Table 1: Data Validation Results
Portland Harbor Sample Receipt, Analysis, and Results Report

Analysis	Matrix	Number Qualified as Estimated	Number Qualified as Rejected	Total Number of Results	Percent Qualified as Estimated	Percent Qualified as Rejected
Polychlorinated Biphenyls	Fish Tissue	39	0	11084	0.35%	0.00%
Lipids	Fish Tissue	0	0	64	0.00%	0.00%
Total Fish Tissue		39	0	11148	0.35%	0.00%

Table 2. Summary of Analyte Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

Summed Analyte	Analytes Included in the Summed Analyte Total	TEF	Summation Rules Used
Total PCB Congeners	All PCB congeners	1	RI Rules
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	PCB-77	0.0001	RI Rules
	PCB-81	0.0003	
	PCB-105	0.00003	
	PCB-114	0.00003	
	PCB-118	0.00003	
	PCB-123	0.00003	
	PCB-126	0.1	
	PCB-156	0.00003	
	PCB-157	0.00003	
	PCB-167	0.00003	
	PCB-169	0.03	
	PCB-189	0.00003	
Monochlorobiphenyl homologs	PCB-1 through PCB-3	1	Risk Assessment Rules
Dichlorobiphenyl homologs	PCB-4 through PCB-15	1	Risk Assessment Rules
Trichlorobiphenyl homologs	PCB-16 through PCB-39	1	Risk Assessment Rules
Tetrachlorobiphenyl homologs	PCB-40 through PCB-81	1	Risk Assessment Rules
Pentachlorobiphenyl homologs	PCB-82 through PCB-127	1	Risk Assessment Rules
Hexachlorobiphenyl homologs	PCB-129 through PCB-169	1	Risk Assessment Rules
Heptachlorobiphenyl homologs	PCB-170 through PCB-193	1	Risk Assessment Rules
Octachlorobiphenyl homologs	PCB-194 through PCB-205	1	Risk Assessment Rules
Nonachlorobiphenyl homologs	PCB-206 through PCB-208	1	Risk Assessment Rules
Total PCB Congeners (calc'd)	All PCB congeners	1	Risk Assessment Rules
PCB TEQ - Mammals	PCB-77	0.0001	Risk Assessment Rules
	PCB-81	0.0003	
	PCB-105	0.00003	
	PCB-114	0.00003	
	PCB-118	0.00003	
	PCB-123	0.00003	
	PCB-126	0.1	
	PCB-156	0.00003	
	PCB-157	0.00003	
	PCB-167	0.00003	
	PCB-169	0.03	
	PCB-189	0.00003	

PCB TEQ - Birds	PCB TEQ - Birds	PCB-77	0.05
		PCB-81	0.1
		PCB-105	0.0001
		PCB-114	0.0001
		PCB-118	0.00001
		PCB-123	0.00001
		PCB-126	0.1
		PCB-156	0.0001
		PCB-157	0.0001
		PCB-167	0.00001
		PCB-169	0.001
		PCB-189	0.00001
PCB TEQ - Fish	PCB TEQ - Fish	PCB-77	0.0001
		PCB-81	0.0005
		PCB-105	0.000005
		PCB-114	0.000005
		PCB-118	0.000005
		PCB-123	0.000005
		PCB-126	0.005
		PCB-156	0.000005
		PCB-157	0.000005
		PCB-167	0.000005
		PCB-169	0.00005
		PCB-189	0.000005

Notes:	**Notes:**	
PCB	PCB	Polychlorinated biphenyl
RI	RI	Remedial investigation
TEF	TEF	Toxic equivalency factor
TEQ	TEQ	Toxic equivalent

RI rules for summation are as follows:

Calculated totals are the sum of all detected concentrations. Non-detected concentrations are treated as zero.

If none of the analytes are detected in a sample, the highest reporting limit is used for total, and a U qualifier is used to indicate the lack of detected values.

RI rules for summation are as follows:

Calculated totals are the sum of all detected concentrations. Non-detected concentrations are treated as zero.

If none of the analytes are detected in a sample, the highest reporting limit is used for total, and a U qualifier is used to indicate the lack of detected values.

Risk assessment rules for summation are as follows:

Calculated totals are the sum of all detected concentrations. For any analyte detected in the data set within the study area for the study area, the result is included in the summation at one-half the detection limit.

If none of the analytes are detected in a sample, the highest reporting limit is used for total, and a U qualifier is used to indicate the lack of detected values.

Non-detect results for analytes that were never detected within a data set for a given medium are treated as zero.

Risk assessment rules for summation are as follows:

Calculated totals are the sum of all detected concentrations. For any analyte detected in the data set within the study area for the study area, the result is included in the summation at one-half the detection limit.

If none of the analytes are detected in a sample, the highest reporting limit is used for total, and a U qualifier is used to indicate the lack of detected values.

Non-detect results for analytes that were never detected within a data set for a given medium are treated as zero.

Table 2. Summary of Analyte Summation Groups

Portland Harbor Sample Receipt, Analysis, and Results Report

Summed Analyte	Summation Rules Used
Total PCB Congeners	RI Rules
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	RI Rules
Monochlorobiphenyl homologs	Risk Assessment Rules
Dichlorobiphenyl homologs	Risk Assessment Rules
Trichlorobiphenyl homologs	Risk Assessment Rules
Tetrachlorobiphenyl homologs	Risk Assessment Rules
Pentachlorobiphenyl homologs	Risk Assessment Rules
Hexachlorobiphenyl homologs	Risk Assessment Rules
Heptachlorobiphenyl homologs	Risk Assessment Rules
Octachlorobiphenyl homologs	Risk Assessment Rules
Nonachlorobiphenyl homologs	Risk Assessment Rules
Total PCB Congeners (Aroclors)	Risk Assessment Rules
PCB TEQ, Mammals	Risk Assessment Rules

PCB TEQ Risk Assessment Rules Birds	
PCB TEQ Risk Assessment Rules Fish	

Notes:

PCB

RI

TEF

TEQ

RI rules for summation are as follows:

Calculated totals are the sum of all detected concentrations. Non-detected concentrations are treated as zero.

If none of the analytes are detected in a sample, the highest reporting limit is used for the calculated total, and a U qualifier is used to indicate the lack of detected values.

Risk assessment rules for summation are as follows:

Calculated totals are the sum of all detected concentrations. For any analyte detected at least once in the data set within the study area for a given medium, the result is included in the summation at one-half the detection limit.

If none of the analytes are detected in a sample, the highest reporting limit is used for the calculated total, and a U qualifier is used to indicate the lack of detected values.

Non-detect results for analytes that were never detected within a data set for a given medium were treated as zero.

Table 3. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

LocationID	EPA1-SB04E-02	EPA1-SB04E-02	EPA1-SB04E-06	EPA1-SB04E-06	EPA1-SB05E-02	EPA1-SB05E-02	EPA1-SB05E-03	EPA1-SB05E-03
Tissue	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet
X-coordinate	7618740.36258	7618740.36258	7618995.08054	7618995.08054	7621025.9515	7621025.9515	7621611.17954	7621611.17954
Y-coordinate	714962.80202	714962.80202	714296.52532	714296.52532	710385.59352	710385.59352	709354.49337	709354.49337
RiverMile	4.2	4.2	4.3	4.3	5.2	5.2	5.4	5.4
SampleDate	29-Sep-11	29-Sep-11	29-Sep-11	29-Sep-11	3-Oct-11	3-Oct-11	3-Oct-11	3-Oct-11
SampleTime	18:34	18:34	17:10	17:10	9:54	9:54	9:32	9:32
PCB001	21.6 U	21.4 U	38.6	22.3 U	36.8 U	15 U	21 U	22.1 U
PCB002	26.8 U	26.6 U	26.6 U	27.6 U	45.6 U	18.6 U	26.1 U	27.4 U
PCB003	16.9	14 U	34.2	16.3	24 U	9.8 U	16.9	14.4 U
PCB004	465	88.2	757	151	264	46.5	500	154
PCB005	26.8 U	26.6 U	26.6 U	27.6 U	45.6 U	18.6 U	26.1 U	27.4 U
PCB006	79.1	24.9 U	113	28.7	42.6 U	17.4 U	48.2	25.6 U
PCB007	34 U	33.7 U	33.7 U	35 U	57.8 U	23.6 U	33.1 U	34.7 U
PCB008	384	93.1	407	106	130 U	46.7 U	204	95
PCB009	25.8	16.3 U	23.8 J	16.9 U	27.9 U	11.4 U	16 U	16.8 U
PCB010	22.8	17.7 U	38.4	18.4 U	30.4 U	12.4 U	19.5	18.2 U
PCB011	241	172	269	159	239 U	154	329	182
PCB012 & 013	23.9 U	23.7 U	23.7 U	24.7 U	40.7 U	16.6 U	23.3 U	24.4 U
PCB014	26.3 U	26 U	26 U	27 U	44.6 U	18.2 U	25.5 U	26.8 U
PCB015	170	57.2	169	86.8	67.2 U	27.4 U	115	59.9
PCB016	471	102	382	108	163	36.4	167	113
PCB017	942	181	1,010	224	418	67.6	587	250
PCB018 & 030	1,370	273	1,250	327	491	92.1 U	528 U	314
PCB019	751	132	687	146	528	78.7	822	250
PCB020 & 028	5,770	1,110	8,570	1,820	2,150	348 U	1,840	1,340
PCB021 & 033	1,090	249	873	277	367	90.2 U	366	231
PCB022	1,310	269	1,330	336	418	79.3	331	310
PCB023	31.7 U	31.4 U	31.4 U	32.7 U	53.9 U	22 U	30.8 U	32.4 U
PCB024	27.3	19.1 U	28.5	19.9 U	32.8 U	13.4 U	18.8 U	19.7 U
PCB025	301	56.5	326	69.5	110	19.6 U	121	86.7
PCB026 & 029	773	145	787	170	284	45.2	282	195
PCB027	162	31.9	294	61.7	97.8	19 U	127	42.8
PCB031	3,140	616	3,100	717	1,010	183 U	930	812
PCB032	497	97.1 U	1,420	283	216	40.1 U	326	126
PCB034	22.8 U	22.6 U	24.2	23.5 U	38.7 U	15.8 U	22.1 U	23.2 U
PCB035	23.7 U	23.4 U	23.4 U	24.4 U	40.2 U	16.4 U	23 U	24.1 U
PCB036	25.1 U	24.9 U	24.9 U	25.8 U	42.6 U	17.4 U	24.4 U	25.6 U
PCB037	930	195	482	195	142	46.1	239	148
PCB038	18.2 U	18 U	23	18.7 U	30.9 U	12.6 U	17.7 U	18.5 U
PCB039	22.8 U	22.6 U	22.6 U	23.5 U	38.7 U	15.8 U	22.1 U	23.2 U
PCB040 & 041 & 071	2,620	501	10,600	1,920	1,120	204	1,430	659
PCB042	2,160	403	6,110	1,100	878	145	725	602
PCB043 & 073	226	40.7	672	119	174	27.5	161	66.9
PCB044 & 047 & 065	10,600	1,890	29,000	5,170	5,550	928	10,500	3,170

PCB045 & 051	PCB045 & 051	1,420	256	3,010	516	592	89.2
PCB046	PCB046	273	71.4 U	669	120	123 U	50 U
PCB048	PCB048	1,240	223	3,530	648	513	90.2
PCB049 & 069	PCB049 & 069	7,030	1,270	21,100	3,770	3,540	565
PCB050 & 053	PCB050 & 053	908	159	2,730	477	432	63.7
PCB052	PCB052	11,400	2,140	35,700	6,610	5,660	873
PCB054	PCB054	120	22.5	99.7	21.1 U	109	16.3
PCB055	PCB055	21.6 U	21.4 U	21.4 U	22.3 U	36.8 U	15 U
PCB056	PCB056	1,990	375	5,910	1,090	889	156
PCB057	PCB057	47.7	18 U	87.1	18.7 U	30.9 U	12.6 U
PCB058	PCB058	30.6	19.1 U	54.7	19.9 U	32.8 U	13.4 U
PCB059 & 062 & 075	PCB059 & 062 & 075	872	214 U	2,190	369	368 U	150 U
PCB060	PCB060	2,010	377	7,940	1,440	1,270	207
PCB061 & 070 & 074 & 076	PCB061 & 070 & 074 & 076	12,900	2,340	36,600	6,250	6,320	1,180
PCB063	PCB063	511	88.5	1,390	228	269	53.1
PCB064	PCB064	4,320	801	14,600	2,600	1,490	289
PCB066	PCB066	9,640	1,770	34,300	6,030	6,490	1,030
PCB067	PCB067	226	41.7	366	63.6	107	19.6
PCB068	PCB068	109	57.1 U	128	59.4 U	98 U	40 U
PCB072	PCB072	134	22.9	232	38.6	85.8	15.5
PCB073	PCB073	31.7 U	31.4 U	31.4 U	32.7 U	53.9 U	22 U
PCB077	PCB077	625	111	1,140	198	276	42.5
PCB078	PCB078	13.3 U	13.1 U	13.1 U	13.7 U	22.5 U	9.2 U
PCB079	PCB079	75.9	22.3 U	260	51.2	47	15.6 U
PCB080	PCB080	21.3 U	21.1 U	21.1 U	22 U	36.3 U	14.8 U
PCB081	PCB081	46	25.7 U	85.9	26.7 U	44.1 U	18 U
PCB082	PCB082	1,010	185	2,710	480	663	103
PCB083	PCB083	739	111	1,580	274	489	74.2
PCB084	PCB084	2,620	467	4,910	809	1,230	200
PCB085 & 117 & 116	PCB085 & 117 & 116	3,450	591	10,700	1,980	3,710	545
PCB086 & 087 & 097 & 108 & 119 & 12	PCB086 & 087 & 097 & 108 & 119 & 1	8,710	1,550	22,800	4,090	7,290	1,100
PCB088 & 091	PCB088 & 091	2,380	407	5,020	818	1,170	228
PCB089	PCB089	78.5	16.6 U	352	62.7	48.4	11.6 U
PCB090 & 101 & 113	PCB090 & 101 & 113	17,000	2,980	38,200	6,690	16,300	2,380
PCB092	PCB092	3,540	602	7,800	1,310	3,430	496
PCB093 & 098 & 100 & 102	PCB093 & 098 & 100 & 102	983	329 U	1,620	342 U	942	230 U
PCB094	PCB094	79.5	71.4 U	140	74.3 U	123 U	50 U
PCB095	PCB095	9,910	1,770	18,200	3,010	5,240	955
PCB096	PCB096	91.7	32 U	254	42.7	54.9 U	22.4 U
PCB099	PCB099	9,460	1,660	25,000	4,170	11,600	1,680
PCB103	PCB103	281	47.9	321	57	244	40.7
PCB104	PCB104	43 U	42.6 U	42.6 U	44.3 U	73 U	29.8 U
PCB105	PCB105	6,610	1,180	19,400	3,440	7,370	1,070
PCB106	PCB106	42.7 U	42.3 U	42.3 U	44 U	72.5 U	29.6 U
PCB107 & 124	PCB107 & 124	509	87.2	1,050	182	490	65.5
PCB109	PCB109	1,360	232	2,950	501	1,660	230
PCB110 & 115	PCB110 & 115	14,000	2,590	32,900	5,890	11,900	1,730
PCB111	PCB111	21.3 U	21.1 U	23.5	22 U	53.1	14.8 U

PCB112	PCB112	31.7 U	31.4 U	31.4 U	32.7 U	53.9 U	22 U
PCB114	PCB114	508	89.3	1,390	251	616	83.1
PCB118	PCB118	19,800	3,520	44,900	8,110	23,100	3,180
PCB120	PCB120	90.7	71.4 U	113	74.3 U	170	50 U
PCB121	PCB121	20.9	19.7 U	19.7 U	20.5 U	38.9	13.8 U
PCB122	PCB122	117	26 U	217	42.1	77.4	18.2 U
PCB123	PCB123	340	57.9	918	162	508	62.9
PCB126	PCB126	41.5	38.6 U	77.3	40.1 U	66.2 U	27 U
PCB127	PCB127	39.5	24.6 U	74.1	25.5 U	42.2	17.2 U
PCB128 & 166	PCB128 & 166	3,140	515	5,890	968	4,580	571
PCB129 & 138 & 163	PCB129 & 138 & 163	29,500	4,780	43,200	6,920	45,700	5,500
PCB130	PCB130	1,490	238	2,090	323	1,600	196
PCB131	PCB131	149	26.8	206	32.5	140	20.6
PCB132	PCB132	4,270	722	5,260	799	3,590	509
PCB133	PCB133	521	83.6	648	98	1,260	152
PCB134 & 143	PCB134 & 143	734	143 U	1,010	149	710	100 U
PCB135 & 151	PCB135 & 151	7,610	1,300	8,990	1,390	10,400	1,370
PCB136	PCB136	1,790	307	2,270	357	1,650	224
PCB137	PCB137	1,480	226	2,180	364	1,760	215
PCB139 & 140	PCB139 & 140	428	68.8	790	117	662	86.8
PCB141	PCB141	4,100	692	6,440	982	5,440	668
PCB142	PCB142	24.5 U	24.3 U	24.3 U	25.2 U	41.7 U	17 U
PCB144	PCB144	897	145	1,160	172	825	109
PCB145	PCB145	27.1 U	26.9 U	26.9 U	27.9 U	46.1 U	18.8 U
PCB146	PCB146	5,070	818	6,360	970	11,700	1,410
PCB147 & 149	PCB147 & 149	15,200	2,590	16,000	2,430	13,200	1,850
PCB148	PCB148	69.1	42.9 U	70.6	44.6 U	108	30 U
PCB150	PCB150	47	30.9 U	39.3	32.1 U	52.9 U	21.6 U
PCB152	PCB152	33.8	33.4 U	35.5	34.8 U	57.4 U	23.4 U
PCB153 & 168	PCB153 & 168	29,000	4,640	36,000	5,690	52,400	6,210
PCB154	PCB154	467	77.1	572	84.8	860	101
PCB155	PCB155	35.5	35.1 U	35.1 U	36.5 U	60.3 U	24.6 U
PCB156 & 157	PCB156 & 157	2,920	502	4,500	804	4,660	599
PCB158	PCB158	2,300	367	4,030	652	3,290	398
PCB159	PCB159	72.1 U	71.4 U	71.4 U	74.3 U	123 U	50 U
PCB160	PCB160	2.6 U	2.57 U	2.57 U	2.67 U	4.41 U	1.8 U
PCB161	PCB161	34.3 U	34 U	34 U	35.3 U	58.3 U	23.8 U
PCB162	PCB162	92.4	24.1 U	150	25.1 U	92.6	16.9 U
PCB164	PCB164	1,210	211	1,970	301	1,870	225
PCB165	PCB165	34 U	33.7 U	33.7 U	35 U	68.5	23.6 U
PCB167	PCB167	1,210	201	1,510	256	1,710	205
PCB169	PCB169	84.7	22.6 U	22.6 J	23.5 U	38.8 U	15.8 U
PCB170	PCB170	4,140	697	4,090	827	7,800	911
PCB171 & 173	PCB171 & 173	1,520	241	1,660	290	2,610	312
PCB172	PCB172	976	149	954	167	1,600	172
PCB174	PCB174	3,640	603	3,060	524	3,400	420
PCB175	PCB175	223	42 U	215	43.7 U	318	37.4
PCB176	PCB176	406	63.2	324	54.4 U	361	44.6
PCB177	PCB177	2,970	484	2,660	455	3,730	446

PCB178	PCB178	1,500	231	1,460	236	2,910	317
PCB179	PCB179	1,740	286	1,550	258	2,070	265
PCB180 & 193	PCB180 & 193	13,600	2,260	11,200	2,190	26,200	2,970
PCB181	PCB181	65.9	38.3 U	68.7	39.8 U	103	26.8 U
PCB182	PCB182	37.1	26 U	44.4	27 U	44.6 U	18.2 U
PCB183 & 185	PCB183 & 185	4,410	701	4,220	718	7,960	921
PCB184	PCB184	31.4 U	31.1 U	31.1 U	32.4 U	53.4 U	21.8 U
PCB186	PCB186	45.6 U	45.1 U	45.1 U	46.9 U	77.5 U	31.6 U
PCB187	PCB187	10,200	1,640	8,860	1,480	23,700	2,490
PCB188	PCB188	45.6 U	36.3 U	36.3 U	37.7 U	62.3 U	25.4 U
PCB189	PCB189	191	30.1	185	38	434	46
PCB190	PCB190	442	86.8	432	120	1,490	176
PCB191	PCB191	209	36.3 U	208	37.7 U	375	41.6
PCB192	PCB192	25.4 U	25.1 U	25.1 U	26.1 U	43.1 U	17.6 U
PCB194	PCB194	1,540	286	1,210	252	3,570	343
PCB195	PCB195	708	118	619	115	1,650	175
PCB196	PCB196	918	163	731	146	1,920	203
PCB197 & 200	PCB197 & 200	260	59.3 U	198	61.7 U	367	41.5 U
PCB198 & 199	PCB198 & 199	1,960	391	1,450	334	5,280	537
PCB201	PCB201	328	51.3	263	43.4	595	63.5
PCB202	PCB202	691	111	578	106	1,340	141
PCB203	PCB203	1,570	264	1,300	236	2,860	310
PCB204	PCB204	35.2 U	34.8 U	34.8 U	36.2 U	59.8 U	24.4 U
PCB205	PCB205	91.7	34.7 U	81	36 U	223	24.3 U
PCB206	PCB206	710	142	496	102	2,560	294
PCB207	PCB207	113	68.6 U	78.8	71.3 U	313	48 U
PCB208	PCB208	300	69.8 U	194	72.6 U	866	97.2
PCB209	PCB209	316	65.3	208	51.3	966	151
Monochlorobiphenyl homologs	Monochlorobiphenyl homologs	27.7 T	26.6 UT	72.8 T	27.5 T	45.6 UT	18.6 UT
Dichlorobiphenyl homologs	Dichlorobiphenyl homologs	1,390 T	440 T	1,780 JT	549 T	533 T	258 T
Trichlorobiphenyl homologs	Trichlorobiphenyl homologs	17,600 T	3,450 T	20,600 T	4,780 T	6,470 T	778 T
Tetrachlorobiphenyl homologs	Tetrachlorobiphenyl homologs	71,600 T	13,100 T	219,000 T	38,900 T	36,200 T	6,160 T
Pentachlorobiphenyl homologs	Pentachlorobiphenyl homologs	104,000 T	18,500 T	244,000 T	42,700 T	98,500 T	14,500 T
Hexachlorobiphenyl homologs	Hexachlorobiphenyl homologs	114,000 T	18,700 T	151,000 JT	24,000 T	168,000 T	20,800 T
Heptachlorobiphenyl homologs	Heptachlorobiphenyl homologs	46,300 T	7,580 T	41,200 T	7,440 T	85,100 T	9,620 T
Octachlorobiphenyl homologs	Octachlorobiphenyl homologs	8,070 T	1,430 T	6,430 T	1,280 T	17,800 T	1,810 T
Nonachlorobiphenyl homologs	Nonachlorobiphenyl homologs	1,120 T	211 T	769 T	174 T	3,740 T	415 T
Total PCB Congeners	Total PCB Congeners	364,000 JT	62,300 JT	685,000 JT	119,000 JT	417,000 JT	53,300 JT
Total PCB Congeners (calc'd)	Total PCB Congeners (calc'd)	364,000 JT	63,500 JT	685,000 JT	120,000 JT	418,000 JT	54,400 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	7.71 T	0.179 JT	10.7 JT	0.412 JT	1.18 JT	0.162 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1)	LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1)	7.71 T	2.45 JT	10.7 JT	2.77 JT	5.08 JT	1.75 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	41.3 T	8.99 JT	76.3 JT	13.8 JT	20.9 JT	4.59 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.455 T	0.142 JT	0.909 JT	0.193 JT	0.397 JT	0.103 JT

Notes:

J	
LWG	
NA	
ND	
PCB	
RA	
T	
TCDD	
TEQ	
U	

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 3. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

LocationID	EPA1-SB05E-03	EPA1-SB05E-03	EPA1-SB05E-04	EPA1-SB05E-04	EPA1-SB05W-02	EPA1-SB05W-02	EPA1-SB05W-03	EPA1-SB05W-03
Tissue	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet
X-coordinate	7621611.17954	7621611.17954	7622425.67887	7622425.67887	7620011.50418	7620011.50418	7620605.96737	7620605.96737
Y-coordinate	709354.49337	709354.49337	708300.12878	708300.12878	709612.51266	709612.51266	708796.51539	708796.51539
RiverMile	5.4	5.4	5.7	5.7	5.2	5.2	5.4	5.4
SampleDate	3-Oct-11	3-Oct-11	6-Oct-11	6-Oct-11	2-Oct-11	2-Oct-11	28-Sep-11	28-Sep-11
SampleTime	9:32	9:32	18:10	18:10	12:50	12:50	15:11	15:11
PCB001	21 U	22.1 U	32.9 U	35 U	27.3	21.8 U	14.2 U	14.9 U
PCB002	26.1 U	27.4 U	40.8 U	43.5 U	27.4 U	27.1 U	17.5 U	18.4 U
PCB003	16.9	14.4 U	21.5 U	22.9 U	15.9	14.3 U	9.25 U	9.7 U
PCB004	500	154	405	83.1	606	183	299	63.6
PCB005	26.1 U	27.4 U	40.8 U	43.5 U	27.4 U	27.1 U	17.5 U	18.4 U
PCB006	48.2	25.6 U	44.8	40.7 U	91.1	27.9	45.9	17.2 U
PCB007	33.1 U	34.7 U	51.8 U	55.1 U	34.7 U	34.4 U	22.3 U	23.4 U
PCB008	204	95	182	58.1	447	138	192 U	55.4 U
PCB009	16 U	16.8 U	25 U	26.6 U	19.3 J	16.6 U	11.9	11.3 U
PCB010	19.5	18.2 U	27.2 U	29 U	32.3	18.1 U	11.7 U	12.3 U
PCB011	329	182	308	228 U	292	177	212	125
PCB012 & 013	23.3 U	24.4 U	36.4 U	38.8 U	24.4 U	24.2 U	15.7 U	16.4 U
PCB014	25.5 U	26.8 U	39.9 U	42.5 U	26.8 U	26.5 U	17.2 U	18 U
PCB015	115	59.9	79.5	64 U	111	48.3	77.2	28.3
PCB016	167	113	224	51.4 U	279	91.6	163	40.4
PCB017	587	250	627	114	803	242	410	91.1
PCB018 & 030	528 U	314	737	149 U	892	294	517	118
PCB019	822	250	712	142	549	173	454	83.8
PCB020 & 028	1,840	1,340	3,650	423	4,250	1,290	2,070	437 U
PCB021 & 033	366	231	444	211 U	775	268	283	89.3 U
PCB022	331	310	781	87.9	711	220	423	98.7
PCB023	30.8 U	32.4 U	48.2 U	51.4 U	32.4 U	32 U	20.8 U	21.8 U
PCB024	18.8 U	19.7 U	29.4 U	31.3 U	19.7 U	19.5 U	12.6 U	13.3 U
PCB025	121	86.7	233	45.8 U	229	70.3	131	28.2
PCB026 & 029	282	195	516	98.1 U	608	181	303	63.2
PCB027	127	42.8	116	44.4 U	128	41.9	85.9	18.8 U
PCB031	930	812	2,080	267	1,980	620	1,130	244 U
PCB032	326	126	288	66.7	523	158 U	212	48.6 U
PCB034	22.1 U	23.2 U	34.6 U	36.9 U	23.2 U	23 U	14.9 U	15.6 U
PCB035	23 U	24.1 U	36 U	38.3 U	24.1 U	23.9 U	15.5 U	16.2 U
PCB036	24.4 U	25.6 U	38.2 U	40.7 U	25.6 U	25.3 U	16.4 U	17.2 U
PCB037	239	148	414	50.8	180	75.3	281	65.4
PCB038	17.7 U	18.5 U	27.6 U	29.4 U	18.5 U	18.3 U	11.9 U	12.5 U
PCB039	22.1 U	23.2 U	34.6 U	36.9 U	23.2 U	23 U	14.9 U	15.6 U
PCB040 & 041 & 071	1,430	659	1,850	274	2,620	761	1,010	191
PCB042	725	602	1,740	167	1,860	532	924	181
PCB043 & 073	161	66.9	194	51.4 U	205	63.1	176	23.3 U
PCB044 & 047 & 065	10,500	3,170	9,620	1,090	11,100	3,260	4,820	934

PCB045 & 051	1,760	439	1,200	140	1,000	301	557	117
PCB046	145	73.5 U	181	117 U	159	72.8 U	97.4	49.5 U
PCB048	433	288	816	91.6	1,240	376	399	83.9
PCB049 & 069	5,330	2,190	6,330	754	8,400	2,530	3,220	612
PCB050 & 053	1,080	226	597	103	857	259	390	78.7
PCB052	7,150	3,270	9,860	1,190	12,500	3,730	5,170	1,020
PCB054	232	45.6	136	33.2 U	105	31	76.5	14.7
PCB055	21 U	22.1 U	32.9 U	35 U	22.1 U	21.8 U	14.2 U	14.9 U
PCB056	611	656	2,050	152	1,390	432	1,010	204
PCB057	22.7	18.5 U	35.9	29.4 U	54.8	18.3 U	12.6	12.5 U
PCB058	23.3	19.7 U	34.6	31.3 U	37.9	19.5 U	17.3	13.3 U
PCB059 & 062 & 075	427	221 U	674	350 U	801	235	339	149 U
PCB060	710	509	1,670	166	2,290	687	835	164
PCB061 & 070 & 074 & 076	6,190	3,640	11,600	1,210	14,000	4,160	5,950	1,120
PCB063	278	120	393	49.8	657	189	234	42.5
PCB064	1,450	1,180	3,500	352	3,900	1,150	1,750	341
PCB066	5,170	2,500	7,780	910	12,200	3,630	4,450	854
PCB067	99	64.3	210	28 U	199	56.8	101	19.7
PCB068	181	58.8 U	112	93.5 U	132	58.3 U	61	39.6 U
PCB072	137	43.3	133	21 U	187	53.6	67.9	12.7
PCB073	30.8 U	32.4 U	194	0 U	32.4 U	21.8 U	20.8 U	21.8 U
PCB077	249	149	535	48.7	486	148	304	54.9
PCB078	12.9 U	13.5 U	20.2 U	21.5 U	13.5 U	13.4 U	8.68 U	9.11 U
PCB079	93.8	30.8	94.8	36.4 U	92.1	34.8	35.7	15.4 U
PCB080	20.7 U	21.8 U	32.5 U	34.6 U	21.8 U	21.6 U	14 U	14.7 U
PCB081	25.7	26.5 U	53.6	42.1 U	38.7	26.2 U	17.7	17.8 U
PCB082	612	330	1,080	83.2	911	260	544	97.8
PCB083	752	256	632	67.2	828	225	422	65.1
PCB084	1,850	904	2,660	215	2,040	579	1,390	257
PCB085 & 117 & 116	3,120	1,010	3,290	444	6,130	1,780	1,740	299
PCB086 & 087 & 097 & 108 & 119 & 125	7,430	2,900	9,420	887	10,800	3,130	4,600	822
PCB088 & 091	2,130	846	2,530	236	2,400	675	1,290	221
PCB089	52.8	25.8	72.5	27.1 U	84.9	25.5	38.8	11.5 U
PCB090 & 101 & 113	20,100	5,580	18,000	1,970	22,400	6,390	9,070	1,600
PCB092	4,520	1,140	3,560	416	4,990	1,410	1,750	308
PCB093 & 098 & 100 & 102	1,970	343	1,070	537 U	1,130	335 U	456	228 U
PCB094	129	73.5 U	110 U	117 U	73.5 U	72.8 U	47.2 U	49.5 U
PCB095	10,100	3,090	8,970	1,000	10,000	2,860	4,880	878
PCB096	156	32.9 U	85.4	52.3 U	117	33.3	48.8	22.2 U
PCB099	12,700	2,810	9,690	1,640	16,700	4,740	5,270	917
PCB103	625	116	331	43 U	327	92.9	145	29.9
PCB104	41.8 U	43.8 U	65.4 U	69.6 U	43.8 U	43.4 U	28.1 U	29.5 U
PCB105	5,330	1,760	6,110	755	12,100	3,560	2,960	534
PCB106	41.5 U	43.5 U	64.9 U	69.2 U	43.5 U	43.1 U	27.9 U	29.3 U
PCB107 & 124	349	146	534	50.9 U	697	195	238	42.9
PCB109	1,500	373	1,300	206	2,250	631	757	120
PCB110 & 115	11,500	4,710	15,300	1,520	16,700	4,840	7,230	1,330
PCB111	67.3	21.8 U	32.5 U	34.6 U	40.1	21.6 U	15.5	14.7 U

PCB112	30.8 U	32.4 U	48.2 U	51.4 U	32.4 U	32 U	20.8 U	21.8 U
PCB114	427	120	429	57.5 U	983	275	231	39.7
PCB118	23,300	5,310	18,600	2,740	36,900	10,500	9,030	1,620
PCB120	235	73.5 U	110 U	117 U	139	72.8 U	54	49.5 U
PCB121	56.6	20.3 U	30.3 U	32.2 U	31.8	20.1 U	13 U	13.7 U
PCB122	25.5 U	35.5	141	42.5 U	116	32.4	50.3	18 U
PCB123	303	89.7	426	56.2	607	164	172	35.2
PCB126	49.7	39.7 U	59.2 U	63.1 U	67.4	39.3 U	25.5 U	26.7 U
PCB127	67.7	25.3 U	37.7 U	40.2 U	87.3	33.9	16.2 U	17 U
PCB128 & 166	5,530	822	3,020	406	6,300	1,670	1,230	231
PCB129 & 138 & 163	74,900	8,120	29,800	4,420	54,200	13,900	13,100	2,480
PCB130	2,010	407	1,530	157	2,030	502	691	130
PCB131	155	56.5	213	39.7 U	159	41.7	91.8	17
PCB132	4,330	1,440	5,140	416	3,990	1,000	2,150	427
PCB133	1,510	149	580	153	985	238	310	53.9
PCB134 & 143	937	236	835	234 U	832	199	381	99 U
PCB135 & 151	16,100	2,420	8,010	1,090	9,400	2,390	3,940	720
PCB136	3,120	622	1,880	216	1,990	513	955	174
PCB137	2,100	326	1,070	185	3,150	767	600	92.7
PCB139 & 140	729	114	426	67.3	900	214	205	35.4
PCB141	10,400	1,220	4,310	428	6,180	1,510	1,680	331
PCB142	23.8 U	25 U	37.3 U	39.7 U	25 U	24.8 U	16 U	16.8 U
PCB144	1,340	264	906	96.5	941	249	373	77.2
PCB145	26.4 U	27.6 U	41.2 U	43.9 U	27.6 U	27.4 U	17.7 U	18.6 U
PCB146	14,100	1,470	5,770	1,320	8,530	2,140	3,120	528
PCB147 & 149	16,200	5,150	17,300	1,630	12,700	3,320	6,450	1,520
PCB148	168	44.1 U	82.5	70.1 U	93.2	43.7 U	42.9	29.7 U
PCB150	72.8	31.8 U	63.5	50.5 U	39.5	31.5 U	31.7	21.4 U
PCB152	93.8	34.4 U	51.3 U	54.7 U	34.7	34.1 U	22.1 U	23.2 U
PCB153 & 168	93,100	8,280	31,000	5,500	55,900	14,000	14,100	2,600
PCB154	1,510	153	538	103	850	220	261	46.4
PCB155	34.5 U	36.2 U	53.9 U	57.5 U	36.2 U	35.8 U	23.2 U	24.4 U
PCB156 & 157	6,410	680	2,500	457	5,980	1,700	1,400	228
PCB158	6,100	2.65	2,210	319	4,650	1,180	877	163
PCB159	91.6	73.5 U	110 U	117 U	73.5 U	72.8 U	47.2 U	49.5 U
PCB160	2.52 U	2.65 U	3.95 U	4.21 U	2.65 U	2.62 U	1.7 U	1.78 U
PCB161	33.4 U	35 U	52.2 U	55.6 U	35 U	34.7 U	22.5 U	23.6 U
PCB162	201	24.9 U	73.5	39.5 U	158	40.3	17.5	16.7 U
PCB164	2,200	355	1,410	150	1,540	394	568	102
PCB165	82	34.7 U	51.8 U	55.1 U	44.8	34.4 U	22.3 U	23.4 U
PCB167	2,440	275	1,120	177	2,020	567	577	91.5
PCB169	318	0 J	57.5 U	37 U	130	37.8 J	18.7	15.7 U
PCB170	20,100	1,200	4,320	856	7,730	2,420	1,900	326
PCB171 & 173	7,360	413	1,420	257	2,870	766	697	113
PCB172	3,850	261	943	167	1,540	426	492	73.5
PCB174	4,550	1,110	3,630	333	2,750	711	1,850	326
PCB175	633	62.3	212	68.7 U	272	74.4	116	29.1 U
PCB176	470	134	478	85.5 U	297	77	229	40.9
PCB177	5,660	885	2,990	418	2,900	753	1,580	263

PCB178	4,940	435	1,480	339	2,320	610	795	132
PCB179	3,090	554	1,870	199	1,730	459	978	163
PCB180 & 193	61,700	4,100	13,500	4,080	25,100	7,560	6,800	1,070
PCB181	174	39.4 U	58.8 U	62.6 U	133	39 U	31.3	26.5 U
PCB182	88.9	26.8 U	39.9 U	42.5 U	83	26.5 U	17.2 U	18 U
PCB183 & 185	18,200	1,280	4,660	798	7,270	1,970	2,350	380
PCB184	30.6 U	32.1 U	47.8 U	50.9 U	32.1 U	31.7 U	20.6 U	21.6 U
PCB186	44.3 U	46.5 U	69.3 U	73.8 U	46.5 U	46 U	29.8 U	31.3 U
PCB187	31,200	2,910	10,100	2,830	14,600	3,900	5,750	935
PCB188	58.4	37.4 U	55.7 U	59.3 U	37.4 U	37 U	24 U	25.1 U
PCB189	1,010	48.7	195	45.9	376	104	120	18.6
PCB190	2,130	144	650	162	897	348	291	21.3 U
PCB191	1,180	58.7	214	59.3 U	439	120	91.4	25.1 U
PCB192	24.7 U	25.9 U	38.6 U	41.1 U	25.9 U	25.6 U	16.6 U	17.4 U
PCB194	7,960	458	1,670	1,140	3,150	1,020	962	156
PCB195	4,150	196	725	326	1,450	447	28.2 U	68.7
PCB196	4,660	277	1,010	603	1,670	572	406	85.1
PCB197 & 200	672	77	272	97 U	350	95	155	41.1 U
PCB198 & 199	6,070	679	2,610	1,440	2,860	1,000	31.7 U	252
PCB201	1,020	85.9	310	143	450	124	194	33
PCB202	1,940	195	723	269	1,150	333	354	56.8
PCB203	5,910	442	1,620	589	3,190	964	629	125
PCB204	34.2 U	35.9 U	53.5 U	57 U	35.9 U	35.5 U	23 U	24.1 U
PCB205	528	35.7 U	97.8	56.7 U	196	57.7	57.4	24 U
PCB206	2,090	340	1,200	1,250	1,380	450	394	26.9 U
PCB207	377	70.6 U	147	194	221	70.1	45.3 U	47.5 U
PCB208	563	169	597	458	405	128	156	48.4 U
PCB209	618	201	612	601	573	173	205	46
Monochlorobiphenyl homologs	27.4 T	27.4 UT	40.8 UT	43.5 UT	43.2 T	27.1 UT	17.5 UT	18.4 UT
Dichlorobiphenyl homologs	1,220 T	521 T	1,050 T	335 T	1,600 JT	592 T	748 T	265 T
Trichlorobiphenyl homologs	6,440 T	4,260 T	10,900 T	1,520 T	11,900 T	3,690 T	6,490 T	1,040 T
Tetrachlorobiphenyl homologs	44,600 T	20,100 T	61,600 T	7,110 T	76,500 T	22,700 T	32,000 T	6,220 T
Pentachlorobiphenyl homologs	109,000 T	32,100 T	104,000 T	12,900 T	150,000 T	42,700 T	52,400 T	9,460 T
Hexachlorobiphenyl homologs	266,000 T	32,700 JT	120,000 T	17,700 T	184,000 T	46,900 JT	53,200 T	10,200 T
Heptachlorobiphenyl homologs	166,000 T	13,700 T	46,800 T	10,700 T	71,300 T	20,400 T	24,100 T	3,920 T
Octachlorobiphenyl homologs	32,900 T	2,430 T	9,040 T	4,590 T	14,500 T	4,610 T	2,790 T	809 T
Nonachlorobiphenyl homologs	3,030 T	544 T	1,940 T	1,900 T	2,010 T	648 T	573 T	48.4 UT
Total PCB Congeners	631,000 JT	106,000 JT	356,000 JT	55,000 JT	512,000 JT	142,000 JT	172,000 JT	30,800 JT
Total PCB Congeners (calc'd)	631,000 JT	106,000 JT	356,000 JT	57,300 JT	512,000 JT	142,000 JT	173,000 JT	32,000 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	15.7 T	0.263 JT	0.951 JT	0.132 JT	12.5 T	1.65 JT	1.03 JT	0.0825 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1)	15.7 T	2.25 JT	4.77 JT	3.85 JT	12.5 T	3.62 JT	2.31 JT	1.66 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	21.8 T	11.1 JT	36.2 JT	7.87 JT	37.3 T	11.4 JT	18.8 JT	5.08 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.498 T	0.162 JT	0.377 JT	0.195 JT	0.706 T	0.206 JT	0.176 JT	0.0899 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 3. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

LocationID	EPA1-SB05W-04	EPA1-SB05W-04	EPA1-SB06E-02	EPA1-SB06E-02	EPA1-SB06E-08	EPA1-SB06E-08	EPA1-SB06E-09	EPA1-SB06E-09
Tissue	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet
X-coordinate	7622425.67887	7622425.67887	7625302.7482	7625302.7482	7627751.00475	7627751.00475	7627261.88007	7627261.88007
Y-coordinate	708300.12878	708300.12878	706147.43780	706147.43780	704513.70041	704513.70041	704853.84237	704853.84237
RiverMile	5.7	5.7	6.4	6.4	6.9	6.9	6.8	6.8
SampleDate	22-Sep-11	22-Sep-11	3-Oct-11	3-Oct-11	8-Oct-11	8-Oct-11	8-Oct-11	8-Oct-11
SampleTime	12:01	12:01	17:30	17:30	14:40	14:40	15:49	15:49
PCB001	36.8 U	36.4 U	35.4 U	22.1 U	35.4 U	35.4 U	32.1 U	35.7 U
PCB002	45.6 U	45.1 U	43.9 U	27.4 U	43.9 U	43.9 U	39.7 U	44.3 U
PCB003	24 U	23.8 U	23.1 U	14.4 U	23.1 U	23.1 U	20.9 U	23.3 U
PCB004	300	73.8 U	1,080	346	362	75.1	227	72.4 U
PCB005	45.6 U	45.1 U	43.9 U	27.4 U	43.9 U	43.9 U	39.7 U	44.3 U
PCB006	46.8	42.2 U	41 U	25.6 U	41 U	41 U	37.2 U	41.4 U
PCB007	57.8 U	57.3 U	55.7 U	34.7 U	55.7 U	55.7 U	50.4 U	56.2 U
PCB008	169	58.8	148	54.9	132	59.8	85.5	57.9
PCB009	27.9 U	27.7 U	26.9 U	16.8 U	26.9 U	26.9 U	24.4 U	27.1 U
PCB010	30.4 U	30.1 U	74.8	22.2	29.2 U	29.2 U	26.5 U	29.5 U
PCB011	285	237 U	347	180	260	230 U	209 U	232 U
PCB012 & 013	40.7 U	40.3 U	39.2 U	24.4 U	39.2 U	39.2 U	35.5 U	39.5 U
PCB014	44.6 U	44.2 U	42.9 U	26.8 U	42.9 U	42.9 U	38.9 U	43.3 U
PCB015	70.2	66.5 U	70	41	64.6 U	64.6 U	58.5 U	65.2 U
PCB016	137	53.4 U	111	46.7	116	51.9 U	77.8	52.4 U
PCB017	408	99.2	513	164	320	81.3	273	73.3
PCB018 & 030	504	127 U	404	126 U	352	107	257	89.3
PCB019	431	94.3	2,210	625	641	126	560	110
PCB020 & 028	1,940	449	1,580	515	1,310	290	871	205
PCB021 & 033	376	219 U	249	133 U	231	213 U	193 U	215 U
PCB022	341	89.8	211	93.5	261	66.5	149	47.6 U
PCB023	53.9 U	53.4 U	51.9 U	32.4 U	51.9 U	51.9 U	47 U	52.4 U
PCB024	32.8 U	32.5 U	31.6 U	19.7 U	31.6 U	31.6 U	28.6 U	31.9 U
PCB025	102	47.6 U	86	29.3	85.7	46.2 U	65.8	46.7 U
PCB026 & 029	283	102 U	206	70.3	189	99.1 U	143	100 U
PCB027	79.1	46.1 U	189	53	74.8	44.8 U	68.8	45.2 U
PCB031	914	232	613	229	687	168	426	118
PCB032	238	59.2	233	77.9 U	158	43.5	137	39.7
PCB034	38.7 U	38.3 U	37.3 U	23.2 U	37.3 U	37.3 U	33.8 U	37.6 U
PCB035	40.2 U	39.8 U	38.7 U	24.1 U	38.7 U	38.7 U	35 U	39 U
PCB036	42.6 U	42.2 U	41 U	25.6 U	41 U	41 U	37.2 U	41.4 U
PCB037	151	48.7	150	66.8	170	43.9	134	31.9 U
PCB038	30.9 U	30.6 U	29.7 U	18.5 U	29.7 U	29.7 U	26.9 U	30 U
PCB039	38.7 U	38.3 U	37.3 U	23.2 U	37.3 U	37.3 U	33.8 U	37.6 U
PCB040 & 041 & 071	1,110	248	1,030	340	680	128	533	112
PCB042	771	152	606	181	515	93.8	310	61.6
PCB043 & 073	96.1	53.4 U	96.8	35.1	57.2	51.9 U	55.5	52.4 U
PCB044 & 047 & 065	5,130	1,070	7,860	2,340	4,140	717	4,190	756

PCB045 & 051	511	112	891	291	530	99.9	490	94.6
PCB046	123 U	121 U	118 U	73.5 U	118 U	118 U	107 U	119 U
PCB048	438	95.7	376	130	252	49	174	36.4
PCB049 & 069	3,820	780	5,190	1,550	2,320	396	1,940	343
PCB050 & 053	447	96.4	665	206	449	82.5	430	78.5
PCB052	5,890	1,300	11,100	3,300	3,730	658	2,850	534
PCB054	78.2	34.5 U	361	105	111	33.5 U	112	33.8 U
PCB055	36.8 U	36.4 U	35.4 U	22.1 U	35.4 U	35.4 U	32.1 U	35.7 U
PCB056	760	158	398	129	579	109	260	56.4
PCB057	30.9 U	30.6 U	29.7 U	18.5 U	29.7 U	29.7 U	26.9 U	30 U
PCB058	32.8 U	32.5 U	31.6 U	19.7 U	31.6 U	31.6 U	28.6 U	31.9 U
PCB059 & 062 & 075	368 U	364 U	356	221 U	354 U	354 U	321 U	357 U
PCB060	1,220	238	1,540	405	552	98.8	387	72.4
PCB061 & 070 & 074 & 076	7,150	1,480	8,460	2,420	4,420	758	3,450	640
PCB063	333	65.6	411	109	181	30.2	229	39.9
PCB064	1,810	373	2,180	637	1,020	183	598	119 U
PCB066	6,050	1,230	7,890	2,210	3,360	572	3,430	606
PCB067	76.8	29.1 U	81.6	24.3	73.1	28.3 U	74.3	28.6 U
PCB068	98 U	97.1 U	99.3	58.8 U	94.3 U	94.3 U	87.6	95.2 U
PCB072	96.9	21.8 U	91.8	27.3	66.7	21.2 U	64	21.4 U
PCB073	53.9 U	53.4 U	96.8	35.1 U	51.9 U	51.9 U	55.5 U	52.4 U
PCB077	260	52.4	225	55.1	198	43.4 U	289	50.3
PCB078	22.5 U	22.3 U	21.7 U	13.5 U	21.7 U	21.7 U	19.7 U	21.9 U
PCB079	61	37.9 U	199	49.3	40.1	36.8 U	33.3 U	37.1 U
PCB080	36.3 U	35.9 U	34.9 U	21.8 U	34.9 U	34.9 U	31.6 U	35.2 U
PCB081	44.1 U	43.7 U	62.4	26.5 U	42.5 U	42.5 U	38.5 U	42.9 U
PCB082	524	108	1,390	368	420	71.9	222	41.7
PCB083	421	82.4	1,250	423	308	62.7 U	271	63.3 U
PCB084	1,040	141 U	2,210	743	957	164	620	138 U
PCB085 & 117 & 116	3,230	627	9,390	2,550	1,750	288	1,630	284
PCB086 & 087 & 097 & 108 & 119 & 125	5,740	1,140	22,400	6,000	4,150	708 U	3,320	714 U
PCB088 & 091	1,140	57.3 U	2,880	918	1,060	177	780	136
PCB089	33	28.2 U	117	33.8	27.4 U	27.4 U	24.8 U	27.6 U
PCB090 & 101 & 113	11,900	2,340	42,800	11,400	9,060	1,470	8,230	1,410
PCB092	2,520	496	8,160	2,400	1,820	298	1,730	290
PCB093 & 098 & 100 & 102	601	558 U	1,540	468	782	542 U	2,040	548 U
PCB094	123 U	121 U	118 U	73.5 U	118 U	118 U	107 U	119 U
PCB095	4,980	1,060	12,200	4,100	4,110	707	3,350	590
PCB096	55.3	54.4 U	123	39.7	52.8 U	52.8 U	49	53.3 U
PCB099	10,800	1,920	30,800	8,020	6,590	1,040	7,860	1,290
PCB103	165	44.7 U	311	100	227	43.4 U	215	43.8 U
PCB104	73 U	72.3 U	70.3 U	43.8 U	70.3 U	70.3 U	63.7 U	71 U
PCB105	7,390	1,450	24,300	6,130	3,420	573	3,390	586
PCB106	72.5 U	71.8 U	69.8 U	43.5 U	69.8 U	69.8 U	63.2 U	70.5 U
PCB107 & 124	354	68.8	349	88.7	228	51.4 U	180	51.9 U
PCB109	1,340	269	3,540	891	933	153	1,080	187
PCB110 & 115	9,600	1,920	38,700	9,930	6,440	1,120	4,850	859
PCB111	36.3 U	35.9 U	43.5	21.8 U	34.9 U	34.9 U	35.2	35.2 U

PCB112	53.9 U	53.4 U	51.9 U	32.4 U	51.9 U	51.9 U	47 U	52.4 U
PCB114	606	117	1,680	422	293	58 U	396	62.6
PCB118	22,800	4,360	69,700	17,200	13,000	2,110	15,800	2,650
PCB120	123 U	121 U	158	73.5 U	118 U	118 U	114	119 U
PCB121	33.8 U	33.5 U	44	20.3 U	32.5 U	32.5 U	59.3	32.9 U
PCB122	67.3	44.2 U	42.9 U	26.8 U	57.5	42.9 U	38.9 U	43.3 U
PCB123	482	91.5	679	130	242	54.7 U	291	55.2 U
PCB126	66.2 U	65.5 U	63.7 U	39.7 U	63.7 U	63.7 U	57.7 U	64.3 U
PCB127	49.8	41.7 U	165	39.6	40.6 U	40.6 U	36.8 U	41 U
PCB128 & 166	3,500	692	12,500	3,030	1,990	299	2,250	359
PCB129 & 138 & 163	30,700	6,120	94,400	23,600	24,100	3,590	36,000	5,510
PCB130	1,110	220	3,310	818	1,040	157	1,030	158
PCB131	107	41.3 U	285	75.7	89.1	40.1 U	64.5	40.5 U
PCB132	2,350	463	6,590	1,910	2,490	380	1,830	295
PCB133	661	127	1,480	400	606	87.3	922	137
PCB134 & 143	463	243 U	1,340	385	458	236 U	384	238 U
PCB135 & 151	5,490	1,060	13,500	3,630	5,620	830	6,870	1,080
PCB136	1,090	215	3,510	1,010	1,160	174	1,230	202
PCB137	1,540	278	5,180	1,440	1,100	146	1,500	233
PCB139 & 140	487	94.8	1,670	469	305	56.6 U	387	59.8
PCB141	2,970	571	12,800	2,960	2,570	405	4,390	656
PCB142	41.7 U	41.3 U	40.1 U	25 U	40.1 U	40.1 U	36.3 U	40.5 U
PCB144	512	96.1	1,590	420	611	89.7	669	101
PCB145	46.1 U	45.6 U	44.3 U	27.6 U	44.3 U	44.3 U	40.2 U	44.8 U
PCB146	6,220	1,200	14,300	3,630	5,910	869	8,690	1,320
PCB147 & 149	7,680	1,550	11,200	3,260	10,100	1,500	7,100	1,130
PCB148	73.5 U	72.8 U	105	44.1 U	87	70.8 U	91.5	71.4 U
PCB150	52.9 U	52.4 U	50.9 U	31.8 U	50.9 U	50.9 U	46.2 U	51.4 U
PCB152	57.4 U	56.8 U	77.2	34.4 U	55.2 U	55.2 U	50 U	55.7 U
PCB153 & 168	33,900	6,720	95,500	24,800	29,800	4,350	52,800	8,030
PCB154	588	111	1,190	306	554	76.2	902	132
PCB155	60.3 U	59.7 U	58 U	36.2 U	58 U	58 U	75.1	58.6 U
PCB156 & 157	3,820	744	13,900	3,350	2,240	370	3,880	629
PCB158	2,630	523	9,830	2,330	1,700	261	2,910	444
PCB159	123 U	121 U	118 U	73.5 U	118 U	118 U	107 U	119 U
PCB160	4.41 U	4.37 U	4.25 U	2.65 U	4.25 U	4.25 U	3.85 U	4.29 U
PCB161	58.3 U	57.8 U	56.1 U	35 U	56.1 U	56.1 U	50.9 U	56.7 U
PCB162	129	41 U	310	75.7	77.3	39.9 U	90.5	40.2 U
PCB164	945	198	3,360	744	831	128	1,040	161
PCB165	57.8 U	57.3 U	69.2	34.7 U	55.7 U	55.7 U	64.8	56.2 U
PCB167	1,350	252	3,230	736	987	154	1,380	226
PCB169	68.3 J	38.4 U	182 U	41.7 J	37.4 U	37.4 U	56.4 U	37.7 U
PCB170	5,540	1,080	20,200	4,690	3,800	670	11,400	1,910
PCB171 & 173	1,730	345	6,000	1,510	1,290	205	3,560	539
PCB172	1,060	203	3,430	781	800	126	2,150	319
PCB174	1,800	333	2,560	570	2,370	382	2,330	390
PCB175	189	71.4 U	503	113	200	69.3 U	370	70 U
PCB176	220	88.8 U	246	64.9	278	86.3 U	226	87.1 U
PCB177	2,020	389	3,200	779	2,400	388	3,000	480

PCB178	1,670	315	3,990	956	1,420	222	2,870	448
PCB179	1,150	222	1,970	513	1,120	176	1,500	235
PCB180 & 193	18,200	3,630	59,700	14,000	13,300	2,330	36,900	6,210
PCB181	89.6	65 U	254	61.3	63.2 U	63.2 U	117	63.8 U
PCB182	49.3	44.2 U	102	26.8 U	42.9 U	42.9 U	50.6	43.3 U
PCB183 & 185	4,540	925	14,200	3,500	3,950	604	9,810	1,470
PCB184	53.4 U	52.9 U	51.4 U	32.1 U	51.4 U	51.4 U	46.6 U	51.9 U
PCB186	77.5 U	76.7 U	74.5 U	46.5 U	74.5 U	74.5 U	67.5 U	75.2 U
PCB187	11,400	2,220	21,300	4,900	10,600	1,680	17,000	2,750
PCB188	62.3 U	61.7 U	59.9 U	37.4 U	59.9 U	59.9 U	54.3 U	60.5 U
PCB189	310	56.4	1,100	246	213	34.1 U	640	100
PCB190	964	207	2,670	612	482	123	1,390	307
PCB191	293	61.7 U	1,040	226	220	59.9 U	673	100
PCB192	43.1 U	42.7 U	41.5 U	25.9 U	41.5 U	41.5 U	37.6 U	41.9 U
PCB194	2,500	518	9,710	2,510	1,690	270	6,360	1,050
PCB195	1,130	233	4,050	1,090	819	127	3,090	455
PCB196	1,400	286	5,190	1,330	920	164	3,000	539
PCB197 & 200	228	101 U	583	144	208	97.9 U	411	98.9 U
PCB198 & 199	2,630	555	6,290	1,510	1,790	344	3,710	707
PCB201	329	67.7	776	189	338	48.1	678	98.3
PCB202	871	178	1,880	477	563	84.9	1,230	182
PCB203	2,230	441	6,680	1,660	1,260	215	3,890	618
PCB204	59.8 U	59.2 U	57.5 U	35.9 U	57.5 U	57.5 U	52.1 U	58 U
PCB205	145	58.9 U	579	140	98.7	57.2 U	362	57.8 U
PCB206	1,190	281	2,480	627	532	91	1,360	217
PCB207	172	117 U	369	95.9	113 U	113 U	235	114 U
PCB208	392	119 U	497	115	193	115 U	296	116 U
PCB209	636	144	605	163	286	53	397	81.2
Monochlorobiphenyl homologs	45.6 UT	45.1 UT	43.9 UT	27.4 UT	43.9 UT	43.9 UT	39.7 UT	44.3 UT
Dichlorobiphenyl homologs	900 T	297 T	1,750 T	665 T	835 T	331 T	490 T	292 T
Trichlorobiphenyl homologs	5,970 T	1,440 T	6,820 T	2,100 T	4,660 T	1,220 T	3,320 T	973 T
Tetrachlorobiphenyl homologs	36,500 T	7,910 T	50,400 T	14,800 T	23,600 T	4,440 T	20,300 T	3,990 T
Pentachlorobiphenyl homologs	86,100 T	16,800 T	275,000 T	72,500 T	56,100 T	9,230 T	56,700 T	9,500 T
Hexachlorobiphenyl homologs	109,000 JT	21,600 T	311,000 T	79,500 JT	94,600 T	14,300 T	137,000 T	21,200 T
Heptachlorobiphenyl homologs	51,300 T	10,100 T	143,000 T	33,600 T	42,600 T	7,140 T	94,000 T	15,400 T
Octachlorobiphenyl homologs	11,500 T	2,360 T	35,700 T	9,050 T	7,690 T	1,330 T	22,700 T	3,730 T
Nonachlorobiphenyl homologs	1,750 T	399 T	3,350 T	838 T	782 T	205 T	1,890 T	332 T
Total PCB Congeners	302,000 JT	58,500 JT	827,000 JT	212,000 JT	230,000 JT	35,400 JT	335,000 JT	52,600 JT
Total PCB Congeners (calc'd)	303,000 JT	61,100 JT	828,000 JT	213,000 JT	231,000 JT	38,300 JT	337,000 JT	55,600 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	3.18 JT	0.217 JT	3.48 JT	2.1 JT	0.632 JT	0.0962 JT	0.802 JT	0.133 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1)	6.49 JT	4.07 JT	9.39 JT	4.09 JT	4.38 JT	3.85 JT	4.54 JT	3.92 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	20 JT	8.38 JT	25.5 JT	7.28 JT	16 JT	6.53 JT	20.2 JT	8.05 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.39 JT	0.216 JT	0.79 JT	0.255 JT	0.293 JT	0.189 JT	0.313 JT	0.199 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 3. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

LocationID	EPA1-SB06E-10	EPA1-SB06E-10	EPA1-SB06E-11	EPA1-SB06E-11	EPA1-SB06W-01	EPA1-SB06W-01	EPA1-SB06W-04	EPA1-SB06W-04
Tissue	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet
X-coordinate	7627239.77732	7627239.77732	7627178.52305	7627178.52305	7623259.73897	7623259.73897	7625793.9513	7625793.9513
Y-coordinate	704870.11915	704870.11915	704970.96090	704970.96090	706089.13850	706089.13850	704637.76539	704637.76539
RiverMile	6.8	6.8	6.8	6.8	6.1	6.1	6.6	6.6
SampleDate	8-Oct-11	8-Oct-11	8-Oct-11	8-Oct-11	7-Oct-11	7-Oct-11	6-Oct-11	6-Oct-11
SampleTime	16:10	16:10	16:15	16:15	8:20	8:20	16:45	16:45
PCB001	36.4 U	35 U	34.1 U	36.4 U	35.7 U	34.1 U	36.8 U	37.1 U
PCB002	45.1 U	43.5 U	42.3 U	45.1 U	44.3 U	42.3 U	45.6 U	46 U
PCB003	23.8 U	22.9 U	22.3 U	23.8 U	23.3 U	22.3 U	24 U	24.3 U
PCB004	237	71.5	863	151	233 J	69.1 U	598	105
PCB005	45.1 U	43.5 U	42.3 U	45.1 U	44.3 U	42.3 U	45.6 U	46 U
PCB006	63.6	40.7 U	39.5 U	42.2 U	46.9	39.5 U	184	43.1 U
PCB007	57.3 U	55.1 U	53.6 U	57.3 U	56.2 U	53.6 U	57.8 U	58.4 U
PCB008	204	74.4	151	70.4	180	59.4	502	95
PCB009	27.7 U	26.6 U	25.9 U	27.7 U	27.1 U	25.9 U	37.1	28.2 U
PCB010	30.1 U	29 U	89.5	30.1 U	29.5 U	28.2 U	30.4 U	30.7 U
PCB011	334	228 U	222 U	237 U	232 U	222 U	333	242 U
PCB012 & 013	40.3 U	38.8 U	37.7 U	40.3 U	39.5 U	37.7 U	40.7 U	41.1 U
PCB014	44.2 U	42.5 U	41.4 U	44.2 U	43.3 U	41.4 U	44.6 U	45 U
PCB015	76	64 U	62.3 U	66.5 U	65.2 U	62.3 U	178	67.8 U
PCB016	83.2	51.4 U	163	56.7	52.4	50 U	420	83.7
PCB017	499	144	588	131	58.6	121	1,400	233
PCB018 & 030	545	167	495	139	2.86	153 U	1,950	316 U
PCB019	184	55.7	2,100	365	45.7	93.3	679	110
PCB020 & 028	1,490	465	1,600	353	2,210	597	14,200	2,480
PCB021 & 033	219 U	211 U	269	219 U	429	205 U	809	223 U
PCB022	224	78.6	338	84.3	456	127	1,490	261
PCB023	53.4 U	51.4 U	50 U	53.4 U	52.4 U	50 U	53.9 U	54.5 U
PCB024	32.5 U	31.3 U	30.5 U	32.5 U	31.9 U	30.5 U	32.8 U	33.2 U
PCB025	181	52.5	131	47.6 U	151	44.5 U	340	59.9
PCB026 & 029	439	133	262	102 U	325	95.5 U	943	163
PCB027	138	44.4 U	166	46.1 U	45.2	43.2 U	374	58.4
PCB031	932	291	941	223	1,130	309	3,400	587
PCB032	377	112	248	64.1	20.5	75.2	1,740	290
PCB034	38.3 U	36.9 U	35.9 U	38.3 U	37.6 U	35.9 U	38.7 U	39.1 U
PCB035	39.8 U	38.3 U	37.3 U	39.8 U	39 U	37.3 U	40.2 U	40.6 U
PCB036	42.2 U	40.7 U	39.5 U	42.2 U	41.4 U	39.5 U	42.6 U	43.1 U
PCB037	114	44.6	182	41.6	147	53	660	107
PCB038	30.6 U	29.4 U	28.6 U	30.6 U	30 U	28.6 U	44	31.2 U
PCB039	38.3 U	36.9 U	35.9 U	38.3 U	37.6 U	35.9 U	55.2	39.1 U
PCB040 & 041 & 071	1,110	340	807	155	1,580	418	21,000	3,780
PCB042	541	160	616	116	1,150	306	16,000	2,800
PCB043 & 073	82.4	51.4 U	99.7	53.4 U	125	50 U	1,610	270
PCB044 & 047 & 065	3,260	975	5,520	983	6,840	1,690	79,700	13,200

PCB045 & 051	330	93.6	842	150	712	181	4,380	741
PCB046	121 U	117 U	114 U	121 U	119 U	114 U	978	171
PCB048	327	99.5	317	61.9	591	156	7,420	1,280
PCB049 & 069	2,820	819	2,970	524	4,580	1,110	58,600	9,550
PCB050 & 053	326	94.5	561	97.4	638	164	3,730	623
PCB052	4,350	1,220	4,380	789	7,110	1,750	95,300	15,500
PCB054	34.5 U	33.2 U	274	45.2	75.7	32.3 U	97.6	35.1 U
PCB055	36.4 U	35 U	34.1 U	36.4 U	35.7 U	34.1 U	36.8 U	37.1 U
PCB056	512	163	704	132	1,150	277	8,500	1,370
PCB057	30.6 U	29.4 U	28.6 U	30.6 U	30 U	28.6 U	154	31.2 U
PCB058	32.5 U	31.3 U	30.5 U	32.5 U	31.9 U	30.5 U	130	33.2 U
PCB059 & 062 & 075	364 U	350 U	341 U	364 U	411	341 U	5,540	919
PCB060	711	211	589	104	1,260	303	26,300	4,260
PCB061 & 070 & 074 & 076	4,790	1,410	4,710	847	7,320	1,780	76,600	12,300
PCB063	197	58.2	164	28.6 U	351	81	4,040	642
PCB064	1,270	382	1,250	225	2,260	561	37,900	6,380
PCB066	3,350	983	3,260	565	6,640	1,630	93,500	15,300
PCB067	47.4	28 U	83.4	29.1 U	119	28.9	490	77.5
PCB068	97.1 U	93.5 U	90.9 U	97.1 U	104	90.9 U	163	99 U
PCB072	71.4	21 U	67.8	21.8 U	127	29.7	504	81.7
PCB073	53.4 U	51.4 U	99.7 U	53.4 U	52.4 U	50 U	1,610	270
PCB077	149	44	215	44.7 U	263	62.4	1,810	278
PCB078	22.3 U	21.5 U	20.9 U	22.3 U	21.9 U	20.9 U	22.5 U	22.8 U
PCB079	37.9 U	36.4 U	35.6	37.9 U	67.6	35.5 U	491	78.5
PCB080	35.9 U	34.6 U	34.1 U	35.9 U	35.2 U	33.6 U	36.3 U	36.6 U
PCB081	43.7 U	42.1 U	40.9 U	43.7 U	43.1	40.9 U	210	44.6 U
PCB082	355	106	395	70.5	898	212	6,630	1,100
PCB083	241	71.3	273	64.6 U	595	118	3,730	743
PCB084	806	234	1,090	192	1,640	395	10,700	1,780
PCB085 & 117 & 116	1,850	573	1,670	280	3,470	801	28,800	4,610
PCB086 & 087 & 097 & 108 & 119 & 125	3,800	1,110	4,150	728 U	7,870	1,850	60,300	9,710
PCB088 & 091	750	218	1,170	206	2,070	487	11,900	1,910
PCB089	40.3	27.1 U	26.8	28.2 U	57.8	26.4 U	828	141
PCB090 & 101 & 113	6,840	2,010	8,700	1,500	17,100	3,990	92,200	14,900
PCB092	1,340	377	1,840	318	3,490	812	18,300	2,930
PCB093 & 098 & 100 & 102	558 U	537 U	1,070	558 U	1,100	523 U	2,660	569 U
PCB094	121 U	117 U	114 U	121 U	119 U	114 U	245	124 U
PCB095	2,810	830	4,440	786	7,590	1,820	37,100	6,110
PCB096	54.4 U	52.3 U	56.7	54.4 U	79.8	50.9 U	532	87.2
PCB099	5,350	1,400	6,110	1,020	10,900	2,650	62,800	10,600
PCB103	63.7	43 U	254	44.7 U	324	75.8	680	107
PCB104	72.3 U	69.6 U	67.7 U	72.3 U	71 U	67.7 U	73 U	73.8 U
PCB105	3,940	1,120	2,990	518	6,770	1,550	50,200	7,130
PCB106	71.8 U	69.2 U	67.3 U	71.8 U	70.5 U	67.3 U	72.5 U	73.3 U
PCB107 & 124	232	67.8	233	52.9 U	435	97.5	1,550	239
PCB109	660	207	703	120	1,400	340	6,710	1,060
PCB110 & 115	6,420	1,900	6,900	1,220	12,700	2,980	80,300	13,200
PCB111	35.9 U	34.6 U	33.6 U	35.9 U	38.7	33.6 U	38.1	36.6 U

PCB112	53.4 U	51.4 U	50 U	53.4 U	52.4 U	50 U	53.9 U	54.5 U
PCB114	294	82.5	225	59.7 U	525	118	3,740	552
PCB118	10,900	3,130	10,700	1,850	21,400	5,100	106,000	15,800
PCB120	121 U	117 U	114 U	121 U	143	114 U	190	124 U
PCB121	33.5 U	32.2 U	31.4 U	33.5 U	34.5	31.4 U	33.8 U	34.2 U
PCB122	46.4	42.5 U	53.2	44.2 U	102	41.4 U	273	68.9
PCB123	195	55.5	237	56.3 U	526	108	2,460	424
PCB126	65.5 U	63.1 U	61.4 U	65.5 U	64.3 U	61.4 U	142	66.8 U
PCB127	41.7 U	40.2 U	39.1 U	41.7 U	41 U	39.1 U	94.7	42.6 U
PCB128 & 166	1,740	476	1,910	293	3,820	807	8,590	1,140
PCB129 & 138 & 163	11,800	3,520	20,400	3,030	39,900	8,130	65,400	8,830
PCB130	519	156	781	113	1,660	337	3,440	504
PCB131	73.2	39.7 U	81.8	41.3 U	155	38.6 U	412	63.1
PCB132	1,450	431	2,330	359	4,270	942	9,070	1,420
PCB133	213	60.2	477	69.8	883	172	936	140
PCB134 & 143	266	234 U	404	243 U	771	227 U	1,950	289
PCB135 & 151	1,970	604	5,340	793	9,140	1,940	14,900	2,410
PCB136	556	163	1,160	180	1,820	413	3,830	622
PCB137	736	217	783	141 U	1,160	272	3,300	535
PCB139 & 140	229	65.7	297	58.3 U	547	111	1,270	193
PCB141	1,170	359	2,720	407	4,920	987	10,800	1,550
PCB142	41.3 U	39.7 U	38.6 U	41.3 U	40.5 U	38.6 U	41.7 U	42.1 U
PCB144	225	70.1 U	532	79.6	972	206	1,960	313
PCB145	45.6 U	43.9 U	42.7 U	45.6 U	44.8 U	42.7 U	46.1 U	46.5 U
PCB146	1,980	542	4,330	631	8,050	1,680	9,850	1,490
PCB147 & 149	3,670	1,100	9,040	1,370	17,400	3,650	24,200	3,750
PCB148	72.8 U	70.1 U	78.8	72.8 U	144	68.2 U	79.1	74.3 U
PCB150	52.4 U	50.5 U	49.1 U	52.4 U	74.9	49.1 U	52.9 U	53.5 U
PCB152	56.8 U	54.7 U	53.2 U	56.8 U	55.7 U	53.2 U	61.4	57.9 U
PCB153 & 168	11,600	3,260	25,000	3,630	45,200	9,020	53,000	7,870
PCB154	191	55.2	534	78.2	863	179	705	111
PCB155	59.7 U	57.5 U	55.9 U	59.7 U	58.6 U	55.9 U	60.3 U	60.9 U
PCB156 & 157	1,670	465	1,940	315	3,710	805	7,580	1,130
PCB158	1,090	303	1,640	242	3,180	645	5,930	785
PCB159	121 U	117 U	114 U	121 U	119 U	114 U	123 U	124 U
PCB160	4.37 U	4.21 U	4.09 U	4.37 U	4.29 U	4.09 U	4.41 U	4.46 U
PCB161	57.8 U	55.6 U	54.1 U	57.8 U	56.7 U	54.1 U	58.3 U	58.9 U
PCB162	45.4	39.5 U	62.9	41 U	298	58	207	41.8 U
PCB164	448	125	838	130	1,630	294	3,320	467
PCB165	57.3 U	55.1 U	53.6 U	57.3 U	56.2 U	53.6 U	57.8 U	58.4 U
PCB167	528	143	774	126	1,510	316	2,100	317
PCB169	38.4 U	37 U	36 U	38.4 U	95.8 U	36 U	66.1 U	39.2 U
PCB170	1,460	368	4,010	715	8,710	1,890	6,410	935
PCB171 & 173	481	127	1,340	206	2,760	597	2,380	330
PCB172	280	71	755	119	1,730	362	1,410	195
PCB174	561	149	2,150	354	4,850	1,010	4,740	628
PCB175	71.4 U	68.7 U	163	71.4 U	361	71.3	318	72.8 U
PCB176	88.8 U	85.5 U	234	88.8 U	600	114	528	90.6 U
PCB177	622	168	1,870	303	4,570	939	3,840	527

PCB178	461	126	1,230	185	2,590	500	2,060	297
PCB179	410	117	1,100	181	2,330	469	2,770	412
PCB180 & 193	4,390	1,120	12,700	2,270	25,500	5,550	17,000	2,470
PCB181	65 U	62.6 U	60.9 U	65 U	115	60.9 U	108 U	66.3 U
PCB182	44.2 U	42.5 U	41.4 U	44.2 U	65.4	41.4 U	44.6 U	45 U
PCB183 & 185	1,180	315	3,740	578	7,960	1,620	6,520	876
PCB184	52.9 U	50.9 U	49.5 U	52.9 U	51.9 U	49.5 U	53.4 U	54 U
PCB186	76.7 U	73.8 U	71.8 U	76.7 U	75.2 U	71.8 U	77.5 U	78.2 U
PCB187	3,010	806	7,920	1,250	15,700	3,130	12,700	1,740
PCB188	61.7 U	59.3 U	57.7 U	61.7 U	60.5 U	57.7 U	62.3 U	62.9 U
PCB189	82.5	33.8 U	193	35.1 U	412	78.9	291	43.4
PCB190	146	57.6	554	122	1,390	349	1,080	187
PCB191	65.9	59.3 U	223	61.7 U	440	88	309	62.9 U
PCB192	42.7 U	41.1 U	40 U	42.7 U	41.9 U	40 U	43.1 U	43.6 U
PCB194	582	175 U	1,640	287	3,980	920	1,900	325
PCB195	257	69.9 U	806	137	1,830	394	941	156
PCB196	278	74	951	173	2,130	469	1,140	186
PCB197 & 200	101 U	97 U	181	101 U	453	94.6	304	103 U
PCB198 & 199	631	174	1,610	327	4,230	973	2,730	451
PCB201	83.7	39 U	238	40.5 U	555	113	346	55
PCB202	251	74.4 U	526	88.2	1,270	259	811	127
PCB203	470	134	1,430	256	3,200	714	1,990	329
PCB204	59.2 U	57 U	55.4 U	59.2 U	58 U	55.4 U	59.8 U	60.3 U
PCB205	58.9 U	56.7 U	97.1	58.9 U	233	55.1 U	128	60 U
PCB206	260	71.9	547	104	1,430	341	687	128
PCB207	117 U	112 U	109 U	117 U	202	109 U	118 U	119 U
PCB208	119 U	114 U	201	119 U	510	112	248	121 U
PCB209	164	51.6 U	271	62	661	169	230	54.7 U
Monochlorobiphenyl homologs	45.1 UT	43.5 UT	42.3 UT	45.1 UT	44.3 UT	42.3 UT	45.6 UT	46 UT
Dichlorobiphenyl homologs	944 T	340 T	1,280 T	423 T	637 JT	283 T	1,850 T	406 T
Trichlorobiphenyl homologs	5,390 T	1,760 T	7,550 T	1,730 T	5,140 T	1,740 T	28,500 T	4,770 T
Tetrachlorobiphenyl homologs	24,700 T	7,500 T	27,800 T	5,270 T	43,600 T	10,900 T	547,000 T	90,000 T
Pentachlorobiphenyl homologs	47,500 T	14,100 T	53,500 T	9,170 T	101,000 T	24,100 T	589,000 T	93,700 T
Hexachlorobiphenyl homologs	42,400 T	12,500 T	81,600 T	12,300 T	152,000 T	31,300 T	233,000 T	34,200 T
Heptachlorobiphenyl homologs	13,300 T	3,660 T	38,300 T	6,520 T	80,100 T	16,900 T	62,500 T	8,870 T
Octachlorobiphenyl homologs	2,630 T	638 T	7,480 T	1,370 T	17,900 T	3,960 T	10,300 T	1,710 T
Nonachlorobiphenyl homologs	378 T	185 T	803 T	222 T	2,140 T	508 T	994 T	248 T
Total PCB Congeners	136,000 JT	38,200 JT	217,000 JT	34,100 JT	403,000 JT	87,800 JT	1,470,000 JT	232,000 JT
Total PCB Congeners (calc'd)	137,000 JT	40,700 JT	219,000 JT	37,100 JT	404,000 JT	89,900 JT	1,470,000 JT	234,000 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	0.543 JT	0.154 JT	0.533 JT	0.0843 JT	1.08 JT	0.249 JT	19.6 JT	0.79 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1)	4.4 JT	3.87 JT	4.15 JT	3.95 JT	5.74 JT	3.86 JT	20.6 JT	4.72 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	13.6 JT	7.68 JT	16.5 JT	6.7 JT	22.1 JT	8.56 JT	133 JT	20.5 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.279 JT	0.199 JT	0.271 JT	0.192 JT	0.385 JT	0.211 JT	1.86 JT	0.334 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 3. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

LocationID	EPA1-SB07E-04	EPA1-SB07E-04	EPA1-SB07E-05	EPA1-SB07E-05	EPA1-SB07E-06	EPA1-SB07E-06	EPA1-SB08W-01	EPA1-SB08W-01
Tissue	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet
X-coordinate	7630501.76039	7630501.76039	7631760.29319	7631760.29319	7631349.49959	7631349.49959	7630437.20807	7630437.20807
Y-coordinate	702199.77674	702199.77674	701577.03264	701577.03264	701694.06802	701694.06802	699436.53571	699436.53571
RiverMile	7.6	7.6	7.9	7.9	7.9	7.9	8	8
SampleDate	3-Oct-11	3-Oct-11	3-Oct-11	3-Oct-11	3-Oct-11	3-Oct-11	27-Sep-11	27-Sep-11
SampleTime	16:15	16:15	15:30	15:30	15:42	15:42	11:33	11:33
PCB001	36.4 U	36.4 U	35.4 U	21.4 U	37.1 U	35 U	63.9	22.5 U
PCB002	45.1 U	45.1 U	43.9 U	26.6 U	46 U	43.5 U	26.8 U	27.9 U
PCB003	23.8 U	23.8 U	23.1 U	14.4	24.3 U	22.9 U	19.7	15.6
PCB004	340	73.8 U	236	45.6	379	75.7	1,100	183
PCB005	45.1 U	45.1 U	43.9 U	26.6 U	46 U	43.5 U	26.8 U	27.9 U
PCB006	44	42.2 U	41 U	24.9 U	52.4	40.7 U	175	28.3
PCB007	57.3 U	57.3 U	55.7 U	33.7 U	58.4 U	55.1 U	34 U	35.4 U
PCB008	171	47.6 U	147	50.3	208	45.8 U	530	90.9
PCB009	27.7 U	27.7 U	26.9 U	16.3 U	28.2 U	26.6 U	60.3	17.1 U
PCB010	30.1 U	30.1 U	29.2 U	17.7 U	30.7 U	29 U	77.7	18.6 U
PCB011	408	237 U	230 U	139 U	242 U	228 U	447	159
PCB012 & 013	40.3 U	40.3 U	39.2 U	23.7 U	41.1 U	38.8 U	23.9 U	24.9 U
PCB014	44.2 U	44.2 U	42.9 U	26 U	45 U	42.5 U	26.3 U	27.3 U
PCB015	84.8	66.5 U	68.2	39.1 U	87.6	64 U	410	67.6
PCB016	145	53.4 U	158	49.6	185	51.4 U	1,000	158
PCB017	412	86.9	452	92.7	559	91.5	1,580	249
PCB018 & 030	442	99.2 U	472	106 U	679	90.8	4,160	656
PCB019	598	110	466	78.6	736	118	1,410	232
PCB020 & 028	1,660	357	1,850	323	2,210	277	13,600	2,210
PCB021 & 033	261	219 U	250	129 U	377	211 U	829	162
PCB022	329	71.1	396	75.8	413	53	2,650	452
PCB023	53.4 U	53.4 U	51.9 U	31.4 U	54.5 U	51.4 U	31.7 U	33 U
PCB024	32.5 U	32.5 U	31.6 U	19.1 U	33.2 U	31.3 U	155	24.4
PCB025	111	47.6 U	140	28 U	174	45.8 U	325	53.3
PCB026 & 029	258	102 U	309	60 U	444	98.1 U	1,560	255
PCB027	77.3	46.1 U	81.2	27.1 U	122	44.4 U	608	92.9
PCB031	936	204	1,080	203	1,320	143	5,050	840
PCB032	192	45.1	208	46.8 U	321	53.4	3,100	494
PCB034	38.3 U	38.3 U	37.3 U	22.6 U	39.1 U	36.9 U	34.1	23.7 U
PCB035	39.8 U	39.8 U	38.7 U	23.4 U	40.6 U	38.3 U	23.7 U	24.6 U
PCB036	42.2 U	42.2 U	41 U	24.9 U	43.1 U	40.7 U	25.1 U	26.1 U
PCB037	271	61.8	189	34.9	191	37.3	728	122
PCB038	30.6 U	30.6 U	29.7 U	18 U	31.2 U	29.4 U	18.2 U	18.9 U
PCB039	38.3 U	38.3 U	37.3 U	22.6 U	39.1 U	36.9 U	22.8 U	23.7 U
PCB040 & 041 & 071	783	165	913	138	1,260	191	2,790	468
PCB042	704	132	892	122	776	94.9	2,080	342
PCB043 & 073	89.7	53.4 U	3,610	31.4 U	3,610	771	223	38.4
PCB044 & 047 & 065	4,640	882	6,250	858	5,490	1,260	12,300	1,960

PCB045 & 051	672	130	957	148	682	208	1,760	268
PCB046	121 U	121 U	118 U	71.4 U	124 U	117 U	299	75 U
PCB048	314	64.7	357	57.4	428	53.9	1,110	187
PCB049 & 069	2,920	554	3,940	560	3,930	629	8,970	1,370
PCB050 & 053	414	81.1	547	81.9	515	126	963	145
PCB052	4,760	930	5,840	892	5,790	866	17,900	2,710
PCB054	95.1	34.5 U	113	20.3 U	116	33.2 U	116	21.3 U
PCB055	36.4 U	36.4 U	35.4 U	21.4 U	37.1 U	35 U	21.6 U	22.5 U
PCB056	668	134	937	124	799	86.3	1,900	327
PCB057	30.6 U	30.6 U	29.7 U	18 U	31.2 U	29.4 U	34.4	18.9 U
PCB058	32.5 U	32.5 U	31.6 U	19.1 U	33.2 U	31.3 U	24.6	20.1 U
PCB059 & 062 & 075	364 U	364 U	355	214 U	371 U	350 U	800	225 U
PCB060	669	130	782	96.6	894	93.8	2,110	337
PCB061 & 070 & 074 & 076	5,370	1,050	6,160	759	6,290	803	15,500	2,460
PCB063	210	40.6	212	24.6	272	35.1	477	77.1
PCB064	1,310	262	1,700	238	1,760	188	4,660	729
PCB066	3,920	777	4,190	524	5,010	641	10,900	1,700
PCB067	78	29.1 U	99.7	17.1 U	85.2	28 U	194	32.9
PCB068	97.1 U	97.1 U	111	57.1 U	123	93.5 U	107	60 U
PCB072	71	21.8 U	94.3	12.9 U	112	21 U	138	22.8
PCB073	89.7	53.4 U	51.9 U	31.4 U	54.5 U	51.4 U	31.7 U	33 U
PCB077	294	59.3	275	38.3	246	43 U	507	77.8
PCB078	22.3 U	22.3 U	21.7 U	13.1 U	22.8 U	21.5 U	13.3 U	13.8 U
PCB079	60.6	37.9 U	46.7	22.3 U	127	36.4 U	112	26.8
PCB080	35.9 U	35.9 U	34.9 U	21.1 U	36.6 U	34.6 U	21.3 U	22.2 U
PCB081	43.7 U	43.7 U	42.5 U	25.7 U	44.6 U	42.1 U	54.9	27 U
PCB082	428	86	653	77.9	424	82.7	1,230	200
PCB083	313	64.6 U	581	71.3	317	62.1 U	948	225
PCB084	1,200	241	1,820	233	1,040	216	3,210	547
PCB085 & 117 & 116	1,780	350	2,280	297	2,300	399	6,710	976
PCB086 & 087 & 097 & 108 & 119 & 125	4,340	866	6,410	819	4,520	940	14,200	2,260
PCB088 & 091	1,200	228	1,970	255	1,180	245	3,170	517
PCB089	29	28.2 U	36.4	16.6 U	38.2	27.1 U	89.5	17.4 U
PCB090 & 101 & 113	9,220	1,820	13,900	1,880	9,790	2,480	30,000	4,630
PCB092	1,870	358	2,920	372	2,170	518	6,370	994
PCB093 & 098 & 100 & 102	586	558 U	892	329 U	721	537 U	1,190	345 U
PCB094	121 U	121 U	118 U	71.4 U	124 U	117 U	91.2	75 U
PCB095	4,730	947	7,560	995	4,820	1,110	14,300	2,340
PCB096	54.4 U	54.4 U	65.8	32 U	58.7	52.3 U	114	33.6 U
PCB099	6,530	1,280	7,670	978	7,880	1,690	19,300	3,150
PCB103	204	44.7 U	373	48.9	207	67.8	414	66.2
PCB104	72.3 U	72.3 U	70.3 U	42.6 U	73.8 U	69.6 U	43 U	44.7 U
PCB105	3,520	690	4,150	508	4,050	723	12,800	1,830
PCB106	71.8 U	71.8 U	69.8 U	42.3 U	73.3 U	69.2 U	42.7 U	44.4 U
PCB107 & 124	266	52.9 U	380	43.2	275	50.9 U	815	120
PCB109	859	150	1,080	125	1,090	221	2,460	323
PCB110 & 115	7,190	1,470	11,100	1,430	8,060	1,610	23,700	3,760
PCB111	35.9 U	35.9 U	34.9 U	21.1 U	36.6 U	34.6 U	33	22.2 U

PCB112	53.4 U	53.4 U	51.9 U	31.4 U	54.5 U	51.4 U	31.7 U	33 U
PCB114	274	59.7 U	287	43.1	330	57.5 U	821	123
PCB118	11,600	2,320	14,000	1,720	14,000	3,050	39,200	5,910
PCB120	121 U	121 U	125	71.4 U	141	117 U	134	75 U
PCB121	33.5 U	33.5 U	32.5 U	19.7 U	34.2 U	32.2 U	31.6	20.7 U
PCB122	56.7	44.2 U	82.2	42.3 U	55.7	42.5 U	179	27.3 U
PCB123	261	60	326	33.3	322	54.2 U	533	96.7
PCB126	65.5 U	65.5 U	63.7 U	38.6 U	66.8 U	63.1 U	73.1	40.5 U
PCB127	41.7 U	41.7 U	40.6 U	24.6 U	42.6 U	40.2 U	66.9	25.8 U
PCB128 & 166	2,050	410	2,940	313	2,770	704	6,620	870
PCB129 & 138 & 163	21,700	4,240	33,300	3,640	30,300	9,040	55,400	7,810
PCB130	815	159	1,650	166	1,140	249	2,250	323
PCB131	88.1	41.3 U	175	24.3 U	101	39.7 U	215	36.5
PCB132	2,290	475	4,840	512	2,440	557	5,450	940
PCB133	460	91.8	750	72.6	1,100	185	930	144
PCB134 & 143	381	243 U	879	143 U	475	234 U	1,010	167
PCB135 & 151	4,790	1,020	9,790	1,080	6,590	1,860	11,200	1,800
PCB136	1,010	221	2,200	259	1,230	342	2,530	421
PCB137	887	174	1,220	119	1,240	236	2,830	398
PCB139 & 140	286	58.3 U	460	44.9	415	86.5	890	140
PCB141	2,200	498	4,440	438	3,320	1,250	6,470	844
PCB142	41.3 U	41.3 U	40.1 U	24.3 U	42.1 U	39.7 U	24.5 U	25.5 U
PCB144	447	93	1,060	102	595	151	1,140	187
PCB145	45.6 U	45.6 U	44.3 U	26.9 U	46.5 U	43.9 U	27.1 U	28.2 U
PCB146	4,540	899	7,830	783	9,090	1,840	9,350	1,460
PCB147 & 149	8,140	1,680	20,000	2,130	9,800	1,970	17,900	3,100
PCB148	72.8 U	72.8 U	123	42.9 U	112	70.1 U	109	45 U
PCB150	52.4 U	52.4 U	81.8	30.9 U	46.5 U	50.5 U	67.9	32.4 U
PCB152	56.8 U	56.8 U	55.2 U	33.4 U	57.9 U	54.7 U	38.6	35.1 U
PCB153 & 168	25,300	5,050	39,100	3,910	38,500	11,900	51,000	7,730
PCB154	375	79.3	726	75.7	674	175	866	134
PCB155	59.7 U	59.7 U	58 U	35.1 U	60.9 U	57.5 U	35.5 U	36.9 U
PCB156 & 157	1,990	376	2,490	292	2,570	857	5,510	816
PCB158	1,500	306	2,380	255	2,310	777	4,730	643
PCB159	121 U	121 U	118 U	71.4 U	124 U	117 U	72.1 U	75 U
PCB160	4.37 U	4.37 U	4.25 U	2.57 U	4.46 U	4.21 U	2.6 U	2.7 U
PCB161	57.8 U	57.8 U	56.1 U	34 U	58.9 U	55.6 U	34.3 U	35.7 U
PCB162	57.7	41 U	70.7	24.1 U	83.5	39.5 U	130	26.3
PCB164	787	148	1,470	155	1,070	301	2,040	280
PCB165	57.3 U	57.3 U	55.7 U	33.7 U	69.8	55.1 U	35.3	35.4 U
PCB167	860	159	1,170	138	1,030	307	2,050	290
PCB169	98.8 J	38.4 U	80.9	24.4	98 J	37 U	97.1 J	23.8 U
PCB170	4,780	768	5,320	645	5,120	2,990	7,230	896
PCB171 & 173	1,430	248	1,940	212	1,780	919	2,360	334
PCB172	928	158	1,270	130	1,190	489	1,460	200
PCB174	2,180	402	4,630	530	2,370	608	3,590	508
PCB175	161	71.4 U	313	42 U	239	80.1	285	44.1 U
PCB176	215	88.8 U	617	66.4	285	85.5 U	432	70.4
PCB177	2,140	391	4,110	482	2,840	672	3,480	488

PCB178	1,340	253	2,200	229	2,700	607	2,130	311
PCB179	1,090	211	2,490	272	1,270	379	1,920	333
PCB180 & 193	16,200	2,670	18,100	2,130	25,400	8,890	21,700	2,860
PCB181	65 U	65 U	63.2 U	38.3 U	78.7	62.6 U	127	40.2 U
PCB182	44.2 U	44.2 U	66.2	26 U	81.2	62.6 U	63.7	27.3 U
PCB183 & 185	4,410	778	6,200	661	5,820	42.5	6,390	922
PCB184	52.9 U	52.9 U	51.4 U	31.1 U	54 U	50.9 U	31.4 U	32.7 U
PCB186	76.7 U	76.7 U	74.5 U	45.1 U	78.2 U	73.8 U	45.6 U	47.4 U
PCB187	11,300	2,140	17,900	1,880	22,200	3,920	15,600	2,230
PCB188	61.7 U	61.7 U	59.9 U	36.3 U	124	59.3 U	36.6 U	38.1 U
PCB189	207	36	260	36.4	287	133	322	47.4
PCB190	735	154	667	106	669	354	719	115
PCB191	241	61.7 U	306	36.3 U	324	145	365	43.2
PCB192	42.7 U	42.7 U	41.5 U	25.1 U	43.6 U	41.1 U	25.4 U	26.4 U
PCB194	2,410	395	2,210	245	6,080	1,410	2,860	388
PCB195	1,060	171	992	113	1,820	584	1,250	178
PCB196	1,250	213	1,290	154	3,460	740	1,560	229
PCB197 & 200	222	101 U	355	59.3 U	391	97 U	297	62.3 U
PCB198 & 199	2,540	483	2,790	369	7,460	1,000	2,990	480
PCB201	289	56.8	445	47.1	1,040	120	384	64.5
PCB202	781	143	836	103	1,630	246	1,030	151
PCB203	2,260	362	1,950	223	3,200	855	2,520	342
PCB204	59.2 U	59.2 U	57.5 U	34.8 U	60.3 U	57 U	35.2 U	36.6 U
PCB205	129	58.9 U	133	34.7 U	204	72.9	159	36.4 U
PCB206	1,060	194	747	92.7	6,770	344	996	183
PCB207	171	117 U	115	68.6 U	1,170	112 U	151	72 U
PCB208	335	119 U	283	69.8 U	2,740	114 U	329	73.3 U
PCB209	533	120	296	53.4	3,000	93.6	442	89.1
Monochlorobiphenyl homologs	45.1 UT	45.1 UT	43.9 UT	25.1 T	46 UT	43.5 UT	83.6 T	26.9 T
Dichlorobiphenyl homologs	1,080 T	237 UT	615 T	214 T	877 T	293 T	2,800 T	547 T
Trichlorobiphenyl homologs	5,760 T	1,290 T	6,120 T	1,100 T	7,800 T	1,160 T	36,800 T	6,030 T
Tetrachlorobiphenyl homologs	28,500 T	5,850 T	38,500 T	4,930 T	38,600 T	6,490 T	86,000 T	13,500 T
Pentachlorobiphenyl homologs	56,700 T	11,600 T	78,800 T	10,300 T	64,000 T	14,000 T	182,000 T	28,400 T
Hexachlorobiphenyl homologs	81,300 JT	16,500 T	139,000 T	14,700 T	117,000 JT	33,200 T	191,000 JT	28,700 T
Heptachlorobiphenyl homologs	47,500 T	8,430 T	66,500 T	7,480 T	72,800 T	20,400 T	68,200 T	9,450 T
Octachlorobiphenyl homologs	10,900 T	1,900 T	11,000 T	1,300 T	25,300 T	5,080 T	13,100 T	1,880 T
Nonachlorobiphenyl homologs	1,570 T	312 T	1,150 T	162 T	10,700 T	457 T	1,480 T	256 T
Total PCB Congeners	233,000 JT	43,600 JT	342,000 JT	38,800 JT	339,000 JT	78,800 JT	582,000 JT	87,900 JT
Total PCB Congeners (calc'd)	234,000 JT	46,300 JT	342,000 JT	40,300 JT	340,000 JT	81,200 JT	582,000 JT	88,900 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	3.55 JT	0.115 JT	3.13 JT	0.819 JT	3.64 JT	0.152 JT	12.1 JT	0.281 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1)	6.84 JT	3.97 JT	6.33 JT	2.75 JT	6.99 JT	3.87 JT	12.1 JT	2.67 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	21 JT	8.58 JT	20 JT	5.26 JT	18.8 JT	6.55 JT	40.6 JT	7.62 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.303 JT	0.2 JT	0.315 JT	0.122 JT	0.321 JT	0.197 JT	0.755 JT	0.162 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 3. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

LocationID	EPA1-SB08W-05	EPA1-SB08W-05	EPA1-SB08W-06	EPA1-SB08W-06	EPA1-SB09E-05	EPA1-SB09E-05	EPA1-SB10E-04	EPA1-SB10E-04
Tissue	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet
X-coordinate	7633514.59281	7633514.59281	7630400.53156	7630400.53156	7639620.34313	7639620.34313	7641543.94531	7641543.94531
Y-coordinate	696771.28347	696771.28347	699535.96925	699535.96925	694926.99167	694926.99167	692043.63381	692043.63381
RiverMile	8.8	8.8	8	8	9.9	9.9	10.5	10.5
SampleDate	27-Sep-11	27-Sep-11	7-Oct-11	7-Oct-11	28-Sep-11	28-Sep-11	28-Sep-11	28-Sep-11
SampleTime	10:00	10:00	16:50	16:50	14:13	14:13	12:57	12:57
PCB001	20.8 U	22.5 U	80	33.5 U	20.6 U	21.4 U	21 U	22.5 U
PCB002	25.8 U	27.9 U	43.9 U	41.5 U	25.6 U	26.6 U	26.1 U	27.9 U
PCB003	18.4	14.7 U	23.1 U	21.9 U	13.5 U	14 U	15	14.7 U
PCB004	359	47.1	1,150	256	232	54.2	281	62
PCB005	25.8 U	27.9 U	43.9 U	41.5 U	25.6 U	26.6 U	26.1 U	27.9 U
PCB006	117	26.1 U	142	38.8 U	34.4	24.9 U	30.7	26.1 U
PCB007	32.8 U	35.4 U	55.7 U	52.7 U	32.5 U	33.7 U	33.1 U	35.4 U
PCB008	496	84.4	478	129	108	57.6	134	48.3
PCB009	28.9	17.1 U	50.3	25.4 U	15.7 U	16.3 U	16 U	17.1 U
PCB010	20.2	18.6 U	72.2	27.7 U	17.1 U	17.7 U	17.4 U	18.6 U
PCB011	234	149	230	218 U	199	139 U	286	154
PCB012 & 013	23.1 U	24.9 U	39.2 U	37.1 U	22.8 U	23.7 U	23.3 U	24.9 U
PCB014	25.3 U	27.3 U	42.9 U	40.6 U	25 U	26 U	25.5 U	27.3 U
PCB015	139	41.1 U	221	61.2 U	83.5	39.1 U	66.5	41.1 U
PCB016	653	96.1	557	143	124	53.1	113	41.6
PCB017	1,530	206	795	195	557	134	494	123
PCB018 & 030	2,010	261	1,550	377	407	119 U	431	118 U
PCB019	494	66.2	743	161	320	62.2	657	137
PCB020 & 028	6,590	893	2,900	636	1,230	290	1,220	309
PCB021 & 033	1,870	289	435	201 U	277	129 U	214	135 U
PCB022	1,570	221	740	162	257	70.6	195	67.9
PCB023	30.6 U	33 U	51.9 U	49.1 U	30.3 U	31.4 U	30.8 U	33 U
PCB024	34.4	20.1 U	32.1	29.9 U	18.4 U	19.1 U	18.8 U	20.1 U
PCB025	420	53.9	197	44	111	28 U	110	29.4 U
PCB026 & 029	1,000	135	497	109	254	60 U	214	63 U
PCB027	225	31.6	149	42.4 U	106	27.1 U	107	28.5 U
PCB031	4,260	579	1,790	401	742	191	621	182
PCB032	918	122 U	515	124	209	53.9	247	63.1 U
PCB034	40.4	23.7 U	37.3 U	35.3 U	21.7 U	22.6 U	22.1 U	23.7 U
PCB035	22.8 U	24.6 U	38.7 U	36.6 U	22.6 U	23.4 U	23 U	24.6 U
PCB036	24.2 U	26.1 U	41 U	38.8 U	23.9 U	24.9 U	24.4 U	26.1 U
PCB037	537	92.8	296	71	171	36	201	60.3
PCB038	17.5 U	18.9 U	29.7 U	28.1 U	17.3 U	18 U	17.7 U	18.9 U
PCB039	21.9 U	23.7 U	37.3 U	35.3 U	21.7 U	22.6 U	22.1 U	23.7 U
PCB040 & 041 & 071	3,670	496	1,160	250	1,150	261	990	230
PCB042	2,630	332	1,100	229	649	130	460	105
PCB043 & 073	244	33 U	137	49.1 U	60.5	31.4 U	87	33 U
PCB044 & 047 & 065	11,500	1,460	7,070	1,460	6,270	1,250	4,880	1,050

PCB045 & 051	1,660	208	977	212	543	110	848	180
PCB046	356	75 U	147	112 U	86	71.4 U	98.4	75 U
PCB048	1,480	190	466	99	411	94.3	305	74.5
PCB049 & 069	8,190	1,010	4,740	970	4,420	849	3,270	700
PCB050 & 053	1,110	136	451	100	468	92.5	1,380	285
PCB052	12,900	1,640	7,360	1,530	11,100	2,380	6,380	1,400
PCB054	85.8	21.3 U	86.1	31.7 U	65.4	20.3 U	189	39.4
PCB055	20.8 U	22.5 U	35.4 U	33.5 U	20.6 U	21.4 U	21 U	22.5 U
PCB056	2,980	395	1,210	248	691	149	352	91.7
PCB057	48.5	18.9 U	29.7 U	28.1 U	18.5	18 U	19.4	18.9 U
PCB058	43.9	20.1 U	31.6 U	29.9 U	18.4 U	19.1 U	18.8 U	20.1 U
PCB059 & 062 & 075	795	225 U	418	335 U	232	214 U	210 U	225 U
PCB060	1,770	230	931	187	1,010	188	476	108
PCB061 & 070 & 074 & 076	16,200	2,020	8,160	1,640	11,700	2,340	3,950	868
PCB063	486	57.6	271	54.4	332	59.2	189	39
PCB064	4,560	579	2,130	445	1,790	366	923	206
PCB066	10,400	1,300	5,170	1,030	7,010	1,280	3,490	755
PCB067	257	32.3	132	26.8 U	64.8	17.1 U	76.9	18 U
PCB068	130	60 U	100	89.3 U	75.3	57.1 U	118	60 U
PCB072	159	19.8	114	22.3	70.8	14.1	85.7	18.3
PCB073	30.6 U	33 U	51.9 U	0 U	30.3 U	31.4 U	30.8 U	33 U
PCB077	539	67.6	327	66.3	179	31.8	176	40.6
PCB078	12.8 U	13.8 U	21.7 U	20.5 U	12.7 U	13.1 U	12.9 U	13.8 U
PCB079	136	23.4 U	93.5	34.8 U	180	36.4	51.8	23.4 U
PCB080	20.6 U	22.2 U	34.9 U	33 U	20.4 U	21.1 U	20.7 U	22.2 U
PCB081	49.1	27 U	42.5 U	40.2 U	52.6	25.7 U	25.2 U	27 U
PCB082	1,590	203	761	149	1,160	239	302	66.7
PCB083	1,220	159	561	113	1,200	235	555	93.7
PCB084	3,710	475	2,140	440	2,720	577	1,160	249
PCB085 & 117 & 116	4,260	487	2,970	528	8,580	1,500	1,890	367
PCB086 & 087 & 097 & 108 & 119 & 125	11,900	1,450	7,940	1,530	15,800	3,140	5,150	1,090
PCB088 & 091	3,420	408	2,130	422	2,510	507	1,460	300
PCB089	118	17.4 U	42.2	25.9 U	81.9	20.4	44.2	17.4 U
PCB090 & 101 & 113	23,100	2,830	16,100	3,080	29,600	5,770	20,400	4,150
PCB092	4,700	561	3,330	640	6,030	1,140	3,300	661
PCB093 & 098 & 100 & 102	1,030	345 U	914	513 U	834	329 U	1,120	345 U
PCB094	106	75 U	118 U	112 U	68.8 U	71.4 U	138	75 U
PCB095	13,100	1,660	7,900	1,600	12,400	2,400	8,560	1,780
PCB096	111	33.6 U	71.9	50 U	104	32 U	174	36.3
PCB099	12,700	1,490	9,890	1,860	25,400	4,470	7,960	1,640
PCB103	410	48.1	372	72.1	314	53.9	430	83.9
PCB104	41.4 U	44.7 U	70.3 U	66.5 U	41 U	42.6 U	41.8 U	44.7 U
PCB105	7,200	863	5,640	1,060	22,100	4,060	3,850	770
PCB106	41.1 U	44.4 U	69.8 U	66.1 U	40.7 U	42.3 U	41.5 U	44.4 U
PCB107 & 124	623	71.5	464	89.7	1,040	193	255	53.8
PCB109	1,440	164	1,380	251	4,190	685	1,210	235
PCB110 & 115	18,800	2,410	13,100	2,620	23,000	4,850	9,640	2,060
PCB111	33.3	22.2 U	34.9 U	33 U	29.9	21.1 U	99.7	22.2 U

PCB112	30.6 U	33 U	51.9 U	49.1 U	30.3 U	31.4 U	30.8 U	33 U
PCB114	474	59.2	477	84.9	1,970	336	338	67.6
PCB118	21,900	2,730	20,000	3,860	74,900	12,700	18,000	3,650
PCB120	122	75 U	118 U	112 U	109	71.4 U	186	75 U
PCB121	23.9	20.7 U	32.5 U	30.8 U	28.2	19.7 U	57.7	20.7 U
PCB122	151	27.3 U	119	40.6 U	213	36.7	35.2	27.3 U
PCB123	432	56.2	410	81.2	1,060	190	248	63.3
PCB126	47.4	40.5 U	63.7 U	60.3 U	55.9	38.6 U	39.3	40.5 U
PCB127	23.9 U	25.8 U	40.6 U	38.4 U	180	31.7	49.6	25.8 U
PCB128 & 166	3,840	397	2,940	522	10,000	1,510	4,070	713
PCB129 & 138 & 163	38,000	4,030	31,800	5,340	81,500	11,700	93,900	15,800
PCB130	1,990	204	1,560	266	3,510	495	2,900	477
PCB131	265	27.3	171	37.9 U	298	51.2	229	41.7
PCB132	7,210	809	4,520	808	5,310	913	9,220	1,670
PCB133	804	82.7	713	116	1,250	169	2,820	454
PCB134 & 143	1,090	150 U	815	223 U	1,290	218	1,760	304
PCB135 & 151	10,900	1,240	8,720	1,510	10,900	1,640	23,600	4,210
PCB136	2,600	293	2,090	372	2,710	464	6,690	1,220
PCB137	1,590	174	1,550	268	6,880	906	1,490	273
PCB139 & 140	627	65.6	482	79	1,330	195	398	70.3
PCB141	5,460	560	4,120	717	7,980	1,220	15,500	2,610
PCB142	23.6 U	25.5 U	40.1 U	37.9 U	23.4 U	24.3 U	23.8 U	25.5 U
PCB144	1,350	148	942	154	1,400	209	3,340	594
PCB145	26.1 U	28.2 U	44.3 U	42 U	32 U	26.9 U	26.4 U	28.2 U
PCB146	7,880	810	7,210	1,200	13,400	1,830	26,400	4,280
PCB147 & 149	24,000	2,700	15,900	2,850	16,300	2,480	31,000	5,520
PCB148	129	45 U	116	67 U	90.8	42.9 U	214	45 U
PCB150	84.1	32.4 U	72	48.2 U	58.4	30.9 U	80.1	32.4 U
PCB152	32.5 U	35.1 U	55.2 U	52.2 U	42.7	33.4 U	49.2	35.1 U
PCB153 & 168	40,000	4,200	36,300	5,930	78,800	10,600	123,000	20,700
PCB154	772	80.9	716	114	823	111	1,210	198
PCB155	34.2 U	36.9 U	58 U	54.9 U	33.9 U	35.1 U	34.5 U	36.9 U
PCB156 & 157	3,060	355	3,560	612	13,400	2,030	7,090	1,440
PCB158	3,010	316	2,350	410	7,880	1,140	6,320	1,070
PCB159	69.4 U	75 U	118 U	112 U	68.8 U	71.4 U	70.1 U	137
PCB160	2.5 U	2.7 U	4.25 U	4.02 U	2.48 U	2.57 U	2.52 U	2.7 U
PCB161	33.1 U	35.7 U	56.1 U	53.1 U	32.8 U	34 U	33.4 U	35.7 U
PCB162	93	25.4 U	91.2	37.7 U	330	46.8	129 J	40
PCB164	1,700	166	1,490	244	2,130	354	3,870	649
PCB165	32.8 U	35.4 U	55.7 U	52.7 U	49.5	33.7 U	138	35.4 U
PCB167	1,310	148	1,470	245	4,070	609	3,030	571
PCB169	86.4 J	23.8 U	43.4 J	35.4 U	160	22.6 U	790 J	56.2 U
PCB170	4,430	571	5,240	951	10,600	1,790	27,800	6,190
PCB171 & 173	1,990	214	1,580	281	3,690	540	9,270	1,740
PCB172	1,190	126	1,140	184	2,130	300	6,530	1,210
PCB174	4,350	479	3,830	706	3,720	572	17,500	3,270
PCB175	299	44.1 U	278	65.6 U	393	60	1,630	280
PCB176	610	68.2	440	84.3	378	54.4	1,720	309
PCB177	3,990	430	3,320	590	4,090	617	20,700	3,810

PCB178	1,930	208	1,860	306	2,530	369	7,960	1,420
PCB179	2,230	255	1,860	341	1,610	247	7,740	1,520
PCB180 & 193	14,800	1,830	17,400	3,010	32,600	5,160	94,500	21,200
PCB181	60.9	40.2 U	71.1	59.8 U	199	38.3 U	185	40.2 U
PCB182	50.2	27.3 U	45.8	40.6 U	63.5	26 U	200	36.6
PCB183 & 185	5,680	611	5,060	881	9,130	1,310	29,000	5,230
PCB184	30.3 U	32.7 U	51.4 U	48.7 U	30 U	31.1 U	30.6 U	32.7 U
PCB186	43.9 U	47.4 U	74.5 U	70.5 U	43.5 U	45.1 U	44.3 U	47.4 U
PCB187	13,000	1,400	13,500	2,220	17,600	2,610	68,100	11,900
PCB188	35.3 U	38.1 U	59.9 U	56.7 U	39.8	36.3 U	113	38.1 U
PCB189	238	26.2	297	44.9	625	91.1	1,810	320
PCB190	403	77.4	693	161	1,140	244	3,680	834
PCB191	266	38.1 U	289	56.7 U	644	91.2	2,010	363
PCB192	24.4 U	26.4 U	41.5 U	39.3 U	24.2 U	25.1 U	24.7 U	26.4 U
PCB194	2,090	251	2,510	392	4,150	625	18,300	3,670
PCB195	973	115	1,080	171	1,830	282	8,140	1,570
PCB196	1,120	152	1,430	235	1,940	340	8,620	2,060
PCB197 & 200	339	62.3 U	318	92.7 U	338	59.3 U	1,650	304
PCB198 & 199	2,210	342	2,830	548	2,680	555	12,600	3,100
PCB201	430	46.7	429	70.3	489	75.4	3,020	522
PCB202	891	98.4	815	138	957	142	2,900	554
PCB203	1,780	226	1,950	328	2,580	420	8,880	1,880
PCB204	33.9 U	36.6 U	57.5 U	54.4 U	33.6 U	34.8 U	34.2 U	36.6 U
PCB205	137	36.4 U	130	54.2 U	255	39.9	1,010	188
PCB206	891	124	827	152	961	156	3,080	609
PCB207	145	72 U	134	107 U	178	68.6 U	622	121
PCB208	379	73.3 U	276	109 U	242	69.8 U	639	127
PCB209	481	82	374	77.8	251	53.1	302	71.8
Monochlorobiphenyl homologs	28.8 T	27.9 UT	91.6 T	41.5 UT	25.6 UT	26.6 UT	25.5 T	27.9 UT
Dichlorobiphenyl homologs	1,390 T	332 T	2,340 T	571 T	673 T	230 T	815 T	316 T
Trichlorobiphenyl homologs	22,200 T	3,030 T	11,200 T	2,610 T	4,800 T	1,110 T	4,860 T	1,180 T
Tetrachlorobiphenyl homologs	82,400 T	10,400 T	42,800 T	8,930 T	48,700 T	9,880 T	28,900 T	6,460 T
Pentachlorobiphenyl homologs	133,000 T	16,500 T	97,000 T	19,000 T	236,000 T	43,400 T	86,700 T	17,800 T
Hexachlorobiphenyl homologs	158,000 JT	17,000 T	130,000 JT	22,100 T	272,000 T	39,000 T	369,000 JT	63,200 T
Heptachlorobiphenyl homologs	55,500 T	6,410 T	57,000 T	9,920 T	91,200 T	14,100 T	300,000 T	59,700 T
Octachlorobiphenyl homologs	9,970 T	1,280 T	11,500 T	1,960 T	15,200 T	2,510 T	65,100 T	13,800 T
Nonachlorobiphenyl homologs	1,420 T	197 T	1,240 T	260 T	1,380 T	225 T	4,340 T	857 T
Total PCB Congeners	464,000 JT	54,000 JT	353,000 JT	63,500 JT	670,000 JT	109,000 JT	861,000 JT	162,000 JT
Total PCB Congeners (calc'd)	464,000 JT	55,300 JT	353,000 JT	65,500 JT	670,000 JT	111,000 JT	861,000 JT	163,000 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	8.44 JT	0.134 JT	2.29 JT	0.186 JT	14 T	0.604 JT	28.7 JT	0.211 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1)	8.44 JT	2.52 JT	5.48 JT	3.74 JT	14 T	2.88 JT	28.7 JT	3.08 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	38 JT	6.92 JT	22.9 JT	8.58 JT	24.5 T	5.59 JT	16.1 JT	5.71 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.493 JT	0.137 JT	0.364 JT	0.198 JT	0.922 T	0.207 JT	0.432 JT	0.148 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 3. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

LocationID	EPA1-SB10E-06	EPA1-SB10E-06	EPA1-SB11E-07	EPA1-SB11E-07	EPA1-SB11E-08	EPA1-SB11E-08	EPA1-SB11E-09	EPA1-SB11E-09
Tissue	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet
X-coordinate	7640465.85256	7640465.85256	7643279.64269	7643279.64269	7644062.92954	7644062.92954	7643687.40638	7643687.40638
Y-coordinate	693421.94952	693421.94952	690016.34775	690016.34775	689439.28177	689439.28177	689713.21524	689713.21524
RiverMile	10.2	10.2	11	11	11.2	11.2	11.1	11.1
SampleDate	28-Sep-11	28-Sep-11	19-Sep-11	19-Sep-11	7-Oct-11	7-Oct-11	7-Oct-11	7-Oct-11
SampleTime	13:50	13:50	7:05	7:05	12:00	12:00	12:36	12:36
PCB001	37.5 U	36.1 U	35.7 U	36.4 U	143 U	75 U	35.7 U	36.4 U
PCB002	46.5 U	44.7 U	44.3 U	45.1 U	177 U	93 U	44.3 U	45.1 U
PCB003	24.5 U	23.6 U	23.3 U	23.8 U	93.3 U	49 U	23.3 U	23.8 U
PCB004	164	73.1 U	563	73.8	394	152 U	210	73.8 U
PCB005	46.5 U	44.7 U	44.3 U	45.1 U	177 U	93 U	44.3 U	45.1 U
PCB006	43.5 U	41.8 U	57	42.2 U	166 U	87 U	41.4 U	42.2 U
PCB007	59 U	56.7 U	56.2 U	57.3 U	225 U	118 U	56.2 U	57.3 U
PCB008	130	75.5	232	153	187 U	98 U	136	79.2
PCB009	28.5 U	27.4 U	27.1 U	27.7 U	109 U	57 U	27.1 U	27.7 U
PCB010	31 U	29.8 U	29.5 U	30.1 U	118 U	62 U	29.5 U	30.1 U
PCB011	244 U	235 U	610	324	930 U	488 U	264	237 U
PCB012 & 013	41.5 U	39.9 U	39.5 U	40.3 U	158 U	83 U	39.5 U	40.3 U
PCB014	45.5 U	43.8 U	43.3 U	44.2 U	173 U	91 U	43.3 U	44.2 U
PCB015	68.5 U	65.9 U	179	127	261 U	137 U	112	80.4
PCB016	117	56.3	243	121	210 U	110 U	111	65.9
PCB017	408	91.5	1,910	576	1,070	247	276	103
PCB018 & 030	365	117	925	343	413	109	312	135 U
PCB019	342	51.7	3,090	840	1,620	336	331	93.4
PCB020 & 028	1,450	323	2,650	1,010	1,520	372	1,060	439
PCB021 & 033	225 U	217 U	740	333	859 U	451 U	258	219 U
PCB022	293	85.6	522	232	190 U	100 U	211	116
PCB023	55 U	52.9 U	52.4 U	53.4 U	210 U	110 U	52.4 U	53.4 U
PCB024	33.5 U	32.2 U	31.9 U	32.5 U	128 U	67 U	31.9 U	32.5 U
PCB025	126	47.1 U	340	104	187 U	98 U	61.6	47.6 U
PCB026 & 029	281	101 U	489	166	400 U	210 U	154	102 U
PCB027	80.9	45.7 U	456	124	291	95 U	55.9	46.1 U
PCB031	882	213	1,460	587	465	194 U	548	257
PCB032	183	52.8	960	293	416	99.8 U	148	65.1
PCB034	39.5 U	38 U	37.6 U	38.3 U	150 U	79 U	37.6 U	38.3 U
PCB035	41 U	39.4 U	39 U	36.4 U	156 U	82 U	39 U	39.8 U
PCB036	43.5 U	41.8 U	41.4 U	42.2 U	166 U	87 U	41.4 U	42.2 U
PCB037	146	39.4	347	163	209	67 U	173	96.7
PCB038	31.5 U	30.3 U	30 U	23.8 U	120 U	63 U	30 U	30.6 U
PCB039	39.5 U	38 U	37.6 U	30.6 U	150 U	79 U	37.6 U	38.3 U
PCB040 & 041 & 071	696	119	2,570	796	1,950	420	422	149
PCB042	597	93.5	988	298	564	124	232	78.1
PCB043 & 073	85.4	52.9 U	324	110	623	136 U	52.4 U	53.4 U
PCB044 & 047 & 065	4,380	608	21,400	6,370	19,900	3,980	2,610	700

PCB045 & 051	584	88.6	4,500	1,330	3,070	650	274	84.6
PCB046	125 U	120 U	321	45.1 U	476 U	250 U	119 U	121 U
PCB048	264	47.2	553	183	432	97.3	156	55.5
PCB049 & 069	2,820	375	10,900	3,270	8,800	1,760	1,620	424
PCB050 & 053	397	63.5 U	5,060	1,460	4,400	927	257	73.2
PCB052	4,430	600	15,900	4,900	17,100	3,460	2,990	789
PCB054	76.4	34.1 U	1,050	293	665	136	58.9	34.5 U
PCB055	37.5 U	36.1 U	35.7 U	36.4 U	143 U	75 U	35.7 U	36.4 U
PCB056	707	99.4	703	233	321	93 U	216	74.5
PCB057	31.5 U	30.3 U	34.3	30.6 U	120 U	63 U	30 U	30.6 U
PCB058	33.5 U	32.2 U	42.4	32.5 U	128 U	67 U	31.9 U	32.5 U
PCB059 & 062 & 075	375 U	361 U	710	364 U	1,430 U	750 U	357 U	364 U
PCB060	554	77.2	777	249	472	103	436	121
PCB061 & 070 & 074 & 076	4,830	637	6,650	2,060	6,740	1,370	3,290	850
PCB063	168	28.4 U	276	81.1	401	78.9	138	34.5
PCB064	1,180	170	1,620	499	781	250 U	565	172
PCB066	3,280	424	4,600	1,440	5,800	1,180	2,590	657
PCB067	73.9	28.8 U	199	54.9	217	60 U	34	29.1 U
PCB068	100 U	96.2 U	186	97.1 U	634	200 U	95.2 U	97.1 U
PCB072	77.9	21.6 U	163	49.4	250	48.7	46.1	21.8 U
PCB073	55 U	52.9 U	52.4 U	53.4 U	210 U	110 U	52.4 U	53.4 U
PCB077	204	44.2 U	216	67.2	246	92 U	117	44.7 U
PCB078	23 U	22.1 U	21.9 U	22.3 U	87.6 U	46 U	21.9 U	22.3 U
PCB079	48.1	37.5 U	74.8	37.9 U	156	78 U	37.1 U	37.9 U
PCB080	37 U	35.6 U	35.2 U	35.9 U	141 U	74 U	35.2 U	35.9 U
PCB081	45 U	43.3 U	42.9 U	43.7 U	171 U	90 U	42.9 U	43.7 U
PCB082	452	57.7	566	165	813	127	153	41.3 U
PCB083	388	63.9 U	1,040	221	2,020	422	192	74.5
PCB084	1,200	159	2,200	654	3,770	776	402	141 U
PCB085 & 117 & 116	1,700	201	3,620	977	5,400	1,100	2,250	547
PCB086 & 087 & 097 & 108 & 119 & 125	4,690	721 U	12,300	3,420	23,700	4,710	2,960	728 U
PCB088 & 091	1,280	158	3,960	1,130	6,720	1,360	457	118
PCB089	29 U	27.9 U	65.8	28.2 U	124	58 U	27.6 U	28.2 U
PCB090 & 101 & 113	10,700	1,280	56,600	15,400	141,000	27,500	7,400	1,790
PCB092	2,220	263	9,470	2,600	18,100	3,650	1,750	412
PCB093 & 098 & 100 & 102	619	553 U	4,870	1,330	5,010	1,150 U	548 U	558 U
PCB094	125 U	120 U	437	125	779	250 U	119 U	121 U
PCB095	5,340	662	25,100	7,210	56,100	11,300	2,990	747
PCB096	56 U	53.8 U	714	187	762	154	53.3 U	54.4 U
PCB099	6,480	730	19,100	4,820	32,500	6,320	7,510	1,710
PCB103	318	44.2 U	1,600	434	2,430	466	106	44.7 U
PCB104	74.5 U	71.6 U	129	72.3 U	284 U	149 U	71 U	72.3 U
PCB105	3,180	387	6,540	2,060	9,750	2,050	5,100	1,210
PCB106	74 U	71.2 U	70.5 U	71.8 U	282 U	148 U	70.5 U	71.8 U
PCB107 & 124	294	52.4 U	444	124	933	190	200	52.9 U
PCB109	912	104	1,730	473	3,980	764	971	227
PCB110 & 115	7,830	968	24,100	6,700	50,200	10,300	5,060	1,250
PCB111	37 U	35.6 U	89.8	35.9 U	297	74 U	35.2 U	35.9 U

PCB112	55 U	52.9 U	52.4 U	53.4 U	210 U	110 U	52.4 U	53.4 U
PCB114	223	59.1 U	569	158	1,000	189	450	93.7
PCB118	12,200	1,370	36,700	10,400	78,900	16,700	18,600	4,270
PCB120	125 U	120 U	298	121 U	697	250 U	119 U	121 U
PCB121	34.5 U	33.2 U	192	52	233	69 U	32.9 U	33.5 U
PCB122	68.5	43.8 U	94.2	44.2 U	173 U	91 U	43.3 U	71.8 U
PCB123	261	55.8 U	391	132	744	146	315	79.1
PCB126	67.5 U	64.9 U	86.7 J	65.5 U	257 U	135 U	64.3 U	65.5 U
PCB127	43 U	41.3 U	83.4	41.7 U	164 U	86 U	41 U	41.7 U
PCB128 & 166	2,160	224	14,600	4,050	25,300	5,250	3,490	824
PCB129 & 138 & 163	29,600	3,130	133,000 J	79,600	740,000	146,000	39,800	8,810
PCB130	1,460	156	5,720	1,540	18,600	3,760	812	181
PCB131	118	40.9 U	515	148	1,750	362	40.5 U	41.3 U
PCB132	3,510	386	20,400	5,830	76,100	15,800	1,170	274
PCB133	1,290	124	4,660	1,200	12,100	2,410	752	164
PCB134 & 143	603	240 U	4,480	1,180	14,500	3,070	266	243 U
PCB135 & 151	8,690	934	90,900	21,600	209,000	41,900	6,290	1,440
PCB136	1,610	177	20,200	4,900	52,300	10,900	854	200
PCB137	1,050	139 U	2,740	553	5,410	1,110	1,400	263
PCB139 & 140	344	57.7 U	1,190	298	1,620	326	463	106
PCB141	4,140	438	57,800	16,500	134,000	26,300	3,830	871
PCB142	42.5 U	40.9 U	40.5 U	41.3 U	162 U	85 U	40.5 U	41.3 U
PCB144	840	88.7	9,980	2,380	29,500	6,080	425	93.3
PCB145	47 U	45.2 U	44.8 U	45.6 U	179 U	94 U	44.8 U	45.6 U
PCB146	11,400	1,110	52,000	13,300	151,000	29,700	7,460	1,660
PCB147 & 149	16,400	1,730	69,500	18,400	287,000	56,700	4,910	1,130
PCB148	197	72.1 U	380	90.3	550	150 U	71.4 U	72.8 U
PCB150	84.5	51.9 U	268	60.7	479	108 U	51.4 U	52.4 U
PCB152	58.5 U	56.3 U	299	71.7	348	117 U	55.7 U	56.8 U
PCB153 & 168	36,700	3,690	184,000 J	105,000	948,000	188,000	48,500	11,100
PCB154	994	98.5	3,180	706	3,900	762	553	123
PCB155	61.5 U	59.1 U	93.9	59.7 U	234 U	123 U	58.6 U	59.7 U
PCB156 & 157	2,270	257	22,700	6,430	65,800	12,700	4,210	965
PCB158	2,030	208	25,700	6,920	52,200	10,300	3,310	735
PCB159	125 U	120 U	521	121 U	476 U	250 U	119 U	121 U
PCB160	4.5 U	4.33 U	4.29 U	4.37 U	17.1 U	9 U	4.29 U	4.37 U
PCB161	59.5 U	57.2 U	56.7 U	57.8 U	227 U	119 U	56.7 U	57.8 U
PCB162	54.6	40.6 U	375	189	661	146	92.6	41 U
PCB164	1,370	145	11,400	3,280	34,100	6,980	1,090	266
PCB165	59 U	56.7 U	274	69.2	630	129	56.2 U	57.3 U
PCB167	996	111	7,520	1,990	24,800	4,700	1,430	308
PCB169	84.8 J	38.1 U	990 J	322 J	318 J	79.2 U	109 J	38.4 U
PCB170	5,540	651	125,000	35,600	372,000	64,500	11,300	2,510
PCB171 & 173	1,850	201	40,500	10,800	97,900	18,400	3,170	713
PCB172	1,700	174	24,000	6,380	70,500	12,600	2,140	465
PCB174	6,650	711	44,900	11,400	224,000	43,100	1,910	432
PCB175	405	70.7 U	4,950	1,190	17,200	3,230	270	71.4 U
PCB176	725	88 U	4,630	1,180	21,700	4,370	157	88.8 U
PCB177	5,380	577	40,100	10,900	203,000	38,600	2,600	573

PCB178	3,430	348	29,800	7,440	81,900	15,500	2,510	546
PCB179	2,240	250	29,700	7,550	93,200	18,300	1,120	257
PCB180 & 193	24,200	2,750	196,000 J	105,000	1,150,000	217,000	36,100	8,220
PCB181	67 U	64.4 U	505	133	1,480	264	91.1	65 U
PCB182	222	43.8 U	325	74.1	173 U	91 U	43.3 U	44.2 U
PCB183 & 185	7,670	790	108,000	29,500	312,000	57,600	8,960	1,950
PCB184	54.5 U	52.4 U	55.5	52.9 U	208 U	109 U	51.9 U	52.9 U
PCB186	79 U	76 U	75.2 U	76.7 U	301 U	158 U	75.2 U	76.7 U
PCB187	27,900	2,830	102,000 J	43,100	602,000	122,000	19,500	4,270
PCB188	69.1	61.1 U	179	61.7 U	639	127 U	60.5 U	61.7 U
PCB189	301	34.8 U	6,890	1,720	17,600	3,210	612	131
PCB190	669	106	19,100	7,360	60,200	12,700	2,010	568
PCB191	356	61.1 U	7,210	1,820	19,600	3,470	599	131
PCB192	44 U	42.3 U	41.9 U	42.7 U	168 U	88 U	41.9 U	42.7 U
PCB194	5,420	562	76,800	22,500	168,000	28,900	6,450	1,410
PCB195	1,820	186	32,000	9,180	76,700	13,400	2,800	611
PCB196	2,770	330	40,800	11,200	87,600	17,000	3,240	685
PCB197 & 200	934	99.8 U	5,430	1,450	20,300	3,700	394	101 U
PCB198 & 199	7,340	932	56,900	16,800	190,000	34,000	5,520	1,210
PCB201	1,400	143	7,510	1,940	26,700	4,970	537	111
PCB202	2,370	240	12,500	3,370	27,400	5,000	1,370	297
PCB203	4,530	490	49,600	13,300	87,000	15,700	4,860	1,050
PCB204	60.9 U	58.6 U	58 U	59.2 U	232 U	122 U	58 U	59.2 U
PCB205	258	58.3 U	4,980	1,300	9,290	1,610	399	82.2
PCB206	2,590	299	14,500	4,450	26,600	4,820	1,830	390
PCB207	482	115 U	2,170	629	4,830	918	283	117 U
PCB208	848	118 U	2,060	596	4,600	888	368	119 U
PCB209	259	53.1 U	512	174	519	116	422	102
Monochlorobiphenyl homologs	46.5 UT	44.7 UT	44.3 UT	45.1 UT	177 UT	93 UT	44.3 UT	45.1 UT
Dichlorobiphenyl homologs	502 T	312 T	1,670 T	728 T	1,280 T	488 UT	771 T	365 T
Trichlorobiphenyl homologs	4,860 T	1,300 T	14,200 T	4,950 T	7,200 T	1,920 T	3,770 T	1,580 T
Tetrachlorobiphenyl homologs	25,800 T	3,860 T	79,900 T	24,100 T	74,800 T	15,500 T	16,500 T	4,740 T
Pentachlorobiphenyl homologs	60,700 T	7,420 T	213,000 JT	59,000 T	446,000 T	89,400 T	57,400 T	13,600 T
Hexachlorobiphenyl homologs	128,000 JT	13,500 T	745,000 JT	297,000 JT	2,890,000 JT	574,000 T	131,000 JT	29,900 T
Heptachlorobiphenyl homologs	89,400 T	9,630 T	784,000 JT	281,000 T	3,350,000 T	635,000 T	93,100 T	21,000 T
Octachlorobiphenyl homologs	26,800 T	2,960 T	287,000 T	81,000 T	693,000 T	124,000 T	25,600 T	5,510 T
Nonachlorobiphenyl homologs	3,920 T	416 T	18,700 T	5,680 T	36,000 T	6,630 T	2,480 T	508 T
Total PCB Congeners	339,000 JT	36,400 JT	2,140,000 JT	753,000 JT	7,490,000 JT	1,440,000 JT	330,000 JT	74,400 JT
Total PCB Congeners (calc'd)	340,000 JT	39,500 JT	2,140,000 JT	754,000 JT	7,490,000 JT	1,450,000 JT	332,000 JT	77,300 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	3.15 JT	0.0638 JT	40.8 JT	10.4 JT	15.5 JT	1.19 JT	4.2 JT	0.212 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1)	6.53 JT	3.89 JT	40.8 JT	13.6 JT	28.4 JT	9.15 JT	7.42 JT	4.07 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	16.6 JT	6.62 JT	26.1 JT	10.1 JT	42.9 JT	15.3 JT	12.5 JT	6.87 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.302 JT	0.187 JT	0.922 JT	0.312 JT	1.72 JT	0.565 JT	0.342 JT	0.213 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 3. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

LocationID	EPA1-SB11E-10	EPA1-SB11E-10	EPA1-SB11W-05	EPA1-SB11W-05	EPA1-SB11W-06	EPA1-SB11W-06	EPA1-SB11W-07	EPA1-SB11W-07
Tissue	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet	body without fillet	fillet
X-coordinate	7643305.44481	7643305.44481	7645552.1395	7645552.1395	7645637.35414	7645637.35414	7643703.153	7643703.153
Y-coordinate	689983.13427	689983.13427	686305.25469	686305.25469	686200.04044	686200.04044	688248.84390	688248.84390
RiverMile	11.1	11.1	11.9	11.9	11.9	11.9	11.4	11.4
SampleDate	7-Oct-11	7-Oct-11	28-Sep-11	28-Sep-11	16-Sep-11	16-Sep-11	28-Sep-11	28-Sep-11
SampleTime	13:30	13:30	8:22	8:22	7:14	7:14	9:20	9:20
PCB001	32.9 U	36.8 U	21.8 U	22.3 U	36.4 U	36.1 U	36.4 U	37.1 U
PCB002	40.8 U	45.6 U	27.1 U	27.6 U	45.1 U	44.7 U	45.1 U	46 U
PCB003	21.5 U	24 U	17.1	14.6 U	23.8 U	23.6 U	23.8 U	24.3 U
PCB004	118	74.5 U	641	114	125	73.1 U	127	75.2 U
PCB005	40.8 U	45.6 U	27.1 U	27.6 U	45.1 U	44.7 U	45.1 U	46 U
PCB006	38.2 U	42.6 U	225	40.9	42.2 U	41.8 U	42.2 U	43.1 U
PCB007	51.8 U	57.8 U	34.4 U	35 U	57.3 U	56.7 U	57.3 U	58.4 U
PCB008	49.8	48 U	668	143	142	79.7	123	48.5 U
PCB009	25 U	27.9 U	41.3	16.9 U	27.7 U	27.4 U	27.7 U	28.2 U
PCB010	27.2 U	30.4 U	23.5	18.4 U	30.1 U	29.8 U	30.1 U	30.7 U
PCB011	214 U	239 U	192	151	394	235 U	237 U	242 U
PCB012 & 013	36.4 U	40.7 U	24.2 U	24.7 U	40.3 U	39.9 U	40.3 U	41.1 U
PCB014	39.9 U	44.6 U	26.5 U	27 U	44.2 U	43.8 U	44.2 U	45 U
PCB015	60.1 U	67.2 U	136	42.2	91.3	85.9	66.5 U	67.8 U
PCB016	48.2 U	53.9 U	519	113	113	71.8	162	54.5 U
PCB017	225	60.3 U	1,560	276	274	102	696	84.9
PCB018 & 030	160	43.8	1,830	330	374	147 U	501	65.6
PCB019	308	52.4	1,180	189	100	46.2 U	309	47.5 U
PCB020 & 028	589	138	3,830	706	1,320	509	1,910	228
PCB021 & 033	198 U	221 U	1,000	209	274	217 U	274	223 U
PCB022	87.8	49 U	792	151	256	141	390	55.3
PCB023	48.2 U	53.9 U	32 U	32.7 U	53.4 U	52.9 U	53.4 U	54.5 U
PCB024	29.4 U	32.8 U	29	19.9 U	32.5 U	32.2 U	32.5 U	33.2 U
PCB025	45.4	48 U	415	71.6	79.4	47.1 U	188	48.5 U
PCB026 & 029	101	103 U	769	134	216	101 U	373	104 U
PCB027	44.7	46.6 U	343	61.1	52.4	45.7 U	109	47 U
PCB031	249	95.1 U	2,640	491	679	299	1,220	152
PCB032	103	25	932	168 U	153	68.4	274	36.1
PCB034	34.6 U	38.7 U	23 U	23.5 U	38.3 U	38 U	38.3 U	39.1 U
PCB035	36 U	40.2 U	23.9 U	24.4 U	39.8 U	39.4 U	39.8 U	40.6 U
PCB036	38.2 U	42.6 U	25.3 U	25.8 U	42.2 U	41.8 U	42.2 U	43.1 U
PCB037	67.6	32.8 U	351	71.7	177	113	188	35.1
PCB038	27.6 U	30.9 U	18.3 U	18.7 U	30.6 U	30.3 U	30.6 U	31.2 U
PCB039	34.6 U	38.7 U	23 U	23.5 U	38.3 U	38 U	38.3 U	39.1 U
PCB040 & 041 & 071	444	89.8	2,280	381	678	198	1,410	172
PCB042	254	49.3	1,060	182	588	146	827	94.3
PCB043 & 073	49.8	53.9 U	293	52.4	55.7	52.9 U	137	54.5 U
PCB044 & 047 & 065	4,310	680	15,300	2,430	7,610	1,670	6,580	706

PCB045 & 051	525	88.2	3,670	586	261	74.8	1,210	134
PCB046	110 U	123 U	263	74.3 U	121 U	120 U	139	124 U
PCB048	147	29.6	581	100	305	78.8	517	57.8
PCB049 & 069	2,310	365	9,800	1,570	2,990	656	4,370	446
PCB050 & 053	499	80.2	3,220	501	227	63.5 U	1,330	145
PCB052	3,660	589	9,680	1,650	4,520	1,050	7,950	856
PCB054	92.9	34.8 U	392	63.9	34.5 U	34.1 U	84.1	35.1 U
PCB055	32.9 U	36.8 U	21.8 U	22.3 U	36.4 U	36.1 U	36.4 U	37.1 U
PCB056	167	45.6 U	952	170	554	149	845	102
PCB057	27.6 U	30.9 U	22.4	18.7 U	30.6 U	30.3 U	30.6 U	31.2 U
PCB058	29.4 U	32.8 U	24.2	19.9 U	32.5 U	32.2 U	32.5 U	33.2 U
PCB059 & 062 & 075	329 U	368 U	441	223 U	364 U	361 U	364 U	371 U
PCB060	377	65.8	573	100	728	171	666	75.6
PCB061 & 070 & 074 & 076	2,780	476	6,500	1,080	5,330	1,250	6,240	654
PCB063	177	28.9 U	208	33.6	248	51.9	180	29.2 U
PCB064	537	123 U	1,690	291	1,200	291	1,520	170
PCB066	2,910	459	4,130	676	3,900	884	3,730	399
PCB067	46.3	29.4 U	151	26.3	80.7	28.8 U	113	29.7 U
PCB068	96.5	98 U	249	59.4 U	97.1 U	96.2 U	97.1 U	99 U
PCB072	74.9	22.1 U	154	25.8	87.1	21.6 U	89.3	22.3 U
PCB073	48.2 U	53.9 U	32 U	21.1 U	53.4 U	52.9 U	0 U	54.5 U
PCB077	118	45.1 U	248	40.7	232	53.1	233	45.5 U
PCB078	20.2 U	22.5 U	13.4 U	13.7 U	22.3 U	22.1 U	22.3 U	22.8 U
PCB079	35.6	38.2 U	84.3	23.2 U	55.3	37.5 U	67.8	38.6 U
PCB080	32.5 U	36.3 U	21.6 U	22 U	35.9 U	35.6 U	35.9 U	36.6 U
PCB081	39.5 U	44.1 U	26.2 U	26.7 U	43.7 U	43.3 U	43.7 U	44.6 U
PCB082	246	41.7 U	690	111	430	97.3	710	78.5
PCB083	316	65.2 U	786	86.7	342	63.9 U	677	81.1
PCB084	673	142 U	1,890	288	940	210	2,220	243
PCB085 & 117 & 116	2,210	337	2,040	338	3,350	663	2,450	239
PCB086 & 087 & 097 & 108 & 119 & 125	4,790	770	7,130	1,130	5,480	1,170	8,860	911
PCB088 & 091	1,140	175	4,910	742	982	207	2,240	233
PCB089	25.4 U	28.4 U	55.6	17.2 U	28.2 U	27.9 U	115	28.7 U
PCB090 & 101 & 113	18,200	2,790	24,600	3,880	11,900	2,410	29,500	2,870
PCB092	3,140	455	5,020	768	2,530	512	4,320	440
PCB093 & 098 & 100 & 102	973	564 U	2,720	409	1,790	553 U	1,490	569 U
PCB094	110 U	123 U	250	74.3 U	121 U	120 U	268	124 U
PCB095	6,710	1,030	13,300	1,990	4,730	1,030	15,700	1,620
PCB096	120	54.9 U	326	49.7	54.4 U	53.8 U	171	55.4 U
PCB099	9,780	1,340	12,000	1,880	11,900	2,180	8,810	851
PCB103	379	54.9	1,390	199	125	44.2 U	387	45.5 U
PCB104	65.4 U	73 U	55.6	44.3 U	72.3 U	71.6 U	72.3 U	73.8 U
PCB105	4,550	732	3,140	503	6,840	1,520	4,660	479
PCB106	64.9 U	72.5 U	43.1 U	44 U	71.8 U	71.2 U	71.8 U	73.3 U
PCB107 & 124	257	53.4 U	307	46.8	312	67.6	397	54 U
PCB109	1,250	213	1,330	203	1,310	303	1,080	103
PCB110 & 115	8,280	1,400	11,400	1,840	9,150	1,920	17,600	1,860
PCB111	44.4	36.3 U	108	22 U	35.9 U	35.6 U	35.9 U	36.6 U

PCB112	48.2 U	53.9 U	32 U	32.7 U	53.4 U	52.9 U	53.4 U	54.5 U
PCB114	425	67.5	199	36.6	696	138	287	60.9 U
PCB118	22,200	3,600	12,100	1,950	26,500	5,440	16,700	1,710
PCB120	144	123 U	345	74.3 U	121 U	120 U	121 U	124 U
PCB121	51.9	33.8 U	104	20.5 U	54.5	33.2 U	33.5 U	34.2 U
PCB122	48.4	44.6 U	71.1	27 U	71.8 U	43.8 U	89.2	45 U
PCB123	345	56.9 U	162	35.4	542	87.9	221	57.4 U
PCB126	59.2 U	66.2 U	39.3 U	40.1 U	65.5 U	64.9 U	65.5 U	66.8 U
PCB127	45	42.2 U	30.3	25.5 U	68.4	41.3 U	41.7 U	42.6 U
PCB128 & 166	4,520	690	3,550	478	4,540	909	5,470	499
PCB129 & 138 & 163	103,000	14,900	60,000	8,750	44,400	8,830	83,400	7,030
PCB130	2,800	402	2,560	376	1,120	211	2,820	240
PCB131	171	41.7 U	241	34.8	96.2	40.9 U	445	42.1 U
PCB132	5,860	893	9,390	1,360	2,190	437	18,700	1,650
PCB133	1,830	251	2,290	371	918	166	1,070	90.2
PCB134 & 143	1,490	245 U	1,550	225	427	240 U	2,810	250
PCB135 & 151	22,900	3,310	22,500	3,380	7,650	1,330	33,700	2,780
PCB136	5,010	709	5,010	708	1,310	227	10,400	871
PCB137	1,830	255	1,010	138	2,310	431	1,430	144 U
PCB139 & 140	524	74	637	92.7	636	112	466	59.4 U
PCB141	15,200	2,150	9,610	1,360	3,920	856	19,800	1,750
PCB142	37.3 U	41.7 U	24.8 U	25.2 U	41.3 U	40.9 U	41.3 U	42.1 U
PCB144	3,050	435	2,450	340	574	99.4	4,870	398
PCB145	41.2 U	46.1 U	27.4 U	27.9 U	45.6 U	45.2 U	45.6 U	46.5 U
PCB146	22,500	3,100	20,000	3,300	8,210	1,490	13,000	1,070
PCB147 & 149	24,700	3,570	43,700	6,400	7,640	1,460	62,300	5,420
PCB148	122	73.5 U	446	69.2	72.8 U	72.1 U	92.2	74.3 U
PCB150	65.9	52.9 U	318	46.7	52.4 U	51.9 U	82.7	53.5 U
PCB152	62.3	57.4 U	83.1	34.8 U	56.8 U	56.3 U	69.6	57.9 U
PCB153 & 168	143,000 J	20,600	74,400	11,300	58,300	11,000	92,300	7,800
PCB154	900	121	2,440	366	837	136	634	55.3
PCB155	53.9 U	60.3 U	35.8 U	36.5 U	59.7 U	59.1 U	59.7 U	60.9 U
PCB156 & 157	9,930	1,420	2,770	453	5,980	1,220	5,110	505
PCB158	7,240	1,060	4,060	576	4,140	810	7,390	640
PCB159	649	123 U	72.8 U	74.3 U	121 U	120 U	1,000	124 U
PCB160	3.95 U	4.41 U	2.62 U	2.67 U	4.37 U	4.33 U	4.37 U	4.46 U
PCB161	52.2 U	58.3 U	34.7 U	35.3 U	57.8 U	57.2 U	57.8 U	58.9 U
PCB162	203	41.4 U	221	25.1 U	135	49.2	109	41.8 U
PCB164	4,000	625	2,440	371	1,090	223	4,730	418
PCB165	101	57.8 U	130	35 U	61.8	56.7 U	57.3 U	58.4 U
PCB167	3,830	518	1,640	246	1,790	345	1,970	182
PCB169	314	38.8 U	227 J	49.1 J	93.7 J	38.1 U	0 J	39.2 U
PCB170	39,200	5,500	14,100	2,700	9,550	2,220	22,800	2,440
PCB171 & 173	10,400	1,420	5,090	789	3,010	639	9,370	884
PCB172	7,460	971	3,530	607	1,920	394	4,800	444
PCB174	17,300	2,460	13,000	2,140	1,830	362	27,000	2,510
PCB175	1,720	227	796	131	294	70.7 U	1,300	118
PCB176	1,420	189	1,630	246	226	88 U	3,340	311
PCB177	17,600	2,340	14,300	2,560	2,150	447	16,200	1,530

PCB178	9,050	1,230	5,790	1,010	2,650	496	6,250	588
PCB179	6,990	990	5,340	848	1,410	271	12,000	1,130
PCB180 & 193	132,000	18,000	46,600	9,260	35,900	8,030	59,900	6,470
PCB181	212	65.7 U	80.6	39.8 U	117	64.4 U	103	66.3 U
PCB182	99.8	44.6 U	168	33	65.5	43.8 U	44.2 U	45 U
PCB183 & 185	33,900	4,460	14,600	2,420	8,430	1,810	22,900	2,160
PCB184	47.8 U	53.4 U	31.7 U	32.4 U	52.9 U	52.4 U	52.9 U	54 U
PCB186	69.3 U	77.5 U	46 U	46.9 U	76.7 U	76 U	76.7 U	78.2 U
PCB187	69,700	9,720	38,900	7,100	16,700	3,180	37,800	3,550
PCB188	75.8	62.3 U	121	37.7 U	61.7 U	61.1 U	61.7 U	62.9 U
PCB189	2,170	263	671	119	655	128	970	85.8
PCB190	5,500	903	1,620	393	1,430	462	2,580	321
PCB191	2,420	301	846	140	615	120	1,230	109
PCB192	38.6 U	43.1 U	25.6 U	26.1 U	42.7 U	42.3 U	42.7 U	43.6 U
PCB194	20,100	2,670	7,750	1,660	5,770	1,310	11,000	1,110
PCB195	9,700	1,200	3,470	715	2,300	512	5,080	489
PCB196	11,800	1,460	3,830	958	3,020	680	5,570	610
PCB197 & 200	1,830	225	1,000	209	412	99.8 U	1,750	176
PCB198 & 199	17,700	2,320	6,640	1,970	4,130	991	8,850	1,080
PCB201	2,730	345	1,190	256	573	109	1,710	161
PCB202	3,590	435	1,970	405	1,500	308	2,430	239
PCB203	12,300	1,560	5,090	1,110	4,360	927	7,600	760
PCB204	53.5 U	59.8 U	35.5 U	36.2 U	59.2 U	58.6 U	52.9 U	60.3 U
PCB205	1,160	137	447	89	322	66.4	702	63.5
PCB206	3,510	482	1,510	327	1,890	427	2,100	237
PCB207	637	118 U	232	71.3 U	323	115 U	312	119 U
PCB208	673	120 U	392	79.4	443	118 U	433	121 U
PCB209	429	69.3	191	46.8	584	150	192	54.7 U
Monochlorobiphenyl homologs	40.8 UT	45.6 UT	28 T	27.6 UT	45.1 UT	44.7 UT	45.1 UT	46 UT
Dichlorobiphenyl homologs	350 T	239 UT	1,930 T	509 T	802 T	369 T	452 T	242 UT
Trichlorobiphenyl homologs	2,170 T	685 T	16,200 T	2,930 T	4,140 T	1,680 T	6,660 T	991 T
Tetrachlorobiphenyl homologs	19,900 T	3,560 T	62,000 T	10,200 T	30,000 T	7,210 T	38,500 T	4,520 T
Pentachlorobiphenyl homologs	86,400 T	13,700 T	106,000 T	16,700 T	90,300 T	18,600 T	119,000 T	12,400 T
Hexachlorobiphenyl homologs	386,000 JT	55,500 T	274,000 JT	40,900 JT	159,000 JT	30,700 T	374,000 JT	32,000 T
Heptachlorobiphenyl homologs	357,000 T	49,100 T	167,000 T	30,600 T	87,000 T	18,700 T	229,000 T	22,800 T
Octachlorobiphenyl homologs	80,900 T	10,400 T	31,400 T	7,370 T	22,400 T	4,950 T	44,700 T	4,690 T
Nonachlorobiphenyl homologs	4,820 T	601 T	2,130 T	442 T	2,660 T	544 T	2,850 T	357 T
Total PCB Congeners	937,000 JT	131,000 JT	661,000 JT	109,000 JT	395,000 JT	80,500 JT	814,000 JT	75,600 JT
Total PCB Congeners (calc'd)	938,000 JT	134,000 JT	661,000 JT	110,000 JT	396,000 JT	83,000 JT	815,000 JT	78,100 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	10.7 JT	0.198 JT	7.46 JT	1.58 JT	4.12 JT	0.272 JT	0.921 JT	0.0889 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1)	13.7 JT	4.1 JT	9.42 JT	3.59 JT	7.41 JT	4.09 JT	4.2 JT	4.03 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	12.9 JT	6.93 JT	16.7 JT	5.55 JT	18.8 JT	8.43 JT	18.3 JT	6.85 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.403 JT	0.213 JT	0.244 JT	0.13 JT	0.418 JT	0.224 JT	0.348 JT	0.197 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 3. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

LocationID	EPA1-SB11W-08	EPA1-SB11W-08	NA	NA	NA	NA
Tissue	body without fillet	fillet				
X-coordinate	7642440.54514	7642440.54514				
Y-coordinate	689464.81303	689464.81303				
RiverMile	11	11				
SampleDate	28-Sep-11	28-Sep-11	23-Nov-11	30-Nov-11	8-Dec-11	8-Dec-11
SampleTime	10:12	10:12	10:10	15:45	14:30	14:45
PCB001	35 U	36.1 U	0.0597 U	0.0579 U	0.0559 U	0.0569 U
PCB002	43.5 U	44.7 U	0.12 U	0.117 U	0.113 U	0.115 U
PCB003	22.9 U	23.6 U	0.0638 U	0.062 U	0.0598 U	0.0609 U
PCB004	71 U	73.1 U	0.0797	0.0301 U	0.029 U	0.0339 J
PCB005	43.5 U	44.7 U	0.105 U	0.102 U	0.0982 U	0.0999 U
PCB006	40.7 U	41.8 U	0.114 U	0.11 U	0.107 U	0.108 U
PCB007	55.1 U	56.7 U	0.125 U	0.121 U	0.117 U	0.119 U
PCB008	45.8 U	47.1 U	0.128 U	0.125 U	0.12 U	0.122 U
PCB009	26.6 U	27.4 U	0.137 U	0.133 U	0.129 U	0.131 U
PCB010	29 U	29.8 U	0.204 U	0.198 U	0.191 U	0.194 U
PCB011	228 U	235 U	0.417 U	0.244 U	0.255 U	0.322 U
PCB012 & 013	38.8 U	39.9 U	0.172 U	0.167 U	0.161 U	0.164 U
PCB014	42.5 U	43.8 U	0.0482 U	0.0468 U	0.0452 U	0.046 U
PCB015	64 U	65.9 U	0.0566 U	0.0219 J	0.0198 J	0.0253 U
PCB016	51.4 U	52.9 U	0.22 U	0.214 U	0.207 U	0.21 U
PCB017	811	195	0.184 U	0.179 U	0.172 U	0.175 U
PCB018 & 030	222	68.3 U	0.416 U	0.404 U	0.39 U	0.397 U
PCB019	470	104	0.0499 U	0.0484 U	0.0468 U	0.0476 U
PCB020 & 028	1,580	369	0.147	0.0959 U	0.0926 U	0.0942 U
PCB021 & 033	250	217 U	0.145 U	0.141 U	0.136 U	0.139 U
PCB022	168	50.6	0.0613	0.0341 U	0.0329 U	0.0335 U
PCB023	51.4 U	52.9 U	0.103 U	0.0999 U	0.0965 U	0.0981 U
PCB024	31.3 U	32.2 U	0.176 U	0.171 U	0.165 U	0.168 U
PCB025	228	48.5	0.058 U	0.0563 U	0.0544 U	0.0553 U
PCB026 & 029	257	101 U	0.166 U	0.161 U	0.156 U	0.158 U
PCB027	212	49.9	0.169 U	0.164 U	0.159 U	0.162 U
PCB031	613	160	0.13	0.0531 U	0.0513 U	0.0548
PCB032	692	160	0.166 U	0.161 U	0.156 U	0.158 U
PCB034	36.9 U	38 U	0.0788 U	0.0765 U	0.0739 U	0.0751 U
PCB035	38.3 U	39.4 U	0.133 U	0.129 U	0.124 U	0.126 U
PCB036	40.7 U	41.8 U	0.0773 U	0.0751 U	0.0725 U	0.0738 U
PCB037	38.4	32.2 U	0.034	0.0268 U	0.0259 U	0.0264 U
PCB038	29.4 U	30.3 U	0.0917 U	0.089 U	0.0859 U	0.0874 U
PCB039	36.9 U	38 U	0.0811 U	0.0787 U	0.076 U	0.0773 U
PCB040 & 041 & 071	2,190	522	0.322 U	0.313 U	0.302 U	0.307 U
PCB042	1,300	282	0.187 U	0.182 U	0.176 U	0.179 U
PCB043 & 073	435	98.1	0.349 U	0.339 U	0.327 U	0.333 U
PCB044 & 047 & 065	19,200	3,990	0.399 U	0.388 U	0.374 U	0.381 U

PCB045 & 051	3,590	779	0.618 U	0.599 U	0.579 U	0.589 U
PCB046	139	120 U	0.329 U	0.319 U	0.308 U	0.313 U
PCB048	564	125	0.179 U	0.174 U	0.168 U	0.171 U
PCB049 & 069	9,600	2,000	0.337 U	0.327 U	0.316 U	0.321 U
PCB050 & 053	4,050	874	0.684 U	0.664 U	0.641 U	0.652 U
PCB052	9,360	2,000	0.243 U	0.236 U	0.228 U	0.232 U
PCB054	833	173	0.0503 U	0.0488 U	0.0472 U	0.048 U
PCB055	35 U	36.1 U	0.154 U	0.149 U	0.144 U	0.147 U
PCB056	958	214	0.129 U	0.125 U	0.121 U	0.123 U
PCB057	32.8	30.3 U	0.0495 U	0.048 U	0.0464 U	0.0472 U
PCB058	39.4	32.2 U	0.0618 U	0.0599 U	0.0579 U	0.0589 U
PCB059 & 062 & 075	713	361 U	0.322 U	0.313 U	0.302 U	0.307 U
PCB060	2,380	506	0.155 U	0.151 U	0.145 U	0.148 U
PCB061 & 070 & 074 & 076	10,300	2,150	0.297 U	0.289 U	0.279 U	0.284 U
PCB063	657	130	0.0773 U	0.0751 U	0.0725 U	0.0738 U
PCB064	2,360	517	0.119 U	0.116 U	0.112 U	0.114 U
PCB066	10,800	2,280	0.124 U	0.12 U	0.116 U	0.118 U
PCB067	184	38.3	0.0969 U	0.0941 U	0.0908 U	0.0924 U
PCB068	226	96.2 U	0.0688 U	0.0668 U	0.0645 U	0.0656 U
PCB072	181	37.1	0.0561 U	0.0545 U	0.0526 U	0.0535 U
PCB073	51.4 U	52.9 U	0.349 U	0 U	0 U	0 U
PCB077	225	48.3	0.0713 U	0.0692 U	0.0668 U	0.068 U
PCB078	21.5 U	22.1 U	0.174 U	0.169 U	0.164 U	0.166 U
PCB079	91	37.5 U	0.214 U	0.208 U	0.201 U	0.204 U
PCB080	34.6 U	35.6 U	0.154 U	0.15 U	0.144 U	0.147 U
PCB081	42.1 U	43.3 U	0.0684 U	0.0664 U	0.0641 U	0.0652 U
PCB082	966	210	0.0738 U	0.0717 U	0.0692 U	0.0704 U
PCB083	632	135	0.139 U	0.135 U	0.131 U	0.133 U
PCB084	1,500	335	0.0794 U	0.0771 U	0.0744 U	0.0757 U
PCB085 & 117 & 116	5,470	1,110	0.115 U	0.112 U	0.108 U	0.11 U
PCB086 & 087 & 097 & 108 & 119 & 125	8,890	1,900	0.14 U	0.136 U	0.131 U	0.133 U
PCB088 & 091	4,090	845	0.193 U	0.188 U	0.181 U	0.184 U
PCB089	53.1	27.9 U	0.095 U	0.0922 U	0.0891 U	0.0906 U
PCB090 & 101 & 113	24,100	4,980	1.07 U	1.04 U	1.01 U	1.02 U
PCB092	4,100	844	0.125 U	0.121 U	0.117 U	0.119 U
PCB093 & 098 & 100 & 102	2,890	572	0.532 U	0.517 U	0.499 U	0.508 U
PCB094	389	120 U	0.135 U	0.131 U	0.126 U	0.129 U
PCB095	9,830	2,090	0.642 U	0.624 U	0.602 U	0.613 U
PCB096	384	78.3	0.245 U	0.238 U	0.23 U	0.234 U
PCB099	18,700	3,750	0.229 U	0.222 U	0.214 U	0.218 U
PCB103	858	167	0.116 U	0.112 U	0.108 U	0.11 U
PCB104	70.3	71.6 U	0.115 U	0.111 U	0.107 U	0.109 U
PCB105	10,400	2,300	0.0736 U	0.0715 U	0.069 U	0.0702 U
PCB106	69.2 U	71.2 U	0.17 U	0.165 U	0.16 U	0.162 U
PCB107 & 124	522	107	1.13 U	1.1 U	1.06 U	1.08 U
PCB109	2,290	504	0.141 U	0.137 U	0.132 U	0.134 U
PCB110 & 115	13,600	2,920	0.401 U	0.39 U	0.376 U	0.383 U
PCB111	72.8	35.6 U	0.115 U	0.111 U	0.107 U	0.109 U

PCB112	51.4 U	52.9 U	0.111 U	0.108 U	0.104 U	0.106 U
PCB114	1,070	222	0.0563 U	0.0547 U	0.0528 U	0.0537 U
PCB118	43,200	8,760	0.32 U	0.311 U	0.3 U	0.305 U
PCB120	233	120 U	0.074 U	0.0719 U	0.0694 U	0.0706 U
PCB121	98.6	33.2 U	0.0424 U	0.0412 U	0.0398 U	0.0404 U
PCB122	118	43.8 U	0.047 U	0.0456 U	0.044 U	0.0448 U
PCB123	1,010	173	0.241 U	0.234 U	0.226 U	0.23 U
PCB126	85.9 J	64.9 U	0.0451 U	0.0438 U	0.0423 U	0.043 U
PCB127	80	41.3 U	0.0765 U	0.0743 U	0.0717 U	0.073 U
PCB128 & 166	6,290	1,290	0.216 U	0.21 U	0.203 U	0.206 U
PCB129 & 138 & 163	282,000 J	28,000	1.92 U	1.86 U	1.8 U	1.83 U
PCB130	3,850	810	1.32 U	1.28 U	1.24 U	1.26 U
PCB131	254	50.7	0.125 U	0.122 U	0.118 U	0.12 U
PCB132	4,430	951	0.432 U	0.42 U	0.405 U	0.412 U
PCB133	2,380	495	0.115 U	0.112 U	0.108 U	0.11 U
PCB134 & 143	1,560	348	0.134 U	0.13 U	0.126 U	0.128 U
PCB135 & 151	16,900	3,390	0.62 U	0.601 U	0.581 U	0.591 U
PCB136	3,020	610	0.177 U	0.172 U	0.166 U	0.169 U
PCB137	3,290	547	0.279 U	0.27 U	0.261 U	0.266 U
PCB139 & 140	772	164	0.125 U	0.121 U	0.117 U	0.119 U
PCB141	12,400	2,700	0.426 U	0.414 U	0.4 U	0.406 U
PCB142	39.7 U	40.9 U	0.062 U	0.0601 U	0.0581 U	0.0591 U
PCB144	3,270	659	0.171 U	0.166 U	0.16 U	0.163 U
PCB145	43.9 U	45.2 U	0.0509 U	0.0494 U	0.0477 U	0.0486 U
PCB146	30,000	6,380	0.351 U	0.341 U	0.329 U	0.335 U
PCB147 & 149	33,500	7,210	1.48 U	1.44 U	1.39 U	1.41 U
PCB148	175	72.1 U	0.103 U	0.1 U	0.0969 U	0.0985 U
PCB150	170	51.9 U	0.0524 U	0.0509 U	0.0491 U	0.05 U
PCB152	100	56.3 U	0.0692 U	0.0672 U	0.0649 U	0.066 U
PCB153 & 168	383,000 J	37,900	2.49 U	2.42 U	2.33 U	2.37 U
PCB154	1,230	245	0.118 U	0.115 U	0.111 U	0.113 U
PCB155	61.6	59.1 U	0.0518 U	0.0503 U	0.0485 U	0.0494 U
PCB156 & 157	14,100	3,020	0.233 U	0.226 U	0.218 U	0.222 U
PCB158	8,540	1,820	0.235 U	0.228 U	0.22 U	0.224 U
PCB159	62 U	120 U	0.102 U	0.0993 U	0.0959 U	0.0976 U
PCB160	4.21 U	4.33 U	2.02 U	1.96 U	1.89 U	1.93 U
PCB161	55.6 U	57.2 U	0.106 U	0.103 U	0.0994 U	0.101 U
PCB162	1,390	62.4	0.069 U	0.067 U	0.0647 U	0.0658 U
PCB164	4,940	1,210	0.264 U	0.256 U	0.248 U	0.252 U
PCB165	143	56.7 U	0.0919 U	0.0892 U	0.0861 U	0.0876 U
PCB167	5,730	1,230	0.104 U	0.101 U	0.0978 U	0.0995 U
PCB169	350 J	94.2 J	0.0414 U	0.0402 U	0.0388 U	0.0395 U
PCB170	40,400	9,810	0.539 U	0.523 U	0.505 U	0.514 U
PCB171 & 173	8,470	1,840	0.207 U	0.201 U	0.194 U	0.197 U
PCB172	8,400	1,990	0.0988 U	0.0959 U	0.0926 U	0.0942 U
PCB174	21,800	5,340	0.389 U	0.377 U	0.364 U	0.371 U
PCB175	2,050	480	0.0399 U	0.0388 U	0.0374 U	0.0381 U
PCB176	1,140	262	0.0821 U	0.0797 U	0.077 U	0.0783 U
PCB177	23,100	5,200	0.25 U	0.242 U	0.234 U	0.238 U

PCB178	10,700	2,550	0.0724 U	0.0702 U	0.0678 U	0.069 U
PCB179	2,940	651	0.148 U	0.144 U	0.139 U	0.141 U
PCB180 & 193	447,000 J	40,500	1.16 U	1.12 U	1.09 U	1.1 U
PCB181	289	65.5	0.0426 U	0.0414 U	0.04 U	0.0406 U
PCB182	165	43.8 U	0.0306 U	0.0297 U	0.0286 U	0.0291 U
PCB183 & 185	34,900	8,280	0.455 U	0.442 U	0.427 U	0.434 U
PCB184	50.9 U	52.4 U	0.0545 U	0.0529 U	0.0511 U	0.0519 U
PCB186	73.8 U	76 U	0.0522 U	0.0507 U	0.0489 U	0.0498 U
PCB187	96,100	22,700	0.491 U	0.476 U	0.46 U	0.468 U
PCB188	107	61.1 U	0.052 U	0.0505 U	0.0487 U	0.0496 U
PCB189	2,740	655	0.0665 U	0.0646 U	0.0624 U	0.0634 U
PCB190	5,590	1,830	0.134 U	0.13 U	0.125 U	0.127 U
PCB191	2,860	652	0.0489 U	0.0474 U	0.0458 U	0.0466 U
PCB192	41.1 U	42.3 U	0.0647 U	0.0628 U	0.0606 U	0.0617 U
PCB194	23,400	6,770	0.149 U	0.145 U	0.14 U	0.142 U
PCB195	9,240	2,560	0.113 U	0.109 U	0.106 U	0.107 U
PCB196	13,700	4,040	0.184 U	0.178 U	0.172 U	0.175 U
PCB197 & 200	1,650	467	0.191 U	0.185 U	0.179 U	0.182 U
PCB198 & 199	20,700	6,690	0.279 U	0.27 U	0.261 U	0.266 U
PCB201	3,240	904	0.158 U	0.154 U	0.149 U	0.151 U
PCB202	3,970	1,120	0.0973 U	0.0945 U	0.0912 U	0.0928 U
PCB203	9,750	2,810	0.144 U	0.14 U	0.135 U	0.137 U
PCB204	57 U	58.6 U	0.089 U	0.0864 U	0.0834 U	0.0849 U
PCB205	988	269	0.0688 U	0.0668 U	0.0645 U	0.0656 U
PCB206	3,430	1,140	0.0551 U	0.0535 U	0.0516 U	0.0525 U
PCB207	751	249	0.0509 U	0.0494 U	0.0477 U	0.0486 U
PCB208	886	280	0.0913 U	0.0886 U	0.0856 U	0.087 U
PCB209	757	272	0.151 U	0.146 U	0.141 U	0.144 U
Monochlorobiphenyl homologs	43.5 UT	44.7 UT	0.12 UT	0.117 UT	0.113 UT	0.115 UT
Dichlorobiphenyl homologs	228 UT	235 UT	0.608 T	0.442 JT	0.435 JT	0.485 JT
Trichlorobiphenyl homologs	5,630 T	1,440 T	1.37 T	0.404 UT	0.39 UT	1.09 T
Tetrachlorobiphenyl homologs	80,500 T	17,200 T	0.684 UT	0.664 UT	0.641 UT	0.652 UT
Pentachlorobiphenyl homologs	156,000 JT	32,300 T	1.13 UT	1.1 UT	1.06 UT	1.08 UT
Hexachlorobiphenyl homologs	824,000 JT	99,400 JT	2.49 UT	2.42 UT	2.33 UT	2.37 UT
Heptachlorobiphenyl homologs	709,000 JT	103,000 T	1.16 UT	1.12 UT	1.09 UT	1.1 UT
Octachlorobiphenyl homologs	86,600 T	25,600 T	0.279 UT	0.27 UT	0.261 UT	0.266 UT
Nonachlorobiphenyl homologs	5,070 T	1,670 T	0.0913 UT	0.0886 UT	0.0856 UT	0.087 UT
Total PCB Congeners	1,870,000 JT	279,000 JT	0.452 JT	0.0219 JT	0.0198 JT	0.0887 JT
Total PCB Congeners (calc'd)	1,870,000 JT	281,000 JT	17.4 JT	16.3 JT	15.8 JT	16.1 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	21.5 JT	3.32 JT	0.32 UT	0.311 UT	0.3 UT	0.305 UT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1)	21.5 JT	6.57 JT	0.32 UT	0.311 UT	0.3 UT	0.305 UT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	25.4 JT	8.58 JT	0.32 UT	0.311 UT	0.3 UT	0.305 UT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.871 JT	0.264 JT	0.32 UT	0.311 UT	0.3 UT	0.305 UT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.