

APPENDIX 4 A

QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

The data generated for this section were evaluated in the Bioaccumulation Oversight Group (BOG) Lakes Year 1 report and will be used to perform a statewide screening study of bioaccumulation in sport fish. Thorough objectives that meet or exceed those in the Surface Water Ambient Monitoring Program (SWAMP) Quality Assurance Management Plan (QAMP) are outlined in the BOG Quality Assurance Project Plan (QAPP). In general, data quality is demonstrated through analysis of the following quality control (QC) samples:

- Laboratory method blanks;
- Surrogate spikes;
- Matrix spikes (MSs) and matrix spike duplicates (MSDs);
- Certified reference materials (CRMs)/laboratory control spikes (LCSS);
- Laboratory duplicates (DUP); and
- Composite blind duplicates.

Data for the BOG Lakes Year 1 has been validated and compared against project-specific data quality objectives (DQOs). The validation included verification of data according to SWAMP Standard Operating Procedures (SOPs) for chemistry data verification. Data were determined to be compliant with the individual measurement quality objectives (MQOs) specified in the BOG QAPP. Data were classified as follows:

- “Compliant” with the BOG QAPP;
- “Estimated”; non-compliant with the BOG QAPP;
- “Rejected” if the data were rejected; or
- “Not applicable” if validation was not performed.

BOG criteria for percent recovery (%R) of surrogates, matrix spikes, and Certified Reference Materials and relative percent difference (RPD) for field and laboratory duplicates for tissues are presented in Appendix F, Table 1.

1. LABORATORY METHOD BLANKS

Laboratory method blanks are used to evaluate laboratory contamination during sample preparation and analysis. Blank samples undergo the same analytical procedure as samples with at least one blank analyzed per 20 samples. The required frequency was met for all 165 batches.

March 2009



www.waterboards.ca.gov/swamp

Data that met the MQO for method blanks are those with values less than the reporting limit (RL) for that particular analyte. All 387 laboratory method blanks met the MQO with the exception of 13 results in 5 blanks where concentrations of target analytes were detected above the RL in the method blanks (Appendix F, Table 2).

Target analyte concentrations detected above the MDL in the field samples were compared to the associated method blank concentrations. Results for target analyte concentrations in batches with blank contamination that were less than 3X the blank contamination were classified as “rejected”. There were 1,063 rejections in the dataset. All other results were classified as “compliant”.

2. SURROGATE SPIKES

Surrogate spikes are used to assess analyte losses during sample extraction and clean-up procedures, and must be added to every composite and quality control sample prior to extraction. Whenever possible, isotopically-labeled analogs of the analytes should be used.

All surrogate percent recoveries were within the acceptance criteria listed in Appendix F, Table 1, with the exception of 15 out of 1339 (1%) surrogate percent recoveries spiked in 995 field and laboratory QA/QC samples analyzed for Polychlorinated Biphenyls, Organochlorine Pesticides, and Polybrominated Diphenyl Ethers (Appendix F, Table 3). The associated analytes in these samples were classified as “estimated” with regard to the BOG MQO for surrogates. No data was rejected.

3. MATRIX SPIKES AND MATRIX SPIKE DUPLICATES

A laboratory-fortified sample matrix (matrix spike, or MS) and a laboratory fortified sample matrix duplicate (MSD) are both used to evaluate the effect of the sample matrix on the recovery of the target analyte(s). Individually, these samples are used to assess the bias from an environmental sample matrix plus normal method performance. In addition, these duplicate samples can be used collectively to assess analytical precision.

Aliquots of randomly selected field samples were spiked with known amounts of target analytes. The %R of each spike was calculated as follows:

$$\%R = (\text{MS Result} - \text{Sample Result}) / (\text{Expected Value} - \text{Sample Result}) * 100$$

The %R acceptance criteria vary according to analyte groups (Appendix F, Table1).



This process was repeated on the same native samples to create a laboratory fortified sample matrix spike duplicate (MSD). MSDs were used to assess laboratory precision and accuracy. MS/MSD RPDs were calculated as:

$$\text{RPD} = (|(\text{Value1}-\text{Value2})|/(\text{AVERAGE}(\text{Value1}+\text{Value2}))) * 100$$

where:

Value1=matrix spike value

Value2=matrix spike duplicate value.

According to the BOG QAPP for metal and organic analyses, at least one MS/MSD pair should be performed per 20 samples or one per batch, whichever is more frequent. One percent (2 out of 165) of total batches did not include MS/MSDs performed at the required frequency. These two batches were classified as “estimated” (Appendix F, Table 4).

Laboratory batches with MS/MSD %R and RPD values outside of acceptance criteria were either classified as “compliant” or “estimated” based on the number of QC elements outside criteria. No data was rejected. These are presented in Appendix F, Table 5. All other MS/MSD %Rs and RPDs were within acceptance criteria.

4. CERTIFIED REFERENCE MATERIALS AND LABORATORY CONTROL SAMPLES

A CRM or LCS is analyzed to assess the accuracy of a given analytical method. As required by the BOG QAPP, one CRM or LCS should be analyzed per 20 samples or per batch, whichever is more frequent. The required frequency was met for all 165 batches.

Laboratory batches with CRM or LCS %R values outside of acceptance criteria were either classified as “compliant” or “estimated” based on the number of QC elements outside criteria. No data was rejected. These are presented in Appendix F, Table 6. All other CRM and LCS %Rs were within acceptance criteria.

5. LABORATORY DUPLICATES

A DUP is analyzed to assess laboratory precision. As required by the BOG QAPP, a duplicate of at least one field sample per batch was processed and analyzed. Two percent (3 out of 165) total batches did not include DUPs at the required frequency. These three batches were classified as “estimated” (Appendix F, Table 7).

The duplicate results reported above the RL were compared and an RPD was calculated as described in Section 3. Results reported below the RL or as “non-detect” in either the parent sample or duplicate were not evaluated as stated in the BOG QAPP. Any RPDs < 25% were considered acceptable as specified in the QAPP. Those > 25%



but < 50% were classified as estimated. Finally, RPDS > 50% were classified as rejected. These are presented in Appendix F, Table 8.

6. COMPOSITE BLIND DUPLICATES

Composite blind duplicates are analyzed to assess composite homogeneity and laboratory precision. Although the BOG QAPP does not address these samples or provide an evaluation criteria, they were performed for Year 1 of the BOG. Composite blind duplicates were obtained from homogenized tissue samples.

7. HOLDING TIMES

Thirteen percent of the results (4,867 out of 37,113 total results) in 1,991 tissue composites were classified as estimated due to holding time exceedances. These results consisted of organochlorine pesticides, PCBs, PBDEs, metals and mercury analyses. Tissue samples analyzed for organochlorine pesticides, PCBs, and PBDEs exceeded either the 12 month holding time criteria between collection and extraction or the 40 day holding time criteria from extraction to analysis. Tissue samples analyzed for metals and mercury exceeded the 12 month holding time criteria between collection and analysis.

8. QA/QC SUMMARY

There were 37,113 sample results, including tissue composites, composite blind duplicates and laboratory QA/QC samples. Of these:

- 25,749 (69.4%) were classified as “compliant”;
- 10,261 (27.6%) were classified as “estimated”; and
- 1,103 (3.0%) were classified as “rejected”.

Classification of this dataset is summarized as follows:

- 1,063 results (2.9%) were classified as “rejected” due to blank contamination values.
- All data presented in Table 3 were classified as “estimated” due to surrogate recovery exceedances.
- All data presented in Tables 4 and 7 were classified as “estimated” due to insufficient QC samples
- 600 results were classified as “estimated” due to the percent recovery exceedances presented in Tables 5 and 6.
- 649 results were classified as “estimated” and 40 results were classified as “rejected” due to the RPD exceedances presented in Tables 5 and 8.
- 4,867 results were classified as “estimated” due to holding time exceedances.



Data that meet all BOG MQOs as specified in the QAPP are classified as “compliant” and considered usable without further evaluation. Data that fail to meet all program MQOs specified in the BOG QAPP were classified as estimated. Data that are >2X MQO requirements or the result of blank contamination were classified as “rejected”. Data batches that did not have evaluation criteria and were not validated were classified as not applicable. All data with the exception of the 1,157 rejected results was considered usable for the intended purpose. A 97% completeness level was attained which met the 90% project completeness goal specified in the BOG QAPP.

Table 1
Percent recovery and relative percent difference acceptance criteria
for different categories of analytes in fish tissue.

Analyte Category	% Surrogate Recovery Acceptance Criteria	% MS/MSD Recovery Acceptance Criteria	% CRM, LCM, & LCS Acceptance Criteria	Relative % Difference Criteria (MS/MSD, Laboratory Duplicate, Field Duplicate)
Trace Metals (Including Mercury)	NA	75-125	75-125	25
Synthetic Organics (PCBs, OCHs, OPs, Triazines, Phenols, VOCs,)	50-150	50-150	50-150, if certified then 70-130	25



Table 2
Laboratory method blanks in which analytes were detected above the RL

Analyte	Results	Detected	MDL	RL	Analysis Date	Method Name	Lab	Batch ID
PCB 198/199 ng/g ww	0.07	=	0.033	0.065	2/20/2008 0:00	EPA 8082M	DFG-WPCL	WPCL_L-011-08_BS509_KR_T_PCB
PCB 198/199 ng/g ww	0.108	=	0.033	0.066	3/17/2008 0:00	EPA 8082M	DFG-WPCL	WPCL_L-316-07_L-095-08_BS513_T_PCB
Chlordane, trans- ng/g ww	1.03	=	0.441	0.98	12/4/2007 0:00	EPA 8081BM	DFG-WPCL	WPCL_L-294-458-07_BS498_KR_T_OCH
PCB 056 ng/g ww	0.116	=	0.053	0.105	11/28/2007 0:00	EPA 8082M	DFG-WPCL	WPCL_L-294-458-07_BS498_KR_T_PCB
PCB 066 ng/g ww	0.191	=	0.095	0.191	11/28/2007 0:00	EPA 8082M	DFG-WPCL	WPCL_L-294-458-07_BS498_KR_T_PCB
PCB 070 ng/g ww	0.32	=	0.127	0.254	11/28/2007 0:00	EPA 8082M	DFG-WPCL	WPCL_L-294-458-07_BS498_KR_T_PCB
PCB 087 ng/g ww	0.212	=	0.074	0.149	11/28/2007 0:00	EPA 8082M	DFG-WPCL	WPCL_L-294-458-07_BS498_KR_T_PCB
PCB 097 ng/g ww	0.123	=	0.061	0.121	11/28/2007 0:00	EPA 8082M	DFG-WPCL	WPCL_L-294-458-07_BS498_KR_T_PCB
PCB 101 ng/g ww	0.337	=	0.122	0.244	11/28/2007 0:00	EPA 8082M	DFG-WPCL	WPCL_L-294-458-07_BS498_KR_T_PCB
PCB 105 ng/g ww	0.386	=	0.131	0.262	11/28/2007 0:00	EPA 8082M	DFG-WPCL	WPCL_L-294-458-07_BS498_KR_T_PCB
PCB 110 ng/g ww	0.54	=	0.167	0.333	11/28/2007 0:00	EPA 8082M	DFG-WPCL	WPCL_L-294-458-07_BS498_KR_T_PCB
PCB 118 ng/g ww	0.668	=	0.207	0.415	11/28/2007 0:00	EPA 8082M	DFG-WPCL	WPCL_L-294-458-07_BS498_KR_T_PCB
Chlordane, trans- ng/g ww	1.72	=	0.437	0.97	1/29/2008 0:00	EPA 8081BM	DFG-WPCL	WPCL_L-583-07_BS502_KR_T_OCH



Table 3
Surrogate recoveries that did not meet quality control acceptance criteria.

Surrogate	Composite ID	Batch ID	% Recovery	Laboratory
DBCE (Surrogate) %	C1_403PPL039L2BOG06BRB	WPCL_L-316-07_BS501_KR_T_OCH	-88	DFG-WPCL
DDD*(p,p') (Surrogate) %	C2_910PLO182L1BOG06CAR	WPCL_L-316-07_L-095-08_BS513_T_OCH	47.3	DFG-WPCL
DDD*(p,p') (Surrogate) %	C2_910PLO182L1BOG06CAR	WPCL_L-316-07_L-095-08_BS513_T_PBDE	47.3	DFG-WPCL
DDD*(p,p') (Surrogate) %	C1_205PAD016L1BOG06CAR	WPCL_L-356-460-07_BS499_KR_T_OCH	42.9	DFG-WPCL
DDD*(p,p') (Surrogate) %	C1_305PPL088L1BOG06CAR	WPCL_L-356-460-07_BS499_KR_T_OCH	48.3	DFG-WPCL
DDD*(p,p') (Surrogate) %	C1_412BLDPRKL1BOG06CAR	WPCL_L-356-460-07_BS499_KR_T_OCH	49.4	DFG-WPCL
DDD*(p,p') (Surrogate) %	L-356-07_BS 499_LCS	WPCL_L-356-460-07_BS499_KR_T_OCH	48.7	DFG-WPCL
DDD*(p,p') (Surrogate) %	L-356-07_BS 499_MethodBlank	WPCL_L-356-460-07_BS499_KR_T_OCH	40.0	DFG-WPCL
DDD*(p,p') (Surrogate) %	SC_309PLN060BOG06CAR	WPCL_L-356-460-07_BS499_KR_T_OCH	39.6	DFG-WPCL
DDD*(p,p') (Surrogate) %	C1_205PAD016L1BOG06CAR	WPCL_L-356-460-07_BS499_KR_T_PBDE	42.9	DFG-WPCL
DDD*(p,p') (Surrogate) %	C1_305PPL088L1BOG06CAR	WPCL_L-356-460-07_BS499_KR_T_PBDE	48.3	DFG-WPCL
DDD*(p,p') (Surrogate) %	C1_412BLDPRKL1BOG06CAR	WPCL_L-356-460-07_BS499_KR_T_PBDE	49.4	DFG-WPCL
DDD*(p,p') (Surrogate) %	L-356-07_BS 499_LCS	WPCL_L-356-460-07_BS499_KR_T_PBDE	48.7	DFG-WPCL
DDD*(p,p') (Surrogate) %	L-356-07_BS 499_MethodBlank	WPCL_L-356-460-07_BS499_KR_T_PBDE	40.0	DFG-WPCL
DDD*(p,p') (Surrogate) %	SC_309PLN060BOG06CAR	WPCL_L-356-460-07_BS499_KR_T_PBDE	39.6	DFG-WPCL



Table 4
Batches for which matrix spikes (MS) or matrix spike duplicates (MSD) were not run.

Analyte	Batch ID	Notes	Laboratory
Organochlorine Pesticides	WPCL_L-316-720-07_BS510_KR_T_OCH	QAQ: no MSD	DFG-WPCL
Polychlorinated Biphenyls	WPCL_L-316-720-07_BS510_KR_T_PCB	QAQ: no MSD	DFG-WPCL

Table 5
Matrix spikes (MS), matrix spike duplicates (MSD), percent recoveries (%R), and relative percent differences (RPD) that did not meet specified criteria.
Boldface type indicates values that did not meet quality control criteria.

Analyte	Composite ID	Sample Date	Batch ID	MS %R	MSD %R	RPD	Lab
Methoxychlor ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_OCH	34.5	48.4	23	DFG-WPCL
PBDE 028 ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_PBDE	134	153	7.4	DFG-WPCL
PBDE 047 ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_PBDE	166	171	1.1	DFG-WPCL
PBDE 066 ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_PBDE	175	183	2.8	DFG-WPCL
PBDE 085 ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_PBDE	180	195	5.7	DFG-WPCL
PBDE 099 ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_PBDE	190	180	7.5	DFG-WPCL
PBDE 100 ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_PBDE	187	196	3.1	DFG-WPCL
PCB 156 ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_PCB	160	103	45	DFG-WPCL
PCB 157 ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_PCB	151	96.2	46	DFG-WPCL



Analyte	Composite ID	Sample Date	Batch ID	MS %R	MSD %R	RPD	Lab
PCB 169 ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_PCB	118	80.6	39	DFG-WPCL
PCB 170 ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_PCB	152	99.6	44	DFG-WPCL
PCB 180 ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_PCB	152	106	37	DFG-WPCL
PCB 189 ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_PCB	142	85.1	52	DFG-WPCL
Tedion ng/g ww	C1_206TH0126L1BOG06LMB	29/Aug/2007 0:00	WPCL_L-583-658-07_BS500_KR_T_OCH	175	192	7.3	DFG-WPCL
Endosulfan I ng/g ww	C1_314TJ0396L1BOG06RT	20/Nov/2007 0:00	WPCL_L-460-07_L-012-08_BS511_T_OCH	26.8	28.7	6.6	DFG-WPCL
Heptachlor epoxide ng/g ww	C1_314TJ0396L1BOG06RT	20/Nov/2007 0:00	WPCL_L-460-07_L-012-08_BS511_T_OCH	149	108	32	DFG-WPCL
PCB 203 ng/g ww	C1_314TJ0396L1BOG06RT	20/Nov/2007 0:00	WPCL_L-460-07_L-012-08_BS511_T_PCB	107	75.8	35	DFG-WPCL
PBDE 047 ng/g ww	C1_404KHANPKL1BOG06LMB	18/Jun/2007 0:00	WPCL_L-551-07_BS497_KR_T_PBDE	32.1	48.7	8	DFG-WPCL
PBDE 099 ng/g ww	C1_404KHANPKL1BOG06LMB	18/Jun/2007 0:00	WPCL_L-551-07_BS497_KR_T_PBDE	NC	1.04	5.1	DFG-WPCL
Tedion ng/g ww	C1_404KHANPKL1BOG06LMB	18/Jun/2007 0:00	WPCL_L-551-07_BS497_KR_T_OCH	166	180	7.9	DFG-WPCL
PBDE 047 ng/g ww	C1_405PPS051L1BOG06LMB	06/Jun/2007 0:00	WPCL_L-487-07_BS494_KR_T_PBDE	153	198	4.8	DFG-WPCL
PCB 008 ng/g ww	C1_405PPS051L1BOG06LMB	06/Jun/2007 0:00	WPCL_L-487-07_BS494_KR_T_PCB	78.6	54.7	34	DFG-WPCL
Tedion ng/g ww	C1_405PPS051L1BOG06LMB	06/Jun/2007 0:00	WPCL_L-487-07_BS494_KR_T_OCH	172	181	5.8	DFG-WPCL
Endosulfan I ng/g ww	C1_532PLB068L1BOG06RT	10/Oct/2007 0:00	WPCL_L-011-08_BS509_KR_T_OCH	31.4	33.6	5.4	DFG-WPCL



Analyte	Composite ID	Sample Date	Batch ID	MS %R	MSD %R	RPD	Lab
Methoxychlor ng/g ww	C1_532PLB068L1BOG06RT	10/Oct/2007 0:00	WPCL_L-011-08_BS509_KR_T_OCH	95.3	148	40	DFG-WPCL
PBDE 099 ng/g ww	C1_532PLB068L1BOG06RT	10/Oct/2007 0:00	WPCL_L-011-08_BS509_KR_T_PBDE	140	154	7.9	DFG-WPCL
PBDE 100 ng/g ww	C1_532PLB068L1BOG06RT	10/Oct/2007 0:00	WPCL_L-011-08_BS509_KR_T_PBDE	168	179	4.7	DFG-WPCL
PBDE 047 ng/g ww	C1_544TD0058L1BOG06LMB	06/Aug/2007 0:00	WPCL_L-702-07_BS507_KR_T_PBDE	162	200	11	DFG-WPCL
PBDE 100 ng/g ww	C1_544TD0058L1BOG06LMB	06/Aug/2007 0:00	WPCL_L-702-07_BS507_KR_T_PBDE	156	160	1.5	DFG-WPCL
Oxychlordane ng/g ww	C2_204PLC157L1BOG06CAR	30/Jul/2007 0:00	WPCL_L-316-07_L-051-08_BS512_T_OCH	143	105	28	DFG-WPCL
PBDE 066 ng/g ww	C2_204PLC157L1BOG06CAR	30/Jul/2007 0:00	WPCL_L-316-07_L-051-08_BS512_T_PBDE	162	143	12	DFG-WPCL
PBDE 085 ng/g ww	C2_204PLC157L1BOG06CAR	30/Jul/2007 0:00	WPCL_L-316-07_L-051-08_BS512_T_PBDE	157	148	5.5	DFG-WPCL
PBDE 100 ng/g ww	C2_204PLC157L1BOG06CAR	30/Jul/2007 0:00	WPCL_L-316-07_L-051-08_BS512_T_PBDE	175	102	15	DFG-WPCL
Tedion ng/g ww	C2_204PLC157L1BOG06CAR	30/Jul/2007 0:00	WPCL_L-316-07_L-051-08_BS512_T_OCH	137	152	9.8	DFG-WPCL
Methoxychlor ng/g ww	C2_403ELIZLKL1BOG06BRB	12/Jun/2007 0:00	WPCL_L-316-07_BS501_KR_T_OCH	43.2	75.3	46	DFG-WPCL
PBDE 047 ng/g ww	C2_403ELIZLKL1BOG06BRB	12/Jun/2007 0:00	WPCL_L-316-07_BS501_KR_T_PBDE	180	174	6.5	DFG-WPCL
PBDE 066 ng/g ww	C2_403ELIZLKL1BOG06BRB	12/Jun/2007 0:00	WPCL_L-316-07_BS501_KR_T_PBDE	186	170	14	DFG-WPCL
PBDE 085 ng/g ww	C2_403ELIZLKL1BOG06BRB	12/Jun/2007 0:00	WPCL_L-316-07_BS501_KR_T_PBDE	164	174	1.7	DFG-WPCL
PBDE 099 ng/g ww	C2_403ELIZLKL1BOG06BRB	12/Jun/2007 0:00	WPCL_L-316-07_BS501_KR_T_PBDE	195	193	5.2	DFG-WPCL
PBDE 100 ng/g ww	C2_403ELIZLKL1BOG06BRB	12/Jun/2007 0:00	WPCL_L-316-07_BS501_KR_T_PBDE	177	179	3.3	DFG-WPCL



Analyte	Composite ID	Sample Date	Batch ID	MS %R	MSD %R	RPD	Lab
Tedion ng/g ww	C2_403ELIZLKL1BOG06BRB	12/Jun/2007 0:00	WPCL_L-316-07_BS501_KR_T_OCH	166	167	4.1	DFG-WPCL
DDT(p,p') ng/g ww	C2_403TU0148L1BOG06CC	19/Jun/2007 0:00	WPCL_L-316-720-07_BS510_KR_T_OCH	151	-	-	DFG-WPCL
Endosulfan I ng/g ww	C2_403TU0148L1BOG06CC	19/Jun/2007 0:00	WPCL_L-316-720-07_BS510_KR_T_OCH	36.7	-	-	DFG-WPCL
Methoxychlor ng/g ww	C2_403TU0148L1BOG06CC	19/Jun/2007 0:00	WPCL_L-316-720-07_BS510_KR_T_OCH	155	-	-	DFG-WPCL
Nonachlor, cis- ng/g ww	C2_403TU0148L1BOG06CC	19/Jun/2007 0:00	WPCL_L-316-720-07_BS510_KR_T_OCH	156	-	-	DFG-WPCL
Nonachlor, trans- ng/g ww	C2_403TU0148L1BOG06CC	19/Jun/2007 0:00	WPCL_L-316-720-07_BS510_KR_T_OCH	157	-	-	DFG-WPCL
PBDE 047 ng/g ww	C2_403TU0148L1BOG06CC	19/Jun/2007 0:00	WPCL_L-316-720-07_BS510_KR_T_PBDE	237	-	-	DFG-WPCL
PBDE 066 ng/g ww	C2_403TU0148L1BOG06CC	19/Jun/2007 0:00	WPCL_L-316-720-07_BS510_KR_T_PBDE	156	-	-	DFG-WPCL
PBDE 099 ng/g ww	C2_403TU0148L1BOG06CC	19/Jun/2007 0:00	WPCL_L-316-720-07_BS510_KR_T_PBDE	151	-	-	DFG-WPCL
PBDE 100 ng/g ww	C2_403TU0148L1BOG06CC	19/Jun/2007 0:00	WPCL_L-316-720-07_BS510_KR_T_PBDE	155	-	-	DFG-WPCL
Chlordane, cis- ng/g ww	C2_405PSF067L1BOG06CAR	06/Jun/2007 0:00	WPCL_L-294-458-07_BS498_KR_T_OCH	131	164	16	DFG-WPCL
Endosulfan I ng/g ww	C2_405PSF067L1BOG06CAR	06/Jun/2007 0:00	WPCL_L-294-458-07_BS498_KR_T_OCH	22.2	23	4.2	DFG-WPCL
PCB 099 ng/g ww	C2_405PSF067L1BOG06CAR	06/Jun/2007 0:00	WPCL_L-294-458-07_BS498_KR_T_PCB	40.2	47.9	7.1	DFG-WPCL
PCB 170 ng/g ww	C2_405PSF067L1BOG06CAR	06/Jun/2007 0:00	WPCL_L-294-458-07_BS498_KR_T_PCB	36.5	44.5	8.5	DFG-WPCL
PCB 194 ng/g ww	C2_405PSF067L1BOG06CAR	06/Jun/2007 0:00	WPCL_L-294-458-07_BS498_KR_T_PCB	46.7	55.1	8.6	DFG-WPCL



Analyte	Composite ID	Sample Date	Batch ID	MS %R	MSD %R	RPD	Lab
PCB 206 ng/g ww	C2_405PSF067L1BOG06CAR	06/Jun/2007 0:00	WPCL_L-294-458-07_BS498_KR_T_PCB	45.9	49.5	3.8	DFG-WPCL
Tedion ng/g ww	C2_405PSF067L1BOG06CAR	06/Jun/2007 0:00	WPCL_L-294-458-07_BS498_KR_T_OCH	166	176	6.8	DFG-WPCL
Heptachlor epoxide ng/g ww	C2_412LEGGGLKL1BOG06LMB	05/Jun/2007 0:00	WPCL_L-583-07_BS502_KR_T_OCH	104	71.7	36	DFG-WPCL
Hexachlorobenzene ng/g ww	C2_412LEGGGLKL1BOG06LMB	05/Jun/2007 0:00	WPCL_L-583-07_BS502_KR_T_OCH	NC	28	NA	DFG-WPCL
Mirex ng/g ww	C2_412LEGGGLKL1BOG06LMB	05/Jun/2007 0:00	WPCL_L-583-07_BS502_KR_T_OCH	21.6	37.1	53	DFG-WPCL
Nonachlor, cis- ng/g ww	C2_412LEGGGLKL1BOG06LMB	05/Jun/2007 0:00	WPCL_L-583-07_BS502_KR_T_OCH	154	126	18	DFG-WPCL
PBDE 085 ng/g ww	C2_412LEGGGLKL1BOG06LMB	05/Jun/2007 0:00	WPCL_L-583-07_BS502_KR_T_PBDE	95.4	63.9	39	DFG-WPCL
PCB 077 ng/g ww	C2_412LEGGGLKL1BOG06LMB	05/Jun/2007 0:00	WPCL_L-583-07_BS502_KR_T_PCB	50.6	43.3	14	DFG-WPCL
PCB 118 ng/g ww	C2_412LEGGGLKL1BOG06LMB	05/Jun/2007 0:00	WPCL_L-583-07_BS502_KR_T_PCB	52.2	43.8	7.5	DFG-WPCL
PCB 126 ng/g ww	C2_412LEGGGLKL1BOG06LMB	05/Jun/2007 0:00	WPCL_L-583-07_BS502_KR_T_PCB	47.8	51.3	7.6	DFG-WPCL
PCB 169 ng/g ww	C2_412LEGGGLKL1BOG06LMB	05/Jun/2007 0:00	WPCL_L-583-07_BS502_KR_T_PCB	48.3	53.7	11	DFG-WPCL
Tedion ng/g ww	C2_412LEGGGLKL1BOG06LMB	05/Jun/2007 0:00	WPCL_L-583-07_BS502_KR_T_OCH	155	164	6.3	DFG-WPCL
Chlordane, cis- ng/g ww	C2_910PLO182L1BOG06CAR	28/Aug/2007 0:00	WPCL_L-316-07_L-095-08_BS513_T_OCH	151	162	2	DFG-WPCL
Heptachlor epoxide ng/g ww	C2_910PLO182L1BOG06CAR	28/Aug/2007 0:00	WPCL_L-316-07_L-095-08_BS513_T_OCH	170	177	0.3	DFG-WPCL
Nonachlor, cis- ng/g ww	C2_910PLO182L1BOG06CAR	28/Aug/2007 0:00	WPCL_L-316-07_L-095-08_BS513_T_OCH	143	167	7.7	DFG-WPCL
Nonachlor, trans- ng/g ww	C2_910PLO182L1BOG06CAR	28/Aug/2007 0:00	WPCL_L-316-07_L-095-08_BS513_T_OCH	151	174	5.8	DFG-WPCL



Analyte	Composite ID	Sample Date	Batch ID	MS %R	MSD %R	RPD	Lab
PBDE 017 ng/g ww	C2_910PLO182L1BOG06CAR	28/Aug/2007 0:00	WPCL_L-316-07_L-095-08_BS513_T_PBDE	156	155	3.7	DFG-WPCL
PBDE 028 ng/g ww	C2_910PLO182L1BOG06CAR	28/Aug/2007 0:00	WPCL_L-316-07_L-095-08_BS513_T_PBDE	153	177	7	DFG-WPCL
Endosulfan I ng/g ww	SC_309PLN060BOG06CAR	02/Jul/2007 0:00	WPCL_L-356-460-07_BS499_KR_T_OCH	63	48.5	26	DFG-WPCL
Tedion ng/g ww	SC_309PLN060BOG06CAR	02/Jul/2007 0:00	WPCL_L-356-460-07_BS499_KR_T_OCH	165	169	2.7	DFG-WPCL
Chlordane, cis- ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_OCH	175	181	0.94	DFG-WPCL
Chlordane, trans- ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_OCH	177	164	7	DFG-WPCL
Nonachlor, cis- ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_OCH	161	143	9.2	DFG-WPCL
Nonachlor, trans- ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_OCH	146	161	4.8	DFG-WPCL
Oxychlordane ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_OCH	159	147	9.2	DFG-WPCL
PBDE 047 ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_PBDE	169	153	4.1	DFG-WPCL
PCB 066 ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_PCB	148	156	2.8	DFG-WPCL
PCB 070 ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_PCB	145	153	2.9	DFG-WPCL
PCB 095 ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_PCB	147	153	1.2	DFG-WPCL
PCB 097 ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_PCB	141	153	4.3	DFG-WPCL
PCB 099 ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_PCB	163	171	1.5	DFG-WPCL
PCB 141 ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_PCB	150	153	0	DFG-WPCL



Analyte	Composite ID	Sample Date	Batch ID	MS %R	MSD %R	RPD	Lab
PCB 146 ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_PCB	153	157	0.47	DFG-WPCL
PCB 151 ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_PCB	144	153	2.8	DFG-WPCL
PCB 194 ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_PCB	145	151	1.2	DFG-WPCL
PCB 206 ng/g ww	SC_801PBB131BOG06CAR	20/Aug/2007 0:00	WPCL_L-554-628-07_BS503_KR_T_PCB	157	173	4.6	DFG-WPCL

Table 6
Batches containing certified reference material (CRM) or laboratory control spike (LCS) outside of acceptance criteria.

Analyte	Station Code	Batch ID	% Recovery	Laboratory
Chlordane, cis- ng/g ww	L-554-07_BS 503_LCS	WPCL_L-554-628-07_BS503_KR_T_OCH	156	DFG-WPCL
Chlordane, cis- ng/g ww	L-554-07_BS 513_LCS	WPCL_L-316-07_L-095-08_BS513_T_OCH	177	DFG-WPCL
Chlordane, cis- ng/g ww	L-583-07_BS 502_LCS	WPCL_L-583-07_BS502_KR_T_OCH	173	DFG-WPCL
Chlordane, cis- ng/g ww	L-658-07_BS 500_LCS	WPCL_L-583-658-07_BS500_KR_T_OCH	152	DFG-WPCL
Chlordane, cis- ng/g ww	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_OCH	131	DFG-WPCL
Chlordane, cis- ng/g ww	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_OCH	134	DFG-WPCL
Chlordane, cis- ng/g ww	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_OCH	143	DFG-WPCL
Chlordane, cis- ng/g ww	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_OCH	158	DFG-WPCL
Chlordane, trans- ng/g ww	L-316-07_BS 501_LCS	WPCL_L-316-07_BS501_KR_T_OCH	161	DFG-WPCL
Chlordane, trans- ng/g ww	L-554-07_BS 503_LCS	WPCL_L-554-628-07_BS503_KR_T_OCH	164	DFG-WPCL



Analyte	Station Code	Batch ID	% Recovery	Laboratory
Chlordane, trans- ng/g ww	L-554-07_BS 513_LCS	WPCL_L-316-07_L-095-08_BS513_T_OCH	180	DFG-WPCL
Chlordane, trans- ng/g ww	L-583-07_BS 502_LCS	WPCL_L-583-07_BS502_KR_T_OCH	198	DFG-WPCL
Chlordane, trans- ng/g ww	L-658-07_BS 500_LCS	WPCL_L-583-658-07_BS500_KR_T_OCH	180	DFG-WPCL
DDD(o,p') ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_OCH	159	DFG-WPCL
DDE(p,p') ng/g ww	L-583-07_BS 502_LCS	WPCL_L-583-07_BS502_KR_T_OCH	64	DFG-WPCL
Dieldrin ng/g ww	L-551-07_BS497_LCS	WPCL_L-551-07_BS497_KR_T_OCH	166	DFG-WPCL
Endosulfan I ng/g ww	L-011-08_BS 509_LCS	WPCL_L-011-08_BS509_KR_T_OCH	46.6	DFG-WPCL
Endosulfan I ng/g ww	L-294-07_BS 498_LCS	WPCL_L-294-458-07_BS498_KR_T_OCH	26.1	DFG-WPCL
Endosulfan I ng/g ww	L-316-07_BS 510_LCS	WPCL_L-316-720-07_BS510_KR_T_OCH	47.1	DFG-WPCL
Endosulfan I ng/g ww	L-583-07_BS 508_LCS	WPCL_L-583-07_BS508_KR_T_OCH	34.3	DFG-WPCL
Endosulfan I ng/g ww	L-702-07_BS 507_LCS	WPCL_L-702-07_BS507_KR_T_OCH	43.8	DFG-WPCL
Endosulfan I ng/g ww	L-716-07_BS 511_LCS	WPCL_L-460-07_L-012-08_BS511_T_OCH	24.5	DFG-WPCL
HCH, gamma ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_OCH	66.1	DFG-WPCL
Heptachlor epoxide ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_OCH	0	DFG-WPCL
Heptachlor epoxide ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_OCH	0	DFG-WPCL
Heptachlor epoxide ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_OCH	0	DFG-WPCL
Heptachlor epoxide ng/g na	L-356-07_BS 499_SRM 1588b	WPCL_L-356-460-07_BS499_KR_T_OCH	0	DFG-WPCL
Heptachlor epoxide ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_OCH	0	DFG-WPCL
Heptachlor epoxide ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_OCH	0	DFG-WPCL
Heptachlor epoxide ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_OCH	0	DFG-WPCL
Heptachlor epoxide ng/g na	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_OCH	0	DFG-WPCL
Heptachlor epoxide ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_OCH	0	DFG-WPCL
Heptachlor epoxide ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_OCH	149	DFG-WPCL
Heptachlor epoxide ng/g na	L-702-07_BS 507_SRM 1588b	WPCL_L-702-07_BS507_KR_T_OCH	0	DFG-WPCL
Heptachlor epoxide ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_OCH	0	DFG-WPCL

March 2009



Analyte	Station Code	Batch ID	% Recovery	Laboratory
Heptachlor epoxide ng/g ww	L-554-07_BS 513_LCS	WPCL_L-316-07_L-095-08_BS513_T_OCH	166	DFG-WPCL
Hexachlorobenzene ng/g ww	L-583-07_BS 502_LCS	WPCL_L-583-07_BS502_KR_T_OCH	39.2	DFG-WPCL
Methoxychlor ng/g ww	L-452-595-05_BS423_LCS	WPCL_L-452-595-05_BS423_GM_T_OCH	25	DFG-WPCL
Mirex ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_OCH	0	DFG-WPCL
Mirex ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_OCH	0	DFG-WPCL
Mirex ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_OCH	0	DFG-WPCL
Mirex ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_OCH	0	DFG-WPCL
Mirex ng/g na	L-356-07_BS 499_SRM 1588b	WPCL_L-356-460-07_BS499_KR_T_OCH	0	DFG-WPCL
Mirex ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_OCH	0	DFG-WPCL
Mirex ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_OCH	0	DFG-WPCL
Mirex ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_OCH	0	DFG-WPCL
Mirex ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_OCH	0	DFG-WPCL
Mirex ng/g na	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_OCH	0	DFG-WPCL
Mirex ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_OCH	0	DFG-WPCL
Mirex ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_OCH	0	DFG-WPCL
Mirex ng/g na	L-702-07_BS 507_SRM 1588b	WPCL_L-702-07_BS507_KR_T_OCH	0	DFG-WPCL
Mirex ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_OCH	0	DFG-WPCL
Mirex ng/g ww	L-583-07_BS 502_LCS	WPCL_L-583-07_BS502_KR_T_OCH	45.6	DFG-WPCL
Nonachlor, cis- ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_OCH	140	DFG-WPCL
Nonachlor, cis- ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_OCH	134	DFG-WPCL
Nonachlor, cis- ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_OCH	133	DFG-WPCL
Nonachlor, cis- ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_OCH	140	DFG-WPCL
Nonachlor, trans- ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_OCH	132	DFG-WPCL
Nonachlor, trans- ng/g na	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_OCH	143	DFG-WPCL
Nonachlor, trans- ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_OCH	139	DFG-WPCL
Nonachlor, trans- ng/g na	L-554-07_BS 513_LCS	WPCL_L-316-07_L-095-08_BS513_T_OCH	155	DFG-WPCL
Oxychlordane ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_OCH	0	DFG-WPCL



Analyte	Station Code	Batch ID	% Recovery	Laboratory
Oxychlordane ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_OCH	0	DFG-WPCL
Oxychlordane ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_OCH	0	DFG-WPCL
Oxychlordane ng/g na	L-356-07_BS 499_SRM 1588b	WPCL_L-356-460-07_BS499_KR_T_OCH	0	DFG-WPCL
Oxychlordane ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_OCH	0	DFG-WPCL
Oxychlordane ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_OCH	0	DFG-WPCL
Oxychlordane ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_OCH	0	DFG-WPCL
Oxychlordane ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_OCH	0	DFG-WPCL
Oxychlordane ng/g na	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_OCH	147	DFG-WPCL
Oxychlordane ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_OCH	0	DFG-WPCL
Oxychlordane ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_OCH	132	DFG-WPCL
Oxychlordane ng/g na	L-702-07_BS 507_SRM 1588b	WPCL_L-702-07_BS507_KR_T_OCH	0	DFG-WPCL
Oxychlordane ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_OCH	0	DFG-WPCL
PBDE 017 ng/g ww	L-316-07_BS 510_LCS	WPCL_L-316-720-07_BS510_KR_T_PBDE	3.64	DFG-WPCL
PBDE 028 ng/g ww	L-658-07_BS 500_LCS	WPCL_L-583-658-07_BS500_KR_T_PBDE	163	DFG-WPCL
PBDE 047 ng/g ww	L-316-07_BS 501_LCS	WPCL_L-316-07_BS501_KR_T_PBDE	163	DFG-WPCL
PBDE 047 ng/g ww	L-658-07_BS 500_LCS	WPCL_L-583-658-07_BS500_KR_T_PBDE	171	DFG-WPCL
PBDE 066 ng/g ww	L-316-07_BS 501_LCS	WPCL_L-316-07_BS501_KR_T_PBDE	188	DFG-WPCL
PBDE 066 ng/g ww	L-658-07_BS 500_LCS	WPCL_L-583-658-07_BS500_KR_T_PBDE	192	DFG-WPCL
PBDE 085 ng/g ww	L-316-07_BS 501_LCS	WPCL_L-316-07_BS501_KR_T_PBDE	202	DFG-WPCL
PBDE 085 ng/g ww	L-658-07_BS 500_LCS	WPCL_L-583-658-07_BS500_KR_T_PBDE	172	DFG-WPCL
PBDE 099 ng/g ww	L-316-07_BS 501_LCS	WPCL_L-316-07_BS501_KR_T_PBDE	192	DFG-WPCL
PBDE 099 ng/g ww	L-658-07_BS 500_LCS	WPCL_L-583-658-07_BS500_KR_T_PBDE	159	DFG-WPCL
PBDE 100 ng/g ww	L-316-07_BS 501_LCS	WPCL_L-316-07_BS501_KR_T_PBDE	176	DFG-WPCL
PBDE 100 ng/g ww	L-658-07_BS 500_LCS	WPCL_L-583-658-07_BS500_KR_T_PBDE	159	DFG-WPCL
PCB 018 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	187	DFG-WPCL
PCB 018 ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_PCB	0	DFG-WPCL
PCB 018 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	183	DFG-WPCL

March 2009



www.waterboards.ca.gov/swamp

Analyte	Station Code	Batch ID	% Recovery	Laboratory
PCB 018 ng/g na	L-356-07_BS 499_SRM 1588b	WPCL_L-356-460-07_BS499_KR_T_PCB	0	DFG-WPCL
PCB 018 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	0	DFG-WPCL
PCB 018 ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_PCB	0	DFG-WPCL
PCB 018 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	161	DFG-WPCL
PCB 018 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	0	DFG-WPCL
PCB 018 ng/g na	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_PCB	0	DFG-WPCL
PCB 018 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	134	DFG-WPCL
PCB 018 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	0	DFG-WPCL
PCB 018 ng/g na	L-702-07_BS 507_SRM 1588b	WPCL_L-702-07_BS507_KR_T_PCB	138	DFG-WPCL
PCB 018 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	0	DFG-WPCL
PCB 028 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	152	DFG-WPCL
PCB 028 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	153	DFG-WPCL
PCB 028 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	133	DFG-WPCL
PCB 028 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	133	DFG-WPCL
PCB 031 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	210	DFG-WPCL
PCB 031 ng/g na	L-168-08_BS 523_SRM 1588b	WPCL_L-488-07_L-376-08_BS523_T_PCB	143	DFG-WPCL
PCB 031 ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_PCB	0	DFG-WPCL
PCB 031 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	142	DFG-WPCL
PCB 031 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	205	DFG-WPCL
PCB 031 ng/g na	L-356-07_BS 499_SRM 1588b	WPCL_L-356-460-07_BS499_KR_T_PCB	0	DFG-WPCL
PCB 031 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	0	DFG-WPCL
PCB 031 ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_PCB	0	DFG-WPCL
PCB 031 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	167	DFG-WPCL
PCB 031 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	158	DFG-WPCL
PCB 031 ng/g na	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_PCB	0	DFG-WPCL
PCB 031 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	163	DFG-WPCL
PCB 031 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	0	DFG-WPCL
PCB 031 ng/g na	L-702-07_BS 507_SRM 1588b	WPCL_L-702-07_BS507_KR_T_PCB	167	DFG-WPCL
PCB 031 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	0	DFG-WPCL
PCB 033 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	0	DFG-WPCL
PCB 033 ng/g na	L-168-08_BS 523_SRM 1588b	WPCL_L-488-07_L-376-08_BS523_T_PCB	0	DFG-WPCL
PCB 033 ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_PCB	0	DFG-WPCL
PCB 033 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	0	DFG-WPCL
PCB 033 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	0	DFG-WPCL
PCB 033 ng/g na	L-356-07_BS 499_SRM 1588b	WPCL_L-356-460-07_BS499_KR_T_PCB	0	DFG-WPCL

March 2009



www.waterboards.ca.gov/swamp

Analyte	Station Code	Batch ID	% Recovery	Laboratory
PCB 033 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	0	DFG-WPCL
PCB 033 ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_PCB	0	DFG-WPCL
PCB 033 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	0	DFG-WPCL
PCB 033 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	0	DFG-WPCL
PCB 033 ng/g na	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_PCB	0	DFG-WPCL
PCB 033 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	0	DFG-WPCL
PCB 033 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	0	DFG-WPCL
PCB 033 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	0	DFG-WPCL
PCB 049 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	131	DFG-WPCL
PCB 066 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	142	DFG-WPCL
PCB 066 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	136	DFG-WPCL
PCB 066 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	133	DFG-WPCL
PCB 066 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	133	DFG-WPCL
PCB 070 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	182	DFG-WPCL
PCB 070 ng/g na	L-168-08_BS 523_SRM 1588b	WPCL_L-488-07_L-376-08_BS523_T_PCB	195	DFG-WPCL
PCB 070 ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_PCB	169	DFG-WPCL
PCB 070 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	211	DFG-WPCL
PCB 070 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	190	DFG-WPCL
PCB 070 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	172	DFG-WPCL
PCB 070 ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_PCB	188	DFG-WPCL
PCB 070 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	189	DFG-WPCL
PCB 070 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	182	DFG-WPCL
PCB 070 ng/g na	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_PCB	184	DFG-WPCL
PCB 070 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	179	DFG-WPCL
PCB 070 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	194	DFG-WPCL
PCB 070 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	152	DFG-WPCL
PCB 087 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	133	DFG-WPCL
PCB 095 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	141	DFG-WPCL
PCB 095 ng/g na	L-168-08_BS 523_SRM 1588b	WPCL_L-488-07_L-376-08_BS523_T_PCB	158	DFG-WPCL
PCB 095 ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_PCB	149	DFG-WPCL
PCB 095 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	155	DFG-WPCL
PCB 095 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	148	DFG-WPCL
PCB 095 ng/g na	L-356-07_BS 499_SRM 1588b	WPCL_L-356-460-07_BS499_KR_T_PCB	144	DFG-WPCL
PCB 095 ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_PCB	152	DFG-WPCL
PCB 095 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	184	DFG-WPCL

March 2009



www.waterboards.ca.gov/swamp

Analyte	Station Code	Batch ID	% Recovery	Laboratory
PCB 095 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	140	DFG-WPCL
PCB 095 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	144	DFG-WPCL
PCB 095 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	146	DFG-WPCL
PCB 095 ng/g na	L-702-07_BS 507_SRM 1588b	WPCL_L-702-07_BS507_KR_T_PCB	163	DFG-WPCL
PCB 095 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	145	DFG-WPCL
PCB 101 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	143	DFG-WPCL
PCB 105 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	131	DFG-WPCL
PCB 105 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	141	DFG-WPCL
PCB 105 ng/g na	L-702-07_BS 507_SRM 1588b	WPCL_L-702-07_BS507_KR_T_PCB	136	DFG-WPCL
PCB 114 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	151	DFG-WPCL
PCB 114 ng/g na	L-168-08_BS 523_SRM 1588b	WPCL_L-488-07_L-376-08_BS523_T_PCB	0	DFG-WPCL
PCB 114 ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_PCB	0	DFG-WPCL
PCB 114 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	0	DFG-WPCL
PCB 114 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	0	DFG-WPCL
PCB 114 ng/g na	L-356-07_BS 499_SRM 1588b	WPCL_L-356-460-07_BS499_KR_T_PCB	0	DFG-WPCL
PCB 114 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	0	DFG-WPCL
PCB 114 ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_PCB	0	DFG-WPCL
PCB 114 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	245	DFG-WPCL
PCB 114 ng/g na	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_PCB	0	DFG-WPCL
PCB 114 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	0	DFG-WPCL
PCB 114 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	0	DFG-WPCL
PCB 114 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	160	DFG-WPCL
PCB 118 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	141	DFG-WPCL
PCB 138 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	134	DFG-WPCL
PCB 141 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	168	DFG-WPCL
PCB 141 ng/g na	L-168-08_BS 523_SRM 1588b	WPCL_L-488-07_L-376-08_BS523_T_PCB	159	DFG-WPCL
PCB 141 ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_PCB	160	DFG-WPCL
PCB 141 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	164	DFG-WPCL
PCB 141 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	167	DFG-WPCL
PCB 141 ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_PCB	172	DFG-WPCL
PCB 141 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	194	DFG-WPCL
PCB 141 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	170	DFG-WPCL
PCB 141 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	169	DFG-WPCL
PCB 141 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	160	DFG-WPCL
PCB 141 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	168	DFG-WPCL

March 2009



www.waterboards.ca.gov/swamp

Analyte	Station Code	Batch ID	% Recovery	Laboratory
PCB 153 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	138	DFG-WPCL
PCB 156 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	137	DFG-WPCL
PCB 156 ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_PCB	138	DFG-WPCL
PCB 156 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	139	DFG-WPCL
PCB 156 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	139	DFG-WPCL
PCB 156 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	183	DFG-WPCL
PCB 156 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	157	DFG-WPCL
PCB 156 ng/g na	L-702-07_BS 507_SRM 1588b	WPCL_L-702-07_BS507_KR_T_PCB	154	DFG-WPCL
PCB 156 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	138	DFG-WPCL
PCB 157 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	172	DFG-WPCL
PCB 157 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	0	DFG-WPCL
PCB 157 ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_PCB	0	DFG-WPCL
PCB 157 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	151	DFG-WPCL
PCB 157 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	0	DFG-WPCL
PCB 157 ng/g na	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_PCB	175	DFG-WPCL
PCB 157 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	153	DFG-WPCL
PCB 157 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	180	DFG-WPCL
PCB 157 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	0	DFG-WPCL
PCB 158 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	219	DFG-WPCL
PCB 158 ng/g na	L-168-08_BS 523_SRM 1588b	WPCL_L-488-07_L-376-08_BS523_T_PCB	187	DFG-WPCL
PCB 158 ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_PCB	206	DFG-WPCL
PCB 158 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	210	DFG-WPCL
PCB 158 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	0	DFG-WPCL
PCB 158 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	0	DFG-WPCL
PCB 158 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	192	DFG-WPCL
PCB 158 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	231	DFG-WPCL
PCB 158 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	166	DFG-WPCL
PCB 158 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	165	DFG-WPCL
PCB 174 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	163	DFG-WPCL
PCB 174 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	179	DFG-WPCL
PCB 174 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	174	DFG-WPCL
PCB 177 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	0	DFG-WPCL
PCB 177 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	0	DFG-WPCL
PCB 177 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	0	DFG-WPCL
PCB 177 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	0	DFG-WPCL

March 2009



www.waterboards.ca.gov/swamp

Analyte	Station Code	Batch ID	% Recovery	Laboratory
PCB 177 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	0	DFG-WPCL
PCB 183 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	136	DFG-WPCL
PCB 187 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	133	DFG-WPCL
PCB 187 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	133	DFG-WPCL
PCB 187 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	138	DFG-WPCL
PCB 187 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	133	DFG-WPCL
PCB 187 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	146	DFG-WPCL
PCB 187 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	132	DFG-WPCL
PCB 189 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	0	DFG-WPCL
PCB 189 ng/g na	L-168-08_BS 523_SRM 1588b	WPCL_L-488-07_L-376-08_BS523_T_PCB	0	DFG-WPCL
PCB 189 ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_PCB	0	DFG-WPCL
PCB 189 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	0	DFG-WPCL
PCB 189 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	0	DFG-WPCL
PCB 189 ng/g na	L-356-07_BS 499_SRM 1588b	WPCL_L-356-460-07_BS499_KR_T_PCB	0	DFG-WPCL
PCB 189 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	0	DFG-WPCL
PCB 189 ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_PCB	0	DFG-WPCL
PCB 189 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	0	DFG-WPCL
PCB 189 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	0	DFG-WPCL
PCB 189 ng/g na	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_PCB	0	DFG-WPCL
PCB 189 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	0	DFG-WPCL
PCB 189 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	264	DFG-WPCL
PCB 189 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	0	DFG-WPCL
PCB 194 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	133	DFG-WPCL
PCB 194 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	0	DFG-WPCL
PCB 195 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	0	DFG-WPCL
PCB 195 ng/g na	L-168-08_BS 523_SRM 1588b	WPCL_L-488-07_L-376-08_BS523_T_PCB	0	DFG-WPCL
PCB 195 ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_PCB	0	DFG-WPCL
PCB 195 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	0	DFG-WPCL
PCB 195 ng/g na	L-356-07_BS 499_SRM 1588b	WPCL_L-356-460-07_BS499_KR_T_PCB	0	DFG-WPCL
PCB 195 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	0	DFG-WPCL
PCB 195 ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_PCB	0	DFG-WPCL
PCB 195 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	0	DFG-WPCL
PCB 195 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	0	DFG-WPCL
PCB 195 ng/g na	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_PCB	0	DFG-WPCL
PCB 195 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	0	DFG-WPCL

March 2009



www.waterboards.ca.gov/swamp

Analyte	Station Code	Batch ID	% Recovery	Laboratory
PCB 195 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	0	DFG-WPCL
PCB 195 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	0	DFG-WPCL
PCB 203 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	0	DFG-WPCL
PCB 203 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	161	DFG-WPCL
PCB 206 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	269	DFG-WPCL
PCB 206 ng/g na	L-168-08_BS 523_SRM 1588b	WPCL_L-488-07_L-376-08_BS523_T_PCB	0	DFG-WPCL
PCB 206 ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_PCB	160	DFG-WPCL
PCB 206 ng/g na	L-316-07_BS 501_SRM 1588b	WPCL_L-316-07_BS501_KR_T_PCB	0	DFG-WPCL
PCB 206 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	226	DFG-WPCL
PCB 206 ng/g na	L-356-07_BS 499_SRM 1588b	WPCL_L-356-460-07_BS499_KR_T_PCB	0	DFG-WPCL
PCB 206 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	0	DFG-WPCL
PCB 206 ng/g na	L-487-07_BS494_SRM 1588b	WPCL_L-487-07_BS494_KR_T_PCB	0	DFG-WPCL
PCB 206 ng/g na	L-554-07_BS 503_SRM 1588b	WPCL_L-554-628-07_BS503_KR_T_PCB	0	DFG-WPCL
PCB 206 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	212	DFG-WPCL
PCB 206 ng/g na	L-583-07_BS 502_SRM 1588b	WPCL_L-583-07_BS502_KR_T_PCB	0	DFG-WPCL
PCB 206 ng/g na	L-583-07_BS 508_SRM 1588b	WPCL_L-583-07_BS508_KR_T_PCB	0	DFG-WPCL
PCB 206 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	0	DFG-WPCL
PCB 206 ng/g na	L-702-07_BS 507_SRM 1588b	WPCL_L-702-07_BS507_KR_T_PCB	0	DFG-WPCL
PCB 206 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	0	DFG-WPCL
PCB 209 ng/g na	L-011-08_BS 509_SRM 1588b	WPCL_L-011-08_BS509_KR_T_PCB	185	DFG-WPCL
PCB 209 ng/g na	L-168-08_BS 523_SRM 1588b	WPCL_L-488-07_L-376-08_BS523_T_PCB	0	DFG-WPCL
PCB 209 ng/g na	L-294-07_BS 498_SRM 1588b	WPCL_L-294-458-07_BS498_KR_T_PCB	0	DFG-WPCL
PCB 209 ng/g na	L-316-07_BS 510_SRM 1588b	WPCL_L-316-720-07_BS510_KR_T_PCB	0	DFG-WPCL
PCB 209 ng/g na	L-356-07_BS 499_SRM 1588b	WPCL_L-356-460-07_BS499_KR_T_PCB	0	DFG-WPCL
PCB 209 ng/g na	L-458-07_BS 512_SRM 1588b	WPCL_L-316-07_L-051-08_BS512_T_PCB	0	DFG-WPCL
PCB 209 ng/g na	L-554-07_BS 513_SRM 1588b	WPCL_L-316-07_L-095-08_BS513_T_PCB	0	DFG-WPCL
PCB 209 ng/g na	L-658-07_BS 500_SRM 1588b	WPCL_L-583-658-07_BS500_KR_T_PCB	157	DFG-WPCL
PCB 209 ng/g na	L-702-07_BS 507_SRM 1588b	WPCL_L-702-07_BS507_KR_T_PCB	150	DFG-WPCL
PCB 209 ng/g na	L-716-07_BS 511_SRM 1588b	WPCL_L-460-07_L-012-08_BS511_T_PCB	0	DFG-WPCL
Selenium µg/g ww	2008Dig01_2976-382	MPSL-DFG_2008Dig01_T_Se	126	MPSL-DFG
Selenium µg/g ww	2008Dig02_DORM3-251	MPSL-DFG_2008Dig02_T_Se	155	MPSL-DFG
Selenium µg/g ww	2008Dig04_DORM3-252	MPSL-DFG_2008Dig04_T_Se	135	MPSL-DFG
Selenium µg/g ww	2008Dig05_DORM3-253	MPSL-DFG_2008Dig05_T_Se	177	MPSL-DFG
Selenium µg/g ww	2008Dig05_DORM3-254	MPSL-DFG_2008Dig06_T_Se	167	MPSL-DFG
Selenium µg/g ww	2008Dig05_DORM3-255	MPSL-DFG_2008Dig07_T_Se	139	MPSL-DFG

March 2009



www.waterboards.ca.gov/swamp

Analyte	Station Code	Batch ID	% Recovery	Laboratory
Selenium µg/g ww	2008Dig05_DORM3-256	MPSL-DFG_2008Dig08_T_Se	162	MPSL-DFG
Tedion ng/g ww	L-294-07_BS 498_LCS	WPCL_L-294-458-07_BS498_KR_T_OCH	161	DFG-WPCL
Tedion ng/g ww	L-316-07_BS 501_LCS	WPCL_L-316-07_BS501_KR_T_OCH	179	DFG-WPCL
Tedion ng/g ww	L-316-07_BS 510_LCS	WPCL_L-316-720-07_BS510_KR_T_OCH	156	DFG-WPCL
Tedion ng/g ww	L-356-07_BS 499_LCS	WPCL_L-356-460-07_BS499_KR_T_OCH	159	DFG-WPCL
Tedion ng/g ww	L-458-07_BS 512_LCS	WPCL_L-316-07_L-051-08_BS512_T_OCH	152	DFG-WPCL
Tedion ng/g ww	L-487-07_BS494_LCS	WPCL_L-487-07_BS494_KR_T_OCH	151	DFG-WPCL
Tedion ng/g ww	L-551-07_BS497_LCS	WPCL_L-551-07_BS497_KR_T_OCH	178	DFG-WPCL
Tedion ng/g ww	L-554-07_BS 503_LCS	WPCL_L-554-628-07_BS503_KR_T_OCH	158	DFG-WPCL
Tedion ng/g ww	L-583-07_BS 502_LCS	WPCL_L-583-07_BS502_KR_T_OCH	156	DFG-WPCL
Tedion ng/g ww	L-658-07_BS 500_LCS	WPCL_L-583-658-07_BS500_KR_T_OCH	191	DFG-WPCL

Table 7
Batches for which laboratory duplicates (DUP) were not run.

Analyte	Batch ID	Notes	Laboratory
Polychlorinated Biphenyls	WPCL_L-294-458-07_BS498_KR_T_PCB	No sample lab dup in this batch.	DFG-WPCL
Organochlorine Pesticides	WPCL_L-294-458-07_BS498_KR_T_OCH	No Lab dup.	DFG-WPCL
Polybrominated Diphenyl Ethers	WPCL_L-294-458-07_BS498_KR_T_PBDE	There is no sample lab dup in this batch.	DFG-WPCL



Table 8

Laboratory duplicate samples that did not meet quality control acceptance criteria

Analyte	StationCode	Parent Value	Duplicate Value	RPD	Laboratory	Batch ID	
PCB 174 ng/g ww	C1_205PAD016L1BOG06CAR	0.212	0.280	28	DFG-WPCL	WPCL_L-356-460-07_BS499_KR_T_PCB	
PCB 018 ng/g ww	C1_403TU0148L1BOG06LMB	0.303	0.229	28	DFG-WPCL	WPCL_L-551-07_BS497_KR_T_PCB	
PCB 031 ng/g ww	C1_403TU0148L1BOG06LMB	0.485	0.373	26	DFG-WPCL	WPCL_L-551-07_BS497_KR_T_PCB	
PCB 087 ng/g ww	C1_403TU0148L1BOG06LMB	0.584	0.450	26	DFG-WPCL	WPCL_L-551-07_BS497_KR_T_PCB	
PCB 095 ng/g ww	C1_403TU0148L1BOG06LMB	1.14	0.846	30	DFG-WPCL	WPCL_L-551-07_BS497_KR_T_PCB	
PCB 177 ng/g ww	C1_801PBB131L1BOG06CAR	0.398	0.533	29	DFG-WPCL	WPCL_L-316-07_L-095-08_BS513_T_PCB	
PCB 209 ng/g ww	C1_801PBB131L1BOG06CAR	0.108	0.148	31	DFG-WPCL	WPCL_L-316-07_L-095-08_BS513_T_PCB	
PCB 097 ng/g ww	C2_305PCB032L1BOG06CAR	0.144	0.199	32	DFG-WPCL	WPCL_L-316-07_L-051-08_BS512_T_PCB	
PCB 137 ng/g ww	C2_305PCB032L1BOG06CAR	0.089	0.126	34	DFG-WPCL	WPCL_L-316-07_L-051-08_BS512_T_PCB	
PCB 158 ng/g ww	C2_305PCB032L1BOG06CAR	0.354	0.480	30	DFG-WPCL	WPCL_L-316-07_L-051-08_BS512_T_PCB	
PCB 169 ng/g ww	C2_305PCB032L1BOG06CAR	0.149	0.092	47	DFG-WPCL	WPCL_L-316-07_L-051-08_BS512_T_PCB	
PCB 195 ng/g ww	C2_305PCB032L1BOG06CAR	0.625	0.831	28	DFG-WPCL	WPCL_L-316-07_L-051-08_BS512_T_PCB	
PCB 209 ng/g ww	C2_305PCB032L1BOG06CAR	0.187	0.141	28	DFG-WPCL	WPCL_L-316-07_L-051-08_BS512_T_PCB	
DDE(p,p')	ng/g ww	SC_518POV021BOG06CAR	4.67	6.62	35	DFG-WPCL	WPCL_L-554-628-07_BS503_KR_T_OCH
PBDE 047 ng/g ww	SC_518POV021BOG06CAR	2.48	3.74	41	DFG-WPCL	WPCL_L-554-628-07_BS503_KR_T_PBDE	
PCB 101 ng/g ww	SC_518POV021BOG06CAR	0.290	0.498	53	DFG-WPCL	WPCL_L-554-628-07_BS503_KR_T_PCB	

March 2009

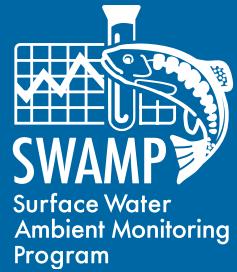


www.waterboards.ca.gov/swamp

Analyte	StationCode	Parent Value	Duplicate Value	RPD	Laboratory	Batch ID
PCB 138 ng/g ww	SC_518POV021BOG06CAR	0.641	0.933	37	DFG-WPCL	WPCL_L-554-628-07_BS503_KR_T_PCB
PCB 141 ng/g ww	SC_518POV021BOG06CAR	0.123	0.206	50	DFG-WPCL	WPCL_L-554-628-07_BS503_KR_T_PCB
PCB 149 ng/g ww	SC_518POV021BOG06CAR	0.375	0.606	47	DFG-WPCL	WPCL_L-554-628-07_BS503_KR_T_PCB
PCB 151 ng/g ww	SC_518POV021BOG06CAR	0.156	0.257	49	DFG-WPCL	WPCL_L-554-628-07_BS503_KR_T_PCB
PCB 153 ng/g ww	SC_518POV021BOG06CAR	0.968	1.53	45	DFG-WPCL	WPCL_L-554-628-07_BS503_KR_T_PCB
PCB 183 ng/g ww	SC_518POV021BOG06CAR	0.207	0.275	28	DFG-WPCL	WPCL_L-554-628-07_BS503_KR_T_PCB
PCB 187 ng/g ww	SC_518POV021BOG06CAR	0.500	0.737	38	DFG-WPCL	WPCL_L-554-628-07_BS503_KR_T_PCB
PCB 194 ng/g ww	SC_518POV021BOG06CAR	0.168	0.227	30	DFG-WPCL	WPCL_L-554-628-07_BS503_KR_T_PCB
PCB 201 ng/g ww	SC_518POV021BOG06CAR	0.223	0.294	27	DFG-WPCL	WPCL_L-554-628-07_BS503_KR_T_PCB
PCB 203 ng/g ww	SC_518POV021BOG06CAR	0.230	0.305	28	DFG-WPCL	WPCL_L-554-628-07_BS503_KR_T_PCB

March 2009


www.waterboards.ca.gov/swamp



For more information, please contact:

Jay A. Davis
San Francisco Estuary Institute
7770 Pardee Lane
Oakland, California 94621
jay@sfei.org



www.waterboards.ca.gov/swamp