorobenzene		<MDL	0.63	1.27	ug/Kg		<MDL	0.47	0.957	ug/Kg			<MDL	0.63	1.28	ug/Kg					
Hexachlorobutadiene		<MDL	3.1	6.36	ug/Kg		<MDL	2.4	4.79	ug/Kg			<MDL	3.2	6.42	ug/Kg					
Indeno(1,2,3-Cd)Pyrene	217		31	63.6	ug/Kg	120		4.7	9.57	ug/Kg		83.4		6.3	12.8	ug/Kg					
Naphthalene	17.7		6.3	12.7	ug/Kg	8.6	<RDL	4.7	9.57	ug/Kg		9.5	<RDL	6.3	12.8	ug/Kg					
N-Nitrosodiphenylamine		<MDL	15.9	15.9	ug/Kg		<MDL	12	12	ug/Kg			<MDL	16	16	ug/Kg					
Pentachlorophenol		<MDL	95.3	95.3	ug/Kg		<MDL	71.7	71.7	ug/Kg			<MDL	96.1	96.1	ug/Kg					
Phenanthrene	165		6.3	12.7	ug/Kg	161		4.7	9.57	ug/Kg		72.1	J	6.3	12.8	ug/Kg					
Phenol		<MDL	31	95.3	ug/Kg		<MDL	24	71.7	ug/Kg			<MDL	32	96.1	ug/Kg					
Pyrene	379		6.3	12.7	ug/Kg	474		4.7	9.57	ug/Kg		189		6.3	12.8	ug/Kg					

* Not converted to dry weight basis

King County Environmental Lab Analytical Report

	Project:	423062-020					Project:	423062-020					Project:	423062-020			
	Locator:	DWMP-07					Locator:	DWMP-08					Locator:	DWMP-09			
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI			
	Sample:	L62484-7					Sample:	L62484-8					Sample:	L62484-9			
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED			
	ColDate:	4/8/15 14:47					ColDate:	4/8/15 12:30					ColDate:	4/8/15 14:13			
	TimeSpan:						TimeSpan:						TimeSpan:				
	TotalSolid:	55.8					TotalSolid:	47.8					TotalSolid:	38.7			
	ClientLoc:						ClientLoc:						ClientLoc:				
	SampDepth:	30					SampDepth:	25					SampDepth:	29			
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
CV ASTM D422															
Clay*	10		1	2	%	13.5		1.1	2.2	%	13.7		1.5	3	%
Fines*	51.8		1	2	%	56.1		1.1	2.2	%	75.9		1.5	3	%
Gravel*	2	J	0.2	2	%	5.8	J	0.2	2.2	%	1.6	<RDL,J	0.3	3	%
p+0.00*	1.9	<RDL	0.2	2	%	3.3		0.2	2.2	%	0.7	<RDL	0.3	3	%
p+1.00*	4.3		0.2	2	%	6.2		0.2	2.2	%	1	<RDL	0.3	3	%
p+10.0(equal/more than)*	5		1	2	%	7.8		1.1	2.2	%	6.1		1.5	3	%
p+2.00*	13.6		0.2	2	%	15.5		0.2	2.2	%	4.1		0.3	3	%
p+3.00*	15.8		0.2	2	%	11.8		0.2	2.2	%	7.4		0.3	3	%
p+4.00*	10.2		0.2	2	%	9.6		0.2	2.2	%	11.9		0.3	3	%
p+5.00*	21.9		1	2	%	24.7		1.1	2.2	%	36.4		1.5	3	%
p+6.00*	6		1	2	%	5.6		1.1	2.2	%	7.6		1.5	3	%
p+7.00*	8		1	2	%	7.8		1.1	2.2	%	10.6		1.5	3	%
p+8.00*	6		1	2	%	4.5		1.1	2.2	%	7.6		1.5	3	%
p+9.00*	5		1	2	%	5.6		1.1	2.2	%	7.6		1.5	3	%
p-1.00*	1.6	<RDL	0.2	2	%	3.4		0.2	2.2	%	1.6	<RDL	0.3	3	%
p-2.00(less than)*	0.4	<RDL	0.2	2	%	1.7	<RDL	0.2	2.2	%		<MDL	0.3	3	%
p-2.00*		<MDL	0.2	2	%	0.7	<RDL	0.2	2.2	%		<MDL	0.3	3	%
Sand*	45.9		0.2	2	%	46.2		0.2	2.2	%	25.2		0.3	3	%
Silt*	41.8		1	2	%	42.6		1.1	2.2	%	62.3		1.5	3	%
CV EPA 9030B/SM4500-S2-D															
Total Sulfide	19.4		0.82	1.66	mg/Kg	127		4.8	9.75	mg/Kg	55.3		6.2	12.4	mg/Kg
CV KEROUEL & AMINOT 1997 KCL															
Ammonia Nitrogen	1.42		0.036	0.178	mg/Kg	2.07		0.042	0.207	mg/Kg	1.87		0.052	0.264	mg/Kg
CV SM2540-G															
Total Solids*	55.8		0.005	0.01	%	47.8		0.005	0.01	%	38.7		0.005	0.01	%
CV SW846 9060 PSEP96															
Total Organic Carbon	16000		2300	4800	mg/Kg	31800		3800	7640	mg/Kg	30000		4900	9690	mg/Kg
ES NONE															
Field Personnel*	JDD, BK, CB, DH, AF, KF				none	JDD, BK, CB, DH, AF, KF				none	JDD, BK, CB, DH, AF, KF				none
Sampcoordx1*	1263345				ft	1263339				ft	1263221				ft
Sampcoordx2*	1263340				ft	1263332				ft	1263217				ft
Sampcoordx3*											1263216				ft
Sampcoordy1*	228662				ft	228910				ft	228804				ft
Sampcoordy2*	228661				ft	228907				ft	228806				ft
Sampcoordy3*											228810				ft
Sample Depth*	30				m	25				m	29				m
Sampling Method*	20143,				none	20143,				none	20143,				none
Sediment Sampling Depth*	17				cm	17				cm	17				cm
Sediment Sampling Range*	10	TA			cm	10	TA			cm	10	TA			cm
Sediment Type*	21W31				none	21T31				none	21N31				none

King County Environmental Lab Analytical Report

	Project:	423062-020				Project:	423062-020				Project:	423062-020			
	Locator:	DWMP-07				Locator:	DWMP-08				Locator:	DWMP-09			
	Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI			
	Sample:	L62484-7				Sample:	L62484-8				Sample:	L62484-9			
	Matrix:	SF SALTWTRSED				Matrix:	SF SALTWTRSED				Matrix:	SF SALTWTRSED			
	ColDate:	4/8/15 14:47				ColDate:	4/8/15 12:30				ColDate:	4/8/15 14:13			
	TimeSpan:					TimeSpan:					TimeSpan:				
	TotalSolid:	55.8				TotalSolid:	47.8				TotalSolid:	38.7			
	ClientLoc:					ClientLoc:					ClientLoc:				
	SampDepth:	30				SampDepth:	25				SampDepth:	29			
	DRY Weight Basis					**DRY Weight Basis**					**DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
Tidal Condition*	S				none	E				none	S				none
Tide Height*	0				ft	1.8				ft	-0.2				ft
MT SW846 3050B*SW846 6010C															
Arsenic, Total, ICP	8.2	<RDL	2.3	11.5	mg/Kg	8.4	<RDL	2.7	13.2	mg/Kg	11	<RDL	3.4	16.3	mg/Kg
Cadmium, Total, ICP	0.38	<RDL	0.18	0.916	mg/Kg	1.07	<RDL	0.21	1.06	mg/Kg	2.01		0.26	1.3	mg/Kg
Chromium, Total, ICP	37.1		0.27	1.37	mg/Kg	41.6		0.31	1.59	mg/Kg	44.4		0.39	1.95	mg/Kg
Copper, Total, ICP	42.8		0.36	1.83	mg/Kg	67.4		0.42	2.11	mg/Kg	56.8		0.52	2.61	mg/Kg
Lead, Total, ICP	47.8		1.8	9.16	mg/Kg	73.2		2.1	10.6	mg/Kg	62.8		2.6	13	mg/Kg
Silver, Total, ICP	1.1	<RDL	0.36	1.83	mg/Kg	3.08		0.42	2.11	mg/Kg	1.7	<RDL	0.52	2.61	mg/Kg
Zinc, Total, ICP	81		0.47	2.29	mg/Kg	122		0.52	2.66	mg/Kg	103		0.65	3.26	mg/Kg
MT SW846 7471B															
Mercury, Total, CVAA	0.468		0.0088	0.0871	mg/Kg	0.418		0.011	0.106	mg/Kg	0.62		0.013	0.129	mg/Kg
OR SW846 3550B*SW846 8081B															
4,4'-DDD	5.56		1.4	2.87	ug/Kg	13.2		1.7	3.35	ug/Kg	8.81		2.1	4.13	ug/Kg
4,4'-DDE	1.8	<RDL,J	1.4	2.87	ug/Kg	4.46	J	1.7	3.35	ug/Kg	3.4	<RDL,J	2.1	4.13	ug/Kg
4,4'-DDT	4.3	JL	1.4	2.87	ug/Kg	6.09	JL	1.7	3.35	ug/Kg		<MDL	5.9	5.99	ug/Kg
OR SW846 3550B*SW846 8082A															
Aroclor 1016		<MDL	7.2	28.7	ug/Kg		<MDL	8.4	33.5	ug/Kg		<MDL	10	41.3	ug/Kg
Aroclor 1221		<MDL	22	28.7	ug/Kg		<MDL	25	33.5	ug/Kg		<MDL	31	41.3	ug/Kg
Aroclor 1232		<MDL	22	28.7	ug/Kg		<MDL	25	33.5	ug/Kg		<MDL	31	41.3	ug/Kg
Aroclor 1242	32.8		7.2	28.7	ug/Kg	75.3		8.4	33.5	ug/Kg	50.4		10	41.3	ug/Kg
Aroclor 1248		<MDL	7.2	28.7	ug/Kg		<MDL	8.4	33.5	ug/Kg		<MDL	10	41.3	ug/Kg
Aroclor 1254	139		7.2	28.7	ug/Kg	232		8.4	33.5	ug/Kg	189		10	41.3	ug/Kg
Aroclor 1260	99.3		7.2	28.7	ug/Kg	147		8.4	33.5	ug/Kg	133		10	41.3	ug/Kg
Total Aroclors	271		7.2	28.7	ug/Kg	454		8.4	33.5	ug/Kg	372		10	41.3	ug/Kg
OR SW846 3550B*SW846 8270D															
1,2,4-Trichlorobenzene		<MDL	0.65	1.3	ug/Kg		<MDL	0.75	1.52	ug/Kg		<MDL	0.93	1.88	ug/Kg
1,2-Dichlorobenzene		<MDL	6.52	6.52	ug/Kg		<MDL	7.62	7.62	ug/Kg		<MDL	9.41	9.41	ug/Kg
1,4-Dichlorobenzene		<MDL	9.77	9.77	ug/Kg		<MDL	11.4	11.4	ug/Kg		<MDL	14.1	14.1	ug/Kg
1-Methylnaphthalene	9.7	<RDL	6.5	13	ug/Kg	20.9		7.5	15.2	ug/Kg	15	<RDL	9.3	18.8	ug/Kg
2,4-Dimethylphenol		<MDL	6.5	13	ug/Kg		<MDL	7.5	15.2	ug/Kg		<MDL	9.3	18.8	ug/Kg
2-Methylnaphthalene	12	<RDL	6.5	13	ug/Kg	26.4		7.5	15.2	ug/Kg	16	<RDL	9.3	18.8	ug/Kg
2-Methylphenol		<MDL	6.5	13	ug/Kg		<MDL	7.5	15.2	ug/Kg		<MDL	9.3	18.8	ug/Kg
3-,4-Methylphenol		<MDL	32	65.2	ug/Kg		<MDL	38	76.2	ug/Kg		<MDL	47	94.1	ug/Kg
Acenaphthene	16.8		6.5	13	ug/Kg	40.2		7.5	15.2	ug/Kg	25.6		9.3	18.8	ug/Kg
Acenaphthylene	24.4		6.5	13	ug/Kg	32		7.5	15.2	ug/Kg	31.5		9.3	18.8	ug/Kg
Anthracene	78.7		6.5	13	ug/Kg	142		7.5	15.2	ug/Kg	103		9.3	18.8	ug/Kg
Benzo(a)anthracene	185		6.5	13	ug/Kg	303		7.5	15.2	ug/Kg	258		9.3	18.8	ug/Kg
Benzo(a)pyrene	292		32	65.2	ug/Kg	467		38	76.2	ug/Kg	339		47	94.1	ug/Kg
Benzo(b,j,k)fluoranthene	600		32	65.2	ug/Kg	908		38	76.2	ug/Kg	724		47	94.1	ug/Kg
Benzo(g,h,i)perylene	177		32	65.2	ug/Kg	245		38	76.2	ug/Kg	219		47	94.1	ug/Kg

King County Environmental Lab Analytical Report

Project:	423062-020					Project:	423062-020					Project:	423062-020								
Locator:	DWMP-07					Locator:	DWMP-08					Locator:	DWMP-09								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L62484-7					Sample:	L62484-8					Sample:	L62484-9								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	4/8/15 14:47					ColDate:	4/8/15 12:30					ColDate:	4/8/15 14:13								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	55.8					TotalSolid:	47.8					TotalSolid:	38.7								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	30					SampDepth:	25					SampDepth:	29								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**					
Benzoic Acid		<MDL	130	130	ug/Kg		<MDL	152	152	ug/Kg			<MDL	188	188	ug/Kg					
Benzyl Alcohol		<MDL	16.3	16.3	ug/Kg		<MDL	19	19	ug/Kg			<MDL	23.5	23.5	ug/Kg					
Benzyl Butyl Phthalate		<MDL	9.77	9.77	ug/Kg	55.4		11.4	11.4	ug/Kg			<MDL	14.1	14.1	ug/Kg					
Bis(2-Ethylhexyl)Phthalate	396		13	26	ug/Kg	906		15	30.3	ug/Kg		584		19	37.5	ug/Kg					
Carbazole	28.5		6.5	13	ug/Kg	52.3		7.5	15.2	ug/Kg		36.7		9.3	18.8	ug/Kg					
Chrysene	296		6.5	13	ug/Kg	427		7.5	15.2	ug/Kg		339		9.3	18.8	ug/Kg					
Dibenzo(a,h)anthracene	54	<RDL	32	65.2	ug/Kg	80.1		38	76.2	ug/Kg			<MDL	47	94.1	ug/Kg					
Dibenzofuran	12	<RDL	6.5	13	ug/Kg	22		7.5	15.2	ug/Kg		15	<RDL	9.3	18.8	ug/Kg					
Diethyl Phthalate		<MDL	13	26	ug/Kg		<MDL	15	30.3	ug/Kg		26	<RDL	19	37.5	ug/Kg					
Dimethyl Phthalate		<MDL	13	13	ug/Kg		<MDL	15.2	15.2	ug/Kg			<MDL	18.8	18.8	ug/Kg					
Di-N-Butyl Phthalate		<MDL	13	26	ug/Kg		<MDL	15	30.3	ug/Kg		54.3		19	37.5	ug/Kg					
Di-N-Octyl Phthalate		<MDL	65.2	65.2	ug/Kg		<MDL	76.2	76.2	ug/Kg			<MDL	94.1	94.1	ug/Kg					
Fluoranthene	276		6.5	13	ug/Kg	546		7.5	15.2	ug/Kg		419		9.3	18.8	ug/Kg					
Fluorene	20.1		6.5	13	ug/Kg	57.7		7.5	15.2	ug/Kg		33.3		9.3	18.8	ug/Kg					
Hexachlorobenzene		<MDL	0.65	1.3	ug/Kg		<MDL	0.75	1.52	ug/Kg			<MDL	0.93	1.88	ug/Kg					
Hexachlorobutadiene		<MDL	3.2	6.52	ug/Kg		<MDL	3.8	7.62	ug/Kg			<MDL	4.7	9.41	ug/Kg					
Indeno(1,2,3-Cd)Pyrene	197		32	65.2	ug/Kg	270		38	76.2	ug/Kg		225		47	94.1	ug/Kg					
Naphthalene	15.7		6.5	13	ug/Kg	21.5		7.5	15.2	ug/Kg		23.6		9.3	18.8	ug/Kg					
N-Nitrosodiphenylamine		<MDL	16.3	16.3	ug/Kg		<MDL	19	19	ug/Kg			<MDL	23.5	23.5	ug/Kg					
Pentachlorophenol		<MDL	97.7	97.7	ug/Kg		<MDL	114	114	ug/Kg			<MDL	141	141	ug/Kg					
Phenanthrene	140		6.5	13	ug/Kg	397		7.5	15.2	ug/Kg		227		9.3	18.8	ug/Kg					
Phenol		<MDL	32	97.7	ug/Kg		<MDL	38	114	ug/Kg			<MDL	47	141	ug/Kg					
Pyrene	362		6.5	13	ug/Kg	766		7.5	15.2	ug/Kg		525		9.3	18.8	ug/Kg					
* Not converted to dry weight basis																					

King County Environmental Lab Analytical Report

	Project:	423062-020				Project:	423062-020				Project:	423062-020			
	Locator:	DWMP-10				Locator:	DWMP-11				Locator:	DWMP-12			
	Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI			
	Sample:	L62484-10				Sample:	L62484-11				Sample:	L62484-12			
	Matrix:	SF SALTWTRSED				Matrix:	SF SALTWTRSED				Matrix:	SF SALTWTRSED			
	ColDate:	4/8/15 13:20				ColDate:	4/9/15 9:56				ColDate:	4/9/15 10:15			
	TimeSpan:					TimeSpan:					TimeSpan:				
	TotalSolid:	83.1				TotalSolid:	51.3				TotalSolid:	25.9			
	ClientLoc:					ClientLoc:					ClientLoc:				
	SampDepth:	7				SampDepth:	23				SampDepth:	31			
	DRY Weight Basis					**DRY Weight Basis**					**DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
CV ASTM D422															
Clay*	2.1		0.5	1.1	%	13.4		1.1	2.2	%	29.9		2.5	5	%
Fines*	3.7		0.5	1.1	%	38		1.1	2.2	%	82.3		2.5	5	%
Gravel*	50.4	J	0.1	1.1	%	1.1	<RDL,J	0.2	2.2	%		<MDL,J	0.5	5	%
p+0.00*	16.6		0.1	1.1	%	1.3	<RDL	0.2	2.2	%		<MDL	0.5	5	%
p+1.00*	16.3		0.1	1.1	%	11.3		0.2	2.2	%		<MDL	0.5	5	%
p+10.0(equal/more than)*	1.1	RDL	0.5	1.1	%	6.7		1.1	2.2	%	10		2.5	5	%
p+2.00*	10.8		0.1	1.1	%	26.8		0.2	2.2	%	1.1	<RDL	0.5	5	%
p+3.00*	2.3		0.1	1.1	%	11.5		0.2	2.2	%	4.8	<RDL	0.5	5	%
p+4.00*	0.7	<RDL	0.1	1.1	%	7.5		0.2	2.2	%	11.5		0.5	5	%
p+5.00*	0.5	<RDL	0.5	1.1	%	11.2		1.1	2.2	%	32.4		2.5	5	%
p+6.00*	0.5	<RDL	0.5	1.1	%	4.5		1.1	2.2	%	10		2.5	5	%
p+7.00*	0.5	<RDL	0.5	1.1	%	6.7		1.1	2.2	%	10		2.5	5	%
p+8.00*		<MDL	0.5	1.1	%	2.2	RDL	1.1	2.2	%		<MDL	2.5	5	%
p+9.00*	1.1	RDL	0.5	1.1	%	6.7		1.1	2.2	%	19.9		2.5	5	%
p-1.00*	24.6		0.1	1.1	%	0.7	<RDL	0.2	2.2	%		<MDL	0.5	5	%
p-2.00(less than)*	19.1		0.1	1.1	%	0.3	<RDL	0.2	2.2	%		<MDL	0.5	5	%
p-2.00*	6.6		0.1	1.1	%		<MDL	0.2	2.2	%		<MDL	0.5	5	%
Sand*	46.7		0.1	1.1	%	58.4		0.2	2.2	%	17.4		0.5	5	%
Silt*	1.6		0.5	1.1	%	24.6		1.1	2.2	%	52.3		2.5	5	%
CV EPA 9030B/SM4500-S2-D															
Total Sulfide	43.1		2.9	5.73	mg/Kg	212		9	18.1	mg/Kg	183		8.9	17.6	mg/Kg
CV KEROUEL & AMINOT 1997 KCL															
Ammonia Nitrogen	1.95		0.12	0.603	mg/Kg	2.03		0.039	0.191	mg/Kg	2.73		0.077	0.39	mg/Kg
CV SM2540-G															
Total Solids*	83.1		0.005	0.01	%	51.3		0.005	0.01	%	25.9		0.005	0.01	%
CV SW846 9060 PSEP96															
Total Organic Carbon	2590		660	1320	mg/Kg	22400		3700	7430	mg/Kg	47900		6200	12100	mg/Kg
ES NONE															
Field Personnel*	JDD, BK, CB, DH, AF, KF				none	BK, JDD, CB, HF, AF, KF				none	BK, JDD, CB, HF, AF, KF				none
Sampcoordx1*	1263572				ft	1263279				ft	1263063				ft
Sampcoordx2*	1263556				ft	1263279				ft	1263048				ft
Sampcoordx3*															
Sampcoordy1*	229322				ft	229161				ft	228974				ft
Sampcoordy2*	229325				ft	229150				ft	228967				ft
Sampcoordy3*															
Sample Depth*	7				m	23				m	31				m
Sampling Method*	20143,				none	20143,				none	20143,				none
Sediment Sampling Depth*	6	TA			cm	14				cm	17				cm
Sediment Sampling Range*	10	TA			cm	10	TA			cm	10	TA			cm
Sediment Type*	34S31				none	23N26				none	20N21				none

King County Environmental Lab Analytical Report

	Project:	423062-020					Project:	423062-020					Project:	423062-020							
	Locator:	DWMP-10					Locator:	DWMP-11					Locator:	DWMP-12							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L62484-10					Sample:	L62484-11					Sample:	L62484-12							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	4/8/15 13:20					ColDate:	4/9/15 9:56					ColDate:	4/9/15 10:15							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	83.1					TotalSolid:	51.3					TotalSolid:	25.9							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	7					SampDepth:	23					SampDepth:	31							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**				
Tidal Condition*	S				none		E				none		E				none				
Tide Height*	0.5				ft		8.7				ft		8.2				ft				
MT SW846 3050B*SW846 6010C																					
Arsenic, Total, ICP	1.8	<RDL	1.6	7.61	mg/Kg		7.4	<RDL	2.5	12.4	mg/Kg		13	<RDL	5	24.7	mg/Kg				
Cadmium, Total, ICP	0.14	<RDL	0.12	0.608	mg/Kg		0.68	<RDL	0.19	0.99	mg/Kg		0.58	<RDL	0.39	1.97	mg/Kg				
Chromium, Total, ICP	8.48		0.18	0.912	mg/Kg		35.5		0.29	1.49	mg/Kg		46.7		0.58	2.96	mg/Kg				
Copper, Total, ICP	13.6		0.24	1.22	mg/Kg		43.1		0.39	1.99	mg/Kg		53.3		0.77	3.94	mg/Kg				
Lead, Total, ICP	4.5	<RDL	1.2	6.08	mg/Kg		63		1.9	9.9	mg/Kg		47.9		3.9	19.7	mg/Kg				
Silver, Total, ICP		<MDL	0.24	1.22	mg/Kg		2.09		0.39	1.99	mg/Kg		1.6	<RDL	0.77	3.94	mg/Kg				
Zinc, Total, ICP	25.9		0.3	1.52	mg/Kg		106		0.49	2.48	mg/Kg		96.9		1	4.94	mg/Kg				
MT SW846 7471B																					
Mercury, Total, CVAA	0.025	<RDL	0.0059	0.0594	mg/Kg		0.686		0.0094	0.0942	mg/Kg		0.429		0.02	0.198	mg/Kg				
OR SW846 3550B*SW846 8081B																					
4,4'-DDD		<MDL	0.96	1.93	ug/Kg		12.9		1.6	3.12	ug/Kg		4.2	<RDL	3.1	6.18	ug/Kg				
4,4'-DDE		<MDL	0.96	1.93	ug/Kg		4.33	J	1.6	3.12	ug/Kg			<MDL	3.1	6.18	ug/Kg				
4,4'-DDT		<MDL	0.96	1.93	ug/Kg			<MDL	5.8	5.8	ug/Kg		5.8	<RDL,JL	3.1	6.18	ug/Kg				
OR SW846 3550B*SW846 8082A																					
Aroclor 1016		<MDL	4.8	19.3	ug/Kg			<MDL	7.8	31.2	ug/Kg			<MDL	15	61.8	ug/Kg				
Aroclor 1221		<MDL	14	19.3	ug/Kg			<MDL	23	31.2	ug/Kg			<MDL	46	61.8	ug/Kg				
Aroclor 1232		<MDL	14	19.3	ug/Kg			<MDL	23	31.2	ug/Kg			<MDL	46	61.8	ug/Kg				
Aroclor 1242		<MDL	4.8	19.3	ug/Kg		154		7.8	31.2	ug/Kg		36	<RDL	15	61.8	ug/Kg				
Aroclor 1248		<MDL	4.8	19.3	ug/Kg			<MDL	7.8	31.2	ug/Kg			<MDL	15	61.8	ug/Kg				
Aroclor 1254		<MDL	4.8	19.3	ug/Kg		236		7.8	31.2	ug/Kg		144		15	61.8	ug/Kg				
Aroclor 1260		<MDL	4.8	19.3	ug/Kg		121		7.8	31.2	ug/Kg		124		15	61.8	ug/Kg				
Total Aroclors		<MDL	14	19.3	ug/Kg		511		7.8	31.2	ug/Kg		303		15	61.8	ug/Kg				
OR SW846 3550B*SW846 8270D																					
1,2,4-Trichlorobenzene		<MDL	0.43	0.875	ug/Kg			<MDL	0.7	1.42	ug/Kg			<MDL	1.4	2.81	ug/Kg				
1,2-Dichlorobenzene		<MDL	4.38	4.38	ug/Kg			<MDL	7.1	7.1	ug/Kg			<MDL	14.1	14.1	ug/Kg				
1,4-Dichlorobenzene		<MDL	6.56	6.56	ug/Kg			<MDL	10.6	10.6	ug/Kg			<MDL	21	21	ug/Kg				
1-Methylnaphthalene		<MDL	4.3	8.75	ug/Kg		15.8		7	14.2	ug/Kg			<MDL	14	28.1	ug/Kg				
2,4-Dimethylphenol		<MDL	4.3	8.75	ug/Kg			<MDL	7	14.2	ug/Kg			<MDL	14	28.1	ug/Kg				
2-Methylnaphthalene		<MDL	4.3	8.75	ug/Kg		16.5		7	14.2	ug/Kg			<MDL	14	28.1	ug/Kg				
2-Methylphenol		<MDL	4.3	8.75	ug/Kg			<MDL	7	14.2	ug/Kg			<MDL	14	28.1	ug/Kg				
3-,4-Methylphenol		<MDL	22	43.8	ug/Kg			<MDL	35	71	ug/Kg			<MDL	69	141	ug/Kg				
Acenaphthene		<MDL	4.3	8.75	ug/Kg		85		7	14.2	ug/Kg		24	<RDL	14	28.1	ug/Kg				
Acenaphthylene		<MDL	4.3	8.75	ug/Kg		16		7	14.2	ug/Kg		25	<RDL	14	28.1	ug/Kg				
Anthracene	20.2		4.3	8.75	ug/Kg		76		7	14.2	ug/Kg		86.1		14	28.1	ug/Kg				
Benzo(a)anthracene	42.7		4.3	8.75	ug/Kg		146		7	14.2	ug/Kg		237		14	28.1	ug/Kg				
Benzo(a)pyrene	45		4.3	8.75	ug/Kg		195		35	71	ug/Kg		342		14	28.1	ug/Kg				
Benzo(b,j,k)fluoranthene	124		4.3	8.75	ug/Kg		390		35	71	ug/Kg		923		14	28.1	ug/Kg				
Benzo(g,h,i)perylene	12.3		4.3	8.75	ug/Kg		122		35	71	ug/Kg		92.3		14	28.1	ug/Kg				

King County Environmental Lab Analytical Report

Project:	423062-020					Project:	423062-020					Project:	423062-020			
Locator:	DWMP-10					Locator:	DWMP-11					Locator:	DWMP-12			
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI			
Sample:	L62484-10					Sample:	L62484-11					Sample:	L62484-12			
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED			
ColDate:	4/8/15 13:20					ColDate:	4/9/15 9:56					ColDate:	4/9/15 10:15			
TimeSpan:						TimeSpan:						TimeSpan:				
TotalSolid:	83.1					TotalSolid:	51.3					TotalSolid:	25.9			
ClientLoc:						ClientLoc:						ClientLoc:				
SampDepth:	7					SampDepth:	23					SampDepth:	31			
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	
Benzoic Acid	112		87.5	87.5	ug/Kg		<MDL	142	142	ug/Kg		<MDL	281	281	ug/Kg	
Benzyl Alcohol		<MDL	10.9	10.9	ug/Kg		<MDL	17.7	17.7	ug/Kg		<MDL	35.1	35.1	ug/Kg	
Benzyl Butyl Phthalate		<MDL	6.56	6.56	ug/Kg		<MDL	10.6	10.6	ug/Kg	30.2		21	21	ug/Kg	
Bis(2-Ethylhexyl)Phthalate	42		8.8	17.4	ug/Kg	881		14	28.3	ug/Kg	486		28	56	ug/Kg	
Carbazole	5.3	<RDL	4.3	8.75	ug/Kg	38.4		7	14.2	ug/Kg	36.5		14	28.1	ug/Kg	
Chrysene	72.3		4.3	8.75	ug/Kg	188		7	14.2	ug/Kg	351		14	28.1	ug/Kg	
Dibenzo(a,h)anthracene	4.5	<RDL	4.3	8.75	ug/Kg	37	<RDL	35	71	ug/Kg	20	<RDL	14	28.1	ug/Kg	
Dibenzofuran		<MDL	4.3	8.75	ug/Kg	52.2		7	14.2	ug/Kg	15	<RDL	14	28.1	ug/Kg	
Diethyl Phthalate		<MDL	8.8	17.4	ug/Kg		<MDL	14	28.3	ug/Kg	46	<RDL	28	56	ug/Kg	
Dimethyl Phthalate		<MDL	8.75	8.75	ug/Kg		<MDL	14.2	14.2	ug/Kg		<MDL	28.1	28.1	ug/Kg	
Di-N-Butyl Phthalate		<MDL	8.8	17.4	ug/Kg	30		14	28.3	ug/Kg	50	<RDL	28	56	ug/Kg	
Di-N-Octyl Phthalate		<MDL	8.75	8.75	ug/Kg		<MDL	71	71	ug/Kg		<MDL	28.1	28.1	ug/Kg	
Fluoranthene	64.7		4.3	8.75	ug/Kg	273		7	14.2	ug/Kg	345		14	28.1	ug/Kg	
Fluorene	4.9	<RDL	4.3	8.75	ug/Kg	68.4		7	14.2	ug/Kg	29.9		14	28.1	ug/Kg	
Hexachlorobenzene		<MDL	0.43	0.875	ug/Kg		<MDL	0.7	1.42	ug/Kg		<MDL	1.4	2.81	ug/Kg	
Hexachlorobutadiene		<MDL	2.2	4.38	ug/Kg		<MDL	3.5	7.1	ug/Kg		<MDL	6.9	14.1	ug/Kg	
Indeno(1,2,3-Cd)Pyrene	16.6		4.3	8.75	ug/Kg	144		35	71	ug/Kg	112		14	28.1	ug/Kg	
Naphthalene		<MDL	4.3	8.75	ug/Kg	21.2		7	14.2	ug/Kg		<MDL	14	28.1	ug/Kg	
N-Nitrosodiphenylamine		<MDL	10.9	10.9	ug/Kg		<MDL	17.7	17.7	ug/Kg		<MDL	35.1	35.1	ug/Kg	
Pentachlorophenol		<MDL	65.6	65.6	ug/Kg		<MDL	106	106	ug/Kg		<MDL	210	210	ug/Kg	
Phenanthrene	30.4		4.3	8.75	ug/Kg	209		7	14.2	ug/Kg	185		14	28.1	ug/Kg	
Phenol		<MDL	22	65.6	ug/Kg		<MDL	35	106	ug/Kg		<MDL	69	210	ug/Kg	
Pyrene	56.9		4.3	8.75	ug/Kg	374		7	14.2	ug/Kg	398		14	28.1	ug/Kg	

* Not converted to dry weight basis

King County Environmental Lab Analytical Report

	Project:	423062-020				Project:	423062-020				Project:	423062-020			
	Locator:	DWMP-13				Locator:	DWMP-14				Locator:	DWMP-15			
	Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI				Descrip:	DENNY WAY MONITORI			
	Sample:	L62484-13				Sample:	L62484-14				Sample:	L62484-15			
	Matrix:	SF SALTWTRSED				Matrix:	SF SALTWTRSED				Matrix:	SF SALTWTRSED			
	ColDate:	4/8/15 12:57				ColDate:	4/9/15 8:18				ColDate:	4/9/15 9:06			
	TimeSpan:					TimeSpan:					TimeSpan:				
	TotalSolid:	76.9				TotalSolid:	49.1				TotalSolid:	59.2			
	ClientLoc:					ClientLoc:					ClientLoc:				
	SampDepth:	5				SampDepth:	15				SampDepth:	24			
	DRY Weight Basis					**DRY Weight Basis**					**DRY Weight Basis**				
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
CV ASTM D422															
Clay*	4.3		0.6	1.2	%	16		1.3	2.7	%	22.7		1	2.1	%
Fines*	7.3		0.6	1.2	%	72.2		1.3	2.7	%	63.9		1	2.1	%
Gravel*	24.9	J	0.1	1.2	%	1.9	<RDL,J	0.3	2.7	%	4.5	J	0.2	2.1	%
p+0.00*	6.9		0.1	1.2	%	0.4	<RDL	0.3	2.7	%	2	<RDL	0.2	2.1	%
p+1.00*	9.6		0.1	1.2	%		<MDL	0.3	2.7	%	2.7		0.2	2.1	%
p+10.0(equal/more than)*	2.4		0.6	1.2	%	8		1.3	2.7	%	14.4		1	2.1	%
p+2.00*	26.3		0.1	1.2	%	1.2	<RDL	0.3	2.7	%	5		0.2	2.1	%
p+3.00*	21.6		0.1	1.2	%	5.7		0.3	2.7	%	7.2		0.2	2.1	%
p+4.00*	5.8		0.1	1.2	%	18.8		0.3	2.7	%	10.6		0.2	2.1	%
p+5.00*		<MDL	0.6	1.2	%	37.4		1.3	2.7	%	14.4		1	2.1	%
p+6.00*	2.4		0.6	1.2	%	5.3		1.3	2.7	%	13.4		1	2.1	%
p+7.00*		<MDL	0.6	1.2	%	9.4		1.3	2.7	%	7.2		1	2.1	%
p+8.00*	0.6	<RDL	0.6	1.2	%	4		1.3	2.7	%	6.2		1	2.1	%
p+9.00*	1.8		0.6	1.2	%	8		1.3	2.7	%	8.2		1	2.1	%
p-1.00*	8.8		0.1	1.2	%	0.7	<RDL	0.3	2.7	%	2.5		0.2	2.1	%
p-2.00(less than)*	14.5		0.1	1.2	%	0.9	<RDL	0.3	2.7	%	2	<RDL	0.2	2.1	%
p-2.00*	1.6		0.1	1.2	%	0.4	<RDL	0.3	2.7	%		<MDL	0.2	2.1	%
Sand*	70.3		0.1	1.2	%	26.1		0.3	2.7	%	27.6		0.2	2.1	%
Silt*	3		0.6	1.2	%	56.2		1.3	2.7	%	41.2		1	2.1	%
CV EPA 9030B/SM4500-S2-D															
Total Sulfide	25		3	6.07	mg/Kg	314		24	49.1	mg/Kg	89.9		4.1	8.24	mg/Kg
CV KEROUEL & AMINOT 1997 KCL															
Ammonia Nitrogen	3.9		0.26	1.28	mg/Kg	2.55		0.041	0.208	mg/Kg	1.79		0.034	0.169	mg/Kg
CV SM2540-G															
Total Solids*	76.9		0.005	0.01	%	49.1		0.005	0.01	%	59.2		0.005	0.01	%
CV SW846 9060 PSEP96															
Total Organic Carbon	5880		660	1310	mg/Kg	22200		4700	9390	mg/Kg	11800		2200	4540	mg/Kg
ES NONE															
Field Personnel*	JDD, BK, CB, DH, AF, KF				none	BK, JDD, CB, HF, AF, KF				none	BK, JDD, CB, HF, AF, KF				none
Sampcoordx1*	1263326				ft	1263230				ft	1263055				ft
Sampcoordx2*	1263314				ft	1263234				ft	1263054				ft
Sampcoordx3*	1263315				ft										
Sampcoordy1*	229638				ft	229555				ft	229452				ft
Sampcoordy2*	229641				ft	229542				ft	229451				ft
Sampcoordy3*	229642				ft										
Sample Depth*	5				m	15				m	24				m
Sampling Method*	20143,				none	20143,				none	20143,				none
Sediment Sampling Depth*	7	TA			cm	16				cm	13				cm
Sediment Sampling Range*	10	TA			cm	10	TA			cm	10	TA			cm
Sediment Type*	32S31				none	20W31				none	21W31				none

King County Environmental Lab Analytical Report

	Project:	423062-020					Project:	423062-020					Project:	423062-020							
	Locator:	DWMP-13					Locator:	DWMP-14					Locator:	DWMP-15							
	Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI							
	Sample:	L62484-13					Sample:	L62484-14					Sample:	L62484-15							
	Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED							
	ColDate:	4/8/15 12:57					ColDate:	4/9/15 8:18					ColDate:	4/9/15 9:06							
	TimeSpan:						TimeSpan:						TimeSpan:								
	TotalSolid:	76.9					TotalSolid:	49.1					TotalSolid:	59.2							
	ClientLoc:						ClientLoc:						ClientLoc:								
	SampDepth:	5					SampDepth:	15					SampDepth:	24							
	DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**								
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**						
Tidal Condition*	E				none	S				none	S				none						
Tide Height*	0.9				ft	10				ft	9.7				ft						
MT SW846 3050B*SW846 6010C																					
Arsenic, Total, ICP	2.5	<RDL	1.7	8.4	mg/Kg	8.6	<RDL	2.6	12.8	mg/Kg	9.5	<RDL	2	10.4	mg/Kg						
Cadmium, Total, ICP		<MDL	0.13	0.672	mg/Kg	0.67	<RDL	0.2	1.02	mg/Kg	0.42	<RDL	0.17	0.831	mg/Kg						
Chromium, Total, ICP	13.3		0.21	1.01	mg/Kg	44.2		0.31	1.53	mg/Kg	55.1		0.25	1.25	mg/Kg						
Copper, Total, ICP	11.2		0.27	1.34	mg/Kg	61.7		0.41	2.04	mg/Kg	48.5		0.34	1.66	mg/Kg						
Lead, Total, ICP	10.1		1.3	6.72	mg/Kg	82.3		2	10.2	mg/Kg	42.1		1.7	8.31	mg/Kg						
Silver, Total, ICP		<MDL	0.27	1.34	mg/Kg	3.32		0.41	2.04	mg/Kg	1.1	<RDL	0.34	1.66	mg/Kg						
Zinc, Total, ICP	34.7		0.34	1.68	mg/Kg	109		0.51	2.57	mg/Kg	98.5		0.42	2.08	mg/Kg						
MT SW846 7471B																					
Mercury, Total, CVAA	0.0631		0.0062	0.0627	mg/Kg	0.564		0.0098	0.0984	mg/Kg	0.334		0.0084	0.0848	mg/Kg						
OR SW846 3550B*SW846 8081B																					
4,4'-DDD		<MDL	1	2.08	ug/Kg	13.4		1.6	3.26	ug/Kg	5.61		1.4	2.7	ug/Kg						
4,4'-DDE		<MDL	1	2.08	ug/Kg	4.7	J	1.6	3.26	ug/Kg	2.2	<RDL,J	1.4	2.7	ug/Kg						
4,4'-DDT		<MDL	2	2	ug/Kg	8.33	JL	1.6	3.26	ug/Kg		<MDL	4.4	4.4	ug/Kg						
OR SW846 3550B*SW846 8082A																					
Aroclor 1016		<MDL	5.2	20.8	ug/Kg		<MDL	8.1	32.6	ug/Kg		<MDL	6.8	27	ug/Kg						
Aroclor 1221		<MDL	16	20.8	ug/Kg		<MDL	24	32.6	ug/Kg		<MDL	20	27	ug/Kg						
Aroclor 1232		<MDL	16	20.8	ug/Kg		<MDL	24	32.6	ug/Kg		<MDL	20	27	ug/Kg						
Aroclor 1242		<MDL	5.2	20.8	ug/Kg	94.7		8.1	32.6	ug/Kg	52.4		6.8	27	ug/Kg						
Aroclor 1248		<MDL	5.2	20.8	ug/Kg		<MDL	8.1	32.6	ug/Kg		<MDL	6.8	27	ug/Kg						
Aroclor 1254	74.1		5.2	20.8	ug/Kg	287		8.1	32.6	ug/Kg	151		6.8	27	ug/Kg						
Aroclor 1260	11	<RDL	5.2	20.8	ug/Kg	174		8.1	32.6	ug/Kg	95.6		6.8	27	ug/Kg						
Total Aroclors	84.8		5.2	20.8	ug/Kg	556		8.1	32.6	ug/Kg	299		6.8	27	ug/Kg						
OR SW846 3550B*SW846 8270D																					
1,2,4-Trichlorobenzene		<MDL	0.47	0.945	ug/Kg	1.2	<RDL	0.73	1.48	ug/Kg		<MDL	0.61	1.23	ug/Kg						
1,2-Dichlorobenzene		<MDL	4.73	4.73	ug/Kg		<MDL	7.41	7.41	ug/Kg		<MDL	6.15	6.15	ug/Kg						
1,4-Dichlorobenzene		<MDL	7.09	7.09	ug/Kg		<MDL	11.1	11.1	ug/Kg		<MDL	9.21	9.21	ug/Kg						
1-Methylnaphthalene		<MDL	4.7	9.45	ug/Kg	23.2		7.3	14.8	ug/Kg	7.9	<RDL	6.1	12.3	ug/Kg						
2,4-Dimethylphenol		<MDL	4.7	9.45	ug/Kg		<MDL	7.3	14.8	ug/Kg		<MDL	6.1	12.3	ug/Kg						
2-Methylnaphthalene		<MDL	4.7	9.45	ug/Kg	28.9		7.3	14.8	ug/Kg	10	<RDL	6.1	12.3	ug/Kg						
2-Methylphenol		<MDL	4.7	9.45	ug/Kg		<MDL	7.3	14.8	ug/Kg		<MDL	6.1	12.3	ug/Kg						
3-,4-Methylphenol		<MDL	23	47.3	ug/Kg		<MDL	37	74.1	ug/Kg		<MDL	30	61.5	ug/Kg						
Acenaphthene		<MDL	4.7	9.45	ug/Kg	44.2		7.3	14.8	ug/Kg	11	<RDL	6.1	12.3	ug/Kg						
Acenaphthylene	4.9	<RDL	4.7	9.45	ug/Kg	42.8		7.3	14.8	ug/Kg	15.1		6.1	12.3	ug/Kg						
Anthracene	24.8		4.7	9.45	ug/Kg	170		7.3	14.8	ug/Kg	51.4		6.1	12.3	ug/Kg						
Benzo(a)anthracene	85.4		4.7	9.45	ug/Kg	450		7.3	14.8	ug/Kg	149		6.1	12.3	ug/Kg						
Benzo(a)pyrene	97.7		23	47.3	ug/Kg	585		37	74.1	ug/Kg	206		6.1	12.3	ug/Kg						
Benzo(b,j,k)fluoranthene	228		23	47.3	ug/Kg	1280		37	74.1	ug/Kg	480		6.1	12.3	ug/Kg						
Benzo(g,h,i)perylene	44	<RDL	23	47.3	ug/Kg	255		37	74.1	ug/Kg	93.1		6.1	12.3	ug/Kg						

King County Environmental Lab Analytical Report

Project:	423062-020					Project:	423062-020					Project:	423062-020								
Locator:	DWMP-13					Locator:	DWMP-14					Locator:	DWMP-15								
Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI					Descrip:	DENNY WAY MONITORI								
Sample:	L62484-13					Sample:	L62484-14					Sample:	L62484-15								
Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED					Matrix:	SF SALTWTRSED								
ColDate:	4/8/15 12:57					ColDate:	4/9/15 8:18					ColDate:	4/9/15 9:06								
TimeSpan:						TimeSpan:						TimeSpan:									
TotalSolid:	76.9					TotalSolid:	49.1					TotalSolid:	59.2								
ClientLoc:						ClientLoc:						ClientLoc:									
SampDepth:	5					SampDepth:	15					SampDepth:	24								
DRY Weight Basis						**DRY Weight Basis**						**DRY Weight Basis**									
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**		**Value**	**Qual**	**MDL**	**RDL**	**Units**					
Benzoic Acid	290		94.5	94.5	ug/Kg	187		148	148	ug/Kg			<MDL	123	123	ug/Kg					
Benzyl Alcohol		<MDL	11.8	11.8	ug/Kg		<MDL	18.5	18.5	ug/Kg			<MDL	15.4	15.4	ug/Kg					
Benzyl Butyl Phthalate		<MDL	7.09	7.09	ug/Kg	566		11.1	11.1	ug/Kg		49.3		9.21	9.21	ug/Kg					
Bis(2-Ethylhexyl)Phthalate	71.5		9.5	18.9	ug/Kg	933		15	29.5	ug/Kg		380		12	24.5	ug/Kg					
Carbazole	12.6		4.7	9.45	ug/Kg	72.5		7.3	14.8	ug/Kg		22.5		6.1	12.3	ug/Kg					
Chrysene	121		4.7	9.45	ug/Kg	566		7.3	14.8	ug/Kg		208		6.1	12.3	ug/Kg					
Dibenzo(a,h)anthracene		<MDL	23	47.3	ug/Kg	79.4		37	74.1	ug/Kg		29.7		6.1	12.3	ug/Kg					
Dibenzofuran		<MDL	4.7	9.45	ug/Kg	27.5		7.3	14.8	ug/Kg		8.8	<RDL	6.1	12.3	ug/Kg					
Diethyl Phthalate		<MDL	9.5	18.9	ug/Kg		<MDL	15	29.5	ug/Kg			<MDL	12	24.5	ug/Kg					
Dimethyl Phthalate		<MDL	9.45	9.45	ug/Kg		<MDL	14.8	14.8	ug/Kg			<MDL	12.3	12.3	ug/Kg					
Di-N-Butyl Phthalate		<MDL	9.5	18.9	ug/Kg	246		15	29.5	ug/Kg			<MDL	12	24.5	ug/Kg					
Di-N-Octyl Phthalate		<MDL	47.3	47.3	ug/Kg		<MDL	74.1	74.1	ug/Kg			<MDL	12.3	12.3	ug/Kg					
Fluoranthene	183		4.7	9.45	ug/Kg	772		7.3	14.8	ug/Kg		252		6.1	12.3	ug/Kg					
Fluorene	7.7	<RDL	4.7	9.45	ug/Kg	55.4		7.3	14.8	ug/Kg		15.3		6.1	12.3	ug/Kg					
Hexachlorobenzene		<MDL	0.47	0.945	ug/Kg		<MDL	0.73	1.48	ug/Kg			<MDL	0.61	1.23	ug/Kg					
Hexachlorobutadiene		<MDL	2.3	4.73	ug/Kg		<MDL	3.7	7.41	ug/Kg			<MDL	3	6.15	ug/Kg					
Indeno(1,2,3-Cd)Pyrene	47.5		23	47.3	ug/Kg	324		37	74.1	ug/Kg		107		6.1	12.3	ug/Kg					
Naphthalene		<MDL	4.7	9.45	ug/Kg	33		7.3	14.8	ug/Kg		12	<RDL	6.1	12.3	ug/Kg					
N-Nitrosodiphenylamine		<MDL	11.8	11.8	ug/Kg		<MDL	18.5	18.5	ug/Kg			<MDL	15.4	15.4	ug/Kg					
Pentachlorophenol		<MDL	70.9	70.9	ug/Kg		<MDL	111	111	ug/Kg			<MDL	92.1	92.1	ug/Kg					
Phenanthrene	57.3		4.7	9.45	ug/Kg	420		7.3	14.8	ug/Kg		109		6.1	12.3	ug/Kg					
Phenol		<MDL	23	70.9	ug/Kg		<MDL	37	111	ug/Kg			<MDL	30	92.1	ug/Kg					
Pyrene	211		4.7	9.45	ug/Kg	1070		7.3	14.8	ug/Kg		282		6.1	12.3	ug/Kg					
* Not converted to dry weight basis																					

King County Environmental Lab Analytical Report

Project:	423062-020
Locator:	DWMP-16
Descrip:	DENNY WAY MONITORI
Sample:	L62484-16
Matrix:	SF SALTWTRSED
ColDate:	4/9/15 9:35
TimeSpan:	
TotalSolid:	49.5
ClientLoc:	
SampDepth:	27

DRY Weight Basis

Parameters	Value	Qual	MDL	RDL	Units
CV ASTM D422					
Clay*	34.6		1.3	2.7	%
Fines*	77.1		1.3	2.7	%
Gravel*	1.8	<RDL,J	0.3	2.7	%
p+0.00*	1.2	<RDL	0.3	2.7	%
p+1.00*		<MDL	0.3	2.7	%
p+10.0(equal/more than)*	16		1.3	2.7	%
p+2.00*	3.6		0.3	2.7	%
p+3.00*	5.2		0.3	2.7	%
p+4.00*	9.7		0.3	2.7	%
p+5.00*	18.6		1.3	2.7	%
p+6.00*	13.3		1.3	2.7	%
p+7.00*	2.7	RDL	1.3	2.7	%
p+8.00*	8		1.3	2.7	%
p+9.00*	18.6		1.3	2.7	%
p-1.00*	1.1	<RDL	0.3	2.7	%
p-2.00(less than)*		<MDL	0.3	2.7	%
p-2.00*	0.7	<RDL	0.3	2.7	%
Sand*	19.7		0.3	2.7	%
Silt*	42.6		1.3	2.7	%
CV EPA 9030B/SM4500-S2-D					
Total Sulfide	83.6		4.8	9.8	mg/Kg
CV KEROUEL & AMINOT 1997 KCL					
Ammonia Nitrogen	1.62		0.04	0.204	mg/Kg
CV SM2540-G					
Total Solids*	49.5		0.005	0.01	%
CV SW846 9060 PSEP96					
Total Organic Carbon	23000		2800	5740	mg/Kg
ES NONE					
Field Personnel*	BK, JDD, CB, HF, AF, KF				none
Sampcoordx1*	1262966				ft
Sampcoordx2*	1262976				ft
Sampcoordx3*					
Sampcoordy1*	229349				ft
Sampcoordy2*	229353				ft
Sampcoordy3*					
Sample Depth*	27				m
Sampling Method*	20143,				none
Sediment Sampling Depth*	17				cm
Sediment Sampling Range*	10	TA			cm
Sediment Type*	21S31				none

King County Environmental Lab Analytical Report

Project:	423062-020
Locator:	DWMP-16
Descrip:	DENNY WAY MONITORI
Sample:	L62484-16
Matrix:	SF SALTWTRSED
ColDate:	4/9/15 9:35
TimeSpan:	
TotalSolid:	49.5
ClientLoc:	
SampDepth:	27

DRY Weight Basis

Parameters	Value	Qual	MDL	RDL	Units
Tidal Condition*	E				none
Tide Height*	9.2				ft
MT SW846 3050B*SW846 6010C					
Arsenic, Total, ICP	8.5	<RDL	2.4	12.5	mg/Kg
Cadmium, Total, ICP	0.46	<RDL	0.2	1	mg/Kg
Chromium, Total, ICP	58.8		0.3	1.5	mg/Kg
Copper, Total, ICP	57.6		0.4	2	mg/Kg
Lead, Total, ICP	42		2	10	mg/Kg
Silver, Total, ICP	1.2	<RDL	0.4	2	mg/Kg
Zinc, Total, ICP	103		0.51	2.51	mg/Kg
MT SW846 7471B					
Mercury, Total, CVAA	0.566		0.01	0.1	mg/Kg
OR SW846 3550B*SW846 8081B					
4,4'-DDD	3.84		1.6	3.23	ug/Kg
4,4'-DDE	2	<RDL,J	1.6	3.23	ug/Kg
4,4'-DDT		<MDL	4.4	4.53	ug/Kg
OR SW846 3550B*SW846 8082A					
Aroclor 1016		<MDL	8.1	32.3	ug/Kg
Aroclor 1221		<MDL	24	32.3	ug/Kg
Aroclor 1232		<MDL	24	32.3	ug/Kg
Aroclor 1242	37.4		8.1	32.3	ug/Kg
Aroclor 1248		<MDL	8.1	32.3	ug/Kg
Aroclor 1254	136		8.1	32.3	ug/Kg
Aroclor 1260	98.4		8.1	32.3	ug/Kg
Total Aroclors	271		8.1	32.3	ug/Kg
OR SW846 3550B*SW846 8270D					
1,2,4-Trichlorobenzene		<MDL	0.73	1.47	ug/Kg
1,2-Dichlorobenzene		<MDL	7.35	7.35	ug/Kg
1,4-Dichlorobenzene		<MDL	11	11	ug/Kg
1-Methylnaphthalene	7.9	<RDL	7.3	14.7	ug/Kg
2,4-Dimethylphenol		<MDL	7.3	14.7	ug/Kg
2-Methylnaphthalene	10	<RDL	7.3	14.7	ug/Kg
2-Methylphenol		<MDL	7.3	14.7	ug/Kg
3-,4-Methylphenol		<MDL	36	73.5	ug/Kg
Acenaphthene	13	<RDL	7.3	14.7	ug/Kg
Acenaphthylene	14	<RDL	7.3	14.7	ug/Kg
Anthracene	55.2		7.3	14.7	ug/Kg
Benzo(a)anthracene	138		7.3	14.7	ug/Kg
Benzo(a)pyrene	194		7.3	14.7	ug/Kg
Benzo(b,j,k)fluoranthene	426		7.3	14.7	ug/Kg
Benzo(g,h,i)perylene	86.1		7.3	14.7	ug/Kg

King County Environmental Lab Analytical Report

Project: 423062-020
Locator: DWMP-16
Descrip: DENNY WAY MONITORI
Sample: L62484-16
Matrix: SF SALTWTRSED
ColDate: 4/9/15 9:35
TimeSpan:
TotalSolid: 49.5
ClientLoc:
SampDepth: 27
DRY Weight Basis

Parameters	Value	Qual	MDL	RDL	Units
Benzoic Acid		<MDL	147	147	ug/Kg
Benzyl Alcohol		<MDL	18.4	18.4	ug/Kg
Benzyl Butyl Phthalate		<MDL	11	11	ug/Kg
Bis(2-Ethylhexyl)Phthalate	289		15	29.3	ug/Kg
Carbazole	24.4		7.3	14.7	ug/Kg
Chrysene	204		7.3	14.7	ug/Kg
Dibenzo(a,h)anthracene	26.5		7.3	14.7	ug/Kg
Dibenzofuran	7.5	<RDL	7.3	14.7	ug/Kg
Diethyl Phthalate	16	<RDL	15	29.3	ug/Kg
Dimethyl Phthalate		<MDL	14.7	14.7	ug/Kg
Di-N-Butyl Phthalate	22	<RDL	15	29.3	ug/Kg
Di-N-Octyl Phthalate		<MDL	14.7	14.7	ug/Kg
Fluoranthene	232		7.3	14.7	ug/Kg
Fluorene	19.4		7.3	14.7	ug/Kg
Hexachlorobenzene		<MDL	0.73	1.47	ug/Kg
Hexachlorobutadiene		<MDL	3.6	7.35	ug/Kg
Indeno(1,2,3-Cd)Pyrene	101		7.3	14.7	ug/Kg
Naphthalene	15.9		7.3	14.7	ug/Kg
N-Nitrosodiphenylamine		<MDL	18.4	18.4	ug/Kg
Pentachlorophenol		<MDL	110	110	ug/Kg
Phenanthrene	126		7.3	14.7	ug/Kg
Phenol		<MDL	36	110	ug/Kg
Pyrene	255		7.3	14.7	ug/Kg

* Not converted to dry weight basis

King County Environmental Lab Analytical MATRIX Report

Owner: SEEDPAK
Matrix Class: SOLID/TISSUE
User select: DRY Weight Basis

LOCATOR	PROJECT	SAMPLE	COLLECTED	*Clay	*Fines	*Gravel	*Sand	*Silt	*p+0.00	*p+1.00	*p+10.0(equal/more than)	*p+2.00	*p+3.00	*p+4.00	*p+5.00	*p+6.00	*p+7.00	*p+8.00	*p+9.00	*p-1.00	*p-2.00	*p-2.00(less than)	Total Sulfide	Ammonia Nitrogen
				%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	mg/Kg	mg/Kg
DWMP-01	423062-020	L62484-1	4/8/2015 9:26	11.9	61.7	10.8	25.5	49.8	1.6	1.4	7.1	2.2	6.5	13.9	29.7	5.9	7.1	7.1	4.7	2.4	0.6	7.8	419	3.62
DWMP-02	423062-020	L62484-2	4/8/2015 10:52	10.7	38.1	5.6	60.7	27.4	4.6	9.8	6.1	19.4	15	11.9	16.8	3.8	2.3	4.6	4.6	4.2		1.4		2.45
DWMP-03	423062-020	L62484-3	4/8/2015 9:54	14.1	64	9.2	34.7	49.9	0.8	2.6	5.1	9.3	8.7	13.4	28.2	7.7	7.7	6.4	9	1		8.1	14.7	1.55
DWMP-04	423062-020	L62484-4	4/8/2015 11:11	12.4	52.9	7.7	37.2	40.6	3.7	5.5	7.1	10.6	9.3	8.1	12.4	12.4	10.6	5.3	5.3	4.5	1.2	2	234	1.56
DWMP-05	423062-020	L62484-5	4/8/2015 11:59	5.1	8.3	39	54.6	3.2	15.2	11.5	3.8	13.5	9.7	4.7	1.3	0.6		1.3	1.3	15.1	3.3	20.6	42.2	6.68
DWMP-06	423062-020	L62484-6	4/9/2015 8:48	11.4	47.6	3	56.1	36.2	1.9	10.1	3.8	28.4	10.6	5.2	17.1	5.7	7.6	5.7	7.6	1.8	0.3	0.9	18.9	1.11
DWMP-07	423062-020	L62484-7	4/8/2015 14:47	10	51.8	2	45.9	41.8	1.9	4.3	5	13.6	15.8	10.2	21.9	6	8	6	5	1.6		0.4	19.4	1.42
DWMP-08	423062-020	L62484-8	4/8/2015 12:30	13.5	56.1	5.8	46.2	42.6	3.3	6.2	7.8	15.5	11.8	9.6	24.7	5.6	7.8	4.5	5.6	3.4	0.7	1.7	127	2.07
DWMP-09	423062-020	L62484-9	4/8/2015 14:13	13.7	75.9	1.6	25.2	62.3	0.7	1	6.1	4.1	7.4	11.9	36.4	7.6	10.6	7.6	7.6	1.6			55.3	1.87
DWMP-10	423062-020	L62484-10	4/8/2015 13:20	2.1	3.7	50.4	46.7	1.6	16.6	16.3	1.1	10.8	2.3	0.7	0.5	0.5	0.5		1.1	24.6	6.6	19.1	43.1	1.95
DWMP-11	423062-020	L62484-11	4/9/2015 9:56	13.4	38	1.1	58.4	24.6	1.3	11.3	6.7	26.8	11.5	7.5	11.2	4.5	6.7	2.2	6.7	0.7		0.3	212	2.03
DWMP-12	423062-020	L62484-12	4/9/2015 10:15	29.9	82.3		17.4	52.3			10	1.1	4.8	11.5	32.4	10	10		19.9				183	2.73
DWMP-13	423062-020	L62484-13	4/8/2015 12:57	4.3	7.3	24.9	70.3	3	6.9	9.6	2.4	26.3	21.6	5.8		2.4		0.6	1.8	8.8	1.6	14.5	25	3.9
DWMP-14	423062-020	L62484-14	4/9/2015 8:18	16	72.2	1.9	26.1	56.2	0.4		8	1.2	5.7	18.8	37.4	5.3	9.4	4	8	0.7	0.4	0.9	314	2.55
DWMP-15	423062-020	L62484-15	4/9/2015 9:06	22.7	63.9	4.5	27.6	41.2	2	2.7	14.4	5	7.2	10.6	14.4	13.4	7.2	6.2	8.2	2.5		2	89.9	1.79
DWMP-16	423062-020	L62484-16	4/9/2015 9:35	34.6	77.1	1.8	19.7	42.6	1.2		16	3.6	5.2	9.7	18.6	13.3	2.7	8	18.6	1.1	0.7		83.6	1.62

* Not converted to dry weight basis

If a parameter/analyte appears twice in the column header, it implies that they were analyzed by two different method codes

King County Environmental Lab Analytical MATRIX Report

Owner: SEEDPAK
Matrix Class: SOLID/TISSUE
User select: DRY Weight Basis

LOCATOR	PROJECT	SAMPLE	COLLECTED	*Total Solids	Total Organic Carbon	Arsenic, Total, ICP	Cadmium, Total, ICP	Chromium, Total, ICP	Copper, Total, ICP	Lead, Total, ICP	Silver, Total, ICP	Zinc, Total, ICP	Mercury, Total, CVAA	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aroclor 1242	Aroclor 1254	Aroclor 1260	Total Aroclors
				%	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
DWMP-01	423062-020	L62484-1	4/8/2015 9:26	40.6	65500	12	0.74	42.4	70.2	103	3.23	134	0.771	11.5	5.07	8.77	101	259	171	531
DWMP-02	423062-020	L62484-2	4/8/2015 10:52	65.8	8750	5	0.17	31.6	29.8	36	0.33	70.2	0.267	2.43		2.84	11	50.2	41	102
DWMP-03	423062-020	L62484-3	4/8/2015 9:54	51.6	20500	8.3	0.76	38.4	48.6	73.3	2.73	105	0.583	10.9	5.14		124	293	167	584
DWMP-04	423062-020	L62484-4	4/8/2015 11:11	57.2	13700	7.7	0.28	42.5	41.1	33.4		84.3	0.287	2.3		3.08	13	93.2	57.2	163
DWMP-05	423062-020	L62484-5	4/8/2015 11:59	76	6870	3.6	0.17	16.8	17.9	23.8		56.6	0.0867	1.3		1.4	13	38.3	16	66.7
DWMP-06	423062-020	L62484-6	4/9/2015 8:48	56.7	15000	7.4	0.23	36.3	34.2	27		76.4	0.166			1.9	11	40.4	35.6	86.9
DWMP-07	423062-020	L62484-7	4/8/2015 14:47	55.8	16000	8.2	0.38	37.1	42.8	47.8	1.1	81	0.468	5.56	1.8	4.3	32.8	139	99.3	271
DWMP-08	423062-020	L62484-8	4/8/2015 12:30	47.8	31800	8.4	1.07	41.6	67.4	73.2	3.08	122	0.418	13.2	4.46	6.09	75.3	232	147	454
DWMP-09	423062-020	L62484-9	4/8/2015 14:13	38.7	30000	11	2.01	44.4	56.8	62.8	1.7	103	0.62	8.81	3.4		50.4	189	133	372
DWMP-10	423062-020	L62484-10	4/8/2015 13:20	83.1	2590	1.8	0.14	8.48	13.6	4.5		25.9	0.025							
DWMP-11	423062-020	L62484-11	4/9/2015 9:56	51.3	22400	7.4	0.68	35.5	43.1	63	2.09	106	0.686	12.9	4.33		154	236	121	511
DWMP-12	423062-020	L62484-12	4/9/2015 10:15	25.9	47900	13	0.58	46.7	53.3	47.9	1.6	96.9	0.429	4.2		5.8	36	144	124	303
DWMP-13	423062-020	L62484-13	4/8/2015 12:57	76.9	5880	2.5		13.3	11.2	10.1		34.7	0.0631					74.1	11	84.8
DWMP-14	423062-020	L62484-14	4/9/2015 8:18	49.1	22200	8.6	0.67	44.2	61.7	82.3	3.32	109	0.564	13.4	4.7	8.33	94.7	287	174	556
DWMP-15	423062-020	L62484-15	4/9/2015 9:06	59.2	11800	9.5	0.42	55.1	48.5	42.1	1.1	98.5	0.334	5.61	2.2		52.4	151	95.6	299
DWMP-16	423062-020	L62484-16	4/9/2015 9:35	49.5	23000	8.5	0.46	58.8	57.6	42	1.2	103	0.566	3.84	2		37.4	136	98.4	271
* Not converted to dry weight basis																				
If a parameter/analyte appears twice in the column header, it i																				

King County Environmental Lab Analytical MATRIX Report

Owner: SEEDPAK
Matrix Class: SOLID/TISSUE
User select: DRY Weight Basis

LOCATOR	PROJECT	SAMPLE	COLLECTED	1,2,4-Trichlorobenzene	1-Methylnaphthalene	2,4-Dimethylphenol	2-Methylnaphthalene	2-Methylphenol	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b,j,k)fluoranthene	Benzo(g,h,i)perylene	Benzoic Acid	Benzyl Butyl Phthalate	Bis(2-Ethylhexyl)Phthalate	Carbazole	Chrysene
				ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
DWMP-01	423062-020	L62484-1	4/8/2015 9:26		59.4	29.6	75.6	13	133	510	2040	5170	9750	23400	2510	183	249	897	458	10400
DWMP-02	423062-020	L62484-2	4/8/2015 10:52		7.9		9.7		18.4	20.7	87.4	220	261	731	71.7		17	181	31.2	372
DWMP-03	423062-020	L62484-3	4/8/2015 9:54		16.3		20		40.5	39.1	166	343	496	1070	302			1270	51.9	463
DWMP-04	423062-020	L62484-4	4/8/2015 11:11		14.4		19.4		15.3	23.4	80.4	185	264	565	184			177	29	281
DWMP-05	423062-020	L62484-5	4/8/2015 11:59		7.6		8.9		13.8	23.2	84.1	314	413	1220	91.8	250	51.6	153	32.1	630
DWMP-06	423062-020	L62484-6	4/9/2015 8:48		7.6		9.9		7.4	9.7	39.5	101	150	342	66.7		15.5	127	13.6	158
DWMP-07	423062-020	L62484-7	4/8/2015 14:47		9.7		12		16.8	24.4	78.7	185	292	600	177			396	28.5	296
DWMP-08	423062-020	L62484-8	4/8/2015 12:30		20.9		26.4		40.2	32	142	303	467	908	245		55.4	906	52.3	427
DWMP-09	423062-020	L62484-9	4/8/2015 14:13		15		16		25.6	31.5	103	258	339	724	219			584	36.7	339
DWMP-10	423062-020	L62484-10	4/8/2015 13:20								20.2	42.7	45	124	12.3	112		42	5.3	72.3
DWMP-11	423062-020	L62484-11	4/9/2015 9:56		15.8		16.5		85	16	76	146	195	390	122			881	38.4	188
DWMP-12	423062-020	L62484-12	4/9/2015 10:15						24	25	86.1	237	342	923	92.3		30.2	486	36.5	351
DWMP-13	423062-020	L62484-13	4/8/2015 12:57							4.9	24.8	85.4	97.7	228	44	290		71.5	12.6	121
DWMP-14	423062-020	L62484-14	4/9/2015 8:18	1.2	23.2		28.9		44.2	42.8	170	450	585	1280	255	187	566	933	72.5	566
DWMP-15	423062-020	L62484-15	4/9/2015 9:06		7.9		10		11	15.1	51.4	149	206	480	93.1		49.3	380	22.5	208
DWMP-16	423062-020	L62484-16	4/9/2015 9:35		7.9		10		13	14	55.2	138	194	426	86.1			289	24.4	204
* Not converted to dry weight basis																				
If a parameter/analyte appears twice in the column header, it i																				

King County Environmental Lab Analytical MATRIX Report

Owner: SEEDPAK
Matrix Class: SOLID/TISSUE
User select: DRY Weight Basis

LOCATOR	PROJECT	SAMPLE	COLLECTED	Di-N-Butyl Phthalate	Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl Phthalate	Fluoranthene	Fluorene	Indeno(1,2,3-Cd)Pyrene	Naphthalene	Phenanthrene	Pyrene
				ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
DWMP-01	423062-020	L62484-1	4/8/2015 9:26		1030	79.1	20	2910	318	3670	113	1940	6650
DWMP-02	423062-020	L62484-2	4/8/2015 10:52	20	25.8	11.2		342	29.5	102	11.1	219	388
DWMP-03	423062-020	L62484-3	4/8/2015 9:54		79.3	24.4		576	53.3	351	25.8	339	795
DWMP-04	423062-020	L62484-4	4/8/2015 11:11		59	11		309	26.9	217	17.7	165	379
DWMP-05	423062-020	L62484-5	4/8/2015 11:59		27.8	8.7		495	25.8	120	8.6	161	474
DWMP-06	423062-020	L62484-6	4/9/2015 8:48	21	19.6			170	11	83.4	9.5	72.1	189
DWMP-07	423062-020	L62484-7	4/8/2015 14:47		54	12		276	20.1	197	15.7	140	362
DWMP-08	423062-020	L62484-8	4/8/2015 12:30		80.1	22		546	57.7	270	21.5	397	766
DWMP-09	423062-020	L62484-9	4/8/2015 14:13	54.3		15	26	419	33.3	225	23.6	227	525
DWMP-10	423062-020	L62484-10	4/8/2015 13:20		4.5			64.7	4.9	16.6		30.4	56.9
DWMP-11	423062-020	L62484-11	4/9/2015 9:56	30	37	52.2		273	68.4	144	21.2	209	374
DWMP-12	423062-020	L62484-12	4/9/2015 10:15	50	20	15	46	345	29.9	112		185	398
DWMP-13	423062-020	L62484-13	4/8/2015 12:57					183	7.7	47.5		57.3	211
DWMP-14	423062-020	L62484-14	4/9/2015 8:18	246	79.4	27.5		772	55.4	324	33	420	1070
DWMP-15	423062-020	L62484-15	4/9/2015 9:06		29.7	8.8		252	15.3	107	12	109	282
DWMP-16	423062-020	L62484-16	4/9/2015 9:35	22	26.5	7.5	16	232	19.4	101	15.9	126	255
* Not converted to dry weight basis													
If a parameter/analyte appears twice in the column header, it i													

CHAIN OF CUSTODY FORMS

LABORATORY WORK ORDER
Chain of Custody

Project Name: Denny Way Sediments
Project Number: 423062-020
Laboratory Project Manager: Fritz Grothkopp/Bob Kruger
Telephone Number: 477 7114/7147

King County Department of Natural Resources
Water and Land Resources Division
Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507

Note: Use only one Login No. per sheet. Sample Number	Client Locator	Collect Date		TOC/TOTS	NH3-KCL	TOTSULFIDE	PSD	Metals + HG-CVAA-M	BNASMS/PESTSMS/PCB								Number of Containers	Comments
L 62484 - 1	DWMP-01	4/8/15		✓	✓	✓	1	1	2								7	
L - 2	-02	4/8/15		1	1	1	1	1	2								7	
L - 3	-03	4/8/15		1	1	1	2	1	2								8	
L - 4	-04	4/8/15		1	1	1	1	1	2								7	
L - 5	-05	4/8/15		1	1	1	1	1	2								7	
L - 7	-07	4/8/15		1	1	1	1	1	2								7	
L - 8	-08	4/8/15		1	1	1	1	1	2								7	
L - 9	-09	4/8/15		1	1	1	1	1	2								7	
L - 10	-10	4/8/15		1	1	1	1	1	2								7	
L - 13	-13	4/8/15		1	1	1	1	1	2								7	
L -																		

Additional Comments:

Total Number of Containers 71

Sampled By: BL, JDD, CB, DH, AF, KF

Relinquished By:
Signature
Printed Name Bob Kruger
Organization King County Environmental Laboratory
Date 4/8/15
Time 1610

Received By:
Signature
Printed Name Jason Kinnard
Organization King County Environmental Laboratory
Date 4-8-15
Time 1615

LABORATORY WORK ORDER
Chain of Custody

Project Name: Denny Way Sediments
Project Number: 423062-020
Laboratory Project Manager: Fritz Grothkopp/Bob Kruger
Telephone Number: 477 7114/7147

King County Department of Natural Resources
Water and Land Resources Division
Environmental Laboratory
322 West Ewing Street
Seattle, Washington 98119-1507

Sample Number (Note: Use only one Login No. per sheet.)	Client Locator	Collect Date		Analyses: TOC/TOTS	NH3-KCL	TOTSULFIDE	PSD	Metals + HG-CVAA-M	BNASMS/PESTSMS/PCB								Number of Containers	Comments
L62484 - 6	DWMP-06	04/09/15		1	1	1	1	1	2								7	
L62484 - 11	DWMP-11	↓		1	1	1	1	1	2								7	
L62484 - 12	DWMP-12			1	1	1	1	1	2								7	
L62484 - 14	DWMP-14			1	1	1	1	1	2								7	
L62484 - 15	DWMP-15			1	1	1	1	1	2								7	
L62484 - 16	DWMP-16			1	1	1	1	1	2								7	
L -																		
L -																		
L -																		
L -																		
L -																		

Additional Comments:

Total Number of Containers 42

Sampled By: BK, JDD, HF, CB, AF, KF

Relinquished By:		Received By:	
Signature	Date 4/9/15	Signature	Date 4-9-15
Printed Name Christopher BARNES	Time 1205	Printed Name Jason Kinnard	Time 1205
Organization King County Environmental Laboratory		Organization King County Environmental Laboratory	

SAP MDL Comparison Table

King County Environmental Lab Analytical Report

PROJECT: 423062-020

Exceeds SAP MDL

		Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05	DWMP-06
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sampled:	4/8/2015 9:26	4/8/2015 10:52	4/8/2015 9:54	4/8/2015 11:11	4/8/2015 11:59	4/9/2015 8:48
		Lab ID:	L62484-1	L62484-2	L62484-3	L62484-4	L62484-5	L62484-6
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		% Solids:	40.6	65.8	51.6	57.2	76	56.7
			WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis
Parameters	Units	SAP MDLs	MDL	MDL	MDL	MDL	MDL	MDL
COMBINED LABS								
M=CV ASTM D422(318V1)								
Fines *	%	NA	1.2	0.8	1.3	0.9	0.6	1
Gravel *	%	0.1	0.2	0.2	0.3	0.2	0.1	0.2
Sand *	%	0.1	0.2	0.2	0.3	0.2	0.1	0.2
Silt *	%	0.5	1.2	0.8	1.3	0.9	0.6	1
Clay *	%	0.5	1.2	0.8	1.3	0.9	0.6	1
p+0.00 *	%	0.1	0.2	0.2	0.3	0.2	0.1	0.2
p+1.00 *	%	0.1	0.2	0.2	0.3	0.2	0.1	0.2
p+10.0(equal/more than) *	%	0.5	1.2	0.8	1.3	0.9	0.6	1
p+2.00 *	%	0.1	0.2	0.2	0.3	0.2	0.1	0.2
p+3.00 *	%	0.1	0.2	0.2	0.3	0.2	0.1	0.2
p+4.00 *	%	0.1	0.2	0.2	0.3	0.2	0.1	0.2
p+5.00 *	%	0.5	1.2	0.8	1.3	0.9	0.6	1
p+6.00 *	%	0.5	1.2	0.8	1.3	0.9	0.6	1
p+7.00 *	%	0.5	1.2	0.8	1.3	0.9	0.6	1
p+8.00 *	%	0.5	1.2	0.8	1.3	0.9	0.6	1
p+9.00 *	%	0.5	1.2	0.8	1.3	0.9	0.6	1
p-1.00 *	%	0.1	0.2	0.2	0.3	0.2	0.1	0.2
p-2.00 *	%	0.1	0.2	0.2	0.3	0.2	0.1	0.2
p-2.00(less than) *	%	0.1	0.2	0.2	0.3	0.2	0.1	0.2
M=CV EPA 9030B/SM4500-S2-D (330V0)								
Total Sulfide	mg/Kg	0.5	12	0.5	0.47	12	2.5	0.45
M=CV SM2540-G (307V3)								
Total Solids *	%	0.005	0.02	0.04	0.02	0.019	0.2	0.019
M=CV SM4500-NH3-G(332V1)KCL								
Ammonia Nitrogen	mg/Kg	0.1	0.005	0.005	0.005	0.005	0.005	0.005
M=CV EPA 9060-PSEP96(337V3)								
Total Organic Carbon	mg/Kg	500	3000	1600	1300	1700	750	1400
M=MT ICP EPA3050B/6010C MOD(612V3)								
Arsenic, Total, ICP	mg/Kg	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Cadmium, Total, ICP	mg/Kg	0.10	0.1	0.1	0.1	0.1	0.1	0.1
Chromium, Total, ICP	mg/Kg	0.15	0.16	0.15	0.15	0.15	0.15	0.16
Copper, Total, ICP	mg/Kg	0.20	0.21	0.2	0.2	0.2	0.2	0.21
Lead, Total, ICP	mg/Kg	1.0	1	1	1	1	1	1
Silver, Total, ICP	mg/Kg	0.20	0.21	0.2	0.2	0.2	0.2	0.21
Zinc, Total, ICP	mg/Kg	0.25	0.26	0.25	0.25	0.25	0.26	0.26
M=MT CVAA EPA 7471B (604V4)								
Mercury, Total, CVAA	mg/Kg	0.005	0.005	0.0048	0.005	0.0049	0.0049	0.0048
M=OR EPA 3550B/8270C (7-3-01-004)								
1,2,4-Trichlorobenzene	ug/Kg	0.5	0.36	0.36	0.36	0.36	0.36	0.36
1,2-Dichlorobenzene	ug/Kg	5.3	3.64	3.64	3.64	3.64	3.64	3.64
1,4-Dichlorobenzene	ug/Kg	8	5.45	5.45	5.45	5.45	5.45	5.45
2,4-Dimethylphenol	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6

King County Environmental Lab Analytical Report

PROJECT: 423062-020

Exceeds SAP MDL

		Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05	DWMP-06
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sampled:	4/8/2015 9:26	4/8/2015 10:52	4/8/2015 9:54	4/8/2015 11:11	4/8/2015 11:59	4/9/2015 8:48
		Lab ID:	L62484-1	L62484-2	L62484-3	L62484-4	L62484-5	L62484-6
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		% Solids:	40.6	65.8	51.6	57.2	76	56.7
			WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis
Parameters	Units	SAP MDLs	MDL	MDL	MDL	MDL	MDL	MDL
COMBINED LABS								
2-Methylnaphthalene	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
2-Methylphenol	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
3-,4-Methylphenol	ug/Kg	27	3.6	3.6	3.6	3.6	3.6	3.6
Acenaphthene	ug/Kg	5.3	18	18	18	18	18	18
Acenaphthylene	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
Anthracene	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
Benzo(a)anthracene	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
Benzo(a)pyrene	ug/Kg	5.3	18	3.6	3.6	3.6	3.6	3.6
Benzo(b,j,k)fluoranthene	ug/Kg	5.3	18	3.6	18	18	3.6	3.6
Benzo(g,h,i)perylene	ug/Kg	5.3	18	3.6	18	18	3.6	3.6
Benzoic Acid	ug/Kg	107	18	3.6	18	18	3.6	3.6
Benzyl Alcohol	ug/Kg	13	72.7	72.7	72.7	72.7	72.7	72.7
Benzyl Butyl Phthalate	ug/Kg	8	9.09	9.09	9.09	9.09	9.09	9.09
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	5.45	5.45	5.45	5.45	5.45	5.45
Chrysene	ug/Kg	5.3	7.3	7.3	7.3	7.3	7.3	7.3
Dibenzo(a,h)anthracene	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
Dibenzofuran	ug/Kg	5.3	18	3.6	3.6	3.6	3.6	3.6
Diethyl Phthalate	ug/Kg	11	18	3.6	18	18	3.6	3.6
Dimethyl Phthalate	ug/Kg	10.7	3.6	3.6	3.6	3.6	3.6	3.6
Di-N-Butyl Phthalate	ug/Kg	11	7.3	7.3	7.3	7.3	7.3	7.3
Di-N-Octyl Phthalate	ug/Kg	10.7	7.27	7.27	7.27	7.27	7.27	7.27
Fluoranthene	ug/Kg	5.3	7.3	7.3	7.3	7.3	7.3	7.3
Fluorene	ug/Kg	5.3	36.4	7.27	36.4	36.4	7.27	7.27
Hexachlorobenzene	ug/Kg	0.5	3.6	3.6	3.6	3.6	3.6	3.6
Hexachlorobutadiene	ug/Kg	2.7	3.6	3.6	3.6	3.6	3.6	3.6
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.3	0.36	0.36	0.36	0.36	0.36	0.36
Naphthalene	ug/Kg	5.3	1.8	1.8	1.8	1.8	1.8	1.8
N-Nitrosodiphenylamine	ug/Kg	13	18	3.6	18	18	3.6	3.6
Pentachlorophenol	ug/Kg	80	3.6	3.6	3.6	3.6	3.6	3.6
Phenanthrene	ug/Kg	5.3	9.09	9.09	9.09	9.09	9.09	9.09
Phenol	ug/Kg	27	54.5	54.5	54.5	54.5	54.5	54.5
Pyrene	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
Total HPAHS	ug/Kg	na	18	18	18	18	18	18
Total LPAHs	ug/Kg	na	18	3.6	3.6	3.6	3.6	3.6
M=OR EPA 8081A/8082 (7-3-03-002)								
4,4'-DDD	ug/Kg	0.4	0.8	0.8	0.8	0.8	0.8	0.8
4,4'-DDE	ug/Kg	0.4	0.8	0.8	0.8	0.8	0.8	0.8
4,4'-DDT	ug/Kg	0.4	0.8	0.8	3.8	0.8	0.8	0.8
M=OR EPA 8081A/8082 (7-3-103-000)								
Aroclor 1016	ug/Kg	2	4	4	4	4	4	4
Aroclor 1221	ug/Kg	6	12	12	12	12	12	12
Aroclor 1232	ug/Kg	6	12	12	12	12	12	12
Aroclor 1242	ug/Kg	2	4	4	4	4	4	4

King County Environmental Lab Analytical Report

PROJECT: 423062-020

Exceeds SAP MDL

		Locator:	DWMP-01	DWMP-02	DWMP-03	DWMP-04	DWMP-05	DWMP-06
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sampled:	4/8/2015 9:26	4/8/2015 10:52	4/8/2015 9:54	4/8/2015 11:11	4/8/2015 11:59	4/9/2015 8:48
		Lab ID:	L62484-1	L62484-2	L62484-3	L62484-4	L62484-5	L62484-6
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		% Solids:	40.6	65.8	51.6	57.2	76	56.7
			WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis
Parameters	Units	SAP MDLs	MDL	MDL	MDL	MDL	MDL	MDL
COMBINED LABS								
Aroclor 1248	ug/Kg	2	4	4	4	4	4	4
Aroclor 1254	ug/Kg	2	4	4	4	4	4	4
Aroclor 1260	ug/Kg	2	4	4	4	4	4	4

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423062-020

Exceeds SAP MDL

		Locator:	DWMP-07	DWMP-08	DWMP-09	DWMP-10	DWMP-11	DWMP-12
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sampled:	4/8/2015 14:47	4/8/2015 12:30	4/8/2015 14:13	4/8/2015 13:20	4/9/2015 9:56	4/9/2015 10:15
		Lab ID:	L62484-7	L62484-8	L62484-9	L62484-10	L62484-11	L62484-12
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		% Solids:	55.8	47.8	38.7	83.1	51.3	25.9
			WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis
Parameters	Units	SAP MDLs	MDL	MDL	MDL	MDL	MDL	MDL
COMBINED LABS								
M=CV ASTM D422(318V1)								
Fines *	%	NA	1	1.1	1.5	0.5	1.1	2.5
Gravel *	%	0.1	0.2	0.2	0.3	0.1	0.2	0.5
Sand *	%	0.1	0.2	0.2	0.3	0.1	0.2	0.5
Silt *	%	0.5	1	1.1	1.5	0.5	1.1	2.5
Clay *	%	0.5	1	1.1	1.5	0.5	1.1	2.5
p+0.00 *	%	0.1	0.2	0.2	0.3	0.1	0.2	0.5
p+1.00 *	%	0.1	0.2	0.2	0.3	0.1	0.2	0.5
p+10.0(equal/more than) *	%	0.5	1	1.1	1.5	0.5	1.1	2.5
p+2.00 *	%	0.1	0.2	0.2	0.3	0.1	0.2	0.5
p+3.00 *	%	0.1	0.2	0.2	0.3	0.1	0.2	0.5
p+4.00 *	%	0.1	0.2	0.2	0.3	0.1	0.2	0.5
p+5.00 *	%	0.5	1	1.1	1.5	0.5	1.1	2.5
p+6.00 *	%	0.5	1	1.1	1.5	0.5	1.1	2.5
p+7.00 *	%	0.5	1	1.1	1.5	0.5	1.1	2.5
p+8.00 *	%	0.5	1	1.1	1.5	0.5	1.1	2.5
p+9.00 *	%	0.5	1	1.1	1.5	0.5	1.1	2.5
p-1.00 *	%	0.1	0.2	0.2	0.3	0.1	0.2	0.5
p-2.00 *	%	0.1	0.2	0.2	0.3	0.1	0.2	0.5
p-2.00(less than) *	%	0.1	0.2	0.2	0.3	0.1	0.2	0.5
M=CV EPA 9030B/SM4500-S2-D (330V0)								
Total Sulfide	mg/Kg	0.5	0.46	2.3	2.4	2.4	4.6	2.3
M=CV SM2540-G (307V3)								
Total Solids *	%	0.005	0.02	0.02	0.02	0.1	0.02	0.02
M=CV SM4500-NH3-G(332V1)KCL								
Ammonia Nitrogen	mg/Kg	0.1	0.005	0.005	0.005	0.005	0.005	0.005
M=CV EPA 9060-PSEP96(337V3)								
Total Organic Carbon	mg/Kg	500	1300	1800	1900	550	1900	1600
M=MT ICP EPA3050B/6010C MOD(612V3)								
Arsenic, Total, ICP	mg/Kg	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Cadmium, Total, ICP	mg/Kg	0.10	0.1	0.1	0.1	0.1	0.1	0.1
Chromium, Total, ICP	mg/Kg	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Copper, Total, ICP	mg/Kg	0.20	0.2	0.2	0.2	0.2	0.2	0.2
Lead, Total, ICP	mg/Kg	1.0	1	1	1	1	1	1
Silver, Total, ICP	mg/Kg	0.20	0.2	0.2	0.2	0.2	0.2	0.2
Zinc, Total, ICP	mg/Kg	0.25	0.26	0.25	0.25	0.25	0.25	0.26
M=MT CVAA EPA 7471B (604V4)								
Mercury, Total, CVAA	mg/Kg	0.005	0.0049	0.0051	0.005	0.0049	0.0048	0.0051
M=OR EPA 3550B/8270C (7-3-01-004)								
1,2,4-Trichlorobenzene	ug/Kg	0.5	0.36	0.36	0.36	0.36	0.36	0.36
1,2-Dichlorobenzene	ug/Kg	5.3	3.64	3.64	3.64	3.64	3.64	3.64
1,4-Dichlorobenzene	ug/Kg	8	5.45	5.45	5.45	5.45	5.45	5.45
2,4-Dimethylphenol	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6

King County Environmental Lab Analytical Report

PROJECT: 423062-020

Exceeds SAP MDL

		Locator:	DWMP-07	DWMP-08	DWMP-09	DWMP-10	DWMP-11	DWMP-12
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sampled:	4/8/2015 14:47	4/8/2015 12:30	4/8/2015 14:13	4/8/2015 13:20	4/9/2015 9:56	4/9/2015 10:15
		Lab ID:	L62484-7	L62484-8	L62484-9	L62484-10	L62484-11	L62484-12
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		% Solids:	55.8	47.8	38.7	83.1	51.3	25.9
			WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis
Parameters	Units	SAP MDLs	MDL	MDL	MDL	MDL	MDL	MDL
COMBINED LABS								
2-Methylnaphthalene	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
2-Methylphenol	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
3-,4-Methylphenol	ug/Kg	27	3.6	3.6	3.6	3.6	3.6	3.6
Acenaphthene	ug/Kg	5.3	18	18	18	18	18	18
Acenaphthylene	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
Anthracene	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
Benzo(a)anthracene	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
Benzo(a)pyrene	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
Benzo(b,j,k)fluoranthene	ug/Kg	5.3	18	18	18	3.6	18	3.6
Benzo(g,h,i)perylene	ug/Kg	5.3	18	18	18	3.6	18	3.6
Benzoic Acid	ug/Kg	107	18	18	18	3.6	18	3.6
Benzyl Alcohol	ug/Kg	13	72.7	72.7	72.7	72.7	72.7	72.7
Benzyl Butyl Phthalate	ug/Kg	8	9.09	9.09	9.09	9.09	9.09	9.09
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	5.45	5.45	5.45	5.45	5.45	5.45
Chrysene	ug/Kg	5.3	7.3	7.3	7.3	7.3	7.3	7.3
Dibenzo(a,h)anthracene	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
Dibenzofuran	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
Diethyl Phthalate	ug/Kg	11	18	18	18	3.6	18	3.6
Dimethyl Phthalate	ug/Kg	10.7	3.6	3.6	3.6	3.6	3.6	3.6
Di-N-Butyl Phthalate	ug/Kg	11	7.3	7.3	7.3	7.3	7.3	7.3
Di-N-Octyl Phthalate	ug/Kg	10.7	7.27	7.27	7.27	7.27	7.27	7.27
Fluoranthene	ug/Kg	5.3	7.3	7.3	7.3	7.3	7.3	7.3
Fluorene	ug/Kg	5.3	36.4	36.4	36.4	7.27	36.4	7.27
Hexachlorobenzene	ug/Kg	0.5	3.6	3.6	3.6	3.6	3.6	3.6
Hexachlorobutadiene	ug/Kg	2.7	3.6	3.6	3.6	3.6	3.6	3.6
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.3	0.36	0.36	0.36	0.36	0.36	0.36
Naphthalene	ug/Kg	5.3	1.8	1.8	1.8	1.8	1.8	1.8
N-Nitrosodiphenylamine	ug/Kg	13	18	18	18	3.6	18	3.6
Pentachlorophenol	ug/Kg	80	3.6	3.6	3.6	3.6	3.6	3.6
Phenanthrene	ug/Kg	5.3	9.09	9.09	9.09	9.09	9.09	9.09
Phenol	ug/Kg	27	54.5	54.5	54.5	54.5	54.5	54.5
Pyrene	ug/Kg	5.3	3.6	3.6	3.6	3.6	3.6	3.6
Total HPAHS	ug/Kg	na	18	18	18	18	18	18
Total LPAHs	ug/Kg	na	3.6	3.6	3.6	3.6	3.6	3.6
M=OR EPA 8081A/8082 (7-3-03-002)								
4,4'-DDD	ug/Kg	0.4	0.8	0.8	0.8	0.8	0.8	0.8
4,4'-DDE	ug/Kg	0.4	0.8	0.8	0.8	0.8	0.8	0.8
4,4'-DDT	ug/Kg	0.4	0.8	0.8	2.3	0.8	3	0.8
M=OR EPA 8081A/8082 (7-3-103-000)								
Aroclor 1016	ug/Kg	2	4	4	4	4	4	4
Aroclor 1221	ug/Kg	6	12	12	12	12	12	12
Aroclor 1232	ug/Kg	6	12	12	12	12	12	12
Aroclor 1242	ug/Kg	2	4	4	4	4	4	4

King County Environmental Lab Analytical Report

PROJECT: 423062-020

Exceeds SAP MDL

		Locator:	DWMP-07	DWMP-08	DWMP-09	DWMP-10	DWMP-11	DWMP-12
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sampled:	4/8/2015 14:47	4/8/2015 12:30	4/8/2015 14:13	4/8/2015 13:20	4/9/2015 9:56	4/9/2015 10:15
		Lab ID:	L62484-7	L62484-8	L62484-9	L62484-10	L62484-11	L62484-12
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		% Solids:	55.8	47.8	38.7	83.1	51.3	25.9
			WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis
Parameters	Units	SAP MDLs	MDL	MDL	MDL	MDL	MDL	MDL
COMBINED LABS								
Aroclor 1248	ug/Kg	2	4	4	4	4	4	4
Aroclor 1254	ug/Kg	2	4	4	4	4	4	4
Aroclor 1260	ug/Kg	2	4	4	4	4	4	4

* Not converted to dry weight basis for this parameter

King County Environmental Lab Analytical Report

PROJECT: 423062-020

Exceeds SAP MDL

		Locator:	DWMP-13	DWMP-14	DWMP-15	DWMP-16
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sampled:	4/8/2015 12:57	4/9/2015 8:18	4/9/2015 9:06	4/9/2015 9:35
		Lab ID:	L62484-13	L62484-14	L62484-15	L62484-16
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		% Solids:	76.9	49.1	59.2	49.5
			WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis
Parameters	Units	SAP MDLs	MDL	MDL		
COMBINED LABS						
M=CV ASTM D422(318V1)						
Fines *	%	NA	0.6	1.3	1	1.3
Gravel *	%	0.1	0.1	0.3	0.2	0.3
Sand *	%	0.1	0.1	0.3	0.2	0.3
Silt *	%	0.5	0.6	1.3	1	1.3
Clay *	%	0.5	0.6	1.3	1	1.3
p+0.00 *	%	0.1	0.1	0.3	0.2	0.3
p+1.00 *	%	0.1	0.1	0.3	0.2	0.3
p+10.0(equal/more than) *	%	0.5	0.6	1.3	1	1.3
p+2.00 *	%	0.1	0.1	0.3	0.2	0.3
p+3.00 *	%	0.1	0.1	0.3	0.2	0.3
p+4.00 *	%	0.1	0.1	0.3	0.2	0.3
p+5.00 *	%	0.5	0.6	1.3	1	1.3
p+6.00 *	%	0.5	0.6	1.3	1	1.3
p+7.00 *	%	0.5	0.6	1.3	1	1.3
p+8.00 *	%	0.5	0.6	1.3	1	1.3
p+9.00 *	%	0.5	0.6	1.3	1	1.3
p-1.00 *	%	0.1	0.1	0.3	0.2	0.3
p-2.00 *	%	0.1	0.1	0.3	0.2	0.3
p-2.00(less than) *	%	0.1	0.1	0.3	0.2	0.3
M=CV EPA 9030B/SM4500-S2-D (330V0)						
Total Sulfide	mg/Kg	0.5	2.3	12	2.4	2.4
M=CV SM2540-G (307V3)						
Total Solids *	%	0.005	0.2	0.02	0.02	0.02
M=CV SM4500-NH3-G(332V1)KCL						
Ammonia Nitrogen	mg/Kg	0.1	0.005	0.005	0.005	0.005
M=CV EPA 9060-PSEP96(337V3)						
Total Organic Carbon	mg/Kg	500	510	2300	1300	1400
M=MT ICP EPA3050B/6010C MOD(612V3)						
Arsenic, Total, ICP	mg/Kg	1.3	1.3	1.3	1.2	1.2
Cadmium, Total, ICP	mg/Kg	0.10	0.1	0.1	0.098	0.099
Chromium, Total, ICP	mg/Kg	0.15	0.16	0.15	0.15	0.15
Copper, Total, ICP	mg/Kg	0.20	0.21	0.2	0.2	0.2
Lead, Total, ICP	mg/Kg	1.0	1	1	0.98	0.99
Silver, Total, ICP	mg/Kg	0.20	0.21	0.2	0.2	0.2
Zinc, Total, ICP	mg/Kg	0.25	0.26	0.25	0.25	0.25
M=MT CVAA EPA 7471B (604V4)						
Mercury, Total, CVAA	mg/Kg	0.005	0.0048	0.0048	0.005	0.005
M=OR EPA 3550B/8270C (7-3-01-004)						
1,2,4-Trichlorobenzene	ug/Kg	0.5	0.36	0.36	0.36	0.36
1,2-Dichlorobenzene	ug/Kg	5.3	3.64	3.64	3.64	3.64
1,4-Dichlorobenzene	ug/Kg	8	5.45	5.45	5.45	5.45
2,4-Dimethylphenol	ug/Kg	5.3	3.6	3.6	3.6	3.6

King County Environmental Lab Analytical Report

PROJECT: 423062-020

Exceeds SAP MDL

		Locator:	DWMP-13	DWMP-14	DWMP-15	DWMP-16
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sampled:	4/8/2015 12:57	4/9/2015 8:18	4/9/2015 9:06	4/9/2015 9:35
		Lab ID:	L62484-13	L62484-14	L62484-15	L62484-16
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		% Solids:	76.9	49.1	59.2	49.5
			WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis
Parameters	Units	SAP MDLs	MDL	MDL		
COMBINED LABS						
2-Methylnaphthalene	ug/Kg	5.3	3.6	3.6	3.6	3.6
2-Methylphenol	ug/Kg	5.3	3.6	3.6	3.6	3.6
3-,4-Methylphenol	ug/Kg	27	3.6	3.6	3.6	3.6
Acenaphthene	ug/Kg	5.3	18	18	18	18
Acenaphthylene	ug/Kg	5.3	3.6	3.6	3.6	3.6
Anthracene	ug/Kg	5.3	3.6	3.6	3.6	3.6
Benzo(a)anthracene	ug/Kg	5.3	3.6	3.6	3.6	3.6
Benzo(a)pyrene	ug/Kg	5.3	3.6	3.6	3.6	3.6
Benzo(b,j,k)fluoranthene	ug/Kg	5.3	18	18	3.6	3.6
Benzo(g,h,i)perylene	ug/Kg	5.3	18	18	3.6	3.6
Benzoic Acid	ug/Kg	107	18	18	3.6	3.6
Benzyl Alcohol	ug/Kg	13	72.7	72.7	72.7	72.7
Benzyl Butyl Phthalate	ug/Kg	8	9.09	9.09	9.09	9.09
Bis(2-Ethylhexyl)Phthalate	ug/Kg	11	5.45	5.45	5.45	5.45
Chrysene	ug/Kg	5.3	7.3	7.3	7.3	7.3
Dibenzo(a,h)anthracene	ug/Kg	5.3	3.6	3.6	3.6	3.6
Dibenzofuran	ug/Kg	5.3	3.6	3.6	3.6	3.6
Diethyl Phthalate	ug/Kg	11	18	18	3.6	3.6
Dimethyl Phthalate	ug/Kg	10.7	3.6	3.6	3.6	3.6
Di-N-Butyl Phthalate	ug/Kg	11	7.3	7.3	7.3	7.3
Di-N-Octyl Phthalate	ug/Kg	10.7	7.27	7.27	7.27	7.27
Fluoranthene	ug/Kg	5.3	7.3	7.3	7.3	7.3
Fluorene	ug/Kg	5.3	36.4	36.4	7.27	7.27
Hexachlorobenzene	ug/Kg	0.5	3.6	3.6	3.6	3.6
Hexachlorobutadiene	ug/Kg	2.7	3.6	3.6	3.6	3.6
Indeno(1,2,3-Cd)Pyrene	ug/Kg	5.3	0.36	0.36	0.36	0.36
Naphthalene	ug/Kg	5.3	1.8	1.8	1.8	1.8
N-Nitrosodiphenylamine	ug/Kg	13	18	18	3.6	3.6
Pentachlorophenol	ug/Kg	80	3.6	3.6	3.6	3.6
Phenanthrene	ug/Kg	5.3	9.09	9.09	9.09	9.09
Phenol	ug/Kg	27	54.5	54.5	54.5	54.5
Pyrene	ug/Kg	5.3	3.6	3.6	3.6	3.6
Total HPAHS	ug/Kg	na	18	18	18	18
Total LPAHs	ug/Kg	na	3.6	3.6	3.6	3.6
M=OR EPA 8081A/8082 (7-3-03-002)						
4,4'-DDD	ug/Kg	0.4	0.8	0.8	0.8	0.8
4,4'-DDE	ug/Kg	0.4	0.8	0.8	0.8	0.8
4,4'-DDT	ug/Kg	0.4	1.5	0.8	2.6	2.2
M=OR EPA 8081A/8082 (7-3-103-000)						
Aroclor 1016	ug/Kg	2	4	4	4	4
Aroclor 1221	ug/Kg	6	12	12	12	12
Aroclor 1232	ug/Kg	6	12	12	12	12
Aroclor 1242	ug/Kg	2	4	4	4	4

King County Environmental Lab Analytical Report

PROJECT: 423062-020

Exceeds SAP MDL

		Locator:	DWMP-13	DWMP-14	DWMP-15	DWMP-16
		Descrip:	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI	DENNY WAY MONITORI
		Sampled:	4/8/2015 12:57	4/9/2015 8:18	4/9/2015 9:06	4/9/2015 9:35
		Lab ID:	L62484-13	L62484-14	L62484-15	L62484-16
		Matrix:	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED	SF SALTWTRSED
		% Solids:	76.9	49.1	59.2	49.5
			WET Weight Basis	WET Weight Basis	WET Weight Basis	WET Weight Basis
Parameters	Units	SAP MDLs	MDL	MDL		
COMBINED LABS						
Aroclor 1248	ug/Kg	2	4	4	4	4
Aroclor 1254	ug/Kg	2	4	4	4	4
Aroclor 1260	ug/Kg	2	4	4	4	4

* Not converted to dry weight basis for this parameter

SAP & SMS OC and Dry Weight Normalization MDL Check Tables

SMS OC and Dry Weight Normalization Detection Limit Check

			Sample	L62484-1			L62484-2		
	Units	SQS-DW (ug/Kg, dw)	SQS-OC (mg/Kg,dw,oc)	Result	MDL (dw)	MDL (dw,oc)	Result	MDL (dw)	MDL (dw,oc)
Arsenic*	mg/Kg, dw		57	11.58		3.20	5.02		1.98
Cadmium*	mg/Kg, dw		5.1	0.74		0.25	0.17		0.15
Chromium*	mg/Kg, dw		260	42.36		0.39	31.61		0.23
Copper*	mg/Kg, dw		390	70.20		0.52	29.79		0.30
Lead*	mg/Kg, dw		450	102.96		2.46	36.02		1.52
Mercury*	mg/Kg, dw		0.41	0.77		0.01	0.27		0.01
Silver*	mg/Kg, dw		6.1	3.23		0.52	0.33		0.30
Zinc*	mg/Kg, dw		410	133.74		0.64	70.21		0.38
1,2,4-Trichlorobenzene	mg/Kg, dw,oc	31	0.81	0.00	0.89	0.01	0.00	0.55	0.06
1,2-Dichlorobenzene	mg/Kg, dw,oc	35	2.3	0.00	8.97	0.14	0.00	5.53	0.63
1,4-Dichlorobenzene	mg/Kg, dw,oc	110	3.1	0.00	13.42	0.20	0.00	8.28	0.95
2-Methylnaphthalene	mg/Kg, dw,oc	670	38	1.15	8.87	0.14	1.11	5.47	0.63
2,4-Dimethylphenol*	ug/Kg, dw		29	29.56		8.87	0.00		5.47
2-Methylphenol*	ug/Kg, dw		63	12.56		8.87	0.00		5.47
3-,4-Methylphenol*	ug/Kg, dw		670	0.00		44.33	0.00		27.36
Acenaphthene	mg/Kg, dw,oc	500	16	2.03	8.87	0.14	2.10	5.47	0.63
Acenaphthylene	mg/Kg, dw,oc	1300	66	7.78	8.87	0.14	2.36	5.47	0.63
Anthracene	mg/Kg, dw,oc	960	220	31.13	8.87	0.14	9.98	5.47	0.63
Benzo(a)anthracene	mg/Kg, dw,oc	1300	110	78.95	44.33	0.68	25.17	5.47	0.63
Benzo(a)pyrene	mg/Kg, dw,oc	1600	99	148.87	44.33	0.68	29.86	5.47	0.63
Benzo(b,j,k)fluoranthene	mg/Kg, dw,oc	3200	230	356.77	44.33	0.68	83.51	5.47	0.63
Benzo(g,h,i)perylene	mg/Kg, dw,oc	670	31	38.35	44.33	0.68	8.19	5.47	0.63
Benzoic Acid*	ug/Kg, dw		650	183.00		179.06	0.00		110.49
Benzyl Alcohol*	ug/Kg, dw		57	0.00		22.39	0.00		13.81
Benzyl Butyl Phthalate	mg/Kg, dw,oc	63	4.9	3.80	13.42	0.20	1.94	8.28	0.95
Bis(2-Ethylhexyl)Phthalate	mg/Kg, dw,oc	1300	47	13.68	17.98	0.27	20.66	11.09	1.27
Chrysene	mg/Kg, dw,oc	1400	110	158.65	44.33	0.68	42.53	5.47	0.63
Dibenzo(a,h)anthracene	mg/Kg, dw,oc	230	12	15.79	44.33	0.68	2.95	5.47	0.63
Dibenzofuran	mg/Kg, dw,oc	540	15	1.21	8.87	0.14	1.28	5.47	0.63
Diethyl Phthalate	mg/Kg, dw,oc	200	61	0.30	17.98	0.27	0.00	11.09	1.27
Dimethyl Phthalate	mg/Kg, dw,oc	71	53	0.00	17.91	0.27	0.00	11.05	1.26
Di-N-Butyl Phthalate	mg/Kg, dw,oc	1400	220	0.00	17.98	0.27	2.26	11.09	1.27
Di-N-Octyl Phthalate	mg/Kg, dw,oc	6200	58	0.00	89.66	1.37	0.00	11.05	1.26
Fluorene	mg/Kg, dw,oc	540	23	4.85	8.87	0.14	3.37	5.47	0.63
Fluoranthene	mg/Kg, dw,oc	1700	160	44.36	8.87	0.14	39.06	5.47	0.63
Hexachlorobenzene	mg/Kg, dw,oc	22	0.38	0.00	0.89	0.01	0.00	0.55	0.06
Hexachlorobutadiene	mg/Kg, dw,oc	11	3.9	0.00	4.43	0.07	0.00	2.74	0.31
Indeno(1,2,3-Cd)Pyrene	mg/Kg, dw,oc	600	34	56.02	44.33	0.68	11.63	5.47	0.63
N-Nitrosodiphenylamine	mg/Kg, dw,oc	28	11	0.00	22.39	0.34	0.00	13.81	1.58
Naphthalene	mg/Kg, dw,oc	2100	99	1.72	8.87	0.14	1.27	5.47	0.63
Pentachlorophenol*	ug/Kg, dw		360	0.00		134.24	0.00		82.83
Phenanthrene	mg/Kg, dw,oc	1500	100	29.59	8.87	0.14	25.00	5.47	0.63
Phenol*	ug/Kg, dw		420	0.00		44.33	0.00		27.36
Pyrene	mg/Kg, dw,oc	2600	1000	101.50	44.33	0.68	44.27	5.47	0.63
Total Organic Carbon (dry)						65517			8754
Total Solids						40.6			65.8
HPAH	mg/Kg, dw,oc	370	960	0.00	0.00	0.00	0.00	0.00	0.00
LPAH	mg/Kg, dw,oc	960	370	0.00	0.00	0.00	0.00	0.00	0.00
Total Aroclors	mg/Kg, dw,oc	130	12	8.10	29.56	0.45	11.67	18.24	2.08

* = dry weight correction only

SMS OC and Dry Weight Normalization Detection Limit Check

			Sample	L62484-3			L62484-4		
	Units	SQS-DW (ug/Kg, dw)	SQS-OC (mg/Kg,dw,oc)	Result	MDL (dw)	MDL (dw,oc)	Result	MDL (dw)	MDL (dw,oc)
Arsenic*	mg/Kg, dw		57	8.33		2.52	7.69		2.27
Cadmium*	mg/Kg, dw		5.1	0.76		0.19	0.28		0.17
Chromium*	mg/Kg, dw		260	38.37		0.29	42.48		0.26
Copper*	mg/Kg, dw		390	48.64		0.39	41.08		0.35
Lead*	mg/Kg, dw		450	73.26		1.94	33.39		1.75
Mercury*	mg/Kg, dw		0.41	0.58		0.01	0.29		0.01
Silver*	mg/Kg, dw		6.1	2.73		0.39	0.00		0.35
Zinc*	mg/Kg, dw		410	104.84		0.48	84.27		0.44
1,2,4-Trichlorobenzene	mg/Kg, dw,oc	31	0.81	0.00	0.70	0.03	0.00	0.63	0.05
1,2-Dichlorobenzene	mg/Kg, dw,oc	35	2.3	0.00	7.05	0.34	0.00	6.36	0.47
1,4-Dichlorobenzene	mg/Kg, dw,oc	110	3.1	0.00	10.56	0.51	0.00	9.53	0.70
2-Methylnaphthalene	mg/Kg, dw,oc	670	38	0.97	6.98	0.34	1.42	6.29	0.46
2,4-Dimethylphenol*	ug/Kg, dw		29	0.00		6.98	0.00		6.29
2-Methylphenol*	ug/Kg, dw		63	0.00		6.98	0.00		6.29
3-,4-Methylphenol*	ug/Kg, dw		670	0.00		34.88	0.00		31.47
Acenaphthene	mg/Kg, dw,oc	500	16	1.97	6.98	0.34	1.12	6.29	0.46
Acenaphthylene	mg/Kg, dw,oc	1300	66	1.91	6.98	0.34	1.72	6.29	0.46
Anthracene	mg/Kg, dw,oc	960	220	8.10	6.98	0.34	5.89	6.29	0.46
Benzo(a)anthracene	mg/Kg, dw,oc	1300	110	16.70	6.98	0.34	13.57	6.29	0.46
Benzo(a)pyrene	mg/Kg, dw,oc	1600	99	24.15	34.88	1.70	19.33	31.47	2.30
Benzo(b,j,k)fluoranthene	mg/Kg, dw,oc	3200	230	51.89	34.88	1.70	41.36	31.47	2.30
Benzo(g,h,i)perylene	mg/Kg, dw,oc	670	31	14.72	34.88	1.70	13.44	31.47	2.30
Benzoic Acid*	ug/Kg, dw		650	0.00		140.89	0.00		127.10
Benzyl Alcohol*	ug/Kg, dw		57	0.00		17.62	0.00		15.89
Benzyl Butyl Phthalate	mg/Kg, dw,oc	63	4.9	0.00	10.56	0.51	0.00	9.53	0.70
Bis(2-Ethylhexyl)Phthalate	mg/Kg, dw,oc	1300	47	61.70	14.15	0.69	12.93	12.76	0.93
Chrysene	mg/Kg, dw,oc	1400	110	22.55	6.98	0.34	20.61	6.29	0.46
Dibenzo(a,h)anthracene	mg/Kg, dw,oc	230	12	3.86	34.88	1.70	4.35	31.47	2.30
Dibenzofuran	mg/Kg, dw,oc	540	15	1.19	6.98	0.34	0.81	6.29	0.46
Diethyl Phthalate	mg/Kg, dw,oc	200	61	0.00	14.15	0.69	0.00	12.76	0.93
Dimethyl Phthalate	mg/Kg, dw,oc	71	53	0.00	14.09	0.69	0.00	12.71	0.93
Di-N-Butyl Phthalate	mg/Kg, dw,oc	1400	220	0.00	14.15	0.69	0.00	12.76	0.93
Di-N-Octyl Phthalate	mg/Kg, dw,oc	6200	58	0.00	70.54	3.43	0.00	63.64	4.66
Fluorene	mg/Kg, dw,oc	540	23	2.59	6.98	0.34	1.97	6.29	0.46
Fluoranthene	mg/Kg, dw,oc	1700	160	28.02	6.98	0.34	22.66	6.29	0.46
Hexachlorobenzene	mg/Kg, dw,oc	22	0.38	0.00	0.70	0.03	0.00	0.63	0.05
Hexachlorobutadiene	mg/Kg, dw,oc	11	3.9	0.00	3.49	0.17	0.00	3.15	0.23
Indeno(1,2,3-Cd)Pyrene	mg/Kg, dw,oc	600	34	17.08	34.88	1.70	15.88	31.47	2.30
N-Nitrosodiphenylamine	mg/Kg, dw,oc	28	11	0.00	17.62	0.86	0.00	15.89	1.16
Naphthalene	mg/Kg, dw,oc	2100	99	1.25	6.98	0.34	1.29	6.29	0.46
Pentachlorophenol*	ug/Kg, dw		360	0.00		105.62	0.00		95.28
Phenanthrene	mg/Kg, dw,oc	1500	100	16.51	6.98	0.34	12.10	6.29	0.46
Phenol*	ug/Kg, dw		420	0.00		34.88	0.00		31.47
Pyrene	mg/Kg, dw,oc	2600	1000	38.68	6.98	0.34	27.78	6.29	0.46
Total Organic Carbon (dry)						20543			13654
Total Solids						51.6			57.2
HPAH	mg/Kg, dw,oc	370	960	0.00	0.00	0.00	0.00	0.00	0.00
LPAH	mg/Kg, dw,oc	960	370	0.00	0.00	0.00	0.00	0.00	0.00
Total Aroclors	mg/Kg, dw,oc	130	12	28.42	23.26	1.13	11.97	20.98	1.54

* = dry weight correction only

SMS OC and Dry Weight Normalization Detection Limit Check

			Sample	L62484-5			L62484-6		
	Units	SQS-DW (ug/Kg, dw)	SQS-OC (mg/Kg,dw,oc)	Result	MDL (dw)	MDL (dw,oc)	Result	MDL (dw)	MDL (dw,oc)
Arsenic*	mg/Kg, dw		57	3.55		1.71	7.41		2.29
Cadmium*	mg/Kg, dw		5.1	0.17		0.13	0.23		0.18
Chromium*	mg/Kg, dw		260	16.84		0.20	36.33		0.28
Copper*	mg/Kg, dw		390	17.89		0.26	34.22		0.37
Lead*	mg/Kg, dw		450	23.82		1.32	26.98		1.76
Mercury*	mg/Kg, dw		0.41	0.09		0.01	0.17		0.01
Silver*	mg/Kg, dw		6.1	0.00		0.26	0.00		0.37
Zinc*	mg/Kg, dw		410	56.58		0.34	76.37		0.46
1,2,4-Trichlorobenzene	mg/Kg, dw,oc	31	0.81	0.00	0.47	0.07	0.00	0.63	0.04
1,2-Dichlorobenzene	mg/Kg, dw,oc	35	2.3	0.00	4.79	0.70	0.00	6.42	0.43
1,4-Dichlorobenzene	mg/Kg, dw,oc	110	3.1	0.00	7.17	1.04	0.00	9.61	0.64
2-Methylnaphthalene	mg/Kg, dw,oc	670	38	1.30	4.74	0.69	0.66	6.35	0.42
2,4-Dimethylphenol*	ug/Kg, dw		29	0.00		4.74	0.00		6.35
2-Methylphenol*	ug/Kg, dw		63	0.00		4.74	0.00		6.35
3-,4-Methylphenol*	ug/Kg, dw		670	0.00		23.68	0.00		31.75
Acenaphthene	mg/Kg, dw,oc	500	16	2.01	4.74	0.69	0.49	6.35	0.42
Acenaphthylene	mg/Kg, dw,oc	1300	66	3.37	4.74	0.69	0.65	6.35	0.42
Anthracene	mg/Kg, dw,oc	960	220	12.24	4.74	0.69	2.64	6.35	0.42
Benzo(a)anthracene	mg/Kg, dw,oc	1300	110	45.79	4.74	0.69	6.73	6.35	0.42
Benzo(a)pyrene	mg/Kg, dw,oc	1600	99	60.15	4.74	0.69	10.04	6.35	0.42
Benzo(b,j,k)fluoranthene	mg/Kg, dw,oc	3200	230	177.39	4.74	0.69	22.85	6.35	0.42
Benzo(g,h,i)perylene	mg/Kg, dw,oc	670	31	13.37	4.74	0.69	4.45	6.35	0.42
Benzoic Acid*	ug/Kg, dw		650	250.00		95.66	0.00		128.22
Benzyl Alcohol*	ug/Kg, dw		57	0.00		11.96	0.00		16.03
Benzyl Butyl Phthalate	mg/Kg, dw,oc	63	4.9	7.51	7.17	1.04	1.04	9.61	0.64
Bis(2-Ethylhexyl)Phthalate	mg/Kg, dw,oc	1300	47	22.22	9.61	1.40	8.46	12.87	0.86
Chrysene	mg/Kg, dw,oc	1400	110	91.76	4.74	0.69	10.55	6.35	0.42
Dibenzo(a,h)anthracene	mg/Kg, dw,oc	230	12	4.04	4.74	0.69	1.31	6.35	0.42
Dibenzofuran	mg/Kg, dw,oc	540	15	1.26	4.74	0.69	0.00	6.35	0.42
Diethyl Phthalate	mg/Kg, dw,oc	200	61	0.00	9.61	1.40	0.00	12.87	0.86
Dimethyl Phthalate	mg/Kg, dw,oc	71	53	0.00	9.57	1.39	0.00	12.82	0.86
Di-N-Butyl Phthalate	mg/Kg, dw,oc	1400	220	0.00	9.61	1.40	1.41	12.87	0.86
Di-N-Octyl Phthalate	mg/Kg, dw,oc	6200	58	0.00	9.57	1.39	0.00	12.82	0.86
Fluorene	mg/Kg, dw,oc	540	23	3.75	4.74	0.69	0.71	6.35	0.42
Fluoranthene	mg/Kg, dw,oc	1700	160	72.03	4.74	0.69	11.35	6.35	0.42
Hexachlorobenzene	mg/Kg, dw,oc	22	0.38	0.00	0.47	0.07	0.00	0.63	0.04
Hexachlorobutadiene	mg/Kg, dw,oc	11	3.9	0.00	2.37	0.34	0.00	3.17	0.21
Indeno(1,2,3-Cd)Pyrene	mg/Kg, dw,oc	600	34	17.45	4.74	0.69	5.57	6.35	0.42
N-Nitrosodiphenylamine	mg/Kg, dw,oc	28	11	0.00	11.96	1.74	0.00	16.03	1.07
Naphthalene	mg/Kg, dw,oc	2100	99	1.25	4.74	0.69	0.64	6.35	0.42
Pentachlorophenol*	ug/Kg, dw		360	0.00		71.71	0.00		96.12
Phenanthrene	mg/Kg, dw,oc	1500	100	23.37	4.74	0.69	4.82	6.35	0.42
Phenol*	ug/Kg, dw		420	0.00		23.68	0.00		31.75
Pyrene	mg/Kg, dw,oc	2600	1000	68.97	4.74	0.69	12.60	6.35	0.42
Total Organic Carbon (dry)						6868			14974
Total Solids						76			56.7
HPAH	mg/Kg, dw,oc	370	960	0.00	0.00	0.00	0.00	0.00	0.00
LPAH	mg/Kg, dw,oc	960	370	0.00	0.00	0.00	0.00	0.00	0.00
Total Aroclors	mg/Kg, dw,oc	130	12	9.71	15.79	2.30	5.81	21.16	1.41

* = dry weight correction only

SMS OC and Dry Weight Normalization Detection Limit Check

			Sample	L62484-7			L62484-8		
	Units	SQS-DW (ug/Kg, dw)	SQS-OC (mg/Kg,dw,oc)	Result	MDL (dw)	MDL (dw,oc)	Result	MDL (dw)	MDL (dw,oc)
Arsenic*	mg/Kg, dw		57	8.24		2.33	8.37		2.72
Cadmium*	mg/Kg, dw		5.1	0.38		0.18	1.07		0.21
Chromium*	mg/Kg, dw		260	37.10		0.27	41.63		0.31
Copper*	mg/Kg, dw		390	42.83		0.36	67.36		0.42
Lead*	mg/Kg, dw		450	47.85		1.79	73.22		2.09
Mercury*	mg/Kg, dw		0.41	0.47		0.01	0.42		0.01
Silver*	mg/Kg, dw		6.1	1.11		0.36	3.08		0.42
Zinc*	mg/Kg, dw		410	81.00		0.47	121.76		0.52
1,2,4-Trichlorobenzene	mg/Kg, dw,oc	31	0.81	0.00	0.65	0.04	0.00	0.75	0.02
1,2-Dichlorobenzene	mg/Kg, dw,oc	35	2.3	0.00	6.52	0.41	0.00	7.62	0.24
1,4-Dichlorobenzene	mg/Kg, dw,oc	110	3.1	0.00	9.77	0.61	0.00	11.40	0.36
2-Methylnaphthalene	mg/Kg, dw,oc	670	38	0.73	6.45	0.40	0.83	7.53	0.24
2,4-Dimethylphenol*	ug/Kg, dw		29	0.00		6.45	0.00		7.53
2-Methylphenol*	ug/Kg, dw		63	0.00		6.45	0.00		7.53
3-,4-Methylphenol*	ug/Kg, dw		670	0.00		32.26	0.00		37.66
Acenaphthene	mg/Kg, dw,oc	500	16	1.05	6.45	0.40	1.26	7.53	0.24
Acenaphthylene	mg/Kg, dw,oc	1300	66	1.52	6.45	0.40	1.01	7.53	0.24
Anthracene	mg/Kg, dw,oc	960	220	4.91	6.45	0.40	4.45	7.53	0.24
Benzo(a)anthracene	mg/Kg, dw,oc	1300	110	11.51	6.45	0.40	9.54	7.53	0.24
Benzo(a)pyrene	mg/Kg, dw,oc	1600	99	18.21	32.26	2.01	14.67	37.66	1.18
Benzo(b,j,k)fluoranthene	mg/Kg, dw,oc	3200	230	37.43	32.26	2.01	28.55	37.66	1.18
Benzo(g,h,i)perylene	mg/Kg, dw,oc	670	31	11.03	32.26	2.01	7.70	37.66	1.18
Benzoic Acid*	ug/Kg, dw		650	0.00		130.29	0.00		152.09
Benzyl Alcohol*	ug/Kg, dw		57	0.00		16.29	0.00		19.02
Benzyl Butyl Phthalate	mg/Kg, dw,oc	63	4.9	0.00	9.77	0.61	1.74	11.40	0.36
Bis(2-Ethylhexyl)Phthalate	mg/Kg, dw,oc	1300	47	24.69	13.08	0.82	28.49	15.27	0.48
Chrysene	mg/Kg, dw,oc	1400	110	18.44	6.45	0.40	13.42	7.53	0.24
Dibenzo(a,h)anthracene	mg/Kg, dw,oc	230	12	3.35	32.26	2.01	2.52	37.66	1.18
Dibenzofuran	mg/Kg, dw,oc	540	15	0.76	6.45	0.40	0.69	7.53	0.24
Diethyl Phthalate	mg/Kg, dw,oc	200	61	0.00	13.08	0.82	0.00	15.27	0.48
Dimethyl Phthalate	mg/Kg, dw,oc	71	53	0.00	13.03	0.81	0.00	15.21	0.48
Di-N-Butyl Phthalate	mg/Kg, dw,oc	1400	220	0.00	13.08	0.82	0.00	15.27	0.48
Di-N-Octyl Phthalate	mg/Kg, dw,oc	6200	58	0.00	65.23	4.07	0.00	76.15	2.39
Fluorene	mg/Kg, dw,oc	540	23	1.25	6.45	0.40	1.82	7.53	0.24
Fluoranthene	mg/Kg, dw,oc	1700	160	17.21	6.45	0.40	17.17	7.53	0.24
Hexachlorobenzene	mg/Kg, dw,oc	22	0.38	0.00	0.65	0.04	0.00	0.75	0.02
Hexachlorobutadiene	mg/Kg, dw,oc	11	3.9	0.00	3.23	0.20	0.00	3.77	0.12
Indeno(1,2,3-Cd)Pyrene	mg/Kg, dw,oc	600	34	12.29	32.26	2.01	8.49	37.66	1.18
N-Nitrosodiphenylamine	mg/Kg, dw,oc	28	11	0.00	16.29	1.02	0.00	19.02	0.60
Naphthalene	mg/Kg, dw,oc	2100	99	0.98	6.45	0.40	0.68	7.53	0.24
Pentachlorophenol*	ug/Kg, dw		360	0.00		97.67	0.00		114.02
Phenanthrene	mg/Kg, dw,oc	1500	100	8.72	6.45	0.40	12.50	7.53	0.24
Phenol*	ug/Kg, dw		420	0.00		32.26	0.00		37.66
Pyrene	mg/Kg, dw,oc	2600	1000	22.57	6.45	0.40	24.08	7.53	0.24
Total Organic Carbon (dry)						16039			31799
Total Solids						55.8			47.8
HPAH	mg/Kg, dw,oc	370	960	0.00	0.00	0.00	0.00	0.00	0.00
LPAH	mg/Kg, dw,oc	960	370	0.00	0.00	0.00	0.00	0.00	0.00
Total Aroclors	mg/Kg, dw,oc	130	12	16.87	21.51	1.34	14.29	25.10	0.79

* = dry weight correction only

SMS OC and Dry Weight Normalization Detection Limit Check

			Sample	L62484-9			L62484-10		
	Units	SQS-DW (ug/Kg, dw)	SQS-OC (mg/Kg,dw,oc)	Result	MDL (dw)	MDL (dw,oc)	Result	MDL (dw)	MDL (dw,oc)
Arsenic*	mg/Kg, dw		57	10.85		3.36	1.81		1.56
Cadmium*	mg/Kg, dw		5.1	2.01		0.26	0.14		0.12
Chromium*	mg/Kg, dw		260	44.44		0.39	8.48		0.18
Copper*	mg/Kg, dw		390	56.85		0.52	13.60		0.24
Lead*	mg/Kg, dw		450	62.79		2.58	4.45		1.20
Mercury*	mg/Kg, dw		0.41	0.62		0.01	0.03		0.01
Silver*	mg/Kg, dw		6.1	1.68		0.52	0.00		0.24
Zinc*	mg/Kg, dw		410	103.36		0.65	25.87		0.30
1,2,4-Trichlorobenzene	mg/Kg, dw,oc	31	0.81	0.00	0.93	0.03	0.00	0.43	0.17
1,2-Dichlorobenzene	mg/Kg, dw,oc	35	2.3	0.00	9.41	0.31	0.00	4.38	1.69
1,4-Dichlorobenzene	mg/Kg, dw,oc	110	3.1	0.00	14.08	0.47	0.00	6.56	2.53
2-Methylnaphthalene	mg/Kg, dw,oc	670	38	0.53	9.30	0.31	0.00	4.33	1.67
2,4-Dimethylphenol*	ug/Kg, dw		29	0.00		9.30	0.00		4.33
2-Methylphenol*	ug/Kg, dw		63	0.00		9.30	0.00		4.33
3-,4-Methylphenol*	ug/Kg, dw		670	0.00		46.51	0.00		21.66
Acenaphthene	mg/Kg, dw,oc	500	16	0.86	9.30	0.31	0.00	4.33	1.67
Acenaphthylene	mg/Kg, dw,oc	1300	66	1.05	9.30	0.31	0.00	4.33	1.67
Anthracene	mg/Kg, dw,oc	960	220	3.43	9.30	0.31	7.81	4.33	1.67
Benzo(a)anthracene	mg/Kg, dw,oc	1300	110	8.62	9.30	0.31	16.51	4.33	1.67
Benzo(a)pyrene	mg/Kg, dw,oc	1600	99	11.29	46.51	1.55	17.40	4.33	1.67
Benzo(b,j,k)fluoranthene	mg/Kg, dw,oc	3200	230	24.14	46.51	1.55	47.91	4.33	1.67
Benzo(g,h,i)perylene	mg/Kg, dw,oc	670	31	7.31	46.51	1.55	4.74	4.33	1.67
Benzoic Acid*	ug/Kg, dw		650	0.00		187.86	112.03		87.48
Benzyl Alcohol*	ug/Kg, dw		57	0.00		23.49	0.00		10.94
Benzyl Butyl Phthalate	mg/Kg, dw,oc	63	4.9	0.00	14.08	0.47	0.00	6.56	2.53
Bis(2-Ethylhexyl)Phthalate	mg/Kg, dw,oc	1300	47	19.48	18.86	0.63	16.23	8.78	3.40
Chrysene	mg/Kg, dw,oc	1400	110	11.29	9.30	0.31	27.95	4.33	1.67
Dibenzo(a,h)anthracene	mg/Kg, dw,oc	230	12	0.00	46.51	1.55	1.72	4.33	1.67
Dibenzofuran	mg/Kg, dw,oc	540	15	0.50	9.30	0.31	0.00	4.33	1.67
Diethyl Phthalate	mg/Kg, dw,oc	200	61	0.86	18.86	0.63	0.00	8.78	3.40
Dimethyl Phthalate	mg/Kg, dw,oc	71	53	0.00	18.79	0.63	0.00	8.75	3.38
Di-N-Butyl Phthalate	mg/Kg, dw,oc	1400	220	1.81	18.86	0.63	0.00	8.78	3.40
Di-N-Octyl Phthalate	mg/Kg, dw,oc	6200	58	0.00	94.06	3.14	0.00	8.75	3.38
Fluorene	mg/Kg, dw,oc	540	23	1.11	9.30	0.31	1.91	4.33	1.67
Fluoranthene	mg/Kg, dw,oc	1700	160	13.97	9.30	0.31	25.02	4.33	1.67
Hexachlorobenzene	mg/Kg, dw,oc	22	0.38	0.00	0.93	0.03	0.00	0.43	0.17
Hexachlorobutadiene	mg/Kg, dw,oc	11	3.9	0.00	4.65	0.16	0.00	2.17	0.84
Indeno(1,2,3-Cd)Pyrene	mg/Kg, dw,oc	600	34	7.51	46.51	1.55	6.42	4.33	1.67
N-Nitrosodiphenylamine	mg/Kg, dw,oc	28	11	0.00	23.49	0.78	0.00	10.94	4.23
Naphthalene	mg/Kg, dw,oc	2100	99	0.79	9.30	0.31	0.00	4.33	1.67
Pentachlorophenol*	ug/Kg, dw		360	0.00		140.83	0.00		65.58
Phenanthrene	mg/Kg, dw,oc	1500	100	7.57	9.30	0.31	11.77	4.33	1.67
Phenol*	ug/Kg, dw		420	0.00		46.51	0.00		21.66
Pyrene	mg/Kg, dw,oc	2600	1000	17.50	9.30	0.31	22.00	4.33	1.67
Total Organic Carbon (dry)						29974			2587
Total Solids						38.7			83.1
HPAH	mg/Kg, dw,oc	370	960	0.00	0.00	0.00	0.00	0.00	0.00
LPAH	mg/Kg, dw,oc	960	370	0.00	0.00	0.00	0.00	0.00	0.00
Total Aroclors	mg/Kg, dw,oc	130	12	12.42	31.01	1.03	0.00	14.44	5.58

* = dry weight correction only

SMS OC and Dry Weight Normalization Detection Limit Check

			Sample	L62484-11			L62484-12		
	Units	SQS-DW (ug/Kg, dw)	SQS-OC (mg/Kg,dw,oc)	Result	MDL (dw)	MDL (dw,oc)	Result	MDL (dw)	MDL (dw,oc)
Arsenic*	mg/Kg, dw		57	7.41		2.53	12.74		5.02
Cadmium*	mg/Kg, dw		5.1	0.68		0.19	0.58		0.39
Chromium*	mg/Kg, dw		260	35.48		0.29	46.72		0.58
Copper*	mg/Kg, dw		390	43.08		0.39	53.28		0.77
Lead*	mg/Kg, dw		450	62.96		1.95	47.88		3.86
Mercury*	mg/Kg, dw		0.41	0.69		0.01	0.43		0.02
Silver*	mg/Kg, dw		6.1	2.09		0.39	1.62		0.77
Zinc*	mg/Kg, dw		410	105.85		0.49	96.91		1.00
1,2,4-Trichlorobenzene	mg/Kg, dw,oc	31	0.81	0.00	0.70	0.03	0.00	1.39	0.03
1,2-Dichlorobenzene	mg/Kg, dw,oc	35	2.3	0.00	7.10	0.32	0.00	14.05	0.29
1,4-Dichlorobenzene	mg/Kg, dw,oc	110	3.1	0.00	10.62	0.47	0.00	21.04	0.44
2-Methylnaphthalene	mg/Kg, dw,oc	670	38	0.74	7.02	0.31	0.00	13.90	0.29
2,4-Dimethylphenol*	ug/Kg, dw		29	0.00		7.02	0.00		13.90
2-Methylphenol*	ug/Kg, dw		63	0.00		7.02	0.00		13.90
3-,4-Methylphenol*	ug/Kg, dw		670	0.00		35.09	0.00		69.50
Acenaphthene	mg/Kg, dw,oc	500	16	3.79	7.02	0.31	0.49	13.90	0.29
Acenaphthylene	mg/Kg, dw,oc	1300	66	0.71	7.02	0.31	0.53	13.90	0.29
Anthracene	mg/Kg, dw,oc	960	220	3.39	7.02	0.31	1.80	13.90	0.29
Benzo(a)anthracene	mg/Kg, dw,oc	1300	110	6.53	7.02	0.31	4.95	13.90	0.29
Benzo(a)pyrene	mg/Kg, dw,oc	1600	99	8.68	35.09	1.57	7.15	13.90	0.29
Benzo(b,j,k)fluoranthene	mg/Kg, dw,oc	3200	230	17.39	35.09	1.57	19.27	13.90	0.29
Benzo(g,h,i)perylene	mg/Kg, dw,oc	670	31	5.44	35.09	1.57	1.93	13.90	0.29
Benzoic Acid*	ug/Kg, dw		650	0.00		141.72	0.00		280.69
Benzyl Alcohol*	ug/Kg, dw		57	0.00		17.72	0.00		35.10
Benzyl Butyl Phthalate	mg/Kg, dw,oc	63	4.9	0.00	10.62	0.47	0.63	21.04	0.44
Bis(2-Ethylhexyl)Phthalate	mg/Kg, dw,oc	1300	47	39.30	14.23	0.63	10.16	28.19	0.59
Chrysene	mg/Kg, dw,oc	1400	110	8.37	7.02	0.31	7.32	13.90	0.29
Dibenzo(a,h)anthracene	mg/Kg, dw,oc	230	12	1.65	35.09	1.57	0.41	13.90	0.29
Dibenzofuran	mg/Kg, dw,oc	540	15	2.33	7.02	0.31	0.31	13.90	0.29
Diethyl Phthalate	mg/Kg, dw,oc	200	61	0.00	14.23	0.63	0.97	28.19	0.59
Dimethyl Phthalate	mg/Kg, dw,oc	71	53	0.00	14.17	0.63	0.00	28.07	0.59
Di-N-Butyl Phthalate	mg/Kg, dw,oc	1400	220	1.34	14.23	0.63	1.05	28.19	0.59
Di-N-Octyl Phthalate	mg/Kg, dw,oc	6200	58	0.00	70.96	3.17	0.00	28.07	0.59
Fluorene	mg/Kg, dw,oc	540	23	3.05	7.02	0.31	0.62	13.90	0.29
Fluoranthene	mg/Kg, dw,oc	1700	160	12.17	7.02	0.31	7.20	13.90	0.29
Hexachlorobenzene	mg/Kg, dw,oc	22	0.38	0.00	0.70	0.03	0.00	1.39	0.03
Hexachlorobutadiene	mg/Kg, dw,oc	11	3.9	0.00	3.51	0.16	0.00	6.95	0.15
Indeno(1,2,3-Cd)Pyrene	mg/Kg, dw,oc	600	34	6.43	35.09	1.57	2.33	13.90	0.29
N-Nitrosodiphenylamine	mg/Kg, dw,oc	28	11	0.00	17.72	0.79	0.00	35.10	0.73
Naphthalene	mg/Kg, dw,oc	2100	99	0.95	7.02	0.31	0.00	13.90	0.29
Pentachlorophenol*	ug/Kg, dw		360	0.00		106.24	0.00		210.42
Phenanthrene	mg/Kg, dw,oc	1500	100	9.30	7.02	0.31	3.87	13.90	0.29
Phenol*	ug/Kg, dw		420	0.00		35.09	0.00		69.50
Pyrene	mg/Kg, dw,oc	2600	1000	16.70	7.02	0.31	8.31	13.90	0.29
Total Organic Carbon (dry)						22417			47876
Total Solids						51.3			25.9
HPAH	mg/Kg, dw,oc	370	960	0.00	0.00	0.00	0.00	0.00	0.00
LPAH	mg/Kg, dw,oc	960	370	0.00	0.00	0.00	0.00	0.00	0.00
Total Aroclors	mg/Kg, dw,oc	130	12	22.77	23.39	1.04	6.34	46.33	0.97

* = dry weight correction only

SMS OC and Dry Weight Normalization Detection Limit Check

			Sample	L62484-13			L62484-14		
	Units	SQS-DW (ug/Kg, dw)	SQS-OC (mg/Kg,dw,oc)	Result	MDL (dw)	MDL (dw,oc)	Result	MDL (dw)	MDL (dw,oc)
Arsenic*	mg/Kg, dw		57	2.47		1.69	8.55		2.65
Cadmium*	mg/Kg, dw		5.1	0.00		0.13	0.67		0.20
Chromium*	mg/Kg, dw		260	13.26		0.21	44.20		0.31
Copper*	mg/Kg, dw		390	11.25		0.27	61.71		0.41
Lead*	mg/Kg, dw		450	10.12		1.30	82.28		2.04
Mercury*	mg/Kg, dw		0.41	0.06		0.01	0.56		0.01
Silver*	mg/Kg, dw		6.1	0.00		0.27	3.32		0.41
Zinc*	mg/Kg, dw		410	34.72		0.34	108.76		0.51
1,2,4-Trichlorobenzene	mg/Kg, dw,oc	31	0.81	0.00	0.47	0.08	0.06	0.73	0.03
1,2-Dichlorobenzene	mg/Kg, dw,oc	35	2.3	0.00	4.73	0.81	0.00	7.41	0.33
1,4-Dichlorobenzene	mg/Kg, dw,oc	110	3.1	0.00	7.09	1.21	0.00	11.10	0.50
2-Methylnaphthalene	mg/Kg, dw,oc	670	38	0.00	4.68	0.80	1.30	7.33	0.33
2,4-Dimethylphenol*	ug/Kg, dw		29	0.00		4.68	0.00		7.33
2-Methylphenol*	ug/Kg, dw		63	0.00		4.68	0.00		7.33
3-,4-Methylphenol*	ug/Kg, dw		670	0.00		23.41	0.00		36.66
Acenaphthene	mg/Kg, dw,oc	500	16	0.00	4.68	0.80	1.99	7.33	0.33
Acenaphthylene	mg/Kg, dw,oc	1300	66	0.84	4.68	0.80	1.93	7.33	0.33
Anthracene	mg/Kg, dw,oc	960	220	4.23	4.68	0.80	7.67	7.33	0.33
Benzo(a)anthracene	mg/Kg, dw,oc	1300	110	14.54	4.68	0.80	20.28	7.33	0.33
Benzo(a)pyrene	mg/Kg, dw,oc	1600	99	16.62	23.41	3.98	26.33	36.66	1.65
Benzo(b,j,k)fluoranthene	mg/Kg, dw,oc	3200	230	38.72	23.41	3.98	57.71	36.66	1.65
Benzo(g,h,i)perylene	mg/Kg, dw,oc	670	31	7.52	23.41	3.98	11.47	36.66	1.65
Benzoic Acid*	ug/Kg, dw		650	289.99		94.54	186.76		148.07
Benzyl Alcohol*	ug/Kg, dw		57	0.00		11.82	0.00		18.51
Benzyl Butyl Phthalate	mg/Kg, dw,oc	63	4.9	0.00	7.09	1.21	25.50	11.10	0.50
Bis(2-Ethylhexyl)Phthalate	mg/Kg, dw,oc	1300	47	12.17	9.49	1.62	42.02	14.87	0.67
Chrysene	mg/Kg, dw,oc	1400	110	20.62	4.68	0.80	25.50	7.33	0.33
Dibenzo(a,h)anthracene	mg/Kg, dw,oc	230	12	0.00	23.41	3.98	3.58	36.66	1.65
Dibenzofuran	mg/Kg, dw,oc	540	15	0.00	4.68	0.80	1.24	7.33	0.33
Diethyl Phthalate	mg/Kg, dw,oc	200	61	0.00	9.49	1.62	0.00	14.87	0.67
Dimethyl Phthalate	mg/Kg, dw,oc	71	53	0.00	9.45	1.61	0.00	14.81	0.67
Di-N-Butyl Phthalate	mg/Kg, dw,oc	1400	220	0.00	9.49	1.62	11.10	14.87	0.67
Di-N-Octyl Phthalate	mg/Kg, dw,oc	6200	58	0.00	47.33	8.05	0.00	74.13	3.34
Fluorene	mg/Kg, dw,oc	540	23	1.31	4.68	0.80	2.50	7.33	0.33
Fluoranthene	mg/Kg, dw,oc	1700	160	31.19	4.68	0.80	34.77	7.33	0.33
Hexachlorobenzene	mg/Kg, dw,oc	22	0.38	0.00	0.47	0.08	0.00	0.73	0.03
Hexachlorobutadiene	mg/Kg, dw,oc	11	3.9	0.00	2.34	0.40	0.00	3.67	0.17
Indeno(1,2,3-Cd)Pyrene	mg/Kg, dw,oc	600	34	8.08	23.41	3.98	14.59	36.66	1.65
N-Nitrosodiphenylamine	mg/Kg, dw,oc	28	11	0.00	11.82	2.01	0.00	18.51	0.83
Naphthalene	mg/Kg, dw,oc	2100	99	0.00	4.68	0.80	1.49	7.33	0.33
Pentachlorophenol*	ug/Kg, dw		360	0.00		70.87	0.00		111.00
Phenanthrene	mg/Kg, dw,oc	1500	100	9.76	4.68	0.80	18.90	7.33	0.33
Phenol*	ug/Kg, dw		420	0.00		23.41	0.00		36.66
Pyrene	mg/Kg, dw,oc	2600	1000	35.84	4.68	0.80	48.26	7.33	0.33
Total Organic Carbon (dry)						5878			22200
Total Solids						76.9			49.1
HPAH	mg/Kg, dw,oc	370	960	0.00	0.00	0.00	0.00	0.00	0.00
LPAH	mg/Kg, dw,oc	960	370	0.00	0.00	0.00	0.00	0.00	0.00
Total Aroclors	mg/Kg, dw,oc	130	12	14.42	15.60	2.65	25.03	24.44	1.10

* = dry weight correction only

SMS OC and Dry Weight Normalization Detection Limit Check

			Sample	L62484-15			L62484-16		
	Units	SQS-DW (ug/Kg, dw)	SQS-OC (mg/Kg,dw,oc)	Result	MDL (dw)	MDL (dw,oc)	Result	MDL (dw)	MDL (dw,oc)
Arsenic*	mg/Kg, dw		57	9.46		2.03	8.48		2.42
Cadmium*	mg/Kg, dw		5.1	0.42		0.17	0.46		0.20
Chromium*	mg/Kg, dw		260	55.07		0.25	58.79		0.30
Copper*	mg/Kg, dw		390	48.48		0.34	57.58		0.40
Lead*	mg/Kg, dw		450	42.06		1.66	42.02		2.00
Mercury*	mg/Kg, dw		0.41	0.33		0.01	0.57		0.01
Silver*	mg/Kg, dw		6.1	1.15		0.34	1.15		0.40
Zinc*	mg/Kg, dw		410	98.48		0.42	103.43		0.51
1,2,4-Trichlorobenzene	mg/Kg, dw,oc	31	0.81	0.00	0.61	0.05	0.00	0.73	0.03
1,2-Dichlorobenzene	mg/Kg, dw,oc	35	2.3	0.00	6.15	0.52	0.00	7.35	0.32
1,4-Dichlorobenzene	mg/Kg, dw,oc	110	3.1	0.00	9.21	0.78	0.00	11.01	0.48
2-Methylnaphthalene	mg/Kg, dw,oc	670	38	0.87	6.08	0.51	0.45	7.27	0.32
2,4-Dimethylphenol*	ug/Kg, dw		29	0.00		6.08	0.00		7.27
2-Methylphenol*	ug/Kg, dw		63	0.00		6.08	0.00		7.27
3-,4-Methylphenol*	ug/Kg, dw		670	0.00		30.41	0.00		36.36
Acenaphthene	mg/Kg, dw,oc	500	16	0.90	6.08	0.51	0.54	7.27	0.32
Acenaphthylene	mg/Kg, dw,oc	1300	66	1.28	6.08	0.51	0.61	7.27	0.32
Anthracene	mg/Kg, dw,oc	960	220	4.34	6.08	0.51	2.39	7.27	0.32
Benzo(a)anthracene	mg/Kg, dw,oc	1300	110	12.59	6.08	0.51	5.98	7.27	0.32
Benzo(a)pyrene	mg/Kg, dw,oc	1600	99	17.43	6.08	0.51	8.41	7.27	0.32
Benzo(b,j,k)fluoranthene	mg/Kg, dw,oc	3200	230	40.57	6.08	0.51	18.51	7.27	0.32
Benzo(g,h,i)perylene	mg/Kg, dw,oc	670	31	7.87	6.08	0.51	3.74	7.27	0.32
Benzoic Acid*	ug/Kg, dw		650	0.00		122.80	0.00		146.87
Benzyl Alcohol*	ug/Kg, dw		57	0.00		15.35	0.00		18.36
Benzyl Butyl Phthalate	mg/Kg, dw,oc	63	4.9	4.17	9.21	0.78	0.00	11.01	0.48
Bis(2-Ethylhexyl)Phthalate	mg/Kg, dw,oc	1300	47	32.14	12.33	1.04	12.54	14.75	0.64
Chrysene	mg/Kg, dw,oc	1400	110	17.57	6.08	0.51	8.86	7.27	0.32
Dibenzo(a,h)anthracene	mg/Kg, dw,oc	230	12	2.51	6.08	0.51	1.15	7.27	0.32
Dibenzofuran	mg/Kg, dw,oc	540	15	0.74	6.08	0.51	0.32	7.27	0.32
Diethyl Phthalate	mg/Kg, dw,oc	200	61	0.00	12.33	1.04	0.69	14.75	0.64
Dimethyl Phthalate	mg/Kg, dw,oc	71	53	0.00	12.28	1.04	0.00	14.69	0.64
Di-N-Butyl Phthalate	mg/Kg, dw,oc	1400	220	0.00	12.33	1.04	0.96	14.75	0.64
Di-N-Octyl Phthalate	mg/Kg, dw,oc	6200	58	0.00	12.28	1.04	0.00	14.69	0.64
Fluorene	mg/Kg, dw,oc	540	23	1.29	6.08	0.51	0.84	7.27	0.32
Fluoranthene	mg/Kg, dw,oc	1700	160	21.29	6.08	0.51	10.09	7.27	0.32
Hexachlorobenzene	mg/Kg, dw,oc	22	0.38	0.00	0.61	0.05	0.00	0.73	0.03
Hexachlorobutadiene	mg/Kg, dw,oc	11	3.9	0.00	3.04	0.26	0.00	3.64	0.16
Indeno(1,2,3-Cd)Pyrene	mg/Kg, dw,oc	600	34	9.01	6.08	0.51	4.38	7.27	0.32
N-Nitrosodiphenylamine	mg/Kg, dw,oc	28	11	0.00	15.35	1.30	0.00	18.36	0.80
Naphthalene	mg/Kg, dw,oc	2100	99	0.99	6.08	0.51	0.69	7.27	0.32
Pentachlorophenol*	ug/Kg, dw		360	0.00		92.06	0.00		110.10
Phenanthrene	mg/Kg, dw,oc	1500	100	9.21	6.08	0.51	5.49	7.27	0.32
Phenol*	ug/Kg, dw		420	0.00		30.41	0.00		36.36
Pyrene	mg/Kg, dw,oc	2600	1000	23.86	6.08	0.51	11.05	7.27	0.32
Total Organic Carbon (dry)						11824			23030
Total Solids						59.2			49.5
HPAH	mg/Kg, dw,oc	370	960	0.00	0.00	0.00	0.00	0.00	0.00
LPAH	mg/Kg, dw,oc	960	370	0.00	0.00	0.00	0.00	0.00	0.00
Total Aroclors	mg/Kg, dw,oc	130	12	25.27	20.27	1.71	11.78	24.24	1.05

* = dry weight correction only

CONVENTIONAL ANALYSES QC DATA

King County Environmental Laboratory Batch Report

Denny Way Sediment Monitoring, L62484, April 8, 9, 2015

WG138537 Ammonia

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L62484-1	423062-020	Denny Way BO monitoring	CVNH3-KCL	SALTWTRSED	4/8/2015 9:26	4/10/2015 8:30	4/10/2015 10:34	WG138537-1,-2,-3,-4,-5,-6	
L62484-2	423062-020		CVNH3-KCL	SALTWTRSED	4/8/2015 10:52	4/10/2015 8:30	4/10/2015 11:32		
L62484-3	423062-020		CVNH3-KCL	SALTWTRSED	4/8/2015 9:54	4/10/2015 8:30	4/10/2015 10:38		
L62484-4	423062-020		CVNH3-KCL	SALTWTRSED	4/8/2015 11:11	4/10/2015 8:30	4/10/2015 10:57		
L62484-5	423062-020		CVNH3-KCL	SALTWTRSED	4/8/2015 11:59	4/10/2015 8:30	4/10/2015 11:34		
L62484-6	423062-020		CVNH3-KCL	SALTWTRSED	4/9/2015 8:48	4/10/2015 8:30	4/10/2015 11:01		
L62484-7	423062-020		CVNH3-KCL	SALTWTRSED	4/8/2015 14:47	4/10/2015 8:30	4/10/2015 11:03		
L62484-8	423062-020		CVNH3-KCL	SALTWTRSED	4/8/2015 12:30	4/10/2015 8:30	4/10/2015 11:05		
L62484-9	423062-020		CVNH3-KCL	SALTWTRSED	4/8/2015 14:13	4/10/2015 8:30	4/10/2015 11:07		
L62484-10	423062-020		CVNH3-KCL	SALTWTRSED	4/8/2015 13:20	4/10/2015 8:30	4/10/2015 11:36		
L62484-11	423062-020		CVNH3-KCL	SALTWTRSED	4/9/2015 9:56	4/10/2015 8:30	4/10/2015 11:20		
L62484-12	423062-020		CVNH3-KCL	SALTWTRSED	4/9/2015 10:15	4/10/2015 8:30	4/10/2015 11:22		
L62484-13	423062-020		CVNH3-KCL	SALTWTRSED	4/8/2015 12:57	4/10/2015 8:30	4/10/2015 11:47		
L62484-14	423062-020		CVNH3-KCL	SALTWTRSED	4/9/2015 8:18	4/10/2015 8:30	4/10/2015 11:26		
L62484-15	423062-020		CVNH3-KCL	SALTWTRSED	4/9/2015 9:06	4/10/2015 8:30	4/10/2015 11:28		
L62484-16	423062-020		CVNH3-KCL	SALTWTRSED	4/9/2015 9:35	4/10/2015 8:30	4/10/2015 11:30		
WG138537-1	MB		CVNH3-KCL	OTHR SOLID		4/10/2015 8:30	4/10/2015 10:26		CONNUTS1
WG138537-2	SB		CVNH3-KCL	OTHR SOLID		4/10/2015 8:30	4/10/2015 10:28		WG138537-1
WG138537-3	LCS		CVNH3-KCL	OTHR SOLID		4/10/2015 8:30	4/10/2015 10:30		LEVEL1
WG138537-4	LD		CVNH3-KCL	SALTWTRSED		4/10/2015 8:30	4/10/2015 10:49		L62484-3
WG138537-5	LT		CVNH3-KCL	SALTWTRSED		4/10/2015 8:30	4/10/2015 10:51		WG138537-4 L62484-3
WG138537-6	MS		CVNH3-KCL	SALTWTRSED		4/10/2015 8:30	4/10/2015 10:53		L62484-3

Workgroup: WG138537 Ammonia

MB:WG138537-1 Matrix: OTHR SOLID Listtype:CVNH3-KCL Method:KEROUEL & AMINOT 1997 KCL Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Ammonia Nitrogen	0.02	0.1	mg/Kg	<MDL	

SB:WG138537-2 MB:WG138537-1 Matrix: OTHR SOLID Listtype:CVNH3-KCL Method:KEROUEL & AMINOT 1997 KCL Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Ammonia Nitrogen	0.02	0.1	mg/Kg	<MDL	0.4	0.344	86		80--120

LCS:WG138537-3 Matrix: OTHR SOLID Listtype:CVNH3-KCL Method:KEROUEL & AMINOT 1997 KCL Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	True Value	LCS Value	% Rec.	Qual	Lab Limit
Ammonia Nitrogen	0.02	0.1	mg/Kg	0.5	0.451	90		80--120

LT:WG138537-5 LD:WG138537-4 L62484-3 Matrix: SALTWTRSED Listtype:CVNH3-KCL Method:KEROUEL & AMINOT 1997 KCL Project:423062-020 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	Lab Limit
Ammonia Nitrogen	0.019	0.0972	mg/Kg	0.801	0.746	0.802	4		0--20

MS:WG138537-6 L62484-3 Matrix: SALTWTRSED Listtype:CVNH3-KCL Method:KEROUEL & AMINOT 1997 KCL Project:423062-020 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit
Ammonia Nitrogen	0.02	0.0996	mg/Kg	0.801	0.39	1.11	82		75--125

WG138625 Total Solids

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L62451-1	421430-300	OCS-Lake Haven Utility	CVTOTS	SLUDGE	4/13/2015 10:00	4/15/2015 13:50	4/16/2015 8:55	WG138625-1,-2,-3,-4	
L62451-2	421430-300	District routine testing	CVTOTS	SLUDGE	4/13/2015 7:10	4/15/2015 13:50	4/16/2015 8:55		
L62484-1	423062-020	Denny Way BO	CVTOTS	SALTWTRSED	4/8/2015 9:26	4/15/2015 13:50	4/16/2015 8:46		
L62484-2	423062-020	monitoring	CVTOTS	SALTWTRSED	4/8/2015 10:52	4/15/2015 13:50	4/16/2015 8:47		
L62484-3	423062-020		CVTOTS	SALTWTRSED	4/8/2015 9:54	4/15/2015 13:50	4/16/2015 8:48		
L62484-4	423062-020		CVTOTS	SALTWTRSED	4/8/2015 11:11	4/15/2015 13:50	4/16/2015 8:48		
L62484-5	423062-020		CVTOTS	SALTWTRSED	4/8/2015 11:59	4/15/2015 13:50	4/16/2015 8:48		
L62484-6	423062-020		CVTOTS	SALTWTRSED	4/9/2015 8:48	4/15/2015 13:50	4/16/2015 8:50		
L62484-7	423062-020		CVTOTS	SALTWTRSED	4/8/2015 14:47	4/15/2015 13:50	4/16/2015 8:50		
L62484-8	423062-020		CVTOTS	SALTWTRSED	4/8/2015 12:30	4/15/2015 13:50	4/16/2015 8:51		
L62484-9	423062-020		CVTOTS	SALTWTRSED	4/8/2015 14:13	4/15/2015 13:50	4/16/2015 8:51		
L62484-10	423062-020		CVTOTS	SALTWTRSED	4/8/2015 13:20	4/15/2015 13:50	4/16/2015 8:52		
L62484-11	423062-020		CVTOTS	SALTWTRSED	4/9/2015 9:56	4/15/2015 13:50	4/16/2015 8:52		
L62484-12	423062-020		CVTOTS	SALTWTRSED	4/9/2015 10:15	4/15/2015 13:50	4/16/2015 8:52		
L62484-13	423062-020		CVTOTS	SALTWTRSED	4/8/2015 12:57	4/15/2015 13:50	4/16/2015 8:53		
L62484-14	423062-020		CVTOTS	SALTWTRSED	4/9/2015 8:18	4/15/2015 13:50	4/16/2015 8:53		
L62484-15	423062-020		CVTOTS	SALTWTRSED	4/9/2015 9:06	4/15/2015 13:50	4/16/2015 8:54		
L62484-16	423062-020		CVTOTS	SALTWTRSED	4/9/2015 9:35	4/15/2015 13:50	4/16/2015 8:54		
WG138625-1	MB		CVTOTS	OTHR SOLID		4/15/2015 13:50	4/16/2015 8:45		MB1 4/15/15
WG138625-2	LD		CVTOTS	SALTWTRSED		4/15/2015 13:50	4/16/2015 8:49		L62484-5
WG138625-3	LT		CVTOTS	SALTWTRSED		4/15/2015 13:50	4/16/2015 8:49		WG138625-2 L62484-5
WG138625-4	LD		CVTOTS	SLUDGE		4/15/2015 13:50	4/16/2015 8:56		L62451-2

Workgroup: WG138625 Total Solids

MB:WG138625-1 Matrix: OTHR SOLID Listtype:CVTOTS Method:SM2540-G Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Solids	0.005	0.01	%	<MDL	

LT:WG138625-3 LD:WG138625-2 L62484-5 Matrix: SALTWTRSED Listtype:CVTOTS Method:SM2540-G Project:423062-020 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	Lab Limit
Total Solids	0.005	0.01	%	76	75.8	75.3	0		0--20

LD:WG138625-4 L62451-2 Matrix: SLUDGE Listtype:CVTOTS Method:SM2540-G Project:421430-300 Pkey:STD
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	Lab Limit
Total Solids	0.005	0.01	%	15.5	15.5	0		0--20

WG138686 Total Sulfide

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L62484-1	423062-020	Denny Way BO monitoring	CVTOTSULFIDE	SALTWTRSED	4/8/2015 9:26	4/13/2015 11:00	4/13/2015 14:35	WG138686-6,-7,-1,-2,-5,-3,-4	
L62484-2	423062-020		CVTOTSULFIDE	SALTWTRSED	4/8/2015 10:52	4/13/2015 11:00	4/13/2015 14:35		
L62484-3	423062-020		CVTOTSULFIDE	SALTWTRSED	4/8/2015 9:54	4/13/2015 11:00	4/13/2015 14:35		
L62484-4	423062-020		CVTOTSULFIDE	SALTWTRSED	4/8/2015 11:11	4/13/2015 11:00	4/13/2015 14:35		
L62484-5	423062-020		CVTOTSULFIDE	SALTWTRSED	4/8/2015 11:59	4/13/2015 11:00	4/13/2015 14:35		
L62484-6	423062-020		CVTOTSULFIDE	SALTWTRSED	4/9/2015 8:48	4/13/2015 11:00	4/13/2015 14:35		
L62484-7	423062-020		CVTOTSULFIDE	SALTWTRSED	4/8/2015 14:47	4/14/2015 9:25	4/14/2015 13:10		
L62484-8	423062-020		CVTOTSULFIDE	SALTWTRSED	4/8/2015 12:30	4/14/2015 9:25	4/14/2015 13:10		
L62484-9	423062-020		CVTOTSULFIDE	SALTWTRSED	4/8/2015 14:13	4/14/2015 9:25	4/14/2015 13:10		
L62484-10	423062-020		CVTOTSULFIDE	SALTWTRSED	4/8/2015 13:20	4/14/2015 9:25	4/14/2015 13:10		
L62484-11	423062-020		CVTOTSULFIDE	SALTWTRSED	4/9/2015 9:56	4/14/2015 9:25	4/14/2015 13:10		
L62484-12	423062-020		CVTOTSULFIDE	SALTWTRSED	4/9/2015 10:15	4/14/2015 9:25	4/14/2015 13:10		
L62484-13	423062-020		CVTOTSULFIDE	SALTWTRSED	4/8/2015 12:57	4/14/2015 9:25	4/14/2015 13:10		
L62484-14	423062-020		CVTOTSULFIDE	SALTWTRSED	4/9/2015 8:18	4/14/2015 9:25	4/14/2015 13:10		
L62484-15	423062-020		CVTOTSULFIDE	SALTWTRSED	4/9/2015 9:06	4/14/2015 9:25	4/14/2015 13:10		
L62484-16	423062-020		CVTOTSULFIDE	SALTWTRSED	4/9/2015 9:35	4/14/2015 9:25	4/14/2015 13:10		
WG138686-1	MB		CVTOTSULFIDE	OTHR SOLID		4/13/2015 11:00	4/13/2015 14:35		MB1 4/13/15
WG138686-2	SB		CVTOTSULFIDE	OTHR SOLID		4/13/2015 11:00	4/13/2015 14:35		WG138686-1
WG138686-3	LD		CVTOTSULFIDE	SALTWTRSED		4/13/2015 11:00	4/13/2015 14:35		L62484-3
WG138686-4	LT		CVTOTSULFIDE	SALTWTRSED		4/13/2015 11:00	4/13/2015 14:35		WG138686-3 L62484-3
WG138686-5	MS		CVTOTSULFIDE	SALTWTRSED		4/13/2015 11:00	4/13/2015 14:35		L62484-3
WG138686-6	MB		CVTOTSULFIDE	OTHR SOLID		4/14/2015 9:25	4/14/2015 13:10		MB1 4/14/15
WG138686-7	SB		CVTOTSULFIDE	OTHR SOLID		4/14/2015 9:25	4/14/2015 13:10		WG138686-6

Workgroup: WG138686 Total Sulfide

MB:WG138686-1 Matrix: OTHR SOLID Listtype:CVTOTSULFIDE Method:EPA 9030B/SM4500-S2-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Sulfide	0.5	2	mg/Kg	<MDL	

SB:WG138686-2 MB:WG138686-1 Matrix: OTHR SOLID Listtype:CVTOTSULFIDE Method:EPA 9030B/SM4500-S2-D Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Total Sulfide	0.5	2	mg/Kg	<MDL	53.67	55.3	103		80--120

LT:WG138686-4 LD:WG138686-3 L62484-3 Matrix: SALTWTRSED Listtype:CVTOTSULFIDE Method:EPA 9030B/SM4500-S2-D Project:423062-020 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	Lab Limit
Total Sulfide	0.48	1.92	mg/Kg	7.57	8.53	8.57	7		0--20

MS:WG138686-5 L62484-3 Matrix: SALTWTRSED Listtype:CVTOTSULFIDE Method:EPA 9030B/SM4500-S2-D Project:423062-020 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit
Total Sulfide	0.47	1.87	mg/Kg	7.57	47.94	36.4	60	*	65--135

MB:WG138686-6 Matrix: OTHR SOLID Listtype:CVTOTSULFIDE Method:EPA 9030B/SM4500-S2-D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Sulfide	0.5	1	mg/Kg	<MDL	

SB:WG138686-7 MB:WG138686-6 Matrix: OTHR SOLID Listtype:CVTOTSULFIDE Method:EPA 9030B/SM4500-S2-D Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Total Sulfide	0.5	1	mg/Kg	<MDL	47.29	50.3	106		80--120

King County Environmental Laboratory Batch Report

Denny Way Sediment Monitoring, L62484, April 8, 9, 2015

WG138813 TOC

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L62484-1	423062-020	Denny Way BO monitoring	CVTOC	SALTWTRSED	4/8/2015 9:26	4/20/2015 13:30	5/14/2015 11:13	WG138813-1,-2,-3,-4,-5,-6,-7	
L62484-2	423062-020		CVTOC	SALTWTRSED	4/8/2015 10:52	4/20/2015 13:30	5/14/2015 9:20		
L62484-3	423062-020		CVTOC	SALTWTRSED	4/8/2015 9:54	4/20/2015 13:30	5/14/2015 11:37		
L62484-4	423062-020		CVTOC	SALTWTRSED	4/8/2015 11:11	4/20/2015 13:30	5/14/2015 12:38		
L62484-5	423062-020		CVTOC	SALTWTRSED	4/8/2015 11:59	4/20/2015 13:30	5/14/2015 13:02		
L62484-6	423062-020		CVTOC	SALTWTRSED	4/9/2015 8:48	4/20/2015 13:30	5/14/2015 13:35		
L62484-7	423062-020		CVTOC	SALTWTRSED	4/8/2015 14:47	4/20/2015 13:30	5/14/2015 13:59		
L62484-8	423062-020		CVTOC	SALTWTRSED	4/8/2015 12:30	4/20/2015 13:30	5/14/2015 14:23		
L62484-9	423062-020		CVTOC	SALTWTRSED	4/8/2015 14:13	4/20/2015 13:30	5/15/2015 9:15		
L62484-10	423062-020		CVTOC	SALTWTRSED	4/8/2015 13:20	4/20/2015 13:30	5/15/2015 9:39		
L62484-11	423062-020		CVTOC	SALTWTRSED	4/9/2015 9:56	4/20/2015 13:30	5/15/2015 10:12		
L62484-12	423062-020		CVTOC	SALTWTRSED	4/9/2015 10:15	4/20/2015 13:30	5/15/2015 10:37		
L62484-13	423062-020		CVTOC	SALTWTRSED	4/8/2015 12:57	4/20/2015 13:30	5/15/2015 11:03		
L62484-14	423062-020		CVTOC	SALTWTRSED	4/9/2015 8:18	4/20/2015 13:30	5/15/2015 11:32		
L62484-15	423062-020		CVTOC	SALTWTRSED	4/9/2015 9:06	4/20/2015 13:30	5/15/2015 11:59		
L62484-16	423062-020		CVTOC	SALTWTRSED	4/9/2015 9:35	4/20/2015 13:30	5/15/2015 12:35		
WG138813-1	MB		CVTOC	OTHR SOLID		4/20/2015 13:30	5/14/2015 8:06		MB1 150514
WG138813-2	LCS		CVTOC	OTHR SOLID		4/20/2015 13:30	5/14/2015 8:31		LEVEL1
WG138813-3	SB		CVTOC	OTHR SOLID		4/20/2015 13:30	5/14/2015 8:56		WG138813-1
WG138813-4	LD		CVTOC	SALTWTRSED		4/20/2015 13:30	5/14/2015 9:53		L62484-2
WG138813-5	LT		CVTOC	SALTWTRSED		4/20/2015 13:30	5/14/2015 10:18		WG138813-4 L62484-2
WG138813-6	MS		CVTOC	SALTWTRSED		4/20/2015 13:30	5/14/2015 10:43		L62484-2
WG138813-7	MB		CVTOC	OTHR SOLID		4/20/2015 13:30	5/15/2015 8:49		MB1 150515

Workgroup: WG138813 TOC

MB:WG138813-1 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060 PSEP96 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

LCS:WG138813-2 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060 PSEP96 Project: Pkey:STD
(Lab Control Sample)

Parameter	MDL	RDL	Units	True Value	LCS Value	% Rec.	Qual	Lab Limit
Total Organic Carbon	1600	3220	mg/Kg	21900	21800	100		80--120

SB:WG138813-3 MB:WG138813-1 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060 PSEP96 Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Total Organic Carbon	500	1000	mg/Kg	<MDL	3750	3830	102		80--120

LT:WG138813-5 LD:WG138813-4 L62484-2 Matrix: SALTWTRSED Listtype:CVTOC Method:SW846 9060 PSEP96 Project:423062-020 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	Lab Limit
Total Organic Carbon	1600	3150	mg/Kg	5760	6380	6790	8		0--20

MS:WG138813-6 L62484-2 Matrix: SALTWTRSED Listtype:CVTOC Method:SW846 9060 PSEP96 Project:423062-020 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit
Total Organic Carbon	1600	3160	mg/Kg	5760	11900	18400	106		75--125

MB:WG138813-7 Matrix: OTHR SOLID Listtype:CVTOC Method:SW846 9060 PSEP96 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Total Organic Carbon	500	1000	mg/Kg	<MDL	

WG139944 PSD

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L62484-1	423062-020	Denny Way BO monitoring	CVPSD	SALTWTRSED	4/8/2015 9:26	6/22/2015 14:10	6/23/2015 8:40	WG139944-1,-2	
L62484-2	423062-020		CVPSD	SALTWTRSED	4/8/2015 10:52	6/22/2015 14:10	6/23/2015 8:40		
L62484-3	423062-020		CVPSD	SALTWTRSED	4/8/2015 9:54	6/22/2015 14:10	6/23/2015 8:40		
L62484-4	423062-020		CVPSD	SALTWTRSED	4/8/2015 11:11	6/22/2015 14:10	6/23/2015 8:40		
L62484-5	423062-020		CVPSD	SALTWTRSED	4/8/2015 11:59	6/22/2015 14:10	6/23/2015 8:40		
L62484-6	423062-020		CVPSD	SALTWTRSED	4/9/2015 8:48	6/22/2015 14:10	6/23/2015 8:40		
L62484-7	423062-020		CVPSD	SALTWTRSED	4/8/2015 14:47	6/22/2015 14:10	6/23/2015 8:40		
L62484-8	423062-020		CVPSD	SALTWTRSED	4/8/2015 12:30	6/22/2015 14:10	6/23/2015 8:40		
L62484-9	423062-020		CVPSD	SALTWTRSED	4/8/2015 14:13	6/22/2015 14:10	6/23/2015 8:40		
L62484-10	423062-020		CVPSD	SALTWTRSED	4/8/2015 13:20	6/22/2015 14:10	6/23/2015 8:40		
WG139944-1	LD		CVPSD	SALTWTRSED		6/22/2015 14:10	6/23/2015 8:40		L62484-3
WG139944-2	LT		CVPSD	SALTWTRSED		6/22/2015 14:10	6/23/2015 8:40		WG139944-1 L62484-3

Workgroup: WG139944 PSD

LT:WG139944-2 LD:WG139944-1 L62484-3 Matrix: SALTWTRSED Listtype:CVPSD Method:ASTM D422 Project:423062-020 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	Lab Limit
Gravel	0.3	2.5	%	9.2	3.3	2.2	77	*	0--20
Sand	0.3	2.5	%	34.7	35.2	35.3	1		0--20
Silt	1.2	2.5	%	49.9	52.1	48.1	4		0--20
Clay	1.2	2.5	%	14.1	12.4	15.2	10		0--20

King County Environmental Laboratory Batch Report

Denny Way Sediment Monitoring, L62484, April 8, 9, 2015

WG140068 PSD

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L62484-11	423062-020	Denny Way BO monitoring	CVPSD	SALTWTRSED	4/9/2015 9:56	6/29/2015 13:40	6/30/2015 8:55	WG139944-1,-2	
L62484-12	423062-020		CVPSD	SALTWTRSED	4/9/2015 10:15	6/29/2015 13:40	6/30/2015 8:55		
L62484-13	423062-020		CVPSD	SALTWTRSED	4/8/2015 12:57	6/29/2015 13:40	6/30/2015 8:55		
L62484-14	423062-020		CVPSD	SALTWTRSED	4/9/2015 8:18	6/29/2015 13:40	6/30/2015 8:55		
L62484-15	423062-020		CVPSD	SALTWTRSED	4/9/2015 9:06	6/29/2015 13:40	6/30/2015 8:55		
L62484-16	423062-020		CVPSD	SALTWTRSED	4/9/2015 9:35	6/29/2015 13:40	6/30/2015 8:55		
WG139944-1	LD		CVPSD	SALTWTRSED		6/22/2015 14:10	6/23/2015 8:40		L62484-3
WG139944-2	LT		CVPSD	SALTWTRSED		6/22/2015 14:10	6/23/2015 8:40		WG139944-1 L62484-3

Workgroup: WG140068 PSD

LT:WG139944-2 LD:WG139944-1 L62484-3 Matrix: SALTWTRSED Listtype:CVPSD Method:ASTM D422 Project:423062-020 Pkey:SED
(Lab Triplicate, Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	LT Value	RSD	Qual	Lab Limit
Gravel	0.3	2.5	%	9.2	3.3	2.2	77	*	0--20
Sand	0.3	2.5	%	34.7	35.2	35.3	1		0--20
Silt	1.2	2.5	%	49.9	52.1	48.1	4		0--20
Clay	1.2	2.5	%	14.1	12.4	15.2	10		0--20

METAL CHEMISTRY QC DATA

WG138799 Total Mercury

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L62484-1	423062-020	Denny Way BO monitoring	MTHG-MIDS	SALTWTRSED	4/8/2015 9:26	4/23/2015 13:00	4/24/2015 12:01	WG138799-1,-2,-3,-4,-5,-6,-7	
L62484-2	423062-020		MTHG-MIDS	SALTWTRSED	4/8/2015 10:52	4/23/2015 13:00	4/24/2015 12:03		
L62484-3	423062-020		MTHG-MIDS	SALTWTRSED	4/8/2015 9:54	4/23/2015 13:00	4/24/2015 12:05		
L62484-4	423062-020		MTHG-MIDS	SALTWTRSED	4/8/2015 11:11	4/23/2015 13:00	4/24/2015 12:07		
L62484-5	423062-020		MTHG-MIDS	SALTWTRSED	4/8/2015 11:59	4/23/2015 13:00	4/24/2015 12:09		
L62484-6	423062-020		MTHG-MIDS	SALTWTRSED	4/9/2015 8:48	4/23/2015 13:00	4/24/2015 12:21		
L62484-7	423062-020		MTHG-MIDS	SALTWTRSED	4/8/2015 14:47	4/23/2015 13:00	4/24/2015 12:11		
L62484-8	423062-020		MTHG-MIDS	SALTWTRSED	4/8/2015 12:30	4/23/2015 13:00	4/24/2015 12:13		
L62484-9	423062-020		MTHG-MIDS	SALTWTRSED	4/8/2015 14:13	4/23/2015 13:00	4/24/2015 12:15		
L62484-10	423062-020		MTHG-MIDS	SALTWTRSED	4/8/2015 13:20	4/23/2015 13:00	4/24/2015 12:47		
L62484-11	423062-020		MTHG-MIDS	SALTWTRSED	4/9/2015 9:56	4/23/2015 13:00	4/24/2015 12:30		
L62484-12	423062-020		MTHG-MIDS	SALTWTRSED	4/9/2015 10:15	4/23/2015 13:00	4/24/2015 12:32		
L62484-13	423062-020		MTHG-MIDS	SALTWTRSED	4/8/2015 12:57	4/23/2015 13:00	4/24/2015 12:34		
L62484-14	423062-020		MTHG-MIDS	SALTWTRSED	4/9/2015 8:18	4/23/2015 13:00	4/24/2015 12:36		
L62484-15	423062-020		MTHG-MIDS	SALTWTRSED	4/9/2015 9:06	4/23/2015 13:00	4/24/2015 12:39		
L62484-16	423062-020		MTHG-MIDS	SALTWTRSED	4/9/2015 9:35	4/23/2015 13:00	4/24/2015 12:45		
WG138799-1	MB		MTHG-MIDS	SOLIDBLANK		4/23/2015 13:00	4/24/2015 11:57		MB
WG138799-2	SB		MTHG-MIDS	SOLIDBLANK		4/23/2015 13:00	4/24/2015 11:59		WG138799-1 HG-SMID
WG138799-3	MS		MTHG-MIDS	SALTWTRSED		4/23/2015 13:00	4/24/2015 12:25		L62484-6 HG-SMID
WG138799-4	MSD		MTHG-MIDS	SALTWTRSED		4/23/2015 13:00	4/24/2015 12:27		WG138799-3 L62484-6 HG-SMID-MSD
WG138799-5	LD		MTHG-MIDS	SALTWTRSED		4/23/2015 13:00	4/24/2015 12:23		L62484-6 RPD-SOL
WG138799-6	SRM		MTHG-MIDS	SALTWTRSED		4/23/2015 13:00	4/24/2015 12:49		PACS2
WG138799-7	SRMD		MTHG-MIDS	SALTWTRSED		4/23/2015 13:00	4/24/2015 12:51		WG138799-6 PACS2

Workgroup: WG138799 Total Mercury

MB:WG138799-1 Matrix: SOLIDBLANK Listtype:MTHG-MIDS Method:SW846 7471B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Mercury, Total, CVAA	0.0048	0.0476	mg/Kg	<MDL	

SB:WG138799-2 MB:WG138799-1 Matrix: SOLIDBLANK Listtype:MTHG-MIDS Method:SW846 7471B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Mercury, Total, CVAA	0.0048	0.0476	mg/Kg	<MDL	0.0952	0.104	109		85--115

MSD:WG138799-4 MS:WG138799-3 L62484-6 Matrix: SALTWTRSED Listtype:MTHG-MIDS Method:SW846 7471B Project:423062-020 Pkey:SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Mercury, Total, CVAA	0.005	0.0497	mg/Kg	0.0939	0.0993	0.199	106		75--125	0.101	0.202	107		1		0--20

LD:WG138799-5 L62484-6 Matrix: SALTWTRSED Listtype:MTHG-MIDS Method:SW846 7471B Project:423062-020 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	Lab Limit
Mercury, Total, CVAA	0.0048	0.0482	mg/Kg	0.0939	0.114	19		0--20

SRMD:WG138799-7 SRM:WG138799-6 Matrix: SALTWTRSED Listtype:MTHG-MIDS Method:SW846 7471B Project: Pkey:SED
(Std Reference Material Duplicate, Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit	True Value	SRMD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Mercury, Total, CVAA	0.049	0.485	mg/Kg	3.04	3.48	114		80--120	3.04	3.35	110		4		0--20

King County Environmental Laboratory Batch Report

Denny Way Sedmient Monitoring, L62484, April 8, 9, 2015

WG140333 Total Metals

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L62484-1	423062-020	Denny Way BO monitoring	MTICP-SED	SALTWTRSED	4/8/2015 9:26	7/15/2015 9:00	7/16/2015 9:01	WG140333-1,-2,-3,-4,-5,-6	
L62484-2	423062-020		MTICP-SED	SALTWTRSED	4/8/2015 10:52	7/15/2015 9:00	7/16/2015 9:06		
L62484-3	423062-020		MTICP-SED	SALTWTRSED	4/8/2015 9:54	7/15/2015 9:00	7/16/2015 9:12		
L62484-4	423062-020		MTICP-SED	SALTWTRSED	4/8/2015 11:11	7/15/2015 9:00	7/16/2015 9:17		
L62484-5	423062-020		MTICP-SED	SALTWTRSED	4/8/2015 11:59	7/15/2015 9:00	7/16/2015 9:23		
L62484-6	423062-020		MTICP-SED	SALTWTRSED	4/9/2015 8:48	7/15/2015 9:00	7/16/2015 9:40		
L62484-7	423062-020		MTICP-SED	SALTWTRSED	4/8/2015 14:47	7/15/2015 9:00	7/16/2015 9:56		
L62484-8	423062-020		MTICP-SED	SALTWTRSED	4/8/2015 12:30	7/15/2015 9:00	7/16/2015 10:02		
L62484-9	423062-020		MTICP-SED	SALTWTRSED	4/8/2015 14:13	7/15/2015 9:00	7/16/2015 10:07		
L62484-10	423062-020		MTICP-SED	SALTWTRSED	4/8/2015 13:20	7/15/2015 9:00	7/16/2015 10:13		
L62484-11	423062-020		MTICP-SED	SALTWTRSED	4/9/2015 9:56	7/15/2015 9:00	7/16/2015 10:18		
L62484-12	423062-020		MTICP-SED	SALTWTRSED	4/9/2015 10:15	7/15/2015 9:00	7/16/2015 10:24		
L62484-13	423062-020		MTICP-SED	SALTWTRSED	4/8/2015 12:57	7/15/2015 9:00	7/16/2015 10:29		
L62484-14	423062-020		MTICP-SED	SALTWTRSED	4/9/2015 8:18	7/15/2015 9:00	7/16/2015 10:46		
L62484-15	423062-020		MTICP-SED	SALTWTRSED	4/9/2015 9:06	7/15/2015 9:00	7/16/2015 10:51		
L62484-16	423062-020		MTICP-SED	SALTWTRSED	4/9/2015 9:35	7/15/2015 9:00	7/16/2015 10:57		
WG140333-1	SB		MTICP-SED	SOLIDBLANK		7/15/2015 9:00	7/16/2015 8:39		WG140333-2 ICPH
WG140333-2	MB		MTICP-SED	SOLIDBLANK		7/15/2015 9:00	7/16/2015 8:44		METHOD BLANK
WG140333-3	LD		MTICP-SED	SALTWTRSED		7/15/2015 9:00	7/16/2015 9:45		L62484-6 RPD-SOL
WG140333-4	MS		MTICP-SED	SALTWTRSED		7/15/2015 9:00	7/16/2015 9:51		L62484-6 ICPH
WG140333-5	SRM		MTICP-SED	SALTWTRSED		7/15/2015 9:00	7/16/2015 8:50		PACS3
WG140333-6	SRMD		MTICP-SED	SALTWTRSED		7/15/2015 9:00	7/16/2015 8:55		WG140333-5 PACS3

Workgroup: WG140333 Total Metals

SB:WG140333-1 MB:WG140333-2 Matrix: SOLIDBLANK Listtype:MTICP-SED Method:SW846 3050B*SW846 6010C Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Silver, Total, ICP	0.19	0.952	mg/Kg	<MDL	47.6	46.9	99		85--115
Arsenic, Total, ICP	1.2	5.95	mg/Kg	<MDL	47.6	48.3	101		85--115
Cadmium, Total, ICP	0.095	0.476	mg/Kg	<MDL	47.6	45.9	96		85--115
Chromium, Total, ICP	0.14	0.714	mg/Kg	<MDL	47.6	45.6	96		85--115
Copper, Total, ICP	0.19	0.952	mg/Kg	<MDL	47.6	46.1	97		85--115
Lead, Total, ICP	0.95	4.76	mg/Kg	<MDL	47.6	43.8	92		85--115
Zinc, Total, ICP	0.24	1.19	mg/Kg	<MDL	47.6	46.2	97		85--115

MB:WG140333-2 Matrix: SOLIDBLANK Listtype:MTICP-SED Method:SW846 3050B*SW846 6010C Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Silver, Total, ICP	0.19	0.952	mg/Kg	<MDL	
Arsenic, Total, ICP	1.2	5.95	mg/Kg	<MDL	
Cadmium, Total, ICP	0.095	0.476	mg/Kg	<MDL	
Chromium, Total, ICP	0.14	0.714	mg/Kg	<MDL	
Copper, Total, ICP	0.19	0.952	mg/Kg	<MDL	
Lead, Total, ICP	0.95	4.76	mg/Kg	<MDL	
Zinc, Total, ICP	0.24	1.19	mg/Kg	<MDL	

LD:WG140333-3 L62484-6 Matrix: SALTWTRSED Listtype:MTICP-SED Method:SW846 3050B*SW846 6010C Project:423062-020 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	Lab Limit
Silver, Total, ICP	0.21	1.04	mg/Kg	<MDL	<MDL			0--20
Arsenic, Total, ICP	1.3	6.51	mg/Kg	4.2	3.7			0--20
Cadmium, Total, ICP	0.1	0.521	mg/Kg	0.13	0.13			0--20
Chromium, Total, ICP	0.16	0.781	mg/Kg	20.6	20.2	2		0--20
Copper, Total, ICP	0.21	1.04	mg/Kg	19.4	19.5	0		0--20
Lead, Total, ICP	1	5.21	mg/Kg	15.3	12.9	17		0--20
Zinc, Total, ICP	0.26	1.3	mg/Kg	43.3	44.4	2		0--20

MS:WG140333-4 L62484-6 Matrix: SALTWTRSED Listtype:MTICP-SED Method:SW846 3050B*SW846 6010C Project:423062-020 Pkey:SED
(Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit
Silver, Total, ICP	0.21	1.04	mg/Kg	<MDL	51.4	50.7	99		75--125
Arsenic, Total, ICP	1.3	6.51	mg/Kg	4.2	51.4	56.5	102		75--125
Cadmium, Total, ICP	0.1	0.521	mg/Kg	0.13	51.4	49.1	95		75--125
Chromium, Total, ICP	0.16	0.781	mg/Kg	20.6	51.4	71.3	99		75--125
Copper, Total, ICP	0.21	1.04	mg/Kg	19.4	51.4	71.2	101		75--125
Lead, Total, ICP	1	5.21	mg/Kg	15.3	51.4	63.4	94		75--125
Zinc, Total, ICP	0.26	1.3	mg/Kg	43.3	51.4	104	118		75--125

SRMD:WG140333-6 SRM:WG140333-5 Matrix: SALTWTRSED Listtype:MTICP-SED Method:SW846 3050B*SW846 6010C Project: Pkey:SED
(Std Reference Material Duplicate, Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit	True Value	SRMD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Arsenic, Total, ICP	5	25	mg/Kg	30.3	29.5	97		80--120	30.3	28.4	94		4		0--20
Cadmium, Total, ICP	0.4	2	mg/Kg	2.23	2	88		80--120	2.23	1.9	83		5		0--20
Chromium, Total, ICP	0.6	3	mg/Kg	91.6	46.2	50	*	80--120	91.6	44.2	48	*	4		0--20
Copper, Total, ICP	0.8	4	mg/Kg	327	303	93		80--120	327	303	93		0		0--20
Lead, Total, ICP	4	20	mg/Kg	188	164	87		80--120	188	158	84		4		0--20
Zinc, Total, ICP	1	5	mg/Kg	379	343	91		80--120	379	341	90		1		0--20

ORGANIC CHEMISTRY QC DATA

WG139604 Chlorinated Pesticides

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L62484-1	423062-020	Denny Way BO monitoring	ORPESTSMS	SALTWTRSED	4/8/2015 9:26	6/4/2015 17:00	6/10/2015 16:17	WG139604-1,-2,-3,-4,-5	
L62484-2	423062-020		ORPESTSMS	SALTWTRSED	4/8/2015 10:52	6/4/2015 17:00	6/10/2015 12:11		
L62484-3	423062-020		ORPESTSMS	SALTWTRSED	4/8/2015 9:54	6/4/2015 17:00	6/10/2015 12:26		
L62484-4	423062-020		ORPESTSMS	SALTWTRSED	4/8/2015 11:11	6/4/2015 17:00	6/10/2015 12:42		
L62484-5	423062-020		ORPESTSMS	SALTWTRSED	4/8/2015 11:59	6/4/2015 17:00	6/10/2015 16:33		
L62484-6	423062-020		ORPESTSMS	SALTWTRSED	4/9/2015 8:48	6/4/2015 17:00	6/10/2015 12:57		
L62484-7	423062-020		ORPESTSMS	SALTWTRSED	4/8/2015 14:47	6/4/2015 17:00	6/10/2015 13:12		
L62484-8	423062-020		ORPESTSMS	SALTWTRSED	4/8/2015 12:30	6/4/2015 17:00	6/10/2015 16:48		
L62484-9	423062-020		ORPESTSMS	SALTWTRSED	4/8/2015 14:13	6/4/2015 17:00	6/10/2015 17:04		
L62484-10	423062-020		ORPESTSMS	SALTWTRSED	4/8/2015 13:20	6/4/2015 17:00	6/10/2015 13:28		
L62484-11	423062-020		ORPESTSMS	SALTWTRSED	4/9/2015 9:56	6/4/2015 17:00	6/10/2015 17:19		
L62484-12	423062-020		ORPESTSMS	SALTWTRSED	4/9/2015 10:15	6/4/2015 17:00	6/10/2015 13:43		
L62484-13	423062-020		ORPESTSMS	SALTWTRSED	4/8/2015 12:57	6/4/2015 17:00	6/10/2015 17:35		
L62484-14	423062-020		ORPESTSMS	SALTWTRSED	4/9/2015 8:18	6/4/2015 17:00	6/10/2015 17:50		
L62484-15	423062-020		ORPESTSMS	SALTWTRSED	4/9/2015 9:06	6/4/2015 17:00	6/10/2015 13:59		
L62484-16	423062-020		ORPESTSMS	SALTWTRSED	4/9/2015 9:35	6/4/2015 17:00	6/10/2015 14:14		
WG139604-1	MB		ORPESTSMS	OTHR SOLID		6/4/2015 17:00	6/10/2015 10:38		MB150604
WG139604-2	SB		ORPESTSMS	OTHR SOLID		6/4/2015 17:00	6/10/2015 10:54		WG139604-1
WG139604-3	MS		ORPESTSMS	SALTWTRSED		6/4/2015 17:00	6/10/2015 15:16		L62484-2
WG139604-4	MSD		ORPESTSMS	SALTWTRSED		6/4/2015 17:00	6/10/2015 15:31		WG139604-3 L62484-2
WG139604-5	LD		ORPESTSMS	SALTWTRSED		6/4/2015 17:00	6/10/2015 11:55		L62484-5

Workgroup: WG139604 Chlorinated Pesticides

MB:WG139604-1 Matrix: OTHR SOLID Listtype:ORPESTSMS Method:SW846 3550B*SW846 8081B Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
4,4'-DDD	0.8	1.6	ug/Kg	<MDL	
4,4'-DDE	0.8	1.6	ug/Kg	<MDL	
4,4'-DDT	0.8	1.6	ug/Kg	<MDL	

SB:WG139604-2 MB:WG139604-1 Matrix: OTHR SOLID Listtype:ORPESTSMS Method:SW846 3550B*SW846 8081B Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
4,4'-DDD	0.8	1.6	ug/Kg	<MDL	16	16.8	105		50--150
4,4'-DDE	0.8	1.6	ug/Kg	<MDL	16	15.6	97		50--150
4,4'-DDT	0.8	1.6	ug/Kg	<MDL	16	15.9	99		50--150

MSD:WG139604-4 MS:WG139604-3 L62484-2 Matrix: SALTWTRSED Listtype:ORPESTSMS Method:SW846 3550B*SW846 8081B Project:423062-020 Pkey:SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
4,4'-DDD	0.8	1.6	ug/Kg	1.6	16	16.9	95		50--150	16	16.4	92		3		0--35
4,4'-DDE	0.8	1.6	ug/Kg	<MDL	16	15.5	97		50--150	16	14.8	93		5		0--35
4,4'-DDT	0.8	1.6	ug/Kg	1.87	16	14.2	77		50--150	16	13.5	72		6		0--35

LD:WG139604-5 L62484-5 Matrix: SALTWTRSED Listtype:ORPESTSMS Method:SW846 3550B*SW846 8081B Project:423062-020 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	Lab Limit
4,4'-DDD	0.8	1.6	ug/Kg	0.97	<MDL			0--35
4,4'-DDE	0.8	1.6	ug/Kg	<MDL	<MDL			0--35
4,4'-DDT	0.8	1.6	ug/Kg	1.1	1.1			0--35

Surrogate: (Lab Limits)	2,4,5,6-Tetra chloro m-xylene 22--113	Deca chloro biphenyl 51--115
L62484-1	78	90
L62484-2	73	89
L62484-3	75	83
L62484-4	75	85
L62484-5	77	82
L62484-6	70	87
L62484-7	75	83
L62484-8	70	77
L62484-9	75	84
L62484-10	69	82
L62484-11	71	81
L62484-12	74	86
L62484-13	76	78
L62484-14	76	82
L62484-15	73	85
L62484-16	74	87
WG139604-1	58	97
WG139604-2	40	98
WG139604-3	75	84
WG139604-4	70	79
WG139604-5	72	85

WG139605 PCB

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L62484-1	423062-020	Denny Way BO monitoring	ORPCB	SALTWTRSED	4/8/2015 9:26	6/4/2015 17:00	6/10/2015 16:17	WG139605-1,-2,-3,-4,-5,-6,-7	
L62484-2	423062-020		ORPCB	SALTWTRSED	4/8/2015 10:52	6/4/2015 17:00	6/10/2015 12:11		
L62484-3	423062-020		ORPCB	SALTWTRSED	4/8/2015 9:54	6/4/2015 17:00	6/10/2015 12:26		
L62484-4	423062-020		ORPCB	SALTWTRSED	4/8/2015 11:11	6/4/2015 17:00	6/10/2015 12:42		
L62484-5	423062-020		ORPCB	SALTWTRSED	4/8/2015 11:59	6/4/2015 17:00	6/10/2015 16:33		
L62484-6	423062-020		ORPCB	SALTWTRSED	4/9/2015 8:48	6/4/2015 17:00	6/10/2015 12:57		
L62484-7	423062-020		ORPCB	SALTWTRSED	4/8/2015 14:47	6/4/2015 17:00	6/10/2015 13:12		
L62484-8	423062-020		ORPCB	SALTWTRSED	4/8/2015 12:30	6/4/2015 17:00	6/10/2015 16:48		
L62484-9	423062-020		ORPCB	SALTWTRSED	4/8/2015 14:13	6/4/2015 17:00	6/10/2015 17:04		
L62484-10	423062-020		ORPCB	SALTWTRSED	4/8/2015 13:20	6/4/2015 17:00	6/10/2015 13:28		
L62484-11	423062-020		ORPCB	SALTWTRSED	4/9/2015 9:56	6/4/2015 17:00	6/10/2015 17:19		
L62484-12	423062-020		ORPCB	SALTWTRSED	4/9/2015 10:15	6/4/2015 17:00	6/10/2015 13:43		
L62484-13	423062-020		ORPCB	SALTWTRSED	4/8/2015 12:57	6/4/2015 17:00	6/10/2015 17:35		
L62484-14	423062-020		ORPCB	SALTWTRSED	4/9/2015 8:18	6/4/2015 17:00	6/10/2015 17:50		
L62484-15	423062-020		ORPCB	SALTWTRSED	4/9/2015 9:06	6/4/2015 17:00	6/10/2015 13:59		
L62484-16	423062-020		ORPCB	SALTWTRSED	4/9/2015 9:35	6/4/2015 17:00	6/10/2015 14:14		
WG139605-1	MB		ORPCB	OTHR SOLID		6/4/2015 17:00	6/10/2015 10:38		MB150604
WG139605-2	SB		ORPCB	OTHR SOLID		6/4/2015 17:00	6/10/2015 11:09		WG139605-1
WG139605-3	MS		ORPCB	SALTWTRSED		6/4/2015 17:00	6/10/2015 15:47		L62484-5
WG139605-4	MSD		ORPCB	SALTWTRSED		6/4/2015 17:00	6/10/2015 16:02		WG139605-3 L62484-5
WG139605-5	SRM		ORPCB	SALTWTRSED		6/4/2015 17:00	6/10/2015 11:25		DUDI PSRM0024
WG139605-6	SRMD		ORPCB	SALTWTRSED		6/4/2015 17:00	6/10/2015 11:40		WG139605-5
WG139605-7	LD		ORPCB	SALTWTRSED		6/4/2015 17:00	6/10/2015 11:55		L62484-6

Workgroup: WG139605 PCB

MB:WG139605-1 Matrix: OTHR SOLID Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Aroclor 1016	4	16	ug/Kg	<MDL	
Aroclor 1221	12	16	ug/Kg	<MDL	
Aroclor 1232	12	16	ug/Kg	<MDL	
Aroclor 1242	4	16	ug/Kg	<MDL	
Aroclor 1248	4	16	ug/Kg	<MDL	
Aroclor 1254	4	16	ug/Kg	<MDL	
Aroclor 1260	4	16	ug/Kg	<MDL	
Total Aroclors	12	16	ug/Kg	<MDL	

SB:WG139605-2 MB:WG139605-1 Matrix: OTHR SOLID Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Aroclor 1242	4	16	ug/Kg	<MDL	160	105	66		38--100
Aroclor 1260	4	16	ug/Kg	<MDL	160	172	107		70--109

MSD:WG139605-4 MS:WG139605-3 L62484-5 Matrix: SALTWTRSED Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project:423062-020 Pkey:SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Aroclor 1242	4	16	ug/Kg	9.6	160	154	90		51--100	160	156	92		1		0--35
Aroclor 1260	4	16	ug/Kg	12	160	155	89		35--108	160	156	90		1		0--35

SRMD:WG139605-6 SRM:WG139605-5 Matrix: SALTWTRSED Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project: Pkey:SED
(Std Reference Material Duplicate, Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit	True Value	SRMD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Aroclor 1260	13	53.3	ug/Kg	108	119	111		46--140	108	138	128		14		0--35

LD:WG139605-7 L62484-6 Matrix: SALTWTRSED Listtype:ORPCB Method:SW846 3550B*SW846 8082A Project:423062-020 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	Lab Limit
Aroclor 1016	4	16	ug/Kg	<MDL	<MDL			0--35
Aroclor 1221	12	16	ug/Kg	<MDL	<MDL			0--35
Aroclor 1232	12	16	ug/Kg	<MDL	<MDL			0--35
Aroclor 1242	4	16	ug/Kg	6.2	6.6			0--35
Aroclor 1248	4	16	ug/Kg	<MDL	<MDL			0--35
Aroclor 1254	4	16	ug/Kg	22.9	23	0		0--35
Aroclor 1260	4	16	ug/Kg	20.2	21.6	7		0--35
Total Aroclors	4	16	ug/Kg	49.3	51.2	4		0--35

Surrogate: (Lab Limits)	2,4,5,6-Tetra chloro m-xylene 22--113	Deca chloro biphenyl 51--115
L62484-1	85	98
L62484-2	80	97
L62484-3	82	90
L62484-4	81	93
L62484-5	83	89
L62484-6	76	94
L62484-7	81	90
L62484-8	75	83
L62484-9	82	89
L62484-10	75	89
L62484-11	77	88
L62484-12	80	93
L62484-13	83	85
L62484-14	82	88
L62484-15	79	92
L62484-16	80	94
WG139605-1	63	105
WG139605-2	60	105
WG139605-3	82	88
WG139605-4	83	88
WG139605-5	72	102
WG139605-6	77	104
WG139605-7	78	92

King County Environmental Laboratory Batch Report

Denny Way Sediment Monitoring, L62484, April 8, 9, 2015

WG139614 Semi Volatile Organics

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L62484-1	423062-020	Denny Way BO monitoring	ORBNASMS	SALTWTRSED	4/8/2015 9:26	6/5/2015 17:00	6/30/2015 9:57	WG139614-1,-2,-3,-4,-5,-6,-7,-8	
L62484-2	423062-020		ORBNASMS	SALTWTRSED	4/8/2015 10:52	6/5/2015 17:00	6/30/2015 10:41		
L62484-3	423062-020		ORBNASMS	SALTWTRSED	4/8/2015 9:54	6/5/2015 17:00	6/30/2015 11:25		
L62484-4	423062-020		ORBNASMS	SALTWTRSED	4/8/2015 11:11	6/5/2015 17:00	6/30/2015 12:08		
L62484-5	423062-020		ORBNASMS	SALTWTRSED	4/8/2015 11:59	6/5/2015 17:00	6/30/2015 9:13		
L62484-6	423062-020		ORBNASMS	SALTWTRSED	4/9/2015 8:48	6/5/2015 17:00	6/25/2015 21:22		
L62484-7	423062-020		ORBNASMS	SALTWTRSED	4/8/2015 14:47	6/5/2015 17:00	6/30/2015 12:51		
L62484-8	423062-020		ORBNASMS	SALTWTRSED	4/8/2015 12:30	6/5/2015 17:00	6/30/2015 13:35		
L62484-9	423062-020		ORBNASMS	SALTWTRSED	4/8/2015 14:13	6/5/2015 17:00	6/30/2015 14:19		
L62484-10	423062-020		ORBNASMS	SALTWTRSED	4/8/2015 13:20	6/5/2015 17:00	6/30/2015 15:02		
L62484-11	423062-020		ORBNASMS	SALTWTRSED	4/9/2015 9:56	6/5/2015 17:00	6/30/2015 15:46		
L62484-12	423062-020		ORBNASMS	SALTWTRSED	4/9/2015 10:15	6/5/2015 17:00	6/30/2015 16:30		
L62484-13	423062-020		ORBNASMS	SALTWTRSED	4/8/2015 12:57	6/5/2015 17:00	6/30/2015 17:14		
L62484-14	423062-020		ORBNASMS	SALTWTRSED	4/9/2015 8:18	6/5/2015 17:00	6/30/2015 17:57		
L62484-15	423062-020		ORBNASMS	SALTWTRSED	4/9/2015 9:06	6/5/2015 17:00	7/1/2015 9:07		
L62484-16	423062-020		ORBNASMS	SALTWTRSED	4/9/2015 9:35	6/5/2015 17:00	7/1/2015 9:50		
WG139614-1	MB		ORBNASMS	OTHR SOLID		6/5/2015 17:00	6/25/2015 14:48		MB150605
WG139614-2	SB		ORBNASMS	OTHR SOLID		6/5/2015 17:00	6/25/2015 15:32		WG139614-1
WG139614-3	SB		ORBNASMS	OTHR SOLID		6/5/2015 17:00	6/25/2015 16:15		WG139614-1
WG139614-4	MS		ORBNASMS	SALTWTRSED		6/5/2015 17:00	6/25/2015 18:25		L62484-5
WG139614-5	MSD		ORBNASMS	SALTWTRSED		6/5/2015 17:00	6/25/2015 19:07		WG139614-4 L62484-5
WG139614-6	SRM		ORBNASMS	SALTWTRSED		6/5/2015 17:00	6/25/2015 16:59		
WG139614-7	SRMD		ORBNASMS	SALTWTRSED		6/5/2015 17:00	6/25/2015 17:42		WG139614-6
WG139614-8	LD		ORBNASMS	SALTWTRSED		6/5/2015 17:00	6/25/2015 20:34		L62484-6

Workgroup: WG139614 Semi Volatile Organics

MB:WG139614-1 Matrix: OTHR SOLID Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Phenol	18	54.5	ug/Kg	<MDL	
1,4-Dichlorobenzene	5.45	5.45	ug/Kg	<MDL	
Benzyl Alcohol	9.09	9.09	ug/Kg	<MDL	
1,2-Dichlorobenzene	3.64	3.64	ug/Kg	<MDL	
2-Methylphenol	3.6	7.27	ug/Kg	<MDL	
3-,4-Methylphenol	18	36.4	ug/Kg	<MDL	
2,4-Dimethylphenol	3.6	7.27	ug/Kg	<MDL	
Benzoic Acid	72.7	72.7	ug/Kg	<MDL	
1,2,4-Trichlorobenzene	0.36	0.727	ug/Kg	<MDL	
Naphthalene	3.6	7.27	ug/Kg	<MDL	
Hexachlorobutadiene	1.8	3.64	ug/Kg	<MDL	
2-Methylnaphthalene	3.6	7.27	ug/Kg	<MDL	
1-Methylnaphthalene	3.6	7.27	ug/Kg	<MDL	
Dimethyl Phthalate	7.27	7.27	ug/Kg	<MDL	
Acenaphthylene	3.6	7.27	ug/Kg	<MDL	
Acenaphthene	3.6	7.27	ug/Kg	<MDL	
Dibenzofuran	3.6	7.27	ug/Kg	<MDL	
Diethyl Phthalate	7.3	14.5	ug/Kg	<MDL	
Fluorene	3.6	7.27	ug/Kg	<MDL	
N-Nitrosodiphenylamine	9.09	9.09	ug/Kg	<MDL	
Hexachlorobenzene	0.36	0.727	ug/Kg	<MDL	
Pentachlorophenol	54.5	54.5	ug/Kg	<MDL	
Phenanthrene	3.6	7.27	ug/Kg	<MDL	
Anthracene	3.6	7.27	ug/Kg	<MDL	
Carbazole	3.6	7.27	ug/Kg	<MDL	
Di-N-Butyl Phthalate	7.3	14.5	ug/Kg	<MDL	
Fluoranthene	3.6	7.27	ug/Kg	<MDL	
Pyrene	3.6	7.27	ug/Kg	<MDL	
Benzyl Butyl Phthalate	5.45	5.45	ug/Kg	<MDL	
Benzo(a)anthracene	3.6	7.27	ug/Kg	<MDL	
Chrysene	3.6	7.27	ug/Kg	<MDL	
Bis(2-Ethylhexyl)Phthalate	7.3	14.5	ug/Kg	<MDL	
Di-N-Octyl Phthalate	7.27	7.27	ug/Kg	<MDL	
Benzo(b,j,k)fluoranthene	3.6	7.27	ug/Kg	<MDL	
Benzo(a)pyrene	3.6	7.27	ug/Kg	<MDL	
Indeno(1,2,3-Cd)Pyrene	3.6	7.27	ug/Kg	<MDL	
Dibenzo(a,h)anthracene	3.6	7.27	ug/Kg	<MDL	
Benzo(g,h,i)perylene	3.6	7.27	ug/Kg	<MDL	

SB:WG139614-2 MB:WG139614-1 Matrix: OTHR SOLID Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Phenol	18	54.5	ug/Kg	<MDL	567	360	63		26--136
1,4-Dichlorobenzene	5.45	5.45	ug/Kg	<MDL	567	318	56		40--103
Benzyl Alcohol	9.09	9.09	ug/Kg	<MDL	567	306	54		26--111
1,2-Dichlorobenzene	3.64	3.64	ug/Kg	<MDL	567	351	62		44--105
2-Methylphenol	3.6	7.27	ug/Kg	<MDL	567	242	43		20--123
3-,4-Methylphenol	18	36.4	ug/Kg	<MDL	567	301	53		22--119
2,4-Dimethylphenol	3.6	7.27	ug/Kg	<MDL	567	16.4	3	*	20--121
Benzoic Acid	72.7	72.7	ug/Kg	<MDL	567	216	38		20--92
1,2,4-Trichlorobenzene	0.36	0.727	ug/Kg	<MDL	567	332	59		39--94
Naphthalene	3.6	7.27	ug/Kg	<MDL	567	344	61		28--109
Hexachlorobutadiene	1.8	3.64	ug/Kg	<MDL	567	382	67		20--135
2-Methylnaphthalene	3.6	7.27	ug/Kg	<MDL	567	365	64		20--128
1-Methylnaphthalene	3.6	7.27	ug/Kg	<MDL	567	400	70		20--128
Dimethyl Phthalate	7.27	7.27	ug/Kg	<MDL	567	430	76		70--129
Acenaphthylene	3.6	7.27	ug/Kg	<MDL	567	386	68		45--132
Acenaphthene	3.6	7.27	ug/Kg	<MDL	567	398	70		43--126
Dibenzofuran	3.6	7.27	ug/Kg	<MDL	567	398	70		52--133
Diethyl Phthalate	7.3	14.5	ug/Kg	<MDL	567	461	81		75--131
Fluorene	3.6	7.27	ug/Kg	<MDL	567	467	82		57--150
N-Nitrosodiphenylamine	9.09	9.09	ug/Kg	<MDL	567	496	87		57--136
Hexachlorobenzene	0.36	0.727	ug/Kg	<MDL	567	456	80		53--150
Pentachlorophenol	54.5	54.5	ug/Kg	<MDL	567	473	83		25--135
Phenanthrene	3.6	7.27	ug/Kg	<MDL	567	430	76		47--141
Anthracene	3.6	7.27	ug/Kg	<MDL	567	451	80		48--149
Carbazole	3.6	7.27	ug/Kg	<MDL	567	513	90		48--149
Di-N-Butyl Phthalate	7.3	14.5	ug/Kg	<MDL	567	555	98		71--142
Fluoranthene	3.6	7.27	ug/Kg	<MDL	567	527	93		56--143
Pyrene	3.6	7.27	ug/Kg	<MDL	567	550	97		60--144
Benzyl Butyl Phthalate	5.45	5.45	ug/Kg	<MDL	567	589	104		36--150
Benzo(a)anthracene	3.6	7.27	ug/Kg	<MDL	567	551	97		51--150
Chrysene	3.6	7.27	ug/Kg	<MDL	567	536	94		45--150
Bis(2-Ethylhexyl)Phthalate	7.3	14.5	ug/Kg	<MDL	567	524	92		61--150
Di-N-Octyl Phthalate	7.27	7.27	ug/Kg	<MDL	567	541	95		43--150
Benzo(b,j,k)fluoranthene	3.6	7.27	ug/Kg	<MDL	1700	1130	67		45--143
Benzo(a)pyrene	3.6	7.27	ug/Kg	<MDL	567	508	90		61--140
Indeno(1,2,3-Cd)Pyrene	3.6	7.27	ug/Kg	<MDL	567	631	111		42--150
Dibenzo(a,h)anthracene	3.6	7.27	ug/Kg	<MDL	567	648	114		41--150
Benzo(g,h,i)perylene	3.6	7.27	ug/Kg	<MDL	567	583	103		28--150

SB:WG139614-3 MB:WG139614-1 Matrix: OTHR SOLID Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Phenol	18	54.5	ug/Kg	<MDL	2270	1830	80		26--136
1,4-Dichlorobenzene	5.45	5.45	ug/Kg	<MDL	2270	1480	65		40--103
Benzyl Alcohol	9.09	9.09	ug/Kg	<MDL	2270	1510	67		26--111
1,2-Dichlorobenzene	3.64	3.64	ug/Kg	<MDL	2270	1660	73		44--105
2-Methylphenol	3.6	7.27	ug/Kg	<MDL	2270	1670	73		20--123
3-,4-Methylphenol	18	36.4	ug/Kg	<MDL	2270	1740	77		22--119
2,4-Dimethylphenol	3.6	7.27	ug/Kg	<MDL	2270	900	40		20--121
Benzoic Acid	72.7	72.7	ug/Kg	<MDL	2270	1120	49		20--92
1,2,4-Trichlorobenzene	0.36	0.727	ug/Kg	<MDL	2270	1640	72		39--94
Naphthalene	3.6	7.27	ug/Kg	<MDL	2270	1660	73		28--109
Hexachlorobutadiene	1.8	3.64	ug/Kg	<MDL	2270	1760	77		20--135
2-Methylnaphthalene	3.6	7.27	ug/Kg	<MDL	2270	1800	79		20--128
1-Methylnaphthalene	3.6	7.27	ug/Kg	<MDL	2270	1960	86		20--128
Dimethyl Phthalate	7.27	7.27	ug/Kg	<MDL	2270	2010	88		70--129
Acenaphthylene	3.6	7.27	ug/Kg	<MDL	2270	1840	81		45--132
Acenaphthene	3.6	7.27	ug/Kg	<MDL	2270	1950	86		43--126
Dibenzofuran	3.6	7.27	ug/Kg	<MDL	2270	1880	83		52--133
Diethyl Phthalate	7.3	14.5	ug/Kg	<MDL	2270	2040	90		75--131
Fluorene	3.6	7.27	ug/Kg	<MDL	2270	2180	96		57--150
N-Nitrosodiphenylamine	9.09	9.09	ug/Kg	<MDL	2270	2690	118		57--136
Hexachlorobenzene	0.36	0.727	ug/Kg	<MDL	2270	2210	97		53--150
Pentachlorophenol	54.5	54.5	ug/Kg	<MDL	2270	2240	99		25--135
Phenanthrene	3.6	7.27	ug/Kg	<MDL	2270	2070	91		47--141
Anthracene	3.6	7.27	ug/Kg	<MDL	2270	2150	94		48--149
Carbazole	3.6	7.27	ug/Kg	<MDL	2270	2260	100		48--149
Di-N-Butyl Phthalate	7.3	14.5	ug/Kg	<MDL	2270	2420	106		71--142
Fluoranthene	3.6	7.27	ug/Kg	<MDL	2270	2270	100		56--143
Pyrene	3.6	7.27	ug/Kg	<MDL	2270	2380	105		60--144
Benzyl Butyl Phthalate	5.45	5.45	ug/Kg	<MDL	2270	2520	111		36--150
Benzo(a)anthracene	3.6	7.27	ug/Kg	<MDL	2270	2360	104		51--150
Chrysene	3.6	7.27	ug/Kg	<MDL	2270	2290	101		45--150
Bis(2-Ethylhexyl)Phthalate	7.3	14.5	ug/Kg	<MDL	2270	2220	98		61--150
Di-N-Octyl Phthalate	7.27	7.27	ug/Kg	<MDL	2270	2260	99		43--150
Benzo(b,j,k)fluoranthene	3.6	7.27	ug/Kg	<MDL	6820	4890	72		45--143
Benzo(a)pyrene	3.6	7.27	ug/Kg	<MDL	2270	2220	97		61--140
Indeno(1,2,3-Cd)Pyrene	3.6	7.27	ug/Kg	<MDL	2270	2660	117		42--150
Dibenzo(a,h)anthracene	3.6	7.27	ug/Kg	<MDL	2270	2700	119		41--150
Benzo(g,h,i)perylene	3.6	7.27	ug/Kg	<MDL	2270	2390	105		28--150

MSD:WG139614-5 MS:WG139614-4 L62484-5 Matrix: SALTWTRSED Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project:423062-020 Pkey:SED
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Phenol	91	273	ug/Kg	<MDL	2270	1730	76		21--142	2270	1810	80		4		0--35
1,4-Dichlorobenzene	27.3	27.3	ug/Kg	<MDL	2270	1310	57		20--105	2270	1290	57		1		0--35
Benzyl Alcohol	45.5	45.5	ug/Kg	<MDL	2270	1460	64		28--111	2270	1500	66		2		0--35
1,2-Dichlorobenzene	18.2	18.2	ug/Kg	<MDL	2270	1500	66		20--110	2270	1450	64		3		0--35
2-Methylphenol	18	36.4	ug/Kg	<MDL	2270	1810	80		21--126	2270	1950	86		7		0--35
3-,4-Methylphenol	91	182	ug/Kg	<MDL	2270	1880	83		24--129	2270	1980	87		5		0--35
2,4-Dimethylphenol	18	36.4	ug/Kg	<MDL	2270	2130	94		27--126	2270	2340	103		10		0--35
Benzoic Acid	364	364	ug/Kg	190	2270	3320	138		20--150	2270	3520	146		6		0--35
1,2,4-Trichlorobenzene	1.8	3.64	ug/Kg	<MDL	2270	1550	68		22--95	2270	1600	71		3		0--35
Naphthalene	18	36.4	ug/Kg	6.5	2270	1580	69		20--112	2270	1610	71		2		0--35
Hexachlorobutadiene	9.1	18.2	ug/Kg	<MDL	2270	1740	77		20--133	2270	1770	78		1		0--35
2-Methylnaphthalene	18	36.4	ug/Kg	6.8	2270	1840	81		22--109	2270	1930	84		4		0--35
1-Methylnaphthalene	18	36.4	ug/Kg	5.8	2270	2000	88		22--109	2270	2080	91		4		0--35
Dimethyl Phthalate	36.4	36.4	ug/Kg	<MDL	2270	2000	88		66--128	2270	2040	90		2		0--35
Acenaphthylene	18	36.4	ug/Kg	17.6	2270	1960	85		44--134	2270	2040	89		4		0--35
Acenaphthene	18	36.4	ug/Kg	10.5	2270	2120	93		37--129	2270	2220	97		4		0--35
Dibenzofuran	18	36.4	ug/Kg	6.6	2270	2150	94		49--135	2270	2110	92		2		0--35
Diethyl Phthalate	36	72.7	ug/Kg	<MDL	2270	2090	92		71--130	2270	2090	92		0		0--35
Fluorene	18	36.4	ug/Kg	19.6	2270	2490	108		52--150	2270	2470	108		0		0--35
N-Nitrosodiphenylamine	45.5	45.5	ug/Kg	<MDL	2270	2780	122		58--140	2270	2800	123		1		0--35
Hexachlorobenzene	1.8	3.64	ug/Kg	<MDL	2270	2270	100		51--149	2270	2340	103		3		0--35
Pentachlorophenol	273	273	ug/Kg	<MDL	2270	2510	111		35--134	2270	2540	112		1		0--35
Phenanthrene	18	36.4	ug/Kg	122	2270	2340	98		51--136	2270	2270	94		3		0--35
Anthracene	18	36.4	ug/Kg	63.9	2270	2520	108		37--150	2270	2230	95		12		0--35
Carbazole	18	36.4	ug/Kg	24.4	2270	2440	106		37--150	2270	2330	101		5		0--35
Di-N-Butyl Phthalate	36	72.7	ug/Kg	<MDL	2270	2430	107		64--150	2270	2390	105		2		0--35
Fluoranthene	18	36.4	ug/Kg	376	2270	2520	95		53--144	2270	2610	98		3		0--35
Pyrene	18	36.4	ug/Kg	360	2270	2720	104		59--143	2270	2880	111		6		0--35
Benzyl Butyl Phthalate	27.3	27.3	ug/Kg	39.2	2270	2510	109		27--150	2270	2550	110		1		0--35
Benzo(a)anthracene	18	36.4	ug/Kg	239	2270	2520	100		52--149	2270	2530	101		0		0--35
Chrysene	18	36.4	ug/Kg	479	2270	2550	91		47--141	2270	2590	93		1		0--35
Bis(2-Ethylhexyl)Phthalate	36	72.7	ug/Kg	116	2270	2460	103		54--150	2270	2470	103		0		0--35
Di-N-Octyl Phthalate	36.4	36.4	ug/Kg	<MDL	2270	2390	105		43--150	2270	2460	108		3		0--35
Benzo(b,j,k)fluoranthene	18	36.4	ug/Kg	926	6820	5340	65		48--135	6820	5490	67		3		0--35
Benzo(a)pyrene	18	36.4	ug/Kg	314	2270	2330	89		62--136	2270	2420	93		4		0--35
Indeno(1,2,3-Cd)Pyrene	18	36.4	ug/Kg	91.1	2270	2340	99		41--150	2270	2030	85		14		0--35
Dibenzo(a,h)anthracene	18	36.4	ug/Kg	21.1	2270	2450	107		39--150	2270	2100	91		15		0--35
Benzo(g,h,i)perylene	18	36.4	ug/Kg	69.8	2270	2140	91		27--150	2270	1770	75		19		0--35

SRMD:WG139614-7 SRM:WG139614-6 Matrix: SALTWTRSED Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project: Pkey:SED
(Std Reference Material Duplicate, Std Reference Material)

Parameter	MDL	RDL	Units	True Value	SRM Value	% Rec.	Qual	Lab Limit	True Value	SRMD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Phenanthrene	270	533	ug/Kg	5200	4060	78		48--112	5200	4310	83		6		0--35
Fluoranthene	270	533	ug/Kg	8800	7760	88		51--127	8800	8490	96		9		0--35
Pyrene	270	533	ug/Kg	9570	8750	91		55--119	9570	9080	95		4		0--35
Benzo(a)anthracene	270	533	ug/Kg	4660	4040	87		45--122	4660	4040	87		0		0--35
Chrysene	270	533	ug/Kg	4800	5210	109		68--144	4800	5240	109		1		0--35
Benzo(b,j,k)fluoranthene	270	533	ug/Kg	8150	7370	90		50--122	8150	7470	92		1		0--35
Benzo(a)pyrene	270	533	ug/Kg	4240	2800	66		38--117	4240	2950	70		5		0--35
Indeno(1,2,3-Cd)Pyrene	270	533	ug/Kg	2740	2980	109		36--127	2740	2900	106		3		0--35
Dibenzo(a,h)anthracene	270	533	ug/Kg	419	716	171		51--200	419	764	182		6		0--35
Benzo(g,h,i)perylene	270	533	ug/Kg	2800	2780	99		32--133	2800	2910	104		4		0--35

LD:WG139614-8 L62484-6 Matrix: SALTWTRSED Listtype:ORBNASMS Method:SW846 3550B*SW846 8270D Project:423062-020 Pkey:SED
(Lab Duplicate)

Parameter	MDL	RDL	Units	SAMP Value	LD Value	RPD	Qual	Lab Limit
Phenol	18	54.5	ug/Kg	<MDL	<MDL			0--35
1,4-Dichlorobenzene	5.45	5.45	ug/Kg	<MDL	<MDL			0--35
Benzyl Alcohol	9.09	9.09	ug/Kg	<MDL	<MDL			0--35
1,2-Dichlorobenzene	3.64	3.64	ug/Kg	<MDL	<MDL			0--35
2-Methylphenol	3.6	7.27	ug/Kg	<MDL	<MDL			0--35
3-,4-Methylphenol	18	36.4	ug/Kg	<MDL	<MDL			0--35
2,4-Dimethylphenol	3.6	7.27	ug/Kg	<MDL	<MDL			0--35
Benzoic Acid	72.7	72.7	ug/Kg	<MDL	<MDL			0--35
1,2,4-Trichlorobenzene	0.36	0.727	ug/Kg	<MDL	<MDL			0--35
Naphthalene	3.6	7.27	ug/Kg	5.4	4.6			0--35
Hexachlorobutadiene	1.8	3.64	ug/Kg	<MDL	<MDL			0--35
2-Methylnaphthalene	3.6	7.27	ug/Kg	5.6	5			0--35
1-Methylnaphthalene	3.6	7.27	ug/Kg	4.3	<MDL			0--35
Dimethyl Phthalate	7.27	7.27	ug/Kg	<MDL	<MDL			0--35
Acenaphthylene	3.6	7.27	ug/Kg	5.5	6.3			0--35
Acenaphthene	3.6	7.27	ug/Kg	4.2	4.2			0--35
Dibenzofuran	3.6	7.27	ug/Kg	<MDL	4			0--35
Diethyl Phthalate	7.3	14.5	ug/Kg	<MDL	8			0--35
Fluorene	3.6	7.27	ug/Kg	6	7.78	25		0--35
N-Nitrosodiphenylamine	9.09	9.09	ug/Kg	<MDL	<MDL			0--35
Hexachlorobenzene	0.36	0.727	ug/Kg	<MDL	<MDL			0--35
Pentachlorophenol	54.5	54.5	ug/Kg	<MDL	<MDL			0--35
Phenanthrene	3.6	7.27	ug/Kg	40.9	66.6	48	*	0--35
Anthracene	3.6	7.27	ug/Kg	22.4	24.2	8		0--35
Carbazole	3.6	7.27	ug/Kg	7.71	12.7	49	*	0--35
Di-N-Butyl Phthalate	7.3	14.5	ug/Kg	12	<MDL			0--35
Fluoranthene	3.6	7.27	ug/Kg	96.4	146	41	*	0--35
Pyrene	3.6	7.27	ug/Kg	107	145	30		0--35
Benzyl Butyl Phthalate	5.45	5.45	ug/Kg	8.79	16.7	62	*	0--35
Benzo(a)anthracene	3.6	7.27	ug/Kg	57.1	76.1	28		0--35
Chrysene	3.6	7.27	ug/Kg	89.6	108	18		0--35
Bis(2-Ethylhexyl)Phthalate	7.3	14.5	ug/Kg	71.8	66.3	8		0--35
Di-N-Octyl Phthalate	7.27	7.27	ug/Kg	<MDL	<MDL			0--35
Benzo(b,j,k)fluoranthene	3.6	7.27	ug/Kg	194	243	22		0--35
Benzo(a)pyrene	3.6	7.27	ug/Kg	85.2	96.4	12		0--35
Indeno(1,2,3-Cd)Pyrene	3.6	7.27	ug/Kg	47.3	56.7	18		0--35
Dibenzo(a,h)anthracene	3.6	7.27	ug/Kg	11.1	13.7	21		0--35
Benzo(g,h,i)perylene	3.6	7.27	ug/Kg	37.8	42	10		0--35

Surrogate: (Lab Limits)	2,4,6-Tribromo phenol 45--150	2-Fluoro biphenyl 22--135	2-Fluoro phenol 20--136	d14-Ter phenyl 25--150	d4-2-Chloro phenol 20--127	d5-Nitro benzene 22--126	d5-Phenol 20--142
L62484-1	92	73	60	103	65	54	70
L62484-2	86	61	47	84	52	41	55
L62484-3	94	72	55	90	61	49	65
L62484-4	95	67	53	86	58	45	62
L62484-5	89	74	62	87	69	56	73
L62484-6	109	76	70	103	74	57	78
L62484-7	94	63	47	88	51	40	56
L62484-8	95	65	53	96	57	45	60
L62484-9	93	69	56	86	61	48	65
L62484-10	98	55	50	93	53	43	55
L62484-11	94	61	46	92	51	40	54
L62484-12	97	70	56	94	63	48	67
L62484-13	94	71	57	99	63	50	67
L62484-14	92	70	57	99	62	50	66
L62484-15	85	68	60	81	65	51	65
L62484-16	92	70	59	83	65	52	67
WG139614-1	36 *	58	52	79	56	46	57
WG139614-2	61	60	54	77	58	45	60
WG139614-3	80	70	65	82	69	52	70
WG139614-4	90	75	61	85	66	47	69
WG139614-5	92	77	61	85	70	50	75
WG139614-6	67	78	51	81	65	48	69
WG139614-7	79	79	48	84	60	44	69
WG139614-8	85	66	56	80	60	46	63